

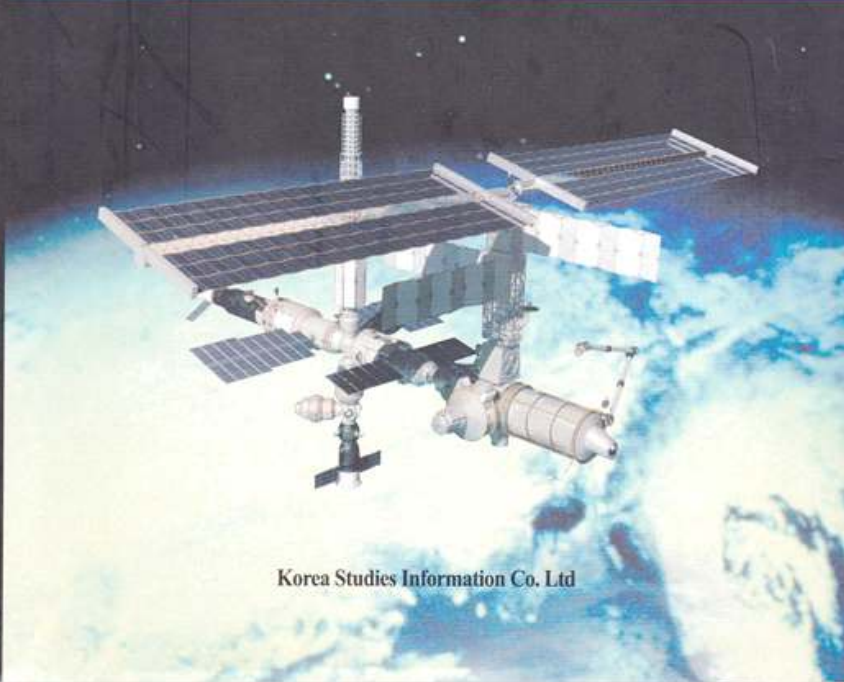
國際航空法·宇宙法 研究論叢

Essays for the Study of the International Air and Space Law

Doo Hwan Kim

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| Doo Hwan Kim



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(우주법 연구논총)

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國際航空法 · 宇宙法 研究論叢

(우주법 연구논총)

Prof. Dr. Doo Hwan Kim (斗 煥 : 김두환)

Honorary President, The Korean Association of Air
and Space Law

Visiting Prof. Korea Aerospace University

and Chuogakuin University in Japan

Honorary Prof. Gujarat National Law University in India

PREFACE

As the international air law and space law has abundantly the density of the technical color, so it becomes possibly a shorter road to form the “global unification of the law.” For the last about 30 years, I have written 151 articles in the field of commercial, economic, international trade laws and international air and space laws etc. Among the 151 articles, my 98 articles in the field of air and space laws had published to the famous Journals of Laws in the foreign countries as well as the Republic of Korea.

I have reflected already some leading articles among the 68 articles in Korea to my new book entitled of “*Theory of Jurisprudence for the New International Aviation Law* (2005)” written by the Korean language.

However, I still have other 30 articles written in English and Japanese language that are published to the famous international journals and books in the field of air and space law in the United States of America, the United Kingdom of Britain, Germany, Canada, Japan, The Netherlands, Singapore, Philippine, Macao etc.

Therefore I decided to excerpt and complement the important articles out of 30 articles and included the contents of those articles to this new book.

I am teaching now the international air and space law to the students of LL.M and Jurisprudence Science Doctor (JSD) course of the Graduate School of the Korea Aerospace University. I also carry out the joint study on the field of the international air and space law at the Institute for the Social System of Chuogakuin University in Japan as a visiting professor.

I am also a honorary professor of the Gujarat National Law University in India.

The purpose of this study book is to provide general understanding of key issues that students in those graduate school of universities will face in the basic

international air and space law course as well as lawyers, jurists, professors, officials, businessmen and high ranking staff members of working in the field of air and space industry such as airlines, manufactures of airplanes and satellites, research institutes and government. I am deeply grateful to the graduate students of hearing my lecture at Graduate School, Korea Aerospace University for their effort correction of this book.

December 10, 2008



Prof. Dr. Doo Hwan Kim (法學博士, 金斗煥 教授)

Honorary President, The Korean Association of Air and Space Law

Visiting Prof. Korea Aerospace University in Korea and

Chuogakuin University in Japan

Honorary Prof. Gujarat National Law University in India

E-mail: doohwank3@kornet.net

My website: <http://club.hau.ac.kr/home/doohwank>

はしがき

国際航空法・宇宙法は 技術の色彩が濃厚な法分野であるため、「世界統一法」の形成に近道になることができると思う。筆者が約30年間、商事法、経済法、国際取引法 及び国際航空法・宇宙法等を研究しながら書いた論文が合計151篇であるし、そのなかで、有名な国内外学術誌に掲載できた国際航空法・宇宙法分野の論文は98篇であるけれども、これらの論文等のなかで、主要な論文だけを抜萃・要約し、その内容の一部が筆者が韓国語で書いた新しい本である『最新国際航空法学論(2005年)』に反影したことがある。しかし、筆者が英語と日本語で書いた国際航空法・宇宙法分野の論文が外国(アメリカ、イギリス、カナダ、ドイツ、日本、オランダ、シンガポール、フィリピン、マカオ等)の有名な学術誌及び学術書籍に30篇が掲載できたので、これらの論文のなかで、主要な論文だけを抜萃・補完し、この新しい本に入れたのである。

筆者は、現在、韓国航空大学校大学院の修士及び博士課程で、国際航空法・宇宙法の講義を担当しているので、この本を教材として使う予定である。現在、筆者は、日本中央学院大学社会システムシステム研究所の客員教授であるし、またインドGujarat国立法科大学校の名誉教授であるので、国際航空宇宙法分野に関心を持っている外国の教授及び大学院学生達にこの本を紹介したいのである。近い将来、無限に発展する国際航空法・宇宙法分野に関心を持っている大学院生、教授、弁護士等の法曹人、航空宇宙産業分野に従事している実務家及び幹部と公務員等の国際航空法・宇宙法分野の研究の一助と実務便宜のためこの本を作ったのである。特にこの本を編輯するとき、校正をみた私の講義を聞いている韓国航空大学校大学院生達に感謝いたします。

2008年12月10日

著者

리 말

· 우주법은 기술적 색채가 농후한 법 분야이기 때문에 「세계통일법」의 형성에 지름길이 될 수 있다고 본다. 필자가 30년간, 상사법, 경제법, 국제거래법 및 국제항공법·우주법 등을 연구하면서 쓴 논문이 함께 151편이 있으며 그중 국내외학술지에 게재된 국제항공법·우주법 분야의 논문은 98편이지만 이들 논문들 가운데 중요한 논문만을 보완·발췌 요약하여 그 내용의 일부가 필자가 쓴 책인 『최신국제항공법학론 (2005년)』에 반영된바 있다. 그러나 필자가 영어와 일본어로 쓴 국제항공법·우주법 분야의 논문이 국내 및 국외의 유명학술지 및 학술서적(미국, 영국, 캐나다, 독일, 일본, 네덜란드, 싱가포르, 필리핀 및 마카오 등)에 30편이 게재된바 있어 이들 논문 중 주요한 논문만을 일부 발췌·보완하여 이 새 책에 편집하여 넣었다.

필자는 한국항공대학교대학원의 석사 및 박사과정에서 국제항공법·우주법의 강의를 현재 담당하고 있음으로 이 책을 교재로서 사용할 예정이다. 필자는 현재 일본중앙학원대학 사회시스템연구소의 객원교수로 있고 또한 인도 Gujarat국립법과대학교의 명예교수로 있기 때문에 국제항공우주법분야에 관심을 가지고 있는 외국의 교수 및 대학원생들에게도 이 책을 소개하고자 한다. 가까운 장래에 무한히 발전하고 있는 국제항공법·우주법분야에 관심을 가지고 있는 대학원생, 교수, 변호사 등의 법조인, 항공우주산업분야에 종사하고 있는 실무자 및 간부와 공무원님들에게 국제항공법·우주법분야의 연구에 일조가 되고 한편 실무 면에 편의를 제공하기 위하여 이 책을 쓴 것이다. 특히 이 책을 편집하는데 교정을 보아준 한국항공대학교에서 저의 강의를 듣고 있는 대학원 학생들에게 고마운 뜻을 표합니다.

2008년 12월 10일

저자 씀

List of the Principal Website Relating to the Air and Space Law

- Asiana Airlines; <http://flyasiana.com/english>
- China Academy of Launch Vehicle Technology (中国运载火箭技术研究院);
<http://www.calt.com>
- China Aerospace Science & Industry Corporation (中国航天科工集团公司);
<http://www.casic.com.cn>
- Chinese Academy of Science (中国科学院); <http://www.cas.ac.cn>
- China Aerospace Science and Technology Corporation (中国航天科技集团公司);
<http://www.spacechina.com>
- China Great Wall Industry Corporation (中国长城工业总公司);
<http://www.cgwic.com>
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- Civil Aviation Safety Authority (韩国航空安全本部); <http://www.casa.go.kr>
- Committee on the Peaceful Use of Outer Space (COUOS: UN)
<http://www.oosa.unvienna.org/COPUOS/copuos.html>
- European Union (EU); <http://europa.eu>
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- Federal of American Scientists; <http://www.fas.org>
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<http://www.uni-koeln.de/jur-fak/instluft>
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<http://iasl.leiden.edu>
- International Astronautical Federation (IAF); <http://www.iafastro.com>
- International Air Transport Association (IATA); <http://www.iata.org>
- International Civil Aviation organization (ICAO); <http://www.icao.int>
- International Court of Justice (ICJ: UN); <http://www.icj-cij.org>
- International Institute of Space Law (IISL); <http://www.iafastro-iisl.com>
- International Institute of Air and Space Law, Leiden University, The Netherlands; <http://iasl.leiden.edu>
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- International Monetary Fund (IMF); <http://www.imf.org>
- International Space Station (ISS);
http://www.nasa.gov/mission_pages/station/main/index.html
- International Space University; <http://www.isunet.edu>
- Japan Aeronautic Association (財団法人, 日本航空協会); <http://www.aero.or.jp>
- Japan Aerospace Exploration Agency (日本宇宙航空研究開発機構: JAXA);
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<http://www.kari.re.kr>
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- Korea Aerospace University (韓国航空大学校); <http://www.kau.ac.kr>
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<http://english.mest.go.kr>

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Ministry of Knowledge and Economy (韓國知識經濟部); <http://www.mke.go.kr>
Ministry of Land, Transport and Maritime Affairs (韓國国土海洋部);
<http://www.mltm.go.kr>
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Russian Federal Space Agency; <http://www.roscosmos.ru>
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US Department of State (DOS); <http://www.state.gov>

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Part I . International Air Law

第1編 国際航空法

Chapter I. The International Public Air Law

1. Introduction

The enormous importance of air transport in today's world and in particular the increasing flow of air transport among the countries, and economics and high technology developments give rise to a very natural curiosity of lawyers for our respective countries about the legal issues. The rapid increase of the volume of transport, in turn, has resulted more in increase of the flight figures of foreign and domestic aircraft and therefore, in certain air routes, the frequency of the aircraft flights was already overcrowded.

As the volume of air passenger and cargo carriage on the global basis is increasing rapidly, and due to the high technology advancement of aircraft operations, the world is becoming "a sphere of one day life." Accordingly, the airlines of many nations have been expanding their air routes overseas and have increased aircraft flights in order to induce more passengers of cargoes, and therefore have brought about a more serious competition among countries.

In particular, since the super-sonic aircraft and the air cargo container appeared, the volume of air passengers and cargo transport has been gradually increased year by year in the world. In the meantime, aircraft accidents have occurred more frequently while the operation of aircraft passenger and cargo have increased.

There are many aviation cases in the developed countries of Asia, Europe and America as well as developing countries. The characteristic features of the damages due to aircraft accidents have ① the nature of great amounts of damage for compensation, ② the nature of total loss (all or nothing), ③ the nature of instant (Augenblick), ④ the nature of the subordinateness relation to the ground

(air traffic control system) and ⑤ the nature of internationality.¹⁾ These aircraft accidents have incurred many disputes between the victims and the air carrier in deciding on the limits or un-limits of liability for compensation and the appraisal of damages.

Perhaps even more important, for the purpose of keeping their safety, orderly, rapid movement of aircraft and solving disputes between victims and air carriers, they must dutifully observe the regulations, administrative procedures, aeronautical acts and international conventions relating to the air transport.

The international air law relating to the transport of passengers and cargoes is based upon international agreements, protocols and conventions.

In the early days of international air transportation, there were no uniform rules of law governing the carriage of passengers or cargoes in the world.

The right and duty of passengers and cargo owners, and the carrier's liability within the domestic air transport have been regulated by the domestic aviation law or civil and commercial code in the civil law countries. Civilian aircraft of airlines and air carriers that provide services crossing international boundaries into the airspace of another country or countries are regulated to a greater or lesser degree by each national government involved.

The regulation of each flight by two or more sovereign States creates a need in most cases for some formal international agreement between States involved about how their commercial air services are to be carried out. States individually regulated numerous aspects of air services, such as licensing their own air carriers, requiring that tariffs and flight schedules be filled with their authorities, collecting statistics, protecting consumers, etc. On the other hand, some States involve themselves in regional regulations with group of States, although most common regulation of non-binding character. International civil aviation is legally governed by the principle of the sovereignty of a state over its airspace.

1) Doo Hwan Kim, "*A Study on the Civil Liability of the Air Carriers and Legislative Problems*", Doctoral Dissertation (1984), Graduate School, Kyonghee University at Seoul in Korea, at 1.

The aviation law can be classified by the criterion of the aerospace into international and domestic aviation law, and by the criterion of the objects of carriage into passenger transport and cargo transport. I shall attempt to touch briefly few points in the current legal issues within international aviation law.

2. The New Change and Prospect on the International Air Transport Regulation

International air transportation services are one of the main subjects of the aeronautical law where elements of public and private predominate. This is due to the legal substance of the subject interweaved with politics, economics and aerospace sciences into a complex texture.

The result of this conjunction is, in each country, a define orientation of an aero-political nature. Moreover, it is evident that the international context for the air transport development is represented by the juxtaposition of the air traffic policies adopted by each State.²⁾ International air transport regulation occurs in three *venus*: *national, within one State alone bilateral, between two parties* (i.e. two States, a State and a group of States, two group of States); *and multilateral, among three or more parties* (States).

Regulations also have three *components*. One is *regulatory process*, i.e. the recurring ways people regulate (for example by drafting and enforcing rules), by licensing air carrier, by negotiating air service agreements and by establishing multinational policy, etc. The second is *regulatory structure*, the organization involved (national civil authorities, multinational organizations) and a legal framework (relevant national laws and regulations, bilateral agreements and multilateral treaties).

The third is *regulatory content*, i.e. the subjects regulated such as airline fares,

2) Mario Folchi, "*Air Connections and Air Commercial Rights*", *Liber Amicorum* of N.M. Matte, (1989), at 89–90.

routes, computer reservation systems etc. The State's air transport regulatory is occurring to certain dramatic changes now taking place in the broader world environment in which international air services are provided and regulated, change such as;

- (1) Internationalization – movements away from the predominance of purely national commercial activities to one where international are gaining dominance for example the over – shadowing of internal domestic trade by foreign trade in many national economies;
- (2) Multi – nationalization – of trade in services including, to a limited extent for the time being, trade in air services, under a new regulatory regime (the General Agreement on Trade in Services);
- (3) Liberalization – greater reliance placed on competitive market forces and less on governmental controls in national economies on every continent;
- (4) Privatization – in many States government owned industries are being sold in part or their entirety to private interests, including foreign ones;
- (5) Trans – nationalization – growing international ownership of companies, not infrequently as a result of privatization;
- (6) Regionalization – growing cooperation among States of distinct regions, extending in some cases to the creation of common market and;
- (7) Globalization – movements of companies into multiple national and international markets, directly or indirectly through alliances, franchising and direct investment.³⁾

Air transport was one of the first industries to harness the computer in a systematic fashion. Computer reservation systems and associated yield management and other automated tools have brought much more global perspective to airlines. With this global outlook, economics of scale, and other factors have become

3) Vladimir D. Zubkov, *“International Air Transport Regulation – Present and Future –”*, The 3rd Seoul International Seminar on Air and Space Law, (April 4–7, 1994), at 6–8.

global ambitions; thereby ensuring globalization of the industry. With the globalization of this sector must come the globalization of technology to serve it.

We are all familiar with the national character of civil aviation and the correlative cornerstone of the Chicago Convention States exercise national sovereignty over their airspace. Flowing from this established principal of international law are a number of consequences, including national airspace responsibilities, the strict reliance on bilateralism with respect to air traffic rights, and the proliferation of national airlines, which have impeded the harmonization and unification of global air transport.

Although the Communications, Navigation, Surveillance, and Air Traffic Management (CNS / ATM) system will be a dramatic step away from the strict application of territorial sovereignty over airspace, it will be a perfectly logical one for the air transport community to take. As I have indicated, the roots of this universal navigation technology lie in the advent of the satellite and the computer.

The Future Air Navigation System (FANS) developed by the International Civil Aviation Organization (ICAO) under the United Nations and ultimately coined the ICAO's CNS / ATM system is essentially the application of today's high technology of the aerospace industry in satellites and computers, data links and advanced flight deck avionics, to tomorrow's growing operational needs. In so doing, it will render obsolete much of today's expensive ground based equipment which uses line-of-sight technology, and therefore has inherent limitations. It will also increase efficiency and promote greater safety in the skies. However, it is these characteristics that will create a new frontier for aviation.

It will be its impact as an integrated global system with consequential changes to the way we organize and operate our air traffic services that will prove to be the quantum leap forward.⁴⁾ The implementation of any new technology such as CNS / ATM requires global coordination based on accepted policies.

4) Assad Kotaite, *"ICAO Ushers in a Revolution in Global Navigation Technology"*, *Annals of Air and Space Law*, Vol. XIX, Part 1, (1994), at 337–334.

Under the Chicago Convention, individual States are responsible for implementing the initiatives adopted by ICAO in the form of standards and recommended practices.

Within ICAO, the basic framework for the creation of new regulatory norms is the establishment of regional air navigation plans, the implementation of which is monitored and promoted by regional planning and implementation groups.

This new regional planning process by ICAO will therefore be a key vehicle for the co-ordination and harmonization of CNS / ATM in the world. I would like to mention two important international bodies which have carried out the key role in the international civil aviation after the Second World War.

3. The Bodies Governing International Civil Aviation

3.1. International Civil Aviation Organization (ICAO)

The Chicago Convention, which established the International Civil Aviation Organization (ICAO) in 1944, are intended to provide the legal and institutional framework for post-war international civil aviation.⁵⁾

Towards the end of the Second World War, at a time when a spectacular expansion in world air traffic was about to take place, the Provisional International Civil Aviation Organization (PICAO) was setting up as a forerunner of ICAO, the International Civil Aviation Organization which is still playing an outstanding role in world aviation matters.

The Government of the United States conducted exploratory discussions with other allied nations during the early months of 1944. On the basis of the talks invitations were sent to 55 allied and neutral States to meet in Chicago in November 1944.

5) Bin Cheng, *The Law of International Air Transport*, (1962), at 31.

Of these 55 States, 523 delegates attended. For five weeks, the delegates of the 52 nations considered the problems of international civil aviation. The Convention on *International Civil Aviation* provided that ICAO would not come into being until the Convention was ratified by 26 States. In the meantime, a provisional organization (PICAO) was formed with advisory powers only, to operate until the permanent organization was created. PICAO functioned for 20 months until, on 4 April 1947, ICAO officially came into existence. And so the Chicago Convention entered into force on 4 April 1947. At the invitation of the Government of Canada, Montreal was chosen as the site for the headquarters of the organization.

In the twenty⁶⁾ months of the provisional body's life, the foundation for an international organization devoted to the needs of civil aviation was laid and PICAO's 50 Contracting States took concerted action to provide and maintain the facilities and services necessary for the operation of air services across national borders.

Now 190 Contracting States⁷⁾ including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, Japan, China, the Republic of Korea and the North Korea etc. participated in the activities of the International Civil Aviation Organization such a specialized agency of the United Nations which is concerned with the safe, orderly and efficient development of international civil air transport. The aims and objectives of ICAO⁸⁾ are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport so as to:

- a) ensure the safe and orderly growth of international civil aviation throughout the world;
- b) encourage the arts of aircraft design and operation for peaceful purposes;
- c) encourage the development of airways, airports, and air navigation facilities

6) ICAO, *Memorandum on ICAO*, published in Montreal, Canada by the Public Information Office of the International Civil Aviation Organization, 15 edition, 1994.

7) <http://www.icao.int/icao/en/leb/chicago.pdf>

8) Article 44 of the Convention.

- for international civil navigation;
- d) meet the needs of the peoples of the world for safe, regular, efficient and economical air transport;
 - e) prevent economic waste caused by unreasonable competition
 - f) ensure that the rights of Contracting States are fully respected and that every Contracting States are fully respected and that every Contracting States has a fair opportunity to operate international airlines;
 - g) avoid discrimination between Contracting States;
 - h) promote safety of flight in international air navigation;
 - i) promote generally the development of all aspects of international civil aeronautics.

According to the terms of the Chicago Convention, the Organization is made up of an Assembly, a Council of limited membership with various subordinate bodies and a Secretariat. The chief officers are the President of the Council and the Secretary General.

ICAO has a sovereign body, the Assembly, and a governing body, the Council. The Assembly meets at least once in three years⁹⁾ and is convened by the Council. Each Contracting State is entitled to one vote and decisions of the Assembly are taken by a majority of the votes cast except when otherwise provided in the Convention.

At these sessions the complete work of the Organization in the technical, economic omic, legal and technical co-operation fields is reviewed in detail and guidance are given to the other bodies of ICAO for their future work. The Council is a permanent body responsible to the Assembly and is composed of 36¹⁰⁾ Contracting States elected by the Assembly for a three-year term. An

9) The Fourteen Session of the Assembly, which met in Rome in 1962, decided that one Assembly session every three years would be the normal ICAO practice, and that intervening extraordinary sessions may be convened by decision of the Assembly or the Council.

10) The original number of Council Member States was 21 an amendment to the Convention

election shall be held at the first meeting of the Assembly and thereafter every three years, and the members of the Council so elected shall hold office until the next following election. In the election, adequate representation is given to States of chief importance in air transport, States not otherwise included which make the largest contribution to the provision of facilities for civil air navigation and States not otherwise included whose designation will ensure that all the major geographic areas of the world are represented on the Council.¹¹⁾

The Council, the Air Navigation Commission, the Air Transport Committee, the Legal Committee, the Committee on Joint Support of Air Navigation Services, the Finance Committee, the Committee on Unlawful Interference, the Personnel Committee and the Technical Co-operation Committee, provide the continuing direction of the work of the Organization.

One of the major duties of the Council is to adopt International Standards and Recommended Practices and to incorporate these as Annexes to the *Convention on International Civil Aviation*.

The Council may act as an arbiter between Contracting States on matters concerning aviation and implementation of the Convention it may investigate any situation which presents avoidable obstacles to the development of international air navigations and, in general, it may take whatever steps are necessary to maintain the safety and regularity of operation of international air transport.

The First Session of the ICAO Assembly in 1947 established a permanent Legal Committee to advise on matters referred to it by the Council concerning the interpretation and amendment of the Chicago Convention, to study and make recommendations on such other questions relating to public international air laws

raising this number to 27 came into force in 1962; another amendment raising this number to 30 came into force 1973. The 21st Session of the Assembly held in Montreal in September 1974 adopted an amendment to the Convention which raised the number of Council Members to 33; this amendment entered into force in 1980. The 28th Session (Extraordinary) of the Assembly in October 1990 adopted an amendment to Assembly in October 1990 adopted an amendment to the Convention raising the number of Council Members to 36.

11) ICAO, *op. cit.*, at 7–18.

as may be referred to it by the Assembly or the Council and to study problems of private law affecting international civil aviation. The Legal Committee of ICAO replaced the *Comité International Technique d'Experts Juridiques Aériens* (CITEJA) which had been responsible for the development of a code of private international air law since 1926.

The Legal Committee is charged with preparing and drafting international treaties and Conventions on air law prior to their submission to Diplomatic Conference for final approval.

During the 60 years in which the Legal Committee has been operating it has prepared drafts of 16 international instruments, the first of which was adopted by the ICAO Assembly and the last 15 by diplomatic conferences. The 28th Session of the ICAO Legal Committee, which met at Montreal in early 1992, considered the subjects: “Institutional and legal aspects of the future air navigation systems” and “Legal aspects of the global air–ground communications” and adopted certain recommendations in this regard.

The present general work programme of the ICAO Legal Committee contains the following items:

- (1) Consideration with regard to Global Navigation Satellite Systems (GNSS) of the establishment of a legal framework;
- (2) Action to expedite ratification of Montreal Additional Protocols Nos.3 of the “Warsaw System”
- (3) Study on the Draft Convention for the Modernization of the 1952 Rome Convention;
- (4) Liability rules which might be applicable to air traffic services providers as well as to other potentially liable parties;
- (5) Study on the liability of air traffic control agencies; and
- (6) United Nations Convention on the Law of the Sea – implications, if any, for the application of the Chicago Convention, its Annexes and other international air law instruments.¹²⁾

The Secretariat, headed by a Secretary General, is divided into five main divisions: the Air Navigation Bureau, the Air Transport Bureau, the Technical Co-operation Bureau, the Legal Bureau, and the Bureau of Administration and Services. In order that the work of the Secretariat shall reflect a truly international approach, professional personnel are recruited on a broad geographical basis.¹³⁾

3.2. International Air Transport Association (IATA)

Air transport is one of the most dynamic industries in the world. The International Air Transport Association (IATA) is its global trade organization. Over 60 years, IATA has developed the commercial standards that built a global industry. Today, IATA's mission is to represent, lead and serve the airline industry.

Its members comprise some 240 airlines—the world's leading passenger and cargo airlines among them—representing 94 percent of international scheduled air traffic.¹⁴⁾ IATA's aim is to help airlines help themselves by simplifying processes and increasing passenger convenience while reducing costs and improving efficiency.

Moreover, safety is IATA's number one priority, and IATA's goal is to continually improve safety standards, notably through IATA's Operational Safety Audit (IOSA). Another main concern is to minimize the impact of air transport on environment. Unlike ICAO, which is an organization of government representatives, IATA is a private organization of airlines designed to promote safe, regular and economical air transportation.¹⁵⁾

IATA is a non-governmental association, incorporated under a special Canadian statute which received royal assent in December 1945.¹⁶⁾ Since the role of IATA is to promote world-wide cooperation between air transport companies,

12) ICAO, "Memorandum on ICAO", (1994), at 8–46.

13) http://www.icao.int/cgi/goto_m.pl?icao/en/howworks.htm

14) <http://www.iata.org/about>

15) See for IATA: J.W.S. Brancker, *IATA and What it Does* (1977).

16) An Act to Incorporate International Air Transport Association, Stat., Can. (9 & 10 Geo. 6, c. 51).

the association is obliged to work in numerous fields of activities. IATA has strong ties with the governments involved in aviation matters and wields considerable influence internationally, for instance in fixing tariffs. Nearly all scheduled airline companies are represented in IATA. Since 1974 charter airline companies can also qualify for admission, but none of them have so far availed themselves of this opportunity: they have, it would seem preferred to remain members of their own organizations.

4. The Treaties Relating to the International Civil Aviation

4.1. The Chicago Convention of 1944

In view of the progress made by aerial navigation during the Second World War, it had become necessary to adapt the former international juridical instruments to the new and extended scope of air transport. The creation of new routes and their interdependence demanded an understanding and an organization on a world-wide scale.¹⁷⁾ On November 1, 1944, in response to a British initiative, US President Roosevelt invited all the allied powers as well as some neutral governments to convene at Chicago for a conference on civil aviation.

More than 50 States took part in the work of this conference and the objectives of which were to establish an organization which would develop the principles and techniques of aerial navigation: and to develop guidelines which would place an efficient political and economic control on international air transport.¹⁸⁾

The Convention on International Civil Aviation(also known as *Chicago Convention*),

17) Thomka–Gazadik, The IATA Bilateral Agreements (Lecture given on 28 Nov. 1968 at the institut universitaire des hautes études internationales, Genève).

18) N.M. Matte, *International Air Transport, International Encyclopedia of Comparative Law*, Vol.XII, (1982), at 11.

was signed on December 7, 1944 by 52 States. Pending ratification of the Convention by 26 States, the Provisional International Civil Aviation Organization (PICAO) was established. It functioned from June 6, 1945 until 4 April 1947. By 5 March, 1947 the 26th ratification was received. ICAO came into force on April 4, 1947.

At present, 190 countries including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with the Chicago Convention. In October of the same year, ICAO became a specialized agency of the United Nations linked to Economic and Social Council (ECOSOC).¹⁹⁾

On December 7, 1944, some States signed Chicago Convention²⁰⁾ together with two agreements annexed to it, i.e. the International Air Services Transit Agreement and the International Air Transport Agreement.²¹⁾

At present, over states have ratified or acceded to the Convention, while the International Air Services Transit Agreement has also been signed or ratified by a large number of states. The ninety–six articles of the Chicago Convention are divided into twenty two chapters and four parts: (Air Navigation, The International Civil Organization, International Air Transport, Final Provisions).

To the Chicago Convention have been added 18 Annexes which give technical rules of implementation to its Articles. They are entitled as follows:

- (1) Personnel Licensing,
- (2) Rules of Air,
- (3) Meteorological Service for International Air Navigation,
- (4) Aeronautical Charts,

19) <http://www.icao.int/icao/net/dcs/7300.html>

20) Convention on International Civil Aviation, Chicago, December 7, 1944. Note that a number of articles have been amended since 1944 (some even twice), 45, 48(a), 49(e), 56, 61, and 93–bis.

21) International Air Services Transit Agreement also is known as the Two Freedoms Agreement), Chicago, December 7, 1944; and the International Air Transport Agreement also is known as the Five Freedoms Agreement.

- (5) Units of Measurement to be Used in Air and Ground Operations,
- (6) Operation of Aircraft,
- (7) Aircraft Nationality and Registration Marks,
- (8) Airworthiness of Aircraft,
- (9) Facilitation,
- (10) Air Traffic Services,
- (11) Aeronautical Telecommunications,
- (12) Search and Rescue,
- (13) Aircraft Accident Investigation,
- (14) Aerodrome,
- (15) Aeronautical Information Services,
- (16) Environmental Protection,
- (17) Security – Safeguarding International Civil Aviation against Acts of Unlawful Interference,
- (18) Safe Transport of Dangerous Goods by Air.²²⁾

The Chicago Convention currently represents the corner–stone on which international civil aerial activities rest. It recognizes the necessity to develop international civil aviation in such a safe and controlled way that its development will be both healthy and economic.²³⁾ It comprises two main categories of regulation: a requirement to establish the International Civil Aviation Organization, and set of rules drawn up with the intention of regulating navigation, as well as certain aspects of the air transport industry (the details which are contained in the said Annexes to the Chicago Convention).²⁴⁾

22) I.H. Ph. Diederiks–Verschoor, *An Introduction to Air Law*, (2001), at 10–11.

23) See Preamble to the Chicago Convention.

24) In October 1977 there were 17 Annexes.

4.2. The Geneva Convention of 1948

The Draft for the Convention on the International Recognition of Rights in Aircraft was submitted for the approval of the ICAO during the 2nd Assembly held in Geneva in June 1948 and, after the ICAO Legal Commission had made important modifications, on June 19, 1948, the Assembly adopted what has since been called the “Convention the International Recognition of Rights in Aircraft (Geneva Convention).” The Convention comprises 23 articles and was signed in Geneva by twenty seven States including the United States, the United Kingdom, France, China etc. and then ratified by 89 States.²⁵⁾

The Convention entered into force on September 17, 1953. This Convention deals with the international recognition of rights in aircraft and is designed to secure recognition on an international basis of property and other rights in aircraft so that, when an aircraft crosses a frontier, the interests of holders of such rights will still be protected. Acceptance of the principles of the Convention is expected to encourage investors to make financial assistance possible for the purchase of new aircraft.

5. The Causes of Aircraft Accidents and Investigation

Because aircraft accident risk is larger than that of land or marine accidents, various forms of aircraft accidents have frequently occurred and no one can expect when and where the accidents will happen and how much the damages will be. The air transportation is to transport passengers and cargoes from a certain airport to another airport by means of aircraft, and in this relation, the airport and routes are central concepts of air transportation. The subject of air transportation is air carrier (owner, co – owner, hirer, charterer, the time – charterer

25) <http://www.icao.int/icao/en/leb/Genev.pdf>

of aircraft, etc.) and the object of the transportation is passengers and cargoes.

With regard to the causes of aircraft accidents in mid-air, various forms of causes are conceivable such as ① the negligence of pilots or crews, ② the faults of the Air Traffic Controllers (ATC) of the airport in directing the pilot, ③ aircraft trouble due to defective maintenance, ④ collisions between two aircraft, ⑤ collisions of an aircraft with other obstacles such as birds, etc, ⑥ bad weather or sudden air turbulence, ⑦ inherent aircraft defects (products liability), (8) hijacking (gunfire, explosion of time-bomb) etc,²⁶⁾ (9) falling suddenly of an aircraft to the ground.

Considering various forms of aircraft accidents in their legal aspects, this author concludes that most claims are concerned with passenger or cargo damages which have occurred during air transportation.

We must not lose sight either of the investigation in the aircraft accidents, an aspect which is covered by the terms of Article 26 of the Chicago Convention.²⁷⁾ Article 26 of the Chicago Convention creates an obligation for the State of occurrence of an accident to investigate and report on accidents which occurred to aircraft registered in another ICAO contracting State. The State of Registry was given the right to appoint observers. Article 26, while representing a major advancement in the area of international aircraft accident investigation, was considered to be, soon after its inception, subject to certain limitations and oversight. Several attempts were made over the years to modify and clarify certain aspects of Article 26. None of these attempts were successful, because of a variety of reasons.

The international aircraft accident investigation regime established under the Chicago Convention and Annex 13, as supplemented by Annex 6 and 9, although functioning very well, has been significantly improved by the amendments proposed

26) Tetsuo Nogami, *Theory of Air Commercial Law*, Ehime University, Japan, (1984), at 68 – 104.

27) See e.g. A.A. van Wijik, *Aircraft Accident Inquiry in the Netherlands* (thesis Amsterdam, 1974); See also J.W.E. Storm, van's Grava'sande, "Some Observations on Fifty Years of Aircraft Accident Investigation in the Netherlands", Worthy, at 151 – 168.

by the Air Navigation Commission based on the recommendations of the AIG / 92 and adopted by the Council of ICAO at its 141st Session.²⁸⁾

Of prime importance is the fact that the aircraft investigation must focus exclusively on discovering the cause of accident and preventing future accidents. Annex 13 of the Chicago Convention sets out in detail the international standards which contain technical and procedural rules to be applied aircraft accidents investigation. The ultimate objective of any investigation is to ascertain what happened; how and why and what steps can be taken to prevent a recurrence at any time in the future.

6. The International Air Crime and Penal Law

Hijacking, unlawful seizure, the seizure by the compulsory force of control of an aircraft in flight by a person on board is the international crimes and enemy for humankind and international community. The international character of aviation law makes it necessary to determine which state is competent to exercise jurisdiction in cases of criminal offences committed on board an aircraft.

Since 1902 this question had been a major point at issue in legal circles. The first recorded hijacking occurred in Peru in 1930, and there was a steady trickle of incidents thereafter, of which the series of hijacking to Cuba in the late 1950s and early 1960s received the most publicity. However even greater difficulties were raised by the State of the laws on jurisdiction and extradition. Common law countries, on the whole, claimed territorial jurisdiction only and did not always consider their aircraft as a part of their territory.

Civil law countries, on the other hand, claimed jurisdiction over crimes (offences) committed by their own nationals abroad to a greater or lesser extent, but the

28) Den M. Fiorita, "*The International Framework of Aircraft Accident Investigation Contemporary Issues*", *Annals of Air and Space Law*, Vol. XIX, Part 1, (1994), at 203.

world total states claiming jurisdiction over crimes committed on board aircraft registered in them.²⁹⁾ Three international conventions relating to the air crimes and penalty govern this province of international law, where introduction of new rules and sanctions had become so very urgent in the past few decades. They are composed of Tokyo Convention, Hague Protocol and Montreal Convention.

6.1. The Tokyo Convention of 1963

On a number of occasions the International Law Association has had the issue on its agenda, while the air law section of the Association du Droit Pénal discussed the problem⁵ at its 1957 Congress.³⁰⁾

Draft Conventions based on these preparations were worked out by the ICAO Legal Committee in München (1959), Rome (1962) and other cities; the final text was adopted at the Diplomatic Conference held in Tokyo in 1963.³¹⁾

The Convention on Offences and Certain Other Acts Committed on Board Aircraft (Tokyo Convention), signed at Tokyo on September 14, 1963. The Tokyo Convention entered into force on December 4, 1969.

At present, 183 countries including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with the Tokyo Convention.³²⁾ This Convention provides that the State of registration of an aircraft is competent to exercise jurisdiction over offences and acts committed on board. Its object is to ensure that offences, wherever committed, should not go unpunished.

29) Shawcross and Beaumont, *Air Law*, (1977), at 521–522.

30) N. Matte, *Treatise on Air–Aeronautical Law*, (1981), at 330–331, in note 13.

31) Minutes and Documents of the International Air Law Conference (Tokyo, August–September 1963), ICAO Doc. 8565–LC/152–1 and 152–2; R.P.Boyle and Pulsifier, *“The Tokyo Convention on Offences and Certain Other Acts Committed on Board Aircraft: the Tokyo Convention of 1963”*, Canadian Yearbook of International Law, Vol. II, (1964), at 191–204.

32) <http://www.icao.int/icao/en/leb/Tokyo.pdf>

As certain acts committed on board an aircraft may jeopardize the safety of the aircraft or persons or property therein or may jeopardize good order and discipline on board, the aircraft commander and other are empowered to prevent the commission of such acts and to disembark the person concerned. In the case of an anticipated or actual unlawful and forcible seizure of an aircraft in flight by a person on board, the States parties to the Convention are obliged to take all appropriate measures to restore control of the aircraft to its lawful commander or to preserve his control of it.

The Tokyo Convention comprises seven chapters, dealing with: the scope of the Convention (Chapter I, Articles 1–2); Jurisdiction (Chapter II, Articles 3–5); Powers of Aircraft Commander (Chapter III, Articles 5–10); Unlawful Seizure of Aircraft (Chapter IV, Articles 11); Powers and Duties of States (Chapter V, Articles 12–15); Other Provisions (Chapter VI, Articles 16–18); and Final Clauses (Chapter VII, Articles 19–26).

6.2. The Hague Convention (Hijacking) of 1970

The upsurge of acts of terrorism against aviation at the end of the 1960's³³) gave rise to the adoption of measures in order to counter such acts. The reason why hijacking is so difficult to combat lies in the fact that aircraft are so very vulnerable. The Hazard involved in such criminal acts are many fold and unpredictable.

As a result of the work of the ICAO Legal Committee which had prepared a final Draft Convention on Unlawful Seizure of Aircraft, a Diplomatic Conference, convened in The Hague in December 1970, adopted a *Convention for the Suppression of Unlawful Seizure of Aircraft*.

The *Convention for the Suppression of Unlawful Seizure of Aircraft*, signed at the Hague on December 16, 1970 (also known as the Hijacking Convention). The

33) R.H. Mankiewicz, “*The Hague Convention*”, 37 JALC, (1971), No.2, 195.

Convention defines the Act of Unlawful Seizure of Aircraft, and the Contracting States have undertaken to make such offences punishable by severe penalties.

The Convention contains detailed provisions on the establishment of jurisdiction by States over the offence, on the taking of the offender into custody and on the prosecution or extradition of the offender.

This Convention entered into force on October 14, 1971. At present, 183 countries including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with the Hague Convention.³⁴⁾ The hijacking activities have tended to focus mainly on the Middle East and the Caribbean area, the latter centering around Cuba.

In an attempt to combat hijacking in the Caribbean region a sort of agreement was reached between the United States and Cuba in 1961, whereby US aircraft, crews and passengers would be returned under the responsibility of the United States. In a wider context concerted action was also started at the end of the 1960s to counteract hijacking, which was increasing with alarming frequency.

This led to the conclusion, in December 1970, of the Hague Convention, which hijacking was made internationally punishable offence. The Hague Convention further includes in its definition the following elements: the act must be unlawful and there must be some use of force, or threat force the act must consist in seizure of an aircraft and exercise of unlawful control over it or attempt threat.

The broad outline of the Hijacking Convention covers the following points:

- (a) the Convention's aim,
- (b) notion and definition of the acts in question,
- (c) scope of the Convention,
- (d) jurisdiction,
- (e) extradition,
- (f) punishment of the offenders,

34) <http://www.icao.int/icao/en/leb/Hague.pdf>

(e) Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation.³⁵⁾

The growing rate of hijacking incidents as a weapon of terrorism has on various occasions prompted the suggestion of establishing an International Criminal Court to deal with this aspect of aviation.

The case of a 14 year–old girl travelling by air from New York to Tel Aviv may be quoted here to illustrate the point. Her aircraft was hijacked on September 6, 1970, and was forced to land in the desert near Amman, Jordan. The aircraft remained there with the plaintiff and the other passengers as prisoners of the terrorists until September 12, 1970. The New York Court of Appeals ruled that only mental anguish directly resulting from bodily injury was eligible for compensation under the Warsaw System.³⁶⁾

6.3. The Montreal Convention (Sabotage) of 1971

A Diplomatic Conference, held in Montreal in September 1971, taking as its basis a Draft Convention prepared by the Legal Committee of ICAO, adopted a *Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation*. The *Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation*, was signed in Montreal on September 23, 1971 (also known as the Sabotage Convention).

The Montreal Convention (Sabotage) entered into force on January 26, 1973. At present, 186 countries including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with the 1971 Montreal Convention.³⁷⁾

35) N.M. Matte, *op. cit.* at 356–357.

36) The Warsaw System consists of the Warsaw Convention of 1929, the Hague Protocol of 1955, the Guadalajara Convention of 1961, the Guatemala Protocol of 1971, the Montreal Additional Protocol No.1, No.2, No.3 and No.4; *Rosman at al. v. TWA, Herman v. TWA*, State of New York, Court of Appeal, June 13, 1974; [1974] USAvR 1 *Avi*, Vol.13, at 17, 231.

As the Hague and Tokyo Conventions were concerned exclusively with offences committed on board aircraft, another agreement was needed to combat other unlawful acts against the safety of international civil aviation. The Montreal Convention aims at the protection of civil aviation, and applies to all unlawful acts which threaten its safety. These provisions are directed towards preservation of airport installations, such as buildings, hangars, control towers, radar etc, on condition that such installations are used in the operation of international air transport.³⁷⁾

The Convention is mainly concerned with acts other than those pertaining to the unlawful seizure of aircraft. It defines a wide spectrum of unlawful acts against the safety of civil aviation. The Convention contains similar detailed provisions on jurisdiction, custody, prosecution and extradition of the alleged offender as The Hague Convention of 1970.

6.4. The Protocol Supplementary to the Montreal Convention of 1971

More recent attempts have been made by ICAO to create an *Instrument for the Suppression of Unlawful Acts of Violence at Airports serving International Civil Aviation.*” This Protocol was adopted by a Diplomatic Conference which met at Montreal in February 1988.

It extends the definition of “offence” given in the 1971 Convention to include certain specified acts of violence at airports serving international civil aviation, if such acts endanger or are likely to endanger safety at such airports. Contracting States have undertaken to make these offences punishable by severe penalties.

The Protocol also contains provision on jurisdiction. This Protocol came into force on August 6, 1989. At present, 162 States including the United States, the

37) <http://www.icao.int/icao/en/leb/Mtl71.pdf>

38) Cf. article 4. For the text of the Convention, appendix.

United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with this Convention.³⁹⁾

6.5. The Convention on the Marking of Plastic Explosives for the Purpose of Detection

This Convention was adopted by a Diplomatic Conference held in Montreal in 1991 and is aimed at contributing to the prevention of unlawful acts involving the use of plastic explosives by obliging parties to adopt appropriate measures to ensure that such explosives are marked so as to facilitate their detection. This Convention came into force on June 21, 1998. At present, 137 States including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea etc. are affiliated with this Convention.⁴⁰⁾

Each Party is obliged to take necessary and effective measures to prohibit and prevent the manufacture in its territory of unmarked plastic explosives; there is likewise an obligation, with a limited exception, for each Party to take necessary and effective measures to prohibit and prevent the movement into or out of its territory of unmarked plastic explosives. There are provisions concerning control over the possession and transfer of possession of such explosives, as well as their destruction or consumption within certain specified time limits (these differ according to whether or not they are held by authorities of a State Party performing military or police functions).

A Technical Annex to the Convention describes the explosives to be covered, the detection agents to be used and their manner of introduction into the explosives.

The Convention creates an International Explosives Technical Commission whose function is to evaluate technical developments relating to the manufacture, marking and detection of a plastic explosives and to make recommendations for

39) <http://www.icao.int/icao/en/leb/Via.pdf>

40) <http://www.icao.int/icao/en/leb/MEX.pdf>

amendments to the Annex. The 23rd Session of the ICAO Assembly approved a draft amendment (Article 83 bis) to the Chicago Convention concerning lease, charter and interchange of aircraft in international operations.

The new article authorizes the transfer of certain functions and duties from the State of registry to the State of the operator of the aircraft. Another sustained amendment to the Chicago Convention was approved by the ICAO 25th Session of the Assembly (Extraordinary). This Article 3 bis recognizes that every State must refrain from resorting to the use of weapons against civil aircraft in flight and that in the case of interception the lives of persons on board and the safety of aircraft must take appropriate measures to prohibit the deliberate misuse of any civil aircraft registered in that State.

7. Aviation Safety and Security

7.1. Introduction

Hijackers as the horrible terrorists are the public enemy for mankind. We must study the preventive and efficient measure against terrorist's attack in cooperation with Asian Pacific countries each other. The cruel terrorists attacked the World Trade Center at New York and Pentagon building at Washington, D.C. on September 11, 2001. On that day, for the first time in history, aircraft were used as weapons of mass destruction, thus presenting a significant new threat to civil aviation.

This problem is global and seriously affects the aviation safety, efficiency and regularity of international, as well as domestic civil aviation. After the September 11 disaster, every country is trying so hard to safeguard civil aviation against terrorism. Internationally, every country is taking some measure to block the money channel which goes into terrorist groups.

As aviation safety and security issues, especially preventing acts of unlawful

interference, get more attention and become the major topic of world-wide aviation community, establishment and implementation of comprehensive and systemic aviation safety and security program are strongly demanded ever before. ICAO and its 190 Contracting States have urgently and continuously taken steps to intensify their work aimed at preventing and eliminating acts of terrorism.

The ICAO has carried out the important role in order to maintain the world peace, aviation safety and security in the international community as well as dedication of its safety and security since events of September 11.

More study is needed with regard to potentially devastating attacks involving bacteriological, chemical or even nuclear substances, as well as electronic or computer based attacks on air traffic control networks or missile attack. The legal conventions which aim at the repression of suicide attacks against civil aviation will not be effective against the suicide perpetrators themselves. Serious penalties should therefore be imposed on those organizing, instigating, sponsoring or financing such terrorist acts and harboring terrorists themselves.

Furthermore I would like to mention briefly and mainly in order of the contents of my paper as the following ① ICAO's Activities of the Aviation Safety and Security, ② Policy and Law for the Aviation Safety and Security in Korea,.

7.2. ICAO and IATA's Activities on the Aviation Safety and Security

(1) Activities of ICAO

As acts of unlawful interference continue to pose a serious threat to the safety and security of international civil aviation, ICAO continues to pursue policies and programs designed to prevent such acts. The ICAO Council adopts Standards and Recommended Practices (SARPs) for the safeguarding of international civil aviation contained in Annex 17 the Chicago Convention.

The Annex 17 on Security deals with safeguarding international civil aviation

against acts of unlawful interference. The ICAO Security Manual contains guidance material on the interpretation and implementation of the SARPs contained in Annex 17.

The ICAO and its Contracting States raised the global aviation safety and security baseline. Seventeen new Standards were added to Annex 17 in less than 10 months after the tragic events of September 11 and a worldwide security audit system rapidly implemented, demonstrating ICAO's ability to act decisively and swiftly in a crisis situation.

Indeed, much of the 33rd ICAO Assembly in late September/October 2001 was focused on aviation security in February 2002, the High-level Ministerial Conference on Aviation Security. That Conference underscored that the highest priority was being placed on aviation security with over 700 participants attending from 154 States and 24 international organizations.

The 33rd Session of the ICAO Assembly unanimously adopted Resolution A33-1,⁴¹⁾ Declaration on misuse of civil aircraft as weapons of destruction and other terrorist acts involving civil aviation, which strongly condemns these terrorist acts as contrary to elementary considerations of humanity, norms of conduct of society and as violations of international law. It has proven effective in identifying and correcting aviation safety deficiencies in areas of personnel licensing and airworthiness and operation of aircraft; it will now include air traffic services, airport and the core elements of accident and incident investigation.

The Assembly also convened a High-level, Ministerial Conference on Aviation Security in February of 2002, with an overall objective of preventing, combating and eradicating terrorism involving civil aviation, restoring public confidence in air travel and promoting the health of the air transport industry.

That historic Conference endorsed an ICAO Plan of Action for Strengthening Aviation Security, later approved by the Council of ICAO. A major component of the Plan is a programme of regular, mandatory, systematic and harmonized audits

41) http://www.icao.int/cgi/goto_m.pl?icao/en/search_icao.html

to evaluate aviation security in all 190 Member States of ICAO and to help identify and correct deficiencies in the implementation of ICAO security-related standards.⁴²⁾

The recommendations of the High-level Ministerial Conference, including strengthening of Annex 17 and creating an ICAO Universal Security Audit Programme (USAP), have already been implemented through extraordinary cooperation between the ICAO Secretariat, Contracting States and international organizations such as ACI, IATA, IFALPA, IBAC, together with other industry partners.

First and foremost, the new amendment introduced 17 new Standards, a number unprecedented in ICAO history. One notable Standard made Annex 17 applicable to domestic, as well as to international flights, recognizing the need for a uniform high level of security to prevent terrorists and criminals from entering the global network at a weak point.

Also of critical importance were Standards requiring hardening of the cockpit door and 100 percent checked baggage screening by the end of 2006. Also noteworthy was the fast-track process which ICAO used to bring Amendment 10 to Annex 17 into force in July 2002, less than ten months after the events of September 11 terror.

The Annex 17 will continue to have a powerful deterrent effect on those who would disrupt civil aviation operations. The USAP began in November of 2002 and by the end of 2005, 105 States including the Republic of Korea in 2004 had been audited the national security plans and airport according to the implementation of Annex 17 of Chicago Convention.

The ICAO Aviation Security (AVSEC) Mechanism is designed to assist States in achieving compliance with Annex 17 standards through technical assessments, training and direct assistance to States. Since September 11 disaster then, the world community and ICAO has made remarkable progress for aviation safety and security, through global cooperation, in containing acts of terrorism against

42) http://www.icao.int/cgi/goto_m.pl?icao/en/pres/index.html

civil aviation. In 2005, no hijacking was reported nor was there any act of unlawful interference against a commercial aircraft.⁴³⁾

The ICAO Universal Safety Oversight Audit Programme (USOAP) consists of regular, mandatory, systematic and harmonized safety oversight audits carried out by ICAO in its Contracting States to assess the level of implementation of ICAO Standards and Recommended Practices, identify safety concerns or deficiencies, and provide recommendations for their resolution.⁴⁴⁾

From the launch of the Programme in January 1999 to the end of 2004, 181 Contracting States were audited and 163 received follow-up audits based on State action plans to correct deficiencies. USOAP was expanded in 2005 and to date 16 States have been audited under the new format. A large number of auditors were trained and certified to ensure the highest standards of audit. It is expected that some 60 audits will have been conducted by the end of 2004 and an additional 40 audits will be conducted per year until all 189 Contracting States have been audited by the end of 2007.⁴⁵⁾

(2) Activities of IATA

It is desirable things for us that the ICAO and the International Air Transport Association (IATA) have agreed to share safety-related information from their respective audit programmes to better identify potential safety risks and prevent aircraft accidents on March, 2006.⁴⁶⁾ Under the Memorandum of Cooperation, each organization will provide the other with information from safety oversight audit results, as well as accident and incident monitoring. Also, experts from each organization will be allowed to participate as observers in audit missions of the other, upon request. In all cases, the consent of ICAO Contracting States and member airlines of IATA will be required.

43) http://www.icao.int/cgi/goto_m.pl?icao/en/pres/index.html

44) http://www.icao.int/cgi/goto_m.pl?icao/en/nr/2006/pio200604_e.pdf

45) ICAO A35 – WP/167 EX/67, 23/09/2004.

46) http://www.icao.int/cgi/goto_m.pl?icao/en/nr/2006/pio200605_e.pdf

The IATA Operational Safety Audit (IOSA)⁴⁷⁾ programme is the first global standard for airline safety management. Since its inception in 2003, over 150 airlines representing 70 per cent of international scheduled traffic have been IOSA audited and there is close to 100 airlines on the Registry. The IOSA Registry is publicly accessible on the IATA website. It complements ICAO's USOAP, is recognized by many governments and will be a condition for membership in IATA by the end of 2007.

This agreement is another concrete example of the close cooperation between IATA and ICAO in exploring ways to improve aviation safety through information sharing, a fundamental tenet of global air transport. The aviation safety is our industry's number one priority and IOSA is at the core of the industry's safety plan. The role of governments and global standards in safety is critical. This close cooperation between ICAO and IATA is a clear sign of our commitment to make a safe industry even safer and a great example of government and industry partnership.⁴⁸⁾

7.3. Policy and Law for the Aviation Safety and Security in Korea

The Korea also has had a lot of changes in the aviation safety and security field since the events of September 11, 2001. Aviation safety and security, tasks with top priorities of the Korea Civil Aviation is being reviewed continuously to prevent aviation incidents and accidents. The Ministry of Land, Transport and Maritime Affairs reorganized and expanded the existing organization to establish Civil Aviation Safety Authority (CASA) responsible for aviation safety and technologies in 2002.⁴⁹⁾ With independence and professionalism in discharge of

47) <http://www.iata.org/ps/services/iosa/index.htm>

48) ICAO News Release, Montreal, March, 31, 2006, PIO 06/05; <http://www.icao.int>

49) <http://www.casa.go.kr>

its functions, CASA aims to ensure international level of aviation safety and security in the Republic of Korea.

Its fields of responsibility include aircraft operation and maintenance, air traffic service, and aeronautical telecommunication as well as airport facility improvement and expansion.

To ensure aviation safety, Korea has made a continuous effort to strengthen the existing aviation safety by adopting the latest technology and safety measures in accordance with international standards and applying strict regulations on aviation safety as well. Detailed measures are to make regular inspections on airports and aircraft, to certify airport operation and aviation training centers, to inspect the airworthiness and the flight safety, to bring into practice risk management system and aviation safety management system (ASMS).⁵⁰⁾

With more importance put on aviation security, Korea has put comprehensive and strategic aviation security program in place to thwart any attempt of terrorism on Korean soil. As part of these efforts, CASA, committed continuously to aviation security and safety, monitors if airports and airport operators comply with security standards and procedures.⁵¹⁾ Moreover, in order to draw up a comprehensive legal system in compliance with International Standards, we enacted and revised newly the Aviation Safety and Security Act in August 2002 which meets all SARPs in ICAO Annex 17. And other security related regulations—National Civil Aviation Security Program, National Civil Aviation Contingency Plan, and National Civil Aviation Security Training Program, etc.—have been developed and applied to both domestic and international operations.

The Aviation Safety and Security Act is composed of 8 Chapter and 50 Articles. The purpose of this Act in Korea is to prevent any unlawful act in airport facilities, air navigation safety facilities and aircraft in compliance with international conventions, including the Convention on International Civil Aviation

50) http://www.moct.go.kr/EngHome/data/MOCT_CivilAciation05.pdf

51) http://www.moct.go.kr/EngHome/data/MOCT_CivilAciation05.pdf

and to provide for standards, procedures, and mandatory matters needed to ensure the safety and security of civil aviation.

This Act regulated that the safety and security of civil aviation in Korea shall be governed by the international conventions in order to observe it such as ① the Convention on Offense and Certain Other Acts Committed on Board Aircraft (Tokyo Convention of 1963), ② the Convention for the Suppression of Unlawful Seizure of Aircraft (Hague Convention of 1970), ③ the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (Montreal Convention of 1971), ④ the Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (Montreal Protocol of 1988) and ⑤ the Convention on the Marking of Plastic Explosives for the Purpose of Detection (Montreal Convention of 1991).

This act also stipulates that airport operators shall provide screening services on passengers, carry-on baggage and checked baggage. Air carriers shall provide screening service on air cargo. Also this act stipulates all details on catering and stores, security control, contingency plan, screener training all of which reflect ICAO security requirements.

The Republic of Korea ratified the aforementioned four Conventions and one Protocol from 1971 to 2002.⁵²⁾ Though the abovementioned four Conventions and one Protocol belong to the field of the international penal law, but the 1952 Rome Convention and the 1999 Montreal Convention belong to the field of the international civil law. For aircraft security enhancements, Korean airlines placed air taser on board aircraft, Asiana airlines placed gas guns on board. In order to control cockpit doors, lock systems have already been installed as of January 2002.

According to ICAO, recommendations, airlines plan to replace current cockpit

52) Doo Hwan Kim, *Theory of Jurisprudence for the New International Aviation Law*, Nulpulun Publishing Co. (2005), at 132–158.

doors with bullet proof doors. However, when operating at countries which do not allow weapons on board aircraft, aircraft operators will not place the weapons on board. Especially, since October 2005, the bio-metrics system using finger print and vein recognition has been operated in all airports in Korea including Incheon International Airport. In terms of passenger and cargo security screening, 100% X-ray screening has been conducted in all airports in Korea.

The Incheon International Airport has already been operating the BHS (Baggage Handling System) since its opening in 2001. We have also developed Aviation Terrorism Response Manual which specifies responding measures including procedures to be applied to the occurrence of terror attacks as well as assistance from various organizations and agencies concerned. This was mainly aimed at strengthening overall National Crisis Management System against terror such as aircraft hijacking and bomb threat.

The 2005 APEC Economic Leaders' Meeting held at Busan in Korea on November 2005 was successfully finished without any terror threats. Moreover, Aviation Security of the Republic of Korea, as a result of ICAO Security Audit in November 2004, turned out to be fairly good, meeting all the SARPs in Annex 17.

However, not relieved of the current level of Korea aviation safety and security, we are going to continue to strengthen the capability of aviation security through improvement of the system and equipment as well as reinforcement of personnel while ensuring facilitation of passenger travel and cargo movement.

7.4. Conclusion

The changes in the aviation since 9.11 disasters have left us questions to answer—how to effectively respond to the occurrences of terror attacks and what proactive measures to take to prevent them from happening. Without ensuring aviation security, we can not affirm you of the prosperity of aviation industry and

world economy.

In the coming years, against the continued happening of terror in various and crafty forms such as the potentially devastating attacks involving bacteriological, chemical weapon or missile attack etc., we should advance security related technology and every state in the globe should make even more strides to seek for thoroughly preventive measures. And more importantly, we should tighten up our international cooperation's ties to better respond to terrorist acts in the Asia–Pacific countries.

8. Liability of governmental bodies in international Civil Aviation

8.1. Introduction

There are two types of legal entity for the operation of airlines and airports: they can be operated either by and as private bodies or by and as governmental bodies. Some airlines and airports in the developing countries and developed countries are controlled by state or public corporations; in that case, they are directed by governmental bodies.⁵³⁾ A comparison between airports in Asia, Europe and the United States shows that US airports are mostly privately owned, whereas in Asia and Europe governmental control has usually been retained.

In some cases the pilot, the crew, the air traffic controllers and airport ground personnel are state servants; consequently, their legal status is that of a public official or employee of a national enterprise. Their liability for the compensation of personal and property damage caused by their negligence or wrongful acts is governed by international agreements, domestic law and their employment contract.

53) Gerard Pucci, *Aviation Law*, (1977), at 3–1.

In that case, the governmental bodies may, as the employer, be liable for the acts of a servant acting within the scope of his employment as a vicarious liability.⁵⁴⁾ According to the Anglo–American legal system, unless acting within the power of the governmental bodies as the employer, the state servants are liable for other person’s damage caused by their trespass, nuisance, negligence, etc.

This is an important aspect of the rule of law. Sometimes, the plaintiff may sue the governmental body’s master, for instance, the airport authority or the national airlines or their servants, for instance, pilot, crew of aircraft, ATC, or both, since master and servant are jointly liable for the other person’s damage. Nevertheless, in most cases, the plaintiff will naturally choose to sue the master. However, the plaintiff must be able to show some recognized legal wrong. The principle of vicarious liability applies equally to negligence, nuisance and other torts.

In the Civil Law system, particularly in Korea and Japan, if passengers or owners of air cargo have sustained damage by unlawful acts of public officials in the course of their official duties, victims may claim compensation for damage from the governmental bodies or the state in accordance with the provisions of the Constitution and National Compensation Act. However, the public officials are not immune from civil liability.

In most states, the air traffic control function belongs to governmental bodies and is directed by officials of the state administration. The state or governmental bodies are liable for damage caused by the public official, including servants or agents, since their activities are considered as acts committed by the state or governmental bodies. The chief problem arising for the activities of Air Traffic Control Agencies (ATCA) is that of determining the nature and conditions of their liability in the case of aircraft accidents or incidents associated with their activities, or liability which is wholly or partly due to the intervention of states or governmental bodies.

54) Shawcross & Beaumont, *Air Law*, (1989), VI / 34–37.

8.2. The liability of governmental bodies relating to ATC Agencies

(1) Air traffic control service and duty of care by air traffic control

The principal object of air traffic control is to promote safe, orderly, and rapid movement of aircraft through airspace within the control zone. Air traffic controllers are responsible for assuring a safe, orderly and expeditious movement of air traffic.

The liability of air traffic controllers is, to my knowledge, universally accepted to constitute a delictual liability as opposed to contractual liability.⁵⁵⁾ It is concluded that the liability is universally based on fault(negligence) and that this liability is unlimited.⁵⁶⁾

The Chicago Convention, in its Annex 2 entitled “Rules of Air”, specifies that an aircraft commander must follow the instructions of the ATC at the control tower.

Each state party to the Chicago Convention must, so far as practicable, provide adequate air traffic services, namely, air traffic control services, for instance, radio, communication and meteorology services, in order to avoid collision of aircraft, whether in the air or on the ground, and to ensure the regular flow of aircraft movements, as well as a flight information service and alerting service.

In particular, air traffic control services have a *duty of care* to those making use of or relying upon their operations for the safety of aircraft. This duty is created not only by the legal regulations governing the provision of the service, but also by the relationship which exists between controller and pilot.

A breach of this duty of care will be actionable in negligence, the defendant being either the governmental bodies under whose authority the accident occurred or the appropriate government department or agency, by reason of it having

55) Kim Doo Hwan, *Some Considerations on the Liability of Air Traffic Control Agencies*, Air Law, XIII (6), (1988), at 268–272.

56) Edgar Ruhwedel, *Flugsicherheit, Luftverkehrs Kontrolle und Haftung*, Zeitschrift für Luftund Weltraumrecht, (1973), at 265–266.

assumed the responsibility of operating the air traffic control service, and as the employer of the particular controller who was at fault. A pilot or aircraft commander has primary responsibility for the safety of the aircraft. A wrong decision by the pilot or aircraft commander may well be the immediate cause of an accident and may constitute actionable negligence. However, the pilot's decisions concerning navigation safety will be based upon the facts available to him, including information supplied by air traffic controllers.

All control tower officers carry an extremely heavy burden of responsibility in their daily duties, depending in their operations almost entirely on advanced electronic equipment, arguably even more so than a pilot: they cannot observe their entire control area nor the movement of all aircraft with their own eyes.

In some cases statements can be found suggesting that the air traffic controller's duty is merely secondary the pilot is primarily responsible, an air traffic controller being responsible "for adhering to procedures which minimize the difficulties for the crew",⁵⁷⁾ or for "assisting the person in command of the aircraft by providing such advice and assistance as may be useful for the safe and efficient conduct of the flight."⁵⁸⁾

But situations may arise in which an air traffic controller rather than the pilot may be held responsible. It seems better to regard the pilot and controller as acting under *concurrent* duties⁵⁹⁾ in particular circumstances the pilot or the controller may have more complete information, as a consequence of which questions of liability will turn on a close examination of the position. In our opinion, no distinction should be made between the acts of the agency providing air traffic services and acts of individual controllers, since these services are provided by states or governmental bodies, whereas the controllers perform these functions as agents of the state who is responsible for acts carried out by its

57) *Delta Airlines v. US*, 561 2d 381 at 391(1st Circuit, 1977). cited by Shawcross & Beaumont, *supra* note 3 at VI / 35 – 36 n.1.

58) *Stratmore v. US*, 206F supp. 665(DCNJ, 1962); *Id.* at n.2.

59) *Id.*

employees in the performance of their duties.

(2) Reasons why the system on the liability of ATC Agencies should be unified

An aircraft engaged in an international flight, which is over the territory of another state and perhaps without controlling of an Air Traffic Control Agency in a third state, for instance, the Republic of Korea flight KAL 007 on September 1, 1983, can give rise to a serious air crash, which makes a solution of this particular question necessary.

A different case is that of an aircraft flying in a state other than its own, but under the control of an ATC Agency in its own country, which has caused damage in another contracting state to the Chicago Convention.

Here again a conflict in law arises which cannot be resolved by domestic law unless the legal solutions have been unified. I am of the opinion that international standards should establish a system of legal actions which a victim may initiate to obtain compensation for the damage sustained by the accident caused by the act of an air traffic controller. If a draft for such a convention relating to the liability of ATC Agency is prepared, the right of the victims to seek compensation for damages for the defendant at fault must be expressly prescribed.

The victim is equally at liberty to sue the ATC and carrier or operator. It is useful to draft a model text that would be very beneficial to all the countries which need illustrative texts to organize their domestic legislation with regard to current air traffic control problems. However, it is our feeling that the establishment of an international convention relating to the liability of ATC Agencies would be desirable since it may foster the harmonization and unification for the different legal systems among the various nations.

(3) Activities of ICAO and ILA

The legal problems relating to the liability of ATC Agencies have already been

discussed many times between 1964 and 1990, namely, in the Legal Committee of ICAO, or in the Informal Working Group of the 62nd Seoul Conference(Korea) of the International Law Association(ILA) of 1986, in the Air Law Committee of the 63rd Warsaw Conference(Poland) of the ILA of 1988 and the Working Session of the 64th Queensland Conference(Australia) of the ILA of 1990.

A preliminary draft for the text of an International Convention on the Liability of ATC Agencies was presented by the delegation of Argentina to the 25th Session of the Legal Committee of ICAO in 1983; it should be noted that this preliminary draft convention was not considered in its substance by the Legal Committee of ICAO.⁶⁰⁾ The 26th Session of ICAO was held at Montreal from April 28 to May 13 1987. The 26th Session of the Legal Committee of ICAO discussed the future course of action on this subject on the basis of the Secretariat study with comments from states and international organizations, and of the Rapporteur's Report.⁶¹⁾ The 27th Session of the Legal Committee of ICAO in 1990 reviewed its general work programme and established, subject to approval by the ICAO Council, the following work programme:

- 1) Liability of Air Traffic Control Agencies.
- 2) Study of the Instruments of the "Warsaw System."⁶²⁾

After the Second World War, the growth of air traffic in the past 45 years could not have been possible without the international coordination which is necessary for the development of a unified and efficient network of international airlines and airports. On the other hand, a new preliminary draft for the International Convention on the Liability of ATC Agencies was discussed in the Air Law Committee of the 65th Conference of the International Law Association which was held at Cairo, Egypt, in April, 1992. Indeed, Article 12 of the

60) ICAO, LC/26-WP, 16-1,512/1987, para. 1,3.

61) ICAO, Legal Committee-26th Session, Report on the work of the Legal Committee during its 26th Session, at 1-2.

62) Michael Milde, *27th Session of the ICAO Legal Committee*, Air Law XV (3), (1990) at 162-164.

Chicago Convention provides that contracting states must collaborate in securing to the greatest possible degree uniform of rules and regulations relating to the flight and maneuver of aircraft.

I should like to suggest that the preliminary draft for the International Convention on the Liability of ATC Agencies deals with the following subjects:

- 1) Concept of ATC Agencies and application of the Convention,
- 2) System of liability,
- 3) Limitation of liability,
- 4) Jurisdiction and applicable law,
- 5) Prescription,
- 6) Guarantees,
- 7) Miscellaneous clauses,
- 8) Diplomatic clauses.⁶³⁾

(4) The liability of ATC agencies

The ATC Agency shall be liable for fault on the part of its officers, employees and agents for personal or property damage sustained by aircraft accidents. However, the ATC Agencies shall not be liable if the damage occurred fortuitously, as a result of *force majeure*, through action of a third party, through the fault of a victim or inaccurate information obtained from another agency which was only transmitted by the ATC Agency, provided that the ATC Agency proves that it was impossible to take corrective measures.

In many countries, the liability of ATC Agencies is based on fault and the burden of proof rests on the claimant and the state or governmental bodies are liable for damage caused by acts of ATC Agencies. Contributory negligence, *force majeure* and fault of their counterparts can be adduced as defences. A breakdown of the equipment cannot constitute a defence leading to the

63) Kim Doo Hwan, *supra* note 4, at 271.

exoneration of the provider of the service, in the absence of negligence on his part, since the ATC Agency will have, in the case of damage resulting from faulty equipment, a recourse action against the manufacturer under general product liability rules.

(5) National laws as regards liability of governmental agencies,
especially of ATC Agencies

In *France*, it seems to be an undecided issue whether the state is responsible for all negligent acts of its servants acting within the framework of the performance of their duty as such, or only for acts which are seriously negligent (*faute lourde*).⁶⁴⁾

In the *United States*, liability of ATC Agencies is governed by the Federal Torts Claims Act (FTCA).⁶⁵⁾ To establish the liability of the United States Government under the FTCA it is essential that the negligence of the air traffic controller is proven and such negligence must have been the proximate cause of the damage suffered.⁶⁶⁾

The current regulations for ATC Agencies of the *United Kingdom* are the Rules of the Air and Air Traffic Regulations of 1981.

The Civil Aviation Authority is responsible for air traffic control which, inter alia, is intended to expedite the orderly flow of aviation traffic. The Air Traffic Control Board is appointed jointly by the Secretary of State for Transport and the Secretary of State for Defence.⁶⁷⁾ One of its objects is to carry out from time to time reviews

64) Gilbert Guillaume, *La responsabilité des services de la circulation aérienne en France*, III Annals of Air and Space Law, (1978), at 133–141.

65) 28 USCS Section 1346 and Section 2671–2680 (1977).

66) Seti K. Hamalian, *Liability of the United States Government in Case of Air Traffic Controller Negligence*, Annals of Air and Space Law XI, (1986) at 55–85; Stuart M. Speiser and Charles F. Crause, *Aviation Tort Law*(II), (1979), at 350–436.

67) Nicholas M.L. Hughes, *Air Traffic Control and Airport Authorities; The U.K. Viewpoint*, Air Law IX(4), (1984), at 211–212; E.G. Gerbis, *Aviation Law*, (1983), at 618.

of the navigation services it provides

In *Germany*, Article 34 [Haftung bei Amtspflichtverletzung] of the German Constitution in conjunction with paragraph 839 [Haftung bei Amtspflichtverletzung] of the German Civil Code together provide sufficient room for the legal treatment of liability problems of ATC Agencies so that specific legislation is not required.

The control of air traffic services in *Japan* is delegated to the Director of the Regional Civil Aviation Bureau or Director of the Air Traffic Control Center and to the Director General of the Defence Agency in accordance with Article 137 of the Civil Aeronautics Act.

The liability for damage of the state or public agencies is regulated by Article 17 of the Constitutional Law or Article 1 of the National Compensation Act.

In the *Republic of Korea*, according to Article 70 paragraph 1 of the Aviation Act, entitled “Instruction for Air Traffic”, aircraft shall navigate, while being controlled or in control zone, in compliance with the instructions for order and time to take off, landing, or route of flight, etc., as directed by the Minister of Land, Transport and Maritime Affairs. The Minister of Land, Transport and Maritime Affairs shall furnish the flight crew with all information necessary for the navigation of an aircraft (Article 70 paragraph 2 of the Aviation Act).

The liability for damage of the governmental bodies, namely, the state or public agencies, related to ATC Agencies is regulated by Article 2 of the National Compensation Act or Article 29 of the Constitutional Law. According to Article 2 of the National Compensation Act of Korea, the liability for damage of the state or local government is regulated as follows.

When public officials inflict damage on a person, intentionally or negligently, in the course of performing their official duties, in violation of the provisions of laws and regulations, the state or local government shall redress the damage if such damage has been caused by bad faith or gross negligence of the public official concerned, the state may demand reimbursement from the public official. It is clear that states regulate and implement air traffic services either directly or indirectly. There is a

very small number of private corporations or multinational agencies⁶⁸⁾ providing such service.

The possibility also exists that ICAO itself provides the service pursuant to Article 71 of the Chicago Convention.⁶⁹⁾ I feel that this is necessary to safeguard the legal position of the air traffic controller as an employee, although the right of victims to seek damages for compensation from the party at fault must be expressly recognized. It would be advisable for the Legal Committee of ICAO or the Air Law Committee of the International Law Association as the principal advisory bodies in the field of air law to produce an international instrument that would serve as a model domestic legislation.

I am of the opinion that the Legal Committee of ICAO should make a draft for the Convention on the Liability of Air Traffic Control Agencies as soon as possible in order to unify the rules concerning the air traffic control systems of all states and governmental bodies.

8.3. The liability of governmental bodies relating to carriage by air

(1) The scope of application of the rules on the liability of governmental bodies

As to international air transport, the liability of the state or of legally constituted public bodies by the state, including governmental bodies, relating to carriage by air has been regulated by the following provisions of the Warsaw Convention, the Hague Protocol and the Montreal Protocol No.4.

68) For instance, Eurocontrol, Cocesna and Asecna.

69) Art. 71. *Provision and maintenance of facilities by Council.*

“If a contracting State so requests, the Council may agree to provide, man, maintain, and administer any or all of the airports and other air navigation facilities, including radio and meteorological services, required in its territory for the safe, regular, efficient and economical operation of the international air services of the other contracting States, and may specify just and reasonable charges for the use of the facilities provided.”

Article 2 of the Warsaw Convention

- (1) “This convention applies to carriage performed by the state or by legally constituted public bodies, including governmental bodies, provided it falls within the conditions laid down in Article 1.”
- (2) “This convention does not apply to carriage performed under the terms of any international postal convention.”

Article 2(2) of the Hague Protocol

“This Convention shall not apply to carriage of mail and postal packages.”

Article 2(2) and (3) of the Montreal Protocol No.4

- (2) “In the carriage of postal items the carrier shall be liable only to the relevant postal administration in accordance with the rules applicable to the relationship between the carriers and the postal administration.”
- (3) “Except as provided in paragraph 2 of this Article, the provisions of this Convention shall not apply to the carriage of postal items.”

1) According to Article 2(1) of the Warsaw Convention of 1929, the Convention is applicable to carriage performed by a state or governmental bodies.

Nevertheless, an Additional Protocol, referring to Article 2, provides that contracting states may reserve to themselves the right to declare that: “.....the first paragraph of Article 2 of this Convention shall not apply to international carriage by air performed directly by the State

2) Article X X VI of *the Hague Protocol of 1955* stipulates that contracting states may declare this Convention, as amended by the Hague Protocol, to be inapplicable to military transport. Liability of governmental bodies in international civil aviation

3) *The Guadalajara Convention of 1961* follows, in so far as state aircraft are concerned, the provisions of the Warsaw Convention and the Hague

Protocol.

- 4) *The Guatemala City Protocol of 1971* stipulates in Article X X III II (1)(b) that a contracting state may declare that “..... the Warsaw Convention of 1929 as amended at The Hague, 1955, and at Guatemala City, 1971 shall not apply to the carriage of persons, baggage and cargo for its military authorities on aircraft, registered in that State, the whole capacity of which has been reserved by or on behalf of such authorities.”
- 5) *The Rome Convention on Damage Caused to Third Parties on the Surface of 1952*, as amended by the 1978 Montreal Protocol, provides in Article 26 and Article X III, respectively, that the said Convention and Protocol shall not apply to damage caused by military, customs or police aircraft.
- 6) *The Tokyo Convention of 1963*, *The Hague Convention of 1970*, and *The Montreal Convention of 1971* shall not apply to damage caused by military customs or police aircraft.
- 7) *The Convention for the Unification of Certain Rules Relating to the Precautionary Attachment of Aircraft of 1933* declares that aircraft used exclusively in the service of a State, including the postal service, but excluding commercial service, are not subject to precautionary arrest.
- 8) *The Convention for the Unification of Certain Rules relating to Assistance and Salvage of Aircraft or by Aircraft at Sea of 1938* provides in Article 16 that the Convention is applicable to government vessels and aircraft, but with the exception of Article 13 which deals with jurisdiction. The Convention, which, incidentally, never entered into force, is, however, not applicable to “military, customs or police vessels or aircraft”
- 9) *The Convention on the International Recognition of Rights in Aircraft of 1948* provides in Article X III that the Convention shall not apply to military, customs or police aircraft.

(2) The principle of the air carrier's liability relating to the governmental bodies

As a fundamental principle of the air carrier's liability in the international convention and protocols, for instance, in the Warsaw Convention and the Hague Protocol, the principle of limited liability and a presumed fault system has been adopted.

Subsequently, the Montreal Inter-Carrier Agreement of 1966⁷⁰⁾ the Guatemala City Protocol, the Montreal Additional Protocol No.3, and Montreal Protocol No.4 of 1975 maintained the limited liability, but substituted the presumed liability system by an absolute liability, that is, strict liability, system.

The Warsaw Convention has been amended many times during the past sixty years in order to increase the maximum amount of liability for damage sustained in case of death or injury of a passenger because of an increasing desire to protect passengers damaged during an international flight.

The Warsaw System consists of the Warsaw Convention, the Hague Protocol, the Guadalajara Supplementary Convention, the Montreal Inter-Carrier Agreement, the Guatemala Protocol, the Montreal Additional Protocols No.1, No.2, No.3 and No.4.⁷¹⁾ The Warsaw Convention imposes the burden of proof on the air carrier instead of on the victim, thus presuming the air carrier's fault for personal or property damages caused during international carriage.⁷²⁾

The sum of the compensation for damage on a carrier's liability for the death or personal injury of each passenger is limited to the sum of 125,000 Poincaré Francs, that is approximately US \$8,300 under the Warsaw Convention, the sum of 250,000 Poincaré Francs, that is approximately US \$16,600 under the Hague Protocol, the

70) Agreement CAB 18900, approved by order E23680; Docket 17325.

71) Doo Hwan Kim, *Some Considerations of the Draft for the Convention on an Integrated System of International Aviation Liability*, Journal of Air Law and Commerce, Vol.53, No.3, (1986), at 765.

72) Cf. Art. 24(1) of the Warsaw Convention: "The carrier shall not be liable if he proves that he and his agents have taken all necessary measures to avoid the damage or that it was impossible for him or them to take such measures."

sum of US \$75,000(US \$58,000 exclusive of legal fees and costs) under the Montreal Inter–Carrier Agreement, the sum of US \$100,000 under the Guatemala City Protocol and the sum of 100,000 SDR under the Montreal Additional Protocol No.3

Meanwhile, states party to the Warsaw Convention and/or subsequent amendments hereof were concerned by the prospect of not having an official price of gold as a result of the modification of the Articles of Association of the International Monetary Fund(IMF). Montreal Protocol No.4 was to complement the Guatemala City Protocol by revision of the liability limits for cargo under the Warsaw–Hague Convention, whilst the Montreal Additional Protocol No.1, No.2 and No.3 changed the unit for computing the limits of the carrier’s liability under the Warsaw Convention, the Warsaw–Hague Convention and the Warsaw–Hague–Guatemala Convention into Special Drawing Right (SDR), the IMP artificial unit of account based on a basket of leading currencies.

Twenty years have now elapsed since the conclusion of the Guatemala City Protocol and sixteen years since the four Montreal Additional Protocols. Yet relatively few states have ratified either the Guatemala City Protocol or the Montreal Additional Protocols; they are certainly not in sufficient numbers to bring any of them into force. States mostly wait for a lead from the government of the United States, by far the most important and lucrative market.

However, many states had meanwhile become impatient and have unilaterally caused their airlines to raise the limit for passenger injury or death in carriage under either the Warsaw Convention or the Warsaw–Hague–Guatemala Convention to 80,000 or 100,000 SDR or more. Some airlines have done so of their own accord without prompting. Furthermore, Korean Airlines, Japan Airlines, British Airways, Qantas, Sabena, Air France etc. have already regulated the sum of 80,000–100,000 SDR of the compensation for damage of each passenger in the general conditions of carriage. This sum is related to the Montreal Additional Protocol No.3.

(3) The prospect of the ratification of the Montreal Additional Protocols No.3 and 4 by the United States

Nowadays many states are greatly interested in ratifying the Montreal Additional Protocol No.3 (MAP.3) and Montreal Protocol No.4 (MAP.4), whether the United States ratifies these Protocols or not. The United States had failed in 1983 to give its approval to MAP.3 and MP.4. Consequently, it was uncertain for many states whether they should go ahead and seek to bring these two Protocols into force without United States, or wait for another lead from the United States, or to abandon the Warsaw system altogether.⁷³⁾

The MAP.3 contains a provision which permits a state to adopt a Supplemental Compensation Plan that will provide a procedure for swift and efficient compensation of passengers killed or injured in international air transportation.⁷⁴⁾

On June 24, 1988, the Department of Transportation of the United States proposed to the Senate to ratify the MAP. 3 and MAP A with a Supplemental Compensation Plan in order to protect US citizens. On November 15, 1989, the Committee on Foreign Relations of the United States Senate held another hearing to discuss the protocols and the provisions of the new Supplemental Compensation Plan.

At the hearing, representatives of the Departments of State, Justice, and Transportation, airline industry leaders as well as spokes – persons for various associations of victims’ families and prominent trial attorneys presented testimony to this Committee. On June 21, 1990, the Committee voted to report the MAP.3 and MAP.4 favorably to the Senate for advice and consent.⁷⁵⁾ If the said Protocols are

73) George N. Tompkins, *The Defeat of the Montreal Protocols in the United States*..... ‘*What next?*’, Lloyd’s Aviation Law, (1983), at 1–6.

74) Art.XIV of the Guatemala City Protocol, supplementing Article 35 of the Warsaw Convention: Article XIV: After Article 35 of the Convention, the following Article shall be inserted: “Article 35A. No provision contained in this Convention shall prevent a State from establishing and operating within its territory a system to supplement the compensation payable to claimants under the Convention in respect of death, or personal injury, of passengers. Such a system shall fulfil the following conditions:

75) 101st United States Congress, 2nd Session June 28, Senate Exec. Rept. at 101–21, Montreal Additional Protocols 3 and 4, 1990, at 2–6.

ratified by the Senate, many countries and airlines in the world will be affected by this. We must take note of American air traffic policy in the near future. As it now lies before the United States Senate, the proposed Supplemental Compensation Plan provides in broad terms the following four points:

- [1] US \$500 million per accident per aircraft to pay for economic damages in claims based on personal injury or death, that is, per passenger approximately one million dollar.
- [2] Full compensation for economic as well as non-economic damages for US citizens on any international flight covered by the Warsaw Convention, and for non-US citizens if their flight originated in the United States or the ticket was purchased there.
- [3] Absolute liability on the part of the air carrier, thus requiring the claimant to prove only damages.
- [4] Underwriting the plan through the commercial insurance market and financing it by a ticket the surcharge per passenger is now expected to be US \$5.⁷⁶⁾

The purpose of this arrangement has been to provide a uniform international system of rules and practices for the protection of travelers and shippers and its goal is to bring airlines around the world up to a higher and more equitable level of compensation for injury or loss

- a) it shall not in any circumstances impose upon the carrier, his servants or agents, any liability in addition to that provided under this Convention.
- b) it shall not impose upon the carrier any financial or administrative burden other than collecting in that State contributions from passengers if required so to do;
- c) it shall not give rise to any discrimination between carriers with regard to

76) Hearing S. 101–533, Montreal Additional Nos. 3 and 4, Ex. B. 95–1, Hearing before the Committee on Foreign Relations, United States Senate, 101st Congress, 1st Session, November 15, 1989, at 33.

the passengers concerned and the benefits available to the said passengers under the system shall be extended to them regardless of the carrier whose services they have used.

- d) if a passenger has contributed to the system, any person suffering damage as a consequence of death or personal injury of such passenger shall be entitled to the benefits of the system.” of life, insure quick and reliable recoveries, in most cases within six months, and promote greater efficiency in the handling of cargo and baggage.

The Ministries of Transportation and airlines of Asian countries must pay continuously attention to the ratification of Protocols No.3 and No.4 with Supplemental Compensation Plan by the US Senate in order to establish their new aviation policy.

(4) The problems of air carrier’s tort liability in the United States

Relying on domestic US tort law for recovery of losses sustained in air disasters has proven to be unduly time-consuming and insufficient in achieving the desired result in terms of timely and just compensation for victims and their families.

According to a study report by the US Rand Corporation the average claim takes two years to reach settlement. Compensation can take over four years if a trial is involved and up to seven years or longer if the victim is attempting to prove wilful misconduct⁷⁷⁾ on the part of the airlines in order to break the liability cap of the Warsaw regime. For victims and families who need prompt compensation for their losses, delays of several years can be devastating. Families of the victims of the Korean Air Lines (KAL) flight 007 tragedy may now go to trial on the issue of damages. After eight years they are in this respect where they could have been under the Protocols in approximately six months. Moreover, they still have to face the prospect of time-consuming appeals to be filed by KAL.

Furthermore, according to the said study report, while American claimants under

77) Cf. Art. 25 of the Warsaw Convention, cited, at 171 n. 9.

the Warsaw Convention received, on average, about US \$200,000 in compensation for aviation accidents that occurred between 1970 and 1982, American claimants under the domestic system received on average of about US \$490,000.

The uncertainty of the results of litigation was an important factor encouraging acceptance of compensation that was less than the value of the actual loss. At present, the average award in the US domestic tort system is about US \$800,000. The data series for the Warsaw Convention of post 1982 accidents one case came out at US \$325,000. Victims may therefore well seek to breach the Convention limits by alleging wilful misconduct or an intentional act by the air carrier. This will be difficult to prove in most cases and highly unlikely where airlines are so often the innocent victims of attacks which are aimed at states.

However, in the case of KAL 007, which strayed over Soviet airspace, an American Federal Jury found the crew guilty of wilful misconduct and the airline has been ordered to pay some US \$50 million to relatives of 137 passengers, that is US \$365,000 per passenger. After the KAL 007 accident 132 cases had already been settled.

The airline is understood to be appealing this case to the Supreme Court which has decided in its favour in a related case, namely *Chan v. Korean Airlines*,⁷⁸ arising from the same incident. Here the decision was that the limits could not be breached simply because the notice contained on the ticket was in “8 point” type rather than the “10 point” prescribed in the 1966 Montreal Agreement.

(5) The responsibility of governmental agencies in international civil aviation

Through the world, government agencies have primary responsibility for regulating and overseeing airline operations and safety practices. In the United States, the Federal Aviation Administration (FAA) and the National Transport Safety Board (NTSB) have considerable influence over an airline’s safety practices through their

78) Decision of the US Supreme Court of April 18, 1989, No.87–1055.

regulations, supervision, and investigations. The FAA has a variety of ways to enforce its safety regulations. The FAA can amend, suspend and revoke certificates; levy civil and criminal penalties; and seize aircraft. The combination of safety regulations, supervision, investigations, and sanctions provides a major incentive for an airline to operate safely. Moreover, government agencies that investigate aviation accidents not only uncover most of the facts revealed during the civil litigation of fault but they also make them public.

According to the Presidential Commission on Aviation Security and Terrorism, which recently supported the ratification of MAP. 3, the US Administration should strengthen current regulatory enforcement mechanisms to ensure airline accountability for safety violations, notwithstanding the powerful market forces that ought to deter unsafe or reckless conduct by the airlines. We believe that the Commission is right to emphasize that government agencies be responsible for ensuring aviation safety.

The compensation paid by airlines has been covered by liability insurance, the premiums for which represent an insignificant portion of an airline's operating costs. According to an International Chamber of Commerce study of the Warsaw Convention,⁷⁹⁾ liability insurance costs were only about two tenths of one per cent of airlines operating revenues over a recent ten year period. Change in premiums due to changes in liability limits would be likely to be too small to affect airline safety practices.

The compensation system available for the representatives of the victims of US domestic airline accidents relies upon the negligence-based tort system established by state law. Frequently, the airline, the aircraft manufacturer and the US Administration, as the result of its air traffic control activity, are named as parties and are subject to the court's jurisdiction. Typically, US courts lack jurisdiction over foreign air traffic controllers and government authorities which have responsibility for safety and security. Indeed, in the absence of the Warsaw Convention, government

79) ICC / Commission on Air Transport, S. Brise, *Study on the status and future of the Warsaw system*, (1989), at 44–46.

owned foreign air carriers might be able to avoid the jurisdiction of US courts in certain circumstances under the provisions of the Foreign Sovereign Immunities Act.

(6) The necessity for an integrated system of international aviation liability

The amount of the limited liability of the compensation for damage caused by aircraft accidents in the Warsaw system is controversial and questionable. The Warsaw Convention contains a set of international principles designed to promote uniformity in resolving legal claims arising out of contracts for international carriage. The Rome Convention of 1933, amended in 1952 and again in 1978, provided for the limited liability for damages caused by Foreign Aircraft to Third Parties on the Surface during international carriage by air and so adopted the principle of absolute liability.

Both the amendments of 1952 and of 1970 raised the ceiling on the damages, but the amendment of 1978 adopted the SDR as – the currency unit. Liability in the Warsaw system is based on the air carriage contract, but liability in the Rome Convention is based on torts. Both the Warsaw system and the Rome Convention have played a major role in the international community for air transportation.

Many amendments have been proposed to each Convention due to the rapid high – technology developments in aviation, the change in the social and economic circumstances, the difficulties surrounding proof and discovery of facts and the need for increased protection of injured passengers and victims. However, until now, not all of the proposed amendments have been effectuated.

As a result, the international legal system for air transportation is at present complicated and tangled. Since the early 1970s, many aviation law professors and lawyers, as well as international aviation organizations have tried to integrate and simplify the international legal system for air transportation.

The Warsaw system is very complicated. Passengers receiving compensation for

damages caused in the same aircraft accident have very different rights according to the jurisdiction in question, even though the passengers paid the same fare. This discrimination among passengers can no longer be justified. Air carrier's liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

The aircraft industry is a very complicated assembling industry, it utilizes many people in a variety of jobs, including parts manufacturers, air service suppliers, airport employees, air traffic controllers, governmental agencies, and manufacturers of suppliers of aircraft facilities. When victims are not satisfied with the limited amount for which an airline is liable under the current limited liability system, they tend to bring claims against the manufacturer of the aircraft or the air traffic controller for the balance of their damages which are not fully compensated by the airline corporations.

The Warsaw Convention does not regulate claims against parties other than the air carriers. Thus the air carrier may take advantage of the liability limitation, while the aircraft manufacturer or air traffic controller cannot. This regards equity and distributive justice. For this reason, we must review the contents of the Warsaw system.

The Legal Committee of the International Civil Aviation Organization recognized the need for making out a new draft for a convention designed to make the Warsaw system integrated and less complicated. Professor Bin Cheng asserts, however, that the present air law system could not settle air law problems and disputes without dramatic and comprehensive reforms of the Warsaw Convention.

Professor Bin Cheng, former Chairman of the Air Law Committee of the International Law Association (ILA) and Professor Jacqueline Dutheil de la Rochère have made out a Draft for the Convention on an Integrated System of International Aviation Liability covering the contents of the Rome Convention. This new proposal was discussed thoroughly by many aviation law professors, specialists and lawyers in the Air Law Session of the 60th Conference of the ILA held at Montreal, Canada from August 29 to September 4, 1982.

That Draft for the Convention was not adopted, but it was decided that it should remain under continuous analysis and review by the next Air Law Sessions of the ILA. This proposal means the synthesis and integration of contract liability and tort liability within one convention relating to the liability of international air carriers.⁸⁰⁾

Furthermore, it could fundamentally reform the Warsaw system and could become the basis for the unification of international private air laws.

A detailed study of the present position and proposals for renovating the Warsaw system exists already in the form of the Alvor Draft for the Convention relating to International Carriage by Air, adopted by the Fourth Lloyd's of London Press International Aviation Law Seminar held at Alvor, Portugal from October 11~16, 1987.⁸¹⁾

The seminar was attended by one hundred and sixteen executives and legal advisers of governments and of the airline, aviation insurance and aerospace industries, as well as members of the legal profession involved or interested in aviation, coming from twenty-seven countries. This Alvor Draft Convention relating to International Carriage by Air has integrated the principal contents of the Warsaw Convention, the Hague Protocol, the Guatemala City Protocol, the MAP.3 and MAP.4. The Draft Convention has also adopted the principle of limited and absolute liability for air carrier's liability. This Alvor Draft Convention will also be of great use in the integration and reunification for the Warsaw system.

The liability of the domestic air carrier in the United States and Japan has adopted the principle of unlimited liability, but such countries as Korea, Germany, France and Italy, and most Latin American countries apply the principle of limited liability in their general conditions of carriage for passengers or aviation law.

This Alvor Draft Convention will be of great help in solving legal problems among passengers, cargo owners, air carriers and underwriters, and in integrating the complicated Warsaw system into one simplified, less complicated Convention.

80) Bin Cheng, *Sixty Years of the Warsaw Convention: Airline Liability at the Crossroads* (part 1), 38(4), *Zeitschrift für Luft- und Weltraumrecht*, (1989), at 319-344.

81) Cf. Proceedings of the Fourth Lloyd's International Aviation Law Seminar (1987).

8.4. Conclusion

Many economic and social changes have occurred since the Warsaw Convention was effectuated. Science and high—technology in the aeronautic industry have advanced and national incomes have increased. In addition, the value of life and property have increased substantially, the amount of compensation for damage caused by aircraft accidents has been increased gradually in dollar amount as well as in volume.

The survivors and victims are not satisfied with the limited amount for which an airline corporation is liable under the current liability system. In order to solve rationally disputes between air carriers, operators and victims, survivors of aircraft accidents, it is desirable to draw up a new integrated convention relating to the liability of the air carrier, the operator and the air traffic controller.

It is necessary to revise the Warsaw system fundamentally, including the liability of governmental bodies, for the purpose of enacting a new Preliminary Draft for the Convention on an Integrated System of International Aviation Liability and to make a new Preliminary Draft for the International Convention of the Liability of Air Traffic Control Agency. I should like to urge to the Legal Committee of ICAO and Air Law Committee of the ILA to make this a new Preliminary Draft for the Convention of the Liability of Air Carriers and on the Liability of ATC Agencies, including the liability of Governmental Bodies as soon as possible, in order to reunify the regulations concerning the international air transport and air traffic control system among the nations.

(Doo Hwan Kim, *Liability of Governmental Bodies in International Civil Aviation*, The Highways of Air and Outer Space Over Asia, supplemented [book, 1992], published by the Kluwer Law International, The Netherlands, at 177–194).

Chapter II. International Private Air Law

1. The Air Carrier's Liability under the Warsaw System

The rules of the Warsaw Convention of 1929 are well known and still being all over the world. It is undoubtedly the most widely accepted private international law treaty with 151 Contracting States. It is also one of the most generally criticized and its treaties and revision has been a current theme since 1935.

Nonetheless, it was always considered to be in the general interest of all concerned, passengers, shippers, airlines and governments to maintain a uniform system while improving it in response to the economic, social, legal and policy developments in the field of international transport by air.

The air carrier's liability limit for passenger injury or death was originally, and still is today, one of the main criticisms. It was also soon recognized that several other provisions of the Warsaw Convention required clarification and adjustment including inter alia the civil law concept of "*dol*" embodied in Article 25, which had no equivalent in the Anglo-Saxon legal system. Discussions and studies both "*Comité International Technique d'Experts Juridiques Aériens*"(CITTEJA)⁸²⁾ and IATA led to the adoption by the Hague Conference, on September 28, 1955, of a Protocol to amend the Warsaw Convention.

The unification of the rules of private law was essential to international expansion if air transport was to succeed on a commercial basis. The passenger knows that,

82) The International Conference on Private Air Law, held in Paris in 1925, led to the creation of "*Comité International Technique d'Experts Juridiques Aériens*" (CITTEJA). CITTEJA was concerned in particular with private air law issues such as air carrier's liability and mortgage of aircraft etc. CITTEJA ceased to exist, after having transferred its achieves to the ICAO Legal Committee in 1947.

wherever and whenever he flies, there is a certain degree uniformity in the rules governing the carrier's liability, while the carrier being aware of the extent of his liability, can make arrangements to insure himself against possible losses.

It is therefore appropriate to examine the nature and the development of the legal grounds on which the air carrier's liability rests and their impact on everyday practice. It was the Warsaw Convention for the Unification of Certain Rules Relating to International Carriage by Air, dating from 1929, which firmly established and elaborated, as one of its major tenets, the principle of the air carrier's liability for damage caused to passengers, baggage and goods, and also damage caused by delay. The rules of the Warsaw Convention are being applied all over the world and have demonstrated their reliability and usefulness.

The 'Warsaw system' consisted of the Warsaw Convention of 1929, the Hague Protocol of 1955, the Guadalajara Convention of 1961, the Montreal Additional Protocol No.1, No.2, No.3 and Montreal Protocol No. 4 belongs to the field of the International private air law. Although the 'Warsaw system' and its attempts at unifying the rules of aviation enjoys a worldwide reputation, its main points may be briefly summarized hereunder for the purpose of this essay.

2. The Warsaw Convention of 1929

2.1. Background and Conclusion of the Convention

The carrier could protect himself extent by insisting on standard—form conditions of carriage and the International Air Traffic Association founded in 1919, produced through its legal commission uniform conditions of carriage. It was very desirable for a uniform set of legal rules, with the force of international law, to be created.

Thus, countries with very different legal traditions and general approaches were under pressure to agree upon common principles.

Then first session of the *Conférence Internationale de droit Privé Aérien* (CIDPA) held in Paris in 1925 established a specialist committee, *Comité International Technique d'Experts Juridique Aériens* (CITEJA), whose first major task was the preparation of what was to become the Warsaw Convention.⁸³⁾ The second meeting of CIDAPA was held in Warsaw on October 4–12, 1929. Thirty states took part in the deliberations, among them France, Germany, the Soviet Union and United Kingdom. The Warsaw Convention for *the Unification of Certain Rules Relating to International Carriage by Air* signed on October 12, 1929 came into force on February 13, 1933. It came into effect ninety days after the deposit with the Government of Poland of the fifth instrument of ratification.

At present, 152 countries including the United States, the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with the Warsaw Convention.⁸⁴⁾ The Warsaw Convention has been hastily hailed as the most successful unification of private law and has achieved almost universal international application.

2.2. Division of the Convention

The Warsaw Convention is divided into five chapters (forty one articles). The first Chapter (Articles 1–2) regulates the definitions and the scope of the Convention. The second Chapter (Articles 3–16) deals in general with transportation documents. The third Chapter (Articles 17–30) is concerned with the international air carrier's liability. The fourth Chapter (Article 31) contains provisions relating to combined transportation, while the fifth Chapter (Articles 32–41) comprises the general and final provisions. It follows that its key points of aims are twofold, i.e.;

- (I) to regulate the international air carrier's liability and
- (II) to regulate the documents of international air transportation.

83) Peter Martin, J D McClean, Eliazabeth de Montlayr Martin, Rod D Margo, Shawcross and Beaumont, *Air Law*, Butterworths, London, (1989), at VII/1.

84) <http://www.icao.int/icao/en/leb/wc-hp.pdf>

These diverging national backgrounds have not been entirely overcome by the uniform text because certain provisions are still the object of divergent and contradictory interpretation by the courts of the various contracting States.⁸⁵⁾

The international character of air transportation depends on an agreement between the parties to a contract of carriage, rather than on the factual crossing borders, and is common to contract for transportation where the airports of departure and destination are placed within two States of parties to the Convention, or to the carriage within one state, if there is an agreed stopping place in the territory of another state.⁸⁶⁾

Transportation performed by several successive air carriers is treated as one single transportation if so regarded by the parties to the contract, and will be considered as international carriage even if one part of the journey is performed entirely within the territory of the same State.⁸⁷⁾ As time went by and aviation began expanding on a large scale, the Warsaw Convention had to be amended or added to on a number of occasions in order to be kept up-to-date.

2.3. Scope of Application

This Convention applies to all international carriage of persons, baggage, or goods performed by aircraft for reward. It applies equally to gratuitous carriage by aircraft performed by an air transport undertaking (Article 1). The Convention is applicable to air transportation performed by State or by other legal entities constituted under public law (Article 2, para. 2). This Convention, which will be referred to as the “original” Convention, applies in two situations. It applies when the departure and destination points set out in the contract of carriage are in the territories of two

85) N.M. Matte, *op. cit.*, 17.

86) Article 2, para. 2 of the Warsaw Convention.

87) Article of the Warsaw Convention, para. 3; Aleksander Tobolewski, “*Monetary Limitations of Liability in Air Law*”, (1986), Montreal, Canada, at 22–23.

states which are both parties to the original Convention but are not both parties to the amended Convention.

It applies also when the contractual departure and destination points are both within the 20 territories of a single state which is a party to the original Convention and not a party to the amended Convention if the contract of carriage designates any stopping place outside the territory of this state⁸⁸⁾

The Warsaw Convention governs the air carrier's liability while the goods are in his charge, whether at the airport or not. It does not extend to any other form of carriage performed incidentally and outside an airport, but if any such carriage is performed for loading, delivery or transshipment purposes, any damage is presumed, subject to proof to the contrary, to have occurred during air carriage.⁸⁹⁾

This Convention does not apply to carriage performed under the terms of any International Postal Convention.

2.4. Documents of Transport

(1) The passenger ticket

For the carriage of passengers the carrier must deliver a passenger ticket which shall contain the following particulars:

- (a) the place and date of issue;
- (b) the place of departure and of destinations;
- (c) the agreed stopping places (intermediate stops) if any;
- (d) the name and address of the carrier or carriers;
- (e) a statement that the carrier is subject to the relating to liability established by this Convention.

When no ticket is issued or when it gets lost or contains an inaccuracy the contract of carriage stands and the Convention remains applicable.⁹⁰⁾

88) D.M. Day, *The Law of International Trade*, (1981), at 83.

89) Article 18 of the Warsaw Convention.

However, the consequences for a carrier accepting a passenger without issuing a ticket are far-reaching: he will not be able to invoke the exclusion or limitation of liability laid down in the Convention, and he will be fully liable.

It is for the domestic legislation to decide under what conditions a valid contract of transportation comes into being. An interesting situation arises when the passenger is unable to understand the foreign language in which the notice is printed.

The Greek High Court of Justice ruled the fact that the plaintiffs did not know English and so did not understand the notice concerning applicability of the Warsaw Convention limits was irrelevant.⁹¹⁾ In a case of a carriage not covered by the Warsaw Convention rules it was held by a French court that in France, issuing a ticket entirely made out in English was contrary to the law.⁹²⁾

(2) The baggage check

Article 4 of the Warsaw Convention requires that a baggage check shall be issued for the transportation of baggage other than the objects of which the passenger takes charge himself, the carrier must deliver a baggage ticket to the passenger. The baggage check must be made out in duplicate and one part for the passenger and the other part for the carrier. This baggage check must contain the same particulars with the addition of:

- (a) reference to the number of the passenger ticket
- (b) the number and weight of the packages;
- (c) the amount of the value declared, if the passenger does not want to be limited to the ceiling of indemnity established in 1929 (article 22, para. 2);

90) See e.g. *Manion v. Pan American World Airways*, New York State Supreme Court, Appeal Division, May 12, 1981; 16 *Avi.* 17,473; I.H.Ph. Diederiks-Vershoor, *An Introduction to Air Law*, Seventh revised edition, 2001, at 65.

91) *X and Y v. Olympic Airways*, High Court of Greece, date not indicated IATA ACLR, No.475; Schoner's case law digest, *Air Law*, Vol.1 (1976), at 259.

92) *Vandelay and the Association Générale des Usagers de la Langue Française v. Roberts and British Airways*, Tribunal de Grande Instance de Paris, February 8, 1978: [1979] RFDA 97; Schoner's case law digest, *Air Law*, Vol. V, (1980), at 42.

- (d) a statement that delivery of the baggage will be made to the bearer of the baggage check.

The absence, irregularity or loss of this baggage check, does not affect the existence or the validity of the contract of carriage, which shall none the less be subject to the rules of this Warsaw Convention. The carrier, however, will be subject to unlimited liability if he accepts any baggage without issuing a baggage check. As regards baggage, we note further that IATA has inserted in Article of its General Conditions of Carriage (Passengers)⁹³) a clause describing the meaning of the term “baggage”, which reads as follows: “Baggage means such articles, effect and other personal property of a passenger as are necessary or appropriate for wear, use, comfort or convenience for his trip. Unless otherwise specified, it shall include both checked and unchecked baggage of the passenger.”

(3) The Air Waybill

This document is in fact referred to the original Convention as an “Air Consignment Note”, but the more modern term “air waybill” is generally used. The carrier of goods may request the consignor to make out and hand over to him a document called an “air waybill.” The consignor also has the right to require the carrier to accept this document.

The air waybill is proof of the content of the contract between the consignor and the carrier, but he is permitted to prove the real content of the provisions by other means.⁹⁴) Separate air waybill may be required for separate packages. The air waybill is made out in triplicate. According to article 6 of the Convention, the air waybill must be made out by the consignor in three original copies and handed over

93) See for the 1970 version of the “IATA General Conditions (Passenger)” [1971], *Zeitschrift für Luft- und Weltraumrecht*, at 214–232. These conditions were adopted at the 1970 Honolulu Conference of IATA and are merely “recommended practice”, effective from April 1, 1971.

94) See D. Goedhuis, *National Legislation and the Warsaw Convention*, Nijhoff, The Hague, (1937), at 134.

with the goods. The first copy must be marked “for the carrier” and must be signed by the consignor, while the second copy must be marked “for the consignee.”

It must be signed by the consignor and it accompanies the goods. Third copy must be signed by the carrier, and it is handed over by him to the consignor, after the goods have been accepted. The carrier’s signature must be affixed as soon as the goods are accepted, but it may be replaced by a stamp. The consignor’s signature also may be printed or replaced by a stamp.

Following the Second World War the matter of a negotiable air waybill modeled on the bill of lading in maritime law had been given closer attention. Increased goods traffic and long–distance, transoceanic flights were responsible for this initiative. Yet, the air waybill still does not possess the status of the bill of lading. The air waybill, unlike the bill of lading, is not a document of title.

The absence, irregularity or loss of air waybill will not affect the existence or the validity of the contract of transport and the application of the Convention but it may prevent the carrier from enjoying the benefit of various exclusions and limitations of liability given by the Convention.⁹⁵⁾

Article 8 of the Convention lays down seventeen kinds of item that must appear on the air waybill. Among the more important of these are the nature of the cargoes, the method of packing and marks or numbers on them the weight, quantity and volume or dimensions of the goods the apparent condition of cargoes and their packing and a statement that the carriage is subject to the Convention’s rules on the liability of the carrier.

The acceptance by the carrier of cargoes without an air waybill, or with one that omits certain of the required items, results in his being unable to avail himself of the provisions of the Convention which limit or exclude his liability.⁹⁶⁾ The consignor of the cargoes is responsible for the correctness and truthfulness of the particulars and statements relating to the goods which he inserts in the air waybill.⁹⁷⁾

95) Article 5 para. 2 and Article 9 of the Warsaw Convention.

96) Article 9 of the Warsaw Convention D.M. Day, *op. cit.* at 84.

97) Article 10 of the Warsaw Convention.

He is liable for all damage suffered by the carrier or incomplete declarations or indications. Earlier cases showed a tendency on the part of the courts to apply the rules strictly. In *Westminster Bank v. Imperial Airways*⁹⁸⁾ it was held that the statement in the air waybill as to the application of the Convention must be explicit and the vague paraphrase would not suffice. The statement that the carriage was “based upon” the Convention was unsatisfactory and the carrier accordingly lost the benefit of the provision limiting his liability. The air waybill is *prima facie* evidence of the conclusion of the contract, of the receipt of the goods and of the conditions of carriage.⁹⁹⁾

Article 12, 13 and 14 of the Warsaw Convention enumerate the rights of the consignor and the consignee *visa-á-vis* the carrier. The carrier is liable for all loss of or damage to goods in his charge and for damage occasioned by delay unless he proves that he or his agents have taken all necessary measures to avoid the damage or that it was impossible for him or them to take such measures.¹⁰⁰⁾

The special declaration concerning the value of the cargo or baggage on delivery at destination could be made out by the passenger or the consignor. The passenger or consignor may have to pay extra, if the case so requires.¹⁰¹⁾ In the latter case the carrier will be liable to pay a sum not exceeding the declared amount.¹⁰²⁾ The instance was when in 1978 the Dutch Supreme Court handed down a significant decision in a case in which a German employee of KLM had stolen a box containing platinum.

There was a declaration of value, but the Supreme Court, reversing the decisions of lower courts, ruled that the declared amount of the value was not a limit for liability in terms of Article 22 of the Warsaw Convention. In the case under review, the carrier had been found guilty of wilful misconduct under Article 25 of the

98) D.M. Day, *ibid*, at 84.

99) Article 11 of the Warsaw Convention.

100) Article 19, 20 of the Warsaw Convention.

101) Article 22, Para. (2) of the Warsaw Convention.

102) Cf, *Orlove v. Phillipine Air Lines and Flying Tiger Line*, US Court of Appeal (2nd Circ.), July 25, 1958.

Convention.¹⁰³⁾

2.5. The Air Carrier's Liability

(1) The adoption of the presumed fault liability

The Warsaw Convention is fundamentally based on the principle of the presumed faulty liability for the personal and property damage caused by aircraft accident.

Articles 17–18 of the Warsaw Convention regulate the international air carriers' liability to compensation for damages sustained to the passengers or cargo which they are carrying.

In accordance with Article 17, the air carrier is liable for personal damages sustained in the event of the death or wounding of a passenger or any other bodily injury suffered by a passenger if the accident which caused the damage so sustained took place on board the aircraft or in the course of the operation of embarking or disembarking. Article 17 of the Convention speaks of bodily injury. Does bodily injury also include mental injury? In the *American case of Rosman v. Trans World Airlines*¹⁰⁴⁾ it was held that only mental injury directly resulting from bodily injury could be compensated. In *Husserl v. Swissair*¹⁰⁵⁾ an American court was, however, willing to award compensation for mental injury, irrespective of any link with bodily injury. On the other hand, the air carrier is liable for the destruction, loss or damage of registered baggage or cargo, if the event which caused the damage took place during the air carriage. This provision appears to create a more severe liability for baggage and cargo.

The phrase “during the carriage by air” means the period during which the

103) Insurance Company of North America V. KLM Royal Dutch Airlines, Supreme Court (The Netherlands), January 6, 1978; *Air Law*, Vol.III(1978), at 123.

104) *Rosman et al. v. TWA and Herman et al. v. TWA*, Court of Appeal, New York State, June 13, 1974; *Avi*. Vol.13. at 17,231.

105) G. Miller, *Liability in International Air Transport*, (1977), 126 *et seq.* Cf. *Palagonia et al. v. TWA*, New York Supreme Court, County of Westchester, December 28, 1978.

baggage or cargo are in charge of the carrier, whether in an airport, on board an aircraft, or, in the case of a landing outside an airport, in any place whatsoever. But the period of the carriage by air does not extend to any carriage by land, sea or river performed outside an airport.

If such a carriage takes place in the performance of a contract for carriage by air, for the purpose of loading, delivery or transshipment, any damage is presumed, subject to proof to the contrary, to have been the result of an event which took place during the carriage by air under Article 18 of the Warsaw Convention.

The carrier is not liable for damage caused by an aircraft accident due to *force majeure* or fortuitous incident, or by the fault of a third party. The limitation of liability of the air carrier is, on the other hand, compensated by the possibility of insurance, that the passengers and consignors of cargo are able to take out the aviation insurance.

(2) The burden of proof

But the carrier is not liable if he proves that he and his agents have taken all necessary measures to avoid the damages or that it was impossible for him or them to take such measures (Article 20). As a result, the carrier is liable to prove that no fault on his part has caused to accident. In other words, the carriers have the burden of proof.¹⁰⁶⁾

The Warsaw Convention drafters had adopted the principle of the faulty liability is that the technology of aircraft manufacture and industry was not fully developed in the 1920's and the aircraft itself was a highly risky device of transportation, and, therefore, the heavy burden of air carriers like absolute or strict liability would hinder the development of the aviation industries.

The principle of the reversal of the burden of proof does not apply in cases in which passengers (or their claimants) try to prove "*dol*", wilful misconduct (gross negligence) on the part of the air carrier (Article 25).

106) B.G. Jervis, *Aviation Law*, 1983, Cambridge, at. 2/2–2/8.

In using the terms “wilful misconduct”, American courts reach the same results as other courts with the idea of *dol*. In the case of wilful misconduct the burden of proof is on the plaintiff. On the other hand, the air carrier’s liability is unlimited if the damage is caused by “*dol*” or wilful misconduct (gross negligence) committed by him, or one of his agents acting within the scope of his employment.¹⁰⁷⁾

(3) The liability for delay

According to Article 19 of the Warsaw Convention, the carrier is liable for damages result from the late arrival of passengers, baggage and goods. The liability of the carrier for delay is the same as for injury and death to passengers and for the loss or damage of goods. IATA has formulated regulations relating to delay requiring the carrier to use his best efforts to carry the passenger and his baggage with reasonable dispatch.

2.6. Limitation of Liability

For the carrier the most important feature of the Warsaw Convention is the limitation placed on his liability by article 22. The limitation differs with respect to passengers, baggage and cargo.

The carrier’s liability to each passenger was originally limited to the sum of 125,000 Poincaré francs (approx. US\$8,300) by article 22 of the Convention, while the liability of the carrier of checked baggage and cargo is limited to a sum of 250 Poincaré francs (approx. US\$17) per kilogram, unless the consignor had made, at the time when the package was handed over to the carrier, a special declaration of value at delivery and has paid a supplementary sum if the case so requires.

In that case the carrier will be liable to pay a sum not exceeding the declared sum, “unless he proves that the sum is greater than the actual value to the consignor at delivery” (Article 22, Paragraph 2).¹⁰⁸⁾

107) N.M. Matte, “*Treatise on Air–Aeronautical Law*, (1981), at 380.

2.7. Jurisdiction

An action for damage must be brought, at the option of the plaintiff, in the territory of one of the High Contracting Parties, either before the Court having jurisdiction where ① carrier is ordinarily resident, or has ② his principal place of business, or has ③ an establishment by which contract has been made or before ④ the Court having jurisdiction at the place of destination. The court of domicile offers the advantage of convenience. As for the second option, namely the court at the place where the carrier maintains his principal place of business, the situation is different in that the carrier's office where the major part of his business is being transacted must be proved to constitute the company headquarters in terms of the Convention (Article 28).¹⁰⁹⁾ In *Tumarkin v. Pan Am* it was ruled that, according to Article 28, paragraph 1 of the Convention, a passenger who buys a return ticket in Florida with Cuba as his destination cannot initiate proceedings in New Jersey if the carrier's domicile and headquarters are located in New York.¹¹⁰⁾

The court at the place where the office concluding the contract of carriage is located enters on the scene when a ticket is sold by a travel agency or a shipping company. To date the intermediary of travel agents is of ever increasing importance because of the large number of transaction made by them. A further interpretation of the word 'établissement' (establishment), used in the authentic French text of Article 28, is necessary. Romang is of the opinion that any office where an agreement is made under the authority of the carrier may be included in this category.¹¹¹⁾

108) See also *Data Card et al, v. Air Express International et al*, Queens Bench Division (Commercial Court), May 28, 1983, *Air Law*, Vol.IX (1984), at 187; I.H.Ph. Diederiks-Verschoor, *op. cit.* at 68.

109) cf. *Winsor v. United Airlines*, US District Court, Eastern District of New York, 25 June 1957; [1957] USAvR 466; *Avi*, Vol.5, P.17,509. See also *infra*, at 155, note 34.

110) *Tumarkin et al. v. Pan-American World Airways*, Superior County of New Jersey (Essex County), 20 June 1956; [1956] USAvR 383; 14 *Avi* 18, 152; IATA ACLR, No.35.

111) W. Romang, *Zuständigkeit und Vollstreckbarkeit im Internationalen und Schweizerischen Luftprivatrecht* (thesis Winterthur, 1958), at 63 *et seq.*

In the case of *Woolf v. Aerovias Guest* it was ruled that a passenger injured during a flight of a Mexican airline between Mexico City and Miami (the ticket Mexico–Miami having been purchased in Hollywood, Florida), could not file a claim against the carrier in the State of New York since the Mexican company had its principal offices in Mexico City.¹¹²⁾

3. The Hague Protocol of 1955

It was added to the Warsaw Convention with the aim to adapt it to the demands of modern transport. The *Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air* was signed at the Hague on September 28, 1955 by 26 countries and came into force on August after 30 countries' instruments of ratification had been lodged; hereinafter cited as the Hague Protocol.

The Hague Protocol entered into force on August 1, 1963. At present, 137 countries including the United Kingdom, Canada, France, Germany, Japan, Russia, China, the Republic of Korea and the North Korea etc. are affiliated with Hague Protocol.

The Protocol amended the meaning of the term “*High Contracting Parties*” (Article 1) in view of the post-war de-colonization of States, military transport was excluded from the Warsaw Convention of 1929.

It simplified the formalities for the issuance of tickets and transport documents by reducing the number of particulars on these documents. The provision with regard to the liability for wilful misconduct (*dol*), for the carrier's agents and for the limitation were amended.

The Hague Protocol is an Amendment to the Warsaw Convention of 1929. The

112) *Woolf v. Aerovias Guest*, Municipal Court of the City of New York, Borough of Manhattan (9th District), October, 1954, [1954] USAvR 399; I.H.Ph.Diederiks–Vershoor, *op.cit.* at 92.

Legal Committee of ICAO inherited from CITEJA the task of revising this Convention which regulates the liability of the air carrier to passengers and consignors and which limits the liability except in cases of gross negligence, to a maximum of 250,000 Poincaré gold francs (U.S \$16,600) per person.

As a result of the Committee's revision, a Protocol of Amendment to this Convention was adopted by a Diplomatic Conference at the Hague in 1955; among other things it doubles the existing limits of liability.

4. The Guadalajara Convention of 1961

The Convention Supplementary to the Warsaw Convention, for the *Unification of Certain Rules Relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier* was signed at Guadalajara, Mexico on September 18, 1961 for eighteen states and came into force on May 1, 1964, the nineteenth day after the deposit of the fifth instrument of ratification hereinafter cited as Guadalajara Convention.

The Guadalajara Convention entered into force on May 1, 1964. At present, 85 countries including the United Kingdom, Canada, France, Germany, Japan, Russia, China and Mexico etc. are affiliated with Guadalajara.¹¹³⁾ The Warsaw Convention does not contain particular rules relating to international carriage by air performed by a person who is not a party to the agreement for carriage.

The Guadalajara Convention was drawn up to provide rules to govern the international carriage by air performed by actual carrier who is not also the contracting carrier. Broadly the object of the Convention was to give to an actual carrier the same rights and liabilities as a contracting carrier under the Warsaw Convention system.¹¹⁴⁾

113) <http://www.icao.int/icao/en/leb/guadalajara.pdf>

114) Shawcross and Beaumont, *Air Law*, (1977), at 363.

5. The Montreal Agreement of 1966

In so far as the United States was concerned, the question of limits liability for the international air carrier had remained without satisfactory solution. The amount stated in the Warsaw Convention, i.e., 125,000 Poincaré gold francs (approx. US\$ 10,000), or the amount stated in the Hague Protocol which doubled the ceiling on compensation to 250,000 Poincaré gold francs (approx. US\$ 20,000) did not assure adequate protection for the air passenger.

This amount contrasted quite unfavourably with the amounts awarded by American courts for damage resulting from accident or death sustained in domestic flight. Therefore, the United States denounced the Warsaw Convention at the end of 1965.¹¹⁵⁾

For several countries, this move on the part of United States was an ultimatum which had to be taken seriously. Indeed, in view of the overwhelming influence of the United States in the air industry, the other states could no longer disregard this ultimatum which was threatening to undermine the rather solid basis established by ICAO, as well as international cooperation in the industry.

IATA took the American position into consideration and consulted its members. After lengthy discussion, this Agreement was signed at Montreal on May 4, 1966.

As a result of this nongovernmental Agreement, the United States agreed to withdraw its denunciation.¹¹⁶⁾ According to the terms of this Agreement, the air carriers undertook to include in their conditions of carriage certain clauses which stipulated that, when the point of departure, the point of destination or an agreed stopping place within American territory, in the journey of a passenger, was within the territory of the United States, the limit of liability was increased to US\$ 75,000 per passenger in the case of death or bodily harm or to US\$ 58,000 exclusive of legal fees.

115) N.M. Matte, *op. cit.* at 19.

116) N.M. Matte, *ibid.*, at 19.

Additionally, the air carrier undertook not to invoke Warsaw Convention Article 20, Paragraph I which permitted him to avoid all liability, if he could prove that he had taken all necessary measures in order to avoid the damage, or that it was impossible for him to do so. Thus, liability was not tied to fault on the part of the air carrier.

6. The Guatemala Protocol of 1971

The Guatemala Protocol of March 8, 1971 was also meant to be an amendment to the Warsaw Convention. It was signed on March 8, 1971, by 33 nations including and it was designed to modify the 'Warsaw Convention' as amended at The Hague in 1955 (Article 1).

This Protocol, however, has yet to come into force. As a result of further work in ICAO on the revision of the Warsaw Convention, a Diplomatic Conference, held in Guatemala City in 1971, adopted a far reaching revision of these provisions of the Warsaw Convention of 1929, as amended by the Hague Protocol of 1955, which pertain to the liability of the air carrier in respect of the international carriage by air of passengers and baggage.

The Guatemala Protocol has adopted the principle of the strict liability in case of the death or personal injury of the passengers.¹¹⁷⁾ Accordingly, only when the victims have proved that the event which caused death or the wounding for the passenger took place on board the aircraft or in the course of any of the operation of embarking or disembarking, the carrier is liable for the damages.¹¹⁸⁾

It is recognized that, if the carrier proves that the damage was caused or contributed to by the negligence or other wrongful act of omission of the person claiming compensation, the carrier shall be wholly or partly exonerated from his

117) S, Mastuoka, "*On Drafting the Japanese Air Transportation Act*", *Journal of Air Law* (Kuhō), No.17, (1974), at 53–71.

118) Article 4 of the Guatemala Protocol.

liability to such person to extent that such negligence or wrongful act or omission caused or contributed to the damage.¹¹⁹⁾

With regard to baggage transport, the carrier is liable for damage sustained, in the case of the destruction, loss or damage took place on board the aircraft or in the course of any of the operations of embarking or disembarking, but the carrier is not liable if the damage resulted solely from the inherent defect, quality or vice of the baggage.

Among other things, the Guatemala City Protocol provides for a regime of absolute liability of the air carrier an unbreakable limit of the carrier's liability in a maximum amount of 1,500,000 Poincaré gold francs (U.S. \$100,000) per person a domestic system to supplement, subject to specified conditions, the compensation payable to claimants under the Convention in respect of death or personal injury of passengers; a settlement inducement clause conferences for the purpose of reviewing the passenger limit, and an additional jurisdiction for suits pertaining to passengers and baggage. Particularly, subject to Article 15 of the Guatemala Protocol, unless before the thirty-first December of the fifth and tenth year after the date of entry into the force of the Protocol, the limit of liability provided in the Protocol shall be increased by an amount of one hundred and eighty seven thousand five hundred franc (approximately US\$12,500).¹²⁰⁾ The Protocol will require thirty ratification before it comes into force.

7. The Montreal Additional Protocol No.1, No.2, No.3 and Montreal Protocol No.4

7.1. Conclusion of Four Protocols

After Guatemala Protocol, both ICAO and IATA considered that a parallel regime

119) Article 7 of the Guatemala Protocol.

120) Doo Hwan Kim, *op. cit.*, at 49–50.

should be adopted with respect to the air carrier's liability for cargo as it had been adopted for passengers. For some years, the Legal Sub-Committee of ICAO had been meeting. In October 1974, the ICAO Legal Committee worked out a Draft revision relating cargo. The Diplomatic Conference on Air Law held at Montreal on September, 1975 and adopted four Protocols for the amendment of the instruments of the System of the Warsaw Convention. The Montreal Additional Protocols No.1, No.2, No.3, and Montreal Protocol No.4 were to revise the 1929 Warsaw Convention, the 1955 Hague Protocol, the 1971 Guatemala Protocol and, especially, the Montreal Protocol No.4 concerns with carriage of cargo by air.

The Protocol No.1 allows payments made within the liability limits originally established by the Warsaw Convention to be calculated in terms of Special Drawing Rights (SDRs) as defined by the International Monetary Fund. The Protocol No.2 replaces the limits set out in the Hague Protocol by limits expressed in SDR. The Protocol No.3 deals in a similar manner with the limits specified in the Guatemala Protocol, Protocol No.4 changes, for the first time since the Hague Protocol, the liability rules relating to goods and introduces SDRs here as well; it will be examined in more detail later, but first it is appropriate to consider the reasons which have prompted the replacement of the Franc Poincaré of the Warsaw Convention by Special Drawing Rights.

The Montreal Additional Protocol No.1 entered into force on February 15, 1996. At present, 49 countries including the United Kingdom, Canada, France, Finland, Italy, Spain, Portugal, The Netherlands, Brazil and Mexico etc. are affiliated with the Montreal Additional Protocol No.1.

The Montreal Additional Protocol No.2 entered into force on February 15, 1996. At present, 50 States including the United Kingdom, Canada, France, Finland, Italy, The Netherlands, Spain, Portugal, Brazil and Mexico etc. are affiliated with the Montreal Additional Protocol No.2. The Montreal Additional Protocol No.3 does not enter into force until now. In accordance with Article VIII, the Montreal Additional Protocol No.3 shall come into force on the ninetieth day after the deposit of the

thirtieth instrument of ratification. Though the Montreal Additional Protocol No.3 was signed by 32 States at Montreal, Canada on September 25, 1975, but now it was ratified only by 21 States including United Kingdom, Argentina, The Netherlands, Spain, Brazil Switzerland and Denmark etc. The Montreal Protocol No.4 entered into force on June 14, 1998. At present, 53 countries including the United States, the United Kingdom, Canada, Japan, The Netherlands, Spain, Portugal and Argentina etc. are affiliated with the Montreal Protocol No.4.¹²¹⁾

7.2. The Adoption of SDR within Four Protocols

The main purpose of four Montreal Additional Protocols is to convert the account unit of the liability for damage from Poincaré francs to Special Drawing Rights (SDR). The object of Montreal Additional Protocols, No.1, No.2, No.3 and Montreal Protocol is to introduce in the 1929 Warsaw Convention, the 1955 Hague Protocol and the 1971 Guatemala Protocol, respectively, the concept of Special Drawing Rights of the International Monetary Fund¹²²⁾ to replace the “gold clause” expressed in Poincaré gold francs; however, the gold currency unit may be retained by States which are not members of the International Monetary Fund and whose law does not permit the use of Special Drawing Rights.

The Warsaw Convention has adopted Gold francs as a currency unit, but since most nations have gradually adopted the managed currency system, it is necessary for us to change from a conventional currency unit to the SDR unit system. The Special Drawing Rights were introduced to the aforementioned four Montreal Additional Protocols, which are a fixed sum based, since January 1, 1981, on a ‘basket’ of the values five currencies such as dollar of the United States, pound of the United Kingdom, franc of French, mark of Germany and yen of Japan.

The Franklin Mint case in particular has caused quite a stir; here a claimant

121) <http://www.icao.int/icao/en/leb/mp4.pdf>

122) <http://www.imf.org>

wanted the free market price of gold to be applied. This was rejected by the Court of first instance in a ruling implying that the Warsaw Convention limits would become unenforceable in the USA.

The Supreme Court, though, reversed that decision. Accordingly, the liability limit sanctioned by the CAB (approximately \$9 per lb. cargo, based upon the last official gold price) was considered to be consistent with the Warsaw Convention. The case is a clear illustration of the complications arising from the USA not having adhered to the 1975 Montreal Protocols, which introduced the SDR as the monetary unit for quantifying the carrier's liability.¹²³⁾

7.3. The Montreal Protocol No.4

Originally, the Diplomatic Conference was convened to change only provisions relating to the carriage of cargo. This was eventually done in the Montreal Protocol No.4. The Montreal Protocol No.4 amends the Warsaw Convention of 1929 as amended by The Hague Protocol of 1955; the amendments refer to international carriage of postal items and to the international carriage of cargo. Although the Montreal Protocol No.4 has adopted most provisions of the Guatemala Protocol, but this Protocol is an independent one from the Guatemala Protocol. The basic features of the Montreal Protocol No.4 are simplification of the documents of carriage, introduction of strict liability of the carrier with limited defences and expression of the amount of limit of liability in terms of Special Drawing Rights of the International Monetary Fund. The Protocol No.4 adopted absolute liability system with regard to material damages of air cargo and also adopted contributory negligence doctrine of the Anglo-American law.¹²⁴⁾

123) *Franklin Mint v.TWA*, US Court of Appeals (2nd Circ.), September 28, 1982; *Annals of Air and Space Law*, Vol.VII (1982) at 601, *Air Law*, Vol.VIII, (1983), at 79; and *TWA v. Franklin Mint*, US Supreme Court, April 17, 1984; IATA ACLR No.614, *Air Law*, Vol. IX, (1984), at 184.

124) Article 18 and 21 of the Montreal Additional Protocol.

7.4. The Prospect of the Ratification of the Montreal Additional Protocols No.3 and No.4 by the United States

This Additional Protocol is a new Draft for the Convention designed to keep up with new developments in aviation operation technology by means of amendment of the Warsaw Convention, the Hague Protocol and Guatemala Protocol. Originally, 13 nations including the United States of America and the United Kingdom have signed this Additional Protocol, but 32 nations have signed this Protocol after on February 2008. Since only 21 nations including the United Kingdom, Spain, The Netherlands, Sweden, Brazil, Columbia, Egypt, Portugal, Norway and Denmark etc. have acceded to the ratification of this Protocol on a global basis on February, 2008,¹²⁵⁾ the Protocol did not come into force yet. But some powers of the world considered the ratification of it, and I emphasize that Korea also has to study on the Protocol in order to ratify it in the future.

The Government of United States has endeavored to pass the Montreal Additional Protocol No.3 and No.4 in the U.S. Senate, but the Senate rejected the Additional Protocol No.3 on the grounds that the maximum limitation of liability of air carrier provided in this Protocol is too low.¹²⁶⁾

Nowadays many states are greatly interested in ratifying the Montreal Additional Protocol No.3 (MAP.3) and Montreal Protocol No.4 (MAP. 4), whether the United States ratifies these Protocols or not. The United States had failed in 1983 to give its approval to MAP.3 and MAP. 4. Consequently, it was uncertain for many states whether they should go ahead and seek to bring these Protocols into force without the United States, or wait for another lead from the United States, or to abandon the Warsaw system altogether.¹²⁷⁾ The MAP.3 contains a provision which permits a state to adopt a *Supplemental Compensation Plan* that will provide a procedure for

125) <http://www.icao.int/icao/en/leb/ap3.pdf>

126) George N. Tompkins, "*The Defeat of the Montreal Protocols in the United States Serial e..... What next?*", "Lloyd's, Aviation Law," September 15, 1983. at. 2-6.

127) George N. Tompkins, *Id.*, at 1-6(1983).

swift and efficient compensation of passengers killed or injured in international air transportation.

On June 24, 1988, the Department of Transportation of the United States proposed to the Senate to ratify the MAP. 3 and MAP. 4 with a *Supplemental Compensation Plan* in order to protect US citizens.

On November 15, 1989, the Committee on Foreign Relations of the United States Senate held another hearing to discuss the protocols and the provisions of the new *Supplemental Compensation Plan*.

At the hearing, representatives of the Departments of State, Justice, and Transportation, airline industry leaders as well as spokesperson for various associations of victims' families and prominent trial attorneys presented testimony to this Committee.

On June 21, 1990, the Committee voted to report the MAP. 3 and MAP. 4 favorably to the Senate for advice and consent.¹²⁸⁾ If the said Protocols are ratified by the Senate, many countries and airlines in the world will be affected by this. We must take note of American air traffic policy in the near future. As it lies before the United States Senate, the proposed Supplemental Compensation Plan provides in broad terms the following four points:

- [1] US \$500 million per accident per aircraft to pay for economic damages in claims based on personal injury or death, that is, per passenger approximately one million dollar.
- [2] Full compensation for economic as well as non-economic damages for US citizens on any international flight covered by the Warsaw Convention, and for non-US citizens if their flight originated in the United States or the ticket was purchased there.
- [3] Absolute liability on the part of the air carrier, thus requiring the claimant to prove only damages.

128) 101st United States Congress, 2nd Session, June 28, Senate Exec. Rept. 101-21, Montreal Additional Protocols 3 and 4, 1990, at 2-6.

[4] Underwriting the plan through the commercial insurance market and financing it by a ticket; the surcharge per passenger is now expected to be US \$5.¹²⁹⁾

The purpose of this arrangement has been to provide a uniform international system of rules and practices for the protection of travellers and shippers and its goal is to bring airlines around the world up to a higher and more equitable level of compensation for injury or loss of life, insure quick and reliable recoveries, in most cases within six months, and promote greater efficiency in the handling of cargo and baggage. The Ministries of Transportation and airlines of Asian countries must pay continuously attention to the ratification of Protocols No.3 and No.4 with *Supplemental Compensation Plan* by the US Senate in order to establish their new aviation policy.

8. The 1992 Initiative of Japanese Airlines relating to the Montreal Additional Protocol No.3

In June 1992, ten Japanese scheduled airlines announced to amend their conditions of carriage to eliminate passenger liability limits for international transportation and to make it effective on November 20, 1992. Those airlines formerly limited their passenger liability to 100,000 SDR. This figure had been taken in advance from the Montreal Additional Protocol No.3, which is not yet to be effective.¹³⁰⁾ The amendment to their conditions of carriage is consisted in substance of two parts;

First, the elimination of liability limits based on Article 22(1) of the Warsaw

129) Hearing S. 101–533, Montreal Additional Nos. 3 and 4, Ex. B. 95–1, Hearing before the Committee on Foreign Relations, United States Senate, 101st Congress, 1st Session, November 15, 1989 at 33.

130) Teruo Sakamoto, “*The 1992 Initiative of Japanese Airlines*” on *Passenger Liability System*, Essays in Commemoration of Prof. Dr. Doo Hwan Kim’s Sixtieth Birthday, (1994), at. 67–71.

Convention (also of the Hague Protocol) in defence of any claim arising out of the death, wounding or other bodily injury of a passenger within the meaning of Article 17 of the Convention.

Second, the waiver of any defence under Article 20(1) of the Convention up to the sum of 100,000 SDR, exclusive of the costs of litigation including lawyer's fee which the court finds reasonable, with respect to the said claim.¹³¹⁾

The first Japanese initiative in the world was integrated into conditions of their airlines which were applied to all international air transportation in Japan. Concerning the Japanese initiative and revolutionary measures, I would like to introduce an interesting case occurring in Italy some years ago but which had direct relevance to the point under discussion. In decision handed down on May 2, 1985, the Italian Constitutional Court declared unconstitutional the domestic Italian laws applying the first paragraph of Article 22 of the Warsaw Convention and Article XI of the Hague Protocol.

According to the Italian Court the imposition of limits was a violation of the Italian Constitution, which guarantees of equality of all citizens, and Article 2, which guarantees the respect of human dignity. What the Court criticized was not the limits themselves but the inadequate compensation for the passenger.

Alitalia Airlines is not only a party to the Montreal Agreement of 1966, but it had also unilaterally established a limit of US\$90,000 on its domestic and international flights.¹³²⁾ But in the case of *Balkan Airlines v. Tammaro*¹³³⁾ a tribunal in Milan delivered a decision that ran contrary to the ruling of the Constitutional Court.

G. Guerreri, commenting on these decisions, agrees that the Constitutional court had rightly decided that compensation must be adequate and unquestionable whenever the personal integrity or the supreme asset of "life" has been impaired.

131) Newly amended Conditions of the International Air Transportation in Japan, Article 16(C) (4)(a).

132) See G.R. Baccei, "*La Convention de Varsovie devant la Constitution Italienne*", *Annals of Air and Space Law*, Vol. X, at 217–226.

133) See Decision on October 25, 1976, *Air Law*, Vol. XIII, (1987), at 154.

He asserts that “As the Treaty (of Warsaw) had emanated from a multilateral joint effort, no similar remedy was available, nor could it be considered as, strictly speaking, the provision of the international treaty had not been affected by the Court decision, and they stood valid as between all contracting parties.”¹³⁴⁾

9. Summary on the Limited Liability of Air Carrier under the Warsaw System

The Warsaw Convention, the Hague Protocol, the Guadalajara Supplementary Convention, the Montreal Inter-Carrier Agreement, the Guatemala Protocol, the Montreal Additional Protocols No.1, No.2, No.3 and Montreal Protocol No.4.¹³⁵⁾ is belong to the field of the international private air law. As a fundamental principle of the air carrier’s liability in the international convention and protocols, for instance, in the Warsaw Convention and the Hague Protocol, the principle of limited liability and a presumed faulty system had been adopted.

Subsequently, the Montreal Intercarrier Agreement of 1966, the Guatemala Protocol, the Montreal Additional Protocol No.3, and Montreal Protocol No.4 of 1975 maintained the limited liability, but substituted the presumed liability system by an absolute liability, that is, strict liability system. The Warsaw Convention has been amended many times during the past seventy years in order to increase the maximum amount of liability for damage sustained in case of death or injury of a passenger because of an increasing desire to protect passengers damaged during an international flight.

134) I.H.Ph. Diederiks–Vershoor, “*New Developments Around the Compensation Limits of the Warsaw Convention*”, Essays in Commemoration of Prof. Dr. Doo Hwan Kim’s Sixtieth Birthday, (1994), at 67.; G.Guerreri, “*A Bill on the Limitation of Liability in the International Carriage of Passengers by Air*”, Air Law, Vol.XI, 1986, at 95–96.

135) Doo Hwan Kim, *Some Considerations of the Draft for the Convention on an Integrated System of International Aviation Liability*, Journal of Air Law and Commerce, Vol.53, No.3, (1986), at 765–776.

The Warsaw Convention imposes the burden of proof on the air carrier instead of on the victim, thus presuming the air carrier's fault for personal or property damages caused during international carriage.¹³⁶⁾ The amount of the compensation for damage on a carrier's liability for the death or personal injury of each passenger is limited to the sum of 125,000 Poincaré franc, that is approximately US \$8,300 under the Warsaw Convention, the amount of 250,000 Poincaré franc, that is approximately US \$16,600 under the Hague Protocol, the amount of US \$75,000 (US \$58,000 exclusive of legal fees and costs) under the Montreal Inter-Carrier Agreement, the amount of US \$100,000 under the Guatemala City Protocol and the amount of 100,000 SDR under the Montreal Additional Protocol No.3. However, recently the liability limitation's amount of air carriers to personal damages is trending to increase in order to protect the victims.¹³⁷⁾

Meanwhile, States parties to the Warsaw Convention or subsequent amendments hereof were concerned by the prospect of not having an official price of gold as a result of the modification of the Articles of Association of the International Monetary Fund (IMF).

Montreal Protocol No.4 was to complement the Guatemala City Protocol by revision of the liability limits for cargo under the Warsaw-Hague Convention, while the Montreal Additional Protocol No.1, No.2 and No.3 changed the unit for computing the limits of the carrier's liability under the Warsaw Convention, the Warsaw-Hague Convention and the Warsaw-Hague-Guatemala Convention into Special Drawing Right (SDR), the IMF artificial unit of account based on a basket of leading currencies.

The Montreal Additional Protocol No.3 and No.4 of 1975 provide that the liability of air carrier is limited in case of damage, destruction or loss of cargo to the amount of 17 SDR (approx. US\$21) or 250 monetary units per kilogram unless

136) Cf. Art. 20(1) of the Warsaw Convention: "The carrier shall not be liable if he proves that he and his agents have taken all necessary measures to avoid the damage or that it was impossible for him or them to take such measures."

137) Andreas F. Lowenfeld, *Aviation Law*, Matter Bender, (1974), at 188-189.

a special declaration of value is made and a supplementary amount paid to cover the increased limits of liability.

The Hague Protocol and the Warsaw Convention provided that maximum liability limitation of air carrier to baggage and cargo is 250 francs (17 dollar) per kilogram, but the Montreal Additional Protocols converted from Poincaré franc to SDR system because, under the inflation, it is difficult to adopt Poincaré franc as conventional currency unit.

The abbreviated word of SDR means the Special Drawing Right of International Monetary Fund (IMF). The value of SDR is regarded to be the same with the value of 0.8867 gram of gold of approximated US\$ 1 according to IMF. Agreement, but the value of SDR fluctuated more or less.

Special Drawing Rights are effective paper gold. They were originally devised to supplement the limited supply of gold and to help maintain the growth of reserves in line with world trade. Now SDR is based not on gold but on five different currencies roughly in relation to their international importance.¹³⁸⁾ An International Transport Convention which related closely with the Conventions on air carriage could be mentioned as the United Nations Multimodal Transport Convention of 1980.

Most of air cargo transportation nowadays is conducted in the form of a container, and an air cargo transportation that can be related easily with other means of transportation (road, railroad, sea routes etc.). The UN Multimodal Transport Convention, though it could not come into force yet, will solve various problems arising from multimodal transportation.¹³⁹⁾

Thirty seven years have now elapsed since the conclusion of the Guatemala City Protocol and thirty three years since the four Montreal Additional Protocol No.3.

138) B.G. Jervis, *Aviation Law*, Cambridge, England, 1983, at 3 / 6.

139) William Driscoll, Paul B. Larson, "*The Convention on International Multimodal Transport of Goods*", *Tulane Law Review*, Vol.57. December 1982, at 193–279; Samir Mankabady, "*The Multimodal Transport of Goods Convention; A Challenge to Unimodal Transport Convention*", *The International and Comparative Law Quarterly*, Jan. 1983. Vol.32, Part 1. at 120–140.

Yet relatively few states have ratified either the Guatemala City Protocol or the Montreal Additional Protocol No.3, they are certainly not in sufficient numbers to bring any of them into force.

States mostly wait for a lead from the government of the United States, by far the most important and lucrative market. However, many states had meanwhile become impatient and have unilaterally caused their airlines to raise the limit for passenger injury or death in carriage under either the Warsaw Convention or the Warsaw–Hague–Guatemala Convention to 80,000 or 100,000 SDR or more.

Some airlines have done so of their own accord without prompting ing. Furthermore, Korean Airlines, British Airways, Qantas Airways, Sabena, Air France etc. have already regulated the amount of 80,000–100,000 SDR of the compensation for damage of each passenger in the general conditions of carriage. This amount is related to the Montreal Additional Protocol No.3.

(Doo Hwan Kim, *The International Aviation Law: Regulation of Air Traffic*, supplemented, *The Law of International Relations* published by The Local Public Entity Study Organization, Chuogakuin University in Japan, 1997, at 359–390).

Chapter III. Necessity for the Renovation on the Warsaw System

1. The Necessity for an Integrated System of International Aviation Liability

The Warsaw Convention, though amended many times during the past several decades, remains the sole convention regulating air carriers. The Warsaw Convention contains a set of international principles designed to promote uniformity in resolving legal claims arising out of contracts for international air carriage. The Warsaw Convention, combined with several subsequent conventions and protocols, establishes a complicated international legal system for international carriage by air called the Warsaw system of international carriage by air.

The Warsaw system consists of the Warsaw Convention, the Guadalajara Convention of 1961, a supplementary convention, and the following six protocols; ① the Hague Protocol, ② the Guatemala Protocol, ③ the Montreal Additional Protocol No.1, ④ the Montreal Additional Protocol No.2, ⑤ the Montreal Additional Protocol No.3, and ⑥ the Montreal Protocol No.4.

The Warsaw Convention imposes the burden of proof on the air carrier instead of the victim, thus presuming the air carrier's fault for personal or property damages caused during international air carriage.¹⁴⁰⁾

The Warsaw system places liability for damages suffered in the course of or in the event of an interruption of operation of the aircraft on the air carrier. However,

140) The Montreal Agreement of 1966 adopts the principle of no-fault liability, referred to as strict liability in the Anglo-American legal system.

the Warsaw system does limit the air carrier's liability to a certain amount of money depending upon whether the resulting injury is personal injury or death, or the loss, damage or destruction of cargo.¹⁴¹⁾

The Warsaw Convention has been amended many times to increase the maximum amount of damages for which an air carrier is liable for personal injury, death or property loss because of an increasing desire to protect passengers injured during an international flight.¹⁴²⁾

The Rome Convention of 1933 (the Rome Convention), amended in 1952 and again in 1978, provides for limited liability for damages caused by foreign aircraft to third parties on the surface during international carriage by air.

Like the Warsaw Convention, the Rome Convention imposes no-fault liability (strict liability) on the air carrier. Both the 1952 and the 1978 amendments raised the ceiling on damages, and the 1978 amendment adopted the SDR as the currency unit.¹⁴³⁾ Both the Warsaw Convention and the Rome Convention¹⁴⁴⁾ have played a major role in the international legal system for air transportation.

Many amendments have been proposed to each convention due to the rapid

141) The Warsaw Convention of 1929, the Hague Protocol of 1955, the Montreal Agreement of 1966 and the Guatemala Protocol of 1971 adopted the Gold Franc based upon the gold standard system as the currency unit used to determine the maximum amount of damages. The Montreal Additional Protocol No.1, Protocol No.2, Protocol No.3 and Protocol No.4 of 1975 adopted the Special Drawing Right (SDR), which is the currency unit of the International Monetary Fund (IMF). 1 SDR, the currency unit of the IMF, equalled \$1.27 at the end of 1980, and \$ 1.57 on August 29, 2008, as measured by the foreign exchange rate in the Republic of Korea.

142) Kim, Doo Hwan, *A Study On the Liability of the Air Carrier and the Legislative Problems*, (1984), (JSD Dissertation), [hereinafter Study], at 2-72; T. Sugie, *Gold Franc in the Article 22 of the Warsaw Convention*, 25 J. Air L. [KUHO], (1984), [hereinafter *Gold Franc*]. (Throughout the footnotes, the foreign name for the cited journal will be included in brackets.)

143) Kim, Doo Hwan, *Air carrier's Liability for Damage Caused to Third Parties on the Surface by Foreign Aircraft* (pts. 1-3), The Just. & Admin. [Sabeob-Haengjung] at 29-37 (Aug. 1983), at 49-60 (Oct. 1983) [hereinafter *Air Carrier's Liability*]

144) *See id.* (pts.1 & 2), at 29-3.7(Aug. 1983), 23-33 (Sept. 1983), for the details of the Rome Convention of 1933, the amended Rome Convention of 1952 and 1978, and the legislation of developed countries.

technological developments in aviation, the changes in social and economic environments, the difficulties in proof and discovery of facts, and the need for increasing protection of injured passengers. Not all of the proposed amendments have been enacted, however.

As a result, the international legal system for air transportation is presently complicated and tangled. Since the early 1970s, many aviation law professors and lawyers have tried to integrate and simplify the international legal system for air transportation.¹⁴⁵⁾

The International Civil Aviation Organization (ICAO) and the affiliated organization of the United Nations have finally made a resolution which recognizes the need for a new Draft for the Warsaw Convention to make the Warsaw system more integrated and less complicated.¹⁴⁶⁾ Hopefully, a new proposal for an integrated system can be devised in the near future.

The amount of the limited liability or the compensation for damage caused by aircraft accidents in the Warsaw system is controversial and questionable. The Warsaw Convention contains a set of international principles designed to promote uniformity in resolving legal claims arising out of contracts for international carriage.

The Rome Convention of 1933, amended in 1952 and again in 1978, provided for the limited liability for damages caused by Foreign Aircraft to Third Parties on the Surface during international carriage by air and so adopted the principle of absolute liability.

Both the amendments of 1952 and of 1970 raised the ceiling on the damages, but the amendment of 1978 adopted the SDR as the currency unit.

The liability in the Warsaw system is based on the contract of air carriage, but liability in the Rome Conventions is based on torts.

The Diplomatic Conference also adopted a Resolution calling for consolidation of the instruments of the "Warsaw System" into a single Convention. However, until

145) N.M. Matte, *Should the Warsaw System be Denounced or Integrated?*, 5 *Annals of Air & Space L.*, (1980), at 201.

146) Japan Aviation Ass'n, *Air Transportation* (1981), at 337.

around the end of 1990, not all of the proposed amendments have been effectuated. The Warsaw system is very complicated. Passengers receiving compensation for damages caused in the same aircraft accident have very different rights according to the jurisdiction in question, even though the passengers paid the same fare. This discrimination among passengers can no longer be justified. Air carrier's liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

The aircraft industry is a very complicated assembling industry, it utilizes many people in a variety of jobs, including parts manufacturers, air service suppliers, airport employees, air traffic controllers, governmental agencies, and manufacturers of suppliers of aircraft facilities.

When victims are not satisfied with the limited amount for which an airline is liable under the current limited liability system, they tend to bring claims against the manufacturer of the aircraft or the air traffic controller for the balance of their damages which are not fully compensated by the airline corporations.

The Warsaw Convention does not regulate claims against parties other than the air carriers. Thus the air carrier may take advantage of the liability limitation, while the aircraft manufacturer or air traffic controller cannot. This regards equity and distributive justice. For this reason, we must review the contents of the Warsaw system. The Legal Committee of the International Civil Aviation Organization recognized the need for making out a new Draft for the Convention designed to make the Warsaw system integrated and less complicated.

Professor Bin Cheng asserts, however, that the present air law system could not settle air law problems and disputes without dramatic and comprehensive reforms of the Warsaw Convention. Professor Bin Cheng of London University, chairman of the Air Law Committee of the International Law Association (ILA),¹⁴⁷⁾ and

147) The International Law Association (ILA) was created by law professors and lawyers from around the world in 1873. They wrote the York–Antwerp Rules concerning General Average and other conventions concerning collisions between ships, air transportation, and space law. The ILA, an authoritative research organization as its headquarters in London. It has established branch offices in the U.S.A., France, West Germany, Italy,

Professor Jacqueline Dutheil de la Rochère have written a “Draft for the Convention on an integrated system of international aviation liability covering surface damage cause by foreign aircraft during international carriage by air.”

The Draft for the Convention (the Draft) written by Prof. Bin Cheng places unlimited liability for personal injury or death and limited liability for loss, damage or destruction of cargo caused by an aircraft accident on the international air carrier. The liability is an absolute, secured and channeled liability which imposes a much heavier liability on international air carriers than the existing Warsaw system.

The purpose of Professor Bin Cheng’s Draft is to unify the provisions of the Warsaw Convention which limit air carrier liability under an air transportation contract for personal or property damages and the provisions of the Rome Convention which limit the tort liability of a foreign air carrier for damage caused to third parties on the surface. This proposal calls for the integration and unification of contract and tort liability within one convention.

It could dramatically and fundamentally reform the Warsaw system and could become the basis for unification of international private air law. Thus, it is worthwhile to study the Draft for the Convention even though it is not expected to become an effective convention in the near future. In light of the importance of the Draft, this analysis will now turn to an explanation and brief history of the Draft, including its background, framework, and guiding principles. This analysis will then conclude with comments and my own opinions concerning the Draft.¹⁴⁸⁾

the Soviet Union, Poland, Japan and Korea has more than 4,500 members. The ILA holds its conferences once every two years. The ILA has held its conferences in Hague (1970), New York (1972), New Delhi (1974), Seoul (1986), Warsaw (1988), London (2000), New Delhi (2002), Berlin (2004), Toronto (2006), Rio de Janeiro (2008). The 73rd Conference will be held in Brazil in 2008. Many famous lawyers, law professors, including law professors from Eastern Europe and Russia, chief justices, justice and ministers participated in air law sessions of the ILA during the Paris and Seoul conferences. The organizations under the U.N. participated as observers; Fujita, *The 62nd (1986) Conference of the International Law Association in Seoul*, 85 J. INT’L, L. & DIPL. [Kokusaiho Gaiko Zassi] at 101–03(1987); This article is based upon the materials and information received during the ILA air law sessions in Paris and Seoul; http://www.ila-hq.org/html/layout_conferences.htm

Professor Bin Cheng, former Chairman of the Air Law Committee of the International Law Association (ILA) and Professor Jacqueline Dutheil de la Rochère have made out a Draft for the Convention on an Integrated System of International Aviation Liability covering the contents of the Rome Convention. This new proposal was discussed thoroughly by many aviation law professors, specialists and lawyers in the Air Law Session of the 60th Conference of the ILA held at Montreal, Canada from August 29 to September 4, 1982.

That Draft for the Convention was not adopted, but it was decided that it should remain under continuous analysis and review by the next Air Law Sessions of the ILA. This proposal means the synthesis and integration of contract liability and tort liability within one convention relating to the liability of international air carriers.¹⁴⁹⁾

Furthermore, it could fundamentally reform the Warsaw system and could become the basis for the unification of international private air laws.

A detailed study of the present position and proposals for renovating the Warsaw system exists already in the form of the Alvor Draft for the Convention relating to International Carriage by Air, adopted by the Fourth Lloyd's of London Press International Aviation Law Seminar held at Alvor, Portugal, from 11 to 16 October 1987.¹⁵⁰⁾ The seminar was attended by one hundred and sixteen executives and legal advisers of governments and of the airline, aviation insurance and aerospace industries, as well as members of the legal profession involved or interested in aviation, coming from twenty-seven countries. This Alvor Draft Convention relating to International Carriage by Air has integrated the principal contents of the Warsaw Convention, the Hague Protocol, the Guatemala City Protocol, the MAP. 3 and

148) The proposed Draft was discussed by both aviation law professors and lawyers at the air law session of the 60th Conference of the ILA held at Montreal, Canada from August 29 to September 4, 1982, but was not adopted. Instead, the Conference decided that the Draft should be analyzed and reviewed by the air law session of the ILA. The Draft was heatedly discussed in both the 1982 and 1984 air law sessions of the ILA.

149) Bin Cheng, *Sixty Years of the Warsaw Convention: Airline Liability at the Crossroads* (Part 1), 38(4), *Zeitschrift für Luft- und Weltraumrecht*, (1989), at 319–344.

150) Cf. Proceedings of the Fourth Lloyd's International Aviation Law Seminar (1987).

MAP. 4.

The Draft Convention has also adopted the principle of limited and absolute liability for air carrier's liability. This Alvor Draft Convention will also be of great use in the integration and reunification for the Warsaw system.

The liability of the domestic air carrier in the United States and Japan has adopted the principle of unlimited liability, but such countries as Korea, Germany, France and Italy, and most Latin American countries apply the principle of limited liability in their general conditions of carriage for passengers or aviation law.

This Alvor Draft Convention will be of great help in solving legal problems among passengers, cargo owners, air carriers and underwriters, and in integrating the complicated Warsaw system into one simplified, less complicated Convention.

2. A Brief History of the Draft for the Convention

The Air Law Committee of the ILA has discussed the liability problems of air carriers since the Helsinki Conference of 1966. The air law session of the London Conference of the ILA (1967) initiated a discussion concerning the possibility of an integrated system of air carrier liability. This discussion first raised the issue of the desirability of imposing an absolute, unlimited and secured liability upon air carriers in an effort to deal with the problems of an air carrier's civil liability to passengers and other interested parties.¹⁵¹⁾

Unfortunately, because urgent problems regarding the international legal system for hovercraft and the international regulation of aircraft hijacking took precedent during the 53rd Conference of the ILA in 1968, discussion of an integrated system for air carrier's liability was suspended until 1976.

During the 57th Conference of the ILA held in Madrid in 1976, a report

151) See Report of the *Fifty-Ninth Conference* Held at Belgrade, INT'LL. ASS'N(1982), at 471 – 72.

concerning an integrated system for the liability of air carriers based upon the principles of absolute, unlimited and secured liability was submitted by Canadian Professor R.H. Mankiewicz.¹⁵²⁾

Thus, the air law session of the ILA resumed discussion of an integrated system for air carrier liability. For the purpose of handling this topic, the Air Law Deliberation Committee was established which consisted of such famous air law specialists as Professor H. K. Böckstiegel, Dr. M. Bodenshatz, D. P. Chauveau, Dr. W. Guldimann, Professor R. H. Mankiewicz, Professor N. M. Matte, and Professor R. Nys. The Air Law Deliberation Committee considered a memorandum dealing with an integrated liability system for air carriers submitted by Professor Bin Cheng. In consideration of some opinions presented by the committee, Professor Bin Cheng rewrote the report on an integrated liability system. The revised report was then transferred to the Air Law Deliberation Committee of the 59th Conference of the ILA held at Belgrade on August 19, 1980.¹⁵³⁾ Professor Bin Cheng explained the details of his report to the Air Law Deliberation Committee, but he received much critical opposition.

The Belgrade Conference of 1980 advised that three guiding principles be addressed in future air law sessions.

First, an integrated system of civil aviation liability should be initiated with regard both to damage sustained by passengers or caused to baggage or cargo during international carriage by air, and to damage caused to third parties on the surface by foreign aircraft.

Second, all claims should be channeled through the carrier and the operator of the aircraft respectively.

Third, a carrier's liability for personal injuries, including death, should be absolute, unlimited and secured. The Committee recommended that a Draft be prepared in accordance with Professor Bin Cheng's report and the above three

152) *Id.* at 472.

153) *Id.*

principles before the Montreal Conference of 1982.¹⁵⁴⁾

As a result, a brief Draft was submitted at the 60th Conference of the ILA held in Montreal in 1982. It consisted of four articles written by Professor Mankiewicz in accordance with the above three principles and a detailed Draft consisting of seventy–nine articles written by Professor Bin Cheng with the cooperation of Professor Jacqueline Dutheil de la Rochère. The following section of this article focuses on the detailed Draft written by Professor Bin Cheng.

3. The Background of the Draft for the Convention

The Draft for the Convention proposes a liability principle applicable both to an international air carrier's contract liability for damages caused during air carriage and to a foreign aircraft's tort liability for damages caused to third parties on the surface. The Draft provides that the air carrier or the operator of the aircraft shall bear absolute, unlimited and secured liability and all claims shall be channeled through the carrier and the operator of the aircraft respectively. Such a liability principle seems radical and progressive.¹⁵⁵⁾

3.1. Issues with respect to the Warsaw Convention

Since the conclusion of the Warsaw Convention in 1929, technology has advanced and national incomes have increased. In addition, the value of life and property have increased substantially. Due to changes in economic and social circumstances,

154) *Id* at 473.

155) The background for Professor Bin Cheng's radical proposal may be summarized from the articles written by Professor Bin Cheng, his reports submitted to the Belgrade Convention of 1980 and to the Montreal Convention of 1982, and articles written by Professor K. Fujita; Bin Cheng, *Fifty Years of the Warsaw Convention Where Do We Go From Here?*, (1979), *Zeitschrift für Luft–und Weltraumrecht*, (1979), at 373. [hereinafter *Fifty Years*].

the difficulty in burden of proof, the move from fault liability to absolute liability, and the influence of court judgments regarding aircraft accidents, the Warsaw Convention has been amended many times through protocols, agreements and conventions.¹⁵⁶⁾

Despite its many amendments, the Warsaw Convention has played an important role in air transportation legal problems. At present, 151 countries are affiliated with the Warsaw Convention and 136 countries are affiliated with the Hague Protocols. In addition, in accordance with domestic laws on domestic air transport of the contracting country, the Warsaw Convention extends to non-Warsaw air transportation. Assuredly, the Warsaw Convention is the most important and widely used convention in the area of private aviation law.¹⁵⁷⁾ As to why the Warsaw Convention was accepted worldwide and has lasted so long, my opinions are as follows:

- (1) the Warsaw Convention has provisions for very comprehensive regulations and, unlike the Hague Protocols, it covers passengers and baggage as well as cargo;
- (2) the Warsaw Convention's provisions and regulations are very simple. When a passenger suffers death or personal injury, or cargo or baggage is damaged, destroyed, or lost, the air carrier bears the burden of proof and is presumed

156) *Study Supra* Note 3, at 85. The Warsaw Convention, which concluded in 1929, has been either amended or supplemented through the Hague Protocol of 1955, the Guadalajara Convention of 1961, the Montreal Agreement of 1966, the Guatemala Protocol of 1971 and the Montreal Additional Protocols Nos. 1, 2, 3, and 4. However, the Warsaw system of international carriage by air was complicated by the fact that the Diplomacy Committee of the United States Senate refused to ratify the Montreal Additional Protocols Nos. 3 and 4, which are not yet effective. In my opinion, if the United States had ratified the Montreal Protocols Nos. 3 and 4, Korea and Japan might have ratified them, thereby promoting an amendment to existing aviation laws which would describe the civil liability of air carriers more concretely. In Great Britain, the Carriage by Air and Road Act of 1979 reflects the contents of the Montreal Additional Protocols Nos. 3 and 4. Furthermore, according to a decision of the British Civil Aviation Office, British Airways and British Caledonian Airways incorporated the provisions of the Protocols into the general terms and conditions of their air transportation contracts in April, 1981. *Id.*

157) *Fifty Years, supra* note 14, at 373.

to be at fault. The air carrier's liability is limited, however, to a specified amount of money unless it is guilty of wilful misconduct or gross negligence;

- (3) the provisions of the Warsaw Convention are compulsory and mandatory so they can be effectively applied and efficiently enforced (Convention Article 24). The provisions for compulsory adjudicative jurisdiction (Convention Article 28) make litigation speedy and efficient as well.

While the Warsaw Convention has merit, it also has many weaknesses.

After Second World War, the United States tried to withdraw from the Warsaw Convention, arguing that the maximum amount for air carrier liability was too low and unreasonable. At that time the liability of an air carrier for each passenger killed or injured was limited to \$8,300. Because the maximum limited amount included attorney's fees, which are higher in the United States than in any other country, the maximum limited amount was considered relatively lower in the United States than in other countries. Through mediation with the International Civil Aviation Organization and the International Air Transport Association, the United States cancelled its withdrawal proposal. Due to the attempted withdrawal of the United States, the Montreal Agreement was concluded in 1966.

It provided for absolute liability and raised the maximum amount of liability. Although the Montreal Agreement increased the maximum limited amount nine times to \$75,000, however, the American dissatisfaction with the limited amount continued.

The original drafters of the Warsaw Convention are not to blame for the relatively low amount of limited liability because Article 22, Paragraph 4 of the Warsaw Convention linked the maximum limited amount to the Poincare franc.¹⁵⁸⁾

Instead, governments of member countries are to blame, because they adopted the

158) Article 22, Paragraph 4 of the Warsaw Convention Provides that the sums mentioned in Paragraph 3 shall be deemed to refer to the French franc consisting of 65 and 1/2 milligrams gold of millesimal fineness 900.

official price of gold to measure the maximum limited amount. This limited amount was lower than the amount fixed by the original drafters.¹⁵⁹⁾

Influenced by changes in the currency system, a court upheld a calculation based upon the free market price of gold.¹⁶⁰⁾ As a result, the 21st air law session of the ICAO in 1974 discussed the problem of the conversion of the gold franc into national currencies. A resolution was passed providing that the calculation of foreign exchange should not be based on the free market price of gold.¹⁶¹⁾ Thus, Montreal Additional Protocol Nos. 1, 2, 3 and 4 adopted the Special Drawing Right (SDR) system of the International Monetary Fund instead of the gold franc.¹⁶²⁾ With regard to the maximum amount of air carrier liability, the problem of conversion of the gold franc was solved by adopting the SDR as the measure of the maximum amount. Nevertheless, the Warsaw Convention should be amended more fundamentally.¹⁶³⁾

3.2. Reasons Why the Warsaw Convention Should Be Amended

Many economic and social changes have occurred since the Warsaw Convention

159) K. Fujita, *Some Considerations of Draft Convention on an Integrated System of International Aviation Liability*, 25, J. Air L. [KUHO], (1984) at 89 [hereinafter *Some Considerations*]

160) *Olympic Airways v. Zacoboulos*, IATA Air Carrier's Liability Report No.461, (1974); *Saga v.*, 29 REDA 138 (1973); see Gold Franc, supra note 3, at 1–41, 138.

161) ICAO, Doc. 9131–LC / 173 at 26.

162) The SDR was also adopted as the unit currency of the Convention on Limitation of Liability for Maritime Claims of 1976, the Athens Convention Amendment Protocol of 1976, the Convention Concerning Civil Liability for Oil Pollution Amendment Protocol of 1976, the International Fund for Compensating Damages Caused by Oil Pollution Amendment Protocol of 1976, the UN Convention on Carriage of Goods by Sea of 1978 (Hamburg Rule), the Ship Owner's Liability Limitation Convention Amendment Protocol of 1979, the Uniform Convention Relating to Bills of Lading of 1979 (The Hague–Visby Rule), the UN Convention on International Multimodal Transportation of Goods of 1980, and other maritime conventions. Gold Franc, supra note 3, at 3–4; Kim, Doo Hwan. *A Study on air Cargo Carrier's Liability*. The Shipper No. 17, [Hajoo], (Fall, 1982), at 11–12.

163) *Fifty Years*, supra note 14, at 376. K.H. Böckstiegel, *Coordinating Aviation Liability*, 2 *Annals of Air & Space L.* (1977), at 15 [hereinafter *Liability*].

was effectuated. First, due to the rapid development of science and technology in the aeronautic industry, the age of propeller aircraft transportation is gone. This is the age of transportation by supersonic jet aircraft. Compensation for damages caused by aircraft accidents has increased in dollar amount as well as in volume.

Air carrier liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries. Second, because the aircraft industry is a very complicated assembling industry, it utilizes many people in a variety of jobs, including parts manufacturers, air service suppliers, airport employees, air traffic controllers, governmental agencies, and manufacturers or suppliers of aircraft facilities. When victims are not satisfied with the limited amount for which an airline corporation is liable under the current limited liability system, they tend to bring claims against the manufacturer of the aircraft or the air traffic controller for the balance of their damages which are not thoroughly compensated by the airline corporation. The Warsaw Convention does not cover claims against parties other than the air carriers. Thus, the air carrier may take advantage of the liability limitation, while the aircraft manufacturer or the air traffic controller cannot. This disregards equity and distributive justice.

Third, the liability limitation in the Warsaw system is controversial and questionable. The Warsaw Convention allowed the limitation of air carrier liability because the aircraft business was very dangerous and risky at the time of the Warsaw Convention.

It seemed fair and reasonable that the air carrier should not be fully responsible for all the damages caused by an accident, and that the passenger should bear part of the risk or damage. In light of the developments in technology and safety of air transportation, this reason for the liability limitation does not exist anymore.

Fourth, because the Warsaw Convention is very complicated, the passengers receiving compensation for damages caused in the same aircraft accident have very different rights according to the jurisdiction in question even though the passengers paid the same freight.¹⁶⁴⁾

164) Every country has its own method for determining the damages for which the air carrier

This discriminates among the passengers and cannot be justified anymore. Fifth, insurance poses a problem. Nowadays almost all the damages resulting from air transportation are covered by insurance. The final and ultimate payer of the premium is the passenger or consignor of cargo. The problems of indemnity in insurance law are closely related to social justice problems. Influenced by the development of insurance, some scholars have argued for the principle of absolute liability. When the Montreal Agreement of 1966 adopted the principle of absolute liability, it simplified the procedure for claiming damages. The Warsaw system has played a very important role in the transportation of passengers. Professor Bin Cheng asserts, however, that the present air law system could not settle air law problems and disputes without dramatic and comprehensive reforms of the Warsaw Convention. On the other hand, Professor Karl Heinz Böcksteigel, Professor A. Tobolewski and Esq. Deter Martin have asserted that even partial reform can solve the problems.¹⁶⁵⁾

4. The Plan and Structure of the Draft for the Convention

4.1. Plan

The most serious problem with the current liability system results from the fact that, because of the danger and risk of air transportation at the time of the Warsaw system, the Warsaw Convention focused on the protection of the interests of air

is liable. Therefore, if there is no liability limitation, the amount of money the injured passenger receives depends upon the jurisdiction in question and its criteria for compensation. As a result, the passengers of the same aircraft receive varying and unequal treatment. Thus, discrepancy and inequity among passengers will always exist without some fixed, limited amount of liability per passenger applicable in all jurisdictions.

165) *Liability*, *supra* note 22, at 15; Martin. *After 50 Years of the Warsaw Convention—What Next?* Aerospace (March 1980), at 14 [hereinafter *What Next?*]; A. Tobolewski *Against Limitation of Liability: A Radical Proposal*, 3 *Annals of Air & Space L.* (1978), at 261.

carriers. Nowadays, as a result of increasing technology, the pressure is mounting to impose much heavier liability on the air carrier than before in order to protect the passengers and other consumers. The Draft proposes provisions that are fair to consumers, that protect users such as passengers and that make procedures simple and convenient.

The Draft describes an integrated liability system to the extent that it covers all the civil air carrier's liabilities with respect to damages sustained by passengers or baggage or cargo during an international carriage by air, as well as damages caused by foreign aircraft to third parties on the surface. The reasons for integrating provisions for damages caused by foreign aircraft to third parties on the surface with provisions for damages sustained by passengers, baggage or cargo are as follows:

- (1) the civil operator's liability with respect to the former gives rise to the same or similar problem with respect to the latter;
- (2) the provision of the Amended Rome Convention of 1952 for the civil operator's liability with respect to damages caused to third parties on the surface by foreign aircraft has not worked and;
- (3) although amended at Montreal in 1978, the Warsaw Convention needs sweeping and comprehensive reform in order to solve its fundamental problems.¹⁶⁶⁾

The resolution and recommendation of the air law session of the ILA held at Belgrade in 1980 provided the fundamental problems.

The resolution and recommendation of the air law session of the ILA held at Belgrade in 1980 provided the fundamental framework which unifies and consolidates the civil air carrier's liability with respect both to damages caused to passengers, baggage or cargo based upon the transportation contract and to damages caused to third parties on the surface based upon the concept of tort.

166) K. Fujita, *ICAO's Activity With Regard to Legal Problems and Its Recent Two Years Result*. 26, Jurisprudence J [Hougakoo Zassi], at 504.

4.2. Structure

The Draft for the Convention is divided into two parts. Part One deals with international carriage by air, while Part Two deals with surface damage caused by foreign aircraft. Although both parts are based on the same guiding principles, they could be treated as two separate conventions.

This would enable the two parts to be accepted, if necessary, separately. Part One takes as its point of departure the Warsaw Convention as amended at Hague in 1955, at Guatemala City in 1971, and by Montreal Additional Protocols Nos. 3 and 4. From this point of view, the consolidated text as found in the First Schedule to the United Kingdom Carriage by Air and Road Act of 1979 has been very helpful.

The 1961 Guadalajara Supplementary Convention has also been incorporated into the Draft. Part Two takes as its point of departure the Rome Convention of 1952 as amended at Montreal in 1978. In order to make it easier to compare the Draft for the Convention with the Warsaw Convention, the Draft maintains, where possible, the articles and expressions of the Convention. The articles of the Warsaw Convention which were taken into consideration in the Draft, and the intent and purport of the articles of the Draft, are explained in the official comments to each article of the Draft.

The first part of the Draft consists of forty-one articles, and the second part consists of thirty articles.

The framework of the Draft is as follows:

Part One: International Carriage by Air

Chapter I. Scope—Definitions (Articles I and 2)

Chapter II. Documents of Carriage¹⁶⁷⁾

167) Although it is noted that the Draft for the Convention has more supplementary provisions than the Guatemala Protocol for dealing with the delivery of documents of carriage, they are largely based upon the related provisions of the Warsaw Convention.; K. Fujita, *Draft Convention of an Integrated System of International Aviation Liability Covering International Carriage by Air and Surface Damage Caused by Foreign Aircraft*, 29 *Jurisprudence J. [Hougakoo Zassi]*, (1983), at 120.

Section 1. Passenger Ticket (Article 3)

Section 2. Baggage Check (Article 4)

Section 3. Documents Relating to Cargo (Articles 5 to 16)

Chapter III. Liability of the Carrier (Articles 17 to 30)

Chapter IV. Provisions Relating to Combined Carriage (Article 31)

Chapter V. General and Final Provisions (Articles 32 to 41)

Part Two: Surface Damage by Foreign Aircraft

Chapter I. Principles of Liability (Articles 1 to 10)

Chapter II. Extent of Liability (Articles 11 to 14)

(Because the Draft does not adopt the liability limitation system, the maximum amount provisions presented by the Rome Convention have been omitted in order to provide for unlimited liability);

Chapter III. Security for Operator's Liability (Article 15), (Articles 16 to 19 of the Rome Convention have been omitted because they deal with the scheme of limited liability);

Chapter IV. Rules of Procedure and Limitation of Action (Articles 20 to 22)

Chapter V. Application of the Convention and General Provisions (Articles 23 to 30)

Chapter VI. Final Provisions

5. Guiding Principle of the Draft for the Convention

The two parts of the Draft, one dealing with damage caused during carriage by air and the other with surface damage, are linked because they are both based on the same guiding principles:

- (1) liability for all damage arising during carriage by air or surface damage shall be unlimited;

- (2) this liability shall be absolute and secured, except for damage arising from delay and;
- (3) all claims arising from carriage by air and surface damage caused by foreign aircraft shall be channeled through the carrier and the operator respectively. The following section explains and discusses the guiding principles in more detail.

5.1. Absolute Liability

Since the Guatemala Protocol of 1971 adopted the strict liability principle, the presumption of fault placed on the air carrier has disappeared.

However, opposition to the absolute liability principle still exists.¹⁶⁸⁾ In developed countries, absolute liability has become the controlling liability principle and plays a very important role in determining liability. Articles 17 to 21 of the Draft contain the absolute liability provisions.¹⁶⁹⁾ This absolute liability principle applies to all injury to passengers and cargo or baggage during international carriage by air.

Delay damages, on the other hand, are still governed by the fault presumption principle. Certain exceptions to absolute liability may apply so that the air carrier avoids liability.

For example, the Guatemala Protocol Article 17, Paragraph 2 provides that the air carrier is not liable if damage to baggage results solely from an inherent defect, quality or vice of the baggage. Article 18, Paragraph 2 of the Draft contains four exceptions to the absolute liability principle regarding damage caused to cargo by the following:

- (1) an inherent defect, quality or vice of the cargo;
- (2) defective packing of the cargo performed by a person other than the carrier or his servants or agents;

168) V. Escalada, *Aeronautical Law*, (1979), at 550.

169) *Report of the Sixtieth Conference Held at Montreal*, Int'l L. Ass'n, (1983), at 562–64 [hereinafter *Sixtieth Conference*].

- (3) an act of war or an armed conflict; or
- (4) an act of public authority carried out in connection with the entry, exit or transit of the cargo.¹⁷⁰⁾

In the carriage of passengers, cargo or baggage, if the carrier proves that the person claiming compensation caused or contributed to the damage through negligence, a wrongful act, or an omission, the carrier shall be wholly or partly exonerated from his liability to such person. The burden of proof as well as exemption from liability of the air carrier in the carriage of passengers and cargo are provided for in more detail in Article 21 of the Draft.

5.2. Unlimited Liability

Under the Warsaw Convention of 1929, the Hague Protocol of 1955, the Montreal Agreement of 1966, the Guatemala Protocol of 1971, the Montreal Additional Protocols Nos. 1, 2, 3, and 4 of 1975 and the Amended Rome Convention, the air carrier or aircraft operator bears only limited liability with respect to both personal injury and material loss caused by an aircraft accident.

The limited liability provisions with respect to personal loss (death or injury to passenger) are omitted in the Draft for the Convention of 1982. Adoption of unlimited liability for personal injury was a radical suggestion, which shocked the worldwide air law society and gave rise to continuing arguments among air law scholars.

Opponents emphasize that unlimited liability would make it very hard to calculate and fix the amount of the premiums and the insurable value for international aviation insurance. Professor Bin Cheng counters that the degree of premium increase would be relatively small, and that existing laws already impose unlimited

170) *Id.* at 563; see Fitzgerald, *The Warsaw Convention as Amended by the Montreal Conference on International Air Law*, 1 *Annals of Air & Space L.*, (1976), at. 49–55.

liability on many parties, including manufacturers and corporations.¹⁷¹⁾

In addition, unlimited liability has succeeded with regard to damage caused during domestic transportation by U.S. civil aircraft and even with respect to damage on the U.S. surface caused by British aircraft. Thus, no reason exists for maintaining the limited liability principle only for international carriage by air since the unlimited liability principle works very well for domestic air transportation in the United States.¹⁷²⁾

Unlike the unlimited liability principle for personal loss, the Draft adopts a limited liability principle for loss, damage or delay of cargo or baggage in Article 22.¹⁷³⁾

The maximum amount for limited liability is based upon the currency unit of SDR of the IMF as described in the Montreal Additional Protocol of 1975. The Draft's provisions for limited liability for damage caused to cargo or baggage are derived mainly from the Guatemala Protocol and the Montreal Protocol No.4 except for the following two improvements.

First, the maximum amount of limited liability is increased two or three times. In the carriage of baggage, the limited liability of the in the case of destruction, loss, damage or delay went up to 2000 SDR for each passenger,¹⁷⁴⁾ twice as much as the amount provided for in Guatemala Protocol No.3. For the carriage of cargo, it increased to fifty SDR per kilogram,¹⁷⁵⁾ or three times the amount provided for by

171) *See Some Considerations, supra* note 18, at 98.

172) Materials regarding how much the insurance premium is for domestic air transportation in the United States or Japan, where the unlimited liability principle applies to domestic air transportation, should be collected and analyzed before the Draft is enacted. In addition, materials regarding how much an insurance premium would increase for international carriage by air if the limited liability principle is replaced by the unlimited liability principle should be studied. Although the increase of insurance premiums seems to matter to large airline corporations of developed countries, the same amount of increase might be even more burdensome to the small or medium-sized airline corporations of developing countries.

173) *Sixtieth Conference, supra* note 28, at 564–65.

174) *Id.* at 564.

175) *Id.*

the Montreal Additional Protocol No.4. Such an increase should protect the interests of passengers and cargo owners and induce carriers to improve security over baggage or cargo.

Second, the Draft prescribes that the sum of limited liability specified in Article 21 of the Draft shall not apply if it is proven that the damage resulted from a wrongful act or omission of the carrier, his servants or agents, or acts committed with intent to cause damage. This exception considers the greater burden placed on the air carrier due to the absolute liability principle and to the increase in the maximum amount of limited liability. It brings the article back in line with the deep-seated legal conviction of all civil law systems.¹⁷⁶⁾

5.3. Secured Liability

Although the principle of absolute liability makes the legal procedure more efficient and the principle of unlimited liability for passenger injury or death insures sufficient compensation for victims, they do not make any sense if the air carrier does not bear the liability completely. Thus, the Draft establishes security or guarantee provisions to make sure the air carrier compensates the passenger or consigner thoroughly.¹⁷⁷⁾

The framework of Professor Bin Cheng is developed a three-fold method of

176) *Some Considerations, supra* note 18, at 100.

177) Examples of international guarantees for secured payment are as follows: the Rome Convention of 1952 with regard to Surface Damage Caused to Third Parties by Foreign Aircraft, the OECD Convention regarding Nuclear Accident of July 29. 1960 (the Paris Convention of 1960). the Vienna Convention of 1963 regarding Civil Liability for Nuclear Accident, the Brussels Convention of 1962 regarding Liability of the Operator of Nuclear Ships, the Tanker Owner's Voluntary. Agreement on the Liability on the Liability for Oil Pollution (TOVALOP), the Agreement on Provision Compensation with respect to Tanker Owner's Liability for Oil Pollution, the International Convention on Civil Liability for Oil Pollution Damage of 1969, the International Convention for the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971, the Convention on Space of 1967, and the Convention relating to the Compensation for Damage in Space of 1972.

guarantee involving ① self insurance, ② cooperative insurance and, ③ governmental insurance.¹⁷⁸⁾

According to Professor Bin Cheng's framework, the first step involves the air carrier or the aircraft manufacturer taking self-insurance measures to cover its own liability.¹⁷⁹⁾ In this case, the air carrier or the airplane manufacturer may insure goods as well as take out self-insurance. If the first step is impractical, as its substitute the air carrier and the aircraft manufacturer may purchase compulsory or voluntary insurance through mutual cooperation.¹⁸⁰⁾ If this second step is too difficult, under the third step the government bears the ultimate liability and distributes the risk to all the people in case of damage caused to third parties on the surface.¹⁸¹⁾

Article 35A(1) of the Draft requires every carrier to maintain either insurance or some other form of financial security, including guarantee, covering his liability for such damage as may arise under this Draft in such amount, of such type and in such terms as the national State of the carrier may specify.¹⁸²⁾

The carrier may be required by the State in which he operates to provide evidence that it has fulfilled this requirement by producing appropriate certificates.¹⁸³⁾ This provision replaces Article 35A of the Guatemala protocol on supplementary compensation schemes.¹⁸⁴⁾

One of the most important principles in the integrated liability system is the secured liability principle.¹⁸⁵⁾ Thus, some measures should be taken to insure the air carrier compensates for injuries. The kind of measures taken would depend on the

178) *Fifty Years, supra* note 14, at 382. The Draft adopts a back-up method of guarantee similar to that of the Vienna Convention of 1963 regarding Civil Liability for Nuclear Accident.

179) *Id.*

180) *Id.*

181) *Id.*

182) *Sixtieth Conference, supra* note 28, at 572–73.

183) *Id.*

184) *Id.* at 573.

185) *Id.*

State concerned.¹⁸⁶⁾ The State concerned may specify, at its discretion, the amount, type and terms of the financial security to be provided.¹⁸⁷⁾ In addition, the State may require its air carriers to establish some kind of indemnity club or compensation fund as in the maritime industry.¹⁸⁸⁾ This kind of measure could be accomplished through a multilateral agreement among states and thus be somewhat advantageous to the developing countries which have only small or medium sized airline corporations.¹⁸⁹⁾

A system of secured liability ensures that compensation shall always be effectively paid. In line with precedents set in the field of space activities, Article 35B provides that the State of the carrier becomes the ultimate guarantor if the carrier and any person furnishing financial security pursuant to Article 35A fail to meet their liabilities.¹⁹⁰⁾

Thus, Article 35B makes doubly sure that compensation will always be paid. Since the national State of the carrier will have to ensure that the liabilities of its carriers will be met in full, it is free to arrange the matter in any way it sees fit.¹⁹¹⁾ In light of Article 35A, it is most unlikely that Article 35B will ever be invoked.¹⁹²⁾ But since it depends upon the type of measures the national State of the carrier takes, Article 35B, like the unlimited liability principle, deserves severe discussion during the air law session of the ILA.

186) *Id.*

187) *Id.*

188) *Id.* An indemnity club or compensation fund can act either as a safety net for its participants, or as a form of mutual insurance which will take over the liability of the participants when it exceeds given limits. "In the latter event, limited liability of the carrier can be combined with full compensation to the victims of air accidents." *Id.*

189) *Id.* It would be helpful to get assistance from the ICAO, the IATA or other regional organizations.

190) *Id.* The national State of the carrier also becomes responsible for the liabilities of the carrier in those cases where the State permits its carriers to obtain financial security only up to a specified maxima.

191) *Id.* at 573–74.

192) *Id.* at 574.

5.4. Channeling of Liability

According to the Draft, the channeling of liability is due to the absolute, unlimited and secured liability imposed upon only the air carrier when damage results during international carriage by air. Liability is channeled directly through the air carrier.

But if the carrier has paid compensation under the Draft for the personal injury or the death of a passenger, or for the destruction, loss or damage to baggage or cargo, then such a carrier could acquire by subrogation the rights of the person so compensated against any third party involved in the event that caused the injury or death, or the destruction, loss or damage of cargo.¹⁹³⁾

The channeling of liability to the air carrier lowers the probability that a claimant will look to the aircraft manufacturer and other related persons for damages. As a result, an air carrier may receive indemnity through the London insurance market more easily, speedily and efficiently.¹⁹⁴⁾

In spite of the merits of channeling liability, a serious problem is whether the air carrier who compensated the claimant for the damage can really and efficiently execute the right of subrogation against the third party. On the one hand, the channeling of the air carrier's liability becomes advantageous to the victims of the accident. On the other hand, the air carrier may bear more risk or more burden if execution of the right of subrogation is inefficient and difficult.

193) The provisions detailing channeled liability are derived from the Guatemala Protocol and the Montreal Additional Protocol No.4, and the wording has been borrowed from Article 9 of the 1963 Vienna Convention of Civil Liability for Nuclear Accident. See Y. Yamazaki, *Legislation of Air Cargo Transportation*, No.18 · 19J. Air L. [KUHO], (1976), at 83; The Draft for the Convention, Article 30K Section I stated: “[n]othing in this Draft for the Convention shall prejudice the question recourse against any other person.” *Some Considerations*, *supra* note 18, at 93.

194) *What Next?*, *supra* note 24, at 19.

6. Critiques of the Draft for the Convention

6.1. Major Critiques

Professor Martin Bradley of the Air and Space Law Research Institute, McGill University, played the role of the Secretariat of the 60th Conference of the ILA in Montreal in 1982. He spoke on behalf of Director Nicolas M. Matte, Professor P. Haanappel, Professor Jean-Louis Magdelènat and Dr. Ludwig Weber.¹⁹⁵⁾ Professor Bradley stated that they took issue, not with the Draft, but with the principles underlying it that were agreed on at Belgrade.¹⁹⁶⁾ Another objection to the Draft was that the project was premature.¹⁹⁷⁾ In Bradley's opinion, the United States was on the threshold of ratifying Montreal Additional Protocol No.3 and Montreal Additional Protocol No.4, and it was probable that when the United States ratified, a substantial number of other states would follow suit.¹⁹⁸⁾ Bradley said that it seemed prudent, if this occurred, to see if the Warsaw / Hague / Montreal system would work in practice.¹⁹⁹⁾ Their critical argument on the principles of the Draft concluded with three points.

First, concerning the integrated liability system, disparate subjects are being mixed in the same instrument, and the disparate elements are liable to deter states from ratifying the Draft.²⁰⁰⁾

Second, regarding the channeling of claims, it is unjust to lay this burden solely on the aircraft operator. This solution deprives the victim of alternative and possibly

195) *Sixtieth Conference*, supra note 28, at 586–87.

196) *Id.* at 586.

197) *Id.* at 586–87.

198) *Id.* at 587. The proposal of ratification of the Montreal Additional Protocols Nos. 3 and 4 was submitted to the Senate of the United States, but was rejected March 8, 1983. Tompkins. *The Defeat of the Montreal Protocols in the United States Senate—What Next?*, Lloyd's Aviation L., (Sept. 15, 1983), at 1–6.

199) *Sixtieth Conference*, supra note 28, at 587.

200) *Id.*

superior sources of compensation. A Draft incorporating this principle is unlikely to enjoy sufficient industry support to secure a reasonable number of ratification.²⁰¹⁾

Finally, the principle of absolute, unlimited and secured liability is unacceptable to a large part of the international aviation community.²⁰²⁾ Thus, the Draft, incorporating all three components, would not receive the universal acceptance that is necessary to make it a valid substitute for the Warsaw system.²⁰³⁾

In principle, a provision on secured liability is desirable, but, in so far as it involves states as guarantors, it is premature with regard to the present state of development in international aviation.²⁰⁴⁾

Consequently, it is desirable to maintain the Warsaw Convention as amended through the Montreal Additional Protocols Nos. 3 and 4 for the time being.²⁰⁵⁾ Prof. Dr. M. Milde, Observer for the ICAO, submitted a legal opinion that bitterly criticized the Draft.²⁰⁶⁾ He expressed regret that at present the Draft represents an effort of only a few scholars and that it was not subjected in sufficient time to a more general discussion at a full meeting of the Air Law Committee of the Association.²⁰⁷⁾

Prof. Dr. Milde stated:

I, personally, have some serious misgivings about whether the Draft is mature enough to be presented to a wider discussion in any international forum—such as ICAO or IATA—or whether it could be presented to Governments for further consideration……Consequently, I formally suggest that the Draft be sent back to the Air Law Committee for further consideration, study of economic data, jurisprudence and statistics on claims, so as to permit it to clarify by a wider consensus of the air law experts many issues which, at present, appear to be highly questionable and do

201) *Id.* at 587.

202) *Id.*

203) *Id.*

204) *Id.*

205) *Some Considerations, supra* note 18, at 97–108.

206) *Sixtieth Conference, supra* note 28, at 585–86.

207) *Id.* at 585.

not deserve the full endorsement of the Association.²⁰⁸⁾

Prof. Dr. M. Milde has, in particular, basic doubts, misgivings and questions about the following seven issues:

(a) At 1982 year, eleven years have elapsed since the adoption of the Guatemala Protocol and seven years since the Montreal Conference which adopted Protocols 3 and 4. These documents represent a delicate compromise reluctantly accepted by the international community, and the present indications are that active steps are being taken to bring these instruments into force. It would be unfortunate if the actions by the Association were, in any way, to interfere with the promising trend of recent months which might bring the delicate compromise to a state of ripening and bearing fruit.

(b) Any draft on liability has to take into account a host of economic facts and data and the legal proposals have to be firmly based on a through[sic] economic analysis. I am afraid that it has not yet been done in the forum of the Association. The Draft Convention represents a bold and original effort to unify the law but also, by its consequences, purports to unify the standard of living and cost of living in different parts of the international community.

(c) One of my basic problems is the concept of unlimited liability. In all probability such a concept would be fully acceptable to only one single State of the international community and could hardly represent a basis for unification of law. At the Guatemala City Conference, States have reluctantly, and in the spirit of compromise and accommodation accepted a 'high limit', but only as a part of a package which made that high limit unbreakable under any circumstances.

It appears quite unrealistic to expect that unlimited liability would be acceptable to any significant portion of the international community. Furthermore, 'unlimited liability' is in fact not insurable and no insurer would give a blanket coverage and underwrite unknown risks which might reach astronomic proportions.

(d) I cannot agree that the cost of insurance premiums would represent only 'a

208) *id.*

toothpick in the olive in the martini’—this statement is unsupported by any convincing economic analysis, does not state what is the actual amount of the premiums and how those premiums would be influenced, and also disregards the fact that different airlines have to pay different premiums according to the size of their fleet and the overall record of their operations. There is sufficient proof to state that, in general, the airlines of them developing countries with marginal operations have to pay premiums vastly in excess of those paid by well established airlines of developed countries.

(e) The Draft, in fact, triples the liability for cargo and baggage increasing the liability from 17 SDRs, per kilogram to 50 SDRs, per kilogram. There does not seem to be any economic justification for such an arbitrary dramatic increase, and the Draft may lack, in this respect, credibility. Again, the introduction of the concept of fault in the carriage of cargo and baggage goes contrary to the Montreal Protocol No.4 of 1975; at the Montreal Conference any effort to reintroduce the concept of fault with respect to cargo was soundly defeated, even in case of criminal acts of the carrier or its servants or agents.

(f) In the proposed Article 30L the waiver of immunity by States may be only an example of wishful thinking not supported by the practice of States.

(g) In Article 35B the introduction of ‘State responsibility’ is hardly convincing and no precedents or analogies could be quoted from the area of space law. In the field of space law States have accepted ‘State responsibility’ towards another State but not directly to any individual suffering damage furthermore, such responsibility attaches in fact to State activities for the launching of spacecraft.²⁰⁹⁾

It seems that different viewpoints come from different occupational backgrounds. On the one hand, Prof. Dr. M. Milde has been worked in the Air Law Committee of the ICAO for a long time. Therefore, his opinion is influenced by the present condition of the air industry. On the other hand, Professor Bin Cheng has suggested an ideal and future framework from a scholastic point of view.

209) *id* at. 585–86.

6.2. Counter–reply of the Drafter

Professor Bin Cheng counter–replied to the above critiques. He had forecasted two of the critiques. He forecasted the “appropriate time” problem, in which opponents criticize the Draft because the United States may ratify the Montreal Additional Protocols Nos. 3 and 4. He also foresaw the problem of gaining support from the airline corporations and recognized the need to encourage and persuade, in advance, the airline corporations to support the Draft before delivering it to the States, since the States are reluctant to ratify the Draft at present.

In response to the criticism that the United States may ratify the Montreal Protocols, Professor Bin Cheng asserted that waiting and hoping for the United States to ratify the Montreal Additional Protocols Nos. 3 and 4 is a waste of time. Moreover, since the ILA is a kind of research institute, it is essential, important and inevitable for the members of the ILA to research and discuss the ideal framework to reform the Warsaw Convention dramatically and fundamentally.

Professor Bin Cheng pointed out that it is senseless to say that the United States will not ratify the Draft at present.

For example, the American representative asserted to the Legal Committee of the ICAO in 1965 that it was very difficult for the United States to ratify Rome Convention, since the absolute liability principle prescribed in the Rome Convention was totally contrary to the deep–rooted legal tradition of the United States.

In a scant ten months after that assertion, however, the United States imposed absolute liability on foreign airlines carrying out business in the United States territory in accordance with the Montreal Agreement of 1966.²¹⁰⁾

Thus, Professor Bin Cheng concluded that it is naive to think that each State’s position is unchangeable. The cooperative Drafter Professor J. D. de la Rochère also replied to the critique submitted by Professor M. Bradley.

210) K. Fujita, *A Survey on Compensation for Damage Caused to Passengers by International Aircraft Accidents*, 17 *Jurisprudence J.* (Hougakoo Zassi), at 90.

First, the research on the Draft by the ILA does not have any potential influence upon the possible ratification by the United States of the Guatemala Protocol and the Montreal Additional Protocols Nos. 3 and 4.

Second, the purpose for distributing the Draft to the international organizations was not to make it conclusive, but to take into account the comments or responses made by the international organizations. Third, “unlimited liability” and “liability secured by the States” are not new topics at all. Because the counter-replies submitted by the Drafters are very abstract, the opponents are not satisfied with them. However, the Draft deserves continuous research and discussion.

6.3. Professor K. Fujita’s Opinion

In balancing the burden on the air carrier under the absolute and unlimited liability principle with the interests of the victims, the Draft emphasizes only the responsibility of the air carrier. Professor Bin Cheng considers the burden placed on the air carrier by the Draft small and trivial, but his opponents disagree. Nobody knows how much claims will increase under an unlimited liability principle, particularly in the United States which permits tremendous amounts of compensation for damages.

The inevitable increase in insurance costs will certainly be burdensome to small or medium-sized airline corporations. Without a detailed economic analysis of accident compensation, no conclusion can be drawn regarding the Draft’s effect upon insurance costs.

Since the unlimited liability principle is not the sole solution to meeting both the needs of the air carrier and those of consumers, it is too early to adopt the Draft. The second point to be considered is that under Article 35B of the Draft, the national State of the carrier becomes responsible for the liabilities of the carrier on the premise that the State permits its carriers to obtain financial security only up to a specified maximum.²¹¹⁾

It is questionable that the national State of a private carrier could be the ultimate guarantor of the carriers' business activities. The principle of secured liability should be entrusted to each State for its voluntary decision and should not be enforced by means of the Draft.

Third, channeling liability to the air carrier or the aircraft operator is desirable since such channeling is not too burdensome to air carriers. *De facto* channeling of liability is possible by fixing the maximum amount of liability and giving a domestic supplement to the dissatisfied claimants as under the Guatemala Protocol and the Montreal Additional Protocol No.3.

Finally, the Draft is an integrated system of liability including both damages caused during international carriage by air based on contract and damages caused by foreign aircraft to third parties on the surface based on tort. However, separation of those liability provisions will make a more reasonable and secured liability system. The Draft should differentiate contract liability from tort liability and separate them from each other.²¹²⁾ Because enforcement of the liability principles as prescribed in the Draft will be difficult, it is too early to adopt the Draft.

7. Concluding Remark (Author's Personal Opinion)

I have explained the brief history of the Draft, its background, structure, guiding principles, critiques and counter-replies and Professor K. Fujita's opinion. Now, I would like to present my own opinion. Let me begin with a review of the guiding

211) *Sixtieth Conference, supra* note 28, at 573–74. Article 35B provides: In case where a carrier and the person furnishing financial security pursuant to Article 35A of this Convention both fail to meet their liabilities arising under this Convention, and in those cases where a contracting State permits its carriers to obtain financial security only up to specified maxima, the national State of the carrier becomes responsible for the liabilities of the carrier and of the person furnishing such financial security arising under the present Convention to the extent to which such liabilities have not been met.

212) *Some Considerations, supra* note 18, at 113–16.

principles of Professor Bin Cheng's Draft for the Convention, which proposes to dramatically revise the Warsaw system that has played such an important role in the international carriage by air for more than half century.

First, the "absolute and unlimited liability principle," which has been the hot issue of the Draft, has several problems. Unlimited liability with respect to death or injury of passengers imposes a heavy burden on the air carrier. The international community will not easily disregard the limited liability system, which has existed for fifty years.²¹³⁾

Furthermore, under the unlimited liability principle, the amount of compensation for damages will differ according to the domestic laws of each country.

As a result, the unlimited liability principle underlying the Draft entrusts to the States the selection of the liability system. The large gap in compensation amounts resulting from the application of different domestic laws may lead to international conflict among airline corporations and to dissatisfaction among passengers.

In addition, the unlimited liability principle may give rise to an increase in insurance premiums, which in turn would make air transportation costs increase. Finally, the unlimited liability principle should not apply only to a passenger's death or injury during international carriage by air, since other conventions, including conventions limiting shipowner's liability, the convention on liability of the operators of nuclear ships, and the United Nations' convention on international multimodal transportation, presently apply the limited liability principle.

The Draft is idealistic but not realistic. It is realistic to maintain the limited liability system for the time being, to take the domestic supplement according to the Guatemala Protocol, and, of course, to ratify the Montreal Additional Protocols Nos. 3 and 4.

The second guiding principle of the Draft, the secured liability provisions of Article 35B, ensures that the carrier's liability will be covered. It is unreasonable,

213) The Draft is different from the Warsaw Convention, the Hague Protocol, the Guatemala Protocol and the Montreal Additional Protocols, because it does not prescribe the maximum amount of liability with respect to passengers' deaths or injuries.

however, for a State to be involved in private aviation activities and to become an ultimate guarantor of air carrier liability.

A viable alternative might be the establishment damages under the auspices of the ICAO or the United Nations.²¹⁴⁾

The third guiding principle of the Draft is the channeling of liability to the air carrier or aircraft operator as prescribed in Article 30 of the Draft. Such channeling of liability is necessary and essential to compensate the victims more efficiently and speedily.

The Draft should unify and integrate the complicated framework of the Warsaw system and the Rome Convention regarding an air carrier's liability for damages caused to third parties on the surface by foreign aircraft. The conventions, agreements and protocols which regulate international carriage by air at present are so complicated and divergent that only air law specialists understand the details. Integrating those conventions and agreements into one convention would solve many problems among passengers, cargo owners, air carriers and insurance companies.

In view of the trend to unify private air laws, our efforts to integrate and unify the conventions and agreements in the past might be helpful and play at least a partial role in establishing worldwide uniform law in the future.²¹⁵⁾ The Draft itself, the guiding principles thereof, and the approach used in it, shall be important and essential material for those who are interested in the near future reform of the Warsaw system.

(Doo Hwan Kim, *Some Considerations of the Draft for the Convention on an Integrated System of International Aviation Liability*", Journal of Air and Commerce, Vol.53, No.3, 1988, Southern Methodist University, Dallas, Texas, supplemented, USA. at 765–794).

214) International research and discussion of this alternative could begin with the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971.

215) T. Nogami. *Theory of Air Commercial Law*, (1984), at 3–7.

Chapter IV. The Liability of International Air Carriers in a Changing Era

1. Introduction

The Warsaw Convention of 1929, though amended many times during the past several decades, is the sole convention which contains private-law-based regulations on air carriers, and has therefore played a very important role in establishing an international legal system for international carriage by air. The Warsaw Convention established a set of international principles to promote uniformity in resolving legal claims arising out of contracts for International Air Carriage.

The Warsaw System consists of the Warsaw Convention, the Hague Protocol, the Guadalajara Supplementary Convention, the Montreal Inter-Carrier Agreement, the Guatemala Protocol, the Montreal Additional Protocols, No.1, No.2, No.3 and Montreal Protocol No.4.

The Warsaw Convention imposes the burden of proof on the air carrier instead of on the victims, thus presuming the air carrier's fault for personal or property damages caused during international carriage. The amount of the compensation for damage on a carrier's liability for the death or personal injury of each passenger is limited to the amount of 125,000 Poincaré francs are, that is approximately US \$8,300 under the Warsaw Convention, the amount of 250,000 Poincaré francs, that is approximately mately US \$16,600, under the Hague Protocol, the amount of US \$75,000 (US \$58,000 exclusive of legal fees and costs) under the Montreal Inter-Carrier Agreement, the amount of US \$100,000 under the Guatemala City Protocol and the amount of 100,000 SDR under the Montreal Additional Protocol No.3.²¹⁶⁾

As a fundamental principle of the air carriers' liability in the international convention and protocols, for instance in the Warsaw Convention and the Hague Protocol, the principle of limited liability and a presumed fault system has been adopted. Subsequently, the Montreal Inter-Carrier Agreement of 1966, the Guatemala City Protocol, the Montreal Additional Protocol No.3, and the Montreal Additional Protocol No.4 of 1975 maintained the limited liability, but substituted the presumed liability system by an absolute liability, that is, strict liability system. The Warsaw Convention has been amended many times during the past seventy years in order to increase the maximum amount of liability for damage sustained in the case of death or injury of a passenger, because of an increasing desire to protect passengers damaged during an international flight.

In the international legal system for air transportation, the Warsaw Convention has played a major role, and has been amended many times in consideration of the rapid development of air technology, changes of social and economic circumstances, difficulties in proof and discovery of facts, need for the protection of a victim or an injured party and so on. Some amendments became effective, but others are still not effective. As a result, the whole international legal system for air transportation is at present complicated and tangled.

2. Reasons Why the Warsaw Convention should be Amended

Many economic and social changes have occurred since the Warsaw Convention was effectuated. First, due to the rapid development of science and technology in the aeronautic industry, propeller aircraft transportation has gone. This is the age of

216) Doo Hwan Kim, *Some Considerations of the Draft for the Convention on an Integrated System. of International Aviation Liability*, Vol No.3, Journal of Air Law and Commerce, (1986), at 765; Doo Hwan Kim, *Some Considerations on the Civil Liability of the Compensation for Damages of the Air Carrier*, Vol.3, Soong Sil Law Review, (1987), at 13.

transportation by supersonic jet aircraft.

Compensation for damages caused by aircraft accidents has increased in dollar amount as well as in volume. An air carrier's liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

Secondly, when victims are not satisfied with the limited amount for which an airline corporation is liable under the current limited liability system, they tend to bring claims against the manufacturer of the aircraft or the air traffic controller for the balance of the damages which are not thoroughly compensated by the airline corporation. The Warsaw Convention does not cover claims against parties other than the air carriers. Thus, the air carrier may take advantage of the liability limitation, while the aircraft manufacturers or air traffic controllers cannot. This disregards equity or distributive justice.

Thirdly, the liability limitation in the Warsaw System is controversial and questionable. The Warsaw Convention allowed the limitation on air carrier liability because the aircraft business was very dangerous and risky at the time of the Convention. It seemed fair and reasonable that the air carrier should not be fully responsible for all the damages caused by an accident, and the passenger should bear part of the risk or damage. In the light of the development in technology and safety of air transportation, this reason for the liability limitation does not exist any more.

Fourthly, because the Warsaw Convention is very complicated, the passengers receiving compensation for damages caused in the same aircraft accident have very different rights according to the jurisdiction in question, even when they have paid the same freight. This discriminates among the passengers and can no longer be justified.

Fifthly, insurance poses a problem. Nowadays almost all the damages resulting from air transportation are covered by insurance. The final and ultimate payer of the premium is the passenger or consignor of cargo.²¹⁷⁾

The problems of indemnity in insurance law are closely related to social justice problems. Influenced by the principle of absolute liability, however, the present air law system could not settle air law problems and disputes without a dramatic and comprehensive reform of the Warsaw Convention.

3. The International Conference for the Reform of the Warsaw System

Many amendments have been proposed to each Convention, due to the rapid high – technological developments in aviation, the changes in the social and economic environment, the difficulties in the proof and the discovery of facts, and the need for increasing the protection of injured passengers. As a result, the international legal system for air transportation is at present complicated and tangled. Since the early 1970's, many aviation law professors and lawyers have tried to integrate and simplify the international legal system for air transportation.

There are many changes in economic and social circumstances, because more than half a century has passed since the Warsaw Convention was effectuated.

The aircraft industry is a very complicated assembling industry, it utilizes many people in a variety of jobs, including parts manufacturers, air service suppliers, airport employees, air traffic controllers, governmental agencies, and manufacturers or suppliers of aircraft facilities.

The Legal Committee of the International Civil Aviation Organization has made a resolution which recognizes the need to make a new Draft for the Convention, to integrate the Warsaw system and make it less complicated.

Professor Bin Cheng, Chairman of the Air Law Committee of the International Law Association (ILA) and Professor Jacqueline Dutheil de la Rocher have made a

217) See Some Considerations of the Draft, *supra* note 2, at 775.

Draft for the Convention on an Integrated System of International Aviation Liability covering surface damage caused by foreign aircraft during international carriage by air.²¹⁸⁾

The Proposal was discussed by many air law professors, specialists and lawyers at the Air Law Session of the 60th Conference of the ILA held in Montreal, Canada from Aug. 29 to Sept. 4, 1982. The Draft for the Convention was not adopted, but it was decided that it should be under continuous analysis and review by the next Air Law Session of the ILA. The Proposal means the synthesis and unification of contract liability and tort liability within one Convention.

A detailed study of the present position and proposals for renovating the Warsaw system exist already in the form of the Alvor Draft Convention relating to International Carriage by Air, adopted by the Fourth Lloyd's of London Press International Aviation Law Seminar held in Alvor, the Algarve, Portugal, October 11–16, 1987. The Seminar was attended by 116 executives and legal advisers of governments and of the airline, aviation insurance and aerospace industries, as well as members of the legal profession involved or interested in aviation, from 27 countries.²¹⁹⁾

This Alvor Draft Convention Relating to International Carriage by Air has been integrated by the principal content of the Warsaw Convention, the Hague Protocol, the Guatemala Protocol, the Montreal Additional Protocol No.3 and the Montreal Additional Protocol No.4 and has also adopted the principle of the limited liability and the absolute liability system.

218) See *Report of the Sixtieth Conference Held at Montreal, Canada*, International Law Association, (1982) at 553–557; Bin Cheng, *Sixty Years of the Warsaw Convention: Airline Liability at the Crossroads (Part I)*, *Zeitschrift für Luft- und Weltraumrecht*, Vol.38, No.4, Köln, (1989), at 319–344.

219) S. Miyoshi, *Alvor Draft Convention (Professor Bin Cheng's Draft Convention Amending the Warsaw Convention System)*, *Journal of Air Law [KUHO]*, No.31, (1990), at 3.

4. The Prospect of the Ratification of the Montreal Additional Protocols No.3 and No.4 by the United States

Nowadays many states are greatly interested in ratifying the Montreal Additional Protocol No.3 (MAP.3) and Montreal Additional Protocol No.4 (MAP.4), whether the United States ratifies these Protocols or not. The United States had failed in 1983 to give its approval to MAP.3 and MAP.4. Consequently, many states were uncertain whether they should go ahead and seek to bring these two Protocols into force without the United States, or wait for another lead from the United States, or abandon the Warsaw system altogether.

MAP.3 contains a provision which permits a state to a Supplemental Compensation Plan that will provide a procedure for swift and efficient compensation for passengers killed or injured in international air transportation. On June 24, 1988, the Department of Transportation of the United States proposed that the Senate ratify MAP.3 and MAP.4 with a Supplemental Compensation Plan, in order to protect US citizens.

On November 15, 1989, the Committee on Foreign Relations of the United States Senate held another hearing to discuss the Protocols and the provisions of the new Supplemental Compensation Plan. At the hearing were representatives of the Departments of State, Justice, and Transportation, and airline industry leaders, as well as spokes persons for various associations of this Committee.

On June 21, 1990, the Committee voted to report MAP.3 and MAP.4 favorably to the Senate for advice and consent. If the said Protocols are ratified by the Senate, many countries and airlines in the world will be affected.²²⁰⁾

1990 The United States Senate Foreign Relations Committee Votes 13–2 in favour of agreeing to ratification of the Montreal Additional Protocol

220) 101st United States Congress, 2nd Session June 28, Senate Exec. Report, 101–21; Montreal Additional Protocols No.3 and No.4, 1990, at 2–6; Doo Hwan Kim, *“Liability of Governmental Bodies in International Civil Aviation”*, The Highways of Air and Outer Space over Asia, Chia–Jui Cheng and Pablo Mendes de Leon (editors), Martinus Nijhoff Publishers, (1992), at 188.

No.3. Nothing happens in the Senate.

1991 The United States Senate Foreign Relations Committee again votes 13–2 in favour of agreeing to ratification of the Montreal Additional Protocol No.3. Again, nothing happens in the Senate.

1992 The United States Senate adjourns without considering or voting on the Montreal Additional Protocol No.3.

1993 The Montreal Additional Protocol No.3. languishes in the United States Senate un-acted upon.²²¹⁾

1998 The United States had ratified the Montreal Protocol No.4

As of February 2007, only twenty one nations had ratified the Montreal Additional Protocol No.3.

Thirties ratification are required before the Protocol can enter into force. The “rest of the world” has been waiting for the United States to ratify the Montreal Additional Protocol No.3 for nearly twenty years. The Montreal Additional Protocol No.3 represents the most “recent” product devised at the urging of the United States to amend the 1929 Warsaw Convention limit of liability. The efforts of the United States commenced in the early 1950’s, but to date have accomplished nothing, with the United States failing even to ratify those instruments which it devised—the 1955 Hague Protocol and the 1975 Montreal Protocol No.3.

Meanwhile, throughout the world and most noticeably in Japan and in the United States, two countries where there are no artificial liability limits on recoverable damages in personal injury and death cases arising out of domestic air transportation or otherwise,⁷ damage awards have escalated with growing economies to the point where, even in 1975, the Montreal Additional Protocol No.3. limit of liability of 100,000 SDR (approximately \$140,000) was unacceptably low.²²²⁾

221) George N. Tompkins, Jr. “*Unlimited Liability: Japan and Beyond*”, (unpublished article: Talk given by George N. Tompkins Jr. on March 4, 1993 to the Insurance Institute of London), at 8.

222) *Id.* at 9.

It is small wonder, therefore, that the airlines of Japan, tired of waiting so long for some light from the West (ratification of the Montreal Additional Protocol No.3. by the United States), took matters into their own hands and shed some meaningful light on the rest of the world simply by using the 1929 Warsaw Convention mechanism in Article 22(1) to waive all applicable limits of liability for their passengers.

The Ministries of Transportation and airlines of Asian countries must pay continuous attention to the ratification of Protocols No.3 and No.4 with Supplemental Compensation Plan by the US Senate.

5. The Adoption of the Unlimited Liability System by Japan's Airlines

5.1. The Legal Aspects of Japan's Airlines

Japanese airline firms would become the world's first to remove a ceiling on the amount of compensation granted to victims of accident on international air routes. From November 20, 1922, following Japanese Ministry of Transport approval, the ceiling on international air routes of 100,000 special drawing rights, or approximately ¥17 million, will cease to exist. This comes ten years after a decision to remove a similar ceiling on redress to victims on domestic flights.²²³⁾

Japan Airlines, All Nippon Airways, Japan Air System and seven other firms operating regular international flights applied to the Japanese Ministry of Transport for approval of their plans to remove the ceiling.

Although the compensation ceiling on Japan's domestic routes was lifted in 1982, the lifting of the upper limit on international routes has been delayed because of the need to strike a balance with the limits set by various foreign countries. The

223) *Asahi Daily News*, November 10, 1994, Tokyo, Japan.

Japanese airline companies set the ¥17 million ceiling on compensation to victims on international air routes in 1981. Even though this amount is high by world standards, it has been criticised as too low compared with compensation paid to victims of car accidents.

An international ceiling of about ¥1.2 million was set in 1929 and was boosted to about ¥2.4 million in 1955. However, airline firms were allowed to raise the ceiling.

Among existing limits, the roughly ¥18 million implemented by some European airline companies tops the list. US airline firms operate with a compensation ceiling of about ¥9 million.

In an unprecedented move, the airlines of Japan, effective November 20, 1992, amended their conditions of carriage to waive the limitations of liability for Article 17 passenger injury or death provided by Article 22 of the Warsaw Convention/Hague Protocol/Montreal Agreement as to passengers carried on aircraft of the airlines of Japan.

The mechanism for this waiver has been present in Article 22 (1) of the Warsaw Convention since it was adopted over 70 years ago. Dr. George N. Tompkins pointed out that the disparity between the Convention limitations of liability and damage awards in domestic cases, whether as a result of accidents occurring during non-convention carriage or non-aviation accidents, has become very great in Japan in recent years and, indeed, in many other countries, including the United States.

The proposed increase in Convention limits contained in the un adopted 20-year old Montreal Additional Protocol No.3 would not serve to bridge the increasing gap of disparity to any appreciable extent.²²⁴⁾

The airlines of Japan have waived any applicable limit of liability provided by the Warsaw Convention, the Hague Protocol or the 1966 Montreal Agreement, for passenger personal injury or death which is caused by an accident within the

224) See “Unlimited Liability”, *supra* note 7, at 1.

meaning and scope of Article 17 of the Warsaw Convention.

With respect to the waiver of the applicable limit of liability, the Warsaw Convention has been reinstated but only for claims that exceed 100,000 SDR. For claims up to 100,000 SDR, the present waiver of the Article 20(1) defences remains in effect.

The new regime of unlimited liability for the airlines of Japan has come about by a simple amendment to existing conditions of carriage and passenger rules tariffs.

If the carrier and the passenger may agree to a higher limit of liability than that set forth in Article 22 of the Convention, then there certainly is no reason why the carrier cannot waive the convention limit entirely and unilaterally.

5.2. Legal Relations between Japan's Airlines and the United States

An application to amend the existing conditions of carriage to effect the waiver was granted by the Ministry of Transport of Japan on November 16, 1992 and the amended conditions of carriage became effective on November 20, 1992.

The Department of Transportation (DOT) of the United States, on December 30, 1992, effectively endorsed the waiver as being "consistent with the public interest" of the United States, when the DOT granted All Nippon Airways (ANA), one of the participating airlines of Japan, an exemption from compliance with the regulations and foreign air carrier permit conditions relating to the Montreal Agreement. In granting the exemption, the DOT concluded:

We have decided to grant ANA an exemption from the provisions of 14 CFR Part 203, section 213.7 and the provisions of its foreign air carrier permit and related exemptions, to the extent necessary to allow ANA to remove its limits of liability for passenger injury and death. ANA would continue to waive the defence under Article 20(1) only for that portion of a claim up to 100,000 SDRs.

While Agreement 18,900 binds the parties to a liability limit of not less than

\$75,000 (US) under Article 22(1) of the Warsaw Convention for passenger injury and death, it was not intended to preclude the waiver of the limitations of liability for higher amounts, or to unlimited liability as proposed here, in a manner which would benefit the travelling public in the form of additional protection. Therefore, we find that the relief sought by ANA is consistent with the public interest.²²⁵⁾

Similar exemptions were granted by the DOT on February 11, 1993 to Japan Airlines, Japan Asia Airways, Japan Air Charter and World Air Network, all participating air carriers of Japan.

5.3. The Motivation of Japan's Airlines for Adopting the Unlimited Liability System

The motivation for this development in Japan is primarily cultural and ethical. The liability limit for domestic air transportation was abolished in Japan in 1982. In 1981, Japan's airlines had established a limit of liability of 100,000 SDR for international air transportation by conditions of carriage, the same limit established by the Montreal Additional Protocol No.3 of 1975. By 1992, even 100,000 SDR was regarded as too low a limit of liability in Japan, although the Montreal Additional Protocol No.3 had not yet come into force.

The Civil Air Law Research Institute, comprising scholars, officials of the Ministry of Transport of Japan and the Ministry of Foreign Affairs, representatives of the airlines of Japan and the insurance industry, concluded after extensive study that the passenger liability limit for international air transportation should be abolished by amendment to the existing conditions of carriage since it had proved extremely difficult to achieve meaningful amendment to the Warsaw Convention.

Furthermore, the current international air transportation limit of liability was considered to be very low when compared with recent damage standards for personal injury and death in Japan in non-international air transportation cases.²²⁶⁾

225) George N. Tompkins, *Supra Note 7*, at 6.

A review of the history of the Convention limits of liability and damage standards in Japan illustrates clearly why the conclusion of the Institute in Japan and the decision of the airlines of Japan, were necessary and were correct for Japan.

1929 Warsaw Convention signed by Japan. Liability limit – \$8,300.

1953 After ratification, Warsaw Convention entered into force in Japan.

1956–1955 Hague Protocol signed by Japan. Liability limit – \$16,600.

1965 United States denounced Warsaw Convention because of unrealistically low limit of liability of \$8,300. (United States signed but did not ratify 1955 Hague Protocol).

1966 Two major aviation accidents occurred in Japan during international air transportation involving non–Japanese air carriers (CPAir and BOAC) and Japanese passengers. Japanese passengers cases eventually required to be settled at double the Hague limits of liability – i.e. approximately \$33,000.

1966 United States forced Montreal Agreement on world’s airlines, as an interim measure, as a condition to withdrawal of notice of denunciation of Warsaw Convention. Limit of liability \$75,000, plus waiver by air carriers of Article 20(1) defences.

1967 The 1955 Hague Protocol amending the Warsaw Convention entered into force in Japan.

1971 Montreal Additional Protocol No.3 evolved. Liability to a limit of 100,000 SDR – unbreakable for any reason.

1975 Strict liability of air carrier.

1981 Airlines of Japan, by conditions of carriage, raised Convention liability limit to 100,000 SDR.

1982 Liability limit for domestic air transportation in Japan was abolished but liability limit of 100,000 SDR was retained for international but non –

226) Sakamoto Teruo, “*The 1992 Initiative of Japanese Airlines on Passenger Liability System*”, Essays in Commemoration of Prof. Doo Hwan Kim’s Sixtieth Birthday, (Seoul, Korea), (1994), at 69; Koichi Abe, “*The So – Called Japanese Initiative: Japanese Airline’s Abolition of Liability Limits for Personal Injury or Death in International Carriage by Air*”, Vol.6, The Korean Journal of Air Law, (1994), at 152–155.

Convention transportation such as, for example, Bangkok–Tokyo.

1983 United States Senate failed to agree to ratification of the Montreal Protocol No.3. The vote was 50–42 in favour, with one Senator present not voting, 62 votes in favour (two–thirds of the Senators present for the vote were required to agree to ratification).

1985 The largest single aircraft disaster in history occurred on Mt. Osutaka in Japan during the course of domestic air transportation. 505 passengers were killed and four survived. The settlements of the claims in Japan will eventually average approximately \$800,000 per passenger.²²⁷⁾

The waiver of the applicable Convention limit of liability extends only to passengers travelling on aircraft operated by the airline of Japan which has waived the limit of liability by amendment of the condition of carriage approved by the Ministry of Transport of Japan. The waiver of the applicable limit of liability will apply only with respect to passengers on an airline of Japan. The waiver will not apply to passengers travelling to and from Japan, or elsewhere, on non–Japanese airlines, even if the passenger is a Japanese citizen.

The airlines of Japan who have joined in this initiative have no desire or intent to force other non–Japanese airlines to follow in their footsteps. Faced with a particularly Japanese problem—the disparate damages available in domestic and international cases—the airlines of Japan have taken appropriate and legally proper steps to solve the problem, regardless of the reaction of the rest of the world’s aviation community. While it is fair to assume that the airlines of Japan would hope that their action might spur other major international air carriers to do likewise, for the sake of international harmony there is no desire to coerce other carriers to do so, directly or indirectly.

227) See “Unlimited Liability”, *supra* note 7, at 13.

5.4. The Prospect of the Unlimited Liability System by Japan's Airline

The initiative of the airlines of Japan hopefully represents a new beginning, particularly as the 40 year drive supported by the United States to bring into force a meaningful amendment to the Warsaw Convention limit of liability has resulted in no progress at all, and has threatened the very existence of the Warsaw Convention system of liability.

The waiver of the applicable Convention limit of liability by the airlines of the major aviation nations of the world is long overdue. It is a new approach. It should be considered seriously by all, particularly by those airlines of nations which, like Japan, do not have liability limits on recoverable damages in domestic aviation, such as, for example, the United States.

Dr. George N. Tompkins has emphasized that the Order of the United States DOT of December 30, 1992, approving as in the "public interest" the waiver by ANA of the Convention limit of liability, evidences perhaps that all the benefits of the "Light from the East" can be recognized, and will be followed by the airlines of the West. If the Japanese initiative is embraced by the airlines of the United States, then it would be fair to conclude that the Warsaw Convention system of air carrier liability will be preserved in the United States.

It was a good international choice of law rule when adopted in 1929.²²⁸⁾ But for the provision attempting to impose an international uniform limit of liability for passenger personal injury of death on all parties, the Convention remains a good international choice of law rule today and for the future.

228) George N. Tompkins, *supra* note 7, at 14.

6. A Decision of the Italian Constitutional Court and Conditions of Air Carriage in Europe

Before commenting further on the Japanese measures, I would like to mention an interesting case which occurred in Italy some years ago, but which had direct relevance to the point under discussion. In a decision handed down on 2 May 1985, the Italian Constitutional Court declared unconstitutional the domestic Italian laws applying the first paragraph of Article 22 of the Warsaw Convention and Article XI of the Hague Protocol. According to the Court, the imposition of limits was a violation of Article 3 of the Italian Constitution, which guarantees equality of all citizens, and Article 2, which guarantees the respect of human dignity.²²⁹⁾

What the Court criticized was not the limits themselves but the inadequate compensation for the passenger. Alitalia is not only a party to the Montreal Agreement of 1966, but it had also, in October 1981, unilaterally established a limit of US \$90,000 on its domestic and international flights.

In the case of *Balkan Airlines v. Tammaro*, however, a tribunal in Milan (Italy) delivered a decision that ran contrary to the ruling of the Constitutional Court.

Dr. Guerreri, commenting on these decisions, agrees that the Constitutional Court had rightly decided that compensation must be adequate and unquestionable whenever the personal integrity or the supreme asset of “life” have been impaired.

He asserts that “As the Treaty (of Warsaw) has emanated from a multilateral joint effort, no similar remedy was available, nor could it be considered as, strictly speaking, the provisions of the international Treaty had not been affected by the Court decision and they stood valid as between all contracting parties.”²³⁰⁾

229) I.H.Ph. Diederiks–Vershoor, “*New Developments Around the Compensation Limits of the Warsaw Convention*”, Essay in Commemoration of Prof. Dr. Doo Hwan Kim’s Sixtieth Birthday, (1994), at 7.

230) See G.R. Baccelli, “*La Convention de Varsovie devant la Constitution*”, *Annals of Air and Space Law*, Vol.X, 1985, at 217–226; G. Guerreri, “*The Warsaw System Italian Style: Convention Without Limits*”, *Air Law*, Vol.X, (1985) at 294–305; “*Decision of 25 October 1976*, *Air Law*, Vol.XII, (1987), at 154.

Faced with this situation, the Italian Government produced a remedy in the form of a Bill with wide-ranging scope, which was in reality intended to repair international relations that had been so seriously impaired. Article 2 of this Bill provides an increase in the liability limit to the level set forth in the Guatemala Protocol, ratified by Italy by Law No.43 of 6 February 1981. The instruments of ratification were deposited on 26 March 1985.²³¹⁾

There have been two different motivations for adopting the amount of 100,000 SDR as a limit. One was that the amount of US \$75,000 including costs (or US \$58,000 in courts where legal costs could be awarded in addition) as agreed in the Montreal Agreement, was considered too low in relation to the actual personal injury and wrongful death compensation levels.

The other was that 100,000 SDR was the highest figure on which there seems to be a world-wide consensus. In addition, some countries, for example Japan and the United Kingdom, have already enacted the policy of increasing international personal liability limits to that figure.

I would like to point out that Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Luxembourg, Norway, Spain, Sweden, Korea, Switzerland, the Netherlands and the United Kingdom have adopted a 100,000 SDR limit, either voluntarily or compulsorily, and British Airways has even gone to 130,000 SDR.

Where there has been compulsion this has either been imposed by the national aviation authority on its carriers, or by legislation. All carriers flying into or out of Italy have to stipulate to a liability limit of 100,000 SDR and show proof of adequate passenger legal liability insurance cover pursuant to the Law No.274 of 7 July 1988.

That law was passed after the Italian Constitutional Court declared the Warsaw–Hague limits of liability unconstitutional in the case of *Coccia v. Turkish Airlines* (Constitutional Court, 2 May 1985), (Decision 132, 1985), (1985 Dir. Mar. 751).²³²⁾

231) See I.H.Ph. Diederiks–Vershoor, *supra note 7*, at 7; see also G. Guerreri, “A Bill on the Limitation of Liability in the International Carriage of Passengers”, *Air Law*, Vol. XI, (1985), at 95–96.

Prof. Dr. I.H.Ph. Diederiks–Vershoor pointed out that in the light of all this, the question arises: Are these actions by Japanese, Italian and other companies to increase the limits of compensation based on the Warsaw system compatible with this system or not?

The last sentence of Article 22, para. 1 permits that “Nevertheless, by special contract, the carrier and the passenger may agree to a higher limit of liability.”²³²) Moreover, Article 23 of the Warsaw Convention says: “Any provision tending to relieve the carrier of liability or to fix a lower limit than that which is laid down in this Convention shall be null and void, but the nullity of any such provision shall not involve the nullity of the whole contract, which shall remain subject to the provisions of this Convention” (emphasis added).

On the basis of this text, it can be argued, *a contrario*, that it is permissible for a carrier to fix a higher limit than that which is laid down by the Warsaw Convention. The Hague Protocol has only added an exception for cargo, so for passengers the old text of Article 23 of the Warsaw Convention is applicable.

The trouble is, however, that the clause containing the special provision has been repeated in the Hague Protocol, but not in the (not yet effective) Guatemala Convention of 1971.

The above interpretation seems to be quite sustainable and reasonable. In the Guatemala Convention the liability limits were considered as unassailable, no matter what circumstances had given rise to the carrier’s liability. Article 23 was also deleted from that Convention. We may therefore safely conclude that it is permissible for airline companies to increase the limits in favour of the passenger. The drawback is, of course, that in doing so the uniformity in compensation payments, which had already been dented will be jeopardized even more.

Professor Dr. I.H.Ph. Diederiks–Vershoor has explained that an important phenomenon needs mentioning in this context: the “punitive damages” existing

232) I. Awford, “*Handling the Legal Consequences of Aviation Disasters’ Passengers’ Compensation*”, *Zeitschrift für Luft- und Weltraumrecht*, Köln, Vol.41, (1992), at 17–40.

233) *Id.* at 8.

under Anglo–Saxon law, side by side with the damages as a retribution or fine because actions or negligence are deemed to be so flagrant that a “financial” punishment is called for. Also worth mentioning are the special features of Japanese claims, which became apparent when a New Zealand aircraft crashed on Mount Erebus in 1978.²³⁴⁾

According to Korean and Japanese ideas, airlines should not only pay compensation to passengers immediately after an accident, but also so–called “condolence” money to the next–of–kin.

Condolence money is a gift to help a dead person’s spirit in the hereafter it is given for the grief and sorrow suffered by the next–of–kin, and it has risen considerably over the years. The total amount of the Korean and Japanese claims in the case of death is calculated on the basis of the loss of earned income, funeral expenses and material damage (baggage, etc.), plus condolence money.

7. Conclusion

At the end of this brief survey, one is forced to conclude that, at the moment, we are facing a situation where some countries have no limits of compensation, while others (e.g. the domestic flights of the USA) maintain higher limits than the Warsaw Convention prescribes. In addition, in domestic air transportation, limits lower than the Warsaw Convention’s are occasionally applied.

It is of course evident that there are strong links between liability and insurance, and it must also be emphasized that an air carrier’s dependence on insurance is often a major factor affecting the compensation limits, especially for carriers in developing countries. But with inflation rampant worldwide, it would seem most commendable, if not indispensable, to raise the limits to a higher uniform level.

234) For details see M.A. Vennell, *“Report of the Royal Commission to Enquire into the Crash on Mr. Erebus, Antarctica, of a DC 10 Aircraft Operated by Air New Zealand Limited”*, Air Law, Vol.IV, (1981), at 254–259.

That would be fairer for passengers choosing to travel by air.

Many economic and social changes have occurred since the Warsaw Convention was effectuated. Science and high-technology in the aeronautic industry has advanced and national incomes have increased. In addition, the value of life and property has increased substantially. The amount of compensation for damage caused by aircraft accident has increased in dollar amount as well as in volume.

When victims are not satisfied with the limited amount for which an airline corporation is liable under the current liability system, they tend to bring claims against manufacturers of the aircraft and airport employees, air traffic controllers or governmental agencies for the balance of their damages which are not thoroughly compensated by the airline corporation.

The damage for which air carriers should be liable, and therefore should compensate, includes loss of expectation of leisure activities because of aircraft accident, as well as damage to or loss of property, mental loss, physical loss, etc.

Even the Warsaw Convention does not cover claims against other parties than the air carriers. The Warsaw Convention is very complicated passengers receiving compensation for damages caused in the same aircraft have very different rights according to the jurisdiction in question, even though they have paid the same freight. This discriminates among the passengers and can no longer be justified.

The United States and Japan have applied the system of unlimited liability, but Korea, Germany, France, Italy and most of the nations of Latin America have adopted the limited liability during around the 1990~2000 years. The Republic of Korea has adopted the unlimited liability system so as to change of the transport conditions of Korean Air and Asiana Airlines in 1997.

In order find a rational solution to disputes between nations which have adopted differing liability systems in international air transportation, we need to reform the liability of air carriers within the Warsaw Convention dramatically and fundamentally, to unify the liability system among the nations.

The 28th Session of the Legal Committee, ICAO, held in Montreal, May 11-22,

1992, established the following General Work Programme, subject to approval by the council.

- (1) Action to expedite ratification of the Montreal Protocol No.3 and 4 of the “Warsaw System.”
- (2) Study of the instruments of the “Warsaw System”.²³⁵⁾

The said Committee elected to reconfirm its concern with the present statutes of the “Warsaw System” by reassigning the highest priority to those items. It would be advisable for the Legal Committee of International Civil Aviation Organization, as a principal body in the air law field, to produce an international instrument that would serve as a model for domestic legislation. We need to revise the Warsaw system fundamentally, with regard to the liability of air carriers, in order to enact a new Draft for the Convention on an Integrated System of International Aviation Liability as soon as possible.

We would like to recommend the drawing up of the aforementioned new Draft for the Convention on the liability of air carriers to the Legal Committee of ICAO and IATA, to unify the regulations concerning international air transport all over the world.

I propose that we hold a positive discussion about the fundamental revision of the liability system of air carriers within the Warsaw Convention at the coming Session of the Legal Committee, ICAO, and at the Special Legal Committee, IATA, so that we can adapt to the new circumstances of air high – technology and economics in a changing era as soon as possible.

(Doo Hwan Kim, *The Liability of International Air Carriers in a Changing Era*, supplemented, *The Use of Airspace and Outer Space for all Mankind in the 21st Century* [book, 1993], published by the Kluwer Law International, The Netherlands, at 89 – 130).

235) Roderick D. van Dam, “28th Session of the Legal Committee, ICAO”, *Air and Space Law*, Vol. XVII, No.4 / 5, (1992), at 224 – 226.

Chapter V. IATA Inter-carrier Agreement on Passenger Liability of 1995

1. Summary

The IATA Inter-carrier Agreement on Passenger Liability unanimously approved and adopted by the 51st Annual General Meeting of International Air Transportation Association (IATA) in Kuala Lumpur, Malaysia on October 30–31, 1995. The Inter-carrier Agreement on Passenger Liability (“ILA”) has been signed by 73 foreign air carriers representing over 50 percent of the revenue ton kilometers performed in international air transportation as at October 30, 1996. The “benign cartel”, appears to lead the way to modernizing the international unification of private air law and agreed—subject to approval by the government—on the future interpretation and application of existing international legal instruments.

The companion agreement, the Agreement on Measures to Implement the IATA Inter-carrier Agreement (“MIA”), also commands broad airline support and is currently being circulated worldwide for signature. The MIA also has been signed by 44 foreign air carriers as at October 30, 1996. It is designed to ensure that, to the maximum extent practicable, a single liability regime, conforming to the principles of the ILA, will be applicable to and from the United States. IATA anticipates that expeditious approval and immunization of these agreements will assist IATA Members in encouraging other airlines involved in the international carriage of passengers to adhere to them.

This IATA initiative deserves all praise since it brings into focus serious shortcomings of the current unified private international air law and shows the

willingness of the industry to find solutions beneficial for the consumer. Given positive US Department action, IATA believes that the vast majority of passenger movements to and from the United States will benefit from tariffs voluntarily incorporating the agreed liability enhancement by their proposed November 1, 1996 implementation date. The ILA and MIA, taken together, will revolutionize the liability regime in international passenger air transportation. For more than the 60 years that the United States has been a Party to the Warsaw Convention of 1929,²³⁶ the international air passenger liability regime has incorporated a trade-off between a liberal standard of recovery based on presumptive fault under Article 17 and a restrictive limitation of liability under Article 17 and a restrictive limitation of liability under Article 22.1 of the Warsaw Convention.

The Warsaw Convention's approximately \$10,000 limitation of liability, fixed by the monetary value of gold, *Trans World Airlines, Inc. v. Franklin Mint*, 466 U.S. 243(1984), has clearly not kept pace with the economic losses suffered by passengers and those claiming on their behalf and, when applicable, substantially restricts compensatory damages otherwise recoverable under applicable national law.²³⁷

While the international carriers increased the limitation by intercarrier agreement to \$75,000 in the 1966 Montreal Agreement, and the US Department currently accepts that limit in its regulations, there is often a substantial difference between the \$75,000 limitation and damages which might be recoverable absent any specified limit.

Extended and extensive US governmental efforts over a lengthy period to deal with that problem by international agreement and/or by the unilateral implementation of a passenger-financed, administratively complex "*Supplemental Compensation*

236) Convention for the Unification of Certain Rules Relating to International Transportation by Air, October 12, 1929, 49 Stat. 3000, T.S. No.87C(1934).

237) The Hague Protocol of 1955, 478 U.N.T.S. 371, doubled the liability limit of Article 22.1 but was not ratified by the United States. The Guatemala City Protocol of 1971, amended by the Montreal Additional Protocol of 1975 ("MAP.3), would have increased the liability limit to 100,000 Special Drawing Rights but also has not been ratified by the United States.

Plan” have not succeeded. The current restrictive limitation of liability has led to extensive “wilful misconduct” litigation under Article 25 of the Warsaw Convention as claimants have sought to fosreclose carriers from benefitting from the limitation.

While these claimant efforts have at times succeeded,²³⁸⁾ success has come only after lengthy and often expensive litigation with a consequent delay in meaningful settlement negotiations and, frequently, particular hardship for those most in need of prompt compensatory awards.²³⁹⁾

The proposed ILA / MIA regime will eliminate the limitation of liability as a barrier to the award of all otherwise recoverable compensatory damages in cases under Article 17 of the Convention. The absence of a liability limitation also will put an end to Article 25 “Wilful Misconduct” litigation in the US and thus greatly expedite resolution of damage claims by settlement or court action.

In addition, the proposed regime, as implemented to / from the United States, will apply a strict liability standard to the amount of any claim not exceeding \$100,000 Special Drawing Rights and maintain the presumptive liability standard of Article 17 for amounts claimed in excess of 100,000 SDRs. In short, the international airlines, pursuant to the discussion authority and immunity conferred by DOT Order 95–2–44, 95–7–15, 96–1–25 and 96–3–46, have developed voluntary agreements which effectively obviate the liability limitation problem under Warsaw which has been the focus of US diplomatic efforts for more than 30 years.

By undertaking that resolution through voluntary agreement consistent with Article 22.1 of the Warsaw Convention, the carriers have reinforced the value of the Convention’s worldwide harmonization of international air transportation liability rules and documentation.²⁴⁰⁾ Moreover, by forging agreements of worldwide

238) “*Wilful Misconduct*” under Article 25 was established, for example, in the Pan Am 103 (Lockerbie) and KAL 007 disasters. In Korea Air Lines disaster at Lockerbie, Scotland, on december 21, 1988, 37 F.3d 804 (2d Cir 1994), cert. denied, 115 S.Ct. 934 (1995) In the Korean Air Lines disaster of September 1, 1993, 932 f.2d 1475 (D. C. Cir.), cert. denied, 502 U.S. 994 1991).

239) IATA, Agreement Relating to Liability Limitation of the Warsaw Convention, Docket OST–95–232, July 31, 1996, at 2–3.

240) The Convention has more adherents than any other private international law convention,

applicability, the carriers are proposing to enhance the welfare of passengers throughout the international air transportation system regardless of their nationality or the venue in which claims are adjudicated.

Finally, by accepting responsibility for Article 17 claims without the benefit of Article 22.1 limitation, the carriers have undertaken to make and fund the necessary insurance arrangements, thus avoiding surcharge impositions of passengers and / or the need for separate, complex and administratively costly *supplemental compensation plans*. The Provisions Implementing the IATA Intercarrier Agreement (“IPA”) to be included in Conditions of Carriage and Tariffs proposed by the Air Transport Association of America (“ATA”) includes specific provisions, consistent with, but more specific and inclusive than the IATA’s ILA and MIA Agreements.

2. The Contents of IATA’s ILA, MIA and ATA’s IPA

I would like to introduce the contents of the IATA’s ILA, MIA and ATA’s IPA as the following

2.1. The Contents of IATA’s ILA

IATA – Intercarrier Agreement on Passenger Liability (“ILA”), October 31, 1995.

Whereas: The Warsaw Convention²⁴¹) system is of great benefit to international air transportation and

Noting that: The Convention’s limits of liability, which have not been amended

Andreas F. Lowenfeld, *Aviation Law*, 4.15 (2nd Ed., 1981). Its value to the United States is acknowledged in Order 95–2–44.

241) “Warsaw Convention” as used herein means the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw, 12th October 1929, or that Convention as amended The Hague, 28th September 1995, whichever may be applicable.

since 1995, are now grossly inadequate in most countries and that international airline have previously acted together to increase them to the benefit of passengers;

- (1) To take action to waive the limitation of liability on recoverable compensatory damages in Article 22, paragraph 1 of the Warsaw Convention as to claims for death, wounding or other bodily injury of a passenger within the meaning of Article 17 of the Convention, so that recoverable compensatory damages may be determined and awarded by reference to the of the domicile of the passenger.
- (2) To reserve all available defences pursuant to the provisions of the Convention: nevertheless, any carrier may defence, including the waiver of any defence up to a specified monetary amount of recoverable compensatory damages, as circumstances may warrant.
- (3) To reserve their of recourse against any other person, including right of contribution or indemnity, with respect to any sums paid by the carrier.
- (4) To encourage other airlines involved in the international carriage of passengers to apply the terms of this Agreement to such carriage.
- (5) To implement the provision of this Agreement no later than November 1, 1996 or upon receipt of requisite government approvals, whichever is later.
- (6) That nothing in this Agreement shall affect the right of the passenger or the claimant otherwise available under the Convention.
- (7) That this Agreement may be signed in any number of the counterparts, all of which shall constitute one Agreement, any carrier may become a party to this Agreement by signing a counterpart hereof and depositing in with the Director General of the International Air Transport Association (IATA).
- (8) That any carrier party hereto may withdraw from this Agreement by giving twelve (12) months' written notice of withdrawal to the Director General of IATA and to the other carriers parties to the agreement.

2.2. ILA's Explanatory Note

The intercarrier Agreement is an “umbrella accord” the precise legal right and responsibilities of the signatory carrier with respect to passenger will be spelled out in the applicable Conditions of Carriage and tariff filings.

The carriers signatory to the Agreement undertake to waive such limitations of liability as are set out in the Warsaw Convention (1929), The Hague Protocol (1955), the Montreal Agreement of 1966, and / or limits they may have previously agreed to implement or were required by Governments to implement.

Such waiver by a carrier may be made conditional on the law of the domicile of the passenger governing the calculation of the recoverable compensatory damages under the intercarrier Agreement. But this is an option. Should a carrier wish to waive the limits of liability but not insist on the law of the domicile of the passenger governing the calculation of the recoverable compensatory damages, or not be so required by a governmental authority, it may rely on the law of the court which the case is submitted.

The Warsaw Convention system defences will remain available, in whole or part, the carrier signatory to the Agreement, unless a carrier decides to waive them or is so required by a governmental authority.

2.3. List of Air Carriers signatory to the IATA's ILA

List of Air Carriers Signatory to the IATA – Intercarrier Agreement on Passenger Liability, as at September 30, 1996.

1. Aer Lingus plc
2. Aeromexpress
3. Aerovias de Mexico, S.A. de C.V.(Aeromexico)
4. Air Afrique
5. Air Aruba

6. Air Baltic Corporation SIA
7. Air Canada
8. Air Exel Commuter
9. Air France
10. Air Mauritius
11. Air New Zealand
12. Air UK Group Limited
13. Air Vanuatu
14. Alaska Airlines
15. All Nippon Airways Co., Ltd.
16. Allegheny Airlines, Inc.
17. American Airlines
18. American Trans Air, Inc.
19. Augsburg Airways GmbH
20. Austrian Airlines
21. British Airways p.l.c.
22. Canadian Airlines International
23. Cathay Pacific Airways, Ltd.
24. Cimber Air A/S
25. Continental Airlines, Inc.
26. Croatia Airlines
27. Crossair
28. Delta Air Lines, Inc.
29. Deutsche BA Luftfahrtgesellschaft mbH
30. Deutsche Lufthansa AG
31. Egyptair
32. Finnair OY
33. Garuda Indonesia
34. GB Airways

35. Hawaiian Airlines
36. Iberia
37. Icelandair
38. Japan Air System Co., Ltd.
39. Japan Airline Co., Ltd.
40. Jet Airway(India) Pvt, Ltd.
41. Kenya Airways
42. Kiwi International Air Lines
43. KLM Royal Dutch Airlines
44. KLM City hopper B.V.
45. Korean Air Lines Co., Ltd.
46. LAPSA, Lineas Aereas Paraguayas
47. Luxair
48. Malaysia Airlines
49. Midwest Express Airlines, Inc.
50. Northwest Airlines, Inc.
51. Pakistan International Airlines(PIA)
52. Piedmont Airlines, Inc.
53. PSA Airlines, Inc.
54. Qantas Airways Limited
55. Reeve Aleutian Airway, Inc.
56. Regional Airlines
57. Royal Air Maroc
58. Saudi Arabian Airlines Corp.
59. Scandinavian Airlines System(SAS)
60. Singapore Airlines, Ltd.
61. South African Airways
62. Swissair
63. TACA

64. TAP, Air Portugal
65. TAT, European Airlines
66. Trans World Airlines, Inc. (TWA)
67. Transavia airlines C.V.
68. Trinidad & Tobago BWIA International
69. United Airlines
70. UPS Airlines
71. USAir, Inc.
72. Varig S.A.
73. VIASA

2.4. The Content of IATA's MIA

Agreement on Measures to Implement the IATA Inter-carrier Agreement ("MIA"), May 1996.

A. Pursuant to the IATA Inter-carrier Agreement of the 31 October 1995, the undersigned carrier agree to implement said Agreement by incorporating in their conditions of carriage and tariffs, where necessary, the following:

1. [Carrier] shall not invoke the limitation of liability in Article 22(1) of the Convention as to any claim for recoverable compensatory damages arising under Article 17 of the Convention.
2. [Carrier] shall not avail itself of any defence under Article 20(1) of the Convention with respect to that portion of such claim which does not exceed 100,000 SDRs [unless option A(2) is used].
3. Except as otherwise provided in paragraphs 1 and 2 hereof, [Carrier] reserves all defences available under the Convention to any such claim. With respect to third parties the carrier also reserves all right of recourse against any other person, including without limitation, right of contribution and indemnity.

B. At the option of the carrier, its conditions of carriage and tariffs also may include the following provisions:

1. [Carrier] agrees that subject to applicable law, recoverable compensatory damages for such claims may be determined by reference to the law of the domicile or permanent residence of the passenger.
2. [Carrier] shall not avail itself of any defence under Article 20(1) of the Convention with respect to that portion of such claims which does not exceed 100,000 SDRs, except that such waiver is limited to the amounts shown below for the routes indicated, as may be authorized by governments concerned with the transportation involved [Amounts and routes to be inserted].
3. Neither the waiver of limits nor the waiver of defences shall be applicable in respect of claims made by public social insurance or similar bodies however asserted. Such claims shall be subject to the limit in Article 22(1) and to the defences under Article 20(1) of the Convention. The carrier will compensate the passenger or his dependents for recoverable compensatory damages in excess of payment received from any public social insurance or similar body.

C. Furthermore, at the option of a carrier, additional provisions may be included in its condition of carriage and tariffs, provided they are not inconsistent with this Agreement and are in accordance with applicable law.

D. Should any provision of this Agreement or a provision incorporated in a condition of carriage or tariff pursuant to this Agreement be determined to be invalid, illegal or unenforceable by a court of competent jurisdiction, all other provisions shall nevertheless remain valid, binding and effective.

- E. 1. This Agreement may be signed in any number of counterparts, all of which shall constitute one Agreement. Any carrier may become Party to this Agreement by signing a counterpart hereof and depositing it with the Director General of the International Air Transport Association (IATA).

2. Any carrier Party hereto may withdraw from this Agreement by giving twelve(12) months' written notice of withdrawal to the Director General of IATA and to the other carriers Parties to the Agreement.
3. The Director General of IATA shall declare this Agreement effective on November 1st 1996 or such later date as all requisite Government approvals have been obtained for this Agreement and the IATA Inter-carrier Agreement of 31 October 1995.

This IATA Agreement on Measures to Implement the IATA Inter-carrier Agreement were opened for signature of Airlines in May 1996.

2.5. List of Air Carriers signatory to IATA's MIA

List of Air Carriers Signatory to the Agreement on Measures to Implement the IATA Inter-carrier Agreement, as at September 30, 1996

1. Air Baltic Corporation, SIA
2. Air Canada
3. Air France
4. Air New Zealand
5. Alaska Airlines
6. Allegheny Airlines, Inc.
7. American Airlines
8. American Eagle, Inc.
9. American Trans Air, Inc.
10. AMR Combs BJS, Inc.
11. Austrian Airlines
12. British Airways p.l.c.
13. Canadian Airlines International
14. Cathay Pacific Airways, Ltd.

15. Continental Airlines, Inc.
16. Cross air
17. Delta Air Lines, Inc.
18. Deutsche BA Luftfahrtgesellschaft mbH
19. Deutsche Lufthansa AG
20. Finnair OY
21. GB Airways
22. Hawaiian airline
23. Icelandair
24. Kenya Airways
25. Kiwi International Air Lines
26. KLM Royal Dutch Airlines
27. Korean Air Lines Co., Ltd.
28. Luxair
29. Midwest Express Airlines, Inc.
30. Northwest Airlines
31. Piedmont Airlines, Inc.
32. PSA Airlines, Inc.
33. Qantas Airways Limited
34. Reeve Aleutian Airways, Inc.
35. Scandinavian Airlines System(SAA)
36. Singapore Airlines, Ltd.
37. Swissair
38. TAT, European Airlines
39. Trans World Airlines, Inc. (TWA)
40. Transavia airlines C.V.
41. United Airlines
42. UPS Airlines
43. USAir, Inc.
44. Varig S.A.

2.6. The Contents of ATA's IPA

The Air Transport Association of America ("ATA"). The ATA Provisions Implementing the IATA Inter-carrier Agreement ("IPA"), July, 1996.

The contents of the IPA Agreement provides that carriers shall be, on a systemwide basis as the following:

1. Not invoke the limitation of liability in Article 22(1) of the Convention.
2. Not avail itself of the Article 20(1) defense of carrier proof on nonnegligence up to 100,000 SDRs.
3. Reserve other defenses, and the right of recourse, contribution and indemnity with respect to third parties.
4. Agrees that subject to applicable law recoverable compensatory damages may be determined by reference to the law of the domicile or permanent residence of the passenger.²⁴²⁾

The ATA's IPA Agreement also includes a specific notice provision; a provision for withdrawal from the 1966 Agreement and substitution of the IPA Agreement for the 1966 inter-carrier agreement, in all US DOT regulations and orders, etc., referring to the 1966 agreement and a permissive provision to encourage other carriers to become parties to the ILA, MIA and IPA Agreements.

2.7. List of US Air Carriers signatory to the ATA's IPA

List of Air Carriers Signatory to the ATA Provision Implementing the IATA Inter-carrier Agreement, as at July 31, 1996.

242) Under this provision the carrier agrees that the law of the domicile may be applied. It does not, however, attempt to bind the claimant to this choice of law. ATA Application, 1st. par., p.8.

1. Alaska Airlines
2. American Airlines(also American Eagle & AMR Combs)
3. American Trans Air, Inc.
4. Continental Airlines, Inc.
5. Delta Air Lines, Inc.
6. Hawaiian Airlines
6. Kiwi International Air Lines
8. Midwest Express Airlines, Inc.
9. Northwest Airlines
10. Reeve Aleutian Airways, Inc.
11. Trans World Airlines, Inc. (TWA)
12. United Airlines
13. UPS Airlines
14. USAir., Inc.

3. Background

The intercarrier discussions on reform of the Warsaw liability regime were initiated by IATA's petition for discussion authority and antitrust immunity filed on September 24, 1993. That petition was granted by Order 95-2-44 on February 22, 1995 with the US Department of Transportation noting that it had attempted, but failed, to develop governmentally "a uniform international system that allows US victims to receive fair recoveries within a reasonable period of time."

Providing guidance to the carriers on the goals the US Department sought to achieve, Order 95-2-44 challenged the airline community to develop in a relatively short period a solution which had eluded governments for more than 30 years.

Between June 19 and June 23, 1995, IATA convened an Airline Liability

Conference (“ALC”) in Washington D.C., USA. After consultations between the ALC Chairman and Regional Airline Associations concerning the composition of the two Working Groups, the Groups were convened in London on July 25–26 and Washington D.C. on August 7–8, 1995.

The ALC Session provided for a number of specific actions to be taken.

Among these were:

- Seeking the extension of antitrust immunity from the US authorities to complete the work of the Conference
- Establishment by the Conference Chairman of two Working Groups to prepare recommendations for an “enhanced liability package”
- Drafting of an intercarrier agreement and a plan for an appropriate and effective means to secure “complete compensation”
- Preparation by the Secretariat of “an information paper on expeditious settlement of airline liability claims” and
- Calling on Governments expeditiously to bring into force 1975 Montreal Additional Protocol No.4 (on cargo).

All of these matters have been addressed. The antitrust immunity extension request was filed with the US Department of Transportation on 26 June, and the relevant Order was issued by US DOT on 12 July 1995.

The ALC Working Groups were discussed in London as the followings:

- Urgently assess and report on the cost impact for airlines of the recommended enhanced liability package and make specific proposals as to how small and medium size airlines can be assisted to meet additional costs resulting from possible increased limits and
- Consider and report on appropriate and effective means to secure complete compensation for passengers, including the Japanese initiative and the *US Supplemental Compensation Plan*(SCP), in light of discussions at the ALC Session, and taking in particular account the circumstances of small and

medium size carders and submissions made by the Working Groups in July 31, 1995.

The member of the Working Groups decided that, due to the significant interrelationship between the subject matters and their common interest in both mandates the two Groups should meet jointly. It was also agreed that the meetings should be chaired by the Airline Liability Conference Chairman.

It will be noted that the detailed question and answer period with insurance brokers and subsequent discussion among members of the Joint Working Group led to the following conclusion:

- Despite its attractiveness to the US authorities and some carriers, the SCP was too unwieldy and expensive and, without Montreal Additional Protocol No.3, a risk prone solution and
- A solution based on unlimited liability above SDR 250,000 (for the US and elsewhere, as circumstances may require) through “pooled” insurance coverage to be taken out by participating carders common rated on a per capita basis (e.g. US \$2.00 per passenger) was put aside on advise from brokers; they stated that “splitting” the unitary coverage of most carriers’ current individual policies into two parts (the first part insured individually and the second part – above SDR 250,000 – insured jointly), would likely prove more expensive than potential alternatives.

The Joint Working Group agreed to reconvene in Washington D.C. on August 7 –8 to continue its deliberations and to try to finalize its recommendations. That Conference focused on the essential problems of the existing liability regime and established working groups whose activities, pursuant to US Department Order 95 7 –15, led to development of the ILA. The ILA was endorsed unanimously at the IATA Annual General Meeting (“AGM”) on October 31, 1995.

Subsequent to AGM endorsement of the ILA, it became apparent that the US Department of Transportation wished to see the ILA’s umbrella provisions spelled out in a specific implementing agreement. IATA then secured additional authorization

pursuant to Orders 96-1-25 and 96-3-46 to continue its work and developed the MIA.

Thereafter, IATA and its members have been encouraging to adhere to the ILA and MIA and, for their part, US air carriers have developed a subordinated agreement the Implementing Provisions Agreement (“IPA”) which specifies the form of “special contract” which its signatories will use to comply with the ILA and MIA. IATA understands that the IPA also will be filed for approval and immunization.

As required by the Department’s grants of discussion authority, IATA has filed reports (including complete documentation) of all meeting leading to the development of the ILA and MIA. IATA incorporates these reports by reference in this filing and believes that they provide a complete history of the ILA and MIA.

4. US DOT Order to Show Cause (Oct. 3, 1996)

4.1. Summary

By this US Department of Transportation (“DOT”), US DOT tentatively approve three agreements between US and foreign air carriers waiving the passenger liability limits of the Warsaw Convention for death or injury in international accidents, and waiving the carrier defense of proof of non negligence under Article 20(1) of the Convention up to 100,000 SDRs (approximately US \$145,000) subject to conditions, and subject to certificate and permit conditions to be adopted.

The US Department of Transportation propose to condition the agreements to require application on a system wide basis and that the agreements are applied with regard to carriers participating in interline operations to and from the United States, and to exclude the application of certain options on flights to and from the United States.

The US Department also propose to adopt certificate and permit conditions to

make participation in the two IATA Agreements, as well as the form of the Agreement proposed by the Air Transport Association of America [the Provisions Implementing the IATA Inter-carrier Agreement (“IPA”)] mandatory for all US and foreign air carriers operating to and from the United States, to make applicable to the United States the most favorable provisions for passengers that are applied by any carrier in any other jurisdiction, and to require that US carriers agree to submit to the courts of the domicile or permanent residence of the passenger (a fifth jurisdiction).

The US DOT request comments on alternative measures for the protection of US citizens in circumstances where the fifth jurisdiction might otherwise not be applied.

4.2. The Applications

By applications filed on July 31, 1996, the International Air Transport Association and the Air Transport Association of America request approval for, and grant of antitrust immunity with respect to the three agreements. These agreements, increasing details of implementation, provide for waiver in their entirety, by carrier parties to those agreements, of the limits of liability applicable under the Warsaw Convention²⁴³) to passengers killed or injured in international aircraft accidents.²⁴⁴)

243) Convention for the Unification of Certain Rules Relating to International Transportation by Air with Additional Protocol, concluded at Warsaw, October 12, 1929, entered into force the United States, October 29, 1934, 49 Stat. 3,000; TS 876; 2 Bevans 983; 137 LNT 11. In principal effect the Warsaw Convention limits the liability of carriers for passengers killed or injured in international aircraft accidents to US \$10,000. Under a 1966 Inter-carrier Agreement, carriers operating to and from the United States waived that limit up to US \$75,000 for journeys to of the Convention, of carrier proof nonnegligence. Pursuant to 14 CFR 203 all carriers operating to and from the United States are required to be, and are deemed to be, parties to the 1966 Agreement. Thus the applicable limit to and from the United States is currently US \$75,000.

244) IATA and ATA, respectively, also request an exemption from various regulations and orders, etc. of the Department that require adherence to the 1966 inter-carrier agreement waiving the Warsaw limits to \$75,000 to and from the United States, and that the instant agreements may be substituted for the 1966 inter-carrier agreement in those regulations and orders, etc.

The IATA and ATA Agreements are proposed for application worldwide. The Agreements were negotiated by carriers under discussion authority granted to IATA and ATA by US DOT Orders setting forth guidelines for such Agreement.²⁴⁵⁾

4.3. Comments of the Parties

Comments in support of the IATA and ATA Applications were filed by the Association of Trial Lawyers of America (ATLA), the Aerospace Industries Association (AIA); the International Chamber of Commerce (ICC), and the Victims Families's Associations (KAL 007; PAA 103; TWA 800).

The Victims Families requested that DOT's approval be subject to conditions with respect to strict liability or the fifth jurisdiction permitting certain actions to be brought in the United States. A comment was also filed by an individual, Sven Brise, Consultant, urging consideration of an alternative plan, in lieu of the agreements filed by IATA and ATA.

In support of its application for approval, IATA argues that the ILA / MIA will eliminate the limitation of liability as a barrier to the award of all otherwise recoverable compensatory damages, and will put an end to the wasteful and costly "wilful misconduct" litigation in the United States which has been necessary to avoid the previously applicable US \$75,000 limit.

Moreover, it will also provide strict liability up to 100,000 SDRs. Further, the Agreements will apply throughout the International Air Transportation system, regardless of the passenger's nationality or venue in which claims are adjudicated, and will be financed through the carriers insurance, a far less costly means than the previously considered complex *Supplemental Compensation Plans*.

Moreover, as the US Department has previously recognized, important United

245) Discussion authority was granted to IATA, ATA, and participating carriers, upon the request of IATA, by Order 95-2-44, and extended by Orders 95-7-15, 96-1-25, and 96-3-46. Discussion authority was granted to ATA, IATA and participating carriers, upon the request of ATA, by Order 95-12-14.

States foreign policy and international comity interests will be advanced by approving and granting antitrust immunity for the ILA and MIA in that it will facilitate the global enhancement of passenger rights while preserving the benefits otherwise available under the Warsaw Convention.

4.4. Decision

The US Department tentatively find that the Agreements should be approved, subject to conditions. With their provision for the worldwide waiver of the Warsaw passenger liability limits, the agreements have made a gigantic step toward creating an international liability regime under which carriers properly accept liability for death or injuries of passengers using their services.

No longer must passengers suffer decades of litigation in efforts to establish the “wilful misconduct” which was required under the Warsaw Convention for passengers to recover reasonable damages.

Moreover, by providing for coverage of this liability under the carrier’s liability insurance, the costly double coverage of the previously considered *supplemental compensation plan* will be avoided. Clearly, therefore, the agreements are not adverse to the public interest.

The conditions which US DOT tentatively propose to attach to our approval of the ILA, MIA, and IPA include the following:

- (a) The optional application of the law of the domicile provision would be made mandatory for operations to, from, or with a connection or stopping place in the United States.²⁴⁶⁾

246) Paragraph A(4) of the ATA, IPA Agreement, as we interpret it, would meet this requirement. We note that the requirement is that the carrier must agree, at the claimant’s option, to application of the law of the domicile or permanent residence of the passenger. We do not, however, intend to direct courts as to which law must be applied, if despite the carrier’s agreement and submission, the court should determine that a different law must be applied.

- (b) The Agreement's optional provision for less than 100,000 SDR's strict liability on particular routes, could not apply for any operations (including interline operations) to, from, or with connections or an agreed stopping place in the United States.
- (c) The provision for waiver of the Warsaw passenger liability limit, in its entirety, would be applicable on a system wide basis.
- (d) For transportation to and from the US, the provisions of the agreement would apply with respect to any passengers purchasing interline party carriers not party to the agreements.

The carrier ticketing the passenger, or, if that carrier is not a party to the Agreements, the carrier operating to or from the United States, would have the obligation either to ensure that all interlining carriers were parties to the Agreements, as conditioned, or to itself assume liability for the entire journey [See Warsaw Article 30(1) and (2)].

- (e) The inapplicability for social agencies of the waivers of the limit and Article 20(1) carrier defense of proof of non-negligence shall have no application to US agencies.

The US Department also tentatively propose to amend all US air carrier certificates, all foreign air carrier permits, and any other outstanding authority to operate to or from the United States, to universally apply the Agreements as conditioned to all direct carriers operating to, from or within the United States.

Mandatory participation of all carriers operating to and from the United States has been in effect since the 1966 waiver agreement all parties were fully aware that it was the United States' intention to require such participation, and the public interest clearly requires such mandatory participation for the reasonable protection of passengers of airlines operating in international air transportation to and from the United States.²⁴⁷⁾

247) Our reference in this order to "international air transportation" refers in this order to

5. Comments of the IATA, Swiss Air and the Korean Air Lines to US DOT Order 96 10.3

5.1. Comments of IATA

The International Air Transport Association (“IATA”), on behalf of the non-US carrier signatories to the IIA and MIA, objects to the conditions the US Department of Transportation (“DOT”) proposes to impose on the IIA and MIA and, on behalf of all of its non-US members, also objects to the foreign air carrier permit amendments proposed by US DOT Order of 96-10-7.²⁴⁸⁾

Because the proposed conditions would effect fundamental and substantial changes in the IIA and MIA, prior consents to the IIA and agreements.

Moreover, non-U.S. carrier signatory is prepared to subscribe to the conditioned agreements proposed in Order 96-10-7. The absence of such consent would leave the US DOT with no rational basis for rewriting foreign air carrier permits to conform to its version of the IIA and MIA. Indeed, any such effort by the US DOT to modify the Warsaw regime by permit amendment would be entirely prescriptive and contrary to international law, the U.S. Transportation Code and sound public policy.

IATA’s July 31, 1996 application pointed out that approval and immunization of

“international transportation” (to and from the United States) as defined in the Warsaw Convention. Thus we include interstate operations of an air carrier which carries a passenger on the domestic segment of an international journey. See Warsaw Convention, Article 1(2)(3).

248) The Department has been separately advised in this Docket of the non-U.S. carrier signatories to the IIA and MIA. The U.S. carrier members of IATA are parties to the agreement filed in Docket OST-95-232. As U.S. flag carriers operating under certificate, they are subject to a legal regime different from the regime applicable to non-U.S. carriers. Thus, U.S. flag carrier members of IATA are expressing their views directly to DOT through the Air Transport Association of America (ATA). IATA understand, however, that its U.S. carrier members are equally unwilling to accept the sweeping conditions proposed in order 96-10-7.

ILA and MIA could provide significant passenger benefits commencing November 1, 1996 while preserving, and indeed enhancing, the international goodwill necessary to negotiate additional benefits through the intergovernmental treaty-making process at ICAO.

IATA urges the US DOT to bear fully in mind the superiority of international cooperation to needless confrontation, to withdraw the proposed conditions and permit amendments and to proceed immediately with final approval and immunization of ILA and MIA.

In IATA's view, the US DOT has correctly acknowledged that the proposed "world-wide waiver of the Warsaw passenger liability limits" was nothing short then "a gigantic step" in protecting passengers, obviating wasteful litigation and avoiding the costs and complexities of previously-considered *supplemental compensation plans*.

5.2. Comments of Swiss Air

Swissair, Swiss Air Transport Company, LTD. ("Swissair"), a signatory to the IATA Inter-carrier Agreement ("IATA") and the Agreement on Measures to Implement the IATA Inter-carrier Agreement ("MIA"), hereby objects to the issuance of an order making final the tentative findings conclusions of the Departments in its Order to Show Cause, issued on October 3, 1996 in these proceedings. Swissair fully supports the objections filed by IATA on behalf of the non-US signatories to these agree (including Swissair).

These comments should therefore be considered as simply supplementary of IATA's comments. While the US Department has tentatively approved the ILA and MIA, it has proposed to condition its approval on the acceptance by the signatories of various additional provisions which it seems to believe will enhance the agreements.

Moreover, the US Department has proposed to amend the foreign air carrier

permits of Swissair and the other non-US signatories apparently in an attempt to require them—as a price for flying to / from the United States—to abide by the US Department’s version of the ILA / MIA (i.e., as conditioned) even if they do not accept the US Department’s conditions to their agreements.

In Swissair’s view, a final US DOT Order containing either of these elements would be imprudent and, in many respects, unlawful.

5.3. Comments of the Korean Air Lines

(1) Objection

The Korean Air has signed both the ILA and MIA on October 30, 1996 and then supports IATA’s continuing efforts at reform. In the US DOT’s Show Cause Order issued October 3, 1996, the US DOT proposes to approve all three of these agreements, as modified by several substantive changes that the US DOT believes are in the public interest.

As one of its conditions of approval, the US DOT proposes to apply the modified ILA and MIA to all non-US carriers operating to, from, or through the U.S. by amending all foreign air carrier permits to reflect its Show Cause Order.

The Korean Air objects generally to this attempt to alter its foreign air carrier permit in this manner and objects specifically to several of the changes on which approval of these agreements is conditioned.

(2) Argument

The US DOT proposes to approve the ILA, the MIA, and the IPA and to grant signatory carriers the antitrust immunity necessary to effectuate the provisions of these agreements on international flights to and from the US. The US Department also proposes to apply these agreements to all non-US carriers by amending all foreign air carrier permits and all other outstanding authority to operate to, from, or through the US.

The Korean Air first objects to the US Department's intention to alter Korean Air's foreign air carrier permit to reflect the provisions of the Show Cause Order. The Show Cause Order states that, because the participation in the 1966 Montreal Agreement²⁴⁹⁾ was mandatory, carriers had noticed that the US Department would expect continued participation by all carriers in IATA's and ATA's efforts.

Yet, until the Show Cause Order was served on October 7, 1996, Korean Air had received no notice that its permit would be significantly altered in accordance with provisions that neither the ILA nor the MIA include.

The US Department appears poised to implement its Show Cause Order as to all carriers, regardless of the sufficiency of the time for comments. Korean Air believes that this is unfair and that it may be inconsistent with the Department's regulations and applicable administrative law.

(3) Enumerated Conditions Attached to the US DOT's Approval of the Agreements

The US Department proposes to modify the ILA, the MIA, and the IPA through numerous conditions and modifications. Five of these conditions are enumerated Korean Air has comments on the following three of these conditions.

- Condition (a): The application of the law of the domicile provision, which is optional in the MIA, would become mandatory for operations to, from, or with a connection or stopping place in the US. As private agreements among carriers, however, the IIA, the MIA, and the IPA cannot prevail against the laws of foreign sovereigns. The US Department appears to acknowledge that it cannot compel a non-US jurisdiction to apply the law of the passenger's domicile, if, despite a claimant's wishes, that jurisdiction's own procedural law requires otherwise.²⁵⁰⁾

249) The 1966 Montreal Agreement raised the liability limit to US \$75,000 and provided for strict liability up to that same amount. See Agreement CAB 18900, approved by Order E-23680 (May 13, 1966).

In addition, many rights available under the laws of a passenger's domicile simply may not exist in that jurisdiction, e.g., the right to a jury trial, and thus cannot be indulged even if the governing law does not specifically prohibit them.

- Condition (b): Korean Air therefore does not object to this condition but urges the US Department to clarify that the law of the jurisdiction ultimately will prevail in the event of a conflict with the IATA agreements, and that carriers do not lose the protections of their home nations' laws merely because they have signed and implemented these agreements.
- Condition(c): This condition proposes to waive all limits that currently govern damage awards to claimants for death or injury in international aviation. The ILA and the MIA together do this already. Korean Air objects to the Department's reiteration of this provision for two reasons.

First, the US DOT has omitted the words, "recoverable compensatory damages," and this oversight could leave a carrier open to other kinds of damages, e.g., punitive damages, that the IATA agreements do not encompass. These words should be re-inserted.

Second, it should be made clear that the word "systemwide" means only international flights covered by the Warsaw Convention itself and excludes non-covered international and domestic flights. Without these changes, condition(c) is unclear and objectionable.²⁵¹⁾

- Condition(d): This condition would extend the ILA and MIA to all non-signatory parties that engage in interlining arrangements with carriers that have signed the IATA proposals. Thus, each signatory carrier either would have to: (i) ensure that all its interlining partners have signed the ILA and MIA or (ii) itself assume liability under the ILA and MIA for damages that arise from its interline partners' flights.

250) See Order 96-10-7 at n.10.

251) If the Department in fact intends Condition(c), to go beyond the ILA and the MIA waivers, then Korean Air requests clarification about precisely what this condition means.

Korean Air objects to this condition. An interlining carrier would have little incentive to sign the ILA and MIA itself, and so the signatory carrier would have to assume liability for that carrier's flights. In effect, then, the US Department's condition would force signatory carriers to police the operations of their interlining parts, often on domestic travel completely unrelated to the Warsaw Convention. IATA's July 31, 1996, Application does not begin to contemplate such a sweeping extension of the Warsaw Convention scheme.

6. US DOT Order to Approving Agreements (Nov. 12, 1996)

6.1. Summary

By the aforementioned Order the US DOT Order finalize their Order to Show Cause 96-10-7 to the extent of approving, *pendente lite*, the ILA, MIA and IPA Agreements filed by IATA and ATA, subject to conditions that:

- (a) the MIA's optional application of the law of the domicile provision would be required for operations to, from, or with a connection or stopping place in the United States;²⁵²⁾
- (b) the MIA's optional provision for less than 100,000 SDR's strict liability on particular routes could not apply for any operations to, from, or with a connection or stopping place in the United States
- (c) the inapplicability for social agencies of the MIA's waivers of the limit and Article 20(1) carrier defense of proof of non-negligence shall have no application to US agencies; and
- (d) the IPA's provision for withdrawal from the 1966 Montreal Interim Agreement shall not be effective at this time. We defer action with respect to other

252) Paragraph I(4) of the ATA, IPA Agreement, as we interpret it, would meet this requirement.

proposed agreement and authority conditions.

6.2. Decision

The US Department have decided to approve the ILA, MIA and IPA Agreements, *pendente lite*, subject only to those conditions which are generally accepted. We will defer consideration of all other matters. In the interim, we will exempt all carriers filing Agreements from applicable US DOT regulations and authority conditions only to the extent necessary to implement those agreement in a manner consistent with this order, and to substitute a tariff consistent with the IPA Agreement (exclusive of withdrawal from the 1966 Montreal Interim Agreement).

The objections and comments raise fundamental questions of the scope of the US Department's authority to impose permit and other authority conditions, and the procedures necessary for such imposition. These matters, including the requirements of a liability regime to be applicable to and from the United States and alternatives to the fifth jurisdiction require careful and thorough consideration.

All parties agree, nevertheless, that pending such consideration the US Department should accept the Agreements which have been voluntarily filed, in order to implement the gains which have been made. We agree that acceptance on an interim basis will be consistent with the public interest subject to the conditions and limitations set forth below.

As we stated in the Show Cause Order, the Agreements are a major step toward more reasonable international liability regime. The US Department had anticipated that the conditions we proposed to impose on the Agreement were generally acceptable and most were anticipated by IATA. It appears that in certain respects, US Department may have exceeded the IATA anticipation, particularly in view of the apparent lack of consensus of IATA carriers on some matters. This appears to be particularly the case, as ATA points out on our proposal to require applicability of the Agreements to interlining carriers. Thus we will confine the conditioning of

our interim approval of these Agreements to those clearly anticipated Governmental conditions; namely:

- (a) The MIA's optional application of the law of the domicile provision would be required for operation to, from, or with a connection or stopping place in the United States.²⁵³⁾
- (b) The MIA's optional provision for less than 100,000 SDR's strict liability on particular routes could not apply for operations to, from or with a connection or stopping place in the United States.
- (c) The inapplicability, under the MIA, for social agencies of the waivers of the limit and Article 20(1) carrier defense of proof of non-negligence shall have no application to US agencies.

The US Department also find it necessary to condition the ATA IPA Agreement to provide that carriers may not withdraw from the 1966 Montreal Interim Agreement (DOT Agreement 18900). Without a provision for application to interlining carriers, it appears that the IPA Agreement could possibly be construed as applying only to a carrier actually signing the Agreement. Thus there is no assurance that the new agreement's waivers will apply on an interline segment operated by a non-signatory carrier, even on a Warsaw Journey. In these circumstances, we are unwilling to provide, at this time, that the IPA Agreement shall serve as a withdrawal from the mandated 1966 Montreal Interim Agreement.

253) The 'Explanatory Note' to the IATA ILA Agreement states: "Should a carrier wish to waive the limit of liability but not insist on the law of the domicile of the passenger governing the calculation of the recoverable compensatory damages, or not be so required by a governmental authority, it may rely on the law of the court to which the case is submitted." As the US DOT Order noted in note 10, page 10, of the US DOT Order to Show Cause 96-10-7, the requirement is that the carrier agree, at the claimant's option, to application of the law of the domicile or permanent residence of the passenger. We do not intend to direct courts as to which law must be applied, if despite the carrier' agreement and submission, the court should determine that a different law must be applied.

7. The Legal Meeting of IATA in Geneva

The Legal Meeting to consider the IATA reaction to the November 12, 1996, US DOT Order took place in Geneva, Switzerland, on December 16, 1996. The following carriers participated: BT, Air Canada, Air France, Air India (2 Reps.), Air Malta Company, Limited, Air UK, Aerovias Nacionales de Colombia, S.A. (AVIANCA), British Airways p.l.c. (2 Reps.), Cathay Pacific Airways, Limited (3 Reps.), Ceskoslovenske Aerolinie, Deutsche BA Luftfahrtgesellschaft mbH (2 Reps.), Egypt Air, IBERIA, Lineas Aereas de España, S.A. (2 Reps.), Japan Airlines, Company Ltd; (3 Reps.), Gulf Air, Deutsche Lufthansa AG, Polish Airlines (LOT), Malaysian Airline System, Scandinavian Airlines System, Swissair, TAP – Air Portugal, US Air, VARIG, S.A. (2 Reps.), Virgin Atlantic Airways, ATA and AITAL. After detailed discussion under the agenda, as sent to Korean Air on December 5, 1996 (REF GCR–070), the participants decided to recommend that the IATA Secretariat filed petition with the US DOT.

Accordingly, IATA intended to file the US DOT in Washington D.C on December 20, 1996, based on the following points agreed at the Legal Meeting of IATA in Geneva:

- IATA Carriers are of the view that:
 - (1) The Intercarrier liability discussions have achieved their objectives, and the two Agreements (ILA and MIA) represent the maximum extent of achievable consensus. Further reform of the Warsaw System will have to be considered at the intergovernmental level, through ICAO.
 - (2) The ILA must continue to be approved without any conditions, and the conditions imposed on the MIA by the US DOT must be removed.
 - (3) The “law of the domicile” provision must continue to be an option available solely to the carrier.
 - (4) Carriers must be permitted to implement the ILA and MIA, by tariff filings, and be freed from the requirement to adhere to the 1966 Montreal Intercarrier Agreement.

8. The IATA's Petition for Reconsideration of the US DOT Order 96 11-6

On 20 December 1996, IATA filed a petition for reconsideration of US DOT Order 96-11-6. "IATA requests that US DOT approve the MIA Agreement without condition that the optional provision for carrier submission to the law of the domicile be applied to and from the United States. Pursuant to Rule 37(a) of the US DOT's Rules of Practice, IATA requests reconsideration of ordering paragraphs 2. a and 3 of Order 96-11-6.²⁵⁴⁾ IATA seeks this relief on behalf of its non-US members who are parties to IIA and MIA."²⁵⁵⁾ The US DOT's decision to foreclose liability rules tariff filing to carriers not implementing the intercarrier agreements with the law of the domicile provision conflicts with the traveling public's need for transparency and certainty on critical liability issues.²⁵⁶⁾

IATA argues that Ordering Paragraphs 2.a would make mandatory, rather than optional, carrier adherence to the law of the domicile provision of Paragraphs II, 1 of the MIA. There is no international aviation treaty for the law of the domicile provision and many carriers believe that any harmonization of choice of law should be undertaken at intergovernmental level.

Non-US Signatories to the IIA and MIA have made it clear to IATA that they will not adhere to the MIA as conditioned by Ordering paragraph 2.a. Since the MIA has only been conditionally approved, the Director of General of IATA cannot

254) Order 96-11-6 was served on 12 November 1996. On 22 November 1996, IATA moved for an extension of time to file petitions for reconsideration until 31 December 1996. Although unopposed, no action has been taken on IATA's motion.

255) The IIA has been granted interim approval and immunity without condition. It thus became effective among its signatories as of 12 November 1996 and is addressed in this petition only with respect to tariff filing. With respect to proposed foreign air carrier permit amendments on which action is deferred, IATA adheres to its prior comment.

256) IATA: Agreement Relating to Liability Limitations of the Warsaw Convention, Docket OST-95-232, Air Transport Association of America: Agreement Relating to Liability Limitations of the Warsaw Convention, the International Air Association's Petition for Reconsideration of Order 96-11-6, at 3.

declare it effective as required by paragraph v. 3. For these reason, ordering paragraph 2.a should be withdrawn. The IATA urges the US DOT to reconsider ordering paragraph 2.a and 3 of Order 96–11–6 and to make explicit that an exemption from relevant DOT regulations and certificate, permit and other authority conditions is available to the extent necessary to apply and file tariffs consistent with the IIA and MIA.²⁵⁷⁾

9. US DOT Order on Reconsidering (8 January 1997)

On 8 January 1997, the US DOT approved the IATA Intercarrier Agreement, ushering in a new regime of unlimited liability in international air transportation. International carriers will now begin to file tariffs or otherwise amend their conditions of carriage, bringing this new regime into force in the US, Canada and, perhaps with some variation, throughout the world.²⁵⁸⁾

The US DOT modifies our Order 96–11–6 which approved, pendete lite, the IIA, MIA and IPA Agreements filed by IATA and ATA, subject to conditions, to the extent of removing, pendete lite, the first condition that: the MIA's optional application of the law of the domicile provision would be required for operation to, from, or with a connection or stopping place in the United States.

In addition, the US DOT modified the previous condition 4, applicable to the IPA Agreement, to the extent of temporarily permitting the IPA Agreement, as well as the MIA Agreement, to be substituted for the 1966 Montreal Interim Agreement.

Moreover, we will accept, as discussed below, tariffs implementing the MIA Agreement and the IPA Agreement. We will further grant discussion authority and antitrust immunity to ATA, IATA, the Victims' Families' Associations and all other

257) See IATA Docket OST–95–232, IATA's Petition for Reconsideration of Order 96–11–6, at 8.

258) Thomas J. Whalen, "Rebirth of the Warsaw Convention: the IATA Intercarrier Agreement" *Annals of Air and Space Law* (Vol. XXII, part I, 1997), at 323.

persons and organizations participating in discussions to be held between now and 30 June 1998, to address the remaining concerns of the US DOT.

The US DOT continues to defer action with respect to other agreement and authority conditions proposed in the US DOT's Order to Show Cause 96-10-7.

Although progress has been made, international carriers will hopefully continue to work with the US Government and other interested entities in order to address concerns not provided for in the IATA Agreements.

It is very likely that IATA will continue to work with the DOT and other interested groups to hammer out additional conditions to be incorporated into the IATA Agreements, especially in light of the DOT's June 1998 review date. The DOT has taken a positive step by approving the IATA agreements conditionally and on an interim basis.²⁵⁹⁾

(Doo Hwan Kim, *The Innovation of the Warsaw System and the IATA Inter-carrier agreement*, *The Utilization of the World's Air Space and Free Outer Space in the 21st Century*, [Book, 414 pages, 2000], Kluwer Law International, The Netherlands, at 65-90; Doo Hwan Kim, *The System of the Warsaw Convention on Liability in International Carriage By Air*", *Journal of Faculty of Law* (Vol. No.2, 1997), Macao University, International Air Law Conference, at 55-95).

259) Katherline A. Staton, *supra*, note 9, at 1113-1114.

Chapter VI. The History and Movement for Reform of the Warsaw System by the ICAO

1. Introduction

Many amendments have been proposed to each Convention, due to the rapid high – technological developments in aviation, the changes in the social and economic environment, the difficulties in the proof and the discovery of facts, and the need for increasing the protection of injured passengers. As a result, the international legal system for air transportation is at present complicated and tangled. Since the early 1970's, many aviation law professors and lawyers have tried to integrate and simplify the international legal system for air transportation.

There are many changes in economic and social circumstances, because more than half a century has passed since the Warsaw Convention was effectuated. The aircraft industry is a very complicated assembling industry, it utilizes many people in a variety of jobs, including parts manufacturers, air service suppliers, airport employees air traffic controllers, governmental agencies, and manufacturers or aircraft facilities.

At the end of this brief survey, one is forced to conclude that, at the moment, we are facing a situation where some countries have no limits of compensation, while others (e.g. the domestic flights of the USA) maintain higher limits than the Warsaw Convention prescribes.

In addition, in domestic air transportation, limits lower than the Warsaw Convention's are occasionally applied.

It is of course evident that there are strong links between liability and insurance, and it must also be emphasized that an air carrier's dependence on insurance is

often a major factor affecting the compensation limits, especially for carriers in developing countries. But with inflation rampant world-wide, it would seem most commendable, if not indispensable, to raise the limits to a higher uniform level. That would be fairer for passengers choosing to travel by air.

The damage for which air carriers should be liable, and therefore should compensate, includes loss of expectation of leisure activities because of aircraft accident as well as damage to or loss of property, mental loss, physical loss, etc. Even the Warsaw Convention does not cover claims against other parties than the air carriers. In order to find a rational solution to disputes between nations which have adopted differing liability systems in international air transportation, we need to reform the liability of air carriers within the Warsaw Convention dramatically and fundamentally, to unify the liability system among the nations.

2. The International Conference for the Reform of the Warsaw System

The Legal Committee of the International Civil Aviation Organization (ICAO) has made a resolution which recognizes the need to make new Draft for the Convention, to integrate the Warsaw system and make it less complicated. Professor Bin Cheng, Chairman of the Air Law Committee of the International Law Association (ILA) and Professor Jacqueline Dutheil de la Rochère have made a Draft for the Convention on an Integrated System of International Aviation Liability covering surface damage caused by foreign aircraft during international carriage by air.²⁶⁰

The Proposal was discussed by many air law professors, specialists and lawyers at the Air Law Session of the 60th Conference of the ILA held in Montreal,

260) See *Report of the Sixtieth Conference* held at Montreal, International Law Association, at 553–557 (1982); Bin Cheng, Sixty Years of the Warsaw Convention: *Airline Liability at the Crossroads (Part A)*, *Zeitschrift für Luft- und Weltraumrecht* (1989), Vol.38, No.4, at 319–344.

Canada, from August 29 to September 4, 1982. The Draft for the Convention was not adopted, but it was decided that it should be under continuous analysis and review by the next Air Law Session of the ILA. The Proposal means the synthesis and unification of contract liability and tort liability within one Convention.

A detailed study of the present position and proposals for renovating the Warsaw system exist already in the form of the Alvor Draft Convention relating to International Carriage by Air, adopted by the Fourth Lloyd's of London Press International Aviation Law Seminar held in Alvor, Algarve, Portugal, on October 11 – 16, 1987.

The Seminar was attended by 116 executives and legal advisers of governments and of the airline, aviation insurance and aerospace industries, as well as members of the legal profession involved or interested in aviation, from 27 countries.²⁶¹⁾

This Alvor Draft Convention Relating to International Carriage by Air has been integrated by the principal content of the Warsaw Convention, the Hague Protocol, the Guatemala Protocol, the Montreal Additional Protocol No.3 and No.4 and has also adopted the principle of the limited liability and the absolute liability system.

The ICAO action so far took an unusually circuitous path: rather than proceeding to a Secretariat study followed by Rapporteur's study and report to a special Subcommittee of the Legal Committee,²⁶²⁾ the ICAO Council decided to establish a "Secretariat Study Group" of dubious geographic composition²⁶³⁾ "to assist the Legal Bureau in developing a mechanism within the framework of ICAO to accelerate the modernization of the 'Warsaw System'"²⁶⁴⁾.

At a time of severe budgetary constraints both for ICAO and the contracting states this unusual procedural step would require more explicit justification. At its

261) S. Miyoshi, *Alvor Draft Convention (Professor Bin Cheng's Draft Convention Amending the Warsaw Convention System)*, Journal of Air Law [KUHO] (1990), No.31, at 3.

262) See *Procedure for the Preparation of Draft Conventions* in Attachment A of Doc 7669 – LC/139/4.

263) With the absence of Latin America, Asia or Central/Eastern Europe, absence of any Spanish or Russian speaker.....

264) C-WP/10381; Appendix A to this document contains the Report of the Study Group.

meeting on February 12–13, 1996, the Study Group reached the predictable conclusions and recommendations. That's action should be taken to develop a new international instrument to consolidate and modernize the Warsaw Convention System and bring it in line with present–day requirements.

The ICAO Council is to consider the Report of the Study Group during ICAO's 147th Session in May–June 1996. Perhaps it would have been more efficient to dispense with the Study Group and to proceed directly to the appointment of a Rapporteur and to the convening of a special Subcommittee: the work could have been advanced by several months and the ICAO international community could have exercised a more effective and timely influence on the implementation of the IATA Intercarrier Agreement and the proposed law–making within the European Union.

The Warsaw System is seriously ailing but the IATA initiative by itself cannot salvage it. It is too early for a requiem for this unification of private air law. It is preferable to see the current challenges as an unfinished symphony, with continuing need for fine–tuning and with no mortality in sight as long as ICAO and its member states keep acting.

The 28th Session of the Legal Committee, ICAO, held in Montreal, May 11, 12, 1992, established the following General Work Programme, subject to approval by the Council.

- 1) Action to expedite ratification of the Montreal Additional Protocol No.3 and No.4 of the “Warsaw System.”
- 2) Study of the instruments of the “Warsaw System.”

The said Committee elected to reconfirm its concern with the present statutes of the “Warsaw System” by reassigning the highest priority to those items.

It would be advisable for the Legal Committee of International Civil Aviation Organization, as a principal body in the air law field, to produce an international instrument that would serve as a model for domestic legislation. We need to revise the Warsaw system fundamentally, with regard to the liability of air carriers, in

order to enact a new Draft for the Convention on an Integrated System of International Aviation Liability as soon as possible.

We would like to recommend the drawing up of the aforementioned new Draft for the Convention on the liability of air carriers to the Legal Committee of ICAO and IATA, to unify the regulations concerning international air transport all over the world. I propose that we hold a positive discussion about the fundamental revision of the liability system of air carriers within the Warsaw Convention at the coming Session of the Legal Committee. ICAO, and at the Special Legal Committee, IATA, so that we can adapt to the new circumstances of air high technology and economics in a changing era as soon as possible.

After more than two decades of unsuccessful attempts to bring the Guatemala / Montreal Protocols amendments into effect, certain States, regional and global organizations, and air carriers have proposed raising or taken action to raise air carriers limits of liability to what they consider appropriate levels. It was considered that the limits available under the Warsaw Convention and Hague Protocol had been eroded by inflation and were no longer corresponded to current socio-economic developments.

However, these steps present a serious risk of fragmentation and were seen as interim solutions, awaiting actions by governments, through the ICAO, to promote and modernize the legal framework and harmonize the needs of the air transport community worldwide.²⁶⁵⁾

The ICAO Secretariat Study Group was unanimous that ICAO action is urgently needed to redress the major shortcomings of the present system of liability, particularly regarding passengers, but also for baggage and cargo, and to develop a new international instrument to consolidate the “Warsaw System”, bringing it in line with today’s requirements.

265) ICAO Working Paper, Council-147th Session, Report on Modernization of the “Warsaw System”, WP/10381, 5/3/96 at 2.

3. Secretariat Study Group of the ICAO

The ICAO has set up a Secretariat Study Group on the “Warsaw System”: the ICAO Council on November 15, 1995 during its 146st session, decided to amend the second item of the General Work Programme of the Legal Committee to read: “The modernization of the ‘Warsaw System’ and review of the question of the ratification of international air law instruments.”

The Council further decided that a Secretariat Study Group be established to assist the Legal Bureau in developing a mechanism within the framework of ICAO to accelerate the modernization of the “Warsaw System.” The Group was requested to provide the Legal Bureau with its views, which would permit the Council to consider the appropriate steps to be taken for the modernization of the “Warsaw System”

The Legal Bureau was requested to present its Report to the Council during its current 147th Session.²⁶⁶⁾ The Study Group held its first meeting at ICAO Headquarters in Montreal in February 1996.

It discussed the legal problems in the renovation of the Warsaw Convention:

- (a) The Council, during its 145th Session on June 2, 1995, considered the General Work Programme of the Legal Committee and decided to merge items 2 (*Action to expedite ratification of Montreal Protocols Nos. 3 and 4 of the “Warsaw System”*) and 3 (*Study of the instruments of the “Warsaw System”*) into a single item: “*Review of the question of the ratification of international air law instruments.*”
- (b) In consideration of this item of the General Work Programme the 31st Session of the Assembly (September 19~October 4, 1995) decided to direct the Council to continue its efforts to modernize the “Warsaw System” as expeditiously as possible. As regards the “Warsaw System”, it should be

266) *Id.*, at 1.

recalled that the Council on June 1, 1994 during its 142nd Session, decided that a *socio-economic analysis* of the limits of liability be undertaken by the Air Transport Bureau in coordination with the International Air Transport Association (IATA).

(c) In further consideration of this subject, the Council decided on November 15, 1995 to amend the second item of the General Work Program of the Legal Committee to read: “*The modernization of the ‘Warsaw System’ and review of the question of the ratification of international air law instruments.*” To implement the decision of the Assembly, the Council further agreed that a Secretariat Study Group be established to assist the Legal Bureau in developing a mechanism within the framework of ICAO to accelerate the modernization of the “Warsaw System.” The Legal Bureau was requested to report on the findings and recommendations of the Study Group.

(e) The results of the Study Group’s deliberations and recommendations were submitted to the Council during its 147th Session. The recommendations called, *inter alia*, for the adoption of a new international legal instrument which would consolidate and modernize the “Warsaw System.”

Having considered the matter, the Council decided on March 14, 1996, in accordance with the recommendations, to refer this matter to the Legal Committee and to request the Legal Bureau, assisted by the Study Group, to present a first draft for the new instrument for information to the Council. It was also decided that a Rapporteur be appointed who would review and revise the draft instrument and to report thereon to the Legal Committee.²⁶⁷⁾

(f) Pursuant to the Council’s request, the Legal Bureau elaborated a first draft for the new instrument which was presented to the Secretariat Study Group at its second meeting (June 10~12, 1996). The members of the Study Group reviewed the draft and adopted the text of the new draft instrument,

267) ICAO Working Paper, Legal Committee, Agenda Item 4: “The modernization of the ‘Warsaw System’ and review of the question of the ratification of international air law instruments”, LC/30-WP/4, 31/1/97, at 1.

presented in the Working Paper.

- (g) The draft instrument was presented for information to the Council on October 2, 1996. Upon its consideration of the draft instrument, the Council placed special emphasis on the need for the Legal Committee to finalize work on the new instrument by the close of its 30th Session in April / May 1997 so that a Diplomatic Conference could be convened as soon as possible thereafter to formally adopt the new instrument. On September 19, 1996, the Acting Chairman of the Legal Committee appointed a Rapporteur (Mr. V. Poonoosamy, Mauritius) to carry out a study on the subject “The modernization and consolidation of the Warsaw System.” The report of the Rapporteur is presented in the Working Paper.

4. The Study Group Recommendations

After finalizing their deliberations, the Study Group adopted the Recommendations set out in paragraph 9. 2 below for consideration by the Secretary General and subsequent submission to the Council. As regards Recommendation 2, the Council is invited to approve this Recommendation in principle only, since it may wish to leave the fine-tuning and the legal details of the proposal to further discussions in the Legal Committee.

Approval of the action plan set out in Recommendation 1 and 3–9, and the approval in principle only of the approach taken in Recommendation 2, does not in any way prejudice the position any aviation States may take or may consider with regard to the IATA Intercarrier Agreement. While the recommendations are compatible with the Intercarrier Agreement, they are not identical with it, nor are they in any way linked. Therefore, the Council is invited to consider the following Recommendations on their own merits:²⁶⁸⁾

268) ICAO Working Paper, Council–147th Session, C–WP / 10381, 5 / 3 / 96, at 2.

- (1) That action should be taken to develop a new international instrument to consolidate and modernize the Warsaw Convention System and bring it in line with present-day requirements;
- (2) That such new instrument should, in particular.
 - (a) provide for a two-tier liability regime for recoverable compensatory damages in case of injury or death of passengers, comprising:
 - (i) liability of the air carrier up to [100,000 SDR] irrespective of the carrier's fault
 - (ii) liability of the air carrier in excess of [100,000 SDR] on the basis of the carrier's negligence.

The defence of contributory negligence of the passenger or claimant would be available in both instances;
 - (b) revise the limit of liability for checked and unchecked baggage
 - (c) modernize the provisions regarding the ticket and other documentary requirements; include elements of the Warsaw Convention, the Hague, Guatemala City, and Montreal Protocols as well as the Guadalajara Convention to the extent that they are appropriate, give effect to, and are consistent with the foregoing.
- (3) That such action be commenced without delay;
- (4) That a first draft for the new instrument be developed by the Legal Bureau, with the assistance of the Study Group that a Rapporteur be appointed by the chairman of the Legal Committee to review and revise the draft and present a report thereon;
- (5) That the draft instrument, together with the Rapporteur's report, be submitted to a Sub-Committee of the Legal Committee, which should be convened for this purpose as early as possible;
- (6) That as early as practicable thereafter, the matter be reported to the Legal Committee;
- (7) That upon approval of the draft instrument by the Legal Committee, the Council convene a Diplomatic Conference as soon as possible for the

formal adoption of the instrument;

- (8) That the Council States which have not done so, ratify Montreal Protocol No.4. relating to cargo liability and
- (9) That the Secretary General be requested to take all necessary measures for early implementation.

5. The Draft Instrument on the Warsaw Convention

- (1) The draft instrument is essentially a consolidated text developed along the lines of the framework of the Warsaw Convention while concurrently integrating some elements of the Hague Protocol and introducing a number of modernizing elements. Apart from minor editorial amendments, the draft fully incorporates the provisions of Montreal Protocol No.4 while featuring, where appropriate, certain technical elements of the Guatemala City Protocol and Additional Protocol No.3 to the extent they are compatible with the framework. Furthermore, the provisions of the Guadalajara Convention have been incorporated as a separate Chapter in the draft instrument.
- (2) The draft instrument is intended to replace the current complex system of Conventions, Protocols and Protocol amendments of the “Warsaw System” so as to restore legal clarity and transparency, while ensuring continuity as well as the required modernization in substance.²⁶⁹⁾

The draft instrument does not contain any explicit provision requiring the air carrier to pay out a specified amount within a predetermined period of time.

However, the draft instrument does not preclude the possibility for States to legislate on this matter or act on it through a code of conduct.

²⁶⁹⁾ *Id.*, at 2.

6. Major Elements of the Draft Instrument on the Warsaw Convention

6.1. Liability Regime For Passengers

The proposed instrument introduces a two-tier liability system in cases of accidental death or injury of passengers:

- (i) in the first tier, a regime of strict liability of up to 100,000 SDR²⁷⁰) irrespective of the carrier's fault,
- (ii) in the second tier, a regime of fault-based liability without numerical liability limits.

In both tiers, only actual compensatory damages are recoverable and must be proven by the plaintiff. Since simple negligence is sufficient to establish air carrier liability, the claimant is no longer confronted with the requirement of proving "Willful misconduct" in order to receive full compensation. The defence of contributory negligence remains available for the carrier in both tiers.

6.2. Passenger Liability Limits

The draft provides for the removal of specified numerical limits of liability in cases of accidental death or injury of the passenger attributed to the fault of the air carrier. Irrespective of the carrier's fault, the claimant may recover up to 100,000 SDR in the first tier of liability, on proof of actual damages only.

6.3. Liability Limits for Baggage and Cargo

The limits of liability for baggage and cargo have been retained, but the amounts

270) This figure was set tentatively for purposes of presentation of this draft.

of limits are to be revised. The possibility of making a declaration of value for baggage and cargo has also been retained, raising the limit of liability to the value declared.

6.4. Documentary Requirements

Documentary requirements have been modified in order to facilitate the smooth flow of passengers, baggage and cargo. New technologies and procedures for the issuance of the document of carriage, in particular automated ticketing and so-called “Ticketless travel”, will therefore be compatible with the new draft instrument.

6.5. Jurisdiction

Under the new draft instrument, an additional (fifth) jurisdiction may be available in qualified, limited circumstances. Accordingly, an additional forum shall be available upon fulfillment of restrictive conditions, requiring the carrier’s commercial and/or operational presence, instead of mere agency representation, in the passenger’s home State.

This approach reflects the idea that if an air carrier is offering services to and from a particular foreign country and sells tickets there and has established its own ticket offices or a commercial presence, then the carrier must accept to be taken to court in this jurisdiction.

6.6. Notice requirement

The notice requirement, informing passengers about the possible application of the draft instrument to their contract of carriage, has been retained along the lines of The Hague Protocol version.

6.7. Notion of damages

The concept of damages, to be awarded in accordance with the law of the forum, has been left unchanged. However, for purpose of clarification, the Preamble of the draft instrument contains a specific reference to the notion of restitution.

6.8. Special Contract

Similar to a concept provided for in the Warsaw Convention, the new draft instrument facilitates the possibility of offering higher limits (a higher ceiling) of liability than prescribed by it by means of a special contract, provided that such special contract is entered into voluntarily between the air carrier and the passenger.

6.9. Arbitration

It is intended to widen the scope for arbitration as an alternative and optional means for the settlement of disputes arising out of the new instrument, so that arbitration will no longer be limited to disputes arising out of the carriage of cargo.²⁷¹⁾

7. Action by the Council of the ICAO

- (1) On the basis of the Report of the Secretariat Study Group, the Council is invited:
 - (a) to note this paper and the attached Report
 - (b) to approve the Recommendations of the Study Group set out above, but

²⁷¹⁾ *Supra*, note 32, at 3–4.

to approve the approach with respect to Recommendation 2 of paragraph 9.2 above in principle only;

(c) to refer this matter, in line with Recommendations 4–6 of paragraph 9.2 above, to the Legal Committee, which should report back to the Council as soon as possible.

(2) The Study Group had held its first meeting at ICAO headquarters in Montreal from 12–13 February 1996. The results of its deliberations and a set of recommendations were submitted to the Council during its 147th Session on 14 March 1996 (C–WP/10381). These recommendations called, *inter alia*, for the development of a new international instrument which would consolidate and modernize the “Warsaw System.”

Having considered this matter, the ICAO council decided, in accordance with the recommendations, to refer this matter to the Legal Committee and to request the Legal Bureau, assisted by the Study Group, to present a first draft for the new instrument for information to the Council.

(3) Accordingly, the Legal Bureau developed a first draft text for the new instrument. At this second meeting, the Study Group had for review the draft text developed by the Legal Bureau.

(4) Two of the Members of the Study Group who were unable to attend the meeting in person submitted written contributions which were made available to the other Members of the Group. Members participated in the meeting in their personal capacity their views ought not to be attributed to their Government or other institutions with whom they may be affiliated.

The Group was unanimously of the view that ICAO action is urgently needed to redress the major shortcomings of the present system of liability, particularly regarding passengers, but also for baggage and cargo, and to develop a new international instrument to consolidate the Warsaw System, bringing it in line with today’s requirements.

According to the Council Decision of the ICAO on March 14, 1996, the ICAO had published a Draft New Warsaw Instrument entitled “ICAO Draft Convention on the Liability of the Air Carrier and Other Rules Relating to International Carriage by Air” on 20 September 1996.²⁷²⁾

According to the ICAO Draft Convention, this Draft Convention has adopted the principle of the limited and presumed faulty liability system. The ICAO Council is to consider the Report of the Study Group during ICAO’s 147th Session in May–June 1996.

The Draft New Warsaw Instrument (ICAO Draft Convention on the Liability of the Air Carrier and Other Rules Relating to International Carriage by Air: Reference Text) was published by the Secretariat Study Group on the “Warsaw System” of ICAO on 3 October 1996.²⁷³⁾

8. The 30th Session of the ICAO Legal Committee

The ICAO Legal Committee studied the innovation of the Warsaw System for a long time. The 30th Session of the Legal Committee was held at Montreal, Canada from April 28 to May 9, 1997. The main item on the agenda of the meeting, namely “*Modernization of the ‘Warsaw System’ and review of the question of the ratification of international air law instruments*” was deliberated by Member State delegations to the ICAO Legal Committee.

The Session prepared a draft of a new Convention which was deemed ready for presentation to a Diplomatic Conference.²⁷⁴⁾ We must understand that the global

272) ICAO, Draft New Warsaw Instrument [ICAO Draft Convention on the Liability of the Air Carrier and Other Rules Relating to International Carriage by Air], Clean Text, Secretariat Study Group on the “Warsaw System”, Clean Text, C–WP/10470 attachment.

273) ICAO Working Paper published by the Secretariat Study Group on the “Warsaw System” on 3 October 1996.

274) ICAO Working Paper, Legal Committee–30th Session, Agenda Item 7: Report on work

problems of the “Warsaw System” required a global solution. An all-encompassing, worldwide, unified and modernized framework had therefore to be promoted at the level of governments and in accordance with the international law of treaties. The major shortcoming of the “Warsaw System” which, ironically, was designed for the unification of certain rules, was its very lack of uniformity on a most crucial point of the system, namely, the regime of limitation of liability.

The disintegration of the “Warsaw System” would not be to the advantage of either passengers or carriers, since its benefits clearly outweighed its advantages. In view of the wide spectrum of socioeconomic expectations and standards regarding liability limit, it would not be possible to meet all expectations and standards of all States. With the emphasis on the objectives of “equitable compensation based on the principle of restitution” in the preamble of the draft instrument, and the importance of uniformity, predictability and universality, it was crucial for the Legal Committee to devise and agree on a common method for determining the amount of compensation.

The aim would not be for everyone to receive the same amount of damages, but that a uniform set of rules for assessing integral restitution be applied. In this context, the possibility of determining compensation in accordance with international law and the principle of justice and equity, irrespective of the competent jurisdiction before which an action is brought, should be canvassed.

Based on the assumption that a universally-acceptable method of calculating fair, equitable and predictable compensation could and would be agreed upon, the Rapporteur Mr. V. Poonoosamy submitted that:²⁷⁵⁾

- it would not be fair to limit liability of the carrier even if the basis of such a liability were to be strict or absolute;
- it would not be fair to provide for unlimited liability on an absolute strict or even presumed fault basis and

done at the Session, Draft Report on the Work of the Legal Committee during its 30th Session, LC/30-WP/7, 29/4/97, at 1.

275) ICAO Working Paper, Legal Committee-30th Session, LC/30-WP/7-1, 29/4/97, at 4-2.

- unlimited liability on the single basis of proved fault even for claims under 100,000 SDRs would undoubtedly not receive wide support in the light of recent developments in connection with the Japanese Initiative, the IATA Intercarrier Agreement on Passenger Liability, which as of April 7, 1997 had been endorsed by 85 carriers, and the Agreement on Measures to Implement the IATA Intercarrier Agreement, which as of April 17, 1997 had been endorsed by 53 carriers.

On the basis of the foregoing, the Rapporteur proposed that carrier liability regime in respects of passengers should be two-tiered: the first tier should not exceed 100,000 SDRs and the basis of the liability for the first tier should be presumed fault.

The second tier should have no predetermined limits whatsoever and should therefore provide for full compensatory damage whenever the first tier has failed to do so. To obtain full compensatory damages, the passenger would only have to prove negligence on the part of the carrier, his servant or agents.

In conclusion, the Rapporteur observed that, in order to ensure that new Convention did not suffer the fate of the 1971 Guatemala City Protocol and the 1975 Montreal Additional Protocols 1, 2 and 3 and Montreal Protocol No.4, it would be crucial for the ICAO to patiently develop a consensus on as much of this new Draft Convention as possible, and then to promote and look out for the propitious psychological moment to achieve the breakthrough on the outstanding issues. Only then would the new Convention have some guarantee of success.²⁷⁶⁾

It is desirable for us to recognize the importance of ensuring the protection of the rights of the consumer in international air transport and the need for equitable and full compensation.

There was a basic consensus that the Warsaw Convention requires modernization

276) ICAO Working Paper, Legal Committee—30th Session, Agenda Item 7: Report on work done at the Session, LC/30-WP/7-1, 29/4/97, at 4-2.

and that there should be a “two–tier” liability regime, the first tier would be based on the presumed fault of the carrier, but second tier is to be subject to strict liability. Some fundamental aspects did not marshal full consensus and alternative solutions are left in square brackets for further consideration and decision by the Diplomatic Conference likely to be convened early in 1998.²⁷⁷⁾

9. Special Group on the Modernization and Consolidation of the ‘Warsaw System’ of 1998

ICAO’s initiative was timely and contains many elements that are also provided for in other proposals currently under consideration. ICAO therefore reinforced its efforts to further promote a legal environment that adequately reflects the public interest and the needs of the parties involved.²⁷⁸⁾

The ICAO Special Group met in April, 1998, together with the Drafting Committee. Hopefully, out of this meeting presented a Draft for a new Convention or Protocol for presentation to a Diplomatic Conference. The ICAO Legal Committee also believed that the new Draft for the Warsaw Convention is ready for presentation to a Diplomatic Conference but the final decision on the convening of such a Conference within May 1999. It was be important for us to discuss deeply and deliberately the legal issues and fundamental reform for the liability system of air carriers within a Draft for the Warsaw Convention at the Diplomatic Conference under the United Nations.

The time between the “Special Group on the Modernization and Consolidation of the ‘Warsaw System’ (SGMW)” and the Diplomatic Conference must be actively utilized to arrange for profound studies of the outstanding issues and for wide

277) ICAO, for immediate release (PIO 9/97), *Draft Convention for the Modernization of the System of Air Carrier Liability approved*, at 1.

278) Ludwig Weber, “ICAOs Initiative to Reform the Legal Framework for Air Carrier Liability”, *Annals of Air and Space Law* (Vol.22, part 1, 1997), at 66.

international consultations with a view to narrowing the scope of differences and preparing for a global international consensus. Acting under the Procedure for the Adoption of International Conventions, the Council of ICAO decided to convene, from on May 11~to 20 1999, an International Conference on Air Law (“Diplomatic Conference”)²⁷⁹⁾ to consider, with a view to adoption, a Draft for the Convention intended to modernize and replace the instruments of the “Warsaw System.”

The Draft for the Convention was sent to States with a State letter dated on June 27, 1997²⁸⁰⁾ and comments from States were further considered by yet further meetings of the Secretariat Study Group²⁸¹⁾ and eventually by a “special Group on the Modernization and Consolidation of the ‘Warsaw System’ (SGMW)” established by the Council on November 26, 1997²⁸²⁾—yet another body not foreseen in the established procedures and not working with full transparency and wide representation.

The SGMW met on April 14~18, 1998 and revised the Draft prepared by the 30th Session of the Legal Committee—an admission that the Legal Committee’s Draft was less than mature for submission to a Diplomatic Conference. However, it is to be feared that this final Draft is not yet endorsed by the political will of States at large and reflects only a compromise reached within a limited group of experts arbitrarily selected to participate in the SGMW.

Whatever criticism may be expressed with respect to the unusual, time-wasting and unrepresentative procedure adopted by ICAO, the resulting Draft prepared by the SGMW deserves all praise as an excellent text reflecting the urgent needs for a modernized unified system of law.

The Draft is not a major creative achievement—it accepts verbatim the best elements of the “Warsaw System.” (in particular the Guatemala City Protocol and Montreal Protocol No.4) which so far did not come into force and compiles them

279) C-WP/10867, 154th Session of the Council on June 9, 1998.

280) LE 4/51-97/65.

281) Third Meeting 4-December 1997—see SGMW/1-WP/4; Fourth Meeting on January 26-27 1998—see SGMW/1-WP/5.

282) Decision on the basis of C-WP/10688.

together with the Guadalajara Convention of 1961 and with the more and more widely entrenched principles of the “Japanese initiative”, the IATA Agreement and the European Commission’s Regulation on the waiver of any monetary limits of liability and strict liability up to a limit of SDR 100,000.

These elements represent a “hard reality” or a “minimum benchmark” and no international Convention would be acceptable—in particular for states accounting for the largest share of international carriage by air—if it were to offer lesser overall protection to the consumer.²⁸³⁾

Liability Regime for Passengers: The Draft for the Convention (SGMW) accepted the two tier liability system with respect to accidental death or injury of the passenger. Claims up to SDR 100,000 would be based on strict liability (sometimes referred to as “objective” liability or liability “regardless of fault”). In the second tier—claims exceeding SDR 100,000 without any monetary limit—carrier’s liability would be based on fault.

However, no consensus has been reached at the 30th Session of the ICAO Legal Committee as to the burden of proof for the second tier liability and the matter remained wide open for the Diplomatic Conference on May 1999.

10. Conclusion

At the end of this brief survey, one is forced to conclude that, at the moment, we are facing a situation where some countries have no limits of compensation (for example, Japan and the domestic flights of the USA), while some other countries maintain higher limits than the Warsaw Convention prescribed.

Although progress has been made, international carriers will hopefully continue to work with the US government and other interested entities in order to address

283) Michael Milde, “*New Unification of Private International Air Law—a Rebirth of the “Warsaw System”?*”, (unpublished paper), at 14–15.

concerns not provided for in the IATA Agreements. It is very likely that IATA will continue to work with the US DOT and other interested groups to hammer out additional conditions to be incorporated into the IATA Agreements, especially in light of the US DOT's 30 June 1998 review date.

The US DOT has taken a positive step by approving the IATA Agreements conditionally and on an interim basis. There is hope that the US DOT will continue to work with IATA, carriers and governments worldwide to bring the Warsaw Convention in step with damage recovery and international travel into the 21st century.²⁸⁴⁾ The recent efforts within the ICAO to modernize the Warsaw System should be lauded and supported by all States. It would be advisable for the ICAO Legal Committee, as a principal body in the air law field, to produce an international instrument that would serve as a model for domestic legislation.

We need to revise the Warsaw system fundamentally, with regard to the liability of air carriers, in order to enact a new Draft for the Convention on an Integrated System of International Aviation Liability as soon as possible.

Briefly, the result of the ICAO Legal Committee is a consensus on several aspects of the revision of the Warsaw system but with deep differences on substantial issues (5th jurisdiction, burden proof for unlimited liability.....). The ICAO's initiative is timely and contains many elements that are also provided for in other proposals currently under consideration. ICAO will therefore reinforce its efforts to further promote a legal environment that adequately reflects the public interest and the needs of the parties involved.²⁸⁵⁾

The ICAO Study Group will meet in April 1998, together with the Drafting Committee. Hopefully, out of this meeting will come a Draft for a new Convention or Protocol for presentation to a Diplomatic Conference. The ICAO Legal Committee also believes that the new Draft for the Warsaw Convention is ready for presentation to a Diplomatic Conference, but is awaiting the final decision on the

284) Katherline A. Staton, *supra* note 9, at 1113–1114.

285) Ludwig Weber, "ICAOs Initiative to Reform the Legal Framework for Air Carrier Liability", *Annals of Air and Space Law* (Vol. X XII, part I, 1997), at 66.

convening of such a Conference in 1998. It will be important for us to discuss in depth and deliberate on the legal issues and fundamental reform for the liability system of air carriers within a Draft for the Warsaw Convention at the Diplomatic Conference under the auspices of the United Nations.

Chapter VII. The Montreal Convention of 1999

1. Conclusion and Character of the 1999 Montreal Convention

The International Civil Aviation Organization (ICAO) achieved the main objective of the Diplomatic Conference which was held at Montreal on May 10~28, 1999 that of replacing six different legal instruments, collectively known as the Warsaw System, into a single legal instrument. Victims of international aircraft accidents will be better protected and compensated following a historic air law agreement Montreal Convention concluded on May 28, 1999 among the Contracting States of ICAO at Montreal, Canada.²⁸⁶⁾

The new instrument adopted by the Diplomatic Conference on 28 May 1999 is a separate and distinct new Montreal Convention—not an amendment of the Warsaw System by a further Protocol. The ICAO succeeded in adopting a new regime for air carrier liability, replacing the Warsaw Convention and five other related legal instruments with a single convention that provided for unlimited liability in relation to passengers.

The Convention is the result of the efforts of the International Civil Aviation Organization to reform the Warsaw Convention through amendment rather than inter-carrier agreement. The stated goals of the Convention are the need to modernize and consolidate the Warsaw Convention and related instruments and recognition that collective State action for further harmonization and codification of certain rules governing international carriage by air through a new Convention is the most adequate means of achieving an equitable balance of interests.

²⁸⁶⁾ <http://www.icao.org/cgi/goto.pl?icao/en/nr/nr99.htm>

The Montreal Convention is essentially the composition of the original Warsaw Convention of 1929 and the subsequent protocols, namely, the Hague Protocol, the Montreal Protocol Nos. 3 and 4, the Guatemala City Protocol, and the Guadalajara Supplementary Convention of 1961.

Victims of international air accidents will be better protected and compensated as a result of the historic air law agreement adopted by among the Contracting State's delegates of ICAO. From 11 to 28 May 1999 the ICAO headquarters at Montreal hosted a Diplomatic Conference convened to consider, with a view to adoption, a Draft Convention intended to modernize and replace the instruments of the *Warsaw* system.

Some 525 participants from 121 Contracting States of ICAO attended,²⁸⁷⁾ one non – contracting State,²⁸⁸⁾ 11 observer delegations from international organizations, a total of 544 registered participants took part in the historic three – week conference which began on 10 May.

The Montreal Conference was a success since it adopted a new *Convention for the Unification of Certain Rules for International Carriage by Air*.²⁸⁹⁾ The new Montreal Convention adopted by the diplomatic conference will enter into force as soon as it has been ratified by 30 States. Fifty – two States including USA, China, ED etc. signed the new Montreal Convention at the conclusion of the historic diplomatic conference. This Montreal Convention entered into force on November 4, 2003. At present, 86 countries including the United States, the United Kingdom, Canada, France, Germany, Korea, Japan, Italy, China, Sweden, Brazil, Spain etc. are affiliated with the 1999 Montreal Convention.²⁹⁰⁾

The inadequacy of the 1929 Warsaw Convention, which governed air carriers' liability for death and injury, and of its subsequent revisions led to the need to modernize and unify the rules on liability. In May 1999, the Contracting States of

287) While this is a very impressive attendance, it represents only 65.4% – less than two – thirds – of the total ICAO membership which now stands at 185.

288) The Holy See – party to the Warsaw Convention.

289) DCW Doc. No.57, 28 / 5 / 99.

290) <http://www.icao.int/icao/en/leb/mtl99.pdf>

the ICAO negotiated an agreement to modernize the Warsaw Convention rules, recasting them into a single legal instrument offering an appropriate level of compensation in the event of damage caused to passengers during international air transport.

The new Montreal Convention of 1999 introduced a uniform legal framework to govern air carrier liability in the event of damage caused to passengers, baggage or goods during international journeys.

At EU Community level, and to ensure a uniform system, Regulation (EC) No 2027/97 imposes unlimited liability on Community air carriers in the event of death or injury to passengers. This Regulation was amended by Regulation (EC) No 889 /2002,²⁹¹⁾ which applied the rules of the Montreal Convention to all flights, whether domestic or international, operated by EU Community air carriers. The new liability rules of the Montreal Convention were developed during an International Air Law Conference called by ICAO to modernize the Warsaw Convention System dating back to 1929 which, as amended and supplemented over the years, still sets compensation levels for victims of air accidents, as well as liability for damage, delay or loss of baggage and cargo in accidents.

A timid attempt of the Polish delegation to have it called new Warsaw Convention²⁹²⁾ for historic reasons was left without a comment and delegations referred to the new instrument as the Montreal Convention. The new Montreal Convention shall prevail over any other rules which apply to international carriage by air between State Parties who are also parties to the old instruments of the Warsaw System.

The Conference was expected to be a landmark in the history of international law – making and of unification of private law – opening a new era in the field of private international air law and adjusting the legal regulation to the modern realities

291) Regulation (EC) No 889/2002 of the European Parliament and of the Council of 13 May 2002 amending Council Regulation (EC) No 2027/97 on air carrier liability in the event of accidents [Official Journal L 140 of 30.05.2002].

292) Based on personal notes – Minutes have not yet been published.

and needs of the travelling public and of the airlines.²⁹³⁾ The major airlines and other stakeholders in international civil aviation have embraced the principles embodied the new Convention well before its adoption at the Conference.

The Preamble of the Convention recognizes the contribution of the Warsaw System, stresses the need to modernize and consolidate the system. It also recognizes the need to ensure protection of the interests of consumers in international carriage by air and the need for equitable compensation based on the principle of restitution—an important interpretative concept of the aim of the Convention which also clearly rules out punitive, exemplary and other non—compensatory damages.²⁹⁴⁾

2. Main Contents of the 1999 Montreal Convention

In developing this new Montreal Convention, we were able to reach a delicate balance between the needs and interests of all partners in international civil aviation, States, the travelling public, air carriers and the transport.

The new Montreal Convention is divided into seven chapters with fifty seven articles: Chapter I— General Provisions; Chapter II— Documentation and Duties of the Parties Relating to the Passengers, Baggage and Cargo, Chapter III— Liability of the Carrier and Extent of Compensation for Damage; Chapter IV— Combined Carriage; Chapter V— Carriage by Air Performed by a Person Other than Contracting Carrier; Chapter VI— Other Provisions; and Chapter VII— Final Clauses.

The Montreal Convention also includes the following main elements;

293) Michael Milde, “*The Warsaw System of liability in international carriage by air— history, merits and flaws……and the new non—Warsaw Convention of 28 May 1999*”, (unpublished paper), at 1. (Notes prepared for the seminar at the National University of Singapore on 27 August 1999).

294) See also Article 29 of the Montreal Convention.

2.1. Documentation Relating to Carriage

(1) Passenger and baggage

Whereas Articles 3 of the Convention deal with Passenger and Baggage.

- (a) In respect of carriage of passengers an individual or collective document of carriage shall be delivered containing: ① an indication of the places of departure and destination; ② if the places of departure and destination are within the territory of a single State Party, one or more agreed stopping places being within the territory of another State, an indication of at least one such stopping place.
- (b) Any other means which preserves the information indicated in paragraph 1 may be substituted for the delivery of the document referred to in that paragraph. If any such other means is used, the carrier shall offer to deliver to the passenger a written statement of the information so preserved.
- (c) The carrier shall deliver to the passenger a baggage identification tag for each piece of checked baggage.
- (d) The facilitation in the recovery of damages without the need for lengthy litigation, and simplification and modernization of documentation related to passengers, baggage and cargo.

(2) Electronic Ticketing

The texts of Articles 3 and 4 affirm the use of so-called electronic ticketing for passengers and cargo. Nevertheless the 'classic' delivery of a document is still possible. For passengers a written statement maybe supplied; regarding cargo a receipt permitting identification of the consignment and access to the information contained in the record preserved by electronic or other means can be delivered.²⁹⁵⁾

²⁹⁵⁾ I.H.Ph. Diederiks-Vershoor, *An Introduction to Air Law*, Seventh Revised Edition,

(3) Carriage of Cargo

The remainder of Chapter II, Articles 5–16, deals with the carriage of cargo.²⁹⁶⁾ Clearly, the extensive list of requirements for air waybills under the Warsaw System has been drastically curtailed. Article 5 of the Montreal Convention has to be noted in particular. The only requirements for the air waybill are the inclusion of an indication of the places of departure and destination and – as the case may be – at least one stopping place, and, as the only cargo-specific detail, an indication of the weight of the consignment.

Of course the Warsaw rules making a consignor responsible for the accuracy and truthfulness of the indications and statements entered by him in the air waybill have been taken over in the Montreal Convention (Article 10). Other Warsaw Articles such as Articles 12–14, enumerating the rights of the consignor and consignee vis-à-vis the carrier, have also been maintained.

2.2. Liability of the Carrier

(1) Liability Regime for Passengers

The carrier is liable for damage sustained in case of death or bodily injury of a passenger upon condition only that the accident which caused the death or injury took place on board the aircraft or in the course of any of the operations of embarking or disembarking (Article 17 of the Convention).²⁹⁷⁾

This basic provision on liability of the carrier does not represent any innovation and in fact is a serious step back from the text of the 1971 Guatemala City Protocol. The words damage sustained in themselves assure that only compensatory

Kluwer Law International, (2001), at 116.

296) See I.H.Ph. Diedehks–Verschoor, ‘*Current Practice and Developments in Air Cargo: Comparison Warsaw Convention 1929 and Montreal Convention 1999*’, in *Air and Space Law in the 21st Century*, Liber Amicorum K.H. Böckstiegel (edited by M. Benkő and W. Kröl), 2001, at 26–45.

297) Article 17, paragraph 1 of the Montreal Convention.

damage is recoverable to the exclusion of any punitive, exemplary or other non-compensatory damages.²⁹⁸⁾

The major provisions of the 1999 Montreal Convention had adopted the two-tiered liability regime. The principle of the air carrier's unlimited civil liability in the event of bodily injury; this splits into two tiers:

- a first tier of strict carrier liability for damages of up to 100,000 SDRs (special drawing rights, as defined by the International Monetary Fund, i.e. 149,800 USD on February 23, 2007)²⁹⁹⁾;
- in excess of that amount, a second tier of liability based on the presumed fault of the carrier, which the latter may avoid only by proving that it was not at fault (the burden of proof is on the carrier).

The carrier is strictly liable up to 100,000 SDR's (Special Drawing Rights) for death or injury of a passenger resulting from an accident. The injured passenger bears the burden of establishing provable damages and the carrier may only escape or reduce its liability based on the contributory negligence of the passenger.

For provable damages over 100,000 SDR's, the carrier is liable based on fault that is, it is not obligated to pay any damages in excess of 100,000 SDR's where the carrier establishes that the damage was not the result of its negligence or wrongful act or omission, or was the result of the "sole" negligence or wrongful act of a third party. The SDR limit is subject to review and revision every five years.

(2) Quantum of compensation in case of death or injury of passengers

The most visible and welcome contribution of the new Convention is that it removes the antiquated and unjustified limitation of liability for death and personal injury of passengers – in harmony with the Japanese initiative of 1992, the IATA

298) See also the Preamble and Article 29 of the Montreal Convention.

299) <http://www.imf.org>

Passenger Liability Agreement of 1995 and the EC Regulation 2027 of 1997.

The Convention accepts two-tier system of compensation: up to 100.000 SDR the carrier is strictly liable and cannot exclude or limit his liability.³⁰⁰⁾

Beyond the sum of 100.000 SDR the liability is based on fault with reversed burden of proof: the carrier is not liable above the sum of SDR 100.000 if he proves that the damage was not due to the negligence or other wrongful act or omission of the carrier or its servants or agents.

In view of the technical and operational complexity of aviation this burden of proof will never be easy to discharge—the complicated chain of facts and their mutual causal nexus in aircraft accidents frequently leaves doubt about the complete absence of any negligence, wrongful act or omission.

While there is no monetary limit of liability in the second tier, it would not be realistic to expect astronomically high compensations under the new Convention — the claimants will recover actual proven compensatory damage—punitive, exemplary and other non—compensatory damages are specifically excluded.

However, it is to be expected (as is the situation at present) that the actual compensations will widely vary in different jurisdictions—some limit compensation to economic damage, others award substantial compensations for non—economic damage, such as pain and suffering, loss of enjoyment of life, loss of parental guidance, loss of companionship, etc and the awards may be unforeseeably high in particular when juries are involved in the decision.³⁰¹⁾

A novel element of the new Convention is that the carrier may not be obliged to pay compensation beyond SDR 100.000 if he proves that the damage was solely due to the negligence or other wrongful act or omission of a third party.³⁰²⁾

300) Except under the specific provision of Article 20 in case of fault or contributory fault of the claimant.

301) Michael Milde, *ibid*, at 31.

302) Article 21, paragraph 2(b) of the Montreal Convention.

(3) Delay

The carrier is liable for damage occasioned by delay in the carriage by air of passengers, baggage or cargo. Nevertheless, the carrier shall not be liable for damage occasioned by delay if it proves that it and its servant and agents took all measures that could reasonably be required to avoid the damage or that it was impossible for it or them to take such measures.³⁰³⁾ In case of damage caused by delay as specified in Article 22, paragraph 1 of the Montreal Convention in the carriage of persons, the liability of the carrier for each passenger is limited to 4,150 Special Drawing Rights.

The air carrier cannot possibly be strictly liable for any delay in the carriage by air since such a system would not encourage all necessary safety precautions for the flight. There is no accepted definition of delay and of its duration and airline tariffs mostly indicate that the times of departure and arrival are approximate and are not guaranteed. The strong group of 53 African States in fact proposed to the Conference to delete any reference to liability for the delay.³⁰⁴⁾

The compromise solution in the Convention is liability for delay in the carriage of passengers, baggage and goods based on fault with reversed burden of proof: the carrier is not liable if it proves that it and its servants and agents took all measures that could be reasonably required to avoid the damage or that it was impossible to take such measures.

The term all measures that could be reasonably required is much less exacting than the words all necessary measures in Article 20 of the Warsaw Convention.³⁰⁵⁾

2.3. Exoneration

The regime of liability accepted in the Convention is *strict liability*, not absolute

303) Article 19 of the Montreal Convention.

304) DCW Doc No.22.

305) Michael Milde, *ibid.* at 30.

liability. The carrier may be fully or partly exonerated from its liability if he proves that the damage was caused or contributed to by negligence or other wrongful act or omission of the claimant.³⁰⁶⁾

Significantly, this defense can be explicitly also used in case of death or bodily injury of a passenger even for the first tier of liability under 100.000 SDR and it would be thus incorrect to argue (as was the case at the Conference) that up to 100.000 SDR the carrier is placed in the position of an insurer without any defense.

2.4. Advance Payment

The Montreal Convention requires a carrier to make advance payments to passengers in the event of death or injury to meet the passengers immediate economical need. The amount of the payment will be subject to national law and will be deductible from any future settlement or award.

In cases of aircraft accidents, air carriers are called upon to provide advance payments, without delay, to assist entitled persons in meeting immediate economic needs the amount of this initial payment will be subject to national law and will be deductible from the final settlement.

2.5. Jurisdiction

The legal action for damages resulting from the death or injury of a passenger may be filed in the country where, at the time of the accident, the passenger had his or her principal and permanent residence, subject to certain conditions.

The primary aim of unification of private law is not only to remove or to minimize the conflict of laws but also to avoid conflict of jurisdictions. In its Article 28 the Warsaw Convention provided for four competent jurisdiction in the territory of one of the Contracting states to be chosen at the option of the claimant:

306) Article 20 of the Montreal Convention.

① the court of the domicile of the carrier, ② the court of the principal place of business of the carrier, ③ the court of the carrier's place of business through which the contract has been made and ④ the court at the place of destination.

This is a fairly wide choice enabling considerable forum shopping and the claimant's choice of the forum will determine all matters of procedure³⁰⁷⁾ and to a large degree also the decision on the level of compensation.

Already in 1971 at the Guatemala City Diplomatic Conference the US delegation insisted on the inclusion of the 5th jurisdiction—the place of residence of the claimant. The delegations realized at that time that the consequence of this proposal was that every US claimant will be able to establish the jurisdiction within the US whose Courts were known for awarding compensations far in excess of the awards common in other countries.

During the preparatory work on the new Convention and at the opening of the Diplomatic Conference the US delegation made clear its belief that including the fifth jurisdiction in any new convention represents an essential element in moving forward with a revised convention and that a Convention without this provision or with a limit of liability would, therefore, not be acceptable to the United States.³⁰⁸⁾

The question of the 5th jurisdiction thus became a non-negotiable issue and the Diplomatic Conference gradually rallied to it. Eventually even France withdrew its strong objections but was anxious to prevent the creation of a precedent for other fields of liability for that reason it proposed to insert the words or having regard to the specific characteristics of air transport in the new Article.³⁰⁹⁾

The introduction of the 5th jurisdiction in Article 33 paragraph 2 of the new Convention hardly deserves much theoretical attention and is in no way revolutionary.

Under most legal systems the claimant can always bring an action in the place

307) According to Article 33 paragraph 4 of the Montreal Convention, Questions of procedure shall be governed by the law of the Court seized of the case.

308) DCW Doc No.12

309) DCW Doc No.36; in one version this wording was accepted but was deleted in the final text surprisingly, however, these words remained in the French text of the Convention as signed.

of his principal and permanent residence if the opponent has some (commercial) presence in the same place. In fact Article 28 of the Warsaw Convention was needlessly depriving the claimant of this logical jurisdiction.³¹⁰⁾

However, the acceptance of the 5th jurisdiction is a diplomatic victory for the US and it can be realistically expected that claimants' lawyers will use every opportunity to file the claim in the US jurisdiction—it brings advantages in the liberal system of discovery, much wider scope of compensable non-economic damages than anywhere else in the world and the jury system prone to very generous awards. In the long run it will be the consumer who will pay for high insurance costs for such increased risk exposure.

2.6. Insurance

Air carriers must submit proof of insurance, thereby ensuring the availability of financial resources in cases of automatic payments or litigation. State Parties shall also require their carriers to maintain adequate insurance covering their liability under this Convention.

A carrier may be by the State Party into which it operates to furnish evidence that it maintains adequate insurance covering its liability under this Convention.³¹¹⁾ A major innovation in the new Convention is the requirement of compulsory insurance covering the carriers' liability.

A two-fold obligation / right is imposed by the Convention: all States Parties to the Convention are obliged to require their carriers to maintain adequate insurance covering their liability under the Convention on the other hand, any State Party has the right to require a carrier operating into its territory to furnish evidence that it maintains such adequate insurance.

310) Michael Milde, *ibid.*, at 34.

311) Article 50 of the Montreal Convention.

2.7. New policy elements in the Convention

(1) Opening for signature by Regional Economic Integration Organizations

Without any visible enthusiasm and evidently as part of the overall bargaining the Diplomatic Conference accepted the proposal of the 15 European Community States supported by seven additional “expectant members”³¹²⁾ that the Convention shall be open for signature and ratification to Regional Economic Integration Organizations.

A precedent in this matter was set in 1982 in the United Nations Convention on the Law of the Sea and it was argued that this will ensure that the Convention is durable and can keep pace with forthcoming developments if such regional economic integration organizations assume competence in areas covered by the Convention.

The EU was not a party of the Warsaw System but it has to be duly recognized that it helped to advance the revision of the system by its 1997 Regulation.

In international law and practice the EU is recognized as a subject of international law distinct from its Member States.³¹³⁾ The acceptance of this proposal necessitated complex drafting to take account of the fact that the EU does not have its own territory and that the reference to State Party in numerous provisions is not applicable to the EU.³¹⁴⁾

(2) Hong Kong clause

The Conference accepted with full understanding and support the proposal of the

312) DCW Doc No.37 presented by Austria, Belgium, Cyprus, Czech Republic, Denmark, Greece, Ireland, Italy, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom.

313) Michael Milde, *ibid.*, at 35.

314) Article 53, paragraph 2 of the Montreal Convention.

delegation of China³¹⁵⁾ to insert in the final clauses a provision on States with more than one system of law enabling a State which has two or more territorial units in which different systems of law are applicable to extend the ratification of the Convention to all its territorial units or only to one or more of them.

The Conference understood the term different systems of law as meaning in reality different social and economic system and it is not unlikely that China may eventually ratify the Convention with respect to Hong Kong and Macao earlier than it will be ready to accept it for the entire territory of China. In the off-the-record light-hearted talks several delegates expressed doubts that this clause will be ever used in other States with different systems of law (Canada / Quebec or England / Scotland).³¹⁶⁾

2.8. Entry into force

The delegations of Australia and New Zealand presented a proposal requiring 30 ratification by States representing at least 51% of the total international scheduled air traffic of ICAO Member States.³¹⁷⁾ Simultaneously on May 25, 1999, the delegation of the US proposed, also just two days before the end of the Conference, to increase the threshold for entry into force of the new Convention to 30 States—further qualified by the requirement that those States must represent at least 60% of the total international scheduled air traffic.³¹⁸⁾

The argument was that low threshold would promote a patchwork, rather than uniformity, in international carriage by air. It was further argued that currently there are over 130 states party to different Warsaw instruments and over 120 airlines representing over 90% of international air transportation have signed the IATA 1995 Inter-carrier Agreement.

315) DCW Doc No.34.

316) Michael Milde, *ibid*, at 36.

317) DCW Doc No.49.

318) DCW Doc No.45.

The Diplomatic Conference agreed that the Convention shall enter into force upon ratification by 30 states but did not accept the qualification that the ratifying States must represent at least 51 or 60% of the total scheduled international carriage by air. Not bad—in the light of the fact that the first work on a fundamental revision of the Conference.³¹⁹⁾

3. Comment for the 1999 Montreal Convention

I would like to comment two points for the legal interpretation and problems on the New Montreal Convention.

3.1. The Title of the Draft Convention

The Title of the original draft instrument developed by the Legal Bureau of ICAO with assistance of ICAO Special Study Group (SSG) was “*ICAO Draft Convention on the Liability of the Air Carrier and Other Rules Relating to International Carriage by Air.*” In the 30th Session of the Legal Committee, the Chairman³²⁰⁾ proposed the term “ICAO” to be deleted. Upon the suggestion of the Rapporteur, the Committee agreed to defer consideration of the title, until a clearer picture emerged of the contents of the proposed new instrument.

In the final stage, the Committee reconsidered the title of the new Convention, as some delegations expressed their wish to retain the original of the Warsaw, while others preferred to modify it to take into account new realities, it was decided to refer the matter to the Drafting Group.

The Diplomatic Conference decided it on the “*Convention for the Unification of*

319) On 1–15 February 1966 ICAO held a *Special Meeting on Limits of Liability for Passengers under the Warsaw Convention and The Hague Protocol*, see ICAO Doc 8564, LC/154 1–2, LIM–Report.

320) Masao Sekiguchi, *ibid*, at 146.

Certain Rules for International Carriage by Air”, The title decided by the Diplomatic Conference involving the same words “for” twice seems to be required further refinement.

It will be desirable for us to change the title of the Montreal Convention that the second “for” should be replaced with “relating to”; the other is that the first “for” to be replaced with “on” as “*Convention on the Liability of the Air Carrier and Other Rules Relating to International Carriage by Air.*”

3.2. The Personal Damage including Mental Damage

According to Article 17 of the Montreal Convention, air carrier is liable for damage sustained in case of death or bodily injury of passengers. The Guatemala City Protocol referred to “personal injury” a concept wider than “bodily injury” and it is a pity that the opportunity was not kept open for compensation of a debilitating mental trauma or other mental injuries.³²¹⁾

While several delegations were inclined to include mental injuries,³²²⁾ the International Union of Aviation Insurers (IUAI) welcomed that ICAO Special Group on the Modernization and Consolidation of the ‘Warsaw System’ (SGMW) deleted from the draft the (Guatemala) expression personal or the Legal Committee’s words mental injury and referred only to injury the IUAI Observer urged that the adjective bodily should be added to injury in order to prevent the possibility of mental injury’ finding its way back through an over—generous interpretation of the word injury.³²³⁾

The Diplomatic Conference also deleted from the SGMW draft the sentence which would exonerate the carrier if (or to the extent that) the death or injury resulted from the state of health of the passenger.³²⁴⁾

321) Michael Milde, *op. cit.*, at 28.

322) E.g., all LACAC delegations in DCW Doc No.14, separately Colombia in DCW Doc No.31, Norway and Sweden in DCW..... Doc No.10.

323) DCW Doc No.28.

The result of the current drafting may well be that the air carrier is deemed to be an insurer of all risks on board, even if they are not related to aviation and are beyond his control.

While the 30th Session of the Legal Committee affirmed “bodily or mental injury”, the SGMW refused the adoption of the concept “mental injury.” One expert told us at the fourth meeting of the SSG that the original French version which used the term “lésion corporelle” which is his view also encompassed some psychic elements.

When recalling that the Guatemala City Protocol adopted the term “personal injury” for its French version and the Montreal Additional Protocol No.3 endorsed the same term, it is appropriate that the term “bodily injury” should be replaced with the term “personal injury” within which also encompassed some psychic elements.³²⁵⁾ The fact that the words ‘wounding or bodily injury’, used in the Convention, were replaced ‘by personal injury’ in the passenger notice suggests an intention to clarify the type of injury which is capable of compensation.³²⁶⁾

According to the Korean and Japanese ideas, airlines should not only pay compensation to passengers immediately after the accident, but also the so-called ‘condolence’ money to the next of kin. Condolence money is a gift to help a dead person’s spirit in the hereafter: it is given on account of the grief and sorrow suffered by the next of kin, and it has risen considerably over the years.

The total amount of the Korean and Japanese claims in the case of death is calculated on the basis of the loss of earned income, funeral expenses and material

324) Michael Milde, “*The Warsaw System of liability in international carriage by air—history, merits and flaws……and the new non-Warsaw Convention of 28 May 1999*”, (unpublished paper), at 28. (Notes prepared for the seminar at the National University of Singapore on 27 August 1999).

325) Masao Sekiguchi, “*The Refinement of the Draft Convention for the Unification of Certain Rules for International Carriage by Air*”, *The Korean Journal of Air and Space Law*(Vol.11, 1999), at 154–155.

326) *Krystal V. BOAC and British Airways*, US District Court, Central District Court of California, September 10, 1975; *Avi*, Vol.14 at 17, 128; *Schoner’s case law digest, air law*, Vol.II, 1997), at 113.

damage (baggage etc.), plus condolence money.³²⁷⁾

The economic and social change will be occurred continuously after conclusion of the new Montreal Convention. The individual income will be increased gradually and Internet, the avionics and air high-technology also will be advanced rapidly during the soon coming millenium.

In addition, the real value of life and human right will be enhanced substantially. The amount of compensation for damage caused by aircraft accident has increased in dollar amount as well as in volume. All air carrier's liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

When victims are not satisfied with the amount of the compensation for damage caused by aircraft accident for which an airline corporation is liable under the current liability system. I also would like to propose my opinion that it is reasonable and necessary for us to interpret broadly the meaning of the bodily injury on Article 17 of the new Montreal Convention so as to be included the mental injury and condolence.

4. Conclusion

At the end of this survey, one is forced to conclude that, at the moment, we are facing a situation where some developed countries have no limits of compensation, while other some countries maintains higher limits than the Warsaw Convention prescribed.

The recent efforts to modernize the Warsaw System for long time by ICAO should be lauded and supported by all States. At last the ICAO have succeeded in modernizing and consolidating more than half century old Warsaw system into one

327) Doo Hwan Kim, *"The Liability of International Air Carriers in Changing Era"*, The Use of Airspace and Outer Space for all Mankind in the 21st Century, (Kluwel Law International, 1995, The Netherlands), at 102.

unified legal instrument as a new Montreal Convention on 28 May 1999. We must correctly interpret the meaning of every articles composed by Article 1–57 of the new Montreal Convention.

Chapter VIII. Liability for Damages Caused to Third Parties on the Surface

1. Introduction

The damage caused by an aircraft in flight to persons or property on the ground or water gives a right to compensation on proof only that the damage exists and is attributable to the aircraft. The liability generally upon the operator of the aircraft. The “operator” is any person who has the aircraft at his disposal and makes use of it on his own account. In addition to this, aircraft that suddenly fall on factories, buildings or other residential areas of a city will raise the personal or property damages on the surface of ground.

In order to solve legal problems in the case of surface damages, an international Conventions denominated as the “*Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, 1933*,” was concluded at Rome. This Convention was revised twice in 1952 at Rome and in 1978 at Montreal.³²⁸⁾

The Rome Convention of 1933, the Revised Rome Convention of 1952 and the Montreal Protocol of 1978 had adopted the principle of the limited and strict liability. I would like to explain the summary of the abovementioned one Convention and two Protocols which is based on the tort liability.

328) Kim, Doo Hwan, “*Air Carrier’s Civil Liability for Damages to Third Parties on the Surface*”, Justice and Administration (Sabeob Haingjung), August through December 1983, Vol.272, 273, 274, at. 28–29, at. 23–33, at. 49–60.

2. The Rome Convention of 1933

The Warsaw Convention does not deal with damage caused to third parties on the surface during the flight of aircraft. As early as June, 1927 which met in London, *Comité International Technique d'Experts Juridiques Aériens (CITEJA)* showed interest in this problem. However, it is not until the Budapest meeting in 1930, that agreement was reached on the limitation of liability. The Budapest text was amended and completed in 1932 by the CITEJA during a meeting held in Stockholm. Finally, the 3rd International Private Air Law Conference which convened in Rome, on May 1933, succeeded in finalizing the Convention. As a result of extensive studies and negotiations the *Convention for the Unification of Certain Rules Relating to Damages Caused by Aircraft to Third Parties on the Surface* was opened for signature in Rome on May 29, 1933; thereafter cited as the Rome Convention.

This Convention applies to damage caused on the surface in the territory of a State party to the Convention by an aircraft registered in the territory of another State party to the Convention.³²⁹⁾

The right to compensation for damage caused by an aircraft in flight or anything falling from the aircraft to persons or property on the surface is provided upon proof only that the damage exists and it is attributable to the aircraft.³³⁰⁾

The liability falls upon the operator of the aircraft and is limited for each occurrence up to an amount determined at the rate 250 Poincaré francs for each kilogram of the weight of the aircraft, but no less than 600,000 francs and not greater than 2,000,000 francs. One third of the amount of the maximum liability must be appropriated for damage to property and the remaining two-thirds for damage caused to persons, but not more than 200,000 francs per person. If the total claims exceed the limits, the compensation is reduced proportionately.³³¹⁾

329) Article 20, para. 1 of the Rome Convention.

330) Article 2 of the Rome Convention.

331) A. Tobolewski, *op. cit.* at. 37–39.

3. The Rome Convention of 1952

This deals with damage caused by foreign aircraft to third parties on the surface. The economic aspects were considered by the Air Transport Committee and the Council prior to acceptance by a diplomatic conference on private air law at Rome. The Conference took place in September and October of 1952 and the text of a new Convention was signed on October 7, 1952 and came into force February 4, 1957.

The full title of the new *Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface* customarily referred to as the Rome Convention of 1952. The Convention includes the principle of absolute liability of the aircraft operator for damage caused to third parties on the surface but places a limitation on the amount of compensation. It also provides for the compulsory recognition and execution of foreign judgements.

4. The Montreal Protocol of 1978

As early as 1964, ICAO began work on the revision of the Rome Convention. Two proposals were finally prepared and forwarded to the Diplomatic Conference, which was held in September in Montreal. As a result of the Conference, a Protocol to Amend the *Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface* signed in Rome on October 1952, was drafted and adopted on September 23, 1978. This Montreal Protocol simplified the modified Rome Convention and adjusted the limits of liability. The Protocol did not introduce significant change to the system of liability but only specified and clarified some obscure and unclear definitions and principles. The most important changes were in the limits of liability which were expressed in Special Drawing Right (SDR) and gold monetary units and in the divisions of weight upon which limits of liability were to be calculated.

5. The Problems of Air Carrier's Tort Liability in the United States

Relying on domestic U.S. tort law for recovery of losses sustained in air disasters has proven to be unduly time-consuming and insufficient in achieving the desired result in terms of timely and just compensation for victims and their families. According to a study report by the US Rand Corporation the average claim takes two years to reach settlement. Compensation can take over four years if a trial is involved and up to seven years or longer if the victim is attempting to prove wilful misconduct³³²) on the part of the airlines in order to break the liability cap of the Warsaw regime.

For victims and families who need prompt compensation for their losses, delays of several years can be devastating. Families of the victims of the Korean Air Lines (KAL) flight 007 tragedy had gone to trial on the issue of damages. After eight years they are in this respect where they could have been under the Protocols in approximately six months. Moreover, they had to be taken the time-consuming appeals to be filed by KAL. Furthermore, according to the said study report, while American claimants under the Warsaw Convention received, on average, about US \$200,000 in compensation for aviation accidents that occurred between 1970 and 1982, American claimants under the domestic system received on average about US \$490,000. The uncertainty of the results of litigation was an important factor encouraging acceptance of compensation that was less than the value of the actual loss.

The average award in the US domestic tort system is about US \$800,000 around twenty years ago. One case that came out of the post 1982 accidents by the data series for the Warsaw Convention was at US \$325,000. Victims may therefore well seek to breach the Convention limits by alleging wilful misconduct or an intentional act by the air carrier. This will be difficult to prove in most cases and highly

332) Cf. Art. 25 of the Warsaw Convention, cited at 171 n.9.

unlikely where airlines are so often the innocent victims of attacks which are aimed at states.

However, in the case of KAL 007, which strayed over Soviet airspace, an American Federal Jury found the crew guilty of wilful misconduct and the airline has been ordered to pay some US \$50 million to relatives of 137 passengers, that is US \$365,000 per passenger. After the KAL 007 accident 132 cases had already been settled. The airline is understood to be appealing this case to the Supreme Court which has decided in its favour in a related case, namely *Chan v. Korean Airlines*,³³³⁾ arising from the same incident. Here the decision was that the limits could not be breached simply because the notice contained on the ticket was in “8 point” type rather than the “10 point” prescribed in the 1966 Montreal Agreement.

333) Decision of the US Supreme Court of April 18, 1989, No.87–1055.

Chapter IX. Comment on the Draft Convention for the Compensation for Damage Caused by Aircraft to Third Parties

1. Introduction

Hijackers as the horrible terrorists are the public enemy for mankind. We must study the preventive and efficient measure against terrorist's attack in cooperation with Asian Pacific countries each other. The cruel terrorists attacked the World Trade Center at New York and Pentagon building at Washington, D.C. on September 11, 2001. On that day, for the first time in history, aircraft were used as weapons of mass destruction, thus presenting a significant new threat to civil aviation.

This problem is global and seriously affects the aviation safety, efficiency and regularity of international, as well as domestic civil aviation. After the September 11 disaster, every country is trying so hard to safeguard civil aviation against terrorism. Internationally, every country is taking some measure to block the money channel which goes into terrorist groups.

As aviation safety and security issues, especially preventing acts of unlawful interference, get more attention and become the major topic of world-wide aviation community, establishment and implementation of comprehensive and systemic aviation safety and security program is strongly demanded ever before. The definition of acts of unlawful interference include the hijack of aircraft.

After the catastrophic losses of 11 September 2001 (9/11) and the impact and response of the aviation insurance market, however, ICAO quickly focused its effort

on cases where the aircraft is unlawfully and deliberately used to inflict maximum possible damage and the insurance available to protect the air carrier concerned from such liability (which is strict in many jurisdictions and unlimited in most jurisdictions) is wholly inadequate or even unavailable. This work has thus advanced with the twin objectives of ensuring adequate compensation for third party victims and ensuring the continued existence of the air carrier concerned and the financial viability of the industry as a whole.

The International Civil Aviation Organization (ICAO) and its 189 Contracting States have urgently and continuously taken steps to intensify their work aimed at preventing and eliminating acts of terrorism. The ICAO has been carried out the important role in order to maintain the world peace, aviation safety and security in the international community as well as dedication of its safety and security since events of September 11.

Terrorist are directed at States, not against individual airlines. It is generally accepted that it is to no one's benefit to destroy an airline because of its inability to pay for terrorist acts directed at a state. But, because of strict liability law exist in many jurisdiction, and because airlines are now less able to secure insurance coverage for this terrorist exposure, a disaster equivalent to that of 9/11 is likely to result in collapse of the affected airlines.

In 2005 and 2006, insurance coverage effectively withdrew for damage to the aircraft hull caused by weapons of mass destruction (WMDs).

On the liability side, the availability of insurance coverage for WMDs is soon expected to be restricted. As result of this reduction cover, airlines are forced to absorb the responsibility themselves for exposure of their aircraft to acts of terrorism unless governments step in to relieve them this responsibility. With strict liability regimes in effect in many jurisdictions, airlines are accountable to third parties in case of terrorist-caused incidents, with or without insurance cover.³³⁴⁾

The Special Group, Legal Commission, Legal Committee and Council of ICAO

334) ICAO Working Paper, A36-WP/74' LE/5 23/08/2007, at 2.

has been discussed for long time the amendment and renovation of the 1952 Rome Convention (Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface) in order to prevent and eliminate the terrorist's attack to the aircraft and to solve the problems of insurance since 2000.

I think that the 33rd Session of the Legal Committee of ICAO held from 21 April to 2 May 2008 will be decided to enact a new "Convention on Compensation for Damage Caused by Aircraft to Third Parties, incase of Unlawful Interference or from General Risks" such as an modernization and innovation of the modernization of the 1952 Rome Convention.

I would like to explain the history and background of the 1952 Rome Convention, the reasons of amendment for the 1952 Rome Convention, activities of ICAO on the modernization of the 1952 Rome Convention, main contents and author's comments for the Draft Convention on the Modernization of Rome Convention in order as the followings.

2. History and Operator's Liability in the 1952 Rome Convention

2.1. Historical Background of the 1952

Rome Convention and the 1978 Montreal Protocol

The Rome Convention on Surface Damage of 1933 was agreed to at the third International Conference on Private Air Law and was signed on May 29, 1933.

It was designed to unify the rules of law on the subject of damage caused by aircraft to the third parties on the surface, and also dealt with the requirement that aircraft flying over foreign territory should be insured. The rules of the Rome Convention of 1933 were soon found to be lagging behind the rapid developments

in aviation, and the Convention drew only a very limited number of ratification.³³⁵⁾

After the Second World War the matter was once again given attention, and at the instigation of the ICAO Legal Committee a Sub-committee was established in 1947 to amend the Rome Convention and to determine which objections had in fact prevented states from ratifying.

A new Convention was, based upon Prof. S. Iuul, devised and finally approved at the Conference on Private International Law held in September of 1952. It was opened for signature in October 1952. In 1952, the Convention on “*Damage Caused by Foreign Aircraft to Third Parties on the Surface*” was adopted at Rome, Italy. This Convention entered into force globally on February 4, 1958.³³⁶⁾

The Rome Convention of 1952 is still in force, but it did not attract much ratification either. Only 49 States out of the 189 ICAO Member States did in fact ratify in December, 2007, and that number did not even include major powers like the United States, the United Kingdom, Germany, Canada, and Japan.

In 1978 a Diplomatic Conference was convened by the Council of ICAO, where 58 States were represented, and where IATA and ILA also attended as observer. A “*Protocol to Amend the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface signed at Rome on 7 October 1952*” was adopted at Montreal aiming at amending the Rome Convention of 1952.³³⁷⁾ Though Montreal Protocol of 1978 was signed by 14 ICAO Member States, but it was ratified by 11 ICAO Member States on December, 2007. But this Protocol entered into force globally on July 25, 2002.

335) I. H. Ph. Diederiks-Vershoor, *An Introduction to Air Law*, Kluwer Law International (1971), at 147.

336) <http://www.icao.int/icao/en/leb/rome1952.pdf>

337) Protocol to Amend the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, Montreal, 23 September 1978; hereinafter cited as the 1978 Montreal Protocol.

2.2. Operator's Liability for Damage Caused to Third Parties by Foreign Aircraft

According to preamble of the Rome Convention of 1952, the signatory States were *“moved by a desire to ensure adequate compensation for persons who suffer damage caused by foreign aircraft on the surface, while limiting in a reasonable manner the extent of the liabilities incurred for such damage in order not to hinder the development of international civil air transport.”*

The States also convinced of “the need for unifying to the greatest extent possible, through an international convention, the rules applying in the various countries of the world to the liabilities incurred for such damage.” The Convention applies to damage caused on the surface of one Contracting State by aircraft in flight registered in another Contracting State. It imposes absolute liability on those responsible. Liability exists regardless of fault on the part of the responsible party, and only very limited defenses are available. Article 1 of the 1952 Rome Convention provides that “any person who suffers damage on the surface shall, upon proof only that the damage was caused by an aircraft in flight or by any person or thing falling there from, be entitled to compensation.”

Liability attaches to the operator of the aircraft in general, the person making use of the aircraft at the time the damage is caused. The registered owner is presumed to be the operator unless he can prove that some other person is the operator.

I think that the Rome Convention of 1952 and Montreal Protocol of 1978 had adopted the principle of limited liability in order to afford some protection to the operators of aircraft and aviation enterprises. As for the limits themselves, they are clearly expressed in the 1952 Rome Convention in terms of weight of aircraft, while gold francs are the units of account. A scale of five weight categories has been adopted for this purpose, a number which has later been reduced to four categories in the Montreal Protocol.

In addition to the limit per aircraft, Article 11(2) in the 1952 Rome Convention

states that liability in respect of loss of life or personal injury shall not exceed 500,000 gold francs per person killed or injured. As regards limits of compensation for loss of life or personal injury in the 1978 Montreal Protocol, these were raised 375 percent over those set forth in the Rome Convention, namely to a maximum of 125,000 SDR (or 1,875,000 Monetary Units).

In 1978, a Protocol was adopted at Montreal aiming at amending the Rome Convention of 1952. According to the 1978 Montreal Protocol, the limits of liability were upwardly amended, with the Special Drawing Rights (SDR) replacing the gold franc as the unit of currency.

In comparison to the Convention of 1952 the limits have indeed been raised substantially, but the United States still consider these sums to be far too low, especially in relation to large transport by aircraft. Moreover, the United States objected to the special limits with regard to liability for death and injury and so they did not sign the Rome Convention.

In 1976, Canada denounced the Convention; Australia did so in 2000. A number of large aviation nations have not ratified these instruments. At least since the 1970s, a number of States have indicated that there should be no liability limits. It is clear that the instruments are not acceptable to any notable extent to the international community, and that they do not reflect the needs of that community.

2.3. Reasons Why the 1952 Rome Convention should be amended

Many economic and social changes have occurred since the 1952 Rome Convention and the 1978 Montreal Protocol was effectuated.

First, All air operator's liability caused by the foreign aircraft should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

Secondly, the limits for compensation mentioned in the Convention were

considered too low. When victims, survivors and the injured persons are not satisfied with the limited amount for which an airline corporation and aircraft's operator is liable under the current limited system, they tend to bring claims against the manufacturer of the aircraft or the air traffic controller for the balance of the damages which are not thoroughly compensated by the airlines and aircraft operators. The Rome Convention does not cover claims against parties other than the aircraft's operators.

Thirdly, the liability limitation in the Rome System was very controversial and questionable. In the light of the development in the high technology and safety of air transportation, this reason for the liability limitation does not exist any more.³³⁸⁾

Fourthly, because the Rome Convention is very complicated, victims, survivors and the injured party receiving compensation for damages caused in the same aircraft accident have very different rights according to the jurisdiction in question, even when they have paid the same freight. This discriminates among the victims and can no longer be justified.

Fifthly, the Rome Convention did not deal with problems such as noise, super sonic boom of aircraft and nuclear damage.³³⁹⁾

Sixthly, insurance poses a problem. Nowadays almost all the damages resulting from air transportation are covered by liability insurance.

Most of the insurance company dislikes taking the liability insurance for covering the huge and immense damage such as catastrophe of September 11, 2001 in the United States of America.

Influenced by the principle of absolute liability, however, the present air law system could not settle fundamentally air law problems and disputes without a dramatic and comprehensive reform for the 1952 Rome Convention and the 1978 Montreal Protocol.

338) Doo Hwan Kim, "Some Considerations of the Draft for the Convention on Integrated System of International Aviation Liability," *Journal of Air Law and Commerce* (Vol.53, No.3, 1988) SMU, USA, at 774-776.

339) I. H. Ph. Diederiks - Vershoor, *op.cit.*, at 148.

3. Main Contents and Author's Comments for the Draft Convention on the Modernization of the 1952 Rome Convention

3.1. Activities of ICAO on the Modernization of the 1952 Rome Convention

The 31st Session of the Legal Committee of ICAO of 2000³⁴⁰⁾ considered a proposal by Sweden to include in the General Work Programme of the Committee an item on the modernization of the Rome Convention.

The delegate explained that the Convention should be modernized to reflect recent developments, including liability limits and environmental damage on the ground caused by aircraft. The item was included with priority No.4 in the Work Programme.

The 32nd Session of the Legal Committee of ICAO was held in Montreal from 15 to 21 March 2004 under the chairmanship of Mr. G. Lauzon (Canada). It had as Agenda Item 3 the subject: *Consideration of the Modernization of the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface*, signed at Rome on 7 October 1952.

This item was considered on the basis of the text of a *Draft Convention on Damage Caused by Foreign Aircraft to Third Parties* prepared by the Secretariat with the assistance of a Secretariat Study Group established by the Council on 5 June 2002.³⁴¹⁾ The Group held four meetings in 2002 and 2003.

As a further basis of its discussions, the Legal Committee considered the Report of the Rapporteur (Mr. M.B. Jennison, United States) which contained comments and a detailed review of the Draft Convention, as well as a number of working

340) The 31st Session of the Legal Committee of ICAO was held at Montreal, Canada from 28 August to 8 September 2000.

341) C-DE166/8 refers.

papers and other documents presented by members of the Committee and observers.

In order to facilitate the work of the Committee with regard to the draft instrument, a Drafting Committee was established, chaired by Mr. H. Kjellin (Sweden) and composed of the following delegations: Argentina, Australia, Bahrain, Brazil, Canada, China, Cuba, France, Gabon, Germany, Japan, Kenya, Russian Federation, Sweden and the United Kingdom.

The Rapporteur acted as an ex-officio member and the following observers also participated in the meetings of the Drafting Committee as observers the Aviation Working Group (AWG), the International Air Transport Association (IATA) and the International Union of Aviation Insurers (IUAI). The text of the Draft Convention resulting from the work of the Legal Committee is reproduced as Appendix A.³⁴²⁾

The 32nd Session of the Legal Committee of ICAO (Montreal, 15–21 March 2004) had as its main item for consideration “*Consideration of the Modernization of the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface*, signed at Rome on 7 October 1952”; the Committee made no change to its Work programme as amended by the Council on 25 November 2002. At the fourth meeting of its 174th Session on 21 February 2005, the Council considered a report on the work of the First Meeting of the Special Group on the Modernization of the Rome Convention of 1952.³⁴³⁾

This Special Group reported, inter alia, on the changes made to the *Draft Convention on Damage Caused by Foreign Aircraft to Third Parties*; the 12 General Points of Agreement reached by the Group; and the list of “Grey Points” which required additional work. The Council expressed appreciation for the work of the Group which, in its view, was moving in the right direction, and agreed to convene a second meeting of the Group from 4 to 8 July 2005.

The Group met at ICAO Headquarters and was attended by 36 delegates from 18 Contracting States (members), two ex-officio members, six observers from two

342) The full text of the Report of the Legal Committee is available as reference material.

343) C-WP/12391.

Contracting States and 11 observers from seven international organizations. Mr. Henrik Kjellin (Sweden) and Ms. Siew Huay Tan (Singapore) continued as Chairman and Vice–Chairman, respectively.

The text of the report of the meeting, including the text of the *Draft Convention on Damage Caused by Foreign Aircraft to Third Parties*, resulting from the Group’s work, is available as reference material in the Legal Bureau in the English language.

The Group considered the “Grey Points” and, as a result of the Meeting, made a few changes to the text of the draft Convention. On the future work of the Group, the Chairman stated that the second meeting had made considerable progress on the main policy issues, both on the nature and modality of the supplementary funding mechanism, and the interaction between the mechanism and the liability system.

Some drafting progress had also been made in relation to certain points in the proposed Convention. However, the ICAO Council should be informed that, in the opinion of the Group, the text was not yet ripe for submission to either another session of the Legal Committee or directly to a Diplomatic Conference.

The Group therefore recommended to the Council to convene another five–day meeting of the Group primarily to put into treaty language the understandings on the nature and modality of the mechanism, and the interaction between the mechanism and the liability system. The Group also decided to continue its work in the interim on an informal basis. Third meeting of the Group at Headquarters of ICAO was held at Montreal from 13 to 17 February 2006.

On 6 December 2006, the ICAO Council amended the title of this item to read: “*Compensation for damage caused by aircraft to third parties arising from acts of unlawful interference or from general risks.*” The Special held two meetings in 2005, three meetings in 2006, and one in 2007. ³⁴⁴⁾

Secretarial support was provided to the Council Special Group on the Modernization of the Rome Convention of 1952, which continued its work and held its sixth meeting of Special Group at ICAO headquarters from 26 to 29 June

344) ICAO Working Paper, A36–WP/11, LE/3, 25/07/2007, at 2.

2007.³⁴⁵⁾

The sixth meeting of the Group was held at ICAO Headquarters from 26 to 29 June 2007 and was attended by 46 delegates from 20 Member States, one *ex-officio* member, and fifteen observers from two Contracting States and seven international organizations.

Mr. Henrik Kjellin (Sweden) and Ms. Siew Huay Tan (Singapore) continued as Chairman and Vice-Chairman respectively. At the conclusion of its sixth meeting (26–29 June 2007), there was broad agreement in the Special Group of ICAO that it had completed its work, and it decided to recommend to the Council to convene a Session of the Legal Committee to further develop the texts of the Draft Conventions.

It should be recalled that the title of this item on the Work Programme of the Legal Committee was amended by the Council at the seventeenth meeting of its 179th Session to read: “*Compensation for damage caused by aircraft to third parties arising from acts of unlawful interference or from general risks.*” This item is currently accorded Priority No.1 in the General Work Programme of the Legal Committee.

The Legal Commission of the 36th Session Assembly of ICAO held at Montreal from 18 to 28 September 2007 in order to discuss the progress report on compensation for damage caused by aircraft to third parties arising from acts of unlawful interference or from general risks as an agenda item 45.

The ICAO Council, at its 182nd Session in November/December 2007, considered a report on the sixth meeting of the Special Group and agreed to convene at Montreal on the future course of action, including whether to convene the 33rd Session of the Legal Committee from 21 to 2 May 2008.³⁴⁶⁾

345) ICAO Working Paper, A36–WP/8, LE/2, 20/06/2007, at 3.

346) ICAO C–WP/13031, 13/11/2007, at 1.

3.2. Main Contents of the Draft Convention

The ICAO Council considered a report on the Sixth Meeting of the Special Group on the Modernization of the Rome Convention of 1952, which dealt with the item with priority No.1 in the General Work Programme of the Legal Committee, namely “*Compensation for damage caused by aircraft to third parties arising from acts of unlawful interference or from general risks.*”

The ICAO Special Group has developed the texts of two Draft Conventions: one dealing with compensation for damage caused by aircraft to third parties; in case of unlawful interference; and the other with compensation for damage caused by aircraft to third parties.

Furthermore, the cumulative result of this work by the ICAO Secretariat (specifically the Legal Bureau), the Secretariat Study Group and the Council Special Group on the Modernization of the Rome Convention of 1952 (SGMR) are two draft Conventions, one dealing with liability and compensation in the case of unlawful interference and the other dealing with liability and compensation in the case where there is no unlawful interference.

The Special Group has agreed that it has completed its work and recommends to the Council to convene a session of the Legal Committee to further advance the work. At the 36th Session of the ICAO Assembly, there was agreement that the two texts were sufficiently mature to go the Legal Committee. A proposal is made to convene the 33rd Session of the Legal Committee for this purpose.

The Special Group of ICAO has developed the texts of two Draft Conventions, namely:

- a) *Convention on Compensation for Damage Caused by Aircraft to Third Parties, in case of Unlawful Interference* (commonly referred to as “the Unlawful Interference Compensation Convention”).

This Convention is divided into eight chapters (thirty seven articles). The first chapter (arts. 1 and 2) defines the scope of the Convention and term used.

The second chapter (arts. 3–7) is concerned with liability of the operator, limit of operator’s liability and related issues.

The third chapter (arts. 8–18) contains provisions relating to establish the supplementary compensation mechanism (SMC), conference of parties, secretariat and director, contributions and fund of SMC.

The fourth chapter (arts. 19–20) deal with the compensation from the supplementary compensation mechanism.

The fifth chapter (arts. 21–25) regulates the special provisions on compensation and recourse.

The sixth chapter (arts. 26) comprises the assistance in case of events in States non – party.

The seventh chapter (arts. 27–35) prescribe includes the exercise of remedies and related provisions.

The chapter eighth (arts. 36–37) regulates the application of the Convention (non – application of the state aircraft and nuclear damage).

b) *Convention on compensation for Damage Caused by Aircraft to Third Parties* (commonly called “the General Risks Convention”).

This Convention is divided into five chapters (nineteen articles).

The first chapter (arts. 1 and 2) defines the scope of the Convention and term used.

The second chapter (arts. 3–7) is concerned with liability of the operator, limit of operator’s liability and related issues.

The third chapter (arts. 8–9) contains provisions relating to the recourse and exoneration

The fourth chapter (arts. 10–17) deal with the exercise of remedies and related provisions.³⁴⁷⁾

347) ICAO C–WP/13031, 13/11/2007, Appendix A and B.

4. Summary of Main Provisions of the Draft Convention on Compensation for Damage Caused by Aircraft to Third Parties, in Case of Unlawful Interference³⁴⁸⁾

4.1. Scope of the Draft Convention

Under Article 2, paragraph I, the Convention would apply to damage to third parties which occurs in the territory of a State Party caused by an aircraft in flight as a result of an act of unlawful interference when the operator has its principal place of business or, if it has no such place, its permanent residence, in another State whether or not a Party. This Article ensures that damage in any State Party would be compensated ; whether or not the operator is from a State Party.

Consequently, Paragraph 2 of Article 2 provides that at the option of a State Party, the Convention would also apply to such damage which occurs in the territory of that Party when the operator has its principal place of business or, if it has no such place, its permanent residence, in that State Party.

4.2. Liability of the Operator

The liability of operator is strict. Article 3, paragraph 1, states simply that the operator shall be liable for damage sustained by third parties upon condition only that the damage was caused by an aircraft in flight.

Environmental damage shall be compensable, if and insofar as such compensation is provided for under the law of the State Party in the territory of which the damage occurred. There is no need for the claimant to prove fault. However, punitive, exemplary or other non-compensatory damages shall not be recoverable.

348) ICAO C-WP/13031, 13/11/2007, Appendix A

Damages due to death, bodily injury and damage to property shall be compensable.

Damages to mental injury shall be compensable if caused by a recognizable psychiatric illness resulting either from bodily injury or from a reasonable fear of bodily injury or from a reasonable fear of exposure to or bodily injury (Article 3).

4.3. Limit of Operator's Liability

Under Article 4, the operator's liability is limited or capped, based on the weight of the aircraft, ranging from 750,000 Special Drawing Rights (SDR)³⁴⁹ for the smallest aircraft to 700,000,000 (seven hundred million) SDRs for the largest aircraft.

These figures are still in square brackets, indicating that, at this stage, they are included for discussion purposes only in order to decide the limitation of operator's liability at the coming 33rd Session of the Legal Committee of ICAO from 21 April to 2 May 2008.

This liability cap may be broken in exceptional circumstances only. For several meetings, the Special Group of ICAO considered whether to make only the operator liable and to exempt from liability of her actors in the air transport industry, such as owners, lessors or financiers, manufacturers, air navigation service providers, airports, security providers and ground handling service providers.

This issue was resolved only at the very last meeting when the Group adopted an exclusive remedy provision, similar to that found in the 1999 Montreal Convention.

An article has been included to provide an international mechanism for third parties suffering damage on board an aircraft involved in mid air collision to claim compensation from the other carrier. They would already have a right against their own carrier under the Montreal Convention of 1999, but if their carrier was not at fault, this compensation would be limited to 100,000 SDRs under the Montreal Convention of

349) <http://www.imf.org>: The rate of Exchange for 1 SDR is US Dollar 1.57 on December 14, 2007;

1999. The text envisages the joint and several liability of the operators involved.

4.4. Advance Payment and Insurance

If required by the law of State where the damage occurred, the operator shall make advance payment without delay to natural persons who may be entitled to claim compensation under this Convention in order to meet their economic need (Article 6). State Parties shall require their operators to maintain adequate insurance and guarantee covering their liability under this Convention. An operator may be required by the State Party into which it operates to furnish evidence that it maintains adequate insurance and guarantee (Article 7).

4.5. The Supplementary Compensation Mechanism

Pursuant to Article 8, it is envisaged to create an independent organization called the Supplementary Compensation Mechanism (the SCM), with the principal purpose to pay compensation to persons suffering damage in the territory of a State Party, and to provide financial support where an operator from a State Party causes damage in a State non-Party (as described above in paragraph 1).

Compensation shall be paid by the SCM to the extent that the total amount of damages exceeds the Article 4 limits (Article 19). In other words, where there is damage for which the operator is liable, it will pay up to the level of its cap, and the SCM will pay additional compensation above and beyond the level of the cap. It is expected that operators will be able to obtain insurance up to the amount of the cap.

If insurance is unavailable, or is only available at a cost incompatible with the continued operation of air transport, the SCM may provide financial support to operators to cover their liability under Articles 3 and 4.

In general, the maximum amount of compensation that would be available from

the SCM is currently set for discussion purposes at 3 Billion Special Drawing Rights (SDRs) for each event (Article 19, Paragraph 2).

4.6. The Conference of Parties

The Supplementary Compensation Mechanism would comprise a Conference of Parties (COP) which would be the principal policy-making organ, made up of all State Parties, and a Secretariat headed by a Director.

The COP would, *inter alia*, establish regulations of the SCM, Guidelines for Compensation, Guidelines on Investment, fix the contributions to be made to the SCM and decide the cases where financial support should be given to the operator in cases of events in States non-Party. A full list of the powers and duties of the COP is provided in Article 9. The COP shall meet once a year unless it decides otherwise.

4.7. The Secretariat and the Director

The Supplementary Compensation Mechanism shall have a secretariat led by a Director. The director shall hire personnel, supervise the secretariat and direct the day-to-day activities of the Supplementary Compensation Mechanism. Each State party undertakes to fully respect the international character of the responsibilities of the personnel and not seek to influence any of its nationals in the discharge of their responsibilities.

4.8. The Contributions to the Supplementary Compensation Mechanism

By virtue of Article 12, the contributions to the Supplementary Compensation Mechanism shall be mandatory amounts collected in respect of each passenger and

each [tonne] of cargo departing on an commercial flight between two airports in that State Party. Where a State Party has made a domestic opt–in declaration under Article 2, Paragraph 2, such amounts shall also be collected in respect of each passenger and each [tonne] of cargo departing on a commercial flight between two airports in that State Party. The operator shall collect the mandatory amounts and remit them to the Supplementary Compensation Mechanism. In general, the total amount of contributions collected by the Mechanism within two consecutive years shall not exceed 9 billion SDRs (Article 13).

4.9. Initial Contributions and Pre–Funding

Article 15 envisages initial contributions in respect of passengers and cargo from each State Party to be made from the time of entry into force of the Convention for that State and also in respect of passengers and cargo departing on flights covered by the domestic opt–in declaration. Also, contributions shall be fixed to achieve within four years a certain percentage of the maximum limit of compensation payable by the Mechanism.

4.10. Collection of the Contributions and Duties of States Parties

Where an operator fails to remit contributions, the Director of the SCM shall take appropriate measures for recovery of the amount due (Article 16, Paragraph 2). Each State Party shall ensure that certain statistical and other data is provided to the SCM; failure to do so could result in the liability of the State Party (Article 17).

Where the total amount of damages exceeds the limits of liability of the operator under Article 4, and the amounts payable by the Mechanism under Article 19 (2) (i.e. the amount of damages exceeds the first and second layers), persons who have suffered damage may claim additional compensation from the operator under the

circumstances outlined in Article 24. To achieve this, it must be proved that the operator or its senior management intentionally committed the act of unlawful interference, or contributed to the event by an act of omission which:

- i) falls within the regulatory responsibility and actual control of the operator;
- ii) is, other than the act of unlawful interference, the primary cause of the event; and
- iii) is done with disregard of a known, probable and imminent risk.

4.11. The Funds of the Supplementary Compensation Mechanism

The Funds of the Supplementary Compensation Mechanism may be only used for the purpose set out in Article 8, paragraph 2. The Supplementary Compensation Mechanism shall exercise the highest degree of prudence in the management and preservation of its funds. Accounts shall be maintained for the funds of the Supplementary Compensation Mechanism.

The Auditors of the Supplementary Compensation Mechanism shall review the accounts and report on them to the Conference of Parties.

4.12. Right of Recourse

By virtue of Article 25, where the Supplementary Compensation Mechanism has made payments to claimants, it also has a right of recourse against the operator under the conditions outlined in Article 24. It similarly has a right of recourse against any other person where that person or its senior management has intentionally committed the act of unlawful interference.

4.13. Period of Limitation

The right of compensation according to Article 3 shall be extinguished if an action is not brought within three years from the date of the event which caused the damage³⁵⁰).

Finally, procedural provisions are found in Chapter VII. Generally, actions for compensation may be brought in a single forum, namely, before the courts of the State Party where the damage occurred (Article 30, paragraph 1). Also, judgments entered by a court shall, when they are enforceable in the State Party of that court, be enforceable in any other State Party, although recognition and enforcement of a judgment may be refused under certain specified circumstances' (Article 32).

5. Summary of Main Provisions of the Draft Convention on Compensation for Damage Caused by Aircraft to Third Parties³⁵¹)

5.1. Scope of the Draft Convention

It applies to damage to third parties which occurs in the territory of a State Party caused by an aircraft in flight other than as a result of an act of unlawful interference when the operator has his principal place of business or, if he has no such place of business or, if he has no such place, his permanent residence, in another State Party. As in the case of the Unlawful Interference Convention or Compensation Convention described above, there is also an opt-in provision for domestic flights (see Article 2).

350) ICAO C-WP/13031, 13/11/2007, Appendix A, at A 1-3.

351) ICAO C-WP/13031, 13/11/2007, at Appendix B.

5.2. Liability of the operator

The operator shall be liable for damage sustained by third parties upon condition only that the damage was caused by an aircraft in flight. By virtue of Article 3, the liability of the operator is strict, up to a threshold, tentatively set at 250,000 to 500,000 SDRs.

Beyond that, the operator is liable for all damages unless it proves that such damages were not due to its negligence or that the damages were solely due to the negligence of another person. In other words, there is no cap on the liability of the operator. This two-tier system is similar to that found in the Montreal Convention of 1999. There shall be no right to compensation under this Convention if the damage is not a direct consequence of the event giving rise thereto, or if the damage results from the mere fact of passage of the aircraft through the airspace in conformity with existing air traffic regulations. As the operator is potentially liable for the full amount of damages caused, the Supplementary Compensation Mechanism does not operate in this instance.

5.3. Events Involving Two or More Operators or Other Persons of the Operator

Where two or more aircraft have been involved in an event causing damage to which this Convention applies, the operators aircraft are jointly and severally liable for any damage suffered by this third party. Similar to the Unlawful Interference Compensation Convention, there is a provision on mid-air collisions (Article 4).

5.4. Exclusive Remedy

Under Article 10 *bis*, neither the owner, lessor or financier retaining title or holding security of an aircraft, not being an operator, shall be liable for damages

under this Convention or the law of any State Party: This Article is currently in square brackets as the Special Group of ICAO did not take a final position on its inclusion.

5.5. Forum

The procedural articles are similar to that found in the other Draft Convention. In particular, in general, actions for compensation may only be brought before the courts of the State Party where the damage occurred (Article 13).

5.6. Period of Limitation

The right of compensation according to article 3 shall be extinguished if an action is not brought within three years from the date of the event which caused the damage. The method of calculating such three year period shall be determined by the law of the court seized of the case (Article 16).

6. Main Issues and Author's Comments for the Draft Convention

After I would like to introduce mainly four articles of *Draft Convention on the Compensation for Damage Caused by Aircraft to Third Parties Arising from Acts of Unlawful Interference or from General Risks* and also I going to present my comment and personal opinion for it in this paper as the followings;

6.1. Damage due to mental Injury

Article 3 (Liability of the Operator)

Paragraph 5, Damages to death, bodily injury and damage to property shall be compensable. Damages due to mental injury shall be compensable if caused by a recognizable psychiatric illness resulting either from bodily injury or from a reasonable fear of exposure to death or bodily injury.

<Author's Comment and opinion>

It is desirable things for us that the mental injury inserted into Article 3, paragraph 5 of the *Draft Convention on the Compensation for Damage Caused by Aircraft to Third Parties Arising from Acts of Unlawful Interference or from General Risks* in order to protect the injured persons and victims caused by aircraft accidents.

I proposed strongly to include mental injury in the definition of damage for the Draft Convention on the Modernization of the 1952 Rome Convention to the ICAO Legal Seminar in Asia–Pacific Region as an invited speaker which was held at Imperial Palace Hotel, Seoul in Korea on May 6–12, 2006.

An appropriate limitation on mental injury should be included in the aforementioned Draft Convention.

I proposed and emphasized already the modification for the definition of damage from bodily Injury to personal injury including mental injury in the sentence of the Article 1, f as the following:

f) “Damage” means death, personal injury including mental injury or damage to property³⁵²).

Does bodily injury also include mental injury in the definition of wording? Bodily injury is clearly physical injury within the definition but again there are grey areas

352) The Proceeding of the 2006 Seoul ICAO Legal Seminar Asia–Pacific Region, at 13–14.

in practice. The main problem area has been that of mental suffering or distress, while injury is specially qualified by the word ‘bodily’. There has been an increasing to include mental injury.³⁵³⁾

In the American case of *Rosman v. Trans World Airlines*³⁵⁴⁾ it was ruled that only mental injury directly resulting from bodily could be compensated. In the case of *Husserl v. Swissair*³⁵⁵⁾ an American court was, however, willing to award for mental injury, irrespective of any link with bodily injury.

The 1971 Guatemala City Protocol referred to “personal injury” – a concept wider than “bodily injury” and it is a pity to do that the opportunity was not kept open for compensation of a debilitating mental trauma or other mental injuries.³⁵⁶⁾

One expert told me that the original French version which used the term “*lesion corporelle*” which is his view also encompassed some psychic elements.

When recalling that the Guatemala City Protocol adopted the term “personal injury” for its French version and the Montreal Additional Protocol No.3 endorsed the same term, it is appropriate that the term “bodily injury” should be replaced with the term “personal injury including mental injury” within which also encompassed some psychic elements.³⁵⁷⁾

The fact that the words ‘wounding – or bodily injury’, used in the Convention, were replaced ‘by personal injury’ in the notice suggests an intention to clarify the type of injury which is capable of compensation.³⁵⁸⁾ According to the Korean and

353) Carole Blackshaw, *Aviation Law & Regulation*, Pitman Publishing, (1992), at 179.

354) *Rosman et al. v. TWA and Herman et al. v. TWA*, Court of Appeal, New York State, Jun 13, 1974.

355) G. Miller, *Liability in International Air Transport* (1977), at 12 *et seq. cf. Patagonia et al v. TWA*, New York Supreme Court Country of Westchester, 28 December 1978; [1978] USAvR 1285; *Air Law*, Vol.IV (1979) at 102 (this case eventually settled out of court)

356) Michael Milde, “*New Unification of Private International Air Law Rebirth of the “Warsaw” System?*” (unpublished paper), at 28.

357) Masao Sekiguchi “*The Refinement of the Draft Convention for the Unification of Certain Rules for International Carriage by Air*”, *The Korean Journal of Air and Space Law* (Vol.11, 1999), at 154–155.

358) *V. BOAC and British Airways*, US District Court, Central District Court of California, 10, 1975; *Avi*, Vol.14 at 17, 128; *Schoner’s case law digest, Air Law, Vol. II, 1997*), at

Japanese ideas, aircraft operators should not only pay compensation to survivor and injured persons immediately after the accident, but also the so-called ‘condolence’ money to the next of kin. Condolence money is a gift to help a dead person’s spirit in the hereafter: it is given on account of the grief and sorrow suffered by the next of kin, and it has risen considerably over the years.³⁵⁹⁾

The total amount of the Korean and Japanese claims in the case of death is calculated on the basis of the loss of earned income, funeral expenses and material damage, plus condolence money.³⁶⁰⁾ According to the Article 751 of the Korean Civil Code (Compensation for Damage Other Than Those the Damage of Property), a person who has injured the person, his liberty or reputation of another or has inflicted any mental pain to another person, shall be to make compensation for damage arising other than the damage of property.

The economic and social change has been occurred continuously after conclusion of the Rome Convention.

The individual income will be increased gradually and Internet, the avionics and air high-technology also will be advanced rapidly during the 21st century. In addition, the real value of life and human right will be enhanced substantially. The amount of compensation for damage caused by aircraft accident has increased in dollar amount as well as in volume. All aircraft operator’s liability should extend to loss of expectation of leisure activities, as well as to damage to property, and mental and physical injuries.

When victims, survivors and injured persons are not satisfied with the amount of the compensation for damage caused by aircraft accident for which an aircraft operator or an airline corporation is liable under the current liability system. It is more

113.

359) Doo Hwan Kim, *“The Liability of International Air Carriers in Changing Era”*, The Use of Airspace and Outer Space for all Mankind in the 21st Century, (Kluwer Law International, 1995, The Netherlands), at 102; Article 827 (Ausschluss und Minderung der Verantwortlichkeit) of the German Civil Code (BGB).

360) Article 751~752 of the Korean Civil Code; Article 710~711 of the Japanese Civil Code.

reasonable and necessary for us to be included the mental injury in the Article 3, paragraph 5 of the said Draft Convention.

6.2. Adoption of Two Tier System and Raising of the Compensation Amount for Damage in the Draft Convention

Article 3—Liability of the Operator

1. The operator shall be liable for damage sustained by third parties upon condition only that the damage was caused by an aircraft in flight.
2. The operator shall not be liable for damages arising under paragraph 1 of this Article to the extent that they exceed for each such third party (250,000 – 500,000) Special Drawing Rights if the operator proves that:
 - a) such damage was not its negligence or other wrongful act or omission or that of its servant or agents; or
 - b) such damages was solely due to the negligence or other wrongful act or omission of another person.

<Author's Comment and opinion>

1) Adoption of Two Tier Regime

This Draft Convention adopted the principle of the presumed liability system based on the unlimited liability in exceeding 250,000–500,000 SDR compensation amount for damage to the third parties damage caused by operator of aircraft.

But the said Draft Convention adopted the principle of strict liability with regard to only injury or death of third parties damage sustained by aircraft within 250,000 – 500,000 SDRs compensation amount for damage.

Though air carrier's liability in the domestic flight of the Republic of Korea, Japan and the United States adopted the unlimited liability based on their

airline's conditions, but the Civil Aviation Act in China has adopted the limited liability system based on the 1975 Montreal Additional Protocol No.2.

According to the 2004 Revised Civil Aviation Act in the United Kingdom, the 2004 Canadian Carriage by Act (Schedule 6), the 2004 German Air Transport Act (Luftverkehrsgesetz) and European Union had adopted a two-tier liability system established by the 1999 Montreal Convention.

I think that the 1995 IATA Kuala Lumpur Inter-carrier Agreement³⁶¹) and the 1999 Montreal Convention adopted a two-tier liability regime as a package of the legal and political compromise between the developed countries and developing countries.

Furthermore I acknowledge that it also is desirable and fruitful things for us to adopt a two-tier liability regime into the said Draft Convention.

2) Raising of the Compensation Amount for Damage

My opinion is that it is reasonable things to raise the compensation amount for damage from 250,000 SDR to 300,000 SDR in order to protect victims, survivors and injured persons into Article 3 of the Draft Convention as the following;

Article 3—Liability of the Operator

1. (Abbreviation)

2. The operator shall not be liable for damages arising under paragraph 1 of this Article to the extent that they exceed for each such third party (300,000) Special Drawing Rights if the operator proves that:

The last few years we have seen an enhancement in the rights of claimants in respect of death of, or injury to, airline passengers. In 1999, the *Convention for the Unification of Certain Rules for International Carriage by Air* (Montreal Convention of 1999) was adopted. With respect to accidental death or injury of passengers, the 1999 Montreal Convention establishes a two-tier liability system.

361) Chia-Jui Cheng and Doo Hwan Kim, *The Utilization of the World's Air Space and Free Outer Space in the 21st Century*, Kluwer Law International (2000), at 68–70.

First tier, for proven damage per passenger not exceeding 100,000 SDRs (U.S. \$ 157,239)³⁶², the carrier is liable irrespective of fault, and only the case of contributory negligence may result in partial or total exoneration of the carrier. For proven damages over 250,000–500,000 SDRs, second tier, there are no pre-specified limits of liability, with the carrier's liability based on presumed fault. For such damage the carrier is not liable if it proves (the burden of proof is on the carrier) that the damage was not due to its negligence or was due solely to the negligence of a third party.³⁶³

The 1999 Montreal Convention entered into force on November 4, 2003 and was ratified by 81 countries including the United States, United Kingdom, France, Germany, Japan, China and the Republic of Korea etc. until on December 17, 2007.³⁶⁴ I would like to propose the enhancement of the compensation amount for damage from 250,000 SDR to 300,000 SDR into the abovementioned Draft Convention in order protect victims and suffers as well as to keep their human right.

6.3. The Problems on the Noise and Sonic Boom of Aircraft

Article 3—Liability of the Operator

4. Environmental damage shall be compensable, if and insofar as such compensation is provided for under the law of the State Party in the territory of which the damage occurred.

<Author's Comment and opinion>

The incidence of noise, sonic boom or super sonic boom cause by aircraft is specially harmful and detrimental for the people on the surface. Although in some countries legislative measures against excessive noise, sonic boom of aircraft have

362) http://www.imf.org/external/np/fin/data/rms_sdrv.aspx: 1 SDR rates US\$ 1,57 for February 8, 2008.

363) ICAO ATTACHMENT A to State letter LE3/14.2–01/62.

364) http://www.icao.int/cgi/goto_m_leb.pl?/icao/en/leb/treaty.htm

already been introduced, common standards and arrangements sanctioned by international agreements are still sadly lacking.

The definition of the environmental damage regulated by Article 3, paragraph 4 of the said Draft Convention is the very broad definition.

As it is very difficult thing for us to decide in the concretely the scope of environmental damage and object of the compensation amount for the environmental damage, so the compensation as such is provided for under the law of the State in the territory of which, or under the jurisdiction of which, the damage occurred. It is necessary for us to clear the definition of the environmental damage. The environmental damage also include the damage caused by the noise or sonic boom of aircraft.

I think that it is reasonably to add the noise or sonic boom of aircraft after environmental damage of the Article 3, paragraph 3 as the following:

Article 3—Liability of the Operator

4. Environmental damage including the noise or sonic boom of aircraft shall be compensable, if and insofar as such compensation is provided for under the law of the State Party in the territory of which the damage occurred.

6.4. Establishing of an International Organization and Fund System on the Compensation for Damage Caused by Aircraft Accident

Article 8—The Supplementary Compensation Mechanism

1. An Organization named the Supplementary Compensation Mechanism is established by this Convention. The Supplementary Compensation Mechanism shall made up of a Conference Parties, consisting of the State Parties, and a Secretariat, headed by a Director.
2. (Abbreviation)

3. The Supplementary Compensation Mechanism shall have seat[at the same place as the International Civil Organization.
4. The Supplementary Compensation Mechanism shall have international legal capacity.

<Author's Comment and opinion>

When the operator of aircraft could not insure for the liability insurance from the disruption of the insurance market caused by the tremendous and cruel terror such as the catastrophe losses of September 11, I think that it is a necessary and desirable things for us to establish an international fund such as Supplementary Compensation Mechanism (SCM) for the full and perfect compensation for damage caused by aircraft in order to protect the victims, survivors or injured persons and sufferers and their human right.

I already proposed strongly to establish the international fund system on the compensation for damage caused by aircraft accidents for the purpose of protecting the victims, injured persons and owners of air cargo at the ICAO Legal Seminar in Asia–Pacific Region as an invited speaker which was held at Imperial Palace Hotel, Seoul in Korea on May 6–12, 2006.

The Supplementary Compensation Mechanism brings us to the next significant development in the work of the Secretariat Study Group and the Council Special Group on the Modernization of the Rome Convention of 1952 (SGMR) of ICAO.

The SGMR has proposed a Supplementary Compensation Mechanism (SCM) modeled to some extent on the International Oil Pollution Fund (IOPF: International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971).

The SCM is envisaged as providing a second or additional source of funds (to be made up of contributions from passengers and cargo shippers – the direct ultimate users of the air transport system) after the first source (the air carrier liability–backed by insurance source) has been exhausted.

A third source, if the SCM funds are insufficient, which is not specifically provided for in the Draft Convention but contemplated by the SGMR, is to comprise voluntary contributions from the world community on the basis of international solidarity. Again, this is a significant and bold development representing an attempt to go beyond the difficulties and limitations to find a global and shared – solution to a global problem, founded on mutual risk – management and cooperation.³⁶⁵⁾

7. Conclusion

The changes in the aviation since 9.11 disasters have left us questions to answer how to effectively respond to the occurrences of terror attacks and what proactive measures to take to prevent them from happening. Without ensuring aviation security, we can not affirm you of the prosperity of aviation industry and world economy.

Moreover, Aviation Security of the Republic of Korea, as a result of ICAO Security Audit in November 2004, turned out to be fairly good, meeting all the ICAO SARPs in Annex 17 the Chicago Convention. However, not relieved of the current level of Korea aviation security, we are going to continue to strengthen the capability of aviation security through improvement of the system and equipment as well as reinforcement of personnel while ensuring facilitation of passenger travel and cargo movement.

In the coming years, against the continued happening of terror in various and crafty forms such as the potentially devastating attacks involving bacteriological, chemical weapon or missile attack etc, we should advance security – related technology and every state in the globe should make even more strides to seek for thoroughly preventive measures. And more importantly, we should tighten up our

365) ICAO Working Paper, A36 – WP/233 LE/9 18/9/2007, at 3.

international cooperation's ties to better respond to terrorist acts in the Asia–Pacific countries.

The direction of civil aviation for the 21st century lies in the implementation of the Global Navigation Satellite System (GNSS),³⁶⁶ a system advocated with the Communication, Navigation and Surveillance / Air Traffic Management (CNS / ATM) of ICAO. GNSS is designed to take full advantage of Global Positioning System (GPS),³⁶⁷ Galileo project (European Satellite Navigation System)³⁶⁸ and Global Navigation Satellite System (GLONASS). GNSS is suitable for civil aviation use with augmentation of the integrity, accuracy, continuity of service and availability through the geostationary satellites, etc.

A highly accurate system, GNSS will pave the way for the increasing air traffic volumes of the next century. GNSS is one of the most important components of the next–generation air navigation system. It will become very fruitful and important things to study continuously the development and progress of GNSS so as to adopt the uniform standards system and to support the aviation safety and security.

Almost six years have gone by since the effort to construct a liability and compensation framework to meet the challenge of compensating victims of an act of unlawful interference of the 9/11–scale began. The security threats against aviation remain undiminished and strict and unlimited liability for air carriers in many jurisdictions have not changed while “war risks” insurance remains very limited. The framework and Draft Convention as developed by the SGMR are indeed sufficiently mature for taking to the next level in the ICAO air law–making process.

366) <http://igscb.jpl.nasa.gov/faqs.html#id3000308>

367) <http://www.redsword.com/gps/apps/general/how.htm>

368) The GALILEO satellite radio navigation system, an initiative was launched by the European Union and the European Space Agency. This worldwide system will ensure complementarity with the current GPS system. GALILEO is based on a constellation of 30 satellites and ground stations providing information concerning the positioning of users in many sectors such as transport.

I would like to urge ICAO to move forward expeditiously on the Draft Convention to establish a third party liability and compensation system that can stand ready to protect both third party victims and the aviation industry before another 9/11 – scale event occurs.

The 33rd Session of the Legal Committee of ICAO will be held at Montreal from 21 April to 2 May 2008.

Furthermore it is desirable things for us to submit “a final *Draft Convention on Damage Caused by Foreign Aircraft to Third Parties Arising from Acts of Unlawful Interference or from General Risks*” to the coming Diplomatic Conference by ICAO so as to consider it after passing the aforementioned Draft Convention at the Legal Committee within next year.

My personal opinion is that if an International Court on Air and Space Law will be established in future, it will be settled quickly and reasonably the difficulty and complicated disputes, cases or lawsuit between the wrongdoer and victims and the injured person caused by aircraft accidents or hijacker and terrorists etc. on account of deciding the standard of judgment by judges of that’s court.

As the aircraft accidents has the peculiarity of ① total loss (all or nothing), ② moment (Augenblick), ③ huge amount for damage, ④ subordination on the surface, ⑤ internationality differed from road, railway maritime accidents, so I think that it is necessary and desirable things us to establish an International Court on Air and Space Law as a special organization in order to solve quickly and efficiently the air and space cases occurred among the different legal system and different countries.

Chapter X. The Liability of Air Traffic Control Agencies

1. Introduction

The principal object of air traffic control (ATC) is to promote safe, orderly, and rapid movement of aircraft through airspace within the control zone. Air traffic controllers are responsible for assuring safe, orderly and expeditious movement of air traffic. Thus, they have a duty to exercise reasonable care, the degree of which increases according to the dangers which may reasonably be apprehended in any given situation.

This duty of care is coupled with the duty to watch and warn aircraft of any emergency situation. Failure to exercise these duties is actionable in tort, the defendant being the government of the state in which accident occurred by reason of it assuming the responsibility of operating air traffic control services.³⁶⁹⁾ The liability of the ATC authority is, to my knowledge, universally accepted to constitute delictual liability as opposed to contractual liability.

We may conclude that the liability is universally based on fault (negligence) and, besides, is unlimited. Although it has been proposed that some sort of absolute or strict liability should also attach to ATC, particularly in the area of aircraft collisions where innocent victims should not be burdened by the need to prove negligence,³⁷⁰⁾ I feel that the basic element for creating such liability is lacking, namely the fact that the party involved by its activities has increased the risk of accident.

369) Shawcross and Beaumont, *Air Law*, Vol.1, 4th ed., London: Butterworths, (1977) at 273.

370) See E. Ruhwedel, "Flugsicherheit, Luftverkehrskontrolle und Haftung," (1973), ZLW 22, at 265–266.

On the contrary, by providing ATC services, the ATC agency is, in fact, trying to reduce the risk created by others (airlines, aircraft and component manufacturers), and it seems inappropriate to – punish that effort by establishing strict liability. There is one region, though, where strict adherence to the negligence concept might lead to an unjust situation and that is the failure of automated systems. Nowadays, ATC, in handling air traffic in high density areas, is to “a: large extent relying on information generated by fully automated systems.

Although one can always assert that a failure of an automated system is attributable in the end to some hardware or software deficiency or ‘bug’, it will not always be possible to translate such failure into negligence of the ATC authority. From an International Civil Aviation Organization (ICAO) study, it appears that in a number of countries no liability would attach to the ATC authority in such cases.³⁷¹⁾

The duties of the Air Traffic Controller is as follows: ① preventing collisions between aircraft in the air ② providing information for the safe and efficient conduct of flights; ③ expediting and maintaining an orderly flow of traffic.

2. The Activities of ICAO and ILA

During the more than three decades that the ICAO Legal Committee has the issue on its agenda, numerous studies have been undertaken. To date, none of them have recognized that the need for unified liability norms requires urgent action. Indeed, the studies all note that although some interest exists on the part of States, many States have not experienced any legal problems with respect to ATC liability issues.

In light of the Assembly’s decision to submit only urgent problems of sufficient magnitude and practical importance to the Legal Committee of ICAO, it would

371) See A.E. du Person, “*Liability of Air Traffic Control Agencies and Airport Operators in Civil Law Jurisdictions*,” *Air Law X*, (1985), at 204–206.

seem that action in other fora is warranted.

The legal problems relating to the liability of ATC Agencies have already been discussed many times between 1964 and 1990, namely, in the Legal Committee of ICAO, or in the Working Informal Group of the 62nd Seoul Conferences (Korea) of the International Law Association (ILA) of 1986, in the Air Law Committee of the 63rd Warsaw Conference (Poland) of the ILA of 1988 and the Working Session of the 64th Queensland Conference (Australia) of the ILA of 1990 and in the Air Law Committee of the 66th Cairo Conference (Egypt) of the ILA of 1992. In the course of the years ICAO has given a lot of attention to ATC problems.

We may say that ATC, as it is presently organized, is based on Article 28 of the Chicago Convention, which provides that each contracting State shall, so far as it may find practicable, provide “airports, radio services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established pursuant to this Convention.”

The Chicago Convention further provides that the ICAO Council may help a contracting State improve its services and facilities or, where the State so requires, provide and maintain such facilities in the territory of that State. Over the years, ICAO has given a lot of attention to ATC problems.

This study constitutes another step in the consideration of this subject, which was first raised at the 13th Session of the Legal Committee of ICAO, in 1960, in connection with the work on the Draft for the Convention on Aerial Collisions. Studies have been undertaken by a subcommittee in 1964. The second meeting of the subcommittee was held in 1965, and since that time no substantive work on this subject has been done in ICAO.

In the years between 1960 and 1967, the Assembly and two subcommittees of the Legal Committee embarked on the subject of “*Liability of Air Traffic Agencies*”, eventually leading to a recommendation that international rules should be comprised in a special Convention on Liability of Air Traffic Control Agencies. However, nothing happened between 1967 and 1980. Indeed, the studies all note that although

there is some interest in international action, a part of States have experienced no legal problems with this issue.

Therefore, in light of the decision of the 23rd Session of Assembly ICAO, as reconfirmed by the 24th Session of the Assembly ICAO, that only legal problems of sufficient magnitude and practical importance requiring urgent international action should be include on the legal work programme.

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In 1980 the matter was brought up again at the 23rd Session of the Legal Committee. This study will focus the attention of States and international organizations on the analysis made by the Panel of Experts on the General Work Programme of the Legal Committee (8 to 16 June 1961), the questionnaire sent to States in April 1982 and the questions raised by the 25th Session of the Legal Committee in 1983.

The attachment to this study reproduces a preliminary draft for the text of an International Convention on the Liability of Air Traffic Control Agencies presented by the Delegation of Argentina to the 25th Session of the Legal Committee in 1983. It should be noted that this preliminary draft for the convention was not considered in its substance by the Legal Committee.³⁷²⁾

At the seventh meeting of its 111th Session on 7 March 1984, the Council considered a study prepared by Secretariat and decided to send this material to States and international organizations for comments. At the fifth meeting of its 113th Session, on 19 November 1984, the Council had for consideration the replies

372) See ICAO, *Consideration of the Report of the Rapporteur on the Liability of Air Traffic Control Agencies*, ICAO LC/26-WP/6-1 (May 2, 1987) [hereinafter Report of the Rapporteur], paras. 1 & 3.

from States and international organizations, together with the determination of the Chairman of the Legal Committee to appoint a Rapporteur.

At the twentieth meeting of its 116th Session, on 4 December 1985, the Council noted the report of the Rapporteur and decided to ask the Legal Committee to consider the report at its 26th Session and to decide on a future course of action. The 26th Session of the Legal Committee was held at Montreal from 28 April to 13 May 1987.³⁷³⁾

The Legal Committee noted that although the Committee was not held for four consecutive years, the work on the items on the work programme in the legal field was carried out efficiently in the form of Secretariat Studies on the liability of air traffic control agencies. The Chairman of the Legal Committee, under the Rules of Procedure of the Committee, also appointed a Rapporteur.

Professor H. Perucchi (Argentina) prepared a report on the subject of the liability of air traffic control agencies taking into account the study prepared by the Secretariat, the comments of the Council thereon as well as the comments presented by States and internal organizations.

The 26th Session of the Legal Committee is expected to consider the future course of action on this subject on the basis of the Secretariat Study, the comments from States and international organizations and of the Rapporteur's Report. In particular, the Committee will wish to decide on the future work to be undertaken on this subject.

The 27th Session of the Legal Committee of ICAO in 1990 reviewed its general work programme and established, subject to approval by the ICAO Council, the following work programme:³⁷⁴⁾

- (1) Liability of Air Traffic Control Agencies
- (2) Study of the Instruments of the "Warsaw System."

373) See *Report on the Work of the Legal Committee During its 26th Session*, ICAO Doc. 9502-LC/186 (1987) at I-2.

374) Michael Milde, *27th Session of the Legal Committee*, *Air Law*, Vol.15, No.3, (1990), at 162-164.

At the eighth meeting of 141st Session on February 25, 1994, the ICAO Council, the work programme of the Legal Committee decided to combine item 4: “*Liability rules which might be applicable to air traffic services (ATS) providers as well as to other potentially liable parties*” and item 5: “*Liability of air traffic control agencies*” with priority 4 in the General Work Programme.

In order to provide the Legal Committee with further information on this item, the two subjects which it incorporates will be dealt with separately.³⁷⁵ The 29th Session of the Legal Committee was held at Montreal from 4 to 15 July 1994. The Rapporteur (Prof. H. Perucchi: Argentine) noted that, although his report had been prepared about a decade ago, the subject was still of importance as it would help increase standardization.

He believed it was appropriate to unify the standards associated with ATC agencies as this would contribute to safety in international civil aviation.³⁷⁶ One of the first questions that arose was the most appropriate kind of international instrument. The most attractive solution seemed to be an international convention on the subject. However, it was also clear that guidelines which could be used to unify domestic legislation and to make a new Draft for the Convention on the Liability of Air Traffic Control agency would be of great value and importance.

The Rapporteur stated that although his report was still relevant today, in view of the technological changes which had occurred since he had prepared it, there should be an updating of certain parts of the report.

He believed that the item should be retained on the work programme of the Legal Committee with a view to producing a model provision which would help to unify the domestic legislation of States.

During the discussion which followed, the observer from IFALPA stated that there was no requirement for aircraft to be controlled by ATCA; in vast areas of the world airspace was uncontrolled. He further mentioned that there was no

375) U.N. Doc. *Working Paper*, LC/29-WP/7, 8/3/94, at 1.

376) Doc. 9630-LC/189, *ICAO Legal Committee 29th Session, Report*, Montreal, 4–5 July 1994, at 7–1.

requirement for aircraft to be equipped with radio when operating under visual flight rules, thus being unable to communicate with ATCA and receive ATCA instructions.³⁷⁷⁾

Keeping in mind the rapid technological changes, he observed that the draft for the international convention as prepared by the Rapporteur should be referred to the ATCA through the ICAO Council for its comments on the current provisions of the Annexes to the Chicago Convention and their relevancy thereto.

The Chicago Convention provides that States must collaborate in securing the highest practical degree of uniformity in regulations.

Indeed, Article 12 of the Chicago Convention provides that contracting states must collaborate in securing to the greatest possible degree uniformity of rules and regulations relating to the flight and manoeuvre of aircraft.

On the other hand, a new Preliminary Draft for the International Convention on the Liability of ATC Agencies was discussed in the Air Law Committee of the 65th Conference of the International Law Association (ILA) which was held in Cairo, Egypt, in April, 1992.³⁷⁸⁾

The activity of air traffic control agencies is of greater importance than at other periods in the development of aviation. No matter what the nationality of its crew or ground personnel, or which countries it overflies, the aircraft will communicate with a number of air traffic centers according to procedures that are basically the services and specifies the worldwide Standards and Recommended Practises applicable in the provision of the service should like to suggest that the preliminary draft for the International Convention on the Liability of ATC Agencies deals with the following subjects;

- (1) Concept of ATC Agencies and application of the Convention
- (2) Principle of Liability
- (3) Limitation of Liability

377) U.N. Doc. *supra*, at 7–1.

378) The International Law Association, “*Report of the Sixty–Fifth Conference (1992)*”, Cairo, Egypt, at 74–83.

- (4) Jurisdiction and Applicable Law
- (5) Prescription;
- (6) Guarantees;
- (7) Miscellaneous Clauses;
- (8) Diplomatic Clauses;³⁷⁹⁾

3. Reasons Why the System on the Liability of Air Traffic Control Agencies should be Unified

An aircraft engaged in an international flight, which is over the territory of another State and under the control of an air traffic control authority of a third State can give rise to a serious conflict.³⁸⁰⁾ Thus, a solution to this particular question is imperative. Similar liability issues may arise when an aircraft flying over foreign territory causes damage in the over flown State while under the guidance of its national ATC agency.

In both cases, varying domestic laws may be applicable, with sometimes conflicting results. Consequently, the codification and unification of norms at the international level is necessary.³⁸¹⁾

A different case is that of an aircraft flying in a State other than its own, but under the control of an ATC agency in its own country, which has caused damage in the another contracting state to the Chicago Convention.

Here again a conflict in law arises which cannot be resolved by domestic law unless the legal solutions have been unified.³⁸²⁾ Although we did not see at present

379) Kim Doo Hwan, *supra* note 4, at 271.

380) When KAL 007 was shot down over the Soviet Union, it was under the guidance of an ATC authority stationed neither in the USSR or Korea. It is evident that problems of this kind present themselves quite often.

381) *Report of the Rapporteur*, *supra* note 4, WP / 6-42, at 14.

382) Prof., H. Perucchi, "Consideration of the Report on Liability of Air Traffic Control Agencies", ICAO, LC/26-WP / 6-42, at 14.

an urgent need for the elaboration of an international instrument, we believe that it may be desirable to achieve a certain degree of uniformity which is presently lacking in view of the differences among national legislation however, the opinion has been expressed that differences among existing national legislations on the liability of air traffic control agencies and, in general, the diversity of national liability systems are already substantial enough to create a major obstacle for reaching an international agreement.

Although an urgent need for such international unification does not at present exist, we believe that it is very desirable in order to bring a degree of uniformity to the liability norms governing ATC. To this end, however, it has been suggested that the very diversity that unification would eliminate is also substantial enough to create a major obstacle to achieving international consensus.

It is contended that the rationale that favored unification of air carrier liability is equally applicable to the liability of ATC providers. ATC services over the high seas, problems of aerial collisions, the interplay between the authority of the aircraft commander and the ATC provider are contentious and problematic areas of activity that favor the elaboration of an international legal instrument on the subject.

Moreover, the International Federation of Air Traffic Controllers Associations was in favor of an international convention but believed that a thorough study on the subject was necessary prior to any further actions. In my view, any future international standards should provide a person who suffers damages due to the fault of an ATC provider with a number of recourses. Such a person should be permitted to sue the carrier or operator as well as the ATC provider.

If a draft convention is prepared, a victim's right to seek compensation from the party at fault must be expressly recognized. An ATC authority should be responsible for its actions from the moment it should have taken an aircraft under its control, or from the time it was *de facto* in control, whichever is earliest, to the time the aircraft is transferred to another ATC provider.

As well, any international instrument dealing with the harmonization of ATC liability should also provide for a mechanism for the settlement of disputes between

States an area to which Chapter XVII of the Chicago Convention addresses itself.

Some States argue that it would be advisable for the Legal Committee, as the principal advisory body in the field of air law, to produce an international instrument that would serve as a model for domestic legislations. Other States consider this instrument essential to protect the controller. Still others look to it to provide model legislation that would eliminate differences between legislations and lead to a review of domestic laws for their unification.

Those States that have expressed the view that the problem should be resolved through domestic legislation are not opposed to the study of a model text. It is usefully for us to draft a model text in that it would be very beneficial to the developing countries which need illustrative texts to organize their domestic legislation in step with current aeronautical problems.

If this approach is taken, States should be advised to adjust their domestic laws as closely as possible to the guidance material. As most of the traffic provided with air traffic control services is of an international nature, the elaboration of an international instrument seems to be justified in order to ensure a uniform system of liability and reciprocity. In sum, it is our feeling that the establishment of an international convention on the subject would be desirable since it might foster the harmonization of the principles laid down in the national legal systems of the various States participating in international air transport.

4. Special Aspects of the Liability of ATC Agencies

The fact that ATC is almost universally provided by the State and that, as the ICAO study has shown, no special laws governing ATC liability have been enacted anywhere on the national level, entail that ATC liability cannot be placed within the framework of delictual liability in general, but must be placed within the framework of State liability in such cases where the State is acting as a public law body and

not as a private person. Particularly in the field of State liability one can not say that there exist generally adopted civil law principles.

An important international element is that the control function rests with the State or public corporations, or is directed and managed by officials of the State administration. The chief problem arising from the activities of air traffic control agencies is that of determining the nature and conditions of their liability in the case of aircraft accidents or incidents associated with their activity due, wholly or partly, to the State's intervention.

We feel that no distinction should be drawn between acts of the agency providing air traffic services and acts of individual controllers, since these services are provided by States, and the controllers perform these functions as agents of the State, which is responsible for acts carried out by its employees in the performance of their duties. In France, for instance, it seems to be undecided whether the State is responsible for all negligent acts of its servants or only for acts which constitute gross negligence (*faute lourde*).³⁸³⁾

In 1980 the administrative court of Nantes held the State liable for 85% of the damages resulting from an aerial collision in that area (the other 15% being attributable to the negligence of the pilot of one of the aircraft involved), and qualifying the doings of the air traffic controllers as seriously negligent (*fautes graves*).

In the United States of America the issue of the liability of air traffic control agencies is governed by the Federal Tort Claims Act (FTCA). Under the FTCA, the US government may be sued for money damages for personal injury, death or loss of property caused by the negligent or wrongful acts or omissions of an employee of the US government while acting within the scope of employment.

The burden of proof is on the party attempting to prove the negligence of the government employee. Therefore, the idea of reversing the burden of proof would be inconsistent with US domestic law governing this subject.³⁸⁴⁾ Essentially, to

383) See G. Guillaume, "*La responsabilité des services de la circulation aérienne en France*," (1978), *Annals of Air and Space Law* III., at 133.

establish the liability of the United States government under the FTCA, the negligence of the air traffic controller must be shown, and such negligence must have been the proximate cause of the damage suffered.

The specific rules that are applicable are those of the state where the act or omission occurred because air traffic controllers act pursuant to guidelines and regulations set forth in the Air Traffic Control Procedures Manual. Published by the FAA, the Manual lists the duties of a controller, namely, to ensure the safe, orderly and expeditious movement of air traffic. A contentious issue in aircraft accident litigation is the legal effect of the provisions of the Manual.³⁸⁵⁾

In the United Kingdom, the Secretary of State has power under the Air Navigation Order, to make regulations providing for the orderly flow of aircraft in the air and on the ground. The Air Navigation Order defines an air traffic controller as “a person appointed by the CAA or by any other person maintaining an aerodrome……to give instructions or advice or both……by means of radio signals to aircraft in the interests of safety”.³⁸⁶⁾

The duty to provide ATC services flows from the Chicago Convention. Interlinked with this duty is the potential for liability for damages caused by the negligent provision of the ATC services that the contracting State is bound by treaty to provide. In the UK, responsibility for ATC provision is vested with the Controller of the National Air Traffic Services of the CAA.³⁸⁷⁾ Currently, the governing UK regulations on the matter of ATC are the Rules of the Air and Air Traffic Control Regulations of 1981.

In the Federal Republic of Germany, State liability in accordance with Article 3⁴³⁸⁸⁾ of the German Constitution, coupled with Article 839³⁸⁹⁾ of the German Civil

384) *Report of the Rapporteur, supra* note 4, WP / 6–34, at 2.

385) See S.K. Hamalian, “Liability of the United States Government in Case of Air Traffic Controller Negligence” (1986) XI Ann. Air & Sp. L 59; S.M. Spencer & C.F. Krause, *Aviation Tort Law* (Rochester: New York Lawyers Co-operative Pub. Co., 1979) at 350–436.

386) See N.M.L Hughes, “*Air Traffic Control and Airport Authorities –The UK Viewpoint,*” Air Law IX, 4, (1984), at 211.

387) *Ibid.*

Code, provide sufficient room for the legal treatment of liability problems of air traffic control agencies. Thus, specific legislation is not required. The liability of air traffic control agencies should be based on fault and the burden of proof should be on the claimant, provided that the claimant would have free access to fact finding reports.³⁹⁰⁾

In Japan, according to Article 96 (Air Traffic Instructions) of the Civil Aeronautics Law, any aircraft shall, in an air traffic control area or an air traffic control zone, navigate in accordance with instructions which are given by the Minister for Transport for aircraft safety, with regard to the order, time or methods of takeoff or landing, or method of flight.

The control of air traffic services in Japan is delegated to the Director of the Regional Civil Aviation Bureau or the Director of the Air Traffic Control Center, Director-General of the Defence Agency for the Minister for Land, Infrastructure and Transport, in accordance with Article 137 of the Civil Aeronautics Law. The liability for damages of the State or of a public agency of Japan are regulated by Article 17 of the Constitutional Law and/or by Article I of the National Compensation Act.

In the Republic of Korea, according to Article 70 of the Aviation Act, aircraft shall navigate in compliance with the instructions for the order and time of take off, landing, or route of flight, etc., as directed by the Minister of Land, Transport and Maritime Affairs. The Minister of Land, Transport and Maritime Affairs shall furnish the flight crew with all information necessary for the navigation of an aircraft, per Article 73 of the Aviation Act.

According to Article 2 of the National Compensation Act of Korea, liability for damages of the State or local government is regulated as follows: When public officials inflict damages on persons intentionally or negligently in the course of performing their official duties, in violation of the provisions of laws and

388) Article 34 [Haftung beim Amtspflichtverletzungen]

389) Article 839 [Haftung bei Amtspflichtenverletzung]

390) See *Report of the Rapporteur, supra* note 4, WP / 6–14, at 3.

regulations, the State or local government shall redress the damages. If such damage has been caused by bad faith or gross negligence of the public official concerned, the State or local government may demand reimbursement from the public official.

Specifically, Article 29 of Korea's Constitutional Law stipulates that in the case a person sustains damages due to the unlawful acts of public officials committed in the course of their official duties, such person may seek compensation from the State or public agency in accordance with law. However, the public official concerned is not immune from personal liability. The liability of ATC agencies and their personnel rests on both Article 2 of the National Compensation Act or Article 29 of the Constitutional Law.

5. The Liability of Air Traffic Control Agencies

The Chicago Convention, in its Annex 2 entitled "Rules of Air", specifies that a aircraft commander must follow the instructions of the ATC at the control tower. Each State party to the Chicago Convention must, so far as practicable, provide adequate air traffic services, namely, air traffic control services, for instance, radio, communication and meteorology services, in order to avoid collision of aircraft, whether in the air or on the ground and to insure the regular flow of aircraft movements, as well as a flight information service and alerting service.

In particular, air traffic control services have a duty of care to those making use of or relying upon their operations for the safety of aircraft.

The duties of Air Traffic Controller is as follow

- (1) preventing collisions between aircraft in the air
- (2) providing information for the safe and efficient conduct of flights;
- (3) expediting and maintaining an orderly flow of traffic.

This duty is created not only by the legal regulations governing the provision of

the service, but also by the relationship which exists between controller and pilot. A pilot or aircraft commander has primary responsibility for the safety of the aircraft. A wrong decision by the pilot aircraft commander may well be the immediate cause of an accident and may constitute actionable negligence.

However, the pilots decisions concerning navigation safety will be based upon the facts available to him, including flight information supplied by air traffic controllers.

All control tower officials carry an extremely heavy burden of responsibility in their daily duties, depending in their operations almost entirely on advanced electronic equipment, arguably even more so than a pilot: they cannot observe their entire control area nor the movement of all aircraft with their own eyes.

In some cases statements can be found suggesting that the air traffic controller's duty is merely secondary the pilot is primarily responsible, an air traffic controller being responsible "for adhering to procedures which minimize the difficulties for the crew",³⁹¹⁾ or for "assisting the person in command of the aircraft by providing such advice and assistance as may be useful for the safe and efficient conduct of the flight".³⁹²⁾

But situation may arise in which an air traffic controller rather than the pilot may be held responsible. It seems better to regard the pilot or controller as acting under concurrent duties;³⁹³⁾ in particular circumstances the pilot or the controller may have more complete information, as a consequence of which questions of liability will turn on a close examination of the position.

The concurrent overlapping authority of the air traffic control agencies and of the pilot-in-command raises some delicate problems which must be very carefully considered it is important to establish a rule governing the relationship between the pilot-in-command of the aircraft and the air traffic controller. The great majority of States took the view of the operators or air traffic controllers. The ATC agencies

391) *Delta Airlines v. US*, 561 2d 381, at 391(1st Circuit, 1977), cited by Shawcross & Beaumont, *supra* note 3 at 6 / 35 – 36 n.1.

392) *Stratmore v. US*, 206F suat. 665(DCNJ, 1962); *Id.* at n.2.

393) *Id.*

shall be liable for fault on the part of their officers, employees and agents, for damage to aircraft, persons, objects and things carried by aircraft and for damage to third parties and to objects on the surface, within the system established herein.

Nevertheless, the ATC agencies shall not be liable if the damage occurred fortuitously or as a result of “force majeure”, through the action of a third party, and through fault of victim or inaccurate information from another agency which the ATC agencies only transmitted, provided that the ATC agencies prove that it was impossible to take such measure to avoid the damage.

Contributory negligence, “force majeure” and fault of third parties are defences available. Personal negligence by air traffic controllers in performing acts unrelated to the service may in some countries give rise to civil or criminal liability. The expression of “fault” used in the present text shall include error, negligence, lack of skill and criminal intent. In many countries, the liability of Air Traffic Control Agencies is based on fault and the burden of proof is vested in the claimant the State is responsible for damage caused by the acts of its authority or their servants or agents since their activity is considered to be the acts of the State itself.

The limits of liability should be available to private and public bodies of the ATC agency and to their employees (agents or servants) for damage resulting from their negligence in the performance of official functions and duties since damage may be caused not only to persons, baggage and cargo on board the aircraft but also to third parties on the surface, the limits of liability in the first case might be modeled on those of the Montreal Convention of 1999 and, in the second case, on those of the Rome Convention of 1952 as amended by the Protocol of Montreal of 1978.

On the contrary, by providing ATC services, the ATC agency is, in fact, trying to reduce the risk created by others (airlines, aircraft and component manufacturers) and it seems appropriate to punish that effort by creating strict liability. Some scholars of air law emphasized that the principle of strict liability (no-fault liability) makes the legal procedure more efficient and the principle of unlimited liability for passenger injury or death insures sufficient compensation for victims

and suffers caused by ATC agencies' accidents.

A breakdown of the equipment should not constitute a defence leading to the exoneration of the provider of service in the absence of negligence on his part since the air traffic control agencies will have, in case of damage resulting from faulty equipment, a recourse action against the manufacture under general products liability rules. And also the breakdown of the electronics equipment or computers must create a presumption fault against the ATCA.

After the Second World War, the growth of air traffic in the past 60 years could not have been possible without the international coordination which is necessary for the development of a unified and efficient network of international airlines and airports.

The Chicago Convention provides that States must collaborate in securing the highest practical degree of uniformity in regulations. No matter what the nationality of its crew or ground personnel, or which countries it overflies, aircraft will communicate with a number of air traffic centers according to procedures that are basically the same all over world. Annex 11 to the Chicago Convention defines air traffic services and specifies the worldwide Standards and Recommended Practices applicable in the provision of these services. Today, the activity of air traffic control agencies is of greater importance than at other periods in the development of aviation.

The Preliminary Draft for the International Convention on the Liability of Air Traffic Control Agencies that was recently presented by the delegation of Argentina consists of eight Chapters and forty-three Articles.³⁹⁴⁾

The chapters deal with the following subjects: ① Concept of Air Traffic Control Agencies and Application of the Convention, ② System of Liability, ③ Limitation of Liability, ④ Jurisdiction and Applicable Law, ⑤ Prescription, ⑥ Guarantees, ⑦ Miscellaneous Clauses and ④ Diplomatic Clauses.

The Argentina proposal took the view that an ATC agency should be liable for

394) See *Report of the Rapporteur, supra* note 4, WP / 6-42, at 23.

the fault of its officers, employees and agents, resulting in damages to aircraft, persons and cargo carried by the aircraft and for damages caused to third parties. Nevertheless, according to the proposal, the ATC agency is not liable if the damage occurred fortuitously, or as a result of the actions of the victim or a third party, or of any other intervening ATC authority.

If the damages result from the contributory fault of the victim or employees of the agency, those at fault would share the responsibility in proportion to their share of the fault, as assessed by a competent tribunal or by agreement of the parties in question. Negligence, lack of skill and/or criminal intent would all constitute “fault” under the proposed convention. If the damages resulted from the failure of electronic equipment and/or automatic communications machinery, a presumption of fault would apply, which would be rebuttable by showing that the officers, employees and agents of the ATC agency took all possible steps to prevent the equipment failure. To exonerate itself, the ATC agency would have to prove the absence of negligent conduct.

Essentially, equipment breakdown should not constitute a defence for the ATG agency since it will have a recourse against the manufacturer of; the defective equipment under general product liability rules anyway. Importantly, immunity from liability would not be accorded to the ATC agency simply because it was an arm of government. The international law concept of sovereign immunities would not apply.³⁹⁵⁾

The liability of an ATC provider should be limited to sums of money laid down with respect to air carrier liability in the Guatemala City Protocol of 1971,³⁹⁶⁾ the Montreal Protocol No.3³⁹⁷⁾ and the Montreal Protocol No.4.³⁹⁸⁾

395) See *ibid.* at 26–27.

396) *Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air Signed at Warsaw on October 12, 1929 as Amended by the Protocol Done at the Hague on September 28, 1955, March 8, 1971, ICAO Doc. 8932 [hereinafter Guatemala City Protocol 1971].*

397) *Additional Protocol No.3 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air, Signed at Warsaw on 12 October 1929 as Amended by the Protocol Done at the Hague on 28 September 1955 and at Guatemala*

In the case of willful misconduct of an ATC operator, no liability limits should apply. The commission or omission of acts with the intent to cause damage, or their reckless commission or omission, should also preclude the imposition of liability limits. Clearly, the ATC agency should be held vicariously liable for the acts of individual air traffic controllers. The overlapping authority of the aircraft commander and the ATC agency is also an area that requires elaboration. Clearly, a rule must be established governing the relationship between the pilot in command and the ATC agency. In as much as the former is bound to obey the instructions imparted by the latter, except in cases of emergency, liability must be apportioned accordingly.

6. Conclusion

It is clear that States are bound by the Chicago Convention to provide ATC services in their territories, either directly or indirectly. These services are sometimes provided directly by an arm of government and sometimes by private corporations like EUROCONTROL (European Organization for the Safety of Air Navigation,³⁹⁹) COCESNA (Corporación Centroamericana de Servicios de Navegación Aérea)⁴⁰⁰ and ASECNA (Agency for Air Navigation Safety in Africa & Madagascar).⁴⁰¹

In the future, they may be provided by ICAO itself, under the terms of Article 71

City on May 8, 1971, September 25, 1975, ICAO Doc. [hereinafter Montreal Protocol No.3].

398) *Montreal Protocol No.4 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air, Signed at Warsaw on 12 October 1929 as Amended by the Protocol Done at the Hague on 28 September 1955, 25 September 1975, ICAO Doc. 9148 [hereinafter Montreal Protocol No.4].*

399) EUROCONTROL is the European Organization for the Safety of Air Navigation. This civil and military Organization which currently numbers 37 Member States, has as its primary objective the development of a seamless, pan-European Air Traffic Management (ATM) system; http://www.eurocontrol.int/corporate/public/subsite_homepage/index.html

400) <http://www.cocesna.org>

401) <http://www.asecna.aero>

of the Chicago Convention. Whatever the structure for the provision of ATC services, a comprehensive and unified liability scheme is necessary. The right of the victims to seek damages from the party at fault must be expressly recognized.

During that time, there have been numerous studies undertaken and several occasions at which time contracting States views have been solicited with subsequent studies done of their comments. To date, none of the studies have concluded that the problem was such as required urgent action. It would be advisable for the Legal Committee of ICAO or the Air Law Committee of the International Law Association as the principal advisory body in the air law field to produce an international instrument that would serve as a model domestic legislation.

I am of the opinion that the Legal Committee of ICAO should make a Draft for the Convention on the Liability of Air Traffic Control Agencies in order to unify the rules concerning air traffic control system of all states and governmental bodies as soon as possible. It will be necessary and convenient for us to establish a standard for impartial judgment for ATC cases and to mitigate the international disputes with regard to ATC Agency's accidents.

I feel that this is necessary to safeguard the legal position of the air traffic controller as an employee, although the right of victims to seek damages for compensation from the party at fault must be expressly recognized. The ICAO, Legal Committee has had the issue defining and limiting the liability of Air Traffic Control Agencies for over three decades. Thus, I propose that the ICAO, as the principal advisory body in the field of air law, produce a draft convention on the liability of ATC agencies as soon as possible. These efforts will go a long way towards the unification of liability rules concerning ATC agencies.

(Doo Hwan Kim, *Legal Aspects of ATCA Liability*, supplemented, *Annals of Air and Space Law*, [Vol. X X, Part 1, 1995], Institute of Air and Space Law, McGill University, Montreal, Canada, at. 209–220)

Chapter XI . Recent Case Law on the Liability in International Air Transport

1. Introduction

Though many international aircraft accident cases under the Warsaw system in the world was decided by the Supreme Courts, High Courts and District Courts in every one of countries for 70 years according to the contents of the Warsaw Convention of 1929, Hague Protocol of 1955, Guadalajara of 1961 including US Inter-Carrier Montreal Agreement of 1966, the Warsaw system will be replaced by the adoption of the new Montreal Convention on May, 1999.

The Warsaw System consists of the Warsaw Convention of 1929, the Guadalajara Convention of 1961, a supplementary convention, and the following six protocols: ① the Hague Protocol of 1955, ② the Guatemala Protocol of 1971, ③ the Montreal Additional Protocol, No.1, ④ the Montreal Additional Protocol No.2, ⑤ the Montreal Additional Protocol No.3, and ⑥ the Montreal Protocol No.4. of 1975.⁴⁰²⁾

Some amendments of Protocols became effective, but others are still not effective.

As a result, the whole international legal system for air transportation is so complicated and tangled at past. For nearly seventy years, contract and tort liability for personal injury and property damage in international air transport has been governed by the Warsaw System and Rome System.

The most significant problems which have arisen under this liability regime are

402) Doo Hwan Kim, "Some Considerations of the Draft for the Convention on an Integrated System of Aviation Liability", Journal of Air Law and Commerce (Vol.53, No.3, 1986), SMU, USA, at 765.

two: ① its ceiling on carrier liability (made unrealistically low with the passage of time); and ② the “Wilful misconduct” standard required to break through that ceiling. These problems have made litigation more complex and expensive, settlement more difficult, and plaintiffs’ recovery less satisfactory than it otherwise might be. Most of the recent cases, the air carrier stood alone as defendant in liability litigation following an aircraft accident. However, air carriers seldom bear the entire responsibility for such accidents. A recent trend shows an increasing number of claims directed against other parties such as air traffic control agencies, manufactures of aircraft and airport authorities, possibly involved in the chain of events which leads to an air accident.

This growing tendency can be explained by several factors. A large number of cases against parties other than the carrier are engaged as direct actions, either following a totally or partially unsuccessful claim against the carrier, or as an action engaged in parallel with such a claim, to increase the chances of recovery.

As, under the current regulations applicable to international flights, the liability of air carriers is still limited, claimants will not, in many cases, obtain full compensation from the concerned air carrier. The issue of liability in air transportation, which used to focus chiefly on the air carrier, tends today to be viewed as a global subject, involving all parties which are likely to contribute to the occurrence of an aircraft accident.

Litigation is becoming increasingly complex, as a single event may result in countless claims against a wide scope of defendants, appearing in a clutter of direct, parallel, or recourse actions engaged in different countries. The situation is further complicated by the fact that the different categories of defendants are currently submitted to different liability regimes.

2. The Principle of the Warsaw System

The rule of the Warsaw Convention of 1929 are well known and being all over the world. The Warsaw Convention is undoubtedly the most widely accepted private international air law treaty with 151 countries. In the international legal system for air transportation, the Warsaw Convention has played a major role for more than 70 years, and has been revised many times in consideration of the rapid developments of air technology, changing of social and economic circumstances, need for the protection of passengers.

The Warsaw Convention contains a set of international principles designed to promote uniformity in resolving legal claims arising out contracts for international air carriage. The Warsaw Convention, combined with several subsequent conventions and protocols, establishes a complicated international legal system for international carriage by air named the Warsaw system of international carriage by air. The sum of the compensation for damage on a carrier's liability for the death or personal injury of each passenger is limited to the sum of US \$8,300, under the Warsaw Convention, the sum of US \$16,600 under the Hague Protocol, the sum of US \$75,000 under the Montreal Inter-Carrier Agreement, the sum of US \$100,000 under the Guatemala City Protocol, the sum of 100,000 SDR under the Additional Protocol No.3 and Montreal Convention.

As a fundamental principle of the air carrier's liability in the international conventions and protocols, for instance in the Warsaw Convention and the Hague Protocol, the principle of limited liability and a presumed fault system has been adopted. Subsequently, the Montreal Inter-Carrier Agreement of 1966, the Guatemala City Protocol, the Montreal Additional Protocol No.3, and the Montreal Protocol No.4 of 1975 maintained the limited liability, but substituted the presumed liability system by an absolute liability, that is, strict liability system. The major provisions of the 1999 Montreal Convention had adopted the two-tiered liability regime. The Warsaw System based on fundamentally the theory of air carriage contract.

3. The Recent Cases on Air Litigation in the United States

Relying on domestic US tort law for recovery of losses sustained in air disasters has proven to be unduly time-consuming and insufficient in achieving the desired result in terms of timely and just compensation for victims and their families.

According to a study report by Rand Corporation in US the average claim takes two years to reach settlement. Compensation can take over four years if a trial is involved and up to seven years or longer if the victims is attempting to prove wilful misconduct⁴⁰³) on the part of the airlines in order to break the liability cap of the Warsaw regime.

For victims and families who need prompt compensation for their losses, delays of several years can be devastating. Families of the victims of the Korean Air Lines (KAL) flight 007 tragedy went for long time trial on the issue of damages.

Moreover, they still have to face the prospect of time-consuming appeals to be filed by KAL.

Furthermore, according to the said study report, while American claimants under the Warsaw Convention received, on average, about US \$200,000 in compensation for aviation accidents that occurred between 1970 and 1982, American claimants under the domestic system received on average of about US \$490,000.

The uncertainty of the results of litigation was an important factor encouraging acceptance of compensation that was less than the value of the actual loss. The average award in the US domestic tort system is about US \$800,000 twenty years go.

The data series for the Warsaw Convention of post 1982 accidents one case came out at US \$325,000. Victims may, therefore, well seek to breach the Convention limits by alleging wilful misconduct or an intentional act by the air carrier. This will be difficult to prove in most cases and highly unlikely where airlines are so often the innocent victims of attacks which are aimed at states.

403) 26. Cf. Art. 25 of the Warsaw Convention.

The Rand's Institute for Civil Justice studied 2,200 death cases from 25 major US domestic airline accidents between 1970 and 1984 and found that the average award to families of people killed in such accidents was \$321,300 during the first half of that period, and \$408,500 in the second half, about a third of which was attributable to non-economic damages (e.g., mental anguish, pain and suffering), much of which would not be recoverable under Warsaw.⁴⁰⁴⁾

It also studied the litigation and settlement results in 14 accidents involving 890 deaths under tickets covered by Warsaw/Montreal, finding that the 75,000 ceiling was imposed in only 11% of the deaths. The average compensation for passengers flying on Warsaw/Montreal tickets was \$78,587, while the average recovery for those not restricted by Warsaw Convention was \$474,990.⁴⁰⁵⁾ The US General Accounting Office studied aviation disaster litigation and found that claimants for wrongful death in international aviation recover only an average of \$200,000 on cases settled before trial, and \$330,000 on cases that go to trial.

In contrast, such cases decided under domestic US law result in an average of \$480,000 on cases settled before trial and \$730,000 on cases that go to trial.⁴⁰⁶⁾

Although the average time for settlement is essentially the same for Warsaw Convention or domestic cases (1.8 and 1.9 years respectively), on cases that go to trial, under Warsaw Convention a claimant had to wait more than seven years to recover, compared with three years for the domestic claimant.⁴⁰⁷⁾

Also, the mean percentage of legal costs to the claimant is significantly higher under Warsaw system than under the domestic regime (28% and 24% respectively).

Proving wilful misconduct can be tremendously expensive, although much of the

404) See J. Kakalik, E. King, M. Traynor, P. Ebener & L. Picus, *Costs and Compensation Paid in Aviation Accident Litigation* (1988). See discussion of the US Supreme Court decision in *Eastern Airlines, Inc., v. Floyd*, *infra* note 70.

405) See Kakalik, King, Traynor, Ebener & Picus, *ibid.* at 37.

406) See United States, General Accounting Office, *International Aviation Implication of Ratifying Montreal Aviation Montreal Protocol No.3* (Washington, D. C.: The Office, 1990) at 5 [hereinafter *Aviation Implication*].

407) See P. Dempsey, R. Hardaway & W. Thoms, *Aviation Law and Regulation*, Vol.2 (London: Butterworth, 1993), at 14–24.

US litigation is handled for plaintiffs on a contingent fee basis.⁴⁰⁸⁾ In the Lockerbie case, some 225. passenger claims were consolidated in the Eastern District of New York. The case produced 22,000 pages of depositions, 10,000 pages of exhibits, and an 8,000 page trial record. After a three month jury trial, wilful misconduct was found.⁴⁰⁹⁾

4. The Decisions on the KAL 007 Cases in the US Court

The Korean Air Lines 007 disaster offers an instructive guideline as to the types of damages recoverable in major commercial aircraft disaster litigation where the jury finds wilful misconduct. In the case of KAL 007, which strayed over Soviet territorial airspace, an American Federal Jury found the crew guilty of wilful misconduct and the airline has been ordered to pay some US \$50 million to relatives of 137 passengers, that is US \$365,000 per passenger.

After the KAL 007 accident, 132 cases had already been settled. The airline is understood to be appealing this case to the US Supreme Court which has decided in its favour in a related case, namely *Chan v. Korean Airlines*, arising from the same incident. Here the decision was that the limits could not be breached simply because the notice contained on the ticket was in “8 point” type rather than the “10 point” prescribed in the 1966 Montreal Agreement.⁴¹⁰⁾

By mid-1993 (nearly a decade after the crash), of the 105 cases filed involving 101 passengers, 10 cases had proceeded to trial⁴¹¹⁾ of which were tried before a

408) Some of the more prominent aviation litigation firms proceed on a 25% contingent fee, rather than the 33% charged in many other tort settings.

409) See *Aviation Implication*, supra note 36 at 10-11.

410) Doo Hwan Kim, *Liability of Governmental Bodies in International Civil Aviation*, *The Highways of Air and Outer Space over Asia* (Martinus Nijhoff Publishers, 1991), at 189-190.

411) See “*Korean Air Lines 007 Disaster Litigation—Damage Awards Rendered in Ten Passenger Cases*” 115 truly 1993] 12 Lloyd’s Av. L.1 (hereinafter “Korean Air Lines”).

jury, while 34 were settled before trial.

All of the US courts agreed that plaintiffs could recover from pre-death pain and suffering of the decedent, with awards therefore ranging from \$0 to \$1,350,000, although appeals were anticipated in each case on grounds of insufficiency of evidence that any defendant was alive, conscious, aware and actually experienced pain and suffering prior to death.⁴¹²⁾ Each court also allowed recovery for loss of services, loss of nurture, and loss of inheritance they were divided on the issue of whether non-pecuniary damages for loss of society and survivor's grief were recoverable. Some allowed recovery of pecuniary damages only, while others allowed recovery of both pecuniary and non-pecuniary damages.⁴¹³⁾ More specifically, these cases collectively allowed recovery for the following types of damages;

- (1) Loss of Society, Love, Affection and Companionship
- (2) Grief Manifested in Physical Injury
- (3) Loss of Support
- (4) Loss of Inheritance
- (5) Loss of Services
- (6) Pre-Death Pain and Suffering
- (7) and Loss of Nurture, Care and Guidance,⁴¹⁴⁾

5. The US Supreme Court Decision in KAL 007 Zicherman CASE

Particularly I would like to introduce the summary and comment of the US Supreme Court decision on the case Zicherman v. Korean Air Lines (1996).

412) See *Ibid.*

413) See "Korean Air Lines," *supra* note 40. Compare *Bowden v. Korean Air Lines*, 814 F.supp.592 (E.D. Mich. 1993); in re Korean Airlines Disaster of Sept. 1, 1983, 807 F.Supp.1073 (S.D.N.Y. 1992); *Park v. Korean Airlines*, 24 Avi. 17,253 (S.D.N.Y 1992).

414) See "*Korean Air Lines*," *ibid* at 2-4.

5.1. Facts and Background

On September 1, 1983, Korean Air Lines Flight KE007, en route from Anchorage, Alaska, to Seoul, South Korea, strayed into air space of the Soviet Union and was shot down by Soviet military interceptor over the Sea of Japan. All 269 persons on board were killed, including Muriel Kole.

Petitioners Marjorie Zicherman and Muriel Mahalek, Kole's sister and mother, respectively, sued respondent [ZICHERMAN v. KOREAN AIR LINES CO., U.S. (1996), 2] Korean Air Lines Co., Ltd. (KAL) in the United States District Court for the Southern District of New York.

Petitioners' final amended complaint contained three counts, entitled, respectively, "Warsaw Convention," "Death on the High Seas Act," and "Conscious Pain and Suffering."

At issue here is only the Warsaw Convention count, in which petitioners sought "Judgment against KAL for their pecuniary damages, for their grief and mental anguish, for the loss of the decedent's society and companionship, and for the decedent's conscious pain and suffering."

Along with other federal courts actions arising out of the KAL crash, petitioners' case was transferred to the United States District Court for the District of Columbia for consolidated proceedings on common issues of liability.

There, a jury found that the destruction of Flight KE007 was proximately caused by "Willful misconduct" of the flight crew, thus lifting the Warsaw Convention's \$75,000 cap on damages.⁴¹⁵⁾

The jury awarded \$50 million in punitive damages against KAL. The Court of Appeals for the District of Columbia Circuit upheld the finding of "Willful misconduct," but vacated the punitive damages award, holding that the Warsaw Convention does not permit the recovery of punitive damages.⁴¹⁶⁾

415) See Warsaw Convention, Art. 25, 49 Stat. 3020; Order of Civil Aeronautics Board Approving Increases in Liability Limitations of Warsaw Convention and Hague Protocol, reprinted in note following 49 U.S.C. App.1502(1988 ed.).

The individual case was then remanded by the Judicial Panel on Multi–District Litigation to the original transfer or courts for trial of compensatory damage issues.

At petitioners’ damages trial in the Southern District of New York, KAL moved for determination that the Death on the High Seas Act (DOHSA),⁴¹⁷ prescribed the proper claimants and the recoverable damages, and that it did not permit damages for loss of society.

The District Court denied the motion and held, *inter alia*, that petitioners could recover for loss of “love, affection, and companionship.”⁴¹⁸

The jury awarded loss of social damages in the amount of \$70,000 to Zicherman and \$28,000 to Mahalek.⁴¹⁹ The Court of Appeals for the Second Circuit set aside this award. Applying its prior decisions in *In Re Air Disaster at Lockerbie, Scotland*, on Dec. 21, 1988,⁴²⁰ it held that general maritime law supplied the substantive law of compensatory damages to be applied in an action under the Warsaw Convention.⁴²¹

Then, following its decision in *Lockerbie II*, it held that, under general maritime law, a plaintiff is entitled to recover loss–of–society damages, but only if he was a dependent of the decedent at the time of death.⁴²² The court concluded that as a matter of law Mahalek had not established that status, and therefore vacated her

416) *In re Korean Air Lines Disaster* of Sept. 1, 1983, 932 F.2d 1475, 1479–1481, 1484–1490(CADC), cert. denied, 502 U.S. 994(1991).

417) 41 Stat. 537 [ZICHERMAN v. KOREAN AIR LINES CO., U.S. (1996), 3] (1988 ed.); 46 U.S.C. App.761 et seq.,

418) *In re Korean Air Lines Disaster* of Sept. I, 1983, 807 F. Supp.1073, 1086–1088 (SDNY 1992).

419) The jury also awarded petitioners \$161,000 in survivors’ grief, \$16,000 to Zicherman for loss of support and inheritance and \$100,000 to Zicherman for the decedent’s pain and suffering. The Second Circuit has set aside the award of grief damages and has remanded for further proceedings on the award for loss of support and inheritance. None of these awards is at issue here.

420) 928 F.2d 1267, 1278–1279(CA2) (*Lockerbie I*), cert. denied sub nom. *Rein v. Pan American World Airways, Inc.*, 502 U.S. 920(1991), and *In re Air Disaster at Lockerbie, Scotland*, on Dec. 21, 1988, 37 F.3d 804(CA2 1994) (*Lockerbie II*), cert. denied sub nom. *Pan American World Airways, Inc. v. Pagnucco*, 513 U.S. (1995).

421) 43 F.3d 18, 21–22(1994).

422) 43 F.3d, at 22.

award it remanded to the [ZICHERMAN v. KOREAN AIR LINES CO.,_U.S._

(1996), 4] District Court for determination of whether Zicherman was a dependent of Kole. In their petition for certiorari, petitioners contended that under general maritime law dependency is not a requirement for recovering loss-of-society damages. In a cross-petition, KAL contended that the Warsaw Convention does not allow loss-of-society damages in this case, regardless of dependency. We granted certiorari.

5.2. The Korean Air Lines Co., Petitioner⁴²³⁾

The Korean Air Lines Co., Ltd. v. Zicherman, Individually and as Executrix of the Estate of Kole, et al., also on certiorari to the same court. In a suit brought under Article 17 of the Warsaw Convention governing international air transportation, petitioners Zicherman and Mahalek were awarded loss of social damages for the death of their mutual relative who was a passenger on respondent Korean Air Lines' Flight KE007 when it was shot down over the Sea of Japan.

The Second Circuit set aside the award, holding that general maritime law supplied the substantive compensatory damages law to be applied in an action under the Warsaw Convention and that, under such law, a plaintiff can recover "loss of society damages" only if he was the decedent's dependent at the time of death.

The court concluded that Mahalek had not established dependent status and remanded for the District Court to determine whether Zicherman was a dependent of the decedent.

423) *KOREAN AIR LINES CO., PETITIONER v. MARJORIE ZICHERMAN, ETC., ET AL. ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT* Nos. 94-1361, 94-1477, Argued November 7, 1995, Decided January 16, 1996.

5.3. Held

(1) In a suit brought under Article 17, a plaintiff may not recover loss-of-society damages for the death of a relative in a plane crash on the high seas, within the meaning of the Death on the High Seas Act (DOHSA). Article 17 permits compensation only for legally cognizable harm, but leaves the specification of what harm is legally cognizable to the domestic law applicable under the forum's choice-of-law rules. That the Convention does not itself resolve the issue of what harm is compensable is shown by the text of Articles 17 and 24, the Convention's negotiating and drafting history, the contracting states' post-ratification understanding of the Convention, and the virtually unanimous view of expert commentators.

(2) Having concluded that compensable harm is to be determined by domestic law, the next logical question would be that of which sovereign's domestic law. In this case, the Court need not engage in this inquiry, because the parties have agreed that if the issue of compensable harm is unresolved by the Warsaw Convention, it is governed in the present case by the law of the United States.

The final unresolved question is then which particular United States law applies.

The death that occurred here falls within the literal terms of DOHSA 761, and it is well established that those terms apply to airplane crashes. Since recovery in a 761 suit is limited to pecuniary damages, 762, petitioners cannot recover for loss of society under DOHSA.

Moreover, where DOHSA applies, neither state law nor general maritime law can provide a basis for recovery of loss-of-society damages. Because petitioners are not entitled to recover loss-of-society damages under DOHSA, this Court need not reach the question whether, under general maritime law, dependency is a prerequisite for loss-of-society damages.

5.4. Comment

Zicherman involved an action arising out of the shooting–down of Korean Air Lines Flight 007 by Soviet military aircraft over the high seas on 1 September 1983. The primary issue confronted by the US Supreme Court was what types of compensatory damages are allowed in an action for the death of a passenger governed by Article 17 of the Warsaw Convention.

In defining “recoverable compensatory damage,” one need only look to the recent US Supreme Court decision of *Zicherman v. Korean Airlines Co., Ltd.*,⁴²⁴) where the court held that “damage” under article 17 means “legally cognizable harm”. In other words it means the type and amount of damages that a claimant is entitled to under applicable law. The importance of recoverable compensatory damage law determination stems from the fact that without limits of liability the key to maximizing recovery or minimizing loss is;

The type of damages that are recoverable; and the method of calculating the award of damages. Clearly, national laws differ as to who is entitled to claim damages for the death of passenger, and therefore applicable law will dictate who mayor may not have a legal claim.⁴²⁵) Damages can be broken up into economic and non–economic losses.⁴²⁶) One study that 16 jury trials for the KAL 007 disaster showed that only 39.5% of the damages were for economic damages and 60.5% were for non–economic damages.⁴²⁷) The importance of this distinction is recognized in the *Zicherman* decision, which held that DOHSA only economic damages were recoverable. Thus, 60.5% of total damages awarded by the juries

424) 116 S. Ct. 629(1996).

425) For example, in the US, when the death occurs on the high seas, *Zicherman* holds that the applicable law is the Federal Death on the High Sea, 4 if, where all claims must be brought by the decedents legal representative. See Death on the High See Act, 46 U.S.C. s. 716 et. seq. (1988). [hereinafter DOHSA].

426) Economic damages are losses that can be calculated in money, whereas noneconomic damages cannot.

427) Robert F Hedrick, *Recoverable Compensatory Damage Under the IIA and Implementing Agreements*, (Annals of Air and Space Law, Vol.22, 1997), at 155.

were wiped out.

In answering this question, the U.S. Court found that the first step was to look at the language of Article 17, which creates carrier liability for “damage sustained.” The US Supreme Court rejected the view the phrase “damage sustained” allows recovery of any damages. Rather, the U.S. Court held that “damage sustained” means “legally cognizable harm” and that what “harm” is legally cognizable is determined by reference to domestic law pursuant to Article 24 of the Warsaw Convention.⁴²⁸⁾

The U.S. Supreme Court in *Zicherman* went on to conclude that under domestic law applicable to the *Korean Air* case, certain non-pecuniary damages were unrecoverable:

We conclude that Articles 17 and 24(2) of the Warsaw Convention permit compensation only for legally cognizable harm, but leave the specification of what harm is legally cognizable to the domestic law applicable under the forum’s choice of law rules.⁴²⁹⁾ These courts properly re-colonized that while Article 17 and 24 refer the issue of recoverable compensatory damages to domestic law, the Warsaw Convention itself prohibits punitive damages.

Therefore, whether domestic law allows punitive damages is irrelevant, because such damages are prohibited by the compensatory nature of the language and goals of the Warsaw Convention itself. The U.S. Supreme Court’s definition of “damage sustained” as “legally cognizable harm” in *Zicherman* is in accord with the definition of the phrase “damage sustained” by the pre-*Zicherman* courts.

Because punitive damages do not compensate harm but impose punishment, they have nothing to do with compensating the “damage sustained” by, or “harm” to, a passenger.

This interpretation of the *Zicherman* decision was recently confirmed by the Court

428) Article 24 of the Warsaw Convention states that the questions of who can recover damages and what types of damages are recoverable under Article 17 are determined by domestic law. See Warsaw Convention, art.24.

429) *Zicherman*, supra note 2 at 637.

of Appeals for the Second Circuit in *Pescatore v. Pan American World Airways, Inc.* where the court, in conducting the choice of law analysis as to recoverable damages required by *Zicherman*, noted that whether punitive damages are allowed under the law of the forum is not a factor for the choice of law analysis because “they are unavailable in an action arising under the Warsaw Convention. While the US Supreme Court has never addressed the issue of punitive damages within the context of the Warsaw Convention, the Court has declined to review the issue in two cases where the issue has been presented to them for review.

Its decision in *Zicherman* is consistent with and reaffirms the analysis adopted by all court: that punitive damages are not recoverable under the Warsaw Convention.

Finally, and not in spite of the fact that damages vary so widely, the Convention does little if anything to expedite recoveries. One needs only cite to the experience of which this audience is well aware related to the litigation arising out of KAL 007 which goes back to a crash in 1983. Although the bulk of the claims arising out of this disaster are now concluded, the fact is that in 1998, litigation related to some of these claims is still ongoing.⁴³⁰⁾

6. The Montreal Convention and Prospect on Case Law

The ICAO have succeeded in modernizing and consolidating a 70–year old system of international instruments of private international law into one legal instrument that will provide, for years to come, an adequate level of compensation for those involved in international air accidents.⁴³¹⁾ The International Conference on Air Law was convened by ICAO with the goal of modernizing the Warsaw Convention System, which date back to 1929.

430) *Dooley v. Korean Air Lines Co. Ltd.*, 118 S.Ct. 679 (1998).

431) Dr. Assad Kotaite (Former President of the ICAO Council) declared the conclusion of the new Montreal Convention at the conclusion of the three–week International Conference on Air Law; http://www.icao.org/icao/en/jr/5404_up1.htm

The Warsaw System, which sets relatively low compensation limits for victims of air accidents and regulates liability for damage, delay or loss of baggage and cargo in accidents, had become increasingly outdated. A major feature of the new legal instrument is the concept of unlimited liability. Whereas the Warsaw Convention set a limit of 125,000 Gold Francs (equivalent to approximately U.S. \$8,300) in case of death or injury to passengers.

The success in replacing six different legal instruments collectively known as the Warsaw System by a single legal instrument will contribute immensely to rationalizing what had become a fragmented and ineffective method of dealing globally with liability proceedings in cases of aircraft accidents. In developing this new Montreal Convention, we were able to reach a delicate balance between the needs and interests of all partners in international civil aviation, States, the travelling public, air carriers and the transport industry.⁴³²⁾

As there are no longer any arbitrary barriers to seeking adequate compensation related to an aircraft accident, the new Montreal Convention will help to eliminate the protracted litigation that has revolved around the question of liability limits for many⁴³³⁾

7. Conclusion

At the end of this survey, one is forced to conclude that, at the moment, we are facing a situation where some developed countries have no limits of compensation, while other some countries maintains higher limits than the Warsaw Convention prescribed.

The recent efforts to modernize the Warsaw System for long time by ICAO

432) Dr. Kenneth Rattray of Jamaica, elected as President of the ICAO said as to the new Montreal Convention at the close of the International Conference to Air Law
http://www.icao.org/icao/en/jr/5404_up1.htm

433) http://www.icao.org/icao/en/jr/5404_up1.htm

should be lauded and supported by all States. At last the ICAO have succeeded in modernizing and consolidating more than half century old Warsaw system into one unified legal instrument as a new Montreal Convention on 28 May 1999. We must correctly interpret the meaning of every articles composed by Article 1–57 of the new Montreal Convention.

(Doo Hwan Kim, *Recent Case Law on the Liability in International Air Transport and a New Montreal Convention*, *Social System Review*, [Vol. 1, March, 2002], The Research Institute of Social Systems, Chuogakuin University in Japan, pp. 11–31.

Part II. International Space Law

第2編 国際宇宙法

Chapter I. The Problems on the Space Exploitation Program and Legislation in Korea

1. Introduction

The “space already exists for Asia, so the question is what we do there.” It’s our job to make sure that all the opportunities are used to integrate the power of the space exploitation among the Asian countries. In the 21st century, space science and technology will develop with greater rapidity. The continuous development in the space industry is expected which is led by the increase of communication & broadcasting satellites and the expansion of satellite application.

The space industry will grow considerably according to the expansion of private mobile communication industry, the increase of activities of space exploration and the implementation of international space station program.

The market size of the global space industry will grow continuously at the annual average of 10%. Korea launched two science satellites, the so-called “Uri–Byul (Our Star) 1,⁴³⁴Uri–Byul 2,⁴³⁵ in 1992 and 1993, respectively and launched two scientific sounding rockets in 1993. Since then, space activities have focused upon research and development (R&D) in this area. By launching three communication & broadcasting satellites “KOREASAT (Mugoonghwa: Korean national flower) 1,⁴³⁶ Telecommunication Co.) in 1995, 1996 and 1999, respectively, Korea has expanded the commercial uses of satellite.

Korea has built up the infrastructure for the development of space technology by

434) <http://satrec.kaist.ac.kr/english/SaTReC.html>

435) <http://satrec.kaist.ac.kr/english/SaTReC.html>

436) <http://www.kt.co.kr/kt/eng/frame.html>

developing ① micro science satellites Uri-Byul 3 (100kg: indigenous development)⁴³⁷⁾ and ② the Korea Multi-Purpose Satellite-1 (hereafter referred to as “KOMPSAT-1”)⁴³⁸⁾ in 1999 which was the first multipurpose satellite in Korea. In case of satellites, KOMPASAT-1, launched successfully in 1999, has been performing its mission beyond its designed life span, and yet has capability for two more years of operation. With KOPSAT-2⁴³⁹⁾ continuing to progress COMS (Ocean monitoring & Meteorological Satellite) program is set to begin in 2003.

In the year 2002, the National Space Program brought a number of activities to fruition and laid groundwork for initiatives for coming years. Three successful launches of a liquid-fueled rocket KSR-III⁴⁴⁰⁾ marked a major advancement in domestic satellite launch capability. As a sequel to this success, a new project for KSLV-I⁴⁴¹⁾ was initiated. a space launch vehicle for small satellites of 100kg in low earth orbit. Korea will enter more actively into the global space market through the participation in the International Space Station Program and in the International cooperation.

2. Space Exploitation Program in Korea

2.1. Revised Basic Mid- and Long-Term National Space Development Plan

Space technology is the complex of future high technologies such as super accuracy manufacturing & assembly, high-qualified electronic component technology and extreme environmental technology. The aerospace industry may create many

437) <http://satrec.kaist.ac.kr/english/SaTReC.html>

438) http://www.kari.re.kr/new_html/English_version/E_index4.htm

439) http://www.kari.re.kr/new_html/English_version/E-index4.htm

440) http://www.kari.re.kr/new_html/English_version/E_index4.htm

441) http://www.kari.re.kr/new_html/English_version/E-index4.htm

benefits for the 21st century with new materials and life science industries. Aerospace technology in Korea is in the vanguard of scientific and technological progress in the 21 century.

For this reason, the '*Aircraft Industry Promotion Act*' was replaced by the '*Aerospace Industry Development Promotion Act*' of 1987 in order to ensure appropriate measures for the active development of the aerospace industry. The Korean government regards the promotion of high-technology, including the aerospace industry, as the best way to achieve international industrial competitiveness.

In addition, the government set up a mid- and long-term development scheme that took concrete shape in the 'Basic Mid- and Long-Term National Space Development Plan' in Korea passed by the National Science and Technology Council in April of 1996 and the Basic Plan for Aerospace Industry Development passed by the 'Aerospace Industry Development Policy Council' in April of 1999.

The 'Revised Basic Mid- and Long-Term National Space Development Plan' in Korea had been passed by the 'National Science and Technology Council' in December of 2000. Space research and development in Korea progress in accordance with "The Basic Mid- and Long-term National Space Development Plan" of the Ministry of Science and Technology of the Korean Government, and "The Master Plan for the Development of the Aerospace Industry" of the Ministry of Commerce, Industry and Energy of the Korean Government.

I would like to explain mainly the summarized contents of the Korean national Space Programme ('Revised Basic Mid- and Long-Term National Space Development Plan') with chart and figure.

2.2. National Space Program

(1) Satellites

The Korean government established its first "National Space Program" in 1996, and revised it in 2000. As embedded in the National Space Program, Korea aims to

become one of the world's top ten countries in space technology by 2015. The total of 20 satellites are planned to be put into orbit as schematized, which include 8 multi-purpose satellites, 7 science satellites and 5 geo-stationary orbit satellites. The objectives laid out for such national long-term space development program are:

- achievement of the capability of launching micro satellite indigenously by 2005;
- indigenous development of low earth orbit multi-purpose satellite and launcher by 2010; and
- plan to enter into worldwide top 10 countries in the space industry by 2015.

In accordance with such a program, the development of a space launch vehicle for micro satellites and the construction of the Space Center equipped with launch facilities are to be accomplished by 2007. The development of the core technology in space science is to be pursued. Korea will also promote international cooperation in such areas as space environment and solar activities, the establishment of space monitoring system, and seek joint participation in international space programs and exchange of technology. The strategies to be employed to implement the National Space Program include

- coordinating comprehensively the R&D activities in space technology,
- fostering public private partnerships amongst firms, research institutions and universities.

In order to achieve such coordination it is necessary to coordinate the policy by 'The Expert Committee on Space Development' of the National Science and Technology Council.

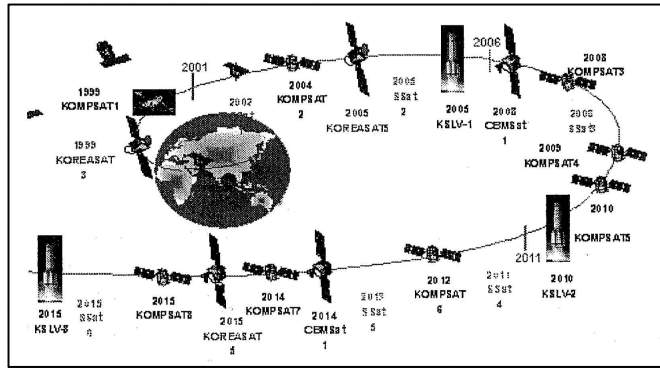
(a) KOMPSAT Program

KARI (Korea Aerospace Research Institute)⁴⁴²⁾ had developed a Korea Multipurpose Satellite-1 (KOMPSAT-1 or Ariang), a small sized earth observation satellite of 470kg with an orbital altitude of 685km over 5 years of collaborative research with

442) http://www.kari.re.kr/new_html/English_version/E_index.htm

TRW of the U.S.A. KOMPTSAT-1 was successfully launched at the Vandenberg Air Force Base, California in the U.S.A. on December 20, 1999.

(Figure 1) The National Space Programme in Korea (2000~15)



(Chart 1) Development Plan of Satellites

Classification		Implementation Plan																			
		1st Stage			2nd Stage			3rd Stage			4th Stage										
		95	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
5GEOSs	KS 5				3rd						4th										5th
	1	COMS 6											1st							2nd	
8MPSs	2	EOO 7			1st				2nd				3rd		5th		6th		7th		
		BBO 8												4th							8th
7SSs	3	SS(Uri)9			3rd																
		SS 10					1st			2nd			3rd		4th		5th		6th		
DST	4	S&PT 11																			
		SDPT 12																			
		SDAf 13																			
		CBPT 14																			

Note: 1. GEOSs = Geo - Stationary Satellites; 2. MPS = Multi - Purpose; 3. SSs = Scientific Satellites; 4. DST = Development of Satellite Technology; 5. KS = KOREASAT(Mugongwha Satellite); 6. COMS = Communication, Ocean Monitoring & Meteorological Satellite; 7. EOO = Electronic Optic Observation; 8. BBO = Broad Band Observation; 9. SS(Uri) = Science Satellite(Uri - Byul); 10. SS = Science Satellite; 11. S&PT = Satellite Payload Technology; 12. SDPT = Satellite Data Processing Technology; 13. SDAT = Satellite Data Application Technology; 14. CBPT = Communication & Broadcasting Payload Technology

Source: Ministry of Education, Science and Technology

(Chart 2) The Comprehensive Coordination of R&D in Space Technology

1995	2000	2010	2015
Starting space development & building infrastructure	Joint development of satellites and indigenous development of sounding rocket	Indigenous development of the satellite and launch vehicle	Entering into Worldwide top 10 countries in the space industry

Source: Ministry of Education, Science and Technology

The KOMPSAT-1 has three payloads, which include high resolution Electro-Optical Camera (EOC), Ocean Scanning Multi-spectral Imager (OSMI) and Space Physics Sensor (SPS). The EOC, a main payload, collects panchromatic image with a Ground Sample Distance (GSD) of 6.6m and a swath width of 17km by push broom scanning.

(Chart 3) Multi-Purpose Satellite

Classification	Period of Development	Size		Test	Development method
		Orbit	Weight		
1st	1995 ~ 1999	658km(a)1 SSO 2	500kg	Earth observation Ocean observation Science observation	Indigenous development in order to meet demands of related-organization
2nd	1999 ~ 2004	658km(a) SSO	730kg	Earth observation	
3rd	2003 ~ 2008	Low earth orbit SSO	800kg	Earth observation	
4th	2004 ~ 2009	Low earth orbit SSO	1ton	Earth, ocean, the polar region, environment and meteorological observation	
5th	2005 ~ 2010	Low earth orbit SSO	1ton	Earth, ocean, the polar region, environment and meteorological observation	
6th	2007 ~ 2012	Low earth orbit SSO	1ton	Earth observation	
7th	2009 ~ 2014	Low earth orbit SSO	1.2ton	Earth observation	
8th	2010 ~ 2015	Low earth orbit SSO	1.2ton	Multi-purpose observation such as earth, ocean, the polar region, environment, etc.	

Note: 1. (a) = altitude: 2. SSO = Sun-Synchronous Orbit.

Source: Ministry of Science and Technology

The KOMPSAT-1 EOC Imagery could be used as a basic material for GIS and land development program. The primary mission of OSMI is to conduct worldwide ocean color monitoring and environmental monitoring. The Republic of Korea has been releasing relevant data to local and overseas users. Since on June 1, 2000, such data have been authorized for use for peaceful purposes only. KOMPSAT-1 was the first Korean satellite for earth observation. Following the success of KOMPSAT-1 project, Korea has built national infrastructure related to the earth observation satellite. Since the successful launch of the KOMPSAT-1, KARI had developed Korea Multi Purpose Satellite-2 (KOMPSAT-2), a 765kg earth observation satellite with an orbital altitude of 685km.

KOMPSAT-2 the very-high-resolution satellite belonging to the KARI, has been successfully launched the 28 July 2006.

The main mission of KOMPSAT-2 is the acquisition of GIS (Geographic Information Systems) image (PAN, MS) for the Korean peninsular with three years of life span. Multi-Spectral Camera (MSC) is the main payload of KOMPSAT-2 and had developed jointly with ELOP Ltd., Israel. MSC will be capable of taking Photo static images with the 1m panchromatic resolution and 4m multi-spectral resolution with a swath width of 15km by push broom scanning.

Participating companies included KAI, HANWHA, KAL, DOOWON, ELOP and Astrium took part in this program as foreign partners. Eurockot (German and Russian Joint Venture Company) was selected as a launch service provider with the launch scheduled in 2004..

The KARI of Daejeon, Republic of Korea, and Eurockot Launch Services of Bremen, Germany, signed a contract in October 2002 covering the launch services for the Korean KOMPSAT-2 earth observation satellite. KOMPSAT-2 was launched on 28 July 2006 using the Rockot launch vehicle from Plesetsk Cosmodrome in Northern Russia.

The selection of Eurockot followed an international launch competition by KARI. Rockot deployed the satellite, which has a mass of approximately 800kg into a

circular sun-synchronous orbit of 685 km altitude. This is the fourth launch contract for Eurockot in the Far East. As well as having developed the KOMPSAT-2, KARI also acted as the system integrator for this programme. KOMPSAT-2 provides multi-spectral, high resolution images for earth observation.

Mission and Characteristics of KOMPSAT-2

Launch Vehicle	Rocket / Breeze - KM
Payload	KOMPSAT-2
Payload Mass	798 kg
Launch Site	Plesetsk Cosmodrome, Russia located at 40°E, 63°N
Launch Pad	Eurockot Pad LC 133
Orbit Altitude	Sun - Synchronous Orbit: 685 km
Eccentricity	0
Orbit Inclination	98.13°
Planned Lift-off Date	Summer 2006

KOMPSAT-3 and 4 are tentatively scheduled to be launched between 2007 to 2010, with the launches of KOMPSAT-5, 6, 7 to follow between 2010 to 2015.

(b) KOREASAT Program

Towards the end of the year 1999, the new Korean broadcasting law, entitled “Integrated Broadcasting Act” was passed by the Culture Tourism Committee of the National Assembly, under the auspices of which the commercial broadcasting service via satellites was commenced in Korea.

Korea acquired already high quality television, telecommunication and internet services using communication satellites. This new Broadcasting Act encouraged many companies to participate in the internet service business via satellites. As the demands of high speed and multi-services are increasing, the KOREASAT-2 & 3 should play the key role in the information business sector.

To continue the mission of KOREASAT-2 and extended the satellite services, the KOREASAT-5 program was initiated in 2002, with a launch planned in 2006. The KOREASAT-5 has a hybrid mission of commercial communication services.

The commercial service areas include Japan and the northeast part of China as well as the Korean Peninsula. Alcatel Space was recently selected as the prime contractor of this program having won a fierce competition from Astrium and Lockheed Martin. KOREASAT-5 launched Korea's first combined civil and military communications satellite.

Alcatel Space will supply both the multi-mission satellite and its ground control system, along with launch and early operations phase (LEOP) support. KOREASAT-5, also known as Mugungwha 5, is a South Korean geostationary satellite that was launched at 03:27 UT on 22 August 2006 by a Zenit 3SL rocket from the Odyssey platform floating on the equatorial Pacific Ocean.

Mission and Characteristics of KOREASAT-5

Nation:	South Korea
Type / Application:	Communication
Operator:	KT Corporation (formerly Korea Telecom); Korean Agency for Defense Development (ADD)
Contractors:	Alcatel Alenia Space (formerly Alcatel Space)
Equipment:	24 Ku-band active transponders, 8 SHF-band active transponders, 4 Ka-band active transponders
Configuration:	Space bus - 4000C1
Propulsion:	S400
Lifetime:	15 years
Mass:	4465 kg
Orbit:	GEO

(c) KAISTSAT-4 Program

The fourth Korean small satellite, KAISTSAT-4,⁴⁴³ is under development jointly under the direction of the Satellite Technology Research Center (SaTReC), Korea Advanced Institute of Science and Technology (KAIST) and Korea Aerospace Research Institute (KARI). KAISTSAT-4 program commenced in October 1998.

443) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

The KAISTSAT-4 was originally scheduled for launch in 2002, but the launch was delayed and rescheduled to the around on September of 2003.

The mission of KAISTSAT-4 in the applications of space science and technology is manifold. It carries payloads for various space science observation and space engineering tests. The KAISTSAT-4 was launched by a Kosmos 3M rocket on September 27, 2003 from Plesetsk Cosmodrome, Russia.⁴⁴⁴⁾ The main aim of its space science missions is to investigate the evolution and spatial distribution of hot interstellar medium by performing spectral diagnostics in the Far Ultra Violet (FUV) ranges.

Also the space physics of the earth's polar region was studied by simultaneously measuring the populations of charged particles precipitating into the earth's upper atmosphere. KAISTSAT-4 deployed the satellite based Data Collection System (DCS) to carry out environment monitoring, wildlife tracking, and transportation monitoring. The DCS had jointly developed through an international cooperation with Australia.

The STSat-1 (Science and Technology Satellite-1) mission, formerly known as KAISTSat-4 (Korea Advanced Institute of Science & Technology Satellite-4), aims to develop a high performance small satellite bus, high performance scientific payload design and research on space science and develop advanced technology for future space missions.

STSat-1 is a low-cost KAIST/SaTReC micro-satellite technology demonstration mission, funded by the Ministry of Science and Technology (MOST) of Korea, a follow-up mission in the KITSAT program.

The objective is to develop and test a mini-satellite bus, along with a new star sensor in a three-axis attitude control subsystem, to demonstrate the performance of new science instruments, and to deploy a newly developed DCS (Data Collection System).

444) <http://www.n2yo.com/satellite.php?s=27945>

(d) COMS Program

Along with the long term plan of the National Space Program, the Communication, Ocean and Meteorological Satellite (COMS) program was approved by the National Science and Technology Committee in 2002. KARI will develop the COMS-1, a geosynchronous multi-mission satellite to be launched in 2008. The mission of COMS is three fold. The first is weather monitoring of full Earth disc, East Asia and the Korean peninsula with high spatial, temporal and spectral resolution.

The second is ocean color monitoring to preserve and develop marine resources and ecosystem around the Korean peninsula. The third is to foster domestic institutes to develop and acquire in the orbit verification of communication payload technology.

Four Ministries in the Korean government are involved for COMS project MOST (Ministry of Science and Technology), MIC (Ministry of Information and Communication), MOMAF (Ministry of Maritime Affairs and Fisheries), and KMA (Korea Meteorological Administration).

Each Ministry takes responsibility over requirements and objectives in their specialty of COMS program. MOST supports the satellite system and bus development. Moreover, MIC supports the communications and broadcasting payload development while MOMAF supports the ocean observation payload development. Lastly, KMA is in charge of the meteorological payload development.

(2) Space Launch Vehicles

Korea Aerospace Research Institute (KARI)⁴⁴⁵ embarked on a research and development program for the science and observation rocket, KSR-I (Korea Sounding Rocket 1) in 1990, which was the first domestic single stage unguided solid propellant scientific rocket with a length of 6.7m, a diameter of 0.42m and lift off weight of 1.2tons. KSR-I was launched on June 4 and September 1, 1993,

445) http://www.kari.re.kr/new_html/English_version/E_index.htm

respectively carrying an ultraviolet radiometer with the mission to measure the vertical ozone distribution in the stratosphere over the Korean peninsular.

Temperature, acceleration and the other parameters were also measured to examine the performance of the rocket throughout the test flights. KSR – I had the payload capacity of 150kg and could reach the altitude of 75km KSR – II was a 2 stage solid propellant scientific rocket developed for the scientific experiments at the upper atmosphere.

Based on the experience acquired through the development and launch of the single stage rockets. KARI was able to build the KSR – II, powerful enough to reach the altitude of maximum 150km and beyond.

(Chart4) Development Plan of Launch Vehicle

Classification		Implementation Plan																			
		1st Stage					2nd Stage					3rd Stage					4th Stage				
		96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Scientific Rocket	1st & 2nd SR1			III																	
	3rd SR 1																				
Satellite Launcher	LVMcS 2									I											
	LVMS 3													II						III	
Space Center	McSC 4																				
	MSC 5																				
Development of Launch Vehicle Technology	BTLV 6																				
	HPLRET 7																				
	SWRTSS 8																				
	FACT 9																				
	BTNGLV 10																				

Note: 1. SR = Sounding Rocket 2. LVMcS = Launch Vehicle for Micro Satellite 3. LVMS = Launch Vehicle for Multi – purpose Satellite: 4. McSC = Micro Satellite Class: 5. MSC = Multi – purpose Satellite Class: 6. BTLV = Basic Technology for Launch Vehicle: 7. HPLRET = High Performance Liquid Rocket Engine Technology 8. SWRTSS = Structure Weight Reduction Technology 9. PACT = Precision Attitude Control Technology 10. BTNGLV = Basic Technology far Next Generation Launch Vehicle

Source: Ministry of Science and Technology

The rocket has a length of 11.04m, a total weight of 2 tons, and a diameter of 0.42m. It measured the vertical distribution of ozone by using ultraviolet radiometer. Korea plans to build indigenously a launch vehicle with the capability of hoisting micro satellites into the orbit by 2005.

(Chart 5) Development of Launch Vehicle Technology

Classification	Period of Development	Objectives	Development Method
HPLRET 1	1999~2013	Acquirement of advanced basic technology to development liquid propulsion system for satellite launch vehicle	Government - led indigenous development
WRTSS 2	2002~2003	Acquirement of advanced basic technology to reduce the structural weight of launch vehicle	
PACT 3	2002~2013	Acquirement of precision attitude control technology	
BTLVNG 4	2010~2015	Acquirement of basic technology for next generation launch vehicle	

Note: 1. HPLRET = High Performance Liquid Rocket Engine Technology; 2. WRTSS = Weight Reduction Technology for Satellite Structure; 3. PACT = Precision Attitude Control Technology; 4. BTLVNG = Basic Technology for Launch Vehicle in the Next Generation. Source: Ministry of Science and Technology

KARI successfully launched its first liquid-fuel rocket, KSR-III on November 28, 2002. It reached an altitude of 42.7km and flew over 84km. The launch of the Korea's first liquid fuel rocket was delayed by one day because of strong winds. This project can be considered a preparatory step towards a satellite launch vehicle development in the Korea Space Development Plan. KARI embarked on KSR-III in December 1997.

In this project, KARI developed a liquid propulsion rocket system, KSR-III. It incorporated core technologies for the satellite launch vehicle; propulsion, guidance / control, mission design, etc. KARI and the Ministry of Science and Technology plan to develop a satellite launch vehicle capable of putting a 100kg payload into the orbit by 2005. Therefore, the KSR-III sounding rocket's successful launch

indicates that Korea has secured the basic technology needed to develop a satellite launching vehicle by 2005.

As most of the core technologies of KSR-III can be applied to KSLV-I (Korea Space Launch Vehicle), the core technologies obtained for KSR-III in cooperation with universities and industries will serve a basis for the KSLV-I development. After developing the KSLV-II, KARI is expected to launch a 1-ton satellite by 2010. The KSLV-III technology will allow KARI to launch a 1.5-ton satellite by 2015.

(3) Naro Space Center⁴⁴⁶⁾

The space center will be constructed for space launchers. Naro Space Center is a launching site for launching artificial satellites to the space by using space launch vehicle (rocket). It is the outpost base to be built for the first time in Korea for ultramodern space science.

It is also a place for launching not only satellites but also science observation rockets to perform space observation, which is composed of general ultramodern facilities and equipment. Space Center is to be built at Woinara-Do, Haban Village, Yena-e-Ri, Bongrae-Myon, Koheung-Goon, Junlanam Province on the southern coast of the Korean peninsular. Space center development program aims to construct the launch site and implement infrastructure to perform various tests related launches for low orbit satellites (Science and Technology Satellite-2) to be launched in 2008 as the national development project pursued in accordance with basic long term national space development plan.

It is essential to construct the space center in Korea to launch Science and Technology Satellite-2 in 2009. This will make Korea be the 13th advanced country in space development having a launching site in the world. The "Space Center" will serve as the infrastructure for space and technological development and plan to launch a low earth orbit satellite in 2009." From 2010, the center will be

446) http://www.kari.re.kr/new_html/English_version/E_index6.htm

operated on a commercial basis operating launch facilities for low – to mid – altitude orbit satellites. Hyundai Heavy Industries Co. in Korea will be constructed a rocket launching platform at the Naro Space Center on the coast of Chonllanam Province by 2008. South Korea is in line to become the ninth nation to launch a space vessel when it lifts off a 100 – kilogram satellite into orbit from the Naro site as early as next year. The construction of the Naro Space Center began in 2000 at a cost of 265 billion won (\$285 million) and is about 90 percent complete, except the launching pad. Hyundai said it will build the launching platform on a turnkey contract with the Korea Aerospace Research Institute.

The most important thing is that Korea will learn the know – how of rocket launching. So far, Hyundai had to depend mostly on Russian technology.⁴⁴⁷⁾ According to the firm the launching pad will be able to accommodate two rockets and will be jointly designed with a Russian counterpart. The establishment of the Naro Space Center is the first step by South Korea to become a major player in space exploration.

The project of Naro Space Center will be constructed 11 facilities including a launch platform, control center, telemetry and track radar facilities, an assembly hangar and space experiment centers.

Along with the nearby Dadohae Haesang National Park, the Ministry will use the space center as a family entertainment destination. The center will house a special area where the public can learn about next generation space technologies.

The establishment of the space center would save the launching expense that has been paid to foreign countries for launching Korean satellites. As of the year of 2001, 7 artificial satellites owned by Korea were set for the space by using foreign launching vehicle spending the expensive foreign money. This was connected to the problems with flow – out of foreign money, direct disclosure of domestic manufacturing technology of artificial satellites, etc. If no Space Center is built in Korea,

447) http://search.hankooki.com/times/times_list.php?where=article&kw=Space+Center&co=kt&sa=all&st=0&so=1&but.x=0&but.y=12

artificial satellites which is to be launched by 2015 is to be launched through a foreign launching site, it is expected to consume about 11.3 billion won per satellite totaling about 102 billion won in foreign money.

2.3. Space Technology Application and Space Science

(1) Space Technology Application

The data distributed from KOMPSAT-1 has affected the remote sensing community in Korea. The policy on data requires the basic strategy on the KOMPSAT-1 data application. Its basic objectives are to maximize the use of KOMPSAT-1 data and stimulate a balanced development of public, academic and commercial applications. Domestic user groups can use KOMPSAT-1 data for non-commercial, public and research purposes.

They are required to register the names of their organizations. The commercial and overseas users can purchase KOMPSAT-1 data from the Korea Aerospace Industry Ltd. (KAI), the marketing agency of KOMPSAT-1 data. KAI receives KOMPSAT-1 data from KARI and sells the data to the domestic commercial and private users as well as overseas users. Now, we have 100 registered governmental and public organizations, institutions and universities for public and research purposes. The applications of data by the registered users had been monitored for 8 months of test and regular distribution period. KARI distributes stored EOC, OSMI and SPS data.

In case of emergencies related to the national security or disaster KARI collects and distributes KOMPSAT-1 data with top level priority. During the normal operation of KOMPSAT-1, the registered users can acquire KOMPSAT-1 data with the normal procedure.

As KOMPSAT-2 imagery distributor, Spot Image is ready to offer you easier and wider access to a unique palette of data products spanning VHR to wide-swath imagery. KOMPSAT-2 acquires imagery in black and white (Pan) at a

resolution of 1m and in colour (MS) across 4 bands in the visible (red, green, blue) and near-infrared at a resolution of 4m. Simultaneous acquisition of Pan and MS images means that merged 1-m images are available as a standard product.⁴⁴⁸⁾

(2) Space Science

The space science research in Korea has been carried out by KARI KAO (Korea Astronomy Observatory) and SaTReC of KAIST,⁴⁴⁹⁾ and major universities in Korea. As the satellite and sounding rocket programs have evolved in 1990s, the space science research activities have also become more active in the Republic of Korea. The data analysis of foreign programs or ground based observations consists of major portion of space science research in Korea. The KAISTSAT series have measured global high energy particle distribution and the earth's magnetic fields. The KOMPSAT-1 carries out global ionospheric measurements as well as high energy particle experiment. The sounding rocket programs have also contributed to the ionospheric and ozone layer experiments. Other experiments in UV and X-ray observation are also rapidly growing subjects for upper atmospheric science and astronomy using satellites and sounding rockets.

(3) International Cooperation

The aerospace industry is a high-tech industry which requires a vast R&D investment. In order to avoid financial and technological risks, international collaboration is pervasive in this particular industry.

Through collaboration, KARI has improved its R&D capabilities.

448) http://www.spotimage.fr/html/_167_171_1155_.php

449) The Satellite Technology Research Center (SaTReC) is a university-based research center for satellite technology and applications research established in 1989. SaTReC, which is located within the Korea Advanced Institute of Science and Technology (KAIST), promotes the education and training of satellite engineers through research programs in satellite engineering, space science and remote sensing.

(Chart 6) Regional International cooperation

Classification	Period of Development	Objectives	Development Method
Asia - Pacific region	2001~2015	Activation of space collaboration such as the implementation of joint development program for meteorological satellite	International cooperation led by domestic organizations
Europe	2001~2015	Implementation of cooperation in space development which Europe is superior (e.g. Galileo program)	International cooperation led by domestic organization
USA	2001~2015	Joint research on advanced space Technology such as NaNo technology	International cooperation led by domestic organizations

Source: Ministry of Education, Science and Technology

Korea is also trying to participate in International Space Station (ISS) program. KARI has been discussing with NASA for the joint ACCESS mission. At the same time, the talks with Boeing/NASA on the participation in Zarya module are continuing.

(Chart 7) International Cooperation

Classification		Implementation Plan																			
		1st Stage					2nd Stage					3rd Stage					4th Stage				
		96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Program of IC I	ICIPM 3							Establishment of essential technology for interplanetary exploration					Lunar exploration					Planetary exploration			
	ISSP 4							Acquisition of space station technologies					Research on new materials and medicine technology through the use of space station, etc.1 11								
	BUA 5							Implementation of activities on space station and inter-planetary exploration													
Regional IC	Asia - Pacific							Joint development of scientific payload and meteorological satellite. etc.													
	Europe							Joint development of GNSS satellite. etc.													
	USA							Joint development of advanced space technologies. etc.													
HRD 2	BUM							Continuous acquirement of space science-related manpower													

Note: 1. IC = International Cooperation 2. HRD = Human Resource Development;
 3. ICIPM = International Collaboration for Inter-Planetary Mission
 4. Issr = International Space Station Program 5. BUA = Bringing Up Astronaut

3. Space Legislation in Korea

Since the ‘Aircraft Industry Promotion Act’ was replaced by the ‘*Aerospace Industry Development Promotion Act*’ of 1987 in Korea, this Act had been amended nine times from 1991 year to 2006. The purpose of this Act is to contribute to the sound development of the national economy and the improvement of national life by supporting and promoting rationally the aerospace industry, and researching and developing efficiently aerospace science and technology. In order to develop the aerospace industry, the Korean government shall establish the basic plan for the aerospace industry development (hereafter referred to as “the basic plan”) including the following matters;

- (1) Demand by year and category for aircraft, spacecrafts, vehicles and materials purchased by the government;
- (2) Specialization and systematization of the aerospace industry;
- (3) Comprehensive research system and research and development budget for the research and the development of the aerospace science and technology;
- (4) Plan on participation in international joint development projects and technology introduction; and
- (5) Other important matters concerning development of the aerospace industry.

The Korean government shall establish and execute the operational program each year in accordance with the basic plan regulated under this Act (Article 3). The government may support the long-term low-interest fund and research and development, expenses for the purpose of fostering the aerospace industry and researching and developing the aerospace science and technology (Article 12).

Notwithstanding the provisions of the State Properties Act, if it is necessary for the research, development or production of aircraft, spacecraft, apparatus or materials, the government may gratuitously or onerously lend or concede State-owned facilities, apparatus, etc. to an aerospace industry businessman or have him

use or benefit by it (Article 13).

In order to deliberate matters concerning the establishment of the basic plan and coordination of the accompanying important policies of the Government and main affairs among ministries and agencies, the Aerospace Industry Development Policy Council shall be established under the jurisdiction of the Prime Minister (Article 14)

The Korea has not made the public or private space law until 2004. According to my personal opinion, it is necessary for us to legislate the Draft for “the Korean Space Activities Act (hereafter referred to as “the Draft”; tentative title)” including the public legal items such as ① the concept and purpose of space activity, ② registration of space objects, ③ licensing of space activity, ④ space flight control, ⑤ ensuring safety of space activity, ⑥ legal status of astronaut, ⑦ establishing of a new Korea National Space Development

Agency (hereafter referred to as “KNSD”; tentative title), ⑧ financing of space activities and foreign investments, ⑨ the space development fund, ⑩ ground and other objects of space infrastructure, ⑪ the legal regulation of international cooperation etc, and private legal items ① liability for the wilful misconduct or fault caused launching by space objects, ② compensation for damage caused by space object’s accidents, ③ Search-and-rescue, ④ clean-up of accidents, ⑤ liability insurance of space activity etc.

In order to legislate in advance the abovementioned Draft, we must insert a regulation relating to secure compliance with the Korean international obligations under UN Space Treaties and Conventions such as ① Space Treaty of 1967, ② Rescue Agreement of 1968, ③ Liability Convention of 1972, ④ Registration Convention of 1975 etc. covering the use of outer space, including liability for damage caused by space objects and registration of objects launched into outer space. It introduced a licensing regime for space activities carried out on by Korean nationals and companies.

I think that it is also desirable and necessary to insert the following contents within the Draft based on my personal opinion. If Korean nationals and companies

intending to launch or procure the launch of a space objects, operate a space objects or carry on any other activity in outer space should make themselves familiar with the provisions after passed this Draft from congress.

Aside from compliance—monitoring, KNSD (tentative title) must insure that no persons are engaged in launch or launch site operations illegally, that is, without a license in this Draft. Any person proposing to launch a launch vehicle or to operate a launch site within the Korea must obtain a license authorizing the launch or the operation of the launch site.

A Korean citizen or company proposing to launch outside the Korea or to operate a launch site outside of the Korea must also obtain a license authorizing the launch or the operation of the launch site.

A foreign corporation, partnership, joint venture, association or other foreign entity controlled by a Korean citizen and proposing to launch from, or to operate a launch site within, international territory or waters must obtain a license if Korea does not have an agreement with a foreign nation providing that the foreign nation shall exercise jurisdiction.

Furthermore, we must study thoroughly the foreign countries' space activities act such as the following American, British, Russian, German, Japanese, Swedish, Australian and South African space law relating to the space activity and establishment of the national space agency etc. in the view of points of comparative legal method in order to unify and to make standards of enacting it so as to adapt to the international treaties, conventions and principles. It is advisable for us to adopt the merit from the following foreign countries space law so as to promote the Korean space industry as well to adapt the space situation and environment in Korea.

4. Conclusion

Korea has been carrying out its space program step by step according to the National Space Program. Several accomplishments in 2006 marked a milestone in Korean space technology development.

First, through the successful launch of KSR-III rocket, significant and meaningful on its own right, Korea was able to secure the basic technology needed to develop a satellite launching vehicle, KSLV-1.

Secondly, KOMPSAT-1, has been carrying out its mission for the past three years and it will continue for another two years beyond its expected life span. KOMPSAT-2 also carried out successfully its mission.

Finally, the COMS (the Communication, Ocean and Meteorological Satellite) program was embarked while the development of KOMPSAT-2 continues. Overall, last year was a memorable and significant year for Korean Space community. This year Korea anticipates accomplishing its space programs pro-actively. Korea also will continually strengthen the exchange and cooperation with all the countries in the world under the principle of equality, friendship relations and mutual benefits.

Together with all other peoples around the globe, Korea will make due contribution towards the peaceful utilization of space resources and promotion of human progress and prosperity.⁴⁵⁰⁾ I hope that our government would like to legislate the space activities act so as to become an excellent model in the Asian Countries as soon as possible.

450) http://www.cnsa.gov.cn/main_e.asp

Chapter II. The Recent Space Development Programme: Policy and Law

1. Introduction

Korea now has a rapidly expanding space programme with exploration aspirations.

The government is giving priority to the aerospace industry and, to put it on a better footing, recently enacted a New Space Development Promotion Act. The early history and current and future development of Korea's space activities are briefly described in advance of a comprehensive presentation of the contents of the Act, including launch licensing, liability, registration of space objects, use of satellite information, astronaut rescue, third party liability insurance and establishment of institutions and plans to assist the Korean space effort.

Furthermore author explained the main contents and comments of the Space Compensation Damage Act of 2007. A call is made for Asian countries to unite and further their space development through a regional space agency. A call is made for Asian countries to unite and further their space development through a regional space agency. In order to develop it more efficiently the Korean government revised the Mid- and Long-Term National Space Development Basic Plan with a resolution of the National Science and Technology Council on May 17, 2005. Furthermore the Korean government proclaimed a New Space Development Promotion Act in May 2005 in order to control the systematic promotion of space exploration, to manage the launch of space objects and to produce guidelines for handling compensation for damage caused by space accidents. Korean space policy is based on the national space programme and the above-mentioned space Act.

This article will present a brief history of the space programme and policy in Korea, examples of foreign countries' space legislation which has been used as a guide in formulating our own law, and the main contents of the New Space Development Promotion Act. It will conclude by proposing the establishment of an Asian space agency (ASA).

2. A Brief History of Korea's Space Programme

2.1. Early Rocketry

Korea is attempting to achieve fast-track development in the space race although the country joined the competition later than other players. When our ancestors designed a rocket during the reign of King Sejong, they used a basic unit of 0.3 mm. Korean accuracy will play a pivotal role in boosting the country in a space race that needs precision. King Sejong, who encouraged the development of science and technology in the early 15th century, was the fourth monarch of the Lee Dynasty (Chosun Kingdom, 1392–1910) Until recently, Korea has been in the background of the global space race. During the dawn of the Space Age in the 1950s it was struggling to lift itself out of poverty and did not have the funds to spend on such luxuries.

2.2. Satellite Launches

However, as its wealth and productivity increased, Korea began dabbling in space exploration in 1987 with the enactment of an Aerospace Industry Development Promotion Act tailored toward promoting aerospace industrial development. On the back of that Act, the Satellite Technology Research Center (SaTReC) under the Korea Advanced Institute of Science and Technology (KAIST) started to develop

Korea's first satellite, *Kitsat-1 (Uri Byul-1: Our Star)*⁴⁵¹⁾ in the late 1980s and launched finally this experimental satellite in 1992. SaTReC launched a second science satellite, *Kitsat-2 (Uri Byul-2)*⁴⁵²⁾ in 1993, and launched two scientific sounding rockets in 1993 and 1997. It then launched a third science satellite, *Kitsat-3 (Uri Byul-3)*⁴⁵³⁾ in 1999 and a Science and Technology Satellite-1⁴⁵⁴⁾ in 2003. Since then, space activities have focused upon research and development in this area. By launching three communications and broadcasting satellites, *Koreasat-1*⁴⁵⁵⁾, *-2*⁴⁵⁶⁾, *-3*⁴⁵⁷⁾ (*Mugoonghwa-1, -2, -3*: Korean national flower) for the Korea Telecommunication Co. (KT) in 1995, 1996 and 1999, respectively, Korea expanded into commercial satellite use. KT, a former state monopoly, was fully privatized in 2002. However, the KT satellites were provided by foreign manufacturers and were carried to orbit by rockets built by overseas companies. Korea has established an infrastructure for the development of space technology by building micro-science satellites *Kitsat Uri Byul-3*⁴⁵⁸⁾(100% indigenous development) and the Korea multipurpose satellite-1 (*KOMPSAT-1*)⁴⁵⁹⁾ in 1999.

451) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

452) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

453) <http://satrec.kaist.ac.kr>

454) <http://satrec.kaist.ac.kr>

455) <http://www.kt.co.kr/kt/eng/frame.htm>

456) KoreaSat Unit 1 and 2 are loaded with 12 FSS (fixed satellite services: for communication purpose) transponders and 3 DBS (direct broadcasting services: for broadcasting purpose) transponders, respectively, and operate at geostationary orbit (GEO) 36,000 over the equator, and 116° of east longitude. Centering on Muju, Jeonllabuk Province, Korea (127°5' of east longitude, 36° of north latitude), KoreaSat Unit 1 and 2 cover the entire Korean Peninsula, the Japanese Archipelago, and part of China and Russia.

457) Launched on September 5, 1999, KoreaSat Unit 3 has a 15 year life cycle, and is loaded with 24 units of FSS transponders (Kuband) and 6 units of DBS transponders, accommodating the combined capacity of KoreaSat Unit 1 and 2 transponders. Furthermore, it is loaded with 3 Ka band transponders, making available high speed satellite communication services. KoreaSat-3, as a cutting edge dual purpose satellite for communications and broadcasting, has set the stage for transforming Korea into an information power house in the future, by providing up to 168 satellite broadcasting channels and high speed multimedia services.

458) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

459) http://www.kari.re.kr/new_html/English_version/E_index4.htm

This was the first multipurpose satellite in Korea. The Korean space agency (KARI), which is affiliated to the Ministry of Science and Technology (MOST), successfully launched KOMPSAT-1 (Arirang-1)⁴⁶⁰ in 1999. Arirang-1 has been performing its mission beyond its designed lifespan, yet has capability for two more years of operation. It was placed in orbit from a US launch site and was the first practical satellite to be made by Korean scientists, with some help from US scientists at TRW. SK Telecom Co. launched a geostationary digital multimedia broadcasting satellite (Hanbyol: One Star, or MBSAT) in cooperation with MB Co. in Japan from the Kennedy Space Center in May 2004.

2.3. Present Situation and Future Launch Plans

Rocket, the Russian rocket containing the KOMPSAT-2 (Arirang-2), a multi-purpose Korean satellite—lifted off from a launch pad at the Plesetsk Cosmodrome, about 800 kilometers northeast of Moscow, on July 28, 2006. The Korea Aerospace Research Institute (KARI) that developed KOMPSAT-2 said the three-stage rocket took off at 4:05 pm (Korean Time) as planned. The carrier-rocket will deploy the KOMPSAT-2, weighing approximately 800 kg, into a sun-synchronous orbit at an altitude of 685 km (about 425 miles). Moscow and Seoul signed an agreement in 2004 to develop South Korea's civilian space launch system, and are carrying out programs to train the country's first astronaut by 2007.

According to KARI researchers, a multi-spectral camera (MSC) embedded in KOMPSAT-2 will provide high-resolution images for Earth mapping, which can be utilized for geographical surveys, environmental observation and natural resource searches. Also included in its functions is airborne surveillance, possibly on North Korea, as the high-definition MSC will be able to give visual data on the unpredictable communist country's launch preparations or other military activities three times a day.

460) Arirang-1 means the Korean popular and famous folk song.

Furthermore South Korea launches high resolution satellite KOMPSAT-2, will provide visual data of North Korea three times a day. The camera can identify an object one meter in diameter at the high altitude. Only a handful of countries like the United States, Russia, France, Japan and Israel have satellite-based cameras as powerful.⁴⁶¹⁾ This satellite was built by the Israeli company Elopon a budget of 200 million won. Arirang-II equipped with a high-resolution camera to provide the nation with its own Earth observation coverage.

The Korean government plans to start a selection process from April, 2006 to eventually choose the country's first astronaut. The one selected is expected to travel to the International Space Station (ISS) in 2008. The two candidates for astronauts will be sent to Russia in 2007 and be trained for boarding on the International Space Station in 2008 year.

KT launched Koreasat-5 (*Mugoonghwa-5*: communication and broadcasting satellite) on 22 August 2006 by a Zenith 3SL rocket from the Odyssey platform floating on the equatorial Pacific Ocean. KARI plans to launch more advanced satellites of the Arirang family, namely Arirang-III, as part of its communications, ocean monitoring and meteorological satellite (COMS) programs, and Arirang-V in 2008 and 2009, respectively. Satellite technology is the most viable field in which Korea can nudge past established international giants thanks to its technical wizardry. Although the country is a latecomer in satellite technology, it has improved very fast. Our satellite competitiveness is currently about 60% to 70% compared with that of global satellite makers.

However, we expect the gap to be narrowed rapidly in the foreseeable future. Once we have finished developing Arirang-III and Arirang-V, we will have reached the global summit as far as satellites are concerned. Alongside satellite research, KARI is also studying placing satellites in orbit via the Korea Space Launch Vehicle (KLSV) project. The KSLV-1 rocket will launch 100kg class, locally assembled satellites to hundreds of kilometers above the ground in 2007 and

461) http://www.gisdevelopment.net/news/viewn.asp?id=GIS:N_vcdushftkl

KSLV-3 will take a 1.5 ton satellite to the heights in 2015.

To achieve such technological advances, Korea plans to spend 2.46 trillion Won from 2005 to the next five years and aims to launch 13 satellites by 2010. The second phase is to send large satellites as heavy as 1.5 tons into low-Earth orbit using only Korean industrial and engineering expertise. Having the ability to launch a 1.5-ton object, the weight of the heaviest satellite, will indicate perfection if rocket technologies. When Korea acquires the know-how to send such objects into pioneers. Currently, only a handful of advanced countries or regions the USA, Russia, the European Union, China, Japan, India and Israel have such a capacity. Our long-term basic plan is to garner the ability to develop in space on our own and by 2015 to grow to be a global contender in this promising field. Korea aims to join the ranks of the world's top 10 aerospace powers by 2015 through intensive research efforts and timely investment.

2.4. EU and Korea signed Galileo satellite cooperation agreement

The European Union (EU) and Korea on September 9, 2006 signed cooperation agreement on the latter's participation in Europe's Galileo global satellite navigation project. The accord was signed in the presence of South Korean President during an EU-South Korea summit. The project represents an investment of 3.8 billion Euros (about 4.8 billion US dollars), which has prompted the EU to seek financial partners. According to the EU, the sectors for cooperation include radio-spectrum, scientific research and training, industrial cooperation, trade and market development, standards, certification and regulatory measures, ground augmentation systems, security, liability and cost recovery.

Europe hopes the Galileo project, scheduled to be operational by 2010, will rival the reigning global positioning system GPS of the United States. Unlike GPS, which is controlled by the United States military, Galileo will stay under civilian

control, increasing the EU's strategic independence. The EU has signed cooperation accords with China and Israel. Negotiations are under way with Ukraine, India and Morocco, while Argentina, Brazil, Mexico, Chile, Malaysia, Canada and Australia have also shown interest.⁴⁶²⁾

2.5. Construction of a Naro Space Center in Korea

The first-phase target en route to reaching this eventual goal is to blast off Korean-made satellites using Korean-built rockets from local launching facilities in 2007. To this end a space center from which to launch artificial satellites is to be built for the first time in Korea. This will also be the place for launching science observation rockets. The Naro Space Center (area: 5,000,000m², facility site: about 300,000m²) is to be built at Woinaro-Do, in Junlanam Province on the southern coast of the Korean peninsula (see Fig. 3). KARI will prepare its first launch for Korea Space Launch Vehicle-1 (KSLV-1), at the Naro Space Center around in 2009.

KSLV-1 had been scheduled to take Science Technology Satellite-2 (STSAT-2) into orbit by the end of this year. But KSLV-1 launch will be postponed to the 2009 year because the KSLV-1 program will be delayed. The first-phase target en route to reaching this eventual goal is to blast off Korean-made satellite using Korean-built rockets from local launching facilities in 2009.

462) http://www.gisdevelopment.net/news/viewn.asp?id=GIS:N_zcmjswrbol

(Figure 2) The facilities of the Naro Space Center



Source: Korea Aerospace Research Institute(KARI)

(Figure 3) The location and topography of Naro Space Center



(Figure 4) The location and topography of Naro Space Center



To this end a space center from which to launch artificial satellites is to be built for the first time in Korea. This will also be the place for launching science observation rockets. The first phase in the construction of the center is to be finished by 2008 in order to launch the Korea Science Launch Vehicle 1.

First of all, Space Center will be constructed by 2008, is scheduled to launch small satellite (Science Satellite-2) being developed by KARI and Satellite Research Center. Therefore the Space Center will play a role as launcher site to launch a rocket into about 300km orbit from the earth and as all sort of R&D for space development.

The Space Center will do the last assembly of launcher & checking function, the last assembly of satellite & checking, preparing launch & launching, management & control of flight safety, remote measurement flight condition data, development of launch technology related with instrument technology, rocket engine development test & performance related launch test. In carrying out satellite infrastructure projects, which cost trillions of won in taxpayers' money, Korean scientists are keeping cost-effectiveness in mind. Having a launch site will make Korea the 13th most advanced country in space development.

2.6. National Space Development Programme and Policy

The Korean space programme has been helped on its way by a number of space plans formulated in the late 1990s and 2000 by the Minister of Science and Technology (hereinafter referred to as MOST), the National Scientific and Technical Council and the Ministry of Commerce, Industry and Energy. The most recent revision of the National Space Development Basic Plan (hereinafter referred to as the Space Basic Plan) was passed on 17 May 2005. This revision of the objectives of the Space Basic Plan was a reflection of changes in the national and international environment as well as of the possibility of implementing space technology development. The Space Basic Plan is divided over 20 years (1996–2015) a long-term plan, and a medium-term plan (2005–2010).

The long-term plan defines the long-term directive and objectives for space development. The middle-term plan defines the specific objectives and plans for space development in 5-year increments. The Space Basic Plan aims to strengthen international cooperation and R&D in fundamental technologies. Comparisons between the previous space development plan and the revised Space Basic Plan are shown in Table 1.

[Table 1] The National Medium and Long Term Space Programme (Satellites) in Korea

Previous plan (20 Sats by 2015)		Revised plan (13 Sats by 2010)	
Category Sats	Number	Category Sats	Number
Geostationary	5	Geostationary	2
Multipurpose	8	Multipurpose	7
Science	7	Science	4

3. Peculiarity and Chronology of Space Accidents and Incidents in the World

The space accidents has the peculiarity of ① total loss (all or nothing), ② moment (Augenblick), ③ huge amount for damage, ④ subordination on the surface, ⑤ internationality.

3.1. Chronology of Space Accidents Including Death

A series of fatal accidents have plagued space exploration since it began in 1957 with the launch of the Soviet Sputnik satellite. The following is a chronology of some key space accidents occurred in the World;

April 23–24, 1967 – Soyuz 1: Vladimir M. Komarov was killed when his craft crashed after its parachute lines, released at 23,000 ft for reentry, became snarled.

June 6–30, 1971 – Soyuz 11: 3 cosmonauts, found dead in the craft after its automatic landing. Apparent cause of death was loss of pressurization in the space craft during reentry into Earth's atmosphere.

March 18, 1980 – USSR: a Vostok rocket exploded on its launch pad while being refueled, killing 50 at the Plesetsk Space Center.

Jan. 28, 1986 – USA Challenger Space Shuttle: exploded 73 seconds after liftoff, killing all 7 crew members. A booster leak ignited the fuel, causing the explosion.⁴⁶³⁾

Feb. 1, an. 27, 1967 – Apollo 1: a fire aboard the space capsule on the ground at Cape Kennedy, Fla., killed 3 astronauts.

June 6–30, 1971 – Soyuz 11: 3 cosmonauts, found dead in the craft after its

463) <http://en.wikipedia.org/wiki/STS-51-L>

automatic landing. Apparent cause of death was loss of pressurization in the spacecraft during reentry into Earth's atmosphere.

February 1, 2003 – Columbia Space Shuttle: broke up on reentering Earth's atmosphere on its way to Kennedy Space Center, killing all 7 crew members. Foam insulation fell from the shuttle during launch, damaging the left wing. On reentry, hot gases entered the wing, leading to the disintegration of the shuttle.⁴⁶⁴)

3.2. Chronology of Space Incidents Caused by Rockets and Satellites

A series of non-fatal accidents have plagued space exploration since it began in 1957. The following is a chronology of some key incidents;

April 18, 1986 – A Titan missile believed to be carrying a military satellite explodes shortly after launch from the Vandenberg Air Force Base launch site in California.

May 3, 1986 – A Delta rocket carrying a \$57 million weather satellite explodes shortly after lift-off from Cape Canaveral.

February 22, 1990 – Western Europe's 36th Ariane rocket, carrying two Japanese satellites, explodes less than two minutes after lift-off from Kourou, French Guiana.

June 18, 1991 – A 46-foot (15-metre) Prospector rocket carrying 10 science experiments for the U.S. space agency and several universities is destroyed after veering off course after launch from Cape Canaveral.

August 2, 1993 – A Titan 4 rocket believed to be carrying an expensive military spy satellite explodes after lift-off from Vandenberg Air Force Base.

⁴⁶⁴)<http://www.infoplease.com/ipa/A0001458.htm>

- December 1, 1994 – Western Europe’s 70th Ariane rocket crashes into the Atlantic with the \$150 million PanAmsat–3 telecom satellite after launch from Kourou, French Guiana.
- January 26, 1995 – The Chinese–designed Long March 2E rocket carrying a telecommunications satellite explodes after blast–off from Xichang in southwest Sichuan province.
- October 23, 1995 – An unmanned Conestoga rocket whose satellite contains 14 scientific experiments explodes 45 seconds after blast–off from a NASA facility in Virginia.
- February 15, 1996 – A rocket carrying an Intelsat 708 communications satellite explodes soon after take–off from China’s launch site in Xichang.
- May 20, 1996 – A Soyuz–U booster rocket carrying reconnaissance satellites explodes 49 seconds after lift–off from Russia’s Baikonur Cosmodrome.
- June 4, 1996 – Europe’s Ariane–5 rocket explodes 40 seconds into its maiden flight after blasting off from the European Space Agency launch centre in Kourou, French Guiana.
- June 20, 1996 – A Soyuz–U rocket carrying reconnaissance satellites explodes after lift–off at Plesetsk Cosmodrome.
- May 20, 1997 – A Russian Zenit–2 booster rocket carrying a Cosmos military satellite explodes 48 seconds after launch.
- August 12, 1998 – The U.S. Titan rocket programme is put on hold when a Titan 4A explodes soon after lift–off in one of history’s most expensive space disasters. The cost of the rocket and its spy satellite cargo was put at more than \$1 billion.
- August 27, 1998 – A Delta 3 rocket carrying a U.S. communications satellite bursts into a \$225 million fireball, soon after blast–off from Cape Canaveral on its maiden flight.

- September 10, 1998 – A computer malfunction brings down a Ukrainian rocket carrying 12 commercial satellites, minutes after blast off from Baikonur.
- July 5, 1999 – A Russian Proton–K heavy booster rocket launched from Baikonur suffers a malfunction that detaches the engine and parts of the booster, causing them to crash onto the steppe. A 200–kg (440–lb) chunk falls into the courtyard of a private house. Kazakhstan briefly closes Baikonur in a row with Russia over clean–up costs and rent for the base.
- September 23, 1999 – NASA’s \$125 million Mars Climate Orbiter spacecraft breaks up as it enters the Martian atmosphere due to confusion among its constructors between metric and old English measuring units.
- October 28, 1999 – A Russian Proton rocket carrying a communications satellite crashes shortly after take–off from Baikonur.
- December 3, 1999 – NASA’s Mars Polar lander loses contact with earth after reaching the Red Planet. The \$165 million mission is a write–off.
- August 15, 2002 – NASA’s \$159 million Contour space probe, launched on July 3 and designed to chase comets, breaks up on leaving Earth’s atmosphere.
- December 11, 2002 – An upgraded European Space Agency Ariane–5 rocket explodes soon after blast–off from Kourou, French Guiana, sending two satellites worth about \$600 million plunging into the Atlantic Ocean. There may also be other un–reported Soviet and Chinese accidents.
- December 2003 – Canada’s first mission to another planet—a \$5–million instrument package aboard Japan’s (\$115–million) probe Nozomi, missed Mars and is now lost in space. It joins the other 20+ probes to Mars that have been lost previously by the USA, the former USSR and Russia. Nozomi was lost in space. The probe

was designed to study the atmosphere and ionosphere of Mars.

December 2003 – Beagle 2 was a small British–built lander that was carried to Mars on European Space Agency’s Mars Express orbiter mission. The spacecraft was on a trajectory to land on Mars on December 25, 2003 but no signals from the lander were ever received by ground based antennas or NASA or ESA. The project has now been declared a failure. Beagle 2 cost roughly 40 million British pounds (\$57 to \$65 million US).

September 08, 2004 – The Genesis space capsule and its precious cargo—billions of particles from the sun—crashed into the Utah desert in a last–minute disaster of a near–flawless, three–year Scientific odyssey. Because of what apparently was a parachute failure, the \$260 million space probe didn’t slow down as it entered Earth’s atmosphere. Tumbling end over end, Genesis smashed into a desert bombing range at 193 mph at Dugway Proving Ground, Utah.

October 07 2005 – A pilot model of the new Demonstrator spacecraft went missing on the far eastern Kamchatka peninsular after launching on a rocket from a Russian nuclear submarine. No signals were received from the craft.

The Demonstrator was expected to make the transport of loads to the ISS much cheaper than if carried by US space shuttles. Three previous test launch failed for various reasons.

October 08, 2005 – A European Space Agency CryoSat satellite, that was to have collected data on polar sea ice and provide more reliable data for the study of global warming, broke up in flight after being launched on a converted ballistic missile. Remnants of the \$210 million satellite crashed into the ocean.

October 27, 2005 – A Mozhayets–5 satellite, intended for optical experiments, was

launched by a Kosmos–3M booster rocket from the northern Plesetsk launch pad. European Space Agency officials lost contact with the satellite which failed to enter its Planned orbit.⁴⁶⁵⁾

4. Legislating for Space in Korea: Examples of Foreign Countries' Space Laws

Any person proposing to launch a space launch vehicle or to operate a launch site within Korea must obtain a license authorizing the launch or operation of the launch site from MOST. A Korean citizen or company proposing to launch outside Korea or to operate a launch site outside of the Korea must also obtain a license from the MOST. A foreign corporation, partnership, joint venture, association or other foreign entity controlled by a Korean citizen and proposing to launch from, or to operate a launch site within, international territory or waters must obtain a license if Korea does not have an agreement with a foreign nation providing that the foreign nation shall exercise jurisdiction.

These restrictions are similar to those in most other space faring countries and, in developing its own space law, Korea acknowledges the need to study thoroughly the laws relating to space activity and the establishment of a national space agency, etc. of these countries (e.g. the USA, Russia, ESA countries, Canada, Japan, Brazil, Argentina and Australia, etc.).

This allows it to make comparisons of legal method in order to unify and produce standards that will allow it to adapt to international treaties, conventions and principles. It is advisable for us to adopt the merit from these countries' space laws so as to promote the Korean space industry as well as to influence the space situation and environment in Korea beneficially. A selection of the major space laws of the space faring countries is presented in Table 2.

465) <http://members.shaw.ca/kcic1/disasters2.htm>

[Table 2] Space Legislation of the Major Space faring Countries⁴⁶⁶⁾

4.1. United States of America

1. The National Aeronautics and Space Act of 1958
2. Space Commercialization Promotion Act of 1996
3. Commercial Space Competitiveness Act of 1999
4. Space Transportation Service Purchase Act of 1998
5. Remote Sensing Application Act of 2002
6. Space Exploration Act of 2002
7. Title 11, NASA Authorization Act of 1991
8. Communications Satellite Competition Act of 1998
9. Commercial Space Transportation Cost Reduction Act of 1999
10. Public Law 105 303: Commercial Space Act of 1998
11. 49 USC Chapter 701 Commercial Space Launch Activities Act of 1984 and of 1994
12. Land Remote Sensing Commercialization Act of 1984
13. Land Remote Sensing Policy Act of 1992

4.2. The United Kingdom: Outer Space Act of 1986

4.3. Russia: Law on Space Activity of 1993,⁴⁶⁷⁾ comprising seven sections:

- (1) General Provisions,
- (2) Organization of Space Activity,
- (3) Economic Conditions of Space Activity,
- (4) Space Infrastructure, (5) Safety of activity,
- (6) International cooperation, (7) Liability

4.4. Germany: 1. Gesetz zur bertragung von Verwaltungsaufgaben auf dem Gebiet der Raumfahrt, 22 August 1998 (Law governing the Transfer of

466) Source: <http://www.oosa.unvicnna.org/SpaceLaw/national/index.ht>

467) Frans G. von der Dunk, *Private Enterprise and Public Interest in the European 'Spacescape'*, Published with the International Institute of Air and Space Law, Leiden University, The Netherlands, (1998), at 141.

Responsibilities for Space Activities)

(2) Telecommunications Act of 25 July 1996

4.5. France: LOI n 61 1382 du 19 decembre 1961, Instituant un Centre National d'Etudes Spatiales (Statute of the Centre d'Etudes Spatiales)

4.6. Italy: (1) Law No.186(30/05/1988) on the Establishment of the Italian Space Agency

(2) Decree of I August 2002 on the Approval of the National Space Plan 2003 – 2005

4.7. Canada: (1) Aeronautics Act of 1985

(2) Canadian Space Agency Act of 2000

4.8. Japan: (1) Law Concerning Japan Aerospace Exploration Agency of 2003

(2) The National Space Development Agency Law of 1969

4.9. Sweden: Act on Space Activities of 1982

4.10. Spain: Royal Decree No.278, 1995 on the Establishment in Spain of the Registry of Objects Launched into Outer Space as Provided for in the Convention adopted by the United Nations General Assembly on 12 November 1974

4.11. Australia: Space Activities Act of 1998, composed of eight parts:

(1) Introduction, (2) Definitions, (3) Regulation of Space Activities, (4) Liability for Damage by Space Object, (5) Register of Space Objects, (6) Civil Penalties, (7) Investigation of Accidents, (8) Miscellaneous

Schedule 1. Liability Convention of 1972,

Schedule 2. Registration Convention of 1975,

Schedule 3. Space Treaty of 1967,

Schedule 4. Moon Agreement of 1979,

Schedule 5. Rescue Agreement of 1968

4.12. Brazil: Law Establishing the Brazilian Space Agency of 1994: Law No.8.854

4.13. Norway: Action Launching Objects from Norwegian Territory into Outer

Space of 1969

- 4.14. South Africa:** (1) Space Affairs Act No.84 of 1993 This Act composed of 27 Articles.
(2) Space Affairs Amendment Act No.1530 of 1995
- 4.15. Argentina:** (1) Creation of the National Commission on Space Activities of 1991: National Decree No.995/91
(2) Establishment of the National Registry of Objects Launched into Outer Space of 1995: National Decree No.125/95
- 4.16. Chile:** Establishment of a Presidential Advisory Committee known as the Chilean Space Agency of 2001: Supreme Decree No.338
- 4.17. Ukraine:** (1) Ordinance of the Supreme Soviet of Ukraine on Space of 1966
(2) Decree of the President of Ukraine on Regulations for the National Space Agency of Ukraine of 1997: No.665/97.

5. The Summary for the Contents of the Space Development Promotion Act

Following the example of the Aerospace Industry Development Promotion Act of 1987 and 2004, I argued the need for Korea to enact a new space law to KARI and the Korean government in a paper subsequently translated into Japanese and published in the Japanese academic Journal “KiYo” in September 2003.⁴⁶⁸⁾

As space development involves large amounts of expense and high risk as a national strategic and public industry, the Korean government has recognized the

468) Doo Hwan Kim, “Necessity for Enacting the Space Law in Korea”, Japanese Academic Journal “KiYo”, Vol.4, No.1, published by the Institute of Social Systems of Chuogakuin University at Chiba-ken in Japan, at 39-52.

need to establish the legal basis for it and to promote the fundamental space exploitation and promotion plan systematically and efficiently every five years.

MOST will seek the legislation of the Space Development Promotion Act, which includes the designation of an aerospace authority and safety guidelines for future policy on space exploration projects.

The Korean government proclaimed the Space Development Promotion Act with law No.7538 on 31 May 2005. It came into force six months after the proclaimed date, on 1 December 2005. Korea has enacted its Space Development Promotion Act of 2005 and Space Damage Compensation Act of 2007 so as to become an excellent model in the Asian Countries. The Act is in accordance with Korea's international obligations under the various UN space treaties and conventions. As mentioned above, it introduced a licensing regime for space activities carried out on by Korean nationals and companies. The Act also prescribes the establishment of two organizations, namely the National Space Development Council and the Investigation Committee for Space Launching Accidents.

In order to launch space objects and to manage the new space center in Korea and carry out the duty of supervision of the states regulated by international treaty as a space developing country, the Korean government has established the legal basis for systematically and efficiently carrying out its fundamental space development and promotion plan. The Korean Space Act is composed of 29 Articles and mainly covers the following items:

- establishment of two organizations: the National Space Exploitation Council and the Space Accident Inquiry Committee;
- government responsibilities;
- establishing a basic plan for promoting space exploration;
- designation of a space development institute for space exploration;
- domestic and international registration of space objects;
- management of a space objects registry ledger;
- licensing of space launch vehicles and cancellation of launch licenses;

- liability for compensation for damages as a result of space accidents;
- third-party liability insurance as a compulsory insurance;
- utilization of satellite information and support of civilian space exploration projects;
- rescue of astronauts and restitution of space objects;
- penalty clauses, etc.

6. Moving forward: Summary for the Contents of Establishing an Asian Space Agency

Korea will continually strengthen exchanges and cooperation with all the countries in the world under the principle of equality, friendly relations and mutual benefits. Together with all other peoples around the globe, Korea will make due contribution towards the peaceful utilization of space resources and promotion of human progress and prosperity.⁴⁶⁹⁾ Since its foundation in 1989, KARI has expanded its international cooperation in the aerospace field to 28 organizations in countries including the USA, Russia, the UK, France, China, Israel, etc. Through collaboration, KARI has improved its R&D capabilities. Korea is also trying to participate in the ISS program. KARI has been in discussion with NASA over the joint ACCESS mission. At the same time, talks with Boeing/NASA on participation in Zarya module are continuing.

The idea of creating an Asian Space Agency (hereinafter referred to as ASA) is something that should be pursued in my opinion. As a preliminary procedure, a draft convention for establishing an ASA among the Asian countries needs to be drawn up. The creation of an ASA would lead to a strengthening of the cooperation deemed essential by the Asian community towards joint undertakings in space and would act as a catalyst for efforts in space exploitation and allow resources,

469) http://www.cnsa.gov.cn/main_e.asp

technology, manpower and finances to be centrally managed in an independent fashion to the benefit of Asian countries.

It will promote international cooperation among Asian States in space exploitation, research and technology, as well as their space application and developments, much like the European Space Agency does. This could be regarded as a new road for Asia's space policy and could also coordinate the broad thinking needed to meet new challenges in Asian countries. I believe that it should be possible to establish an electronic ASA like electronic government through the internet, as well as an electronic Asian Center for Space Law as a first step. Since the Asian air and space industry will become a very promising market in the 21st century, we can expect severe competition between the Asian countries and the developed countries, such as the USA, Russia, Canada, and the EU, who will be keen to occupy the Asian market. To win this severe competition, it will be necessary for the Asian peoples to work together in union, to strengthen cooperation in research, and to establish friendly relations for the benefit of the air and space industry in all Asian countries.

Finally, a very important point is that a political drive, at the highest level, should be effected to mobilize states toward this initiative, possibly taking the form of a solemn statement by heads of state of Asian countries setting out objectives and prospects for the long term.

It should be noted that this political drive will be necessary not only to set up the organization, but also during a subsequent period. The ASA could become a new road for Asia's space policy and could coordinate the broad thinking needed to meet new challenges in Asian countries. The ASA would provide a vision of Asia's future in space, and of the benefits for Asian people on the ground that satellites can supply. It could also develop the strategies needed to fulfill the vision, through collaborative projects in space science and technology.

It is desirable and necessary for us to establish an ASA in order to develop our space industry, to strengthen friendly relations and to promote research cooperation

among Asian countries, based on oriental ideology, ethics and creative ideas.⁴⁷⁰ If the heads of the Asian countries agree to establish ASA at a summit conference, I am sure that it will come about in the near future.

(Doo Hwan Kim, *Korea's space development programme: Policy and law*, supplemented, *Journal of Space Policy* (Vol. 22, Issue 2, May 2006), Scotland, U.K. at 10–117)

470) *Doo Hwan Kim*, Some Considerations on the Possibility of Establishing an *Asian Space Agency*, *Zeitschrift für Luft- und Weltraumrecht /German Journal of Air and Space Law*, Vol.50, No.3, (2001), at 397–408.

Chapter III. Space Law in Korea: Existing Regulations and Future Tasks

1. Introduction

The Ministry of Education, Science and Technology (MEST) announced that Miss Yi So–Yeon, Korea’s first astronaut, has returned to Earth aboard the (Russian) Soyuz TMA–11 Spaceship on April 19, 2008 after having accomplished her space mission of 10 days on board of the International Space Station (ISS).⁴⁷¹⁾ The successful completion of this task makes Korea the 36th country to send an astronaut into orbit.

In addition, Miss Yi So–Yeon, a 29–year–old bio systems engineer, is the 49th woman in space and the second Asian astronaut after a Japanese specialist who completed two space missions in the 1990s. This event drew much public interest and support since Yi So–Yeon has made an outstanding contribution to the Korean knowhow in manned space technology and has promoted Korean culture worldwide by hosting a Korean style dinner in space using the national flag Taegeukgi performance on this occasion.

On November 2007 the Ministry of Education, Science and Technology announced the plan to send an unmanned probe to orbit the Moon in 2020 and to land another one on its surface in 2025.

According to the roadmap of South Korea’s space exploration projects the Ministry will also develop a large–size rocket that can carry 300 tons of freight into space by 2017 and will start building a space shuttle launching system in 2020.

471) <http://english.chosun.com/w21data/html/news/200804/200804190001.html>.

However, the Ministry did not give any information about the costs of these projects or about details of their funding which is supposed to be dealt with at a later point of time.⁴⁷²⁾

The Korean Space Centre is also the country's first space port to be completed in 2009 at Woinarodo, Goheung county, Junlanam Province on the South coast of the Korean peninsula. It is expected that a Science Satellite-2 (100 kg) will be launched from there in using a Korean Science Launch Vehicle 1 at in 2008. Thereby Korea will be the 13th country in the World to launch a rocket into space autonomously.

The space port will be State operated and run by the Korean Aerospace Research Institute (KARI).⁴⁷³⁾ It will include a launch tower, a control tower as well as rocket assembly- and test- facilities and space simulators. Thereby Korea will be able to build rockets and satellites with indigenous technology and launch them into space from its national launching center. This year's launching event will be meaningful since only eight countries have been able to successfully send a satellite from their own launch vehicle into space.

The 60th International Astronautical Congress (IAC) co-hosted by the Korea Aerospace Research Institute (KARI) and Daejeon Metropolitan City in Korea will be held at Daejeon Convention Center from October 12~16, 2009. I think that some 3,000 representatives from national and international space agencies, businesses, and space professionals from about 60 nations will be participated to the abovementioned 2009 Daejeon IAC. Furthermore our Korean Organizing Committee of the 2009 Daejeon IAC would like to welcome cordially to many participants from all over the world to the 2009 Daejeon IAC. The 2009 Daejeon IAC ⁴⁷⁴⁾

472) <http://www.rjkoehler.com/2007/11/21/korea-to-launch-moon-probe-by-2020>.

473) <http://www.kari.re.kr>.

474) IAC is one of the most prestigious gatherings of the international space community with a long history started in Paris in 1950. Every year, generally in early October, the International Astronautical Federation (IAF) together with its associates the International Academy of Astronautics (IAA) and the International Institute of Space Law (IISL), holds the International Astronautical Congress (IAC) which is hosted by one of the national societies, a member of IAF. The IAF has members in 48 countries and the

attendees can gain information about current space projects, programmes and related technologies and law.

Space has become an important sector in Asia, which will develop with greater rapidity in the 21st century. Thanks to the expansion of the private mobile Communication industry, the increase of space exploration activities and the implementation of the International Space Station (ISS) program, the industry will grow continuously and the market size of the global space industry is likely to see an annual average growth of more than 10%. For this reason the Korean Government decided to actively foster the aerospace industry in 2008 and revised the Mid- and National Space Development Basic Plan (in the following “Basic Plan”) by a resolution of the National Science and Technology Council on 17 May 2005.

The Korean space policy is based on the national space program as well as the Space Relationship Law of Korea which is divided into three branches: (1) the Aerospace Industry Development Promotion Act of 1987, (2) the Space Development Promotion Act of 2005 and the (3) Space Damage Compensation Act of 2007. It deals with the development and the promotion of the aerospace industry and pursues the objective of controlling accident mitigation and the regulation of compensation in case of damage. This article will give an outline of the legislative history and the main features of Korean space law and policy. Finally, the Establishment of a new National Space Development Agency or a Korean Space Agency will be proposed. Also, the necessity for the foundation of an Asian Space Agency will be outlined.

membership is rapidly evolving, including nearly 200 organizations.

2. The Aerospace Industry Development Promotion Act of 1987

The Aerospace Industry Development Promotion Act was passed by the majority of the Korean National Assembly and was proclaimed with Law no.8852 by the Government on December 4, 1987. It has been amended 13 times during the last 21 years and comprises 22 articles. It is the purpose of this Act to contribute to the sound development of the national economy and the improvement of national life by rationally supporting and promoting the aerospace industry as well as research and effective development with regard to aerospace science and technology.

In this framework the Korean Ministry of Knowledge Economy has always been an important player and will also be significantly involved in the future especially with respect to budgetary matters. The main features of the Aerospace Industry Development Promotion Act of 1987 are as follows:

2.1. Establishment of the Basic Plan for Aerospace Industry Development

In order to develop the aerospace industry the Government has the obligation to establish the Basic Plan for Aerospace Industry Development including the following items: (1) purpose and direction, (2) pushing systematization and strategy, (3) pushing plan for the aerospace industry development, (4) comprehensive research system as well as research and development budget for aerospace science and technology, (5) supply of financial resources and investment plan, (6) training and education for specialized manpower and (7) international cooperation as well as other important matters concerning the development of the aerospace industry. The Government shall establish and execute each year the operational program in accordance with its Basic Plan (Art. 3).

2.2. Fostering of Aerospace Industry Development

The Government shall push the execution of the operational program in order to foster the aerospace industry in such as the development of aircraft for the transportation of passengers or cargo, of helicopters, airships, gliders, remote pilotless vehicles, space launch vehicles, satellites, spacecraft (manned or unmanned) and related equipment and materials(Art. 4).

2.3. Designation and Support of Specified Businessman

The Minister of Knowledge Economy may designate items etc. as necessary to foster specified businessmen especially according to the Basic Plan under Art. 3 (Art. 5).

2.4. Performance and Quality Inspection

When an aerospace industry businessman or specified businessman produces aircraft, space object, apparatus or material he shall be subject to a performance and quality inspection by the Minister of Knowledge Economy.

The Minister must deliver a certificate of inspection to aircraft, spacecraft, apparatus or material passed through the performance and quality inspection (Art. 10).

2.5. Restriction etc. on Use

Any aircraft, space object, apparatus or material not inspected under Art. 10 shall not be used except for test flights (Art. 11).

2.6. Financial Support

The Government may support the long-term, low-interest fund as well as the research and development expenses for the purpose of fostering the aerospace industry and for supporting the research and development of aerospace science and technology and of the organization and management of the exhibition relating to aerospace science and technology (Art. 12).

2.7. Lending etc. of State-Owned Facilities, Apparatus etc.

Notwithstanding the provisions of the State Properties Act, if it is necessary for research, development or production of aircraft, satellites, space launch vehicles, manned or unmanned spacecraft, apparatus or materials, the Government may gratuitously or onerously lend or concede State-owned facilities, apparatus, etc. to an aerospace industry businessman or allow him its use or the benefits derived from it (Art. 13).

2.8. Establishment of Aerospace Industry Development Policy Council

For deliberation of matters concerning the establishment of the Basic Plan and coordination of related important policies of the Government and main affairs among ministries and agencies, the Aerospace Industry Development Policy Council is established and placed under the control of the Prime Minister (Art. 14).

2.9. Composition of Aerospace Industry Development Policy Council

The Council shall be composed of no more than fifteen members including the Chair. The Chair is taken by the Prime Minister. Members of the Council shall be determined by Presidential Decree. In order to take proper measures in case where the coordination of affairs, cooperation etc. between the civil and military sectors are deemed necessary the Chair may establish and operate an advisory committee under the conditions as prescribed by the Presidential Decree Art. 16).

2.10. Hearing

When the Minister of Commerce, Industry and Energy cancels the designation of a specified businessman as referred to in Art. 8, he shall hold a hearing (Art. 17, Para. 2).

3. Space Development Promotion Act of 2005

The Korean Government proclaimed a New Space Development Promotion Act in May 2005 in order to control the systematic promotion of space development, to manage the launch of space objects and to produce guidelines for handling potential compensation claims for damage caused by space accidents.⁴⁷⁵⁾

475) It was the author who had argued the need for and advised the elaboration of a law such as the “Space Development Promotion Act” to the KARI and the Korean Government had subsequently translated his paper into Japanese which was then published in the Japanese Academic Journal *KiYo* in September 2003. Doo Hwan Kim, “*Necessity for Enacting the Space Law in Korea*.” Japanese Academic Journal *Kiyo*; 4 (1), Proceedings of the Research Institute of Social Systems of Chuogakuin University, Chiba-ken, Japan, at 39-52.

As space development involves great expenses and a high risk as a national strategic and public industry, the Korean Government had recognized the need to establish the legal basis for this undertaking as well as the establishment of the promotion plan every five years.

In 2004 it proposed the draft of the Korean Space Development Promotion Act which was then passed by the State Council of the Korean Government on December 21, 2004 and was submitted to the National Assembly where it was passed by majority resolution on May 3, 2005. The Act (hereafter referred to as the Korean Space Act) was then transferred to the Government on May 17, 2005 where it was proclaimed with Law no.7538 on May 31, 2005. It came into force six months later, on December 1, 2005. But this Act was amended by the revision of the Government Organization Act on February 29, 2008. The Act is in accordance with Korea's international obligations under the various UN space treaties and conventions such as the Outer Space Treaty of 1967,⁴⁷⁶⁾ the Rescue Agreement of 1968,⁴⁷⁷⁾ the Liability Convention of 1972 ⁴⁷⁸⁾ and the Registration Convention of 1975.⁴⁷⁹⁾

The main features of the Korean Space Act which comprises 29 articles are as follows:

3.1. Purpose

The purpose of this Act is to promote the peaceful use and scientific exploration of outer space, ensure national security, further develop the national economy and raise the national standard of living through the systematic promotion of space exploration and the effective use and management of space objects (Art. 1).

476) Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the moon and other Celestial Bodies.

477) Agreement on the Rescue of Astronauts, the Return Astronauts and the Return of Objects Launched into Outer Space.

478) Convention on International Liability for Damage Caused by Space Objects.

479) Convention on Registration of Objects Launched into Outer Space.

3.2. Government Responsibilities

The Korean Governments shall carry out space exploration in conformity with international space treaties and conventions, treaties concluded with other countries and international organizations and shall use outer space for peaceful purposes (Art. 3).

3.3. Establishment of a Basic Plan for Promoting Space Development

The Korean Government must design a Basic Plan for promoting space development and for using and managing space objects. The Government develops the Basic Plan every five years and confirms it through deliberations of the National Space Committee (Art. 5).

3.4. Establishment of National Space Committee

The National Space Committee is placed under the control of the President and has the task to consider provisions regarding space exploration including the establishment of the Basic Plan, etc. The Committee is composed of no more than fifteen members including the Chair. Chairman is the MEST. The Council is assisted by a Practical Affairs Subcommittee for Space Development Promotion under the chairmanship of the Vice MEST (Art. 6).

3.5. Designation of a Special Institute for Space Exploration

The MEST can designate a professional organ for space exploration for systematically and effectively supporting the space exploration project. Necessary working

parameters and financial support for this Institute are set out by Presidential Decree (Art. 7).

3.6. Domestic Registration of Space Objects

If Korean nationals (including legal entities) intend to launch a space objects in or outside Korea a preliminary registration must be made for the MEST in accordance with the Presidential Decree 180 days before the scheduled launching.

If the MEST investigates the launch plan and concludes that it does not demonstrate adequate liability for compensation in case of damages, he can demand that the plan be further revised. After the preliminary registration of a space object which is to be performed by everyone a space object must then be formally registered with the MEST within 90 days after the space object has reached its planned orbit (Art. 8).

3.7. International Registration of Space Objects

If a national registration of space objects is submitted, the MEST must register the space object with the United Nations through the Minister of Foreign Affairs and Trade in accordance with the Convention on Registration of Objects Launched into Outer Space (Art. 9).

3.8. Management of Registered Ledger for Space Objects

The MEST must keep and manage the preliminary registry and the formal registry ledger of space objects (Art. 10).

3.9. Licensing of Space Launch Vehicles

If an individual or legal entity intends to use a space launch vehicle in Korea or in a foreign country, a license must be obtained from the MEST.

Any individual or legal entity intending to obtain a launch license must submit the launch plan including a safety analysis report, the operational plan of payloads and the plan relating to liability and compensation in case of damages to the MEST.

If the MEST grants a launch license, following issues must be considered:

(1.) purpose of space launch, (2.) safety management, (3) insurance for potential damages, (4) other matters including necessary issues for launch preparation and the transportation of the space launch vehicle (Art. 11).

3.10. Cancellation of License and Hearing

The MEST may revoke a launch license in any of the following cases:

(1) delay of launch for more than one year from the permitted launching date without good reason, (2) receipt of license by false means, (3) demand for cancellation by a director of a related state administrative organ in anticipation of serious threats to national security, (4) abnormalities in safety matters including fuel leakage before launch or defects in the communication system, (5) failure to obtain a license for changes due to violations of Art. 11, Sec.1, and (6) non compliance of the licensee to any part of Art. 12 (Art. 12).

3.11. Liability and Compensation in Case of Damage caused by Space Accidents

An individual (or legal entity) launching a space object is liable to pay compensation in case of damage caused by an accident.

The sphere of liability for compensation in case of damages and the limit for the payment of compensation are specified in other laws (Art. 14).

3.12. Organization of the Space Accident Inquiry Committee

The MEST may establish a Space Accident Inquiry Committee for accident investigation. It will consist of 5 to 11 members chosen by the Minister from specialists in relevant fields. The Minister will appoint one of them as Chairman. However, with respect to national security questions a separate Inquiry Committee can be composed on the basis of a Presidential Decree. The Committee can request cooperation by the director of related administrative organs in connection with the entrance and exit control to the area of the space accident and other relevant investigations.

Necessary provisions relating to the convocation and the composition of the Committee as well as the qualification of its members, necessary operations, etc. are to be determined by Presidential Decree (Art. 16).

3.13. Utilization of Satellite Information

The MEST can take action, such as to designate or establish an organization for the promotion, dissemination and practical use of information gained by artificial satellites developed in accordance with the Basic Plan. In such a case, geographical information in accordance with the Act on the Structure and Utilization of National Geographic Information Systems is to be agreed upon with the Minister of Land, Transport and Maritime Affairs. The MEST may provide the funding for the promotion, dissemination and practical use of satellite information within the limits of budgetary appropriation. The Government should not use satellite information to infringe on the private life of individuals (Art. 17).

3.14. Support of the Civilian Space Exploration Project

The MEST should design policies such as the provision of human resources, tax benefits and financial support and preferential purchase etc. for attracting civilian space exploration projects and for enlarging civilian research and development investment (Art.18).

3.15. Rescue of Astronauts

The Korean Government shall provide assistance in the case that an astronaut from a foreign space object makes an emergency landing, meets with a disaster or is involved in an accident on Korean territory or on the neighboring High Seas. The Korean Government will assist the astronaut in returning him to the country of launch, country of registration or international organization responsible for the launch (Art. 22).

3.16. Restitution of Space Objects

In case that a foreign space objects has fallen on Korean territory or an emergency landing has taken place, the Korean Government must return the foreign space object to the launching state or country of register or international organization responsible for the launch (Art. 23).

3.17. Penalty Clauses

Any individual (or legal entity) who undertakes a space launch or uses a space launch vehicle without a license (including license on changes) is sentenced to imprisonment up to five years, or faces fines not exceeding 50,000,000 won in accordance with Art. 11 and (Art. 27).

4. The Space Damage Compensation Act of 2007

Although the Draft of the Space Damage Compensation Act was based on Art. 14 of the Space Development Promotion Act, this Draft aims at the protection of the victims in case of space damage and at the quick solution of disputes as well as the scope of damage to be restituted and the limitation of liability.

The Draft for the Space Damage Compensation Act was drawn up in the context of Korea's due considerations with respect to the Liability Convention of 1972 as well as in connection with the study of legislative examples of domestic acts relating to the compensation for space damage in developed countries.

As twelve congressmen proposed the Draft for the Space Damage Compensation Act to the National Assembly on February 5, 2007, it was discussed and deliberated by the Science, Technology, Information and Telecommunication Committee under the National Assembly on April 12, 2007. The Act was then passed by majority resolution of the Korean National Assembly and proclaimed with Law no.8714 by the Government on December 21, 2007. But this Act was amended by the revision of the Government Organization Act on February 29, 2008.

It came into force six months later from the said date of promulgation namely on June 22, 2008 according to its additional clause 1. Finally this Act was enacted by the method of congressman's legislature. It is composed of 8 articles. The main features of the Act can be described as follows:

4.1. Purpose

The purpose of this Act is to decide the compensation scope and the responsibility limit in case of space damage and to protect the victims. In addition it shall also contribute to the sound growth of space development projects (Art. 1).

4.2. Relation to International Instruments

If the Government is to pay compensation for damage to a foreign Government according to the “Convention on International Liability for Damage Caused by Space Objects”, it can take recourse from the individual (or legal entity) who had launched the space object which had caused the damage.

4.3. Strict Liability and Channeling of Liability etc.

In case of space damage caused by a space object which had been launched by an individual or legal entity in Korea they shall be strictly liable to pay compensation. However, this rule does not apply if the damage was caused by an armed collision among States, a hostile act, civil war or rebellion except that such damage was caused by fault or intention.

An individual (or legal entity) having launched the space object may demand recourse from a third party who had caused the space damage with intention or by negligence. In case of space damage the provisions of the Product Liability Act (Produkthaftungsgesetz) are not applicable (Art. 4).

4.4. Limited Sum of the Compensation for Space Damage

The liability of an individual (or legal entity) is limited to the sum of 200 billion Won (Art. 5).

4.5. Insurance Cover

An individual (or legal entity) intending to acquire a launch license according to Art. 11 of the Space Development Promotion Act must join the third party liability

insurance for compensation in case of an accident.

The MEST shall give notice about the compulsory insurance cover according to para. 1 of this article as well as the limits of liability after consideration and decision about the particularity of the space object and the degree of difficulty of the space project taking into account the circumstances of the launching site, the domestic and foreign insurance market etc. Art. 6.)

An individual or legal entity intending to acquire a launching permit must join the liability insurance at least up to the lowest liability limit according to Art. 9 of the Enforcement Regulation of the Space Development Promotion Act as follows:

- 1) in case that the weight on board is less than 1 ton: 40,000,000 unit of account⁴⁸⁰⁾
- 2) in case that the weight on board exceeds 1 ton: 60,000,000 unit of account.

The abovementioned Article 9 of the Enforcement Regulation of the Space Development Promotion Act (SDPA) was deleted by the revision of the aforementioned Enforcement Regulation of SDPA on June 20, 2008.

4.6. Enforcement

The Korean Government shall enforce the necessary measures in order to protect potential victims and to prevent the increase of damage in case that space damage has occurred. The Korean Government provides assistance to an individual (or legal entity) having launched a space object as appropriate if it should be necessary for the purpose of this Act in case that the individual (or legal entity) had dutifully paid compensation in accordance with Art. 4, Para. 1 of this Act but the insured amount as prescribed by Art. 6, Para. 2 had exceeded the damage. The scope of such assistance is permitted according to the decision of National Assembly (Art. 7).

480) The standard unit of account for the monetary and financial statistics is the national currency unit. A unit of account is a standard monetary unit of measurement of the market value/cost of goods, services, or assets.

4.7. Extinction of the Right to Execute

The right to claim compensation according to this Act shall extinguish by prescription if not exercised within one year from the time when the injured party or his representative becomes aware of the damage and the liable individual (or legal entity) for compensation is identified (Art. 8). The right to claim compensation for damage according to this Act shall not exercised if three years have elapsed from the time when space damage occurred.

5. Comments on the Space Damage Compensation Act and new Proposals

5.1. Proposal to Define the Term “Space – worthiness”

It is necessary and desirable for Korea to adopt a new definition of Space – worthiness in order to provide the necessary safety standard for space activities aimed at by Korean law as well as for the prevention of space accidents. Therefore an individual or legal entity launching a space object shall be responsible before and at the beginning of the launch to exercise due diligence with respect to:

(1) ensuring the space worthiness of the satellite, the space launch vehicle or the spacecraft and for (2) providing the proper crew, equipment and supply of the spacecraft or satellite. Furthermore they shall be liable for damage sustained by third parties upon provided that the damage was caused by a satellite, spacecraft or space launch vehicle during launch.⁴⁸¹⁾

481) Legislative Examples could be provided by the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (1924) Art. 3, the Korean Commercial Code, Art. 794 (Seaworthiness) and the Japanese Commercial Code, Art. 738 (Seaworthiness), The Korean Aviation Act, Article 15(Certificate of Airworthiness),

5.2. Proposal to Exclude Strict Liability for Damage Caused by Wilful Misconduct

Although it is desirable for Korea to accept strict liability for damage according to Art. 4 and 5 of the Space Damage Compensation Act caused on the surface of the Earth and spacecraft in flight it is necessary to exclude such strict liability if the damage was caused by wilful misconduct or gross negligence of an individual (or legal entity) having launched the space object, their servants or agents and caused intentionally or recklessly, knowing that damage would probably occur.⁴⁸²⁾

5.3. Proposal to Regulate Joint and Several Liability

If two or more individuals or legal entities undertake a launching it will be necessary to insert a provision relating to their joint and several liability for compensation in case of an accident.

5.4. Proposal to Determine the Limited Sum of Compensation in Special Drawing Rights instead of Korean Won

Most of the international maritime and aviation treaties as well as the Korean Commercial Code, the Japanese International Commodity Transport Act and the

The Japanese Aviation Act, Article 10 (Certificate of Airworthiness).

482) In this connection international and national legislative examples could be: Art. 25 of the Warsaw Convention of 1929, Art. 13 of the Hague Protocol of 1955, Art. 22 of the Convention for the Unification of Certain Rules for International Carriage by Air (Montreal Convention) of 1999, Art. 4 of the Convention on Limitation of Liability for Maritime Claims of 1976, Art. 8 of the United Nations Convention on the Carriage of Goods by Sea (Hamburg Rule) of 1978, Art. 21 of the United Nations Convention on International Multimodal Transport of Goods of 1980, Art. 769, 797 of the Korean Commercial Code of 2007, Art. 13 Para. 2 of the Japanese International Commodity Transport Act of 1992.

Civil Aviation Law of the People's Republic of China determine the sum to be paid in compensation for damage in Special Drawing Rights (SDR).⁴⁸³⁾ Therefore is greatly desirable to adopt this recognized calculation unit also in case of a space accident in Korea and Art. 5 of the Space Damage Compensation Act should be changed accordingly.

The sums mentioned in terms of SDRs shall be deemed to refer to the SDR as defined by the International Monetary Fund under the United Nations. Conversion of the sums into national currencies shall, in case of judicial proceedings, be made according to the value of such currencies in terms of the SDR at the date of the judgment.⁴⁸⁴⁾

5.5. Need to Recognize the Right to Receive Preferential Payment and for the Establishment of a Space Compensation Deliberation Commission

For the purpose of victim protection and the alleviation of suffering new regulation is needed with respect to the recognition the victim's right to receive preferential payment for compensation before the settlement of other claims in case

483) The *SDR* is an international reserve asset, created by the IMF in 1969 to supplement the existing official reserves of member countries. SDRs are allocated to member countries in proportion to their *IMF quotas*. The SDR also serves as the unit of account of the IMF and some other international organizations. Its value is based on a basket of key international currencies. *The Exchange rates* in terms of SDRs are also available online. <http://www.imf.org>1 SDR=1.⁶²⁵\$ on July 24, 2008.

484) In this connection international and national legislative examples could be: Art. 2 of the Montreal Additional Protocol No.1, No.2, No.3 and Art. 22 of the Montreal Protocol of 1975, Art. 22–23 of the Montreal Convention 1999, Art. 6 of the Convention on Limitation of Liability for Maritime Claims of 1976, Art. 6 of the Hamburg Rule of 1978, Art. 18 of the United Nations Convention on International Multimodal Transport of Goods of 1980, Art. 770, 797 of the Korean Commercial Code of 2007, Art. 13 of the Japanese International Commodity Transport Act of 1992, Art. 45–46 of the German Air Transport Act (*Luftverkehrsgesetz*) of 2007, Art. 129 of the Civil Aviation Law of the People's Republic of China.

of established for the quick an accident. Also a “Space Compensation Deliberation Commission” should be and effective settlement of potential disputes.

6. Future Tasks: Establishment of a Korean National Space Development Agency or a National Space Agency

Korea has been carrying out its space program step by step in accordance with its national space plans. Several accomplishments from 2005 onward marked milestones in Korean space technology development. Therefore it is greatly desirable for Korea to establish a new space development agency (KNSDA: tentative title) in order further efficiently Korean space industry in the future. KNISDA could be a similar body to the Japanese Aerospace Exploration Agency, the British National Space Centre, the French Centre National d’Etudes Spatiales, the German Aerospace Center, the Swedish Space Corporation, the Chinese Aerospace Science and Industry Corporation or the Indian Space Research Organization.⁴⁸⁵⁾ It could also be an alternative to establish a Korean Space Agency (KSA: tentative title) which could be a Governmental organization and could take a similar function like the Space Agencies in Canada, Japan,⁴⁸⁶⁾ China, India, Italy, Israel, Russia and the USA in order to efficiently develop Korean space industry.

From now on Korea anticipates the accomplishment of its space programs actively and will continuously strengthen exchanges and cooperation with all countries in the World under the principle of equality, friendly relations and mutual benefits. Together with all other peoples around the globe Korea will make due

485) Doo Hwan Kim, *Example Legislation on the Space Relations of Every Countries in the World and Main Contents of the Space Exploration Promotion Act and Future Task in Korea*, The Korean Journal of Air and Space Law, Vol.20, No.1, (June 2005), at 35–36.

486) Article 25~30 of the Japanese Basic Space Law of 2008.

contributions towards the peaceful utilization of space resources and the promotion of human progress and prosperity.⁴⁸⁷⁾

Since its foundation in 1989, KARI has expanded its international cooperation in the aerospace field to 28 organizations in countries including the USA, Russia, the UK, France, China, Israel, etc. Through collaboration, KARI has improved its R&D capabilities. Korea is also trying to participate in the ISS program. KARI has been in negotiations with NASA over the joint ACCESS mission. At the same time, talks with Boeing/NASA on participation in Zarya module in space shuttle are continuing.⁴⁸⁸⁾

(Doo Hwan Kim, “*Space Law in Korea: Existing Regulations and Future Task*”, German Journal of Air and Space Law (Vol. 57, No.4, 2008), Köln University)

487) http://www.cnsa.gov.cn/main_e.asp

488) Doo Hwan Kim, Korea’s Space Development Programme: Policy and Law, Space Policy (Vol.22), 2006, at 110–117.

Chapter IV. Liability For Compensation For Damage Caused By Space Debris on the Protection of the Space Environment

1. Introduction

The resources of outer space are for the common exploitation of mankind, and it is a common responsibility of mankind to protect the outer space environment. With the rapid development of space science and technology, and especially with the busy space activities of some major space powers, space debris is steadily increasing in quantity and has brought grave potential threats and actual damage to the outer space environment and human activities in space.

In the course of space exploitation and development by mankind, the amount of space debris created has continued to increase in quantity and in variety. Frequently, debris falls back to earth, which poses a potential threat to man's exploitation and use of outer space activities.

The definition of space debris includes every non-functional man-made object in outer space, whether it still exists as a whole or whether it is fragmented, provided that the object is non-functional and there is no reasonable expectation of it resuming its original function or assuming any other function. Since the launch of Sputnik on 4 October 1957, more than 4,200 launches have placed some 5500 satellites into orbit. Currently about 700 satellites are used operationally for science and other applications. Space debris comprise the ever-increasing amount of inactive space hardware in orbit around the Earth as well as fragments of spacecraft that have broken up, exploded or otherwise become abandoned.⁴⁸⁹⁾

Space debris has become an official enemy of mankind. We must mitigate and remove space debris in the Low Earth Orbit (LEO) and in the Geostationary Orbit (GEO), through international cooperation and agreement in the fields of space science, economics, politics and law, in order to safeguard the life and property of mankind and protect the earth's environment. Space debris has created a new problem, which all space faring nations must endeavor to solve together, in order to maintain a safe environment for future space development. The dangers from space debris are, however, becoming more widely recognized, and space debris experts generally agree on the need for concerted international attention to space scientific, social and legal issues.

Over the last few years, many parties have given increased attention to the threat to space activities posed by the growth in space debris. However, progress in mitigating the growth of space debris has been slowed by technical, economical, and legal uncertainties. Space debris has long been recognized as a global problem that ultimately will require remedy at international level.

What, then, are the prospects for an international agreement to control the growth of space debris? At the moment, the prospects do not look good. Due to lack of political and economic pressure, The debris field comprises burnt-out launch vehicle upper stages, dead or inactive spacecraft and other objects ranging in size from as big as an automobile to microscopic dust. To avoid damage to operational satellites, ESA uses the DISCOS database to track all space debris.

In 1986, the Director General of ESA created a Space Debris Working Group with the mandate to assess the various issues of space debris. The findings and conclusions are contained in ESA's Report on Space Debris, issued in 1988. In 1989, the ESA Council passed a resolution on space debris where the Agency's objectives were formulated as:

- minimize the creation of space debris
- reduce the risk for manned space flight

489) European Space Operations Center, News, April 1, 2007.

- reduce the risk on ground due to reentry of space objects
- reduce the risk for geostationary satellites
- examine the legal aspects of space debris
- acquire, through own facilities and in cooperation with other space agencies, the data on space debris necessary to assess the extent of the problem and its consequences combined with continued technical uncertainties over the extent of the debris' threat, no real progress has been made towards an international space debris agreement. Nevertheless, as space debris experts learn more about the threat posed, and they inform a wider public, support for international action grows.

Over the last ten years, many international seminars and conferences have studied and discussed the scientific and legal problems of space debris. It might be useful to consider a summary of the current activities of the United Nations Committee on the Peaceful Uses of Outer Space, the European Conference, including Germany, and the American space organizations (for example, NASA, the American Institute of Aeronautics and Astronautics), the Japanese Society for Aeronautic and Space Sciences and the Space Law Committee of the 66th Buenos Aires Conference of the International Law Association (ILA) with regard to space debris.

I would like to give particularly my view on the legal problems of the *new Draft for the International Instrument on the Protection of the Environment from Damage Caused by Space Debris*, which was proposed by Prof. Maureen Williams (Argentina) and Prof. Dr. Karl Heinz Böckstiegel (Germany) at the Space Law Committee of the aforementioned 66th Buenos Aires Conference of the ILA on 16 August 1994.

Although the abovementioned new Draft for the International Instrument on the Space Debris was passed by the Space Law Committee of the ILA same day, I nevertheless append my opinion to this paper as a supplement, as a proposal for a better Draft for the International Instrument on the Protection of the Environment from Damage Caused by Space Debris.

I had already expressed my opinion on the aforementioned new Draft in the form of an article entitled '*Liability of the Compensation for Damage by Space Debris (Satellites etc.)*' written by Japanese language, at the monthly Seminar of the Japanese Society for the Study of Law and Policy on Space Utilization, which was held at Tokyo, on 10 December 1994.

2. Telecommunication Satellite

The current situation and indicated trends in the Korean space law and industry are as follows. Although the Republic of Korea was a party to the Space Treaty of 1968, Rescue Agreement of 1968, the Liability Convention of 1972 and Registration Convention of 1975, it has established the specific legislation for the implementation of those international instruments, furthermore it had merely applied the existing laws and regulations by extending their scope of application to the Conventions.

Korea Telecom (KT) began satellite communication service in September 1992 by leasing one transponder of INTELSAT-VA. This enabled KT to acquire operational technology, and will create service demand in the future for KOREASAT, its own satellite, to be launched in 1995. Services of the INTELSAT-VA include VSAT, video communication and digital data transmission, which use 5 regional earth stations.

KT has been managed and controlled four Korea's telecommunication and broadcasting satellites, KOREASAT-1, -2, -3 and -5 (Mugunghwa Ho-1, -2, -3 and -5). KOREASAT uses advanced digital technology for direct broadcasting and fixed satellite services in Korea. KOREASAT services include three channels of broadcasting services, video conferences, TV programme relays, DAMASCPC, and high and low speed data transmissions.

High quality colour television and high definition TV service will also be available everywhere in Korea through KOREASAT. During the KOREASAT

programme period, KT accumulated satellite technology. There will be on the job training and monitoring work with the cooperation of contractors. The Korean Electronics and Telecommunication Research Institute participated in the development of satellite and ground communication. In addition, the other research institutes have been studying the development of satellite's payloads and the various fields of its utilization. The space industry has grown by 12 per cent per annum, in terms of sales volume, during the last ten years, and is led by G-7 countries such as the US, Japan, England, Germany, France, etc.

Developing countries such as China, Brazil, Indonesia, Israel and the Republic of South Africa have been also trying to enter the world space market. Our space development requires huge and efficient investment. We also need to acquire technology which is not available in Korea, through international cooperation and collaboration.

Korean business corporations have been participated in three large construction projects for worldwide mobile telecommunication satellites, the '*Iridium*' project (66 Satellites, \$3 billion, Motorola Co., 1998), the '*Global Star*' project (48 Satellites, \$1.8 billion, LQSS, 1998) and *Project-21* (12 Satellites, \$1.2 billion, INMARSAT, 1999), by means of a consortium with many countries (United States of America, Canada, Japan, England, Germany, France, Italy, etc.).

These three big projects were initiated and led by the American telecommunication business corporations (Motorola Co, LQSS, etc.) and INMARSAT as an international organization for telecommunication satellites. Korea Mobile Telecom invested \$70 million in the '*Iridium*' (*Motorola*) project and Korea Dacom, the Hyun Dai Electronics Co. and the Hyun Dai General Trading Co. also invested \$37.5 million in the '*Gold Star*' (*LQSS*) project, as a partner.

KT, Sam Sung Electronics and Shinsege Mobile Telecom invested \$76.8 million in '*Project-21*', with INMARSAT as a partner. As well as the aforementioned three big projects, and the '*Odyssey*' project (12 Satellites, \$1.2 billion, TRW Co., 1996), a total of 138 satellites launched into the Low Earth Orbit and Geostationary

Orbit by the end of next year.

It is clear that this will increase the probability and rate of occurrence of space debris proportionately. We must study and consider countermeasures to prevent the threat of this increased space debris to mankind.

Korean professors of space law, members and experts of the Korean Association of Air and Space Law have gradually become interested in the legal problems relating to the threat of space debris they have discussed the matter in depth, studying the causes of the accident which create space debris, and the legal problems of the liability for compensation for damage caused by space debris (satellites etc.), and have participated positively in International Seminars and Conferences.

3. The Observation of Space Debris and Accidents Caused by Space Debris

3.1. The Observation of Space Debris

There have been more than 3,500 space launches since Sputnik 1, in 1957, when the space age began. From the mid-1960s until 1990, the launch rate has been fairly constant, at around 100–130 per year.⁴⁹⁰⁾ In a survey by US SPASECOM, the number of trackable objects in earth orbits at the end of June 1992 was reported to be 7024.

Since SPACECOM's detection and tracking capability is limited to 10 cm for low altitude objects and 1m for geosynchronous orbit altitude objects, the number of trackable objects does not include any objects smaller than 10cm diameter.⁴⁹¹⁾

490) UN Committee on the Peaceful Uses of Outer Space, Scientific and Technical Subcommittee, 31st Session, Vienna, 21 February–4 March 1994, Agenda item 8, 'Space Debris' Report of the International Astronautical Federation, UN Doc. A/AC.105/570. 25 February 1994, 1.

491) Space Debris Group of Japanese Society for Aeronautical and Space Sciences, 'Report

Among these 7,024 trackable objects, functioning satellites constitute only 6 per cent of the total. The rest is made up of mission-ended satellites (21 per cent), rocket bodies (16 per cent), operational debris (12 per cent) and fragment debris created by break-up in debris (45 per cent). The largest break-up occurred in November 1986, when an Arian upper stage exploded, producing about 500 trackable fragments of which about 60 are still in orbit.⁴⁹² There were 104 break-ups recorded by the end of June 1991.

They are believed to have created many untractable pieces of small debris. According to US estimates, the amount of debris, including untractable objects of more than 1mm in diameter, is 3,500,000 pieces. The total mass of objects in orbits is 3,000 tons. The orbital velocity of objects in Low Earth Orbit is about 7km/s.⁴⁹³ The large number of spacecraft, rocket bodies, and other hardware associated with these missions, encounter one of three fates:

- (1) re-entry into the earth's atmosphere
- (2) escape from earth orbit into deep space or
- (3) remaining in the earth orbit.

The Space Surveillance Network (SSN) of the United States Space Command operates 20 radar and 6 optical observation stations, distributed worldwide. The SAN mission is to detect, track, identify and catalogue all man-made objects in space. In its operational mode, SAN tracks and catalogues objects as small as 10cm in the Low Earth Orbit and as small as 1m in the Geostationary Orbit.⁴⁹⁴ This image was produced by the Office for Human Exploration Science at NASA of the United States. Orbital parameters are produced by analysis of over 63,000 daily

of Space Debris Group of 1993', at 1-12.

492) Space Debris Study Group of Japanese Society for Aeronautical and Space Science, *supra*, 1.

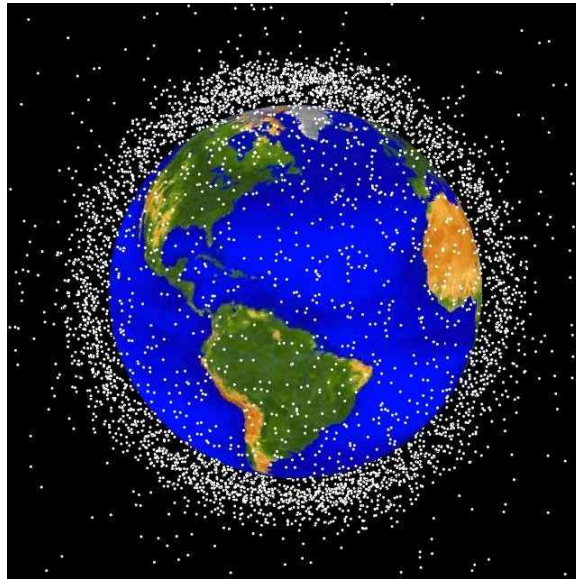
493) John H. Carver, 'Space Debris', First European Conference on Space Debris by European Space Agency, Darmstadt, Germany, 5-7 April 1993 (speech paper), at 3.

494) John H. Carver, '*Space Debris*', First European Conference on Space Debris, Darmstadt, Germany, 5-7 April, 1993. Organized by the European Space Agency, (speech paper), at 3.

observations giving, after 10 days, an accuracy of several kilometers for a typical orbital element set describing an object at an altitude of 1000km. SSN analysts assess collision hazards prior to US launches, observe break-up phenomena and seek to associate space fragments with the parent satellite.⁴⁹⁵⁾

After nearly 35 years of international space operations, almost 22,000 space objects, including space debris, have been officially catalogued, with approximately one-third of them still in orbit around the earth. ‘Catalogued’ objects are considered to be objects larger than 10–50cm in diameter for LEO and 1 m in diameter in higher orbits, which are sensed and maintained in a database by the United States Space Command’s Space Surveillance Network (SSN).⁴⁹⁶⁾

This is a graphic showing space debris in low-Earth orbit.



495) *Id.* at 3.

496) United Nations, General Assembly, A/AC. 105 / 570, 25 February 1994, Scientific and Technical Subcommittee, 31 st Session, Vienna, 21 February–4 March, 1994, Agenda item 8, Space Debris, Report of the International Astronautical Federation, 1.

Recent news announcements about private firms that seek to establish LEO satellite systems for a variety of telecommunications services have generally focused on regulatory and financial issues. Furthermore, the number of satellites proposed for some of these systems (up to 840 satellites in the case of Teledesic system) raises concerns about their potential contributions to orbital debris in regions of LEO that are already under stress from existing debris.⁴⁹⁷⁾

According to the United States National Aeronautics and Space Administration (NASA) Report of 1979, there had been 11,366 space objects⁴⁹⁸⁾ launched into outer space, of which 4,633 space objects were then still in orbit, 6,733 space objects having re-entered the earth's atmosphere.⁴⁹⁹⁾

In 1989, ten years later, the North American Aerospace Defense Command (NORAD), which has the capacity to track objects in space from a size of 10cm in diameter at a distance of 500km reported that there had been a total of 19,037 objects launched into outer space, of which some 12,000 had re-entered the earth's atmosphere.⁵⁰⁰⁾

In other words, in a period of a decade, there were over 7,671 additional objects launched into outer space. Of those space objects, 95 per cent are now nonfunctional, that is, uncontrolled, commonly referred to as space junk or debris.⁵⁰¹⁾

There are thousands of pieces of satellite and other objects which have gone out of control and are in orbit around the earth. According to one source, on average one piece of debris re-enters earth atmosphere every day.⁵⁰²⁾ While most will burn

497) Ray A Williamson & Richard Obermann, *New Challenges in International Orbital Debris Policy*, 45th Congress of the International Astronautical Federation, 9–14 October 1994, Jerusalem, Israel, at 1.

498) For present purpose it should be noted that within the classification of 'space object' are included: launching rockets and payloads (satellites, space stations, etc.).

499) 'Space Objects Box Score' in NASA, Goddard Space Flight Center, (30 April, 1979), 19 [2] Satellite Situation, Report quoted by G. P. Sloup, *Liability and Insurance Aspects of the transportation System under the New Section 308 of the National Aeronautics and Space Act* 4 *Annals of Air and Space Law* (1979), at 639–640.

500) A.E. Potter, *'Measuring Debris'* *Aerospace America*, (June 1988), at 18–19.

501) N. L. Johnson, *'Nuclear power supplies in orbit'* 2 *Space Policy*, (1986), at 223.

502) A L. Moore and J. V Leaphart, *'Catch that Falling Star! State Responsibility and the*

up on entry into the atmosphere, an increasing number will survive and land on the earth—endangering life and property. Moreover, as the physical size of space objects increases, so will the probability that a collision will occur between space objects in outer space.⁵⁰³) Although there is only a 30 per cent chance of an object hitting land, and a far slimmer chance of that object landing in a populated area, we are not dealing here in the realms of theory, but of reality.

The International Space Station operates at about 250 miles altitude, and Space Shuttle flights tend to range between 250 miles and 375 miles.⁵⁰⁴) The most debris—crowded area is between 550 miles and 625 miles above the Earth, meaning the risk is less for manned space flight.

3.2. Accidents Caused by Space Debris

The first space object reported to have gone out of control was a US rocket launched from Cape Canaveral in 1956. In November 1960, parts of a US satellite fell in Cuba, causing damage to property and the death of one cow.⁵⁰⁵) A serious accident occurred on 5 June 1969, when Japanese sailors were injured when their ship was struck by fragments of a Soviet satellite.⁵⁰⁶) The following month a German ship was struck by fragments of space objects while in the Atlantic Ocean.⁵⁰⁷)

The USSR launched their nuclear—powered Cosmos 954 naval surveillance

Media in the Demise of Space Objects' 26 *Proc. Colloq. L. Outer Space*(1983), at 129.

503) Nicolas. M. Matte, (ed.), *Space Activities and Emerging International Law* Montreal, Centre for Research of Air and Space Law, McGill University, (1984), at 493.

504) http://www.space.com/news/ap_060120_space_junk.html

505) I.H.Ph. Diederiks—Verschoor, '*Similarities With and Differences Between Air and Space Law Primarily in the Field of Private International Law*' 172 *R.A.D.I.*(1981), 317—349; P.G. Dembling & S.S. Kalsi, '*Pollution of Man's Last Frontier: Adequacy of Present Space Environmental Law in Preserving the Resource of Outer Space*' 20 *N.I.L.R.* (1973) 125—130; and Moore & Leaphart, *supra* n.5, at 129.

506) Bin Cheng, '*Liability for Spacecraft*' 23 *Current Legal Problems*, (1970), n.11, at 349.

507) Dembling & Kalsi, *id.*

satellite on 18 September 1977; it disintegrated over northern Canada on 24 January 1978—possibly due to a collision with another object—resulting in the radioactive polluting of an area the size of Austria.⁵⁰⁸⁾

United States President Carter notified Canadian Prime Minister Trudeau within fifteen minutes of the accidents, and repeated a US proposal of assistance.

Trudeau accepted Carter's offer. Some hours later, Canada asked the USSR to provide information about the specifications of the Cosmos 954.⁵⁰⁹⁾ The USSR responded that day by offering to help clean up Cosmos 954's remains. In contrast to its reaction to the US' proposal, Canada declined the Soviet offer.

The joint US—Canadian clean up operation that resulted from this exchange, dubbed '*Operation Morning Light*', cost Canada nearly C\$14 million, while the US spent some US \$2—2.5 million. Canada billed the USSR for C\$6 million of its outlay on January 23, 1979, but did not seek reimbursement for the US expenditure.

The USSR paid C\$3 million to Canada on April 2, 1981, 'in full and final settlement of all matters connected with the disintegration of the Soviet satellite "Cosmos 954" in January 1978.'⁵¹⁰⁾

The Cosmos 954 incident suggest that elites in Canada and USSR held divergent expectations of how States that are involved in satellite accidents should behave. These expectations concerned substantially four governing norms:

- (1) the duty to forewarn
- (2) the duty to provide information
- (3) the duty to clean up; and
- (4) the duty to compensate for injury.

An analysis of the Liability Convention of 1972 appears to suggest that its thrust

508) Bruce A. Huewitz, *State Liability for Outer Space Activities in Accordance with the 1972 Convention on International Liability for Damage caused by Space Objects*, Martinus Nijhoff Publishers, 1992, at 2.

509) Glenn H. Reynolds and Robert P. Merges, '*Outer Space*', *Problems and Policy*, Westview Press, 1989, at 169.

510) Glenn H. Reynolds and Robert. P. Merges, *op. cit.*, at 169.

aims to cover direct damage by physical impact caused by space debris, although both physical and other factors may be involved and recovery may be possible.

Damage associated with harmful radiation emanating from a nuclear power source also appears to be covered. This contention was reinforced by the Cosmos 954 accident, as result of which the Soviet Union paid damages to Canada. At the same time, it is doubtful whether indirect or consequential damages would be recoverable under the Convention. The question may be raised whether damage caused by solar power satellites transmitting electricity via microwave or laser beams would entail liability. While arguable, the better view would appear to be that the Liability Convention is applicable to such damage. In January 1983, another Soviet nuclear powered satellite re-entered the atmosphere, but unlike the 1978 occurrence, it disintegrated over the high seas, causing no injury or damage.⁵¹¹⁾

In August 1989, NASA reported that a US satellite was out of control and would disintegrate over parts of Africa, South America, India, South East Asia and Australia, if a proposed shuttle rescue operation failed to return the satellite safely to earth.⁵¹²⁾ The 40-ton Soviet Salyut 7 space station disintegrated over Argentina on February 7, 1991 miraculously causing no injury or damage.⁵¹³⁾

The Space Debris Study Group of the Japanese Society for Aeronautical and Space Sciences released its long interim report (in Japanese, 300 pages) in January 1992, and then released its long final report (in Japanese, 496 pages) in March 1993. The final report of the Social Impact Sub-Group, under the aforementioned Japanese Space Debris Study Group, contributed 64 pages.

According to the report of the Japanese Space Debris Study Group, there were about 7,000 pieces of debris of more than 10cm in diameter in space orbit, below

511) Benkō and de Graaff, *supra* n.21, at 13-51; L.H. Farand, 'Canada's Claim for Damage Caused by Soviet Cosmos 954 Satellite' [unpublished manuscript provided to the author by the Canadian Embassy, Washington, D.C.], at 1; Moor and Leaphart, *supra* n.5 at 130-131.

512) 'NASA in Race to Prevent Disintegration of Satellite on Earth' Haaretz (Israeli Hebrew language daily newspaper), 22 August 1989, at 12.

513) V. Kierman, 'Fiery Rain over Argentina Marks Salyut's Re-entry', Space News, 11-17 February 1991, 4, at 21.

an altitude of 5,000km. The aforementioned Space Debris Study Group also disclosed that the rate of collision among pieces of space debris would increase about threefold by the year 2005, compared with 1987.⁵¹⁴⁾

Recently, according to NASA's study, between 20,000–70,000 pieces of space debris were circling the earth, at an altitude of 800km–1,000km; this space debris is out of control and non-functional. There can be no doubt that as the number of space objects which are launched increases, the amount of debris re-entering the earth's atmosphere will also increase. The possibility of a person being injured or property being damaged on the earth from the uncontrolled re-entry into the earth atmosphere of space objects is, however, slim. States Parties shall also take measures to avoid harming the environment of the earth through the introduction of extra-terrestrial or other matter.

There are several types of damage which could affect the space environment:⁵¹⁵⁾

- (1) damage caused by debris circulating in space
- (2) damage caused by harmful contamination and harmful interference
- (3) damage caused by space activities involving radioactive material
- (4) damage to the ozone layer
- (5) damage caused by space stations and
- (6) damage caused by solar satellites.

I will confine this paper to the damage that may be caused by debris. This problem, damage caused by debris, is only possible in space, owing to the nature of this special area.

514) Japanese Society for Aeronautical and Space Sciences, Space Debris Study Group, *Space Debris Study Group Report*, (1993), at 435.

515) I.H.Ph. Diederiks-Verschoor, '*Legal Aspects of Environment in Outer Space Regarding Debris*', 30 Proc. Colloq. L. Outer Space, (1987), at 131.

4. Activities of the UN Committee on the Peaceful Uses of Outer Space

1) The appropriate international forum to discuss the serious and growing problem

- of space debris is the United Nations and, more particularly, its Committee on the Peaceful Uses of Outer Space. At the 1989 Session of the Outer Space Committee of UN, Sweden, together with Australia, Belgium, Canada, the Federal Republic of Germany, the Netherlands and Nigeria, proposed that the issue of space debris be put on the Agenda of the Scientific and Technical Subcommittee of UN.⁵¹⁶⁾ The purpose was to initiate an exchange of views and information of a technical nature, thereby sensitizing Member States to the problem.

- The Outer Space Committee of UN agreed that space debris is an issue of concern to all nations. The Committee also considered it essential that more attention be paid by Member States to the various problems of space debris, and called for the continuation of national research on this question.

Their recommendations were incorporated into the UN General Assembly Resolution on International Cooperation in the Peaceful Uses of Outer Space, which was adopted in December, 1989 (Res. 44/46). This is an annual resolution which gives the Outer Space Committee and its two Subcommittee their mandate.⁵¹⁷⁾

- Since space debris is a problem of high and rising concern to all space faring nations, the developed countries expressly welcomed the decision to institutionalize '*Space Debris*' as a separate agenda item in the Scientific and Technical Subcommittee of the United Nations Committee on the Peaceful

516) U.N. Doc. A / AC / 105 / L.179.

517) Stefan Noreen, '*Space Debris and the United Nations*', 18 Journal of Space Law (1990) I & 2, at 179–180.

Uses of Outer Space (UNCOPUOS). For years, the delegation of the developed countries in UNCOPUOS has, during the Nuclear Power Sources (NPS) debates, worked towards this important stage, which should ultimately lead to — UNCOPUOS proposals to deal effectively with the problem of space debris on — an international basis.⁵¹⁸⁾

- 2) In paragraph 27 of its Resolution 48 / 39 of 10 December 1993, the General Assembly of UN considered it essential that Member States pay more attention to the problem of collisions of space objects, including nuclear power sources, and other aspects of space debris, and it called for the continuation of national research on this question, for the development of improved technology for the monitoring of space debris and for the compilation of data on space debris. The Assembly noted that such information should be made available, as far as possible, to the Scientific and Technical Subcommittee on the Peaceful Uses of Outer Space.⁵¹⁹⁾

The General Assembly of the UN, in paragraph 14 of the same Resolution, invited Members States to report to the Secretary—General on a regular basis with regard to national and international research concerning the safety of nuclear—powered satellites.

- 3) The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space held its 31st Session at the United Nations Office at Vienna from 21 February—3 March 1994, under the chairmanship of Professor J.H. Carver (Australia).⁵²⁰⁾

On 21 February, the Subcommittee adopted the agenda entitled ‘Space Debris.’ In accordance with Resolution 48 / 39, the Subcommittee began its consideration of a new item on its agenda and considered scientific research relating to space debris, including relevant studies, mathematical modeling and

518) United Nations, General Assembly, A / AC. 105 / 565 / Add.2,23 February 1994, Committee on Peaceful Uses of Outer Space, P.2.; UN Doc. A/AC.105/420 of 15 December 1988, Environmental Effects of Space Activities.

519) U.N. Doc. A / AC.105 / 565, 16 December 1993.

520) United Nations, General Assembly, Doc. A / AC. 105 / 571, 10 March 1994, 1.

another 11 analytical projects on the characterization of the space debris environment. The Subcommittee expressed its satisfaction at having the subject of space debris as a separate agenda item after many years of discussion in various international fora, including the Subcommittee and the Committee. The Subcommittee agreed that consideration of space debris was important and that international cooperation was needed to evolve appropriate and affordable strategies to minimize the potential impact of space debris on future space missions.⁵²¹⁾

- 4) The Legal Subcommittee held its 33rd Session at the United Nations at Vienna (March–April 1994), under the chairmanship of Mr. Vaclav Mikulka (Czech Republic). At its opening, the Chairman made a statement describing briefly the work to be undertaken by the Subcommittee at its current Session. A summary of the Chairman’s statement is contained in document A / AC.105 / C. 2 / SR.572.⁵²²⁾

In the course of a general exchange of views, some delegations suggested that an international agreement on the problem of space debris might be necessary in the future. Noting with satisfaction that the Scientific and Technical Subcommittee had space debris as an agenda item at its Session in 1994, those delegations expressed the view that it was advisable for the Legal Subcommittee to begin consideration of legal issues relating to space debris.

Other delegations expressed the view that the Scientific and Technical Subcommittee needed to be given sufficient opportunity to adequately assess the problem of space debris before the issue could be considered by the Legal Subcommittee. Still other delegations expressed the view that the Legal Subcommittee could consider arranging a seminar on the possible legal implications of the existence of space debris in the geostationary orbit.

- 5) The Scientific and Technical Subcommittee of the Committee on the Peaceful

521) U.N. Doc. A / AC. 105 / 571, 10 March 1994,12.

522) U.N. Doc. A / AC. 105 / 573, 14 April 1994, 3.

Uses of Outer Space held its 37th Session at the United Nations Office at Vienna from 6–17 June 1994.⁵²³⁾ According to the report of Scientific and Technical Subcommittee of UNCOPUOS at its 31st Session:

- (1) During 36 years of orbital operations, more than 23,000 individual trackable objects have been placed into orbit around the earth. As of early 1994, more than 7,000 of these objects remained in orbit.⁵²⁴⁾ At present, the evolution of the debris population is beyond human control. Neither the behaviour of 95 per cent of the trackable objects nor that of all of the smaller–sized debris can be controlled.
- (2) United States policy requires that space activities be carried out so as to minimize orbital debris. This policy requires each programme to conduct a formal assessment of its potential to generate orbital debris. A handbook to support implementation of the policy is being prepared by NASA to reduce the time and costs for performing such assessment and to assure consistent standards and criteria across projects. This work is being sponsored by the Office of Safety and Mission Quality at NASA Headquarters.⁵²⁵⁾

The NASA guidelines and supporting analysis tools in the handbook are grouped into four general areas:

- (a) control of debris released during normal operation;
 - (b) control of debris collision risk during mission operations
 - (c) post–mission disposal of space structures; and
 - (d) analysis of ground footprints for re–entering structures and debris.
- (3) The problem of space debris is also being investigated by international organizations, such as the International Astronautical Federation (IAF) and the International Academy of Astronautics (IAA). The IAA recently initiated a study performed by experts from its Committee on Safety, Rescue and

523) U.N. Doc. A / AC. 105 / 574, 12 May 1994, 1.

524) U.N. Doc. A / AC. 105 / 574, 12 May 1994,21.

525) U.N. Doc., A / AC. 105 / 574,12 May 1994,26.

Quality.

- (4) The effect of a collision between space debris and satellites carrying nuclear power sources (NPS) in orbit is predicted to be highly destructive. This casts some doubt on the concept of '*nuclear safe orbit*', which any case does not relate easily to individual or social risk.

The UNCOPUOS Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on the work of its thirty-sixth session (A/AC.105/719), covering the results of its deliberations on the items assigned to it by the General Assembly in resolution 53/45.

The Committee noted with satisfaction that the Scientific and Technical Subcommittee had concluded its work according to the multi-year work plan that it had adopted at its thirty-second session to address specific topics relating to space debris to be covered during the period 1996-1998.

In particular, the Committee noted that the Subcommittee had adopted its draft technical report on space debris (A/AC.105/707), which contained the technical changes and amendments proposed during the inter-session period, together with the changes proposed by the drafting group during the thirty-sixth session of the Subcommittee (A/AC. 105/719, para.35).

The Committee noted with satisfaction that the Subcommittee had submitted to it the final text of the technical report on space debris (A/AC.105/720).

The Committee recommended that the technical report should be widely distributed, including by making it available to UNISPACE III, the Legal Subcommittee at its thirty-ninth session, in 2000, international entities, such as COSPAR, IAA, IAF and IADC, and scientific gatherings such as the annual IAF Congress.

Some delegations expressed the view that, in view of the completion by the Scientific and Technical Subcommittee of the multi-year work plan and the technical report on space debris, the Committee should request the Legal Subcommittee to consider presenting its views on the applicability of the existing outer space treaties

in relation to space debris, as proposed in the working paper (A/AC.105/L.221 and Corr.1) presented by France on behalf of Austria, Canada, the Czech Republic, Germany, Greece, Hungary, India, Italy, Poland, Portugal, Sweden and the United Kingdom of Great Britain and Northern Ireland, and reproduced in annex II to the present report.

Delegations expressed the view that it was still premature for the Legal Subcommittee to discuss the issue of space debris and that the discussion should be postponed at least until the technical report had been thoroughly analysed by Member States and relevant space-related organizations and industry. The view was expressed that a database on space debris should be developed. The Committee agreed that the Scientific and Technical Subcommittee should continue the consideration of space debris, as a priority item, at its thirty-seventh session.⁵²⁶⁾

The Committee noted that the Legal Subcommittee had continued to conduct informal consultations with a view to drawing up a list of annotated items agreed upon by consensus that could be considered by the Committee for possible inclusion in the agenda of the Subcommittee. The views of the Subcommittee on the matter are contained in its report (A/AC.105/721, paras. 58-65).⁵²⁷⁾

Some delegations expressed the view that the work of the Legal Subcommittee should be revitalized, including the development of additional agenda items for its consideration. The view was expressed, however, that the focus of the Subcommittee should be on making a useful contribution to meeting the interests of all States, rather than simply generating new legal standards regulating space related activity.

Some delegations expressed their support for the proposal in a working paper submitted by Argentina, entitled work plan for implementation in connection with the item entitled commercial aspects of space activities (A/AC.105/C.2/L.21 5), which was contained in an annex to the report of the Legal Subcommittee

526) Report of the UN Committee on the Peaceful Uses of Outer Space: General Assembly, Official Records, Fifty Fourth Session, Supplement No. 20 (A/54/20), at 6-7.

527) Report of the UN Committee on the Peaceful Uses of Outer Space: General Assembly, Official Records, Fifty Fourth Session, Supplement No. 20 (A/54/20), at 13-14.

(A/AC.105/721, annex III).

The view was expressed that, in view of the finalization by the Scientific and Technical Subcommittee at its 1999 session of the technical report on space debris (A/AC.105/720), it was an appropriate time for the Legal Subcommittee to consider including in its agenda an item entitled review of existing norms of international law applicable to space debris as proposed by the delegation of the Czech Republic (A/AC.105/721, paras. 59 (b)).

The Committee noted that inter-session consultations on the concept of the launching States held in Bonn, Germany, on 9 December 1998 and open to all interested member States, had resulted in a new item entitled review of the concept of the launching States being added to the list of items for possible inclusion in the agenda of the Legal Subcommittee. The report on the inter-session consultations (A/AC.105/L.217) had been made available to the Legal Subcommittee at its thirty-eighth session.

In accordance with the mandate for the inter-session consultations from the Committee at its forty-first session,⁵²⁸⁾ the results of the consultations would be formally presented to the Committee for consideration and adoption at its current session. The Committee agreed that a new item entitled review of the concept of the launching States should be included in the agenda of the Legal Subcommittee.

The item would be considered by a working group during a three-year period beginning in the year 2000 in accordance with the following schedule of work:

2000 Special presentations on new launch systems and ventures.

2001 Review of the concept of the launching State as contained in the Convention on international Liability for Damage Caused by Space Objects and the Convention on registration of Objects Launched into Outer Space⁵²⁹⁾ as applied by States and international organizations.⁵³⁰⁾

528) Official Records of the General Assembly, Fifty-third Session, Supplement No. 20 (A/53/20, *para.* 152.

529) General Assembly resolution 3235 (XXIX), annex.

2002 Review of measures to increase adherence to and promote the full application of the Convention on International Liability for Damage Caused by Space Objects and the Convention on Registration of Objects Launched into Outer Space.

The Committee recalled its decision at its forty-first session that the Scientific and Technical Subcommittee and the Legal Subcommittee should invite special presentations on new launch systems and ventures at their sessions in 2000 with a view to attaining a better understanding of those launch activities.⁵³¹⁾

The Committee considered the proposal submitted to the Legal Subcommittee by Germany, on behalf of Austria, Canada, France, Greece, India, the Netherlands, Sweden and the United States of America, in a working paper entitled revision of the agenda of the Legal Subcommittee (A/AC.105/721, annex IV, sect. A).

The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had been held its thirty-eighth session at the United Nations Office at Vienna from 1 to 5 March 1999 under the chairmanship of V. Kopal (Czech Republic).

The Committee on the Peaceful Uses of Outer Space (UNCOPUOS) held its forty-second session at the United Nations Office at Vienna from 14 to 16 July 1999 under the chairmanship of U. R. Rao (India).⁵³²⁾

Following discussion of that proposal, the Committee agreed to adopt a revised agenda structure for the Legal Subcommittee and the agenda for its thirty-ninth session, in 2000. The Committee agreed on the following tentative timetable for its session and those of its Subcommittees in 2000;

530) General Assembly resolution 2777 (XXVI) annex.

531) Official Records of the General Assembly, Fifty-third Session, Supplement No. 20(A/53/20), para. 153.

532) Report of the UN Committee on the Peaceful Uses of Outer Space: General Assembly, Official Records, Fifty Fourth Session, Supplement No. 20 (A/54/20), at 1.

The 2000 Year Schedule of Work of the Committee and its Subsidiary Bodies

The Committee and its Subsidiary Bodies	Date	Location
Scientific and Technical Subcommittee	7-18Feb. 2000	Vienna
Legal Subcommittee	27 March-7 April 2000	Vienna
Committee on the Peaceful Uses of Outer Space	14-23 June 2000	Vienna

In paragraph 27 of its resolution 60/99 of 8 December 2005, the General Assembly considered that it was essential that Member States pay more attention to the problem of collisions of space objects, including those with nuclear power sources, with space debris, and other aspects of space debris, and called for the continuation of national research on the question, for the development of improved technology for the monitoring of space debris and for the compilation and dissemination of data on space debris, and also considered that, to the extent possible, information thereon should be provided to the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space and agreed that international cooperation was needed to expand appropriate and affordable strategies to minimize the impact of space debris on future space missions.⁵³³⁾

At its forty-second session, the Scientific and Technical Subcommittee invited Member States and space agencies to continue to provide reports on research on space debris, safety of space objects with nuclear power sources on board and problems relating to their collision with space debris (A/AC.105/848, para. 89).

In a note verbal dated 24 August 2005, the Secretary-General invited Governments to submit any information on the matter by 31 October 2005 so that information could be submitted to the Scientific and Technical Subcommittee at its forty-third session.⁵³⁴⁾

The Working Group on Space Debris held informal meetings from 23 to 27

533) United Nations A/AC.105/862

534) http://www.unoosa.org/pdf/reports/ac105/AC105_862E.pdf

February 2006, during the forty–third session of the Scientific and Technical Subcommittee of UNCOPUOS, in accordance with multi–year work–plan endorsed by the Subcommittee at its forty–second session.

The Working Group had before it A/AC.105/2005/CRP.18, which contained the text of the preliminary draft document on space debris mitigation which had been developed by the Working Group during its inter session meeting in June 2005.⁵³⁵ The implementation of space debris mitigation measures is recommended since some space debris has the potential to damage spacecraft, leading to loss of mission, or loss of life in the case of manned spacecraft. For manned flight orbits, space debris mitigation measures are highly relevant due to crew safety implications.

The 25th Inter–Agency Space Debris Coordination Committee (IADC) conference will be held on 23–26 April 2007 organized and hosted by China National Space Administration CNSA) and China Academy of Space Technology (CAST) in Beijing.⁵³⁶

A set of mitigation guidelines has been developed by the Inter–Agency Space Debris Coordination Committee (IADC), reflecting the fundamental mitigation elements of a series of existing practices, standards, codes and handbooks developed by a number of national and international organizations. The Committee on the Peaceful Uses of Outer Space acknowledges the benefit of a set of high–level qualitative guidelines, having wider acceptance among the global space community.

The Working Group on Space Debris was therefore established (by the Scientific and Technical Subcommittee of the Committee) to develop a set of recommended guidelines based on the technical content and the basic definitions of the IADC space debris mitigation guidelines, taking into consideration the United Nations treaties and principles on outer space.

Member States and international organizations should voluntarily take measures, through national mechanisms or through their own applicable mechanisms, to ensure

535) United Nations A/AC.105/C.1/L.284.

536) <http://www.cnsa.gov.cn/25IADC/index.htm>

that these guidelines are implemented, to the greatest extent feasible, through space debris mitigation practices and procedures.⁵³⁷⁾

5. European Conference on Space Debris

Bilateral consultations between space organizations on the space debris issue have taken place regularly since 1987. At the initiative of the European Space Agency (ESA), the First European Conference on space debris was held at Darmstadt, Germany, from 5–7 April 1993, gathering more than 250 experts from 17 countries.

The Conference was co-sponsored by the following national space agencies: the Agenzia Spaziale Italiana (ASI), the British National Space Centre (BNSC), the Centre National d'Etudes Spatiales (CNES) and the Deutsche Agentur für Raumfahrtangelegenheiten (DARA).

The Conference was primarily focusing on technical aspects of space debris however, in a number of mutually complementary papers, legal issues were addressed.⁵³⁸⁾

The purposes of this Conference were to provide a forum for the presentation of results from research on space debris, to assist in defining future directions for research, to identify methods of debris control, reduction and protection and to discuss international implications and policy issues. In 13 Sessions, more than 100 presentations were given, covering mostly technical aspects of space debris but also policy and legal issues.⁵³⁹⁾

At the end of the Conference, a round table discussion explored the possibilities of controlling and regulating space debris. At the Conference, highly qualified exposure was given of Russian activities and experience. It was agreed to establish a Space Debris Coordination Committee which would meet regularly (biannually),

537) http://www.unoosa.org/pdf/limited/c1/AC105_C1_L284E.pdf

538) W. Flury, *ESA / ESOC*, American Institute of Aeronautics and Astronautics. Inc. 1993, at 386.

539) W. Flury, *supra*, at 1.

and which would be supported by technical working groups dedicated to four specific areas:⁵⁴⁰⁾

- (1) Measurements
- (2) Data base and environment
- (3) Testing and shielding
- (4) Mitigation

The opinion was expressed at the Darmstadt Conference that space debris, as an issue of great concern to all space faring nations, should be dealt with globally by the UN Committee for the Peaceful of Uses of Outer Space. National studies on space debris have been submitted to the UNCOPUOS Scientific and Technical Subcommittee for a number of years.

In a paper presented to the Darmstadt Conference, referring to Principles 21 and 22 of the 1972 Stockholm Declaration on the Protection of the Environment, the speaker put the space debris matter in the context of international environmental law. An assessment of all national activities was made during a workshop organized by the German Space Agency (DARA) on December 9, 1992.

DARA arranged another workshop on ‘Impediments for Space Activities through Space Debris Research Activities, Threats, and Possible Solutions.’ Thirty experts participated in this workshop and discussed ten papers which were presented by Germans, as well as the European Space Agency and UN representatives. The wealth of German research activities can be grouped under the following headings:⁵⁴¹⁾

540) W. Flury, *supra*, at 392.

541) U.N. Doc. A/AC. 105/565/Add.2, 23 February 1994, 2.

- (1) method of debris detection;
- (2) modeling of space debris;
- (3) trend analysis;
- (4) investigation of hyper-velocity impact phenomena;
- (5) test and numerical simulation;
- (6) development of debris protection systems; and
- (7) debris prevention and removal.

German research activities can be distinguished from others in that they are either conducted on a purely national footing or they are funded under contracts with the European Space Research and Technology Center (ESTEC) and the European Space Operation Center (ESOC) of the European Space Agency.

The European Space Agency (ESA) is a multi-national organization whose mission is to provide for and promote the peaceful exploitation of space science, research, technology and applications. As a global partner with other international agencies, ESA participates in space missions and conducts research & development that support the scientific community.

And as a multi-national European organization, ESA also executes missions, and maintains long-term space and industrial policies that are specifically in the interest of its member countries.

ESA is physically organized in a small number of “centres” -with headquarters located at Paris, in France, the technology centre (ESTEC) located at Noordwijk in Holland, the data processing centre (ESRIN) located at Frascati in Italy and the operations centre (ESOC) at Darmstadt and the astronaut center located Cologne in Germany.

The Role of ESOC in ESA Debris Research Activities is the as the following;

European Space Agency Centres ⁵⁴²⁾

The Mission Analysis Section of ESOC is coordinating all Space Debris Research Activities within ESA. ESA activities are harmonized with European national space agencies, and with specialists from national organizations and institutes in Europe (via the Space Debris Advisory Group SDAG) and outside Europe (via the Inter-Agency Space Debris Coordination Committee IADC, consisting of ESA, Japan, NASA, PR of China, and the Russian Space Agency RSA).

ESOC main debris activities are oriented towards space debris and meteoroid environment models for the present and for the future, optical and radar observation campaigns of debris, prediction of re-entries of risk objects, and maintenance of a database on known ("catalog") space objects.

Long-term forecasts of future trends in the evolution of the space debris population can be performed with software like CHAIN, which allow to study the effectiveness of debris mitigation measures (e.g. reduction of on-orbit explosions, de-orbiting of satellites at end of life) with respect to debris population stability.

ESOC is preparing optical observations of high altitude orbits (e.g. GEO) with a 1-meter telescope located at the Spanish Teide observatory (Canary Islands).

542) <http://www.esoc.esa.de/pr/fiveminute-tour/tour.01.php3>

Advanced Radar measurement techniques for the detection of sub-decimeter size objects in Low-Earth Orbits (LEO) are developed and applied by the German FGAN radar (at Wachtberg-Werthhoven).

Although with regard to space debris, there is as yet no international regulation, adjustment to existing international legal regimes for air, water and land might serve as a way to implement the present policy considerations by the USA, Russia, Japan, and USA with regard to space debris.⁵⁴³⁾

One central issue is that of liability for damage as a consequence of pollution by space debris. The text of the Liability Convention of 1972, Article 1, a seems to be insufficient to cover the present pollution of outer space. The space debris problem can only be solved effectively by international cooperation. There is steadily more frequent consultation and cooperation among space agencies.

The 44th Congress of the International Astronautical Federation was held at Graz, Austria, from 16–22 October 1994. Mr. Araki Masahiro and Mr. Yoshida Hiroshi from Japan (Space Business Consultant Inc.), on the topic '*Social Impact of Space Debris: Study of Economic and Political Aspects*', expressed their opinion that the currently existing international legal frame work is insufficient to govern the potential impacts of space debris.⁵⁴⁴⁾

It is necessary to design and implement international treaties and agreements which would provide a framework for addressing the risks posed by space debris, and to start considering immediately those actions which should be taken on a global basis. Based on the recognition of this need, the Social Impact Sub–Group of Space Debris Group of the Japanese Society for Aeronautical and Space Sciences made the following Recommendations:⁵⁴⁵⁾

- (1) Japan should take the initiative to include the space debris issues in the agenda of the G–7 Summit Meeting (including Russia), together with the

543) W Flury, *supra*, 391.

544) Araki Masahiro & Yoshida Hiroshi, '*Social Impact of Space Debris: Study of Economic and Political Aspects*', IAA 3.3–93–701, 44th Congress of the International Astronautical Federation, 16–22 October 1993 at Graz, Austria, (unpublished paper), at 10–11.

545) Masahiro Araki & Hiroshi Yoshida, *supra*, at 10–11.

earth environment problems in the broader context of environmental preservation.

- (2) The establishment of an international cooperative framework should be promoted for debris monitoring and related researches to enhance the understanding of debris hazards.
- (3) An 'International Space Environment Organization' (tentative name) should be established, within the existing framework of the United Nations, which would advance the integration of each country's activities related to dealing with space debris.
- (4) In addition to bilateral, multilateral, and international official discussion, opportunities should be made for unofficial, multidisciplinary citizen-to-citizen research activities and / or discussions.
- (5) The debris issue should be included in the agendas of Japan's Space Activities Commission (in its Safety Evaluation Subcommission), in order for Japan to adopt and implement a national policy for the minimization of debris creation.

In order to discuss the legal problems and policy on the Space Debris, the 45th Congress of the International Astronautical Federation was held in Jerusalem, Israel from 9–14 October 1994.

Of great importance to our work on this matter was the Second European Conference on Space Debris, held in Darmstadt in March 1997.

A number of interesting papers were submitted to this meeting, inter alia, a presentation by Dr. V. Kopal who championed the idea of having precise rules on space debris given the present state of technology and the recent development of methods for reducing these undesirable consequences of space activities (See "Present International Law Principles Applicable to Space Debris and the Need for their Supplement").

Dr. M. Benkő and Dr. K.U. Schrogl dealt Jointly with the steps to be taken for

a realistic approach to space debris within the Legal Subcommittee of UNCOPUOS ("Space Debris in the United Nations, Aspects of Law and Policy"). On the scientific side our consultant Professor Rex spoke, at the Darmstadt Conference, on the threat of overcrowding and the involvement of the United Nations. He believed this organization is the indicated to provide the international community with a solution on space debris. Of interest is Prof. Rex's description of the way this topic became an agenda item of the Sub-Committee. In concluding he stressed the need for adopting a legal instrument on space debris mitigation.

Dr. Flury made reference to the European Activities on Space Debris providing updated information of great value for international lawyers and laying the accent on mitigation and international cooperation. LEVIN and PHILLIPS, from NASA and the US Department of Defense respectively, explained the Orbital debris Programme of the United States, underlining the importance of safety, mitigation and cooperation.

- To sum up, there are a few questions more or less well defined at the moment;
- Damage to the environment and ensuing viabilities should definitely come under the Buenos Aires Instrument on Space Debris and not under the Convention on the Settlement of Disputes Related to Space Activities,
 - Just like the International Court of Justice has set up a special chamber for environmental issues it is reasonable to expect that a similar course of action will be taken once the Tribunal for Space Law Disputes is created,
 - The matter should be permanently under review given the possibility of the question being taken up by the Legal Subcommittee of UNCOPUOS.

The Space debris experts from around the globe will gather from 11 until 13 October 1999, at the European Space Agency Operations Centre (ESOC) Darmstadt/Germany for the 17-th meeting of the Inter-Agency Space Debris Coordination Committee (IADC). IADC was concerned with all technical issues of the space debris problem. The main objectives of IADC are to exchange results of research in

the field of space debris, to cooperate in research activities and to identify debris mitigation options.⁵⁴⁶⁾

The 17-th IADC discussed ways and methods to control the growing amount of orbiting debris. Radar and optical telescopes regularly track over 10,000 artificial objects in space. The number of untraceable objects in the size range from 1 cm to 10 cm, that could seriously damage an operational spacecraft, is estimated at between 100,000 and 150,000.

The International Space Station (ISS) will be equipped with about 200 shields in order to defeat impacts of particulate up to about 1~2 cm size.

Some recent and current topics of the IADC include;

- guidelines for the disposal of spacecraft in the geostationary orbit;
- data exchange procedure and communications for reentry of risk objects;
- common database of space objects;
- risk assessment for the 1999 Leonids and countermeasures;
- measures to reduce the growth of the debris population in Low-Earth Orbit.

The results from the work of IADC will provide a technical basis for deliberations on space debris at the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS).

Since the launch of Sputnik on 4 October 1957, more than 4,200 launches have placed some 5500 satellites into orbit. Currently about 700 satellites are used operationally for science and other applications. Space debris comprise the ever-increasing amount of inactive space hardware in orbit around the Earth as well as fragments of spacecraft that have broken up, exploded or otherwise become abandoned.

The debris field comprises burnt-out launch vehicle upper stages, dead or inactive spacecraft and other objects ranging in size from as big as an automobile

546) <http://www.spacer.com/spacecast/news/debris-99c.html>

to microscopic dust. To avoid damage to operational satellites, ESA uses the DISCOS database to track all space debris.

In 1986, the Director General of ESA created a Space Debris Working Group with the mandate to assess the various issues of space debris. The findings and conclusions are contained in ESA's Report on Space Debris, issued in 1988. In 1989, the ESA Council passed a resolution on space debris where the Agency's objectives were formulated as:

- minimize the creation of space debris
- reduce the risk for manned space flight
- reduce the risk on ground due to reentry of space objects
- reduce the risk for geostationary satellites
- examine the legal aspects of space debris
- acquire, through own facilities and in cooperation with other space agencies, the data on space debris necessary to assess the extent of the problem and its consequences

The Inter–Agency Space Debris Coordination Committee (IADC) is one of the world's leading technical organizations with China has actively participated in activities organized by the Inter–Agency Space Debris Coordination Committee, started the Space Debris Action Plan, and strengthened international exchanges and cooperation in the field of space debris research. ADC's primary purpose is to exchange information on space debris research activities, to facilitate opportunities for cooperation in space debris research, to review the progress of ongoing cooperative activities and to identify debris mitigation options.⁵⁴⁷⁾ The IADC comprises a Steering Group and four specialized Working Groups:

WG 1 Measurements

WG 2 Environment and database

WG 3 Protection

WG 4 Mitigation

547) http://www.esa.int/SPECIALS/ESOC/SEMU2CW4QWD_0.html#subhead5

ESA organizes workshops, tutorials and conferences on space debris. Foremost among these is the European Conference on Space Debris, held every four years. The next one was held in April 2005.

6. Report and Resolution of the Buenos Aires Conference

As I participated in the Space Law Committee of the 66th Conference of International Law Association (ILA) as a speaker, I am able to report on the discussions of the many lawyers, professors, scholars, judges, and staff members of space organizations from the numerous countries represented. The Hon. Justice Rodney N. Purvis (Chairman, Australia), Prof. Dr. Karl Heinz Böckstiegel (Co-Chairman, Germany) and Prof Maureen Williams (Rapporteur, Argentina) finally presented a new Draft for the International Instrument on the Protection of the Environment from Damage Caused by Space Debris to the said Space Law Committee, with the result that the matter was discussed in depth among participants, as well as members of ILA.⁵⁴⁸⁾

This final Draft has been under discussion and consultation by ILA members for eight years, at the ILA Seoul Conference in 1986, the Warsaw Conference in 1988, the Queensland Conference in 1990, the Cairo Conference in 1992,⁵⁴⁹⁾ and the Buenos Aires Conference in 1994, 67th Helsinki Conference in 1996⁵⁵⁰⁾ and 68th Taipei Conference in 1998.⁵⁵¹⁾

All the participants of the Buenos Aires Conference deliberated the contents of

548) Doo Hwan Kim, *'Protection of the Environment from Space Debris,' Diplomacy*, (September 1995) Vol.20, No.9, at 32.

549) Report of the 65th Conference of the International Law Association, Cairo, (1992), 'International Committee on Space Law', at 142-162.

550) Report of the Sixty-Seventh Conference of the International Law Association (1996), Helsinki, Finland, "*Space Law Committee*", at 456-476.

551) Report of the Sixty-Eighth Conference of the International Law Association (1998), Taipei, Taiwan, R. O. C., "*Space Law Committee*", at 239-277.

this final International Instrument at length, with the aim of protecting the interests of suffering States, damaged enterprises, and victims claiming for damage caused by launching States' space debris. After three hours' fruitful and controversial discussion by the Space Law Committee of ILA, there was unanimous adoption of Resolutions No.1 and No.2 and the International Instrument on the Protection of the Environment from Damage Caused by Space Debris.

Let us recall briefly some of the landmarks in the elaboration of this Instrument following the 62nd Conference of the Association held in Seoul in 1976. On this occasion Professor K. H. Boeckstiegel proposed that the Space Law Committee begin to consider the question of pollution and debris from activities in outer space.

In December 1987 a Regional Seminar of the ILA was organized in Buenos Aires. Among the different Working Groups reporting to this Meeting, the Space Law Committee, which was chaired by Professor K. H. Boeckstiegel, dealt with some preliminary questions concerning environmental risks arising from space activities.

The 1994 Buenos Aires Conference adopted the International Instrument on Space Debris, which deals with dispute settlement in article 9.

The procedure laid down includes a first stage of consultations, which cannot go beyond a period of twelve months. Should the parties fail to agree on a method of peaceful settlement within this time limit, any of the parties may take the dispute to arbitration or adjudication in which case the 1984 Paris text on Dispute Settlement becomes applicable unless any of the parties has excluded its application in full or in part. Parties may declare at any time that they choose any of the binding or non-binding settlement procedures envisaged in the Paris text. Finally, there is the possibility of dictating interim measures, binding on the parties, in order to prevent serious damage to the environment, or to persons or property.⁵⁵²⁾

It seems pertinent for this question of space debris to continue under review by

552) Report of the Sixty-Seventh Conference of the International Law Association (1996), Helsinki, Finland, "*Space Law Committee*", at 459.

the ILA Space Law Committee having in mind that it is now being discussed within UNCOPUOS. As Chairman K. H. Boeckstiegel indicates, one of the Scientific Consultants of this Committee, Professor Rex, has been elected Chairman of the Scientific and Technical Subcommittee of UNCOPUOS where space debris is now on the official agenda. Thus, it is now important to encourage the examination of the legal aspects of space debris within the Legal Subcommittee of UNCOPUOS.

In pursuance of this target an important step forward was given in June 1996 and in 1997 by Prof. K. H. Boeckstiegel who, as representative of the International Law Association, made a presentation to the Full Committee of UNCOPUOS at Vienna, Austria. At the 1997 Session special reference was made to the work of the ILA on the "Disputes Settlement related to Space Activities" and to the Buenos Aires ILA Instrument on Space Debris. Following an invitation from the Director of the U. N. Office for Outer Space Affairs, Dr. Jasentuliyana, our Chairman submitted, in October 1997, a paper concerning the work of the ILA on space debris to be considered by the Scientific and Legal Subcommittee of UNCOPUOS during its Session (7-20 February 1998) at Vienna.

Likewise, the Rapporteur, at the request of Dr. Jasentuliyana and on the recommendation of Prof. K. H. Boeckstiegel, prepared a paper on "The Space Law Committee of the International Law Association" for UNISPACE 111 (Space Activities of the United Nations and International Organizations, A/AC.195/32). After the First Reading of this Report new developments were registered and more comments received, which have now been added to Parts A, 3 and C of this Final Text for further discussion in Taipei, Taiwan.⁵⁵³) The need to keep the topic of space debris under study is clearly manifest, as observed at the outset of this Report.

In a letter dated 9 December 1996 Dr. Jasentuliyana tells us that a decision to include the topic on the agenda of the Legal Subcommittee may soon be made by

553) Report of the Sixty-Eighth Conference of the International Law Association (1998), Taipei, Taiwan, R. O. C., "Space Law Committee", at 241.

UNCOPUOS. In addition, many of Space Law Committee members have provided further comments on this matter and have made contributions tending to give more precision to some of the definitions embodied in the 1994 Buenos Aires International Instrument on Space Debris.

Before summarizing these proposals, and in order to keep in line with the 1984 Paris Convention, it is suggested that the 1994 Instrument on Space Debris should, from now on, be referred to as the “*Convention on the Protection of the Environment from Damage caused by Space Debris*” Professor Carl. Q. Christol proposes the inclusion of a new subparagraph (d) in Article 1 to define “space object” which would consist of a “*man-made vehicle or entity launched into outer space*” .

Professor Gabriella Venturini insists on the importance of including space debris on the agenda of the Legal Subcommittee of UNCOPUOS, noting that some delegations were already raising the issue within this body. At the regional level, mention should be made of the XXI Meeting of Air and Space Law organized by the Latin American Association (ALADA) in Mexico, in May 1997. One of the topics on the agenda was "Legal Aspects of Space Debris" and Professor M. A. Ferrer acted as Rapporteur.

Briefly, the conclusions of the Meeting were as follows:

- (1) The question of space debris should be added to the agenda of the Legal Sub-Committee of UNCOPUOS.
- (2) The ILA Instrument provides an excellent basis for regulating compulsory international cooperation and responsibility.
- (3) The ILA Instrument should lay down the following obligations;
 - (a) to remove the satellite from its orbit when the running out of fuel becomes imminent;
 - (b) to establish a way of sharing the costs of cleaning up debris in outer space;
 - (c) to lay down basic standards for the manufacture of spacecraft with a view to minimizing the generation of new space debris.

Prof. K. H. Böckstiegel suggested that the ILA Instrument could be an appropriate starting point for discussion. This coincides, almost literally, with the Latin American (ALADA) proposal of May 1997 mentioned above.

The content of Resolutions No.1 and No.2 adopted by Space Law Committee of ILA Buenos Aires Conference are appended to this paper as Annex 1 and 2, respectively. The Draft for the International Instrument on the Protection of the Environment from Damage Caused by Space Debris (Annex 3) is discussed below.

7. Conclusion

The obvious conclusion is that danger is clearly posed by the uncontrolled re-entry of space objects and debris into the earth's atmosphere. This danger is increased by the inability of modern space science and technology to predict the time of disintegration of non-functional and abandoned satellites and other space objects in outer space. What is important is that the potential for risk and damage is always present.

Over the last few years, space debris has become a matter of increasing concern and has been identified as a serious threat to the further development of man's exploration and utilization of outer space. The minimization of space debris requires policies of prevention and correction. In order to mitigate, if not eliminate, the presence of debris, these policies will have to be implemented by both active and passive measures. They must include the previously identified procedures and must be legal obligations.⁵⁵⁴⁾

The steady increase of space debris shares with many other pollution problems the characteristic that the broader public may well ignore it, until a serious incident which threatens or takes human life, or creates considerable economic damage,

554) Carl Q. Christal, *'Scientific and Legal Aspects of Space Debris'*, published by the American Institute of Aeronautics and Astronautics, (1993), at 380.

makes action essential. The space debris problem can only be effectively solved by international cooperation. Consultation and cooperation between space agencies are taking place with increasing frequency. Let us try to achieve international consensus as soon as possible, lest it become too late to revive the main source of unprecedented economic benefits for the whole of mankind.⁵⁵⁵⁾

It is my firm opinion that only international and regional cooperation could solve the problem of environmental pollution, including damage caused by space debris meanwhile, States have to keep in mind that the exploration and use outer space is for the benefit and in the interests of all countries.

We should try to reach an international agreement, binding on all space-using nations, which encompasses the need to protect the space and earth environment, such as that proposed by Prof K.H. Böckstiegel and Prof. Maureen Williams in the new Draft for the International Instrument on the Protection of the Environment from Damage Caused by Space Debris.

The Space Law Committee of ILA was sent to the Committee on the Peaceful Uses of Outer Space to recommend the legislation of the new Draft to the Committee on the Peaceful Uses of Outer Space of UN. After the committee of spacefaring nations has reached consensus on the basic steps to be taken, and has presented its findings to the Scientific and Technical Subcommittee of the UN Committee on the Peaceful Uses of Outer Space, it may be appropriate for the Legal Subcommittee of UNCOPUOS to take up the matter, in order to debate and resolve the definition, jurisdiction and control, liability, and other legal issues that many legal experts consider need addressing in the preparation of an international agreement.⁵⁵⁶⁾

I would particularly like to comment on the Rapporteur's topic, the '*International Instrument on the Protection of the Environment from Damage Caused by Space Debris*', as follows:

555) Ram S. Jakhu, '*Space Debris in the Geostationary Orbit—A matter of concern for the ITU*', IISL-91-88, at 213.

556) Ray A. Williamson & Richard Obermann, *op. cit.*, 8.

- 1) I would like to propose the establishment of an International and Environmental Monitoring Organization (provisional title), under the United Nations Committee for the Peaceful Uses of Outer Space, to track, observe, and monitor the debris and to reduce/prevent the damage caused by space objects and debris. Countries must exchange current information and views about the damage caused by space debris and establish an integrated monitoring system for the purpose of preventing the damage caused by space debris, in the form of a special, affiliated organization under the auspices of the United Nations.

- 2) We must establish an new 'International Fund for Prevention and Compensation for Damage Caused by Space Debris' (provisional title), to which satellite-launching States have to contribute in proportion to the quantity of their satellite launches, under the Special Agency of the United Nations (for example, UNCOPUOS), or an 'International and Environmental Monitoring Organization for Prevention of and Compensation for Damage Caused by Space Debris under the United Nations' (provisional title), to prevent and compensate for damage caused solely by space debris, and to protect the damaged State.

See, for example, the International Convention on Civil Liability for Oil Pollution Damage of 1969 and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971.

The above-mentioned Special Agency of the UN or a new International and Environmental Monitoring Organization should provide the funds needed to carry out such a survey efficiently, its purpose being the prevention of space debris accidents and the provision of compensation for damage caused by space debris.

I would also like to suggest the legislation of regulations with regard to

the establishment of an ‘International and Environmental Monitoring Organization’ under the auspices of the UN and the establishment of the International Fund, as mentioned in Article 4 in the Rapporteur’s final ‘International Instrument.’

- 3) According to Articles 6, 7, and 8 in this International Instrument, it would appear that a basically faulty, unlimited Liability System was adopted.

It would be almost impossible to prove the causes of accident and damage by space debris via the States, enterprises, legal entities and persons which suffered damage. This International Instrument must adopt an absolute and strict liability system in order to protect the interest of mankind and damaged States in the 21st century.

I would like to insert the word ‘absolutely’ after the word ‘internationally’ in Article 8, paragraph 2, in the final text of the International Instrument (*cf.* Annex 3).

According to the Convention on International Liability for Damage Caused by Space Objects of 1972, Article 2 states: ‘A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight’.

Under the regime of absolute liability, States will be liable under any circumstances, even in cases of *force majeure*. The adoption of this principle in the Convention did not meet major opposition a generally– accepted rule already existed, describing ultra– hazardous activity as ‘necessarily a risk of serious harm to a person land or chattels of others which cannot be eliminated by the utmost care’ and which ‘is not a matter of common usage.’⁵⁵⁷⁾

- 4) The insurance industry will be keen to protect, indirectly, future missions

557) I.H.Ph. Diederiks–Verschoor, *An Introduction to Space Law*, Kluwer, (1993), at 33–34.

that they underwrite by protecting the environment in which those assets will operate. Thus, a mission making a significant contribution to collision hazards amongst satellites and space debris in the orbit could be subjected to penalty premiums, related to the detrimental impact of the mission.

This would provide financial encouragement to operators to adopt appropriate space debris mitigation practices in design and operations, or at least provide them with a cost trade-off between the two.

The proposed quantitative approach therefore has two aims. The first is to encourage the adoption of space debris mitigation principles in mission design by illustrating the cost benefits associated with such measures. The second and ultimate objective is to maintain unlimited access to orbit for all responsible users who wish to continue to exploit the commercial, strategic and scientific potential of near-earth space.

In the case of damage caused by deactivated satellites or space debris, upon payment of compensation for damage, the insurer must pay to the insured person the insurable amount thereof, in accordance with a general principle of insurance law.

After Article 8, in the said International Instrument, I suggest the insertion of the following paragraph (*cf.* Annex 3): Article 8, (2)

The launching satellite State must converse the liability insurance for damage caused by space debris in order to guarantee perfectly the compensation for personal and property damage of the damaged State, legal entity and person.

In conclusion, I would like to propose the establishment of a New International and Environmental Monitoring Organization for space Debris under the Pan-Pacific and Asian Space Development Agency (tentative title) and said Draft for the Instrument in order to track, observe, investigate the debris and to reduce, prevent the damage caused by space objects and debris under the United Nations Committee for the Peaceful Uses of Outer Space. It is necessary for us to exchange the current

and various information and view among the countries on the damage caused by space debris and to establish the integrated monitoring system in the world for the purpose of preventing the damage caused by space debris as a special and affiliated organization under the United Nations.

8. Annex 1, Resolution No.1 of the 66th Conference of ILA

Resolution 1 of the 66th Conference of the International Law Association (ILA) regarding an International Instrument on the Protection of the Environment from Damage Caused by Space Debris.

The 66th Conference of the International Law Association (ILA) held in Buenos, Argentina, from 14 to 20 August 1994:

Observing that:

- scientists, technicians, and practitioners active in the exploration and use of outer space have in recent years been expressing a growing concern regarding the risks caused by space debris in particular for space activities and in general for the environment in outer space and on the surface of the earth.
- a great number of publications and meetings both of governmental organizations such as the European Space Agency and of scientific organizations such as the International Astronautical Federation and the International Academy of Astronautics have considered in great detail the risks involved as well as possible options to reduce such risks,
- the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) has expressly recognized—in the words of its Chairman—‘that the time has come for this body to fulfil its responsibility to the international community by beginning formal discussions on what steps should be taken to address this growing problem’,

- the Scientific and Legal Subcommittee of UNCOPUOS has for the first time placed the issue of space debris on its agenda and held respective discussions at its spring Session in 1994,
- consensus could not yet be reached to also place the issue of space debris on the agenda of the Legal Subcommittee of UNCOPUOS, though many governments, and also the International Law Association, in its status as recognized observer participating in UNCOPUOS Session, have suggested such a placement on the agenda,

Recognizing that:

- at least medium or long term adequate protection from the risks of space debris can only be assured, if appropriate technical measures are complemented and enforced by respective legal rules in an international instrument,

Recalling that:

- the International Law Association has for 8 years been involved in the study of and exchange on legal aspects of space debris including in particular:
- Resolutions of the ILA Conferences in Seoul 1986, Warsaw 1988, Queensland 1990, and Cairo 1992 giving respective mandates to the ILA Space Law Committee,
- specific meetings on legal aspects of space debris organized in Buenos Aires in 1987 (ILA Regional Seminar) and in Asuncion del Paraguay in 1988 (Jornadas Iberoamericanas de Derecho Aeronautico del Espacio),
- the interdisciplinary meeting of scientists, technicians, and lawyers in Köln in 1988 resulting in a comprehensive book on the subject,
- continuous exchange of view on the subject between members of the ILA Space Law Committee, under the chairmanship of Prof. Karl-Heinz Böckstiegel, starting in 1986, first collecting information, then elaborating

relevant principles, and finally drafting a respective international instrument, at all these stages being supported by three prominent scientific consultants. and based on reports by the Rapporteur of the Committee, Prof. Maureen Williams,

Decides that:

- the enclosed text shall be adopted as the ‘ILA Draft International Instrument on the Protection of the Environment from Damage Caused by Space Debris’,
- this ILA Draft, together with the final report of the Space Law Committee, shall be submitted to the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS), and other governmental and nongovernmental institutions, for further consideration and action,
- the ILA Space Law Committee shall continue to examine developments in this area and shall take all steps considered appropriate for the promotion of the ILA Draft and of the adoption of rules of international law regarding space debris.

Annex 2, Resolution No.2 of the 66th Conference of ILA

Resolution No.2 of the 66th Conference of the International Law Association (ILA) Buenos Aires, August 1994, Regarding an International Instrument on the Settlement of Disputes Regarding Space Activities

The 66th Conference of the International Law Association (ILA) held in Buenos, Argentina, from 14 to 20 August 1994:

Observing that:

- the ILA Space Law Committee elaborated a First Draft for a Convention on the Settlement of Space Law Disputes which was presented at the ILA Conference in Paris 1984 (Conference Report p.334 seq.);
- this ILA Draft Convention has been submitted to the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS);
- during the last 10 years, the growing volume of space activities and, in particular, of commercial space activities as well as the growing participation of non-governmental entities and private enterprises in space activities have given the issue of dispute settlement regarding space activities a new framework and new relevance;
- major space law treaties as well as the recent UN Principle Relevant to the Use of Nuclear Power Sources in Outer Space include references to dispute settlement, but do not provide for a binding settlement procedure;
- the ILA Draft International Instrument on the Protection of the Environment from Damage Caused by Space Debris adopted at this ILA Conference in Buenos Aires includes a reference to the ILA Draft Convention on the Settlement of Space Law Disputes;

Decides that:

- the ILA Space Law Committee shall re-examine the 1984 ILA Draft

Convention on the Settlement of Space Law Disputes to determine whether the developments since 1984 require any changes in the 1984 Draft or the elaboration of a new instrument

- the ILA Space Law Committee shall examine what steps could and should be taken to promote the peaceful settlement of disputes regarding space activities.

Annex 3, International Instrument on the Protection of the
Environment from Damage Caused by Space Debris

INTERNATIONAL INSTRUMENT ON THE PROTECTION OF
THE ENVIRONMENT FROM DAMAGE
CAUSED BY SPACE DEBRIS

FINAL TEXT(resulting from the research and discussions since 1986 in the ILA
Committee to be submitted to the 66th Conference of the International Law Asso-
ciation, Buenos Aires, August 1994)

Article 1: Definitions

For the purpose of this Instrument:

- (a) ‘Contamination / Pollution’ means a human modification of the environment by the introduction of undesirable elements or by the undesirable use of those elements.
- (b) ‘Contamination / Pollution’ will be considered as synonyms and are inclusive of all harmful elements other than space debris.
- (c) ‘Space debris’ means man-made objects in outer space, other than active or otherwise useful satellites, when no change can reasonably be expected in these conditions in the foreseeable future. Space debris may result, inter alia, from: Routine space operations including spent stages of rockets and space vehicles, and hardware released during normal manoeuvres; orbital explosions and satellite break-ups, whether intentional or accidental collision-generated debris particles and other forms of pollution ejected, for example, by solid rocket exhaust abandoned satellites.
- (d) ‘Environment’, for the purposes of this Instrument, includes both the outer

space and earth environments within or beyond national jurisdiction.

- (e) ‘Damage’ means loss of life, personal injury or other impairment of health, or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations, or any adverse modification of the environment of areas within or beyond national jurisdiction or control.

Article 2: Scope of Application

The Instrument shall be applicable to space debris which causes or is likely to cause direct or indirect, instant or delayed damage to the environment, or to persons or objects.

Article 3: The General Obligation to Cooperate

1. States and international organizations parties to this Instrument shall cooperate directly, and / or through the pertinent international organizations, to protect the environment and implement this Instrument effectively.
2. States and international organizations parties to this Instrument shall take all appropriate measures to prevent, reduce, and control any damage or significant risk arising from activities under their jurisdiction or control which are likely to produce debris.

Article 4: Obligations to Prevent, Inform, Consult, and Negotiate in Good Faith

States and international organizations parties to this Instrument have, in addition to the duties set forth in Article 3, the following obligations;

- (a) To cooperate in the prevention of damage to the environment and make every effort to avoid situations that may lead to disputes. To cooperate, in accordance with their national laws and practices, in promoting the development and exchange of technology to prevent, reduce, and control

space debris.

- (b) To encourage and facilitate the flow and exchange of information of a scientific, technical, economic, legal, and commercial nature relevant to this Instrument.
- (c) To hold consultations when a State, group of States or international organization, parties to this Instrument, have reasons to believe that activities carried out under their jurisdiction or control, or planned to be carried out, produce space debris that is likely to cause damage to the environment, or to persons or objects, or significant risk thereto. Any State or international organization party to this Instrument may request to hold consultations when it has reasons to believe that the activity of another State or international organization party this Instrument produces space debris that is likely to cause damage to the environment. Refusal to hold consultations, or the breaking-up of such without justification, shall be interpreted as bad faith.
- (d) To negotiate in good faith which means, inter alia, not only to hold consultations or talks but also to pursue them with a view of reaching a solution.
- (e) To give special attention, when promoting these activities, to the needs of developing countries.

Article 5: Compatibility with Other Agreements

The rules laid down in this Instrument concerning responsibility and liability apply to damage caused by space debris in the space environment and, in the absence of other international agreements on the matter, to damage caused to the earth environment.

Article 6: Responsibility and Liability (General Rule)

The rules laid down in this Instrument concerning responsibility and liability

apply to damage caused by space debris in the space environment and, in the absence of other international agreements on the matter, to damage caused to the earth environment.

Article 7: International Responsibility

The State or international organization, party to this Instrument, that launches or procures the launching of a space object shall bear international responsibility for assuring that national activities are carried out in conformity with the provisions of this Instrument, the 1967 Space Treaty, and the 1972 Liability Convention.

Article 8: International Liability

Each State or international organization party to this Instrument that launches or procures the launching of a space object is internationally liable for damage arising therefrom to another State, persons or objects, or international organization party to this Instrument as a consequence of space debris produced by any such object.

Article 9: Dispute Settlement

1. Disputes concerning the interpretation or application of this Instrument shall be subject to consultation at the request of any of the parties to the dispute with a view to reaching a prompt and amicable settlement.
2. Failing this, if the parties to the dispute have not agreed on a means of peaceful settlement within twelve months of the request for consultation, the dispute shall be referred at the request of any party thereto, to arbitration or adjudication. In such case, the ILA Draft Convention on the Settlement of Space Law Dispute, which is appended as an Annex to this Instrument, shall be applicable, unless a party to this Instrument has excluded such application, in full or in part, by a declaration as provided in paragraph 3 of this Article.
3. Each Party to this Instrument, when signing, ratifying, accepting, approving

or acceding thereto, or formally confirming its acceptance, or at any time thereafter, may declare that it chooses any of the non-binding or binding settlement procedures envisaged in the annex to this Instrument, or that it excludes in part or in full the application of the Annex.

4. In these procedures it shall be possible, whenever appropriate, to prescribe interim measures binding on the parties in order to preserve rights or to prevent serious damage to the environment, or persons or objects. These measures shall be implemented by the parties without delay.

Article 10: Signature

1. This instrument shall be open for signature by all States and international organizations at the United Nations Headquarters in New York. Any State or international organization which does not sign this Instrument before its entry into force may accede to it at any time.
2. This instrument shall be subject to ratification or formal confirmation by signatory States and international organizations. Instruments of ratification, instruments of accession and of formal confirmation shall be deposited with the Secretary-General of the United Nations.
3. The Secretary-General of the United Nations shall promptly inform all signatory and acceding States and international organizations of the date of each signature, the date of deposit of each instrument of ratification and of accession and the date of each formal confirmation of the present instrument, the date of its entry into force, and other notices.

Article 11: Entry into Force

1. This Instrument shall enter into force among States and international organizations which have deposited instruments of ratification or formal confirmation thirty days after the deposit of the fifth Instrument with the Secretary-General of the United Nations.

2. For States and international organizations whose instruments of ratification or accession, or of formal confirmation, are deposited subsequent to the entry into force of this Instrument, it shall enter into force on the date of the deposit of their instruments of ratification, accession, or formal confirmation.

Article 12: Amendments

Any party to this Instrument may propose amendments to the Instrument. Amendments shall enter into force for each party to the Instrument accepting the amendment upon their acceptance by a majority of the parties to the Instrument and thereafter, for each remaining party to the Instrument, on the date of acceptance by it.

Article 13: Reservations

No reservations may be made to this Instrument except as provided in Article 9.

Article 14: Review Clause

Ten years after the entry into force of this Instrument the question of the review of the Instrument shall be included in the provisional agenda of the United Nations General Assembly in order to consider, in the light of past application of the Instrument, whether it requires revision. However, at any time after the Instrument request of one-third of the parties to the Instrument and with the concurrence of the majority of the parties, it may convene a conference of the parties to review the Instrument.

Article 15: Withdrawal

Any party to the Instrument may give notice of its withdrawal from the Instrument one year after its entry into force by written notification to the Secretary-General of the United Nations. Such withdrawal will take effect one year from

the date of receipt of this notification.

Article 16: Authentic Text

The original of this Instrument, of which the Arabic, Chinese, English, French, Russian, Spanish texts are equally authentic, shall be deposited with the Secretary—General of the United Nations, who shall send certified copies thereof to all signatory and acceding States and international organizations. In witness thereof, the undersigned, being duly authorized by their government, have signed this Instrument, opened for signature at the United Nations Headquarters in New York, on……

Note: The Annex on Dispute Settlement is appended in conformity with Article 9,2(the text of this Annex is not included here, but is published in: Report of the Sixty—First Conference of the ILA in Paris, 1984, p.334 seq.)

(Doo Hwan Kim, *Some Considerations of the Liability of the Compensation for Damages Caused by Space Debris*”, Law / Technology, (Vol. 28, No.4, 1995), World jurist Association, Washington D.C. USA, at 1—28; *The Liability for Compensation for Damage Caused by Space Debris*”, newly supplemented, *The Use of Airspace and Outer Space Cooperation and Competition* [Book, 448 pages, 1998], Kluwer Law International, The Netherlands, at 305—341;)

Chapter V. Possibility of Establishing an Asian Space Development Agency

1. Necessity of Establishing Asian Space Development Agency

The idea of creating an Asian Space Development Agency (hereinafter referred to ASDA) is only my academic and practical opinion. The creation of an ASDA would lead to a strengthening of the cooperation deemed essential by the Asian community towards joint undertakings in space and would act as a catalyst for the efforts on space exploitation and allow resources, technology, manpower and finances to be centrally managed in an independent fashion to the benefit of Asian countries.

“Space already exists for Asia, so the question is what do we do there.” It’s our job to make sure that all opportunities are used to integrate the power of space exploitation among the Asian countries. In the 21st century, space science and technology will develop with ever greater rapidity.

Having developed rapidly for about half a century, some Asian developed countries with space activities have scored remarkable achievements that greatly promoted the development of social productivity and progress. The continuous development and application of space technology has become an important role in the modernization drive of Asian countries. The emergence of aerospace technology in Asian countries has brought huge contributions to economic and social progress. Today, the Asian, aerospace industry has become one of the world’s most vigorous and promising high–tech industries.

But in some Asian countries accidents have occurred over the past quarter of a

century, owing to failure of satellite launches. If the ASDA were established to promote cooperation among Asian countries in the near future, I believe that we could mitigate launching accidents by prevention, through analyzing the causes of accidents and cooperating jointly with the excellent space technicians in Asian countries.

Though some Asian space scientists already have a good multinational programme, sometimes they have to rely on the Americans, Europeans or Russians to launch their space experiments or small satellites for them.

NASA's (US National Aeronautics and Space Administration)⁵⁵⁸, RASA's (Russian Aeronautics and Space Agency: RASA)⁵⁵⁹ and ESA's (European Space Agency)⁵⁶⁰ programmes for launchers, science, telecommunications, earth observation, remote sensing, international space station and manned space flight have demonstrated great competence. Space ventures and their applications have become normal everyday activities in the global community.

The ASDA is not only a part of Asia's legal, economic and social fabric, but also an organization of technical cooperation in Asian countries. To sustain this success in the 21st Century, Asian countries must continue to consider establishing the ASDA for opportune and carefully conceived multinational space projects and for help in improving their industrial competitiveness. It is desirable and necessary for us to establish ASDA in order to promote cooperation in space policy, law, science, technology and industry among Asian countries. If the head of the Asian countries would agree to establish ASDA at a summit conference, I am sure that it is possible to establish ASDA in the near future

The establishment of the ASDA will promote the international cooperation among Asian States in space exploitation, research and technology, as well as their space application and developments, much like the European Space Agency in Paris. It is very important that ministers, high ranking officials, staff members of space

558) <http://www.nasa.gov>

559) <http://liftoff.msfc.nasa.gov/rsa/rsa.html>

560) <http://www.esa.int/export/esaCP/index.html>

agencies or authorities, space law professors, lawyers, scientists and technicians from Asian countries agree in advance on the establishment of the ASDA.

2. History of the Regional and International Cooperation in Asian Countries

Especially among Asian countries situated in the same geographic area, motivations of a political, economic, technical and social nature have strongly promoted cooperation in the field of space communications and industry as well as in political and economic organizations. As a result, several regional, political and economic organizations were set up, such as Asia–Pacific Economic Cooperation (APEC)⁵⁶¹, the Association of South East Asian Nations (ASEAN)⁵⁶², the Asia–Europe Meeting (ASEM)⁵⁶³ and cooperative conferences such as the “Asia–Pacific

561) Asia–Pacific Economic Cooperation (APEC) was established in 1989 in response to the growing interdependence among Asia–Pacific economies. The APEC has since become the primary regional vehicle for promoting open trade and practical economic cooperation. Brunei Darussalam is the APEC Chair for the year 2000. Members: Australia, Brunei Darussalam, Canada, Chile, People’s Republic of China, Hong Kong (China), Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Chinese Taipei, Thailand, United States of America, Viet Nam.

562) The Association of South East Asian Nations (ASEAN) was established August 8, 1967 in Bangkok, Thailand by the five original Member Countries, namely Indonesia, Malaysia, Philippines, Singapore, and Thailand. Brunei Darussalam joined on January 8, 1984, Viet Nam on July 28, 1995, Laos and Myanmar on July 23, 1997 and Cambodia on April 30, 1999. The ASEAN region has a population of about 500 million, a total area of 4.5 million square kilometers, a combined gross domestic product of US\$ 737 billion, and a total trade of US \$720 billion. In 1995, the ASEAN Heads of State and Government re–affirmed that cooperative peace and shared prosperity shall be the fundamental goals of ASEAN.

563) ASEM, the acronym for Asia–Europe Meeting, is a biennial Summit meeting of heads of state and government of 10 Asian countries, 16 EU member states, including the president of the European Commission. In order to facilitate cooperation in various fields, in addition to the biennial Summit meetings, other meetings such as Foreign Ministers’ Meeting, Economy & Finance Ministers’ Meeting and Senior Officials’ Meeting

Regional Space Agency Forum” at Tokyo, Japan, the “Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific”, the “Asian–Pacific Multilateral Space Technology Cooperation Symposium” at Beijing, China, and the “UN–ESCAP Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific” in India.

2.1. Korea

The aerospace industry may create many benefits for the 21st century with new materials and life science industries. For this reason, the ‘Aircraft Industry Promotion Law’ was replaced by the ‘*Aerospace Industry Development Promotion Law*’ of 1987 in order to ensure appropriate measures for the active development of the industry.

The Korean space programme has been helped on its way by a number of space plans formulated in the late 1990s and 2000 by the Minister of Science and Technology, the National Scientific and Technical Council and the Ministry of Commerce, Industry and Energy.

The most recent revision of the National Space Development Basic Plan was passed on 17 May 2005. This revision of the objectives of the Space Basic Plan was a reflection of changes in the national and international environment as well as of the possibility of implementing space technology development.

The Space Basic Plan is divided over 20 years (1996–2015) a long–term plan, and a medium–term plan (2005–2010). The long–term plan defines the long–term directive and objectives for space development. The middle–term plan defines

are held. The first Asia–Europe Meeting (ASEM I) was inaugurated in Bangkok on March 1996. ASEM II was held in London on April 1998. ASEM III was held successfully in Seoul in October 2000. ASEM IV will be held in Copenhagen, in 2002. Members: Asia (10): Brunei, China, Indonesia, Japan, Malaysia, Philippines, Republic of Korea, Singapore, Thailand, Viet Nam. Members: Europe (16): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom, EU Commission.

the specific objectives and plans for space development in 5-year increments.

The Korean Space Development Promotion Act was passed by the National Assembly on 17 May 2005, and the Korean government proclaimed it with law No.7538 on 31 May 2005. It came into force six months after the proclaimed date, on 1 December 2005. The Act is in accordance with Korea's international obligations under the various UN space treaties and conventions.

The Space Damage Compensation Act was passed by majority resolution of the Korean National Assembly and then proclaimed with Law no.8714 by the Korean Government on December 21 2007. But this Act was amended by the revision of the Government Organization Act on February 29, 2008. It came into force six months later from the abovementioned date of promulgation namely on June 22, 2008 according to its additional clause 1.

The government regards the promotion of high-technology, including the aerospace industry, as the best way to achieve international industrial competitiveness. In addition, the government set a mid & long term development scheme that took concrete shape in the 'Basic long-term Plan for Korea's Space Development' held by the 'National Science and Technology Council' in April 1996 and the 'Basic Plan for Aerospace Industry Development' held by the 'Aerospace Industry Development Policy Council' in April 1999.

The Korea Aerospace Research Institute (KARI) was established on October 1989, as a research institute exclusively for aerospace technology, in accordance with the national development plan for the aerospace industry. KARI has solidified its infrastructure, and has made a great effort in research and development. KARI will do its utmost to securely establish the aerospace industry by the year 2000, and eventually develop into a world-class aerospace research center.⁵⁶⁴⁾

564) The Korean government announced recently that by 2005 it will construct a Space Center for the launching of satellites at Oenaro Island located near the south coast of the Korean Peninsular. The "Space Center" will serve as the infrastructure for space and technological development and plan to launch a low earth orbit satellite in 2008. A second science satellite made in Korea will be launched from the space center by 2005 and by 2015 four multi-purpose and five science satellites will be launched. It was

In order to digest and introduce state of the art aerospace technologies, KARI has signed technical agreements with 17 organizations in the United States, England, France, Russia, China, Israel, and Poland. In the future, KARI will enlarge technical cooperation with aerospace-related research institutes in developing countries such as Brazil etc.

2.2. Japan

The National Space Development Agency of Japan (NASDA) was established in October 1969 in order to act as the nucleus for the development of space and promote the peaceful use of space. International cooperation is essential for observing the earth on a global scale.

The Committee for Earth Observation Satellites (CEOS) was established for the international exchange of information on plans for earth observation satellites and for technical adjustments among nations. NASDA can expect such a network to play a major role in international cooperation in earth observation. All of the past launched satellites (ETS-VII, TRMM and COMETS) have been developed and/or operated in collaboration with other international partners.

On October 1, 2003, the Institute of Space and Astronautical Science (ISAS), the National Aerospace Laboratory of Japan (NAL) and the National Space Development Agency of Japan (NASDA) were merged into one independent administrative institution: the Japan Aerospace Exploration Agency (JAXA).

JAXA will also pursue the enormous possibilities in space and aviation, and challenge various research and development fields in the aim of “Sustainable Development” in order to contribute to peace and happiness for all mankind.

The Basic Space Bill of the Japanese Coalition Parties submitted to the Lower House. (Bill. No.50) on June 20, 2007 and then the compromise reached between

added that from 2010 the center will be operated on a commercial basis operating launch facilities for low to mid altitude orbit satellites.

the ruling coalition parties and the largest opposition Democratic Party of Japan (DPJ) in late on Apr. 2008. The new Basic Space Bill (Bill No.17) by Liberal Democratic Party(LDP), New Komeito and DPJ, etc. submitted to the Lower House on May 9, 2008. This new Bill was passed by the plenary of the Lower House on May 13, 2008 and then the New Bill New bill submitted to the Upper House on May 14 and then the new Bill was passed by the Plenary of the Upper House on May 21, 2008. The 2008 Basic Space Law becomes a full fledged law on May 21, 2008. The Japanese government proclaimed it with law No43 on May 28, 2008. It came into force three months after the proclaimed date.

In 1993, Japan led the establishment of the Asia–Pacific Regional Space Agency Forum (APRSAF). The APRSAF holds a regular meeting on international cooperation in the Asian Pacific region and 26 countries from the region participate.

The Asia–Pacific Regional Space Agency Forum (APRSAF), sponsored by NASDA and JAXA, is a conference to exchange views and perspectives on space development in the Asian region. This forum has been held in 1994, 1995, 1997, 1999, 2000,⁵⁶⁵⁾2001, 2003, 2004, 2005 and 2006 since 1993. As of January 2007, thirteen meetings have been held. The co–host countries so far have been Mongolia, Malaysia, the Republic of Korea, Thailand, Australia and Indonesia.

The first four and the sixth session were convened at Tokyo, Japan. The fifth session was convened at Ulanbator, Mongolia.

The Seventh Forum was held at the Institute of Industrial Science of the University of Tokyo from June 19–22, 2000. The three–day Forum ended successfully with enthusiastic discussions and exchanges of opinions among about 120 participants from sixteen Asia–Pacific countries and four international organizations.⁵⁶⁶⁾

NASDA teamed up with the Science and Technology Agency of Japan (STA) and the Institute of Space and Astronautical Science (ISAS), to hold the Seventh Session

565) http://yyy.tksc.nasda.go.jp/Home/Press/e/200006/aprsaf_000613_e.html

566) <http://www.nasda.go.jp/Home/News/News-e/98aprs.htm>

of the Asia–Pacific Regional Space Agency Forum (APRSAF–7). The Eleventh Session of APRSAF (APRSAF–11) was held from 3rd to 5th November 2004 in Canberra, Australia, jointly organized by the Australian Cooperative Research Centre for Satellite Systems (CRCSS), MEXT and JAXA. Under the main theme entitled “Toward Expansion of the Space Community”, more than 100 local, Asia–Pacific and overseas participants took part in this Forum.

The Twelfth Session of APRSAF (APRSAF–12) was held on October, 2005 at Kitakyushu in Japan, organized by JAXA. APRSAF–12 also discussed how to develop human resources of the next generation in terms of contributing to the enhancement of space capability in this region.

The Thirteenth Session of APRSAF (APRSAF–13) was held from December 5–7, 2006 in Jakarta, Indonesia, jointly organized and co–sponsored by the Ministry of Research and Technology Indonesia (RISTEK), National Institute of Aeronautics and Space (LAPAN), the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Japan Aerospace Exploration Agency (JAXA).⁵⁶⁷⁾

The APRSAF has provided an opportunity for discussing possibilities of future cooperation among space agencies in the Asia–Pacific region, and the participants included leading space industries from Asia–Pacific nations.

The Participating Countries and Organizations were: Bangladesh, Canada, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Kiribati, Russia, Singapore, Sri Lanka, Thailand, Vietnam, United States, UN Office for Outer Space Affairs (OOSA), Economic and Social Commission for Asia and the Pacific (ESCAP), and the International Space University.⁵⁶⁸⁾

NASDA’s Bangkok Office has been promoting the relationship between Japan and other Asian countries in the space field, especially in the field of research and application of remote sensing technology from space. In the Asian region there are many advantages in using remote sensing data for the purpose of natural disaster

567) http://www.jaxa.jp/about/int/index_e.html

568) http://yyy.tksc.nasda.go.jp/Home/Press/e/200006/aprsaf_000613_e.htm

monitoring, environment monitoring, map generation etc. NASDA has been promoting the utilization of Japanese satellite data and has conducted some cooperative projects, seminars, training courses etc. in the Asian region.

In 2006, the “Sentinel–Asia (Asian supervisors)” was inaugurated to construct the “Asian disaster preparation and risk management system,” comprising of 34 organizations from 18 countries and four international organizations.

In April, 2005, JAXA proposed its long–term vision up to 2025 for the field of aerospace. JAXA has started activities achieve this goal. JAXA puts emphasis on international cooperation, and currently most of the projects have been conducted through international cooperation.

As part of JAXA’s cooperative relations with Asia–Pacific countries, JAXA mutually receive data directly from earth observation satellites and conduct cooperative research using observation data with Thailand, Australia, Indonesia, China, Malaysia, and Korea. With the support of the Kiribati government, since 1976 NASDA has established a downrange station on Christmas Island.

The station is currently maintained by JAXA. In 2006, JAXA and the Korean Aerospace Research Institute (KARI) signed the “Memorandum of Agreement in Aerospace Fields.”

2.3. China

The China National Space Administration (CNSA) was established in 1993, as a government institution to develop and fulfill China’s due international obligations, with the approval by the Eighth National People’s Congress of China (NPC). The Ninth NPC assigned CNSA⁵⁶⁹⁾ as an internal structure of the Commission of Science, Technology and Industry for National Defense (COSTIND).⁵⁷⁰⁾

In 1994, together with ESCAP, China hosted in Beijing the first Asian–Pacific

569) http://www.cnsa.gov.cn/administor_message.htm

570) http://www.costind.gov.cn/e_index.htm

regional “*Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific*,” and the “*Beijing Declaration*” issued after the conference has had a far-reaching influence.

In September 1999, in collaboration with the UN and ESA, the Chinese government held in Beijing the “*Symposium on Promoting Sustainable Agricultural Development with Space Applications*.” From July to August 2000, together with the OOSA of the UN and ESCAP, relevant departments of the Chinese government opened the Short-term Training Course for Asia-Pacific Multilateral Cooperation in Space Technology and Applications. Trainees from ten developing countries in the Asia-Pacific region attended the course.

China attaches great importance to space cooperation in the Asia-Pacific region. In 1992, China, Thailand, Pakistan and some other countries jointly sponsored the “Asian-Pacific Multilateral Space Technology Cooperation Symposium.”⁵⁷¹⁾

According to the impetus of such regional cooperation, the governments of China, Iran, the Republic of Korea, Mongolia, Pakistan and Thailand signed the “*Memorandum of Understanding on Cooperation in Small Multi-Mission Satellite and Related Activities*” in Thailand in April 1998. Besides the signatory countries, other countries in the Asia-Pacific region may also join the cooperative project, which has helped to enhance the progress of space technology and space application in the Asia-Pacific region. Since 1988, China has provided other developing countries every year with scholarships for long-term space technology training.

From 2001 to 2005, China’s space industry has developed rapidly, making many achievements. A group of research and development and testing bases of the advanced world level has been built, and the system of research, design, production and testing has been further improved, markedly enhancing the country’s basic capabilities in space science and technology.

With breakthroughs in important key technologies, the overall level of China’s space technology has been improved remarkably. Having made a historic break-

571) http://www.cnsa.gov.cn/policy_space.htm

through in manned space flight, China has embarked on a comprehensive lunar exploration project. Space application systems have taken shape, the range of application has been further expanded, application benefits have been noticeably enhanced, and important achievements have been made in space scientific experiments and research in this regard.

Over the past five years, China has independently developed and launched 22 different types of man-made satellites, upgrading its overall level in this field markedly. Over the past five years, “Long March” rockets independently developed by China have made 24 consecutive successful flights, and their major technological functions and reliability have been notably upgraded. From October 1996 to the end of 2005, “Long March” rockets made 46 consecutive successful flights.

The construction of three launching sites at Jiuquan, Xichang and Taiyuan, has made new progress, and their comprehensive test and launch capabilities have been enhanced.

On November 20 and 21, 1999, China launched and retrieved the first “Shenzhou” unmanned experimental spacecraft. It then launched three more “Shenzhou” unmanned experimental spacecrafts not long afterwards. On October 15 and 16, 2003, it launched and retrieved the “Shenzhou V” manned spacecraft, China’s first of its kind.

Having mastered the basic technologies for manned spacecraft, China became the third country in the world to develop manned space flight independently.

From October 12 to 17, 2005, the “Shenzhou VI” manned spacecraft completed a five-day flight with two astronauts on board. This was the first time for China to have men engage in experiments in space, another major achievement in the sphere of manned space flight.

The Shenzhou 7 was the third human space flight of the Chinese space program. The mission, which included an extra-vehicular activity (EVA) carried out by crew members Zhai Zhigang and Liu Boming marked the commencement of the second phase of the Chinese government's Project 921. The Shenzhou 7 spacecraft carrying

the three crew members was launched September 25, 2008 by a Long March 2F rocket which lifted off from the Jiuquan Satellite Launch Center. The mission lasted three days, after which the craft landed safely in Siziwang Banner central Inner Mongolia September 28, 2008 at 17:37 CST. The EVA carried out during the flight makes China the third country to have conducted an EVA, after Russia and the United States. Shenzhou 7 was the first Chinese space mission to carry a three-person crew for several days and conduct a full operation. On September 27, 2008 Zhai Zhigang wearing a Chinese-developed Feitian space suit, conducted a 20-minute space walk, the first ever for a Chinese astronaut.⁵⁷²⁾

“The Outline of the 11th Five–Year Program for National Economic and Social Development” and “The National Guideline for Medium– and Long–term Plans for Science and Technology Development (2006–2020)” formulated by the Chinese government in 2006 put the space industry in an important position.

Over the past five years, China has developed bilateral space cooperation with a host of countries. It has successively signed 16 international space cooperation agreements and memorandums with 13 countries, space agencies and international organizations, and propelled multilateral cooperation in space technology and its application in the Asia–Pacific region and the process of establishing a space cooperation institution for the region.

China has joined relevant activities sponsored by the United Nations and other relevant international organizations, and supported international space commercial activities. These measures have yielded positive results.

Over the past five years, China has signed cooperation agreements on the peaceful use of outer space and space project cooperation agreements with Argentina, Brazil, Canada, France, Malaysia, Pakistan, Russia, Ukraine, the ESA and the European Commission, and has established space cooperation subcommittee or joint commission mechanisms with Brazil, France, Russia and Ukraine.

It has signed space cooperation memorandums with space organizations of India

572) http://en.wikipedia.org/wiki/Shenzhou_7

and Britain, and has conducted exchanges with space-related bodies of Algeria, Chile, Germany, Italy, Japan, Peru and the United States. China continues to collaborate with Brazil on the Earth resources satellite program.

China and France have developed extensive space exchanges and cooperation.

→ The space cooperation between China and Russia has produced marked results. Within the framework of the Space Cooperation Sub-Committee of the Committee for the Regular Sino-Russian Premiers' Meeting, a long-term cooperation plan has been determined. China has unfolded space exchanges and cooperation with Ukraine.

China and the ESA have carried out the Sino-ESA Double Star Satellite Exploration of the Earth's Space Plan. China's relevant departments and the ESA have implemented the "Dragon Program," involving cooperation in Earth observation satellites, having so far conducted 16 remote-sensing application projects in the fields of agriculture, forestry, water conservancy, meteorology, oceanography and disasters.

In October 2005, the representatives of China, Bangladesh, Indonesia, Iran, Mongolia, Pakistan, Peru and Thailand signed the Asia-Pacific Space Cooperation Organization (APSCO) Convention in Beijing, and in June 2006 Turkey signed the Convention as well. APSCO will be headquartered in Beijing. This marks a significant step toward the official establishment of APSCO.

China continues to promote the Asia-Pacific Region Multilateral Cooperation in Small Multi-Mission Satellites Project. Together with Bangladesh, Iran, the Republic of Korea, Mongolia, Pakistan and Thailand, China has started the joint research, manufacture and application of small multi-mission satellites, to be launched in 2007.⁵⁷³⁾

China takes a positive part in activities organized by the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) and its Scientific and Technical Subcommittee and Legal Subcommittee.

573) <http://www.cnsa.gov.cn/n615709/n620682/n639462/79381.html>

2.4. India

The national space programme was formally organised in June 1972 with the setting up of the Space Commission and the Department of Space (DOS) and the Indian Space Research Organization (ISRO) to promote the development and application of space technology and space science for the economic benefit of the nation.⁵⁷⁴⁾

The prime objective of ISRO has been to develop space technology and its application to various national tasks. Since 1969, when it was set up, ISRO has established space systems like the INSAT for telecommunication, television broadcasting and meteorological services, and the Indian Remote Sensing Satellites (IRS) for resources monitoring and management. ISRO has also developed the satellite launch vehicles PSLV and GSLV to place these satellites in the required orbits.⁵⁷⁵⁾

The overall coordination of the space programme is carried out by programme offices of ISRO headquarters in different areas like satellite communication, earth observation systems, launch vehicle programme, space science, technology transfer and industry coordination, international cooperation, publications and public relations and, budget and economic analysis.

DOS implements the policies framed by the Space Commission. Research and development activities are carried out through ISRO, the National Remote Sensing Agency (NRSA), the Physical Research Laboratory (PRL), the National Mesosphere – Stratosphere – Troposphere Radar Facility (NMRF) and other agencies. An Advisory Committee on Space Sciences (ADCOS) guides the research programmes in the area of space science. The Antrix Corporation Limited, Bangalore, established in 1992, is a wholly – owned Government of India company for commercial marketing of space products and services. The Secretariat of DOS and the Headquarters of ISRO are located at Bangalore.

574) <http://www.cmmacs.ernet.in/nal/icast/isro.html>

575) <http://www.isro.org>

The International cooperation was involved with the establishment of TERLS, the conduct of SITE & STEP, the launches of Aryabhata, Bhaskara, APPLE, IRSIA and IRS-IB / satellites manned space mission, etc. India has established a Center for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP) that is sponsored by the United Nations. Lastly, India hosted the Second UN-ESCAP Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific in November 1999.

In its fourteenth flight conducted from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota on October 22, 2008, the Indian Space Research Organization's (ISRO's) Polar Satellite Launch Vehicle, PSLV-C11, successfully launched the 1380kg Chandrayaan-1 spacecraft into a transfer orbit with a perigee (nearest point to Earth) of 255 km and an apogee (farthest point to Earth) of 22,860 km, inclined at an angle of 17.9 deg to the equator. After a 52 hour count down, PSLV-C11 lifted off from the Second Launch Pad at SDSC SHAR at 06:22Hrs Indian Standard Time (IST) with the ignition of the core first stage.

The important flight events included the separation of the first stage, ignition of the second stage, separation of the payload fairing at about 116 km altitude after the vehicle had cleared the dense atmosphere, second stage separation, third stage ignition, third stage separation, fourth stage ignition and fourth stage cut-off.⁵⁷⁶⁾ Chandrayaan-1 is India's first spacecraft mission beyond Earth's orbit. It aims to further expand our knowledge about Earth's only natural satellite - the moon. With well-defined objectives, Chandrayaan-1 mission intends to put an unmanned spacecraft into an orbit around the moon and to perform remote sensing of our nearest celestial neighbour for about two years using eleven scientific instruments built in India and five other countries. The primary objectives of Chandrayaan-1 are:

- To place an unmanned spacecraft in an orbit around the moon
- To conduct mineralogical and chemical mapping of the lunar surface
- To upgrade the technological base in the country

576) http://www.isro.org/pressrelease/Oct22_2008.htm

Chandrayaan-1 aims to achieve these well-defined objectives through high-resolution remote sensing of moon in the visible, near infrared, microwave and X-ray regions of the electromagnetic spectrum. With this, preparation of a 3-dimensional atlas of the lunar surface and chemical and mineralogical mapping of entire lunar surface is envisaged.

3. Procedure of Establishing the ASDA

In order to establish the ASDA, we need to take the following five step's procedure. As a first step, it is necessary to hold a workshop, symposium or Internet mass media assembling space law professors, lawyers, scientists, technicians, high-ranking officials and staff members from the Asian countries' space agencies, including mainly Korea, Japan, China and India in order to concentrate on their opinions concerning the establishment of the ASDA.

As a second step, we need to organize a preparatory committee for establishing the ASA through a ministerial conference or diplomatic conference of the Asian countries. As a third step, a "*Draft Convention for the Establishment of an Asian Space Development Agency*" should be legislated by excellent law professors or diplomats in collaboration with specialists from the aforementioned Committee.

As a fourth step, after extensive discussion and screening of the Draft by a ministerial or diplomatic conference of all Asian countries, they must pass the Draft by unanimity or by a two-third majority of participants of the ministerial diplomatic conference.

As a fifth step, the Asian countries must ratify "*The Convention for the Establishment of an Asian Space Development Agency*."

I would like to propose the following Preamble to the Draft Convention, based on the European Space Agency's Convention:⁵⁷⁷⁾ Preamble of the Draft Convention for

577) In 1975, European Space Conference, meeting in Brussels, approved the text of the

the Establishment of an Asian Space Development Agency:

“Considering that the magnitude of the human, technical and financial resources required for activities in the space field is such that these resources lie beyond the means of any single Asian country,

Considering that the Resolution will be adopted by the Asian ministerial space conference, which will decide to create a new organization, called the “Asian Space Development Agency” for the development and construction of space vehicle launchers and station, and that the aim would be to integrate the Asian national space programmes into an Asian space programme as far and as fast as reasonably possible,

Desiring to pursue and to strengthen Asian co-operation, for exclusively peaceful purposes, in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space application systems,

Desiring in order to achieve these aims, to establish a single Asian space organization to increase the efficiency of the total Asian efforts by making better use of the resources at present devoted to space and to define a Asian space programme for exclusively peaceful purposes,(……).”

4. The Principal Points that Need to be Included in the Draft Convention

I would like also to propose the following ten principal points that need to be

“Convention for the Establishment of a European Space Agency” setting up the European Space Agency. The member states are now fifteen countries: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. Canada is a Cooperating State: United Nations, *“Space Activities of the United Nations and International Organizations”*, UN (New York, 1992), at 135; H.L. van Traa-Engelman, *“Commercial Utilization of Outer Space,”* Martinus Nijhoff Publishers (1993), at 160-161.

included in the said Draft Convention.

4.1. Members and Legal Personality

The members of ASDA shall be the States parties to the “*Convention for the Establishment of an Asian Space Agency.*”

The ASDA shall have legal personality. It has the capacity, competence and status of international law, but on the territory of the States Parties to its Convention it also has legal capacity in accordance with national law.

4.2. Purpose of Establishment

The purpose of establishing the ASDA is to provide for and to promote, for exclusively peaceful purposes, cooperation among Asian States in space research and technology and their space application, with a view to their being used for scientific purposes and for operational space applications systems.

The purposes of the ASDA shall include in particular:

- Drawing up international rules and monitoring the application of such rules, including the gathering of technical information on space activities conducted under existing legal texts (on registration, recovery liability, satellites with nuclear power resources) or future texts (space shuttle, space station, space debris, etc……);
- Encouraging the transfer of space technologies to developing countries, the training of specialists, and wide circulation of data gathered in the course of space activities, especially data adapted to the needs of these countries (for ex: distribution of remote sensing data);
- Coordinating environmental monitoring by satellites
- Establishing a monitoring and researching organization in order to protect the environment of earth and space so as to mitigate space debris.

4.3. Space Policy

The Agency is in charge of elaborating and implementing the medium and long-term Asian space policy, of actual activities and programmes and a related industrial policy in the space field, and the coordination of Asian and national space programmes with respect to international organizations and institutes.

Furthermore, the member States decide on Asian assimilation of their national space programmes by integrating them into ASDA programmes.

Finally, the Agency elaborates and implements a space industrial policy, which is designed, in particular, to improve the worldwide competitiveness of the Asian space industry.

4.4. Exchange of Information

Members and ASDA shall facilitate the exchange of space policy, programmes, scientific and technical information pertaining to the fields of space technology.

4.5. Education and Research

The ASDA shall ensure the execution of basic activities, such as education, documentation, studies of future projects and technological research work. The ASDA also facilitates the collection of relevant information and its dissemination to Member States, assistance and advice for harmonizing national and international programmes and the elaboration and execution of scientific programmes including the design, development, construction, launching, placing satellites and space shuttle in orbit and control of satellites and all similar activities for launching facilities, space station or space transport system.

4.6. International Cooperation

The ASDA may, upon decisions of the Council taken by vote of a two-thirds majority of all Members States, cooperate with other international organizations and institutions and with Governments, organizations and institutions of non-Member States, and conclude agreements with them to this effect.

4.7. Financial Contributions

ASDA will be financed by its member States. The scale of contributions shall be based on the average national income of each Member State for the three latest years for which statistics are available.

4.8. Organs

The Organs of ASDA are the Council and the Director General, assisted by staffs.

(1) The Council

- The Council, which is the principal organ, is composed of representatives of all Member States.
- It meets when it is required and is composed of either Ministers of the Member's States or government delegates. When it meets at ministerial level it can fulfill the political function of the Asian Space Development Conference.
- The Council elects its chairman and its vice-chairman for a period of two years, and re-election is possible for a further year.
- The Chairman shall direct the meetings, the proceedings, prepare the decisions

and maintain appropriate contact with the Member States; he shall advise the Director General and obtain from him all necessary information.

- When the Council meets at the ministerial level, it shall elect a chairman for that meeting.

(2) Director General

- The Director General is the executive of the ASDA and its representative.
- The Director General, who is the head of the executive body, is appointed by a two-thirds majority of all Member States.
- He is responsible for the management of the ASDA, the execution of the programmes and he accomplishes all the tasks imposed on him by the Council as well as the implementation of its policy and the attainment of its objectives in accordance with the ASDA Convention.

(3) Senior Staff

Members of Senior staff for management, defined by the Council, shall be appointed by the Council on the recommendation of the Director General.

4.9. Disputes and Arbitration

Disputes between Member States or between any of them and the ASDA must first be settled by the Council. If the dispute is not settled this way, it shall at request of any party to the dispute be submitted to arbitration.

Unless the Parties agree differently or the Council adopts other rules, the Arbitration Tribunal shall consist of three members. Each Party shall appoint one of them, and those two arbitrators shall designate a third member. The third member is the umpire and presides over the tribunal.⁵⁷⁸⁾ The rules of procedure may be agreed

578) E. R. C. Van Bogaert, *“Aspects of Space Law”*, Kluwer, (1986), at 271.

between the Parties or imposed by the Council.

The award shall be decided by the majority of votes (abstentions are not allowed) and it is final and binding. The Tribunal may also interpret the award at the request of a party to the disputes.

4.10. Headquarters

It is desirable that the headquarters of ASDA are located in the geographical center of the Asian countries, in a city with convenient means of transport. Here meetings of ministers, officials or technical experts from the Member States thrash out big decisions, which the Director General and his senior management give advice about, and then implement.

The directors of ASDA's programmes for science, applications and launchers are based at the headquarters of ASDA, as well as officials responsible for strategy, technological policy, finance etc.

5. Conclusion

The Asian Space Development Agency is regarded as a new road for Asia's space policy and space exploitation in Asian countries. The Asian Space Development Agency also coordinates the broad thinking needed to meet new challenges in Asian countries. The Asian Space Development Agency will provide a vision of Asia's future in space, and of the benefits for people on the ground that satellites can supply.

Due to the developments of Internet, telecommunication by the satellites and space stations, it will be extinguished gradually or step by step the boundary among the nations in Asia as well as in Europe including Russia, North and South America, Oceania and Africa during the coming hopeful new Millennium.

I would like to quote a German poem written by the very famous German poet Mr. Johann Wolfgang Goethe as the following:

*“Wissenschaft und Kunst gehören der Welt an, und vor ihnen verschwinden die Schranken der Nationalität.”*⁵⁷⁹⁾ I also would like to translate the aforementioned German language poem to English language as the following:

“The Learning and Art belong to the world, and the boundary of nationality is extinguished before them.” I believe that the spirit of the said poem is the spirit of space law.

I am sure that it is possible to establish an electronic Asian Space Agency like electronic Government through Internet as well as an electronic Asian Centre for Space Law as a first step. Since the Asian air and space industry will become a very promising market in the 21st century, we can expect very severe competition among Asian countries and developed countries, such as the USA, Russia, Canada, and EU countries, in order to occupy the Asian market. To win this severe competition on the Asian air and space industry market, it is necessary for the Asian peoples to work together in union, to strengthen cooperation in research, and to establish friendly relations for the benefit of the air and space industry in all Asian countries.

Finally, a very important point is that a political drive, at the highest level, should be given to mobilize states to this initiative, possibly taking the form of a solemn statement by heads of state of Asian countries setting out objectives and prospects for the long term.

It should be noted that this political drive will be necessary not only to set up the organization, but also during a subsequent period.⁵⁸⁰⁾

It is desirable and necessary for us to establish the ASDA, in order to develop the space industry, to strengthen friendly relations and to promote research

579) *Dr. jur. Hans Wüstendörfer*, “Neuzeitliches Seehandelsrecht”, Verlag J.C.B. Mohr (Paul Siebeck), Tübingen, (1950), S. 17.

580) Gabriel Lafferranderie, “*Outlook on Space Law over the next 30 years*”, Essays Published for the 30th Anniversary of the Outer Space Treaty, Kluwer Law International (1997), at 427.

cooperation among Asian countries based on oriental ideology, ethics and creative ideas. I am sure that it is possible to establish an Asia Space Development Agency, if the heads of the Asian States would agree to establish the ASDA through a summit conference.

(Doo Hwan Kim, “*Some Considerations on the Possibility of Establishing an Asian Space Agency*”, supplemented, German Journal of Air and Space Law (Vol. 50, No.3, 2001), Köln University, at 397–408)

Chapter VI. Proposal of Creating an International Court of Air and Space Law

One possible way to unify the rules of the 1999 Montreal Convention based on the contract liability, the Draft Convention on the Modernization of the 1952 Rome Convention based on the tort liability and those rules regarding the assessment of damages, which may be idealistic, would be to establish an International Court of Air and Space Law (tentative title) with jurisdiction to resolve claims arising out of international air and space disasters such as events of September 11, 2001.⁵⁸¹⁾

In this court, the procedural and substantive law must be uniform and just. The establishment of other international courts such as an International Court of Justice⁵⁸²⁾, an International Tribunal for the Law of the Sea⁵⁸³⁾ and International Criminal Court⁵⁸⁴⁾ based on the Convention on the Prevention and Punishment of the Crime

581) Doo Hwan Kim, *op.cit.*, JALC (Vol.53, No.3, 1986) at 794–795.

582) <http://www.icj-cij.org/icjwww/igeneralinformation/inotice.pdf>; The International Court of Justice was created by the United Nations Charter in 1945 and is also a judicial principal organization of the United Nations. The court handles disputes between nations and it began work in 1946. Its seat is at the Peace Palace at The Hague in The Netherlands.

583) http://www.itlos.org/start2_en.html; The International Tribunal for the Law of the Sea is an independent judicial body established by the Convention to adjudicate disputes arising out of the interpretation and application of the Convention. The Tribunal is composed of 21 independent members, elected from among persons enjoying the highest reputation for fairness and integrity and of recognized competence in the field of the law of the sea. The United Nations Convention on the Law of the Sea was opened for signature at Montego Bay, Jamaica, on 10 December 1982. It entered into force 12 years later, on 16 November 1994. A subsequent Agreement relating to the implementation of Part XI of the Convention was adopted on 28 July 1994 and entered into force on 28 July 1996. This Agreement and Part XI of the Convention are to be interpreted and applied together as a single instrument.

584) [http://www.un.org/law/icc/statute/english/rome_statute\(e\).pdf](http://www.un.org/law/icc/statute/english/rome_statute(e).pdf); The International Criminal Court (ICC) is an independent, permanent court that tries persons accused of the most serious crimes of international concern, namely genocide, crimes against humanity and war crimes. The ICC is based on a treaty, joined by 104 countries. The Statute of the International Criminal Court entered into force on July 1, 2002.

of Genocide of 1948 demonstrates that such a court is possible. The creation of other international courts demonstrates that such a court is possible.⁵⁸⁵⁾

This International Court of Air and Space Law could hear any claim growing out of both international air and space crash accidents and transnational accidents in which plaintiffs and defendants are from different nations. This alternative would eliminate the lack of uniformity of decisions under the air and space conventions, protocols and agreements.⁵⁸⁶⁾

In addition, national courts would no longer have to apply their own choice of law analysis in choosing the applicable liability limits for cases that do not fall under the air and space system. Thus, creation of an International Court of Air and Space would eliminate any disparity of damage awards among similarly situated passengers and shippers in non-members of air and space conventions, protocols, agreements and cases.

However, I would like to propose a creation an International Court of Air and Space in extending jurisdiction to the International Court of Justice at the Hague to in order to decide the air and space convention's cases.

The creation of an International Court of Air and Space could provide the uniformity of decision currently lacking in claims arising out of commercial aircraft, satellites and space shuttle's accidents.

Until an International Court of Air and Space is established to handle such claims and to provide some measure of uniformity, attorneys acting in their client's best

584) Comment, "The Role of Choice of Law in Determining Damage for International Aviation Accidents," 51 J. Air L. & Com. 953, 957 n. 301 (1986); *Id.* For a list of seventy cases filed with the court as of July, 1984, see 1983-1984 I.C.J.Y.B., 1984, at 3-6.

585) The International Court of Justice was created by the United Nations Charter in 1945. Comment, *The Role of Choice of Law in Determining Damages for International Aviation Accidents*, 51 J. AIR L. & COM. 953, 997 n.301 (1986). The court handles disputes between nations. *Id.* For a list of the seventy cases filed with the court as of July, 1984, see 1983-1984 I.C.J.Y.B. 3-6 (1984). *Id.*; See, <http://www.icj-cij.org>; <http://www.icc-cpi.int>; <http://www.itlos.org>; <http://www.un.org>

586) The Warsaw system need not be destroyed, however. Professor Matte of McGill University suggests creating an International Court of Appeals or extending jurisdiction to the International Court of Justice at the Hague to decide Warsaw Convention cases.

interest should closely scrutinize the court's choice of law rules. In order to find a rational solution to disputes between nations which have adopted differing liability systems in international air transport and space navigation, we need fundamentally to reform their countries's domestic air law based on the new international conventions in the field of the air and space law.

My personal opinion is that if an International Court on Air and Space Law will be created in future, it will be settled quickly and reasonably the difficulty and complicated disputes, cases or lawsuit between the wrongdoer and victims and the injured person caused by aircraft accidents or hijacker and terrorists etc. on account of deciding the standard of judgment by judges of that's court. It is indeed a great necessary and desirable for us to make a new Draft for the Convention on a creation of the International Court of Air and Space to handle international air and space crash litigation.

I shall propose to make a new brief Draft for the Convention on the Creation of an International Court of Air and Space Law in the near future. My personal opinion is that if an International Court on Air and Space Law will be established in future, it will be settled quickly and reasonably the difficulty and complicated disputes, cases or lawsuit between the wrongdoer and victims and the injured person caused by aircraft accidents or hijacker and terrorists etc. on account of deciding the standard of judgment by judges of that's court.

As the aircraft accidents has the peculiarity of ① total loss (all or nothing), ② moment (Augenblick), ③ huge amount for damage, ④ subordination on the ground surface (ATC), ⑤ internationality differed from road, railway maritime accidents, so I think that it is necessary and desirable things us to establish an International Court on Air and Space Law as a special organization in order to solve quickly and efficiently the air and space cases occurred among the different legal system and different countries.

Chapter VII. Report of the 3rd Biennial Beijing International Symposium on Air and Space Law

The 3rd Biennial Beijing International Symposium on the Use of the Air and Outer Space at the Service of World Peace and Prosperity, using the slogan “Shortening the Long March to International Understanding in the Interests of All Mankind,” was held in Beijing, China on August 21–23, 1995.⁵⁸⁷⁾

587) The 1st International Conference on the Law, Policy and Commerce of International Air Transport and Space Activities—Legal, Political and Financial Aspects—using the Slogan “*The Highways of Air and Outer Space over Asia*,” sponsored by the Graduate Institute of European Studies, Tamkang University, Taipei, Taiwan and the International Institute of Air and Space Law, Leiden University, The Netherlands, was held at Taipei, Taiwan on May 26–31, 1991, where the holding of such conferences in the future has first been proposed.

The 2nd International Conference of Air Transport and Space Application in a New World, using the Slogan “*The Use of Airspace and Outer Space for All Mankind in the 21st Century*,” was organized jointly by the Society for the Study of Law and Policy on Space Utilization in Japan and the Institute of Legal Studies and Faculty of Law, Komazawa University, Tokyo, Japan in cooperation with the three aforementioned Institutes of International Air and Space Law, located in The Netherlands, Canada, and Taiwan was held at Tokyo, Japan on June 2–5, 1993.

The 4th International and Global Conference of Air and Space Law, using the Slogan “*Issues in International Air and Space Industry and Law for the 21st Century*,” sponsored by the Korean Association of Air and Space Law in cooperation with the already noted famous Institutes of International Air and Space Law located in Japan, Canada, The Netherlands, Taiwan was held at Seoul, Korea on June 23–25, 1997. The Conference discussed to deal in depth with the current political, economical, technological and legal problems of the air and space industry in preparing for 21st century on a global basis. It was indeed a great pleasure and honor for this writer to extend a warm invitation to all readers to be participated in this Conference. Especially, our Korean Association of Air and Space Law had invited the many world famous scholars, professors, lawyers, high ranking Government officials, staff members of space agencies and airlines from all over the world so as to participate to this Conference, the location of which they remembered from the 24th Seoul Olympic Games of 1988.

The 5th International Conference of Air and Space Law (Main Theme: Asia meets Europe in the Air and Outer Space) organized by Shanghai Jia–Tong University and co–organized by the International Institute of Air and Space Law, Leiden University,

It was sponsored by Peking University, Beijing, China with cooperation of the Asian Institute of International Air and Space Law, Soochow University, Taipei, Taiwan R.O.C., International Institute of Air and Space Law, Leiden University, Leiden, The Netherlands and Institute of Air and Space Law, McGill University, Montreal, Canada. The Symposium is held biennially, alternating in the Asian and European countries. Many distinguished speakers and panelists as well as hundreds of law professors, scholars, judges, lawyers, high-ranking Governmental officials in the field of air and space law, staff members of space agencies and airlines (Australia, Canada, China, Germany, Hong Kong, Japan, Korea, Macau, The Netherlands, Philippines, Singapore, Taiwan, U.S.A., and UK), and representatives of international organizations (EUTELSAT, IATA, I.C.J., U.N., W.T.O., etc.), as well as thirty-one Korean delegates, have participated in the Beijing Symposium to discuss issues associated with the launch and other space activities, security in outer space and anticipated space events toward the 21st century.

The main space law speakers and their topics were the following: Emeritus Prof. Dr. Bin Cheng (University of London, U.K.), International Responsibility and Liability for Launch Activities; Judge *V.S. Vereshchetin* (International Court of Justice, The Hague), Legal Problems of Manned Space Flight; Emeritus Prof. Dr. *I.H.Ph. Diedriks-Verschoor* (International Institute of Air and Space Law, Leiden University, The Netherlands), Settlement of Disputes (Space); Prof. Dr. *K.H. Böckstiegel* (Director of the Institute of Air and Space Law, Köln University, Germany), International Competition in Launch Service; Prof. Dr. *Doo Hwan Kim* (President of the Korean Association of Air and Space Law, Korea), Liability or Damages Caused by Space Debris; Dr. *N. Jasentuliyana* (Director, Office for Outer Space Affairs, U.N.), Future Space Application, Including the Future Legal Framework within the United Nations; Prof. Dr. *T. Kosuge* (University of Electro-Communications, Tokyo, Japan), Space Telecommunications in the Asian-Pacific

The Netherlands and Asian Institute of International Air and Space Law (Taiwan) was held at Shanghai, China in order to commemorate the end of the 20th Century and discuss the global problems of the air and space law in 1999.587)

Region; Dr. *R. D. Margo* (Lecturer of UCLA, Los Angeles, U.S.A.), Insuring Aviation and Space Activities: What is the Future?; Mr. *J. Grenier* (Director—General, EUTELSAT), Leasing in Space: From Transponders to Satellites; Prof. *HE Qizhi* (Vice President, Chinese Institute of Space Law, China), Preliminary Study of China's Bilateral Agreements with Foreign Countries; Prof. Dr. *Chia—Jui Cheng* (Dean, Faculty of Law, Soochow University, Taipei, Taiwan), New Sources of International Space Law.

The Beijing Symposium was a very fruitful and welcome opportunity for many very famous scholars and professors in the world to address the legal problems associated with the launch and other space activities, the safety in outer space and the space services toward the 21st century.

(Doo Hwan Kim, *Beijing International Conference on Air and Space Law*”, *Journal of Space Law*, (Vol.24, No.1, 1996), Law Center, Mississippi University, USA, pp.46—48)

Chapter VIII. Report of the 4th Biennial Seoul International Conference on Air and Space Law

The 4th Biennial Seoul International Conference on Air and Space Policy, Law and Industry for the 21st Century was held successfully for four days including Festival Eve from June 22 to 25, 1997 at Hotel Lotte in Seoul, Korea.

The abovementioned 4th Seoul International Conference was co-organized and co-supported by the Korean Association of Air and Space Law (KAASL), the Republic of Korea (R.O.K.) Air Force Academy, the Institute for Legal Studies, Soongsil University at Seoul, the International Institute of Air and Space Law at Leiden University in the Netherlands, the Asian Institute of International Air and Space Law, Soochow University School of Law at Taipei, the Society for the Study of Law and Policy on Space Utilization (SOLAPSU) at Tokyo, Japan and the Institute and Center of Air and Space Law, McGill University at Montreal, Canada, and others.

After the 3rd Beijing International Conference of Air and Space Law on August 1995, our Korean Association of Air and Space Law, the Research Institute for Aerospace of the R. O. K. Air Force Academy and the Institute for the Legal Studies, Soong Sil University had been earnestly prepared almost two years. In the 21st century, new technical, economic, and environmental developments will demand fresh political and legal approaches towards the problems which will arise in the fields of air transportation and space exploitation. Outer space and celestial bodies are being explored and being utilized by more and more countries and private bodies.

New air routes, better air traffic control using satellite-based air navigation and surveillance systems, new telecommunication networks, improvement in remote sensing and multipurpose satellites, the construction of international space stations for air and space activities—all these create political and legal challenges which will

need to be met in the next decades. Improvements in the aerospace industry will similarly raise legal and ethical problems.

The purpose of the Seoul Conference was not only to search for solutions for these problems, but also to strengthen international cooperation by means of scholarly discussion among professors, lawyers, airlines, aerospace industry executives, government officials from civil aviation authorities, as well aerospace agencies from many countries. Since the first international conference on air transport and space activities held in Taipei, Taiwan, in 1991, the Asian Institute of International Air and Space has instituted a series of programs to promote the study of air and space law along with the problems arising from the operation and management of air transport and space activities. The Seoul International Conference was the fourth in a series of international conferences in the Asian region. Earlier International Conferences were held in Taipei in 1991, Tokyo in 1993 and Beijing in 1995.

The Seoul International Conference, under the slogan "*the Utilization of the World's Air Space and Free Outer Space in the 21st Century*" was attended enthusiastically by approximately 330 participants, including personalities interested or involved in air transport and space activities from all over the world. Current legal, economic and technical issues concerning air and space policy, law and industry were widely discussed and many illuminating and imaginative ideas arose for discussion.

The main air and space lawco-chairmen, speakers and panelists were the following; Emeritus Prof. Bin Cheng (University of London, England, U. K.), Emeritus Prof. Dr. Henri A. Wassenbergh (Chairman, International Institute of Air and Space Law, Leiden University, The Netherlands), Emeritus Prof. Dr. I.H.Ph. Diederiks-Vershoor (Vice Chairman, International Institute of Air and Space Law, Leiden University; Former Chairman of International Institute of Space Law, The Netherlands), Prof. Dr. Chia-Jui Cheng (Chairman, Asian Institute of International Air and Space Law, Soochow University, Taipei), Dr. N. Jasentuliyana (Former Director, Office for Outer Space Affairs, United Nations, Vienna, Austria), Prof. Dr.

Paul Stephen Dempsey (Director, Institute of Air and Space Law, McGill University, Montreal, Canada), Prof. Dr. Michael Milde (Former Director, Institute of Air and Space Law, McGill University, Montreal, Canada), Prof. Dr. Toshio Kosuge (University of Electro-Communication, Tokyo, Japan), Emeritus Prof. Teruo Sakamoto (School of Law, Kantogakuin University, Tokyo), Dr. Rod D. Margo (Attorney at Law, Condons & Forsyth, Los Angeles, USA), Prof. Katsutoshi Fujita (Kinki University, Japan), Visiting Prof. Tomitaro Yoneda (Chairman of SOLAPSU, Chuogakuin University, Japan), Prof. Kazuhiro Nakatani (Tokyo University, Japan), Prof. Dr. Setsuko Aoki (Keio University, Japan) and Prof. Dr. Soon-Kil Hong (Former President, Korea Aerospace University).

The successful result of the Conference was due to so many devoted persons who contributed in various ways to its organization. From the very beginning of preparations, we held several meetings in The Hague with Professor Wassenbergh, Dr. Pablo Mendes de Leon and Prof. Chia-Jui Cheng and together we drafted a preliminary program and also reached agreement in solving all other administrative and financial problems related to the Conference.

Afterwards, Prof. Chia-Jui Cheng had to fly several times to Seoul to meet me to discuss how to carry out the whole program. At this stage of the preparations, without close cooperation with the Leiden Institute of International Air and Space Law, the Taipei Asian Institute of International Air and Space Law and the Korean Association of Air and Space Law, we could not have organized a Conference as successful as the Seoul one. We have to pay tribute to all of these organizations for their contribution to the Conference.

The Seoul Conference, under the slogan "*the Utilization of the World's Air Space and Free Outer Space in the 21st Century*" was attended enthusiastically by approximately 330 participants, including personalities interested or involved in air transport and space activities from all over the world. Current legal, economic and technical issues concerning air and space policy, law and industry were widely discussed and many illuminating and imaginative ideas arose for discussion.

The administrative work of the Conference was tremendous, particularly just its opening of and during the sessions. We have to express our deep gratitude to the Korean Association of Air and Space Law, the Republic of Korea Air Force Academy and the Institute for the Legal Studies, Soongsil University, which did a marvelous job. Their devotion was a main reason for the success of the Conference. Our deep gratitude goes for those people from these three institutions who assisted in the arrangements.

During the morning of June 23, 1997, the Seoul Conference I was solemnly declared open in the Crystal Ballroom of the hotel and nearly 330 guests attended this splendid gathering.

On behalf of our Korean Association of Air and Space Law, I extended my sincere appreciation to H. E. Mr. Young Sam Kim (the President of the Korean Government) for sent his Congratulatory Message to the Opening Ceremony of Seoul Conference and also spoken by H. E. Mr. Kun Koh (Prime Minister of the Korean Government).

Especially on behalf of our co-organizers, we sincerely extend our appreciation to all distinguished speakers who took part in the opening, congratulatory, and welcoming addresses as well as the keynote speaker. These included Prof. Dr. Doo Hwan Kim, H. E. Ambassador Joseph Paulus Maria Wolfswinkel, Prof. Michael Milde, Prof. Chia-Jui Cheng, Dr. Yasuhiro Kuroda and Minister Hwan Kyun Lee, Prof. Henri A. Wassenbergh, Lt. General Ki Hyun Lee, and General Kwang Hak Lee.

A key factor in any successful international conference is always the quality of the invited speakers. We looked forward to scholarly, imaginative and sometimes provocative interventions from them and we were not disappointed. A debt of gratitude is also owed to the chairmen of our working sessions, Professor Wassenbergh, Professor Cheng Bin, Professor Milde and others, who combined the necessary degree of firmness with an understanding of the desire of so many of our attendants to take the floor.

However, the whole atmosphere of any Conference depends on the participants as a whole. We had over 330 participants from some 23 countries and this was a source of great satisfaction to the Conference, all the more so since a conference such as this gives a chance for old friends—many of them old friends of the Asian Institute of International Air and Space and the Korean Association of Air and Space Law—to meet again and, just a pleasurable, make new ones. In order to settle some important and global problems on the air and space policy, law and industry for the 21st century, we have adopted unanimously “*Declaration of the 1997 Seoul Conference on Air and Space Policy, Law and Industry*” by all attendants at the Closing Ceremony of Seoul Conference after arriving at an unanimous agreement among five representative chairmen of the international institute and society of air and space law.

Originally the Draft for the Declaration of '97 Seoul Conference was made by myself and discussed and amended many times by Prof. Dr. Henri A. Wassenbergh (The Netherlands), Prof. Dr. Chia-Jui Cheng (Taiwan), Prof. Dr. Toshio Kosuge (Japan), Michael Milde (Canada).

Our Korean Association of Air and Space Law already had sent the documents of “*Declaration of the 1997 Seoul Conference*” to ICAO, IATA and UNCOPUOS and its Legal Subcommittee.

We should not forget the importance of our financial sponsors, whose support greatly contributed to the successful organization of this Conference. In this connection, we would like to mention the ROK Air Force Academy, Soongsil University, the Korean Ministry of Transportation, the Korean Airport Authority, Korean Air, Asiana Airlines, the China Aviation Development Foundation in Taipei, KLM Royal Dutch Airlines, the Dutch Aviation Authority, the Amsterdam Schiphol Airport Authority and many others for their behind—the-scenes help.

As for the social activities of the Conference, we would like to express our sincere appreciation to H. E. Dr. Joseph Paulus Maria Wolfswinke, Ambassador of the Netherlands to Korea, for the wonderful garden party at his residence on the

evening of June 24, and to Dr. Peter van Fenema who kindly hosted, on behalf of KLM Royal Dutch Airlines, a luncheon party at June 25.

Particularly I would like to inform you that the Local Public Entity Study Organization of Chuogakuin University in Japan had donated about 100 books entitled "The Law of International Relations" (English & French language; 636 pages, 1997) which was composed of 21 articles of many countries's well-known scholars in the field of air and space law and international law including my article and edited by Prof. Kunihiro Tatsuzawa (Chuogakuin University) to the Korean Organizing Committee. We presented all the aforementioned book to co-chairmen, speakers, panelists and distinguished guests of the Seoul Conference before the Opening Ceremony at Hotel Lotte in Seoul.

A farewell reception given by General Kwang Hak Yi, Chief of Staff, ROK Air Force, Daejeon, Korea, was very impressive and all of us took away from this reception recollections of memorable musical performances given jointly by the Westminster Choir and Mandolin Orchestra of Soongsil University and ROK Air Force Band. We would like to express our appreciation to the conductors and student performers for their excellent performance. Mr. Myeong Ho Han, Chief Secretary of KAAS, was responsible for coordinating the administrative work during the Conference. We thank him for his excellent work spirit. Prof. Jin Kyoung Kim of the ROK Air Force Academy and the two air force lieutenants who were assigned to help the Korean Organizing Committee for five months from February 1997 did fine preparatory work requested by the Korean Organizing Committee. We have to reiterate our gratitude.

We are also very grateful to Air Force Colonel Dal Ho Lee, Director, Research Institute for Aerospace, ROK Air Force Academy, Lt. Col. Man Ho Kim, Head, Planning and Management Division, Research Institute for Aerospace, ROK Air Force Academy, and other Air Force officers and soldiers for their kind assistance before and during the period of the Conference. We cannot forget to express our thanks to students of the Law College, Soongsil University, for their eager volunteer

service during the Conference.

We also would like to extend our sincere thanks to Prof. Dr. Soon-Kil Hong of Korea Aerospace University, Vice Chairman of KAAS, Prof. Kang-Bin Lee of Sang Ji University, Vice Chairman of KAAS, Dr. Dong-Chun Shin, Director, International Cooperation Division, Ministry of Construction and Transportation, Prof. Dr. Sam Hyun Chun, Prof. Dr. Chul-Won Suh of Soongsil University, Director of KAAS, Mr. Youn Soo Kim, Miss Kyoung A Lee, Mr. Hyun Joon Yang and Mr. Seong Hoon Chin for their hard working and devotion.

Though I received many letters from the famous scholars and professors in foreign countries for commenting of the Seoul Conference that was held successfully and got the abundant fruitful results.

(Doo Hwan Kim, *Preface, Keynote Speech and Welcoming Address*, *The Utilization of the World's Air Space and Free Outer Space in the 21st Century*, [Book, 414 pages, 2000], Kluwer Law International, The Netherlands)



Festival Eve, Welcoming Reception of the 4th Seoul International Conference on Air and Space Policy, Law and Industry on June 22, 1997



Photo of all Co-Chairmen, Speakers and Panelists attended to the 4th Seoul International Conference on Air and Space Policy, Law and Industry held at Lotte Hotel in Seoul, Korea on June 23, 1997.



Photo of Chief of Staff, ROK Air Force, Prime Minister of Korean Government, President, Korean Association of Air and Space Law, Superintendent, ROK Air Force Academy, Prof. Dr. H. Wassenbergh



Photo of 400 Participants attended to the 4th Seoul International Conference on Air and Space Policy, Law and Industry held at Lotte Hotel in Seoul, Korea on June 23, 1997.

Part III. International Air and
Space Law (Japanese Language)

第三編 国際航空法及び宇宙法

Chapter 1. International Air Law(Japanese Language)

第一章 国際航空法（日本語）

第一節 韓国における航空運送人の責任に関する法規制の 現状と比較法的考察

一. はじめに

最近 韓国では、経済が高度に発展するに従って、航空需要及び輸送量が急増加し、国内又は国外の航空旅客・貨物機の運航回数が増えて、航空路線面に過密化現象が起こっております。特に、昨年韓国と旧ソビエト連邦社会主義共和国の間に、極東シベリア地区の共同開発業務推進、大韓航空会社(KAL)とソビエトのアエロフロート航空会社(Aeroflot)、又は中国航空会社間の路線開設業務推進、ポーランド、ハンガリー等東欧圏諸国間の貿易量増大、国交樹立及び国交正常化推進等、韓国政府が北方外交政策を積極的に推進するに従って、航空需要と航空路線の新設が増えるものと思われま

す。将来、もし韓国と北朝鮮、ソビエト、中国、東欧圏諸国間に航空路線が開設されると仮定したならば、朝鮮半島は、日本、中国、ソビエト等、東南・東北アジアにおいて地理的に重要な中心地点に位置しており、世界各国の航空会社の間にもっと韓国への航空路線の就航を目標として、激しい国際競争が起ると予想できます。

現在、日本と中国を結ぶ航空路線は、飛行情報区域(F・I・R)である済州島南端を飛行していますが、もし日本、韓国、中国、ソビエトを結ぶ新しい路線とヨーロッパへの直航路線の開設が二〇〇〇年代に妥結されれば、日本と中国、ソビエト、東欧圏諸国の航空機が朝鮮半島の領空を飛ぶようになるだろうし、韓国は日中両国のみならず、ソビエト、東欧圏諸国の中間寄航地として新しい役割を担うことになるでしょう。将来、韓国、日本、中国、ソ

ビエト 東欧圏諸国間に新航空路線の開設と運航技術的な側面で相互協力関係が進むとすれば、これらの国の航空旅客の運航時間を短縮すると共に、旅客の便宜を与えるのみならず、航空機の燃料費を節約することができますから、各国の航空会社に運賃を引下げる要因を与えることになります。⁵⁸⁸⁾

航空運航技術の発達によって、「世界は一日生活圏」にせばめられていますし、韓国もだんだん航空輸送量が増加しておりまづから、韓国政府は1988年からアジアナ航空会社(Asiana Airlines)を認可して国内航空路線に就航しておりますが、1989今年からは東京等へ国際航空路線を就航しておりますから、韓国の民間航空運送体制は、現在、大韓航空会社(KAL)と共に二元体制になっております。

このように、韓国領空上の航空路線は、国内航空会社だけでなく、世界各国の航空会社の就航と運航回数が増え続けていますから、路線の過密化現象に従って航空機事故が発生する可能性も漸次高まっております。そこで次に、航空運送人の責任の原因となる航空機事故と損害の特性に関して考察してみましよう。

二. 航空機事故に起因する損害の特性

航空機事故は、この地球上、いつ、どこで、どんな状態で、起きるかは誰も事前に知ることとはできないと思います。陸上事故又は海上事故と異なるこの事故の特殊性は、損害の、①大型性、②瞬間性、③立証困難性、④巨額性(例えば航空機が空中で衝突した時には損害が巨額になります。韓国では、旅客機一機の値段が約四千万から五千万ドル、旅客一人当りの損害賠償責任限度額が大韓航空(KAL) 国際線運送約款第十六条三項²⁾によると十万SDRと規定しております。国連の傘下にある国際通貨基金(IMF)の貨幣単位であるこのSDRは、変動換算率を採用しており、韓国でも現在固定換算率ではなく変動換算率を採用しております。IMFのワシントン本部から毎日このSDRの時価を世界各国そして韓国の中央銀行にも知らせております。一九八九年三月十日現在、一SDRの時価は約一・三ドルであります。一九八九年の五月二十日に決定した韓国法務省の商法改正試案(海商

588) G.R Rinaldi, "A Report of ILA", Annals of Air and Space Law, Vol.XIII, Institute of Air and Space Law, McGill University. 1988.12, pp.347.

編)にも 国際的潮流と統一運動に呼応する為このSDRを計算単位と言う名前で船舶所有者の責任限度額(韓国改正商法第七四七条)の条文の中に導入しました⁵⁸⁹⁾。韓国では、国際線旅客機は一九八八年の海外旅行自由化政策により常に満席の状態になっております。それで、一機の旅客機に五百名位乗って飛行しております。

航空機が衝突した時、両方の航空機二機の値段が約一億ドル、両航空機に乗っている乗客が千名として、損害賠償責任限度額が一億三千万ドルで合計二億三千万ドルの損害が一時に瞬間的に発生しますから、自動車又は汽車等によって起こる陸上事故や船舶によって起る海上事故とくらべ損害発生額ははるかに巨額になります、⑤全損性(total loss: all or nothing)(例えば、航空機が墜落した場合に残るものはほとんど機体の残骸以外に何もありません)、⑥地上従属性(空港で航空機が離着陸する時、又は航路によって飛行する時には、常に地上にある航空交通管制官(ATC)とパイロットの間で無線で交信しながら飛行しますから)、ATCの故意又は過失によって航空機事故が起こる時もあります。

現在、世界的に航空交通管制官の民事責任に関する国際条約は制定されておられません。国連傘下、国際民間航空機関(ICAO)の法律委員会がこの問題に関して本格的に論議を始めたのは一九六四年で、現在まで約二十五年間を経過しています。⁵⁹⁰⁾ その間、ICAO法律委員会はこの問題に関する各国の意見を整理し、一九八三年、第二十五回ICAO法律委員会では、アルゼンチン共和国が提案した「航空交通管制機関に関する国際条約予備草案」も検討されました。⁵⁹¹⁾

一九八七年四月二十八日から五月十三日まで、モントリオールで開かれた第二十六回ICAO法律委員会では再びこの問題に関して英国をはじめ三十四ヶ国とIATA及び四つの国際機構に質問書を出し、その解答書をまとめて討議しましたしかし、いろいろな意見が多くあって合一点を見いだすことができなかったため、再論議することになりました。⁵⁹²⁾ 昨年八月二十四日、

589) 一九八九年十月六日、韓国政府と民政党の間の党政協議会で、法務部の商法改正試案(保険及び海商)が通過し、政府案が確定したので、政府は一九八九年十月十七日、定期国会にこの試案を提出し通過できました(韓国の改正商法第七四七条参照)。

590) Report of the 25th Session of Legal Committee (Montreal, April 12~15, 1983), Doc 9387-LC/185, pp.5-1.

591) 関口雅夫「アルゼンチン共和国が提出した航空交通管制機関の民事責任に関する国際条約予備草案」一九八五年三月三十日発行、『駒沢大学法学部政治学論集』第二十一号、七三~一〇六頁参照。関口雅夫「航空交通管制機関の国際民事責任に関する条約の立法化の動向及びその問題点」『空法』第二十七号(一九八六)、六七頁参照。

592) Report of the 26th Session of Legal Committee, ICAO (Montreal, April 28~May 13, 1987), LC/26~VIP/6~1~42.

ポーランドのワルシャワで開催された第六十三回国際法協会(ILA)航空法委員会では「ATCの民事責任に関する国際条約案」の制定可否に関して、各国の航空法学者、弁護士、航空関係専門家たちが深く議論しました。その結果、新しい国際条約案を作成する事に決定しました。

私もこの国際会議に参加して、この条約案の作成が世界的な法の統一のために必要だという意見を出し、将来作成する条約草案の基本骨格は過失責任主義と有限責任主義を採用するのが望ましいと述べました。⁵⁹³⁾ この国際会議の具体的内容と、私がこの会議で発表した意見は、この会議のラポルテール(報告者)イタリア法務省の顧問G・R・パセリ弁護士が書いた報告文の中にあります。それがカナダのモントリオールにあるマギル大学航空・宇宙法研究所で発行している『一九八八年度版航空・宇宙法年報(Annals of Air and Space Law)』とオランダのKLUWER社が発行している『航空法(Air Law)』に掲載されていますので、⁵⁹⁴⁾ それを参考にしていただければです。このILAワルシャワ大会においてカナダの前航空宇宙法研究所前所長であるN. M. Matte教授、ドイツ西独のケルン大学航空宇宙法研究所前所長K. H. Böckstiegel教授、オランダのライデン大学航空宇宙法国際研究所の前所長I. H. Ph. Diedericks - Vershoor教授等、各国の航空法学者と個人的に会ってATCの国際民事責任問題と現在世界的に複雑になっている航空運送人の民事責任に関する八つの国際条約と議定書を統一する問題点に関して意見交換をしました。

一九八三年九月一日、アンカレッジから韓国ソウルに向かって第二十航路に従って飛行していた大韓航空機OO七便が、途中でこの航路を離脱して旧ソビエトのサハリン領空に入り、旧ソビエト戦闘機のミサイル攻撃を受けて撃墜、同日午前三時三十八分頃、乗客、乗務員あわせて二百六十九名が死亡した大型航空機事故がありました。この事故も、アリューシャン列島にあるアメリカの地上航空管制所又は東京対空通信局とパイロットの間で通信が第二十航路途中で杜絶しましたから、このような大惨事が起こったものと思います。航空機は、地上にある航空交通管制官(ATC)の支援なしには単独で飛行することができません。⁵⁹⁵⁾ も

593) 拙稿「航空管制機関(ATCA)の責任に関する論点」、『航空法学会誌』創刊号、韓国航空法学会発行、一九八九年五月、二八～三六頁。Guido Rinaldi Baccelli, "International Law Association Committee on the Legal Aspects of Air Traffic Control", *Annals of Air and Space Law*, Vol. XIII, 1988, pp.344-349.; Prof. Maureen Williams, "Legal aspects of air traffic control", ILA Warsaw Conference, August, 1988, *Air Law*, Volume XIV, Number I, 1989, Kluwer, Netherlands, pp.49-50.

594) Prof. Dr. Kim Doo Hwan, "Some Considerations on the Liability Air Traffic Control Agencies", *Air Law*, Volume XIII, Number 6, 1988, Kluwer, Netherlands. pp.261-272.

しATCとパイロットの間に無線通信ができない時には 航空機事故が起こり易いのでこのような事故の特性を航空機事故の地上従属性と言います)、⑦国際性(自国の航空機が他国の空港・領空を、他国の航空機が自国の空港・領空を飛行為離着陸する時に、航空機事故が起き損害が発生します。この時に、国際航空運送人の民事責任に関する国際私法の問題(準拠法)が起こってまいります。596)

航空運送人の損害賠償責任原因となる航空機事故の特性は、以上のように、①大型性、②瞬間性、③立証困難性、④巨額性、⑤全損性、⑥地上従属性、⑦国際性などとなります。航空機事故にはこのような特性があるので、韓国では航空運送人又は航空機運航者の損害賠償責任原則と責任制限を規定する新しい立法論が拾頭しました。

三. 航空運送人の責任と国際条約

国際航空運送人の民事責任に関する国際条約は、①一九二九年のワルソー条約、②一九五五年のヘーグ議定書、③一九六一年のグアダハラ条約、④一九七一年のグアテマラ議定書、⑤一九七五年のモントリオール第一追加議定書、⑥モントリオール第二追加議定書、⑦モントリオール第三追加議定書、⑧モントリオール第四議定書があつて航空運送人の責任原則と責任限度額を各々規定しております。世界はワルソー体制の複雑なシステムの中で約七十年間を過ぎました。この八つの国際条約と議定書の中には、発効しているものと発効していないものがあり、複雑すぎますので、これらの条約と議定書を新しいひとつの国際条約に統合することをICAO法律委員会で決議しました。

一九八二年八月二十六日から九月一日まで開かれた第六十回ILAモントリオール大会の航空法委員会で発表した英国のBin Cheng教授の「国際航空責任の統合制度に関する条約草案」の内容を、597) 日本では大阪市立大学の藤田勝利教授が紹介されましたけれども、598)

595) 柳田邦男、『撃墜(上)』、大韓航空機事件、講談社発行、昭和五十九年三月、二九～七八頁、参照。

596) 野上鉄夫、『空商法論』、嵯峨野書院、昭和五十九年八月、七三～一五〇頁、参照。

597) International Law Association, "Report of 60th Conference", Montreal, 1982(1983), pp.555-582.

598) 藤田勝利、「国際航空責任の統合制度に関する若干の問題」、『空法』第二十五号(一九八四)、日本空法学会発行、八二～二六頁、参照。

韓国では 私が紹介しました。599) 韓国で紹介したこの内容を簡単に申し上げます。

外国航空機による地上第三者の損害に対して、運航者の責任と賠償責任限度額を規定した一九三三年のローマ条約と一九五二年、一九七八年の二回にわたって改正されたこの条約は、不法行為に基因する運航者の損害賠償責任関係を規定した条約であります。600) 前に言及した一九二九年のワルソー条約ほか六つの議定書とひとつの条約は、航空運送約を原因とする運送人の運送債務不履行による損害賠償責任関係を規定した条約であります。

Bin Cheng教授が作成した「国際航空責任の統合制度に関する条約草案」は、国際航空運送契約責任と地上第三者損害の不法行為責任の両制度を統合し、しかも、責任原則として航空運送人又は航空機運航者に「絶対的で、制限のない、かつ支払保証のある責任を課し、もってそれらの者に責任を集中する」という、極めて急進的 (ラディカル) な提案であります。

この条約草案の具体的内容と、私が英語でコメントした論文は、アメリカのテキサス州ダラスにあるSMU大学校法科大学で発行している *Journal of Air Law and Commerce* の一九八八年の春季号にくわしく掲載されておりますから具体的説明は省略致します。その後一九八七年度に航空運送人の責任に関する新しいアルボア条約草案が発表されております。601)

韓国では、国際航空運送人の民事責任関係を規定したワルソー条約改正を内容とする一九五五年のヘーグ議定書を一九六七年七月十三日に批准して、同年十月十一日から発効しております。韓国憲法第六条では「締結公布した条約と一般的に承認した国際法規は国内法と同一の効力を持っている」と規定されており、現在、ヘーグ議定書も韓国の国内法と同一の効力を持っていることとなります。これは、韓国が国際互惠主義原則を守っていると言う事ができますし、一九六〇年代と七〇年代の大韓航空(KAL)の国際航空運送約款は、このヘーグ議定書の責任原則と責任限度額(旅客一人当り人的損害、死亡、負傷)二万ドルと、貨物の物的損害(滅失、破壊、滅失) kg当り十七ドル)を規定してましたが、八〇年代にはいって、この約款の内容は全面的に改正されました。この約款は一九八五年一月十日に

599) 拙稿、「国際航空責任の 統合制度に関する条約草案の論点」、『鄭熙喆教授停年記念論文集』、一九八五年、博英社、三八五～四一三頁。

600) 拙稿、「航空機運航者の地上第三者に対する損害賠償責任(上、中、下)」、『司法行政』一九八四年八月号、二九～三八頁、九月号、二三～三三頁、十月号、四九～六〇頁、参照。

601) Doo Hwan Kim, "Some Considerations of the Draft for the Convention on an Integrated System of International Aviation Liability", *Journal of Air Law and Commerce*, Volume 53, Issue 3, 1988, The School of Law, Southern Methodist University, Dallas, Texas pp.765~796.; The Alvor Draft Convention relating to International Carriage By Air, Explanatory Note, 1987, Oct. pp.1-6.

一九七五年のモントリオール第三追加議定書の責任原則と責任限度額を導入しました

アメリカが一九六五年にワルソー・システムを脱退する動きがありましたので、ICAOとIATAによる調停の妥協の産物として一九六六年にモントリオール協定が誕生しました。これは、国際条約ではなく世界各国の航空会社とアメリカの航空会社が加入した民間協定にすぎないのであります。

大韓航空は、アメリカの領空を飛ぶためにしかたなくこの協定に加入しました。⁶⁰²⁾ この協定では、旅客一人当りの人的損害賠償責任限度額を七万五千ドル(訴訟費用含む)と規定していたので、大韓航空の国際線旅客運送約款第十六条でもこの責任限度額の内容をそのまま規定していました。しかし、一九八五年一月十日にこの約款の内容を大幅に改正して、国際航空運送人の責任限度額を全部一率に人的損害(死亡・負傷)に対しては旅客一人当り十万SDRと規定し施行しています。さらに一九八一年以後、モントリオール第三追加議定書に従って航空運送約款を改正した航空会社は、イギリスの英国航空、オーストラリアのカンタス航空、フランスのエール・フランス航空、日本の日本航空(JAL)、韓国の大韓航空(KAL)等があります。⁶⁰³⁾

アメリカが一九八三年八月三日、議会の上院でモントリオール第三追加および第四議定書の批准を見あわせましたが、⁶⁰⁴⁾ 世界各国の航空会社がこの議定書の責任限度額を続々採用していますので、第三追加議定書を導入した航空会社の属する国家は、この議定書を早く批准することが望ましいと思っています。

四. 航空運送人の責任と運送約款

約款とは、集団的な企業の取引に劃一的に適用するため、企業者又は企業者の団体が一方的にあらかじめ定型的に定めておく契約条項であります。ときどき、経済的学者である企業者又はその団体が、経済的弱者である顧客(消費者又は利用者)に対し不当に過酷な契約内容を強制する結果を招くという弊害を生じることがあります。このような弊害を防止するた

602) 大韓航空社、『大韓航空十年史』一九七九年、八六九頁、参照。

603) 藤田勝利、『国内航空運送約款』、『法学セミナー』三七二号、一九八五年十月、七二頁、参照。

604) George N. Tompkins, "The Defeat of the Montreal Protocols in the United States Senate... What next?" Lloyd's, Aviation Law, September 15, 1983, pp.1-6

め 約款に対して立法的、行政的、司法的規制を行っています。⁶⁰⁵⁾

最近、韓国では、国民所得が向上するに従って消費者保護問題が大きく社会問題となっていますし、婦人団体の消費者保護運動が激しくなっております。

韓国政府は、約款の内容を法律的に規制している世界各国の立法例(例えば、一九七七年、ドイツの普通取引約款法(Gesetz zur Regelung des Rechts der Allgemeinen Geschäftsbedingungen)、一九七七年、英国の不正契約条項規制法(Unfair Contract Terms Act)、一九七一年、スウェーデンの不当約款規制法等)の約款規制に関する一般法の規制内容判例動向を比較・研究した後、韓国の経済・社会の現実に適合するようドイツと同じ様な特別法の形⁶⁰⁶⁾で立法措置をとりました。

韓国において、一九八六年十二月三十一日に制定された約款の規制に関する法律は、一九八七年七月一日から施行され、同法律第二十四条によって政府の企劃財政部(前経済企劃院)内に約款審査委員会が組織され、準司法的機能を与えられています。航空運送約款もこの法律の適用を受けております。一九八〇年の消費者保護法を廃止して、さらに消費者保護を効率的に遂行するため、新しく一九八六年十二月三十一日に消費者保護法が制定され、一九八七年四月一日から施行されています。この法律によって組織された韓国消費者保護院は、政府が出捐した前経済企劃院の傘下機関であります。

一九八九年三月三十一日、約款審査委員会で大韓航空の国内線航空運送約款の一部条項が無効審決を受けた最初の決定があるのでその内容を紹介致します。請求人、韓国消費者保護院院長雀東奎は、大韓航空の国内旅客運送約款第四十四条一項に規定している「旅客の死傷に対する賠償責任は」契約不履行又は不法行為に起因する損害に対して一般の賠償責任とは別に制限しており、国際運送において十万SDR(約十三万ドル)と規定しているのに対して、国内線は七万五千ドルと規定しているのは「法の前に平等である人間」を差別することであるから、航空運送契約の公正性の向上と被害者保護を強化する為に運送約款の中で不当な内容は改善しなければならないと請求しました。請求人は大韓航空の国内運送の賠償限度額を廃止するか、または少なくとも国際線と同一に賠償限度額を調整しなければならないと被請求人大韓航空(株)の代表理事に対する審査請求書を前経済企劃院長官)に提出しました(約款規制法第十九条)。

605) 尾治助、『約款と消費者保護の法律問題』、一九八一年、三省堂、二三三～二八六頁、参照。

606) Ulmer・Brandner・Hensen, “AGB-Gesetz, Kommentar zum Gesetz Regelung des Recht der Allgemeinen Geschäftsbedingungen”, Köln, 1982, ss. 1-17.

前経済企画院長官は この約款条項の問題点を約款審査委員会に回付し、同委員会で審議された結果、大韓航空の国内旅客運送約款第四十四条一項は無効と決定されました。

その理由は、①国際航空運送において運送人の賠償責任限度額は有限責任原則を規定した条約に基づいて決定されるけれども、国内運送においては運送人の賠償責任限度額は各国の国内法又は運送約款で独自に規定できるのですから(日、米は無限責任主義を採用)各国の経済事情、国民の生活水準等に応じて、その限度額は違うものでありますし、韓国の最近の経済事情、およびアメリカのドル対ウォンの換算率等を勘案しますと、人的損害に対する賠償限度額を七万五千ドルと国内旅客運送約款に規定したのは、実情を反映したものと見ることはできないし、国内の他の運送分野における人的損害に関する通常の賠償額にも達しない低額の限度額でありますから、約款の規制に関する法律第六条二項一号に規定している「顧客に対して不当な不利条項」に該当し、この約款第四十四条一項の責任限度額「米貨七万五千ドル」と規定した部分は無効だと決定しました。

また、請求者韓国消費者保護院は、「同運送約款第四十四条二項前段に規定している「旅客の手荷物に起った、破損、紛失等の損害に対する航空会社の賠償責任限度額は、旅客一人当り十二万ウォンを超過してはならない」と定めているけれども、最近、高価な文化用品(カメラ等)を持って航空機に乗る旅客も多いし、事前申告しない手荷物の賠償限度額十二万ウォンは、一九八一年五月一日、本約款の発効以後の物価上昇を勘案していないので現実性を欠いている。旅客が十二万ウォン以上の手荷物を事前に全部申告することは、困難であるし、また、国内運送時の賠償限度額を国際運送時に比べて低く定めてあるので、賠償限度額を現実適合する様に上向調整しなければならない。」と主張しました。

この請求理由を審査した結果、同約款第四十四条二項も無効だと約款審査委員会で決定されました。その決定理由を考察すると、この賠償限度額は一九八二年に発効した約款に定めたものでありますから、最近、国内航空機を利用する旅客の手荷物を考慮した時に滅失等の損害に対する賠償限度額としてはもっとも低い金額であります。従って、旅客手荷物の損害に対する賠償限度額を規定した、同約款第四十四条二項の「一人当り十二万ウォン」の部分は約款規制法第六条二項一号の「顧客に対する不当な不利条項」に該当し、旅客の条項と同じく無効だと決定しました。⁶⁰⁷⁾

だから、この決定はアジアナ航空の国内旅客運送約款(一九八八年十二月二十三日発

607) 一九八九年四月五日付、『東亜日報』、四頁、参照。

効) 第四十四条にも大韓航空の約款条項の内容と同じ規定がありますので、当然に影響を受けて無効になると思います。従って、両航空会社のこれら一部の約款条項を今後廃棄するか、又は賠償責任限度額を国際線旅客運送約款の規定と同じ水準に引き上げて改正するかの問題が残っております。この約款一部条項の無効決定は、不当な約款の一部条項に対する行政的規制だと言うことができます。

韓国でも日本(航空法第一〇六条)と同じく、航空法八十五条において、定期航空事業者は運送約款を定めて国土海洋部長官(前交通部長官: 運輸大臣)の許可を受けなければならないと規定しております。これを変更しようとする時も、同様であります。今後、韓国の国土海洋部(前交通部: 運輸省)はこの約款条項を約款規制委員会の決定の通りに変更(この約款条項を廃棄又は国内線の賠償責任限度額を国際線と同じように定める)しなければならないと思います。⁶⁰⁸⁾ 韓国ではその後航空会社の国内線約款を改正して賠償責任限度額を国際線約款と同じく決定しました。日本でも、日東航空(後に合併して東亜国内航空、現在の日本エアシステム)の航空運送約款第二十四条に規定している旅客一人当り死傷者の賠償責任限度額百万円は、低額に過ぎて公序良俗に違反するからこの約款条項が無効だと、大阪地方裁判所において判決されました(大阪地裁昭和四二年(一九六九年)六月十二日 判決・昭和三九年(ワ)第四八八号、損害賠償請求事件)。

これを約款に対する司法的規制と言います。⁶⁰⁹⁾ 韓国では、西ドイツと同じく約款の規制に関する法律を制定して施行しておりますから、一般的に、経済的弱者である被害者保護の為にこの法律を作ったと言うこともできるし、これを約款の規制に対する立法的規制だと言うことができます。

608) 一九八九年五月十六日から、大韓航空会社とアジアナ航空会社は共に国内線旅客運送約款を改正して国際線旅客運送約款と同じく航空運送人の損害賠償責任限度額を大幅に引き上げて、旅客一人当り賠償限度額を十万SDR、旅客の委託手荷物一人当り賠償限度額を三百ドルに決定して施行しております。大韓航空会社の国内旅客運送約款第四十四条、アジアナ航空会社の国内旅客運送約款第四十一条、参照。一九八九年八月七日十日付、『法律新聞』、一〇頁、参照。

609) 矢沢惇、「航空運送約款による責任制限」、『別冊ジュリスト』二一〇～二一一頁、参照、野村好弘、『ジュリスト』三九八号、三八五号、高田桂一、『判例評論』一〇五号(判時四八九号)、三五頁、山崎悠基、『ジュリスト』四五二号、一二三頁。

五. 航空運送人の責任に関する判例

- (1) 国際運送人の責任消滅時期に関する大法院(最高裁判所)の決定が一九八三年十一月八日にありました(一九八三나카一三二九号損害賠償請求事件)が、この事件の内容と判決内容を紹介致します。

ソウル高等法院一九八三年三月二十九日判決(一九八一나三四三〇号損害賠償請求事件)

ソウル民事地方法院一九八一年九月二十四日判決(一九八一가합一九〇六号損害賠償請求事件)

<事實概要>

原告方顯模他六名(遺族)は、訴外方台煥(大宇開発株式会社海外事業部次長)が一九七八年四月二十日、フランスのバリ・オルリー空港で被告大韓航空(KAL)所有ボーイング七〇七旅客機に従ってアンカレジ経由ソウルに向って同北極航路を運航途中、同旅客機がグリーンランド東南方メストピグを通過後、計器故障とパイロットまたは航空機関士の不注意と過失で正規航路を大きく離脱し、ソビエト国の領空内に深く入りました。同旅客機は、ソビエト国の北方軍事基地ムルマンスク上空まで非常に深く入ったので、同年四月二十一日三時四十八分頃、ソビエト空軍機からミサイルの攻撃を受けました。それが旅客機の機体を貫通した結果、原告方題撲の子方台煥の身体にも破片が的中したので死亡しました。この旅客機は攻撃を受けた後、即刻老練なパイロットによって不時着し、他の旅客はほとんど無事でありました。被告大韓航空の機長は、グリーンランド上空を運航中、気象レーダーに現れた異様な地形を見たので、航路離脱を初めて知って正規航路に復帰を企図したけれども不可能なのでしかたなくそのまま航行し、ムルマンスク上空で突然ソビエト空軍機が姿を現したので、機長は国連傘下ICAOの規定に従って緊急標示灯をつけて機体の両翼を左右にゆり動かし信号を送りました。遭難中の民間航空機に対する救助義務を規定したシカゴ条約(国際民間航空条約)第二十五条に違反する不法攻撃を受けたのですから、被告会社には、責任がないと主張しました。しかし、原告方顯模外六名は、被告会社側の旅客機の航路離脱と訴外方台煥の死亡この間に相当因果関係があり、被告会社側に過失があるとして、被告大韓航空を相手に損害賠償請求訴訟を提起しました。

<判旨>

ソウル民事地方法院ではこの事件に対して、被告はワルソー条約第二十九条により航空運送人の責任に関する訴は航空機が到達すべきであった又は運送の中止した日から起算して二年の期間内に提起しなければならないと規定しているにもかかわらず、原告は、国際航空運送が中止した日、一九七八年四月二十一日から、二年の除斥期間を経過した一九八一年四月十八日に訴訟提起をしたので(十一ヶ月二十八日間経過)不適法だと主張しました。これに対してソウル民事地方法院は同条約第二十九条が航空運送契約上の債務不履行責任を適用するだけで航空運送中発生した不法行為を原因とする損害賠償責任に当然適用するとは見ないのが原則である。運送契約上の責任と不法行為責任を競合して求める原告の請求中、不法行為請求を認定しているこの事件では、二年の短期除斥期間を適用する原・被告間の特約がないのであるから、被告の主張には理由がないと判決しました。

この判決の結果、被告は不法行為に起因する損害賠償責任(韓国民法第七五〇条)を負い、損害賠償請求の消滅時効期間内である三年以内に(韓国民法第七六六条)原告が訴を提起したのは適法であり、被告の旅客機の航路離脱と訴外方台煥の死亡この間に相当因果関係が認められ、又、被告側に過失があるので原告に対して損害賠償額三千九百七十五万一千十六ウォン(既に受領、産業災害補償金除外、逸失利益一時退職金、遺族の精神的慰籍料等含む、ホフマン式計算方法によって算出)を支払うように判決しました。原・被告は各々一審判決に対してソウル高等法院に控訴しました。その結果、同旅客機が出発したフランスと韓国はともにヘーグ議定書の加入国であり、ヘーグ議定書第一条及び第十三条によって適用対象となるし、請求原因が運送契約を原因とした運送債務不履行による損害賠償責任でも、又は不法行為を原因とする損害賠償責任、あるいは故意、重過失、単純過失があったとしても、同議定書第二十九条によって原告の提訴期間が経過したから、賠償請求権は消滅したので原告の控訴請求は理由がないと棄却判決を言い渡しました。更に、原告方顕模は大法院に上告をしましたが、棄却決定され、被告大韓航空が勝訴しました。韓国でも日本と同じく、被害者の損害賠償請求権行使に関する学説について、請求権競合説と法条競合説が対立していますが、大法院は請求権競合説を支持しましたので多数説となっております。一審判決は請求権競合説の立場でありましたけれども、二審と最高審の判決は国際航空運送においては国際条約を遵守し、国際航空運送人の責任が契約責任であるか不法行為責任であるかを問わず全部この条約を適用するという注目すべき判決でありまし

た 610)

その他、航空貨物引渡に関する大法院判決が二件ありますし、一九八三年九月一日、ソビエトのサハリン領空でソビエト戦闘機の攻撃を受けて墜落した大航韓空機〇〇七便の一部旅客の遺族が提起した損害賠償請求訴訟事件は、現在、大法院で審議されています。

六. 航空運送人の責任に関する各国の立法例と国内立法問題

世界の多数国家は(五十余国以上)、航空運送人の損害賠償責任と賠償限度額に関する規定を、航空法又は他の特別法の中に定めて施行していますし、ドイツ、フランス等、一部の国家では、航空法の中に公法的規定と航空運送人の民事責任に関する私法的規定を共に定めて混在したまま施行しています。しかし日本と韓国では、航空法の中に主に公法的規定だけを中心として規定し、民事責任に関する私法的規定はほとんど定めていません。

一部の国家では、航空運送人の民事責任に関するワルソー条約とヘーグ議定書等の条約の内容を、航空法の中に受容して施行しています。①英国では、一九七九年の航空運送及び道路法(Carriage by Air and Road Act)の中にモントリオール第三追加議定書を受容して、航空旅客運送人の損害賠償責任限度額を旅客一人当り十万SDRと規定しております。②アメリカでは、日本と同じく、国内航空運送人の責任は無限責任けれども、国際航空運送においてはグアテマラ議定書の国内補助措置制度(Domestic Supplement)を導入してプルーデンシャル保険会社の協力によりプラン特別料金(Plan Surcharge)の二ドルを運賃とは別に追加して支払った場合には、旅客一人当り二十万ドルまでの損害賠償責任限度額で補償を受けるという提案がなされています。

③ドイツでは、一九八二年の空中運送法(Luftverkehrsgesetz)改正によって、旅客一人当り賠償責任限度額を三十二万マルクと規定しております。④フランスでは、一九七六年の「国内航空運送人の責任制限法」に従って、航空運送人の人的損害賠償責任限度額を五十万フラン(Loi82-325)に引き上げました。⑤イタリアの航行法典にも、航空運送人の損

610) 拙稿、「航空運送人の責任とその立法化に関する研究」、法学博士学位論文、一九八三年、一〇七～一一一頁。

害賠償責任関係を同法第九四二条ないし九五二条に詳しく規定していますし、ワルソー条約の私法上の体系を大部分受容しております。⑥スイスも、一九八五年に航運法 (Air Navigation Act) を改正して、ワルソー体制に従って損害賠償責任と賠償限度額を引き上げ、調整しました。⑦ソビエトは、一九六六年の改正航空法でワルソー条約とヘーグ議定書の一部内容を受容し、国際航空運送人の損害賠償責任関係は同法第一二七条ないし一三三条に詳しく規定していますし、国内航空運送人の民事上責任関係は同法第八十三条ないし八十八条に規定しております。⑧台湾の一九七四年の改正民用航空法第六十七條ないし七十六條では、航空運送人の損害賠償責任原則を規定しております。⑨他のヨーロッパの十五ヶ国と北・南アメリカの十七ヶ国、アジアの六ヶ国、オセアニアの二ヶ国、アフリカの一ヶ国、その他二ヶ国、合計四十三ヶ国の立法例があります。⁶¹¹⁾ ⑩日本でも、ワルソー条約とヘーグ議定書を批准しモントリオール協定に加入していますが、航空運送人の民事責任に関する国内立法はなされていないので、国際航空運送人の責任関係は条約と国際航空運送約款に依存しており、国内運送人の責任関係は国内航空運送約款又は民法・商法によって処理していると考えます。一九六九年六月十二日、大阪地方裁判所の判決(下級長集十八卷五・六号、六四一頁)において、日東航空の運送約款第二十四条に規定されている旅客一人について、航空運送人の賠償責任限度額百万円は低額に過ぎて、公序良俗に反し許されないと判決され、同約款条項が破られました。この判決は、日本航空業界に大きなショックを与え、航空運送法の立法問題がもたらがりました。

航空振興財団が中心となって官界、業界、学界の専門家をメンバーとして構成した航空私法研究会傘下に航空運送法特別委員会が設置され、一九七六年に航空運送法要綱試案が作成されました。⁶¹²⁾ この試案が、日本では初めての航空運送人の民事責任に関する立法作業だと思います。その後一九八一年に、日本航空が国際線旅客運送約款を改正して一九七五年度のモントリオールの第三追加議定書の旅客一人当り賠償責任限度額十萬SDRを導入しましたし、国内航空運送約款は無限責任の原則を採用しております。

⑪韓国では現在、商法の中に陸上運送契約を中心とした法律関係に対して商行為編に三十六ヶ条(商法第二四條ないし百五十條)を規定していますし、海商編には海上運送契

611) Kim, Doo Hwan, "Some Considerations on the Civil Liability of the Compensation for Damages of Air Carrier", *Soong Sil Law Review*, Vol.3, (Dec, 1987), The Institute for Legal Studies, Soong Sil University, in Seoul, Korea, pp.18-29.

612) 山崎悠基, 「航空貨物運送の立法問題」、『空法』第十八・十九合併号、一九七六年十月、日本空法学会発行、五三頁、参照。

約を中心とした法律関係が百三十四ヶ条(商法第七四〇条ないし八七四条)あり 比較的詳しく定められています。その商行為編の中に、陸上事故に起因する陸上運送人の損害賠償責任に関する規定として商法第一三五条ないし一三八条があり、海上事故に起因する海上運送人の損害賠償責任に関する規定として商法第七四六条ないし七五二条、商法第七八七条ないし八二八条があります。航空運送人の民事責任に関する規定は、商法にも航空法、その他航空関係法規の中にもありません。ですから、航空運送人の責任に関しては陸上運送人の責任に関する商法の規定を準用しようと主張する学説と、海上運送人の責任に関する規定を準用すべきだと主張する学説とが対立していますが、これは法解釈論に偏重した学説だと思えます。613)

私は、航空機事故に起因する損害は、陸上又は海上事故の損害一と異なる特殊性がありますから国内立法化すべきだと思えます。614) その方法として次の三つが考えられます。第一の方法は、現在の韓国商法典の中に「第六編航空運送編」という新しい編を設けて航空運送契約を中心とする法律関係と航空運送人の損害賠償責任関係の規定をおく方法であります。第二の方法は、即存航空法を改正してその法の中に航空運送人の民事責任に関する規定を挿入する方法、第三の方法は、新しく航空運送契約関係と運送人の賠償責任関係を規定する「航空運送契約」を単行法の形態で制定して施行する方法であります。615)

韓国では現在、法務部(省)の商法改正審議委員会で商法中第四編保険法、第五編海商法の改正作業を一九八六年度から本格的にはじめており、一九八九年の五月二十日に終り、商法改正(保険・海商編)試案ができました。筆者は、商法改正責任原則と賠償限度額に関して、国際航空運送においては批准した国際条約と国際航空運送約款がありますから、当事者間の紛争の要因をある程度解決できますが、国内航空運送の場合には、航空運送人の民事責任に関しては何の規定もありませんので、国内航空運送約款と民法によって裁判をしなければならないという問題が起こります。

商法の中に陸上・海上運送人の責任関係を詳しく規定しているのは、陸運・海運関係

613) 徐燦珪、『第二全訂商法講議(上)』、法文社、一九八〇年、二〇二頁、孫珠瓚、『第三訂商法(上)』、博英社、二七八～二七九頁、徐廷甲、『商法(上)』日新社、一九〇年、一五一頁、参照。

614) 拙稿、前掲法学博士単位論文、一〇一～一〇二頁、鄭熙喆、『商法学原論(上)』、博英社、一九八一年、二〇二頁、孫珠瓚、『商事法の諸問題』、博英社、一九八三年、五四五頁、参照。

615) 拙稿、前掲法学博士學位論文、一六九～一九四頁。

の国際条約に基づいたドイツ・フランス商法等の影響を受けて作った歴史的遺物だと思いが、616) 新しく発展している航空運送においても、617) 航空運送人の責任原則(過失責任主義を採用するか、618) 又は無過失責任主義を採用するか)及び賠償額(有限責任主義を採用するか、又は無限責任主義を採用するか)をはっきり決め、航空関係国際条約と先進各国の立法例を参考にして韓国の経済・航運実情に適合する国内立法が必要だと思いが。

もしこのような立法措置がとられた後には、①国内航空運送約款中の一部条項の無効問題もある程度解決できますし、②加害者(航空会社)と被害者の間の責任原則と賠償額が法律で決められておればこの法律に従って裁判の前に紛争が当事者間で調整・和解・解決基準などについて話し合うことができると思いが。③航空機事故に起因する損害の特殊性を考慮した法律が作られれば、裁判官が航空機事件を裁判する時に「裁判の基準」とする事ができますし、④裁判の能率性・迅速性をはかる事ができると思いが。以上が国内立法を提案した理由であります。

筆者は、一九八四年度に航空関係国際の条約と世界各国の立法例を参考して、韓国の航運実情に適合する「航空運送法要綱私案」を作成して発表したことがあります。この要綱私案は、将来、韓国でこの法律を制定する時に立法資料に活用したいと思って作成したものです。619) この航空運送法要綱私案の主な内容は、①立法目的、②適用範囲、③「航空機」、「手荷物」、「貨物」、「運送」、「航空運送事業」、「運送人」、「計算単位(SDR)」の概念定立、④航空運送証券、⑤航空運送人の責任、⑥延着、⑦過失相計、⑧航空運送人の責任限度額、⑨訴の名義、⑩相次運送、⑪運送人の使用者(履行補助者)に対する責任、⑫手荷物及び荷物の一部滅失等の通知義務、⑬運送人の責任の消滅

616) 一九八九年八月十日付、『法律新聞』、一〇頁。

617) 一九八九年七月二十六日、韓国政府の法務部主催でソウルに位置している大韓商工会議所の大会議室において開催された商法(保険・海商)改正公聴会で提示された保険及び海運業界(保険監督院、保険会社、韓国船主協会、韓国荷主協会、海運会社、海運産業研究院等)、法学界(商法教授等)、法曹界(弁護士等)の意見を受容した後、再び作成した保険法及び海商法改正試案を法務部の商法(保険・海商編)改正審議委員会で数回討議した後、一九八九年九月三十日法務部の商法(保険・海商)改正試案として確定しました。

618) 一九八九年十月六日、政府と民政党(執権与党)間の党政協議会で、商法(保険・海商)及び附随法律制定・改正案が通過しましたが、政府提案理由の参考事項の中に将来政府が航空運送契約法(一九八九年五月二十日法務部の商法(保険・海商)改正審議委員会で航空運送契約法の立法を私が提案したことがあります)を制定する予定だと記録しているとは注目に値すると思いが。

619) 拙稿、前掲法学博士学位論文、一七三～一九四頁、参照。

時期 ⑭ 免責特約の禁止、⑮ 第三者に対する請求権(求償権)、⑯ 賠償補充制度(国内補助措置)、⑰ 弁護士費用の裁定制度、和解促進制度、裁判管轄権等に関する事項などです。

七. おわりに

国際航空運送人の責任に関する一九二九年ワルソー条約と一九五五年のヘーグ議定書は、過失責任主義を採用していますが、一九六六年のモントリオール協定、一九七一年のグアテマラ議定書、一九七五年のモントリオール第三追加議定書・第四議定書、一九七八年の改正ローマ条約は、無過失責任主義、又は絶対責任主義を採っております。この条約等は、航空機事故による人的・物的損害に対して無限責任主義でなく、有限責任主義(各条約別に賠償責任限度額が相異なるけれど、最近の条約は被害者保護のために上向調整する傾向があります)を採用しております。

現在のワルソー体制がワルソー条約を中心に一つの補足条約、及び六つの議定書からなるという複雑な体系となっておりますから、これらの条約などを統合し、簡素な新条約を作るのが望ましいと思います。航空私法の世界統一性を考えてみた時に、前に言及した条約議定書などの統合作業は、ドイツのチーテルマン教授、日本の田中耕太郎先生が主張した「世界統一法の形成」を促進する一つの分野又は方法だと考えております。⁶²⁰⁾

一九八二年、第六十二回国際法協会モントリオール大会の航空法分科委員会で、英国のBin Cheng 教授が提案した国際航空責任の統合制度に関する条約草案(基本原則・①絶対責任、②無限責任、③保護責任、④責任集中)は、ICAOの法律委員会において統合作業を推進する時のひとつの基準と資料として活用することができます。

ICAO法律委員会で推進しているこの統合条約案が将来まとまり、世界各国(韓国を含む)の国内航空運送法にこの条約の立法精神(趣旨)が受容されれば、各国の航空運送人の責任原則及び賠償限度額の差異がある程度解消できますし、統一する機会を与えられます。これもひとつの世界法形成の近道だと考えることができますし、加害者と被害者の間に起こ

620) 田中耕太郎『世界法の理論』、第一巻、岩波書店、一九七三年、一～四〇頁；野上鉄夫『空商法』、嵯峨野三書院、一九八四年 三二八～三四九頁、参照。

る紛争の公正な解決の為必ず必要な事だと思います

(拙稿、『韓国における航空運送人の責任に関する法規制現象と比較法的考察』、補完した、空法(第31号、1990年5月) 学会誌に掲載、日本空法学会発行、77-100頁)

第二節 航空交通管制機関の損害賠償責任に関する 法的考察

一. 序論

航空交通管制の主要な目的は 航空管制圏内における航空機の運航の安全、運行秩序の維持、迅速な移動を増進させることにある。従って航空交通管制官 (Air Traffic Controller: 以下「ATC」と略称する。)は、航空機の運行の秩序維持、迅速な移動、運航の安全を確保させるために責を負っている⁶²¹⁾ 二一世紀においては、人工衛星からの無線通信を利用して、航空交通管制官と操縦士とのあいだで交信を行いながら飛行をする、革新的な航行システム(Future Air Navigation System: FANS)が新規に開発されると予想され、その完成時には航空交通管制機関 (Air Traffic Control Agencies (以下「ATC」と略称する。))は、さらに重要な役割をはたすものと推測される。

近時 世界のいたる所で、航空交通管制機関の故意または過失に起因する航空機事故が時々発生している。けれども、かかる事故による人的または物的損害 (人命の死傷、または貨物の損壊、延着等)が発生した場合の損害賠償責任に関する制限および損害賠償額を規定した特別法は、各国においていまだ存在しないのが現状である。そこにはATCAの民事責任に関する国際条約も成立しておらず、加害者 (航空交通管制機関等)と被害者 (乗客、荷主、操縦士)この間に損害賠償責任額の問題をめぐって、はげしい紛争が生じている。

特に、世界各国のあいだで、国籍が異なる航空交通管制機関(ATCA)の故意または過失に起因する航空機事故が発生した場合、各国において損害賠償に関する責任制度、責任制限、担保責任、求償権の行使、責任主体、履行補助者の責任、裁判管轄権、除斥期間等を律する国際条約が存在せず、各国は、国際性を持っている航空交通管制事件につき、自国の民事法または関連法規によって、当該事件を解決しているのが状態である。各国の法律制度の内容は異なり、この国際性を有する事件を解決するためには、困難な問

608) Shawcross and Beaumont, *Air Law*, Butterworths, (1997), at 273.

題が存在していることから、これまで長年にわたり、各国の航空法学者および国際航空機関は、世界的に統一された国際条約草案を作成しようと、努力を重ねてきたのである。

一九六〇年以来国際民間航空機関 (International Civil Aviation Organization: 以下「ICAO」と略称する。)の法律委員会は、航空交通管制機関の民事責任に関する条約草案を審議するため、小委員会を設立し、検討を重ねて来たが、その後三五年間もの討議を行ったものの、いまだに国家間で合意された単一の国際条約草案すら作成されていないのが状況である。

したがってそこには国家間において、数多くの ATCAの損害賠償責任請求事件に関する紛争(disputes)の発生する可能性があり、このような紛争要因をある程度減少させ、またこれらの紛争を迅速に解決するため、紛争当事国間に衡平の原則に基づいて、加害者と被害者間で権益の調整をするような統一的な国際条約の作成が必要であると考えられる。

航空交通管制機関の故意または過失に起因して発生した航空機事故の被害者に関する民事責任は、一般的に民事法の契約責任に関する規定によって処理するよりも、各国の国家賠償法または民事法の不法行為責任の規定をもって処理ないし訴えることが多いようである⁶²²⁾。かかる理由で、各国の航空法学者は大陸法系と英米法系を問わず、ATCAの民事責任を契約責任 (contractual liability)の法理によるべきではなく、不法行為責任 (delictual liability)の法理によるべきだと主張しており、筆者もこの見解に賛同すべきものと考えている。

シカゴ条約の第二付属書の航空規則(Rule of Air Law)によると、「機長は空港の管制塔内にある航空交通管制の指示に従わなければならない」と規定されている。シカゴ条約の締約当事国は、空中または地上において航空機の衝突防止と飛行情報および警報提供、航空機の移動に従う秩序維持を確保するために、適切な航空交通管制業務を提供しなければならないと規定している。特に、航空交通管制機関の義務は、航空機の運航安全のために、通常、注意義務を全して業務を処理しなければならない。

このような注意義務は、航空交通管制業務の関係規定ばかりでなく、航空交通管制官と操縦士 (pilot)とのあいだの関係にも存在している。航空交通管制官の注意義務の不履行または違反は過失(negligence)に該当し、ATCAの過失に因って被害を被った被害者は、損

622) Edgar Ruhwedel, *Flugsicherheit, Luftverkehrs-kontrolle und Haftung*, Zeitschrift für Luft- und Weltraumrecht, Köln (1973), S. 265-266.

害賠償責任訴訟を提起することができる。なぜなら各国の政府または国営空港公団所屬下にある特定航空交通管制機関が、航空交通管制業務を処理する過程の過失に起因する航空機事故が発生した場合、ATCAは民事責任を負担することになるので、雇用主としての政府機関または公共機関は、国家賠償責任またはその使用者としての損害賠償責任を負担しなければならないからである。

航空機の機長と操縦士は、航空機の安全運航に関して、第一次的責任を負っている。操縦士と機長は、飛行の安全運行に関する決定を、航空交通管制機関から提供された飛行情報(flight information)や、その他の自己が利用できる情報に基づいて行っている。各国の空港管制塔内で業務を行う航空交通管制官は、最新の先端的な電子装置を利用しており、飛行情報提供に過失(錯誤等)があった場合には、操縦士よりも、さらに重い損害賠償責任を負担することになる。

他方、航空交通管制官等は航空管制圏内において、あらゆる航空機の迅速な移動を肉眼で識別する時があるとはいえ、大部分のATCは、レーダースクリーン(radar screen)に依存している。このような航空交通管制業務は、航空交通管制官が被雇用人として自己の職務遂行に係る行為に対して、国家または公共機関の代理人として責任を負担するが、航空交通管制機関としての行為とATC個人として行った過失行為(重大な過失または軽い過失行為)とこのあいだには、これを明確に区別するのが困難な時も存在する。以下においては、航空交通管制機関の民事責任問題および国際条約草案の起草に関する国際民間航空機関(ICAO)の法律委員会と国際法協会(ILA)の航空法委員会におけるこれまでの討議内容を要約して紹介を試みるものとする。

二. 国際民間航空機関(ICAO)の法律委員会および国際法協会の航空法委員会における討議内容

国際的な面から見た場合、航空交通管制機関の民事責任に関する法律問題と国際条約草案の起草問題は、既に一九六〇年から一九九四年まで、国際民間航空機関(ICAO)の法律委員会と一九八六年の第六二回国際法協会(ILA)のソウル大会の航空法委員会(韓国)、一九八八年の第六三回 ILAワルソー大会の航空法委員会(Poland)、

一九九二年の第六五回 ILAカイロ大会の航空法委員会 (Egypt)において討議案件として採択され、長期にわたって頻繁に討議されてきている。⁶²³⁾

特に注目すべきことはICAOのアルゼンチン代表が航空交通管制機関の責任に関する国際条約予備草案をICAO事務局を提出したことに求められるものの⁶²⁴⁾、この条約予備草案は、まだICAOの法律委員会で保留されたままで結論をうるに至っていない。第二六回ICAO会議が一九八七年四月二八日から五月一三日まで、カナダのモントリオールで開催されている。この第二六回ICAOの法律委員会では、航空交通管制機関の責任に関する国際機関および各国の意見書、報告者の報告書を内容とするICAO事務局の研究報告書を中心として、将来の討議進行手続に関して相当の議論が行われている。

一九九〇年モントリオールで開催した第二七回 ICAOの法律委員会では、次に掲げる二つの事項について、ICAO理事会の承認を受けて、一般作業プログラム (General Work Programme)の内容とし、討議に付すことが決定されている。⁶²⁵⁾ すなわち、① 航空交通管制機関の責任と② ワルソー制度(Warsaw System)に関する統合条約草案の立案等の研究がそれである。

一九九二年四月からエジプトのカイロで開かれた第六五回国際法律協会(ILA)の航空法委員会では、航空交通管制機関の責任に関する国際条約予備草案を審議することが決定され、本格的に同条約予備草案に関して討議がなされている。

一九九四年二月二五日にモントリオールで開催されたICAO理事会第一四一回会期中の第八回会合では、ICAOの法律委員会の一般作業プログラムである第四項目の「航空交通業務提供者のみならず潜在的責任のある管制当事者に適用する責任規則」と第五項目の「航空交通管制機関の責任」を、合体して一般作業プログラムとして統合・審議することを決定している⁶²⁶⁾。

623) Doo Hwan Kim, *Liability of Governmental Bodies in International Civil Aviation*, Chia - Jui Cheng and Pablo Mendes de Leon, *The Highway of Air and outer Space over Asia*, Martinus Nijhoff Publishers, The Netherlands, (1982), at 180-181; 関口雅夫、「航空交通管制機関の民事責任に関する条約の立法化の問題点」、空法、第27号、(一九八六年)、七三頁。

624) ICAO Legal Committee, "29th Session", (Montreal, 4-15 July 1994), LC/29-WP/7, 8/3/94 at 2-47.

625) Michael Milde, *27th Session of the Legal Committee*, Air Law (Vol.15, No.3, 1990) at 162-164.

626) U.N. Doc. Working Paper LC/29-WP/7, 8/3/94, at. 1.

一九九四年七月四日から一五日までモントリオールで開催した第二九回ICAOの法律委員会では ICAO理事会の決議によって定められた「航空交通管制機関の責任に関する条約草案」の作成に関して、一般作業プログラム(General Work Programme)として継続・討議することを再び決定している。

シカゴ条約によれば、この条約に加入した国家等は航空関係法規の世界的な統一のため、相互に協力をしなければならないということを、この条約の基本精神としている。今日、航空交通管制機関の責任に関する条約予備草案を正式に起草するにあたり、その起草内容基準として次の様な項目を挿入するのが望ましいと思料される。

- (1) 航空交通管制機関の定義および適用範囲
- (2) 責任主体
- (3) 責任原則(過失責任主義かまたは無過失責任主義の選択)
- (4) 責任価額(有限責任原則かまたは無限責任原則の選択)
- (5) 求償権の行使
- (6) 裁判管轄権
- (7) 立証関係
- (8) 除斥期間
- (9) 附則

ICAOの法律委員会とILAの航空法委員会は、各国の国内立法が制定される過程の立法機関に批准されるように国際条約を起草・制定する国際的に権威のある機構である。ICAOの法律委員会は、あらゆる国家と公共機関に適用される航空交通管制に関する規則を統一するために、航空交通管制機関の責任に関する国際条約予備草案を可及的速かに作成する必要があると思料される。

三. 航空交通管制機関の責任制度を統一すべき理由

国際航空運送を行う航空機のあるものは、航空交通管制官の誘導指示にしたがって締約当事国の領空を飛行中、地上で勤務している航空交通管制官と連絡がとれずに、第三国

の領空を飛行し、結果的に重大な航空機事故を発生させ、深刻な法律問題を提起したことがある。例えば一九八三年九月一日に発生した大韓航空の〇〇七機の墜落事件がそれである。また、自国の航空交通管制官の誘導の過失によって自国の領空で他国の航空機が墜落する場合もあれば、他国の航空交通管制官の過失によって他国の領空で自国の航空機が墜落する場合もある。

ここでは、損害賠償責任に関する国内法の法律制度が、英米法系と大陸法系間に、差異が存在し、国際航空交通管制事件に関する法的解決基準と規則も世界的に統一されていないことから国内法だけでは解決できないという難点が存在する。国際航空交通管制事件が生じた場合、いかなる国の法理を適用すべきかについて、事件当事国の間で法の抵触問題が発生し、この問題を解決するためには裁判管轄権と準拠法が定められなければならないことが指摘される。

航空交通管制機関の故意または過失に起因する航空機事故によって蒙った損害に関して、被害者が、損害賠償請求訴訟を提起し得る国際的に統一された裁判基準の設定が切実に必要だと思われる。このような統一的裁判基準が定められたときには、航空交通管制事件の性質が国内性と国際性の両面性があることから、加害者(ATCA)と被害者間に生じている事件に関して、その責任限度および賠償価額、裁判管轄権、準拠法等の問題が明確に解決できることになる。結果として、当事国間の紛争解決と裁判が迅速に処理できると考えられる。

航空交通管制機関の責任に関する条約草案が起草・制定される際には、必ず過失がある被告(加害者)に対して原告(被害者)が損害賠償請求権を行使できるような仕組が、明らかに含まれたものを、作成しなければならないと考えられる。

ともかく航空交通管制機関の民事責任に関する国際条約草案を、立案する時には多数の国家間に相異なっている法律制度を、ある程度調和させて統一した規則を作成することが必要であると考えられる。

四. 航空交通管制機関の損害賠償責任に関する立法例

以下において、航空交通管制機関の損害賠償責任に関する各国の立法例を、要約して

紹介することを試みてみる

フランスでは航空交通管制官の身分は国家公務員であり、ATCAの過失のある行為の中で重大な過失 (*faute lourde*)があった場合、国家が責任を負担するのが原則である。一九八〇年、フランスのナント (Nantes)にある行政裁判所に提起された航空機事故 (衝突等)によって引き起こされた訴訟事件においては、八五%が航空交通管制機関の重大な過失 (*fates graves*)に起因するものであるとして、国家が責任を負担すべきであるとされ、残りの一五%が操縦士の過失に起因するとして、航空会社が責任を負担すべきであると判旨されている。⁶²⁷⁾

アメリカでは航空交通管制機関の責任問題は、連邦不法行為請求法 (*Federal Torts Claims Act*)を適用して処理されている。航空交通管制機関の責任は、連邦不法行為請求法によってATCAが国家機関であるときには、アメリカ政府が責任を負担しなければならない。この場合、ATCAの過失 (*negligence*)を立証しなければならず、このような過失は苦痛を蒙っている損害に対して *Proximate Cause* (近因)がなくてはならないことが条件付けられている。

英国では航空交通管制機関の責任問題については一九八一年の航空交通規則 (*The Air Navigation Order*)によって処理されている⁶²⁸⁾。英国の民間航空庁 (*The Civil Aviation Authority*)は、航空機の運航秩序維持と迅速な移動を担当している航空交通管制業務に対して責任を負担している。民間航空庁の航空交通管制局長は交通省大臣と国防省大臣が協議した後、任命されている。航空交通管制局の設立目的のなかの一つには、常時、運航業務を監督することもあげられている。

ドイツでは憲法第三四条 (*Haftung beim Amtspflichtverletzung* (公務不履行の責任)と民法第八三九条 (公務義務違反の責任)⁶²⁹⁾によって航空交通管制機関の責任問題についての法的処理が可能だと見て、別途の特別立法が考慮されていない。航空交通管制機関の責任は過失責任主義に基づき、立証責任は請求者側にある。

日本では民間航空交通管制業務の統括は国土交通省により担当されている (航空法第九六条)。航空法によって国土交通省大臣は、国土交通省令に定めるところにより、地方航空

627) Tribunal Administratif de Nantes: 1982, RFDA, at 265 et seq.

628) B.G. Gervss, *Aviation Law*, London (1983), at 618.

629) Bürgerliches Gesetzbuch (BGB): §839 [Haftung Bei Amtspflichtverletzung] (1) Verletztein Beamter vorsätzlich oder fahrlässig die ihm einem Dritten gegenüber obliegende Amtspflicht, so hat er dem Dritten den daraus entstehenden Schäden zu ersetzen.

局長または航空交通管制部長にこれを行わせることができる。また地方航空局長または航空交通管制部長は国土交通省令に定めるところにより、その権限に関する事項の一部を地方航空局の空港事務所その他の地方機関の長に行なわせることができると、定めている（航空法第一三七条）。また航空法に従って、国土交通大臣の権限に属する事項中、気象状態による計器飛行、計器方式による飛行、航空交通管制圏内における飛行、航空交通の指示等を国土交通大臣が防衛庁長官に委任することができる。日本も航空交通管制官の身分は国家公務員であり、ATCAの故意または過失ある行為によって航空機事故に遭った被害者に関しては、政府または公共機関が雇用主として憲法第一七条、および国家賠償法第一条の規定によって、損害賠償責任を負担するものとされている。

韓国では航空法第七五条（航空交通の指示）によって、航空機は管制圏または管制区域で、国土海洋部長官（前交通部長官）が指示する離陸・着陸の順序または時期と飛行方法にしたがって、飛行をしなければならないと規定されている。また、航空法第七三条により国土海洋部長官は航空機の乗務員に関して、航空機の運航に必要な情報を提供しなければならないと、定められている。韓国に於ける航空交通管制官の身分は国家公務員であり、ATCAの故意または過失の行為によって航空機事故を受けた被害者に対して、政府または公共機関が雇用主として、憲法第二九条と国家賠償法第二条の規定にしたがって、損害賠償責任を負担することになる。

航空機事故による犠牲者は、過失のある航空交通管制官を相手に、損害賠償を請求することができる。しかし、被雇用者としての航空交通管制官の法的地位は、高度に先端化された航空電子通信設備を利用している技術公務員であり、事件・当事者間には公正に、また衡平の原則に立脚して、事件処理をしなければならず、他方、ATCAの権益も保護しなければならないと考えられる。

五. 航空交通管制機関の損害賠償責任

被雇用者（代理人）である航空交通管制官の故意または過失によって航空機事故が生じた場合、人的または物的損害を受けた被害者に対して、加害者であるATCAは損害賠償責任を有する。多くの国家等は航空交通管制機関の責任に関して、過失責任主義を採用して

おり原告側に立証責任を課している。公務員である航空交通管制官の過失行為によって発生した損害に関して、使用主としての国家は、そのATCAの過失行為に対して損害賠償責任を負担することになる。航空交通管制官は、不可抗力および被害者側の過失に起因して発生した損害に対しては、その責任が減免される。

航空交通管制事件において原告(被害者)側に、過失または不可抗力があった場合、英米法では、寄与過失(contributory negligence)、不可抗力(force majeure)等の理由で、被告(加害者)側の責任を減免することができ、大陸法でも不可抗力、過失相殺等の事由によってその責任を減免することができる。

英米法体系下においては、使用主としての政府機関は被雇用者である公務員の過失(negligence)、侵害(trespass)と不法妨害(nuisance)等に起因して第三者が蒙った損害に対して、責任を負担する。使用主としての政府機関は、被雇用者である公務員が授權範囲内で行った行為に対して代位責任(使用主責任: vicarious liability)を負担する。

また、各国は航空交通管制機関の責任制度においては、最近の傾向である無過失責任主義の原則を採用するよりも、むしろ過失責任主義の原則を採用している。⁶³⁰⁾航空交通管制機関は、公的、または私的地位に関係なく、共に航空交通の安定と効率性の維持および促進をその任務としている。

航空交通管制機関の責任に対する国際条約草案を、起草・制定することに関しては各国の法制度が相違しており、過失責任主義を採用するか、または無過失責任主義を採用するかに対して、各国のあいだで、いまだ意見の一致はみられていない。

現在、世界の航空産業は、極めて発展しており、航空機運航技術も高度に発達している。しかしながら、国際民間航空運送人の損害責任原則を規定した国際条約は、一九二九年のワルソー条約および一九五五年のヘーグ議定書に規定している過失責任主義の原則を採用していたものの、一九七一年のグアテマラ議定書、および一九七五年のモントリオール第三追加議定書および第四議定書、一九七八年の改正ローマ条約等からは、被害者保護のために、重い責任である無過失責任主義の原則が採用されている⁶³¹⁾。

このような状況の変化は、原則的に航空交通管制機関の責任制度の変更に直接、間接

630) 関口雅夫、前掲論文、六七頁。

631) Doo Hwan Kim, *Some Considerations of the Draft for the Convention on a Integrated System of International Liability*, Vol.53, No.2, *Journal of Air and Commerce* (1988), SMU, at 765-796.

の影響を与えている。したがって、航空交通管制機関の民事責任に関する国際条約草案を正式に立案する場合には、① 航空交通管制業務の公共性、② 責任限度の基準設定、③ 加害者・被害者間の権益調整、④ 航空責任限度の基準設定空交通管制事件の迅速な解決、⑤ 被害者の保護、⑥ 被害者の立証の困難性等を考慮する観点から、無過失責任主義の原則を導入するのが、望ましいものと考えられる。

他方、ひとつの重要な問題がある。すなわち航空交通管制機関の民事責任に関する国際条約草案を立案するときは、ATCAの被害者に対する損害賠償額を、有限責任主義の原則にしたがって賠償するか、または無限責任主義の原則にしたがって賠償をするか、両原則の中のいずれかひとつの原則を採用しなければならないと思われる。

国際民間航空運送人および運航者の損害賠償責任関係を規定した一九二九年のワルソー条約、一九三三年のローマ条約、一九五五年のヘーグ議定書、一九六六年のモントリオール協定、一九七一年のグアテマラ議定書、一九七五年のモントリオール第三追加議定書および第四議定書、一九七八年ローマ改正議定書等の国際条約では、人的損害(乗客の死傷等)、および物的損害(手荷物と貨物の破壊、滅失、損壊、延着等)に対して、すべて有限責任主義の原則が採用されている。⁶³²⁾

現在、韓国の大韓航空とアジアナ航空の運送約款にあっても、モントリオール第三追加議定書の内容と同じく、人的損害(旅客の死傷等)に対して旅客一人につき100,000特別引出権(SDR)を上限とする有限責任主義の原則が導入されている。

日本の航空会社は、一九七五年のモントリオール第三追加議定書上に規定している人的損害(旅客の死傷)に対して、旅客一人につき100,000特別引出権(SDR)を航空会社の運送約款に採用していたが、一九九二年一月二〇日からはこの有限責任制度を全面的に廃止して、無限責任の原則を日本の航空会社の運送約款に採用している。⁶³³⁾

国際民間航空運送人の損害賠償責任限度額を引き上げるためには、前記国際条約を改正しなければならないので、その改正を目的として、過去四〇有余年の間に、数十回、開

632) Doo Hwan Kim, *Liability of Governmental Bodies in International Civil Aviation*, co-edited by Chia-Jui Cheng and Pablo Mendes de Leon, "The Highways of Air and Outer Space Over Asia," Martinus Nijhoff Publishers, (1992), at 186-187

633) Teruo Sakamoto, "The 1992 Initiative of Japanese Airlines" on passenger Liability System, 眩谷金斗換教授還暦記念論文集、法文社(1994), at 67; Masao Sekiguchi, "Why Japan was Compelled to Opt for Unlimited Liability", Vol. X X - II Annals of Air and Space Law (1995), IASL, McGill University, at 337.

催された国際会議では、人的損害に対する旅客一人あたりの損害賠償額の引き上げの問題をめぐって、常に先進国(developed country)と開発途上国(developing country)とのあいだで、利害関係の対立による、はげしい論争が行われてきている。しかし、一九二九年のワルソー条約上の旅客一人あたりの損害賠償額が、8,300ドルから一九七五年のモントリオール第三追加議定書までの100,000特別引出権(SDR)に約一二～一五倍引き上げられたものの、先進国はなお不満を表わしているのが現状である。

アメリカでは、現在、国内航空運送については、日本が行う以前に、無限責任主義の原則を採用している。従って、航空交通管制機関の責任に関する国際条約草案を立案するときには、被害者の逸失利益と精神的苦痛に対する慰籍料等を考慮して、損害賠償額を定めなければならないものの、各国の国民所得と経済事情が異なっているので、人的損害賠償責任額を有限責任主義の原則によって定めるか、あるいは無限責任主義の原則によって定めるかを、条約草案では決定せず留保条項(reservation clause)としたまま、各国の社会・経済・法的事実情に適合するように各国の国内法にまかせるのが妥当であると考えられる。このように規定することにより、長期にわたり遅延している条約草案を迅速に制定することができるものと考えられる。

六. おわりに

世界各国は、航空交通管制業務の重要性を認識し、航空機事故を未然に防止するため、航空交通管制業務に対して直接・間接に規制を加えている。

地域的にはヨーロッパ国家間には航空機の運航の安全の協力のために締結されたユーロコントロール(Eurocontrol)協定があり⁶³⁴、中・南米では、COCESNA(Cooperation Centroamericana de Servicios de Navegacion Aérea)協定が締結されている。アフリカでも、ASECNA(l'Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar)協定があり、航空交通管制業務に関して地域的にブロック圏を形成して国家間に相互協力を行っている。しかし、航空交通管制機関の民事責任に関

634) Doo Hwan Kim, *Some Consideration on the Liability of Air Traffic Control Agencies*, *Air Law*, Vol.VIII, No.6 December, 1988, Kluwer, The Netherlands, at 268-272

する国際条約がないことにより、国際的性質を持っている航空交通管制事件に対して、航空交通管制機関の責任制限、または損害賠償額、求償権問題、裁判管轄権問題等めぐって加害者と被害者のあいだで紛争がつづいており、これを解決するためには、国際的解決基準または裁判基準を定めて統一された国際条約草案の作成が必要であると考えられる。

航空交通管制機関の民事責任に関する国際条約草案を立案する際には、必ず①条約の適用範囲、②責任主体、③航空交通管制機関の責任原則、④損害賠償責任額、⑤立証責任、⑥求償権の行使、⑦裁判管轄権、⑧除斥期間等を定めた条約草案を作成しなければならないと考えられる。

国際民間航空機関(ICAO)の法律委員会、または国際法協会(ILA)の航空法委員会が作成した条約草案を国際会議で相当の討議の後、完成した条約草案を国家間で合意をし、正式な統一的国際条約が成立したあかつきには、各国間の空港当局と航空会社のあいだに、または航空交通管制機関と被害者とのあいだに生じる損害賠償の責任制限および責任価額等を明確に定めることができ、当事者間の摩擦要因も減少し、紛争解決と裁判も迅速におこなうことができると思われる。

航空機事故の特殊性である、①事故の全損性(all or nothing)、②地上従属性(ATCAと飛行中の操縦士との交信)、③事故の瞬間性(Augenblick)、④事故の巨額性、⑤事故の国際性等を考慮したとき、航空交通管制機関の民事責任に関する統一された条約等が制定された場合には、紛争事件の解決と国際訴訟の簡便性および迅速性を図ることができると考えられる。このような新しい航空交通管制機関の民事責任に関する国際条約の制定を広い意味で見たとき、これらは世界統一法運動の一環の役割も果たすものと思われる。

(拙稿、『航空交通管制機関の損害賠償責任に関する法的考察』、補完した、空法、[第31号、1996年5月]、日本空法学会発行、133-149頁)

第三節 韓国における航空運送人の民事責任に関する 国内立法の諸問題～各国の立法例を中心として～

一. はじめに

韓国においては 持続的な経済発展と国民所得の増加及び国際交流等の拡大によって、航空輸送量が毎年大きく増加してきた。韓国は現在、世界第7位の航空輸送国であり、⁶³⁵⁾ また国際民間航空機関 (International Civil Aviation Organization: ICAO) の理事国であるので、ICAO加盟国190力国の中で第7位のICAO寄与金の負担国家としての役割を果たしている。韓国は1952年にICAOに加入したが、2001年に初めて3年任期の理事国に選出され、2007年9月25日、カナダのモントリオールで開かれた第36回ICAOの総会で3回目の理事国⁶³⁶⁾に選出された。

1970年度においての韓国の航空輸送実績は、国内線の旅客917,000人、国際線旅客の398,000人、国内線貨物5,000トン、国際線貨物26,000トンにすぎなかったが2003年には、国際線航空旅客21,459,000人を輸送しており、世界第11位の航空旅客輸送国になった。1970年から1973年まで14年間の国際線旅客の年平均成長率は6.4%であり、国際線航空貨物は209,200トンを送り、世界第3位の航空貨物輸送国になり、年平均成長率は8.4%である。⁶³⁷⁾

2003年12月末現在、韓国の大韓航空とアジアナ航空の両航空会社の国内線の航空旅客輸送実績は、21,380,000人を輸送し、国内線航空貨物輸送実績は、423,000トンであり、1970年度から33年が過ぎた2003年の航空輸送実績を1970年度の輸送実績を基準として

635) 韓国航空振興協会が2004年9月30日発表した、2003年度の世界航空輸送動向の資料によれば、ICAO(国際民間航空機関)188力国の中で韓国の航空輸送実績は、総トンキロ(旅客トンキロ+貨物トンキロ)基準で7位を記録し、2001年と2002年の8位から一段階が上昇した。この順位は、2003年度の国内線と国際線の旅客及び貨物需要を合算した航空輸送実績を基礎として出したものである。

636) ICAOの理事国はアメリカ、日本等を含めた総36カ国によって構成され、ICAOの188力国に適用する航空運送関連の国際条約、各種類の基準及び勧告事項等を制定・改正するICAOの実務的な意思決定機関である。

637) 韓国航空振興協会、『航空年鑑2004』、2004年7月30日発行、230-237頁。

比較してみたとき 国内線旅客は23倍、国際線旅客は54倍、国内線貨物は91倍、国際線貨物は86倍であり急激に増加している。

韓国では、2004年10月末現在、世界の82力国と航空協定を締結しており、国際航空運送においては、両航空会社が32力国にある92都市に運航しているので、136国際航空路線と8の国際空港を利用し、毎週828便を運航している。また韓国の国内航空運送においては、両航空会社が、26の航空路線と8の国内空港を利用し、毎日828便を飛んでいる。⁶³⁸⁾

このように韓国は毎年、航空需要が急激に増加し、国際又は国内空港で航空機の離・着陸が増加しているので、国際又は国内航空路線の過密化現象が生じて航空機事故が発生する可能性が高くなっている。航空機事故は国民の生命、身体又は財産に損害を与える大惨事になるうえ、損害額も巨額に達するので、航空機事故が発生しないように、事前に徹底的な予防対策を講じなければならない。

万一、航空機事故が発生したときには、航空保険によって損害額は保険会社からある程度補償を受けられるが、被害者と航空運送人のあいだに賠償責任の制限及び賠償額をめぐって解決できない場合には紛争が長引くことになる。

韓国と日本の航空法にはこのような紛争を解決するために、航空運送人の民事責任に関する規定がないため、やむなく航空運送約款と民・商法の規定を適用又は準用して処理しており、航空機事故の特殊性を考慮した場合、様々な面で問題が発生している。

韓国と日本の商法は、陸上運送の法律関係について、商行為編に定めており、海上運送の法律関係についての規定は海商編に定めているが、航空運送の法律関係についての規定は商法の中に定めていないので、陸上又は海上運送についての規定を準用し処理しなければならないという意見(学説)もある。

しかし航空機事故は、陸上又は海上事故とは違う特殊な性質、すなわち航空機事故の特性である①全損性(all or nothing)、②瞬間性(Augenblick)、③損害の巨額性、④地上従属性、⑤国際性、⑥立証の技術性等を有しているので、前記陸上又は海上の規定を準用するには問題がある。

航空運送に関する国際条約及び議定書の内容と先進国の立法例等を参酌して、韓国又は日本の航運実情に適合する部分を受容し、航空運送人の民事責任規定をする方法としては、商法を改正して航空運送人の民事責任に関する規定を挿入するのがもっとも望ましいが、

638) 韓国航空振興協会、前掲書、78-79頁。

この改正が不可能な場合には、次善の方法として新しい航空運送法の立法が考えられる。

それにより、航空運送契約当事者間の法律関係を総合的に分析し、航空運送人の責任制限及び損害賠償額を明確に定めると共に航空機の墜落、又はそれによる落下物が地上の第三者に与えた損害を賠償する航空機運航者の不法行為責任等を規定するための立法をなすことによって、国内航空事件について、裁判基準を設定し、公正性と迅速性を図ることができ。これらの国内立法は、航空事故に起因し漸次増加している航空運送に関する紛争を迅速に解決するため、事件解決の基準と法的根拠を与えることができるのである。

航空運送業の分野は、最近、国際競争がもっともはげしい分野であるので、航空運送法を立法するときには、航空運送企業を保護・育成しなければならないし、さらに重要なことは、被害者の利益保護面にも重点を置いて、両者間の權益を衡平の原則に従って調整することが必要である。

まず航空運送人及び運航者の民事責任に関する各国の立法例（①イギリス、②アメリカ、③カナダ、④ヨーロッパ連合(EU)、⑤ドイツ、⑥フランス、⑦イタリア、⑧スペイン、⑨スイス、⑩オーストラリア、⑪日本、⑫中国、⑬台湾、⑭北朝鮮）等を要約し紹介したあと、筆者は韓国における航空運送人及び運航者の民事責任に関する立法論を紹介したいと思う。

二. 航空運送人の民事責任に関する各国の立法例

世界の多数国家は（五十余カ国）、航空運送人の損害賠償責任と賠償限度額に関する規定を、航空法又は他の特別法の中に定めて施行しており、ドイツ、フランス、カナダ、中国等、一部の国家では、航空法の中に公法的規定と航空運送人の民事責任に関する私法的規定を共に定めて混在したまま施行している。

しかし、日本と韓国では、航空法の中に主に公法的想定だけを中心として規定し、民事責任に関する私法的規定はほとんど定めていない。ドイツ、カナダ等の一部の国家では、航空運送人の民事責任に関する1929年のワルソー条約、1955年のヘーグ議定書、1961年のグァダハラ条約、1975年のモントリオール第1、第2、第3追加議定書及び第4議定書⁶³⁹⁾及び1999年のモントリオール条約⁶⁴⁰⁾、1952年及び1978年の改正ローマ条約等の主

639) Doo Hwan Kim, "The Innovation of the Warsaw System and the IATA Inter-carrier

な内容を航空法に受容して施行している

1. イギリス

イギリスにおいては、1919年から航空運送法 (Air Navigation Act)を制定し施行していたが、1949年に公・私法規定を統合した民間航空法 (Civil Aviation Act)に代替させ、その後、この民間航空法を補完するため、1968年、1971年、1978年、1980年、1982年、1988年、1989年、1990年、2000年、2001年、2003年、2004年6月1日にそれぞれ改正法を施行させている。⁶⁴¹⁾

一方イギリスは、1929年のワルソー条約の内容を受容し、国内立法により制定した航空運送法(The Carriage of Air Act)を、1955年のヘーグ議定書と1961年のグアダラハラ条約の発効にともなって再び改正した。1975年のモントリオール第2、第3追加議定書、第4議定書の内容を受容した、1979年の航空運送及び道路法(Carriage by Air and Road Act)がそれである。同法は、航空運送に関する法律であり、モントリオール第3追加議定書を部分的に受容して、航空旅客運送人の損害賠償責任限度額を旅客一人当り十萬SDR(Special Drawing Right: 特別引出権: 以下SDRとして略称)と規定していた。また1999年のモントリオール条約を1999年5月28日に署名し、2004年4月29日に批准したので、同条約は2004年6月28日からイギリス国内で発効した。⁶⁴²⁾

2004年の改正民間航空法第9編A国際航空運送では、国際航空運送人の民事責任と関係がある14カ条を規定している。その主な内容は、①法として効力がある条約、②グアダラハラ条約とモントリオール条約の適用、③致命的な事故、④訴訟提起期限、⑤寄与過失、⑥責任制限、⑦計算単位(SDR)の価値、⑧締約国当事者に対する訴訟関係、⑨モントリオール条約の当事国に対する訴訟等の規定がある。

改正民間航空法第9編B国内航空運送では、国内航空運送人の民事責任と関係があ

Agreement”, The Utilization of the World’s Air Space and Free Outer in the 21st Century (Book), Kluwer Law International, 2000, The Netherlands, at 66–67.

640) 1999年のモントリオール条約は、アメリカを始め30カ国以上が批准したので、2003年11月4日から全世界的に発効した。その後、この条約は加入国が継続増加し2008年9月3日現在86カ国が加入した。

641) http://www.caa.govt.nz/fulltext/msc/CAAact_1990.pdf

642) http://www.icao.org/cgi/goto_m.pl?icao/en/leb/treaty.html

る19カ条文を規定しており、その主な内容は、①実際運送人が履行する運送に関する規定、②相次運送人が履行する運送についての規定、③延着(delay)と関係がある運送人の責任、④責任の忌避、⑤寄与過失、⑥責任制限、⑦重大な過失又は無謀な行為、⑧運送人の使用人又は代理人、⑨損害及び責任の総体、⑩不法行為者、⑪運送人間の関係、⑫訴訟の制限、⑬複合運送等である。

2. アメリカ

アメリカ合衆国においては、ワルソー条約を1934年7月31日に批准し、1934年10月29日から発効した。その後、ヘーグ議定書を1956年6月28日に署名したあと、47年間の長いあいだ批准していなかったが、遂に2003年9月15日に批准したので、2003年12月14日から発効した。一方、モントリオール第三追加議定書を1971年3月8日に署名したけれども、議会は今までこれを批准していない。モントリオール第四議定書については、1975年9月25日に署名したあと、1998年12月4日に批准し、1999年3月4日に発効した。また、1999年のモントリオール条約を1999年5月28日に署名し、2003年9月5日に批准したので発効日は2003年11月4日である。⁶⁴³⁾

カリフォルニア州、デラウェア州⁶⁴⁴⁾、ミズーリ州等を始め23州⁶⁴⁵⁾によって採用されている1920年の航空統一州法 (Uniform State Law of Aeronautics)は、航空運送人の各旅客の死傷又は物件の損壊に対する絶対責任(absolute liability)、航空機衝突に起因する損害賠償責任(不法行為法適用)、地上損害に対する結果責任の原則等、航空運送人の民事責任に関する規定を定めている。

アメリカにおいては、大多数の州は、地上損害について法の規定をもっているが、各州の法が異なるので、これによって生ずる不便を救うために、航空統一州法が制定されたのである。この航空統一州法を採用していない各州についてはコモン・ローの原則が適用され過失責任によることになる。⁶⁴⁶⁾

アメリカの聯邦航空法(Federal Aviation Act of 1953)は、公・私法規定が混在して

643) http://www.icao.org/cgi/goto_m.pl?/icao/en/leb/treaty.htm

644) <http://www.delcode.state.de.ue/title2/c003>

645) Journal of Air Law and Commerce(USA),Vol.19, No.2 1952, at 166.

646) 池田文雄、「地上損害と事責任」、空法(第1号、1955)、日本航空法学会発行、68-69頁。

いるが、数次の改正を経て今に至っている。アメリカ国内の航空機事故に起因する損害賠償請求事件においては、聯邦不法行為請求法 (Federal Tort Claims Act) を適用するため、原告が故意又は過失を証明するのに時間が長くなり、犠牲者と遺族等の損害賠償が適切な時期に達成しないので、被害者等には大きな負担がかかっている。アメリカのレンド用役会社 (US Rand Corporation) の研究報告書によると、損害賠償請求訴訟事件において和解に到達するのに平均2年かかり、裁判が進行しているときには、平均4年以上を要するとされる。

アメリカにおいて、ワルソー体制下航空運送人の有限責任限度額を「破る(breakable)」ため、航空会社側の「認識がある無謀な過失(wilful misconduct)」を証明するには、平均7年以上かかると報告されている。さらに、前記研究報告書によるとワルソー条約によるアメリカ人の原告等は、1970年から1982年までに発生した航空機事故による損害賠償請求訴訟事件において、平均20万ドルを受領したが、国内の一般の不法行為責任訴訟においては、平均49万ドルを受け取っているとされる。⁶⁴⁷⁾

アメリカは、日本・韓国と同じく、国内航空運送人の責任は無限責任であるから、最近の報道によると、国内不法行為責任訴訟において、原告が平均80万ないし100万ドルの損害賠償額を受領しているとされる。

3. カナダ

カナダは、1929年のワルソー条約⁶⁴⁸⁾及び1955年のヘーグ議定書⁶⁴⁹⁾の加入国であり、また1971年のグアテマラ議定書に署名(1971年3月8日)したが、批准をしていない。1975年のモントリオール第4議定書は、1975年12月30日に署名し、その後1999年8月27日に批准したので発効日は1999年11月25日である。1999年のモントリオール条約については、2001年10月1日に署名し、その後2002年11月19日に加入したので発効日は2003年11月4日である。

647) Doo Hwan Kim, "Liability of Governmental Bodies in International Civil Aviation." *The Highways of Air and Outer Space over Asia*, Martinus Nijhoff Publishers, The Netherlands, 1992, at 189.

648) カナダは、ワルソー条約を1947年6月10日に批准した由で、発効日は1947年9月8日である。

649) カナダは、ヘーグ議定書を1956年8月16日に署名し、その後1964年4月18日に批准したので、1954年7月17日から発効した。

2004年のカナダ航空運送法 (Carriage by Air Act)⁶⁵⁰では 旅客、手荷物及び貨物の損害に関する国際航空運送人の責任要件及び賠償限度額について、第一附属書にはワルソー条約を、第二附属書には旅客が死亡した場合の運送人の責任に関する規定を、第三附属書にはヘーグ議定書を、第四附属書にはグアダハラ条約を、第五附属書にはモントリオール第4議定書を、第六附属書にはモントリオール条約をそれぞれ適用するように規定している。

前記カナダ航空法の六つの附属書に規定される、三つの条約と二つの議定書には、国際航空運送に適用され、これらの適用範囲において前記条約と議定書等は法律としての効力 (the force of law)を有しているが、国内航空運送には適用することができない。

4. ヨーロッパ聯合(EU)

1990年代、航空運送人の責任体系の改善に関する国際的な努力が足踏み状態にあったとき、ヨーロッパ連合 (EU)は、独自に改善努力を摸索していた。

その一環として、1994年、ヨーロッパ民間航空運送会議 (European Civil Air Carriage Conference; ECAC)の決議は、加盟国に既存の責任体系は維持する一方、人身事故に対しては、賠償責任限度額を25万SDR⁶⁵¹)に引き上げることを勧告した。⁶⁵²⁾

さらにEU会員国間の調和のとれた航空政策の樹立を目標とし、ヨーロッパ聯合執行委員会 (European Committee)は、1995年、航空運送人の賠償責任限度額を一挙に60万Ecu⁶⁵³)に引き上げる改正案を準備した。しかし1995年、国際航空運送協会 (IATA)が国際航空運送人間協定 (IATA Intercarrier Agreement)⁶⁵⁴)を締結し、10万SDRまでは厳格責任 (strict

650) R.S. 1985, c. C-25; Revised Statutes of Canada, 1985, Vol. II. Queens Printer For Canada, Chapter C-26.

651) 国際通貨基金(IMF)の通貨単位である。主要国の通貨単位である、アメリカのド、ヨーロッパ聯合のEuro貨、日本の円貨、イギリスのPound貨の運賃価値を加重平均し、SDR(Special Drawing Right: 特別引出権: 計算単位)の価値が定められる。概ね、1 SDRは、アメリカの1ドル(US Dollar)の価値を持っているけれども、世界経済の好況または不況により、その価値は、毎日変動している; 日本国際海上物品運送法第13条(責任の限度)、韓国商法第747条(責任の限度額)及び第789条ノ2(責任の限度)では、SDRを計算単位(unit of account)に表現し、通貨表示単位として導入した。

652) Empfehlung ECAC/16-1. BANz v. 3. 12. 1994. S. 12446.

653) 大体60万Euroに該当する。

654) IATA Intercarrier Agreement on Passenger Liability, adopted at the IATA Annual

liability)を採り、その上限額を超える第2段階では、無限かつ過失推定責任を採る二元的賠償責任制度を採用したので、ヨーロッパ聯合執行委員会も従来の立場を変更した。すなわち、EUも、国際航空運送人間協定の内容と大体同じく、航空運送人に無過失責任を負担させる「航空事故に対する航空運送人の責任に関する施行令(2027/97)」を制定した。同施行令は、原則的に乗客が被った損害に対して、法律または約定によって制限することができない運送人の無限責任を強行的に規定したが(第3条)、10万SDRまでは無過失責任を採用し、それ以上の損害に対しては過失推定責任を負担させる二元的な責任体系を採用した。

特に航空機事故が発生した後、2週間内に一定の損害賠償額を被害者に前払することを義務化させた。例えば、乗客の死亡の場合時、15,000SDRまで前払いされる。ドイツは、ヨーロッパ聯合の会員国であるので、同施行令の内容を、1999年、航空運送法の改正を通じて国内法に反映させた。⁶⁵⁵⁾

5. ドイツ

5.1. 航空運送法の改正経緯と航空関係条約の批准

ドイツにおいては、第一次世界大戦終結後の1922年8月1日、本格的に航空運送法(Luftverkehrsgesetz)を制定⁶⁵⁶⁾しており、大陸法系の航空法の中で最も良く整備できた法なので、比較航空運送法の領域で重要な位置を占めている。その後、この法律は、1933年、1936年、1938年、1943年に改正し、第2次世界大戦の終戦後の1959年に全面的に改正された他、新しい国際条約の締結と航空運航技術の発達等、時代変遷に対応するため、1968年、1970年、1971年、1980年、1982年⁶⁵⁷⁾、1990年、1999年、2002年、

Genera Meeting at Kuala Lumpur on 31 October 1995.

655) 同施行令の制定は、モンリオール条約案準備していた国際民間航空機関(ICAO)の実務グループに影響を与えている。1992年、日本は航空会社の国際線航空運送約款を改正し、国際航空運送人の責任について、世界で初めて無限責任を導入(Japanese Initiative)した内容と1995年の国際航空運送協会(IATA)の「旅客責任に関する運送人間協定」の内容が1999年のモンリオール条約の内容の一部が反映された; Schmid / Müller – Rostin, In – Kraft – Treten des Montrealer Ühereinkommen von 1999 NJW 2003 / 49, S. 3517f.

656) 帝国官報、I、1922、s. 681。

657) 1982年の改正航空運送法(Luftverkehrsgesetz)では、国際航空運送人の賠償責任限度額を旅客一人当り32万マルクと規定した。

2003年、2004年、2005年、2006年、2007年にそれぞれ改正された。

ドイツの航空運送法は、航空行政規制法のような公法的な事項と航空運送人の運送契約責任を中心とする航空私法的な事項を、一つの法典の中に混有しているのがその特色である。特に航空私法的な事項について、航空機運航者の責任を運送外の責任（航空機運航者の地上第三者に対する責任=不法行為責任）と軍用機の責任まで分類し規定している点がある。ドイツは、1929年のワルソー条約⁶⁵⁸、1955年のヘーグ議定書⁶⁵⁹及び1961年のグアダハラハラ条約⁶⁶⁰の加入国であるが、そのほか1971年のグアテマラ議定書については1971年3月8日に署名したものの批准はしていない。

ドイツの航空運送法（LuftVG）は、運送人の運送契約に起因する責任について、ワルソー/ヘーグ条約、グアダハラハラ条約及び1952年及び1978年の改正ローマ条約の主な内容を大幅に受容している。

ドイツは、全世界的に発効した1999年のモントリオール条約につき1999年5月28日に署名し、2004年4月29日、批准書をICAOに寄託したので、同条約は2004年6月4日からドイツ国内で発効した。国内航空運送にも、1999年のモントリオール条約の内容とヨーロッパ聯合理事会が制定した航空関係施行令を適用するため、2004年4月6日、ドイツ航空運送法を改正し、2004年5月24日公布しており、これも2004年6月28日に発効した。

さらに2004年のドイツ改正航空運送法の中で、航空運送人の責任（運送契約責任）に関する関聯規定（同法第44条から56条まで）等を1999年のモントリオール条約の内容と適合させるため大幅に改正した。ドイツの航空運送法は、航空運送契約により運送をした場合、航空機事故に起因し発生した乗客の死亡・傷害または健康侵害、旅客運送の延着等（人的損害）と乗客の手荷物または貨物の破壊、損傷、滅失及び延着運送等（物的損害）に対する損害賠償責任と損害賠償責任の補填のための保険等、航空運送人の民事責任を規定している。

現在、ドイツは、ヨーロッパ聯合（EU）の加盟国なので、EUの航空運送に関する法規を国内法に反映する義務がある。そのため航空会社に対する営業許可の交付について1992年7月23日のヨーロッパ聯合理事会の92 / 2407施行令⁶⁶¹及び2002年5月13日ヨーロッパと理

658) ドイツは、ワルソー条約を1929年10月12日に署名し、1933年9月30日に批准した。

659) ドイツは、ヘーグ議定書を1955年9月28日に署名し、その後1960年10月27日に批准したので、1963年8月1日から発効した。

660) ドイツは、グアダハラハラ条約（Guadalajara Convention）を1961年9月18日に署名し、1964年3月27日に批准したので、1964年5月31日から発効した。

事会の889 / 2002施行令によって改正された「航空会社の事故責任に関する1997年10月9日のヨーロッパ聯合理事会2027 / 97の施行令」⁶⁶²⁾が適用される(ドイツ改正航空運送法第44条) ⁶⁶³⁾

航空機事件に対して事件を処理する該当規定が、前記国際条約及びヨーロッパ聯合の法規定にない場合には、補充的にドイツ改正航空運送法の中にある運送責任に関する規定が適用される。

5.2. 改正航空運送法の構成

2004年6月28日からドイツで施行されている改正航空運送法は、5カ章(第1章航空運送; 第1節 航空機及び航空運送従事者、第2節 空港、第3節 航空運送企業及び幹旋、第4節 運送規定、第5節 空港整備、飛行安全及び飛行気象案内、第6節 所有関係と公用徴収、第7節 共通規定、第2章 責任、第3章 刑罰と罰金、第4章 航空運送関係事項の施行日、第5章 経過附則)と11カ節及び全文71カ条により構成されている。

特に、この法の中で、航空運送人及び航空機運航者の民事責任と関係がある章及び節

661) ABIEG Nr L 240 S. 1.

662) ABIEG Nr L 285 S. 1.

663) LuftVG § 44 Anwendungsbereich

Für die Haftung auf Schadensersatz wegen der Tötung, der Körperverletzung oder der Gesundheitsbeschädigung eines Fluggastes durch einen Unfall, wegen der verspäteten Beförderung eines Fluggastes oder wegen der Zerstörung, der Beschädigung, des Verlustes oder der verspäteten Beförderung seines Reisegepäcks bei einer aus Vertrag geschuldeten Luftbeförderung sowie für die Versicherung zur Deckung dieser Haftung gelten die Vorschriften dieses Unterabschnitts soweit

4. das Übereinkommen vom 28. Mai 1999 zur Vereinheitlichung bestimmter Vorschriften über die Beförderung im internationalen Luftverkehr(BGBl 2004 II S.458) (Montrealer Übereinkommen) und das Montrealer-Übereinkommen – Durchführungsgesetz vom 6. April 2004(BGBl. I S. 550).
5. die Verordnung (EWG) Nr. 2407/92 des Rates vom 23. Juli 1992 über die Erteilung von Betriebsgenehmigungen an Luftfahrtunternehmen (ABl. EG Nr. L240 S. 1). in der jeweils geltenden Fassung, und
6. die Verordnung (EG) Nr. 2027/92 des Rates vom 9. Oktober 1997 über die Haftung von Luftfahrtunternehmen bei Unfällen(ABl. EG Nr. L 285 S. 1). geändert durch die Verordnung (EG) Nr. 889/2002 des Europäischen Parlaments und des Rates vom 13. Mai 2002 (ABl. EG Nr. L 140 S. 2). in der jeweils geltenden Fassung, nicht anwendbar sind oder keine Regelung enthalten.

は 第2章責任、第1節航空機により運送契約外の者(地上第三者)と物件に対する責任、第2節運送契約責任、第3節軍用航空機に関する損害賠償責任、第4節損害賠償責任に関する共通規定等に分類され構成されており、これらの章・節の条文は同法第33条から第56条までの41カ条となる。

5.3. 航空運送人の責任と賠償の範囲

航空運送人の責任発生の原因について、モントリオール条約第17条では、従来のワルソ一条約第17条と同じく旅客の死亡又は身体の傷害 (bodily injury)に限定しているの、これに身体の傷害が精神的な傷害 (mental injury)を含むか否かに関し学説の対立があるが、多数説は含めていないと主張している。モントリオール条約第17条⁶⁶⁴⁾の身体の傷害の解釈については、締約国裁判所の判断に委せていると解釈される。しかし、ドイツの改正航空運送法では、損害賠償の対象になる損害の種類に死亡、身体の傷害又は其の他の健康傷害 (sonst gesundheitlich geschädigt)により発生した損害に対して航空運送人の賠償義務を規定している(同法第45条第1項)。

この条文は、ドイツ改正航空運送法の損害賠償の範囲を、死亡、身体傷害又は健康を侵害する其の他の精神傷害 (mental injury)までは幅広く規定している。さらにこの条文の第2項に規定している旅客の健康傷害 (Gesundheitsbeschädigung eines Fluggastes)には、精神傷害を含めているので、法解釈論の立場からみれば、グアテマラ議定書第17条に規定している旅客の身体の傷害 (personal injury)の内容と大体同じなので、精神損害 (mental loss)の包含有無に関する学説の論争を立法論的に解決したといえる。

664) 関口雅夫、「国際航空運送についてのある規則の統一についての条約(1999年モントリオール条約)」、駒沢大学法学部政治学論集(第50号、平成11月1日発行)、23-24頁; 小林登、「1999年モントリオール条約における国際航空運送人の責任—旅客運送責任に関する規定を中心として」、空法(第42号、2001)、日本空法学会発行、27-28頁; 拙稿、「国際航空運送人の責任に関する最新モントリオール条約の主要内容と論点」、航空振興(2003年第1号/通巻29号)、韓国航空振興協会発行、151-152頁。

5.4. 航空運送人の賠償責任の限度額

ドイツ改正航空運送法第45条は ヨーロッパ聯合の航空運送施行令及びモントリオール条約第21条と同じく二元的賠償責任制度を受容している。加えて同条項は、航空事故により発生した乗客の死亡・身体傷害・健康侵害等について、航空運送人の無過失責任を規定している(同条第1項)。

しかし、発生した損害が航空運送人又は使用人の違法及び過失がある作為又は不作為によって生じたものでないことと、また発生した損害が外面的(ausschliesslich)に第三者の違法及び過失がある作為又は不作為によった場合は、各乗客につき10万SDRまで責任を負担する(同法第45条第2項)。⁶⁶⁵⁾

2004年6月に改正されたドイツ航空運送法は、1999年のモントリオール条約と同じく、10万SDR(計算単位)を超える損害に対しては、航空運送人の自己及び使用人の無過失又は第三者の外面的な過失を証明することができない限り、これに相応する賠償を規定しているので、過失推定責任主義を採用したと解釈することができる。しかし、ドイツ改正航空運送法第46条(責任限度額)では、①運送している旅客(eine beförderten Person)を死亡又は傷害させた場合、航空運送人は各一人につき60万ユーロ貨の額まで責任を負うか、又は毎年3万6千ユーロ貨の額を年賦で責任を負担し、②乗客の携帯手荷物と発送した手荷物の滅失・毀損の場合、航空運送人は、旅客一人につき1,700ユーロ貨を限度に責任を負う。⁶⁶⁶⁾ 前記条文は、航空運送人の責任を制限する有限責任主義を採択しているので、ワ

665) LuftVG § 45 Haftung für Personenschäden

- (1) Wird ein Fluggast durch einen Unfall an Bord eines Luftfahrzeugs oder beim Ein- oder Aussteigen getötet, körperlich verletzt oder gesundheitlich geschädigt, ist der Luftfrachtführer verpflichtet, den daraus entstehenden Schaden zu ersetzen.
- (2) In den Fällen des Absatzes 1 haftet der Luftfrachtführer für jeden Fluggast nur bis zu einem Betrag von 100.000 Rechnungseinheiten, wenn
 1. der Schaden nicht durch sein rechtswidriges und schuldhaftes Handeln oder Unterlassen oder das rechtswidrige und schuldhaftes Handeln oder Unterlassen seiner Leute verursacht wurde oder
 2. der Schaden ausschliesslich durch das rechtswidrige und schuldhaftes Handeln oder Unterlassen eines Dritten verursacht wurde.

666) LuftVG § 46

- (1) Im Falle der Tötung oder Verletzung einer beförderten Person haftet der Luftfrachtführer für jede Person bis zu einem Kapitalbetrage von 600,000 Euro oder bis zu einem Rentenbetrag von Jählich 36,000 Euro.

ルソー条約/ヘーグ議定書第22条を受容したものであるが、旅客の死傷の場合の責任限度額は、1950年の改正航空運送法が35,000マルク、1965年の改正航空運送法は67,500マルク、1980年から2002年までの改正航空運送法は320,000マルク、2003年12月29日に改正した航空運送法では、ヨーロッパ聯合の単一貨幣である60万ユーロ貨にその責任限度額を引き上げたのである。この条文は、ドイツの国内航空運送において、航空機事故により発生した損害に対する航空運送人の責任限度額を規定したものである。

5.5. 航空運送人の延着の責任と賠償限度

従来のドイツ航空運送法は、手荷物又は貨物の延着(Verspätung)と旅客運送の延着による損害賠償について別途の条文を規定していなかった。しかし、これに対してワルソー条約第19条は、延着運送に関する運送人の責任を定めており、ドイツはワルソー条約の加入国であるため、この条約によって延着運送に対する運送人の責任を追及することができるのである。

2004年、新設されたドイツ改正航空運送法第44条は、モントリオール条約第19条を受容し、延着旅客運送に対する航空運送人の賠償責任を定めており(同法第46条第1項)、延着運送に対する賠償責任限度額も、モントリオール条約第22条を受容し、各乗客につき4.150計算単位の額まで責任を負担する(同法第46条第2項)。⁶⁶⁷⁾

手荷物の運送については、破壊、滅失、毀損又は延着の場合における運送人の責任は、1,000計算単位の額を限度とする(同法第47条第4項)。⁶⁶⁸⁾

(2) Die Haftung des Luftfrachtführers für Gegenstände, die der Fluggast an sich trägt oder mit sich führt oder die als Reisegepäck aufgegeben sind, ist auf einen Höchstbetrag von 1,700 Euro gegenüber jedem Fluggast beschränkt.

667) LuftVG § 46 Haftung bei verspätet Personenbeförderung

(1) Wird ein Fluggast verspätet befördert, ist der Luftfrachtführer verpflichtet, den daraus entstehenden Schaden zu ersetzen. Die Haftung ist ausgeschlossen, wenn der Luftfrachtführer und seine Leute alle zumutbaren Massnahmen zur Vermeidung Schadens getroffen haben oder solche Massnahmen nicht treffen konnten.

(2) Im Falle des Absatzes 1 Satz 1 haftet der Luftfrachtführer für jeden Fluggast nur bis zu einem Betrag von 4.150 Rechnungseinheiten. Dies gilt nicht, wenn der Schaden vom Luftfrachtführer oder seinen Leuten in Ausführung ihrer Verrichtungen vorsätzlich oder grob fahrlässig verursacht wurde.

668) LuftVG § 47 Haftung für Gepäckschäden

(4) In den Fällen der Absätze 1 bis 3 haftet der Luftfrachtführer für jeden Fluggast nur bis zu einem Betrag von 1,000 Rechnungseinheiten.

託送手荷物と貨物の毀損・延着があったときの異議申立期間（同法第134条）については、ワルソ一条約第28条2項を受容している。

5.6. 航空運送法に於ける国際条約の内容を受け入れた他の 主要な条文

ドイツ改正航空運送法に於ける託送手荷物と貨物の毀損・延着があった場合の異議申立期間（同法第47条第6項）については、1999年のモントリオール条約第31条第2項を受容している。⁶⁶⁹⁾

航空事故による被害者が、航空運送人の責任を訴えるための2年間の提訴期間（除斥期間・同法第38条a⁶⁷⁰⁾）は、ワルソ一条約第29条第1項とモントリオール条約第35条第1項を受容している。改正航空運送法第48条a第1項及び第2項に規定している相次運送（損害の原因、区間責任、連帯責任等）と関聯がある条文は、ワルソ一条約第30条とモントリオール条約第36条第1項、第2項、第3項を受容している。

航空契約運送人（vertraglicher Luftfrachtführer）以外の航空実際運送人（ausführender Luftfrachtführer）による契約及び民事責任と関係ある規定が改正航空運送法第48条bの第1項から第6項までの6カ条の内容は1961年のゲアダラハラ条約の内容とモントリオール条約第39条から第48条まで、10カ条の一部の内容を受容したのである。

飛行中の航空機、またはそれからの落下物が地上の第三者に損害を与えることはしばしば発生し、地上の第三者（被害者）に対して補償の問題が発生している。改正航空運送法では、航空機の地上第三者に与える損害の規律について、第2章責任、第1節航空機によ

669) LuftVG § 47 Haftung für Gepäckschäden

(6) Ist aufgegebenes Reisegepäck beschädigt oder verspätet befördert worden, Können Ansprüche nach Absatz 1 oder 2 nur geltend gemacht werden, wenn der Fluggast dem Luftfrachtführer den Schaden unverzüglich nach seiner Entdeckung, bei der Beschädigung von Reisegepäck spätestens binnen sieben Tagen nach der Annahme, bei der verspäteten Beförderung von Reisegepäck spätestens binnen 21 Tagen, nach dem das Reisegepäck dem Fluggast zur Verfügung gestellt worden ist, schriftlich anzeigt.

670) LuftVG § 49 a Ausschlussfrist

Die klage auf Schadensersatz kann nur binnen einer Ausschlussfrist von zwei Jahren erhoben werden.

て運送していない物件と人に対する責任（航空機保有者の地上第三者の損害に対する賠償責任）は 第33条から第43条まで11カ条において規定している。これらの条文は1952年のローマ条約と1978年モントリオール議定書の一部内容を受容したものである。

6. フランス

フランスは、1929年のワルソー条約⁶⁷¹⁾及び1955年のヘーグ議定書⁶⁷²⁾の加入国であり、また1971年のグアテマラ議定書を1971年3月8日に署名したが、批准はしていない。1975年のモントリオール議定書については、第1、第2追加議定書を批准したが、第3追加議定書とモントリオール第4議定書は署名したが、批准はしていない。

また1999年のモントリオール条約は、1999年5月28日に署名し、その後2004年4月29日に批准したので、発効日は2004年6月28日である。⁶⁷³⁾

フランスの国際航空運送においては、航空運送人の民事責任に関し、前記条約又は議定書等が適用されるが、国内航空運送においては、1976年の「国内航空運送人の責任制限法」が適用される。フランスにおいては、「国内航空運送人の責任制限法」に従って、航空運送人の人的損害賠償責任限度額は50万フラン(Loi 82-325)に引き上げられている。

7. イタリア

イタリアは、1929年のワルソー条約⁶⁷⁴⁾及び1955年のヘーグ議定書⁶⁷⁵⁾の加入国であり、またグアテマラ議定書を1971年3月8日に署名し、1985年3月26日に批准した。1975年のモントリオール第1、第2追加議定書を批准し、第3追加議定書も1978年5月15日署名して、1985

671) フランスにおいては、ワルソー条約を1929年10月12日に署名し、1932年11月15日、批准したので、発効日は1933年2月13日である。

672) フランスにおいては、ヘーグ議定書を、1955年9月28日に批准したので、発効日は1963年8月1日である。

673) http://www.icao.org/cgi/goto_m.pl?icao/en/leb/treaty.html

674) イタリアは、ワルソー条約を1929年10月12日に署名し、1933年2月14日に批准したので、発効日は1933年5月15日である。

675) イタリアは、ヘーグ議定書を、1955年9月28日に署名し、1963年5月4日に批准したので、発効日は1963年8月2日である。

年4月2日に批准した モントリオール第4議定書は1978年5月15日に署名し、1985年4月2日批准したので、発効日は1995年6月14日である。1999年のモントリオール条約は、1999年5月28日署名し、2004年4月4日に批准したので、発効日は2004年6月4日である。

イタリアの国際航空運送においては、航空運送人の民事責任に関し、前記条約又は議定書等が適用されるけれども、国内航空運送においては、イタリア航行法典(Codice della Navigazione)が適用される。この航行法典では航空運送人の損害賠償責任関係を同法第942条から第952条まで規定しており、ワルソー条約の私法上の体系が大部分がここに受容されている。

8. スイス

スイスは、1929年のワルソー条約⁶⁷⁶⁾及び1955年のヘーグ議定書⁶⁷⁷⁾の加入国であり、またグアテマラ議定書を1991年4月24日に署名をしたが、批准はしていない。1975年のモントリオール第1、第2追加議定書を批准し、第3追加議定書も1975年9月25日署名し、1987年12月9日に批准した。また、モントリオール第4議定書も1975年9月25日に署名し、1987年12月9日に批准したので、発効日は1998年6月14日である。1999年のモントリオール条約を、1999年5月28日に署名し、2005年7月7日批准したので、発効日は2007年9月5日である。

スイスの国際航空運送においては、航空運送人の民事責任について、前記条約又は議定書等が適用されるけれども、国内航空運送においては、航空運送法(Air Navigation Act)が適用されている。スイスにおいては、1985年に航空運送法を改正し、ワルソー体制に従って損害賠償責任と賠償限度額を引き上げ調整をした。

9. スペイン

スペインは、1929年のワルソー条約⁶⁷⁸⁾及び1955年のヘーグ議定書⁶⁷⁹⁾の加入国であり、ま

676) スイスは、ワルソー条約を1929年10月12日に署名し、1934年5月9日に批准したので、発効日は1934年8月7日である。

677) スイスは、ヘーグ議定書を、1955年9月28日に署名し、1962年10月19日に批准したので、発効日は1963年8月1日である。

678) スペインは、ワルソー条約を1930年3月31日に署名し、1930年3月31日に批准したので、発効日は1933年2月13日である。

679) スペインは、ヘーグ議定書を、1955年9月28日に署名し、1962年10月19日に批准したので、発

たグアテマラ議定書を1971年4月24日に署名したが、批准はしていない。また1975年のモンリオール第1、第2追加議定書を批准した。モンリオール第3追加議定書は1987年12月19日に署名し、1989年7月20日に批准した。モンリオール第4議定書も1981年9月30日に署名し、1985年1月8日に批准したので、発効日は1998年6月14日である。さらに、1999年のモンリオール条約を2000年1月14日に署名し、2004年4月29日に批准したので、発効日は2004年6月28日である。

スペインの国際航空運送においては、航空運送人の民事責任に関し、前記条約又は議定書等が適用されるけれども国内航空運送については、航空運送法(Air Navigation Act)が適用されている。国内航空運送においては、各旅客の死亡・傷害に対して運送人の責任と責任限度額についてスペイン航空運送法第13章に規定している。

10. オーストラリア

オーストラリアは、1929年のワルソー条約⁶⁸⁰及び1955年のヘーグ議定書⁶⁸¹の加入国であり、1975年のモンリオール第4議定書は、1991年4月24日署名し、1997年1月13日に批准したので発効日は1998年6月14日である。1961年のグアダラハラ条約は、1962年6月19日に署名し、1962年11月1日に批准した。1999年のモンリオール条約は、2004年4月29日に加入したので発効日は2004年6月28日である。

オーストラリアでは、1959年4月21日に国会を通過した航空運送法 (An Act Relating to Carriage by Air of 1959; Civil Aviation [Carriers Liability] Act)が施行されたため1935年のCarriage by Air Actは廃止された。その後、航空運送法 (Civil Aviation Act)は、1962年、1964年、1967年、1988年、1996年、2002年、2003年にそれぞれ改正された。オーストラリア航空運送法は、第一部序文 (Part1, Preliminary)、第二部 (Part 2)はワルソー条約及びヘーグ議定書を適用する運送、第三部 (Part 3)はワルソー条約 (without the Hague Protocol)のみ適用する運送、第三部A (Part 3A)はグアダラハラ条約を適用する運

効日は1963年8月1日である。

680) オーストラリアは、ワルソー条約を1929年10月12日に署名し、1981年9月28日に批准したので、発効日は1961年12月27日である。

681) オーストラリアにおいては、ヘーグ議定書を、1971年3月26日に批准したので、発効日は1971年6月24日である。

送 第三部B (Part 3B)はモントリオール第3追加議定書を適用する運送 (未発効)、第三部C (Part 3C)はモントリオール第4議定書を適用する運送、第四部 (Part 4)はこの法が適用されるその他の運送、第五部 (Part 5)は雑則 (Miscellaneous)という五部によって構成されている。⁶⁸²⁾

前記第二部と第三部は、全部が国際運送に適用され、その適用範囲はこれらの条約と議定書が法としての效力 (the force of law)を持っている(同法第11条第1項、第20条第1項)。従って一部の損害賠償の範囲・被害者の寄与過失・フラン(francs)貨のオーストラリア通貨の換算等に関しては、特別な規定を定めている。

オーストラリア連邦(Commonwealth)内の航空運送に関しては、第四部(Part 4)に関係規定を定めている(同法第27条第1項c～第41条)。国内航空運送における旅客の死傷についての運送人の責任が規定される(同法第28条)他、手荷物の滅失・毀損に対して運送人及び使用人が損害を防止するため必要なすべての措置を執ったこと、又はその措置を執ることができなかったことを証明することができなかったときには責任を負うと規定されている(同法第29条)。しかし損害賠償請求訴訟に於いて、運送人が旅客の過失により損害が発生したことを証明した場合には、損害額の算定につきこのことを参酌することができる(同法第39条)。

国内航空運送人の責任限度額は、各旅客の死傷に対して、50万オーストラリアドル(AUD)又は契約によって定めたそれ以上よ金額、国内航空運送人以外の運送人の責任限度額に於ける各旅客の死傷に対しては、26万SDR又は契約によって定めたそれ以上の金額、託送手荷物の損害に対して900オーストラリアドル(AUD)又は契約によって定めたそれ以上の金額、託送手荷物以外の手荷物に対しては、旅客1人当り90オーストラリアドル(AUD)契約によって定めたそれ以上の金額に規定している(同法第31条)。航空運送人の責任を免除し、又はこの第四部(Part 4)で定める責任の限度よりも低い限度を定める約定は、無効となる。しかし、このような約定の無効によって運送契約の全体が無効になるのではない(同法第32条)。

航空運送人の使用人の責任も運送人と同じく制限できるが、運送人と使用人から賠償を受ける合計額は、運送人の賠償限度額を超えることができないように規定している(同法第33条)。また損害賠償請求の訴訟を2年以内に提起しなかった場合、請求権が消滅するという点(同法第33条)等については、ワルソー条約/ヘーグ議定書の内容を受容している。

682) http://www.austlii.edu.au/au/legis/cth/consol_act/cala1959327/

11. 日本

日本においては 国際民間航空条約の規定並びに同条約の附属書として採択された標準、方式及び手続に準拠して、航空機の航行に起因する障害の防止を図るための方法を定め、並びに航空機を運航して営む事業の適正かつ合理的な運営を確保してその利用者の利便の増進を図るため、昭和27年7月15日(法律第231号)に制定された航空法は、昭和27年から平成18年12月22日までの間に、同法は48回改正されている。同法は航空運送契約を中心とした国内航空運送人の民事責任に関する私法的な規定は定めておらず、専ら航空機航行の安全と航空機運航事業の秩序を図るための監督規制を定めた公法的な規定(航空行政の取締規定)からなる法律である。

日本は、1929年のワルソー条約⁶⁸³⁾及び1955年のヘーグ議定書⁶⁸⁴⁾の加入国であり、また、1975年のモントリオール第4議定書は、2000年6月20日に批准したので発効日は2000年9月18日である。また、1999年のモントリオール条約を2000年6月20日に批准し、発効日は2003年11月4日である。

日本も、前記ワルソー条約とヘーグ議定書を批准し、1966年のモントリオール協定に加入しているが、航空運送人の民事責任に関する国内立法はなされていないので、国際航空運送人の責任関係は条約と国際航空運送約款に依存しており、国内航空運送人の責任関係は国内航空運送約款又は民法・商法によって処理している。

1981年、日本航空は国際線旅客運送約款を改正して、1975年度のモントリオールの第三追加議定書に規定している旅客一人当り、国際航空運送人の賠償責任限度額を十万SDRとしたが、国内航空運送約款は国内航空運送人の賠償責任に対して無限責任の原則を採用している。

1992年、定期航空運送を運営する日本の航空運送入は、運送約款を再び改正し、それまで十万SDRと規定していた旅客に対する責任限度額を廃止し、同年11月20日から実施した。⁶⁸⁵⁾ 国際航空における運送人の責任限度額の廃止は、世界で初めてのことであり外

683) 日本は、ワルソー条約を1929年10月29日に署名し、1953年5月20日に批准したので、発効日は1953年8月18日である。

684) 日本は、ヘーグ議定書、1967年8月10日に署名し、1967年8月10日、批准したので、発効日は1967年11月8日である。

685) 板本昭雄、「国際航空運送人の責任に関する日本の新措置」、関東学院法学、第3巻、第2号。

国の航空法の学者及び専門家たちは この措置を「ジャパニーズ・イニシアティブ(Japanese Initiative)」と呼び、先駆的な措置であるとして論評を加えた。⁶⁸⁶⁾

日本の航空運送人の運送約款(旅客及び手荷物)の改正内容はおおよそ次の通りである。

- ① 運送人は、ワルソー条約第22条第1項の規定による責任限度額の援用を放棄する。
- ② 運送人は、10万SDRまでは、同条約第22条第1項に規定する抗弁権の援用を放棄する。
- ③ 運送人は、懲罰的損害賠償(punitive damage)に対しては一切責任を負わない。⁶⁸⁷⁾

日本では、1969年6月12日、大阪地方裁判所の判決⁶⁸⁸⁾において、日東航空会社の運送約款第24条に規定されている旅客一人当り、航空運送人の賠償責任限度額百万円は低額過ぎて公序良俗に反し許されないとされ、同約款条項は無効とする判決された。この判決は、日本航空業界に大きなショックを与え、航空運送法の立法問題がもちあがった。

そこで、昭和42年に国内立法と条約改正に関する研究を目的として航空振興財団に「航空私法研究会」が設けられたが、昭和46年にグアテマラ議定書が成立するに及んで、この研究会に法学界・関係官庁・航空会社・保険会社その他の関係者からなる「航空運送法特別委員会」が組織され、同議定書の批准を前提として航空運送法の立法問題の検討が続けられた。⁶⁸⁹⁾ 同委員会は、昭和47年に「航空運送法制定に関する問題点」と題する報告書を公表した。⁶⁹⁰⁾

そして引続きこの報告書に盛られた討議を土台として航空運送法の立法を準備する方向でその要綱試案の作成にとりかかり、その当時、旅客運送の実体規定の部分について一通り審議を終ったことがあった。航空(旅客)運送法要綱試案⁶⁹¹⁾は、同委員会の幹事会で作成され、昭和48年10月15日の日本空法学会で紹介されたが、その後若干の修正を加えて、昭和49年10月15日に航空運送法特別委員会幹事会の名前で公表をされた。この試案が、

686) 例えば、Llyods Aviation Law. Vols. 11-22, 12-3, 12-5, 12-8 12-12; Journal of Air Law and Commerce, (School of Law, Southern Methodist University, Texas, USA), Vol.60, at 825.

687) 板本昭雄、「新しい国際航空法」、有信堂(1999)、164頁。

688) 下級民集18巻5・6号、641頁。

689) 松岡誠之助、「航空運送法の立法問題」、空法(第17号、1974年)、日本空法学会発行、53-72頁。

690) 「航空運送法制定に関する問題点」と題する報告書は、ジュリスト、515号、94頁以下に掲載されている。

691) 航空(旅客)運送法要綱試案は、空法(第17号、1974) 73頁から80頁までに掲載されている。

日本では初めての航空運送人の民事責任に関する立法作業である

12. 中国

12.1. 民用航空法の制定経緯と航空関係国際条約

中国政府は、「中華人民共和国民用航空法 (Civil Aviation Law of the People's Republic of China)」を、1995年10月30日、第8回全国人民代表大会の常務委員会の第16回会議で通過させて、同日に中国国家主席令第56号によって公布し、これは1996年3月1日から発効した。またこの中国民用航空法は1998年4月29日に改正された。

中国においては、ワルソー条約を1958年7月20日に批准し、1958年10月18日から発効した。ヘーグ議定書は1975年8月20日に批准し、1975年11月18日から発効した。また、1999年のモントリオール条約を1999年5月28日に署名し、2005年6月1日に批准したので、同条約は2005年7月31日から中国の国内で発効した。⁶⁹²⁾

中国の民用航空法は、航空運送契約責任に関するワルソー条約、ヘーグ議定書、1961年のグアタラハラ条約、1975年のモントリオール第2追加議定書、第4議定書等と航空不法行為責任に関する1952年のローマ条約の内容を大幅に受容している。すなわち、この民用航空法も、一つの法典の中に公・私法的な規定が混在しているのがその特色である。特に航空私法的な事項について、運送契約責任は勿論、不法行為責任(運送契約外の責任—航空機運航者の地上第三者に対する責任)を、それぞれ規定している。

中国の民間航空産業に関する法体系の基本枠は、「中華人民共和国民用航空法」に基づいている。中国は、ICAOが制定した規定等と標準附属書等を参酌し、法体系を発展させてきた。中国民用航空総局(CAAC)は、航空機の飛行基準、堪航証明、航空交通管制、空港と安全に関する35の法規等及び標準指針等を制定しており、その間数年間、100以上の航空と関聯がある規則と、相当数の告示及び例規等を制定し公表した。

従って中国民用航空総局は、航空企業等の航空安全に関する管理体系及び標準指針等を設定し、改善を促進させる為、中国の民用航空法と中国政府によって定めた関聯規定

692) <http://www.icao.int/icao/en/leb/mtl199.pdf>

及び標準指針等に基づいた関聯運営教本とプログラム等を 航空会社等が遵守できるように作成した。例えば、中国国際航空会社、中国東方航空会社と中国南方航空社等の運営教本等は、中国政府から許可を受けて使っている。中国は、数年内に航空と関聯がある法規等を継続制定し公布をするであろう。

12.2. 民用航空法の構成

中国の民用航空法は、16章、214カ条にからなり、次のように構成されている。

第1章 総則

第2章 民間航空機の国籍

第3章 民間航空機の権利

第1節 一般規定

第2節 民間航空機の所有権と抵当権

第3節 民間航空機の新取特権

第4節 民間航空機のリース(物融)

第4章 民間航空機の堪航管理

第5章 航空人員

第6章 民間空港

第7章 空中航行

第8章 公共航空運送企業

第9章 公共航空運送

第1節 総則

第2節 運送証券

第3節 運送人の責任

第4節 實際運送人が履行した航空運送を総括する特別規定

第10章 一般航空

第11章 搜索、救助と事故調査

第12章 地上第三者の損害に対する賠償責任

第13章 外国航空機を管理する特別規定

第14章 外国関聯問題に対する法の適用

第15章 法的責任

第16章 附則

中国の民間航空法の中で航空運送契約及び航空運送人の責任等と関聯がある条文としては 第9章公共航空運送、第1節総則(適用範囲。3カ条)、第2節運送証券(15カ条)、第3節運送人の責任(13カ条)、第4節實際運送人が履行した航空運送を総括する特別規定(8カ条)、第10章一般航空(一般航空の概念、飛行安全の保障、非商業用または商業用航空従事者の登録、一般航空運航従事者の地上第三者に対する責任保険の付保等(6カ条)、第11章搜索、救助と事故調査(6カ条)、第12章地上第三者の損害に対する賠償責任(不法行為責任等・16カ条)がある。

12.3. 民用航空法に於ける国際条約の受容

中国の民用航空法が国際航空運送人の民事責任に関するワルソー条約、ヘーグ議定書、1961年のグアダハラ条約、1975年のモントリオール第2追加議定書、第4議定書等を受容した主な条文を次のように紹介する。

中国民用航空法では、国内航空運送と国際航空運送の定義を明確に規定しており(同法第107条)、航空運送人の人的損害(旅客の死亡又は負傷)に対する責任(同法第124条)⁶⁹³⁾は、大体ワルソー条約第17条を受容しているが、但書条項はグアテマラ議定書第4条と概ね類似している。

航空運送人の物的損害(旅客の携帯手荷物又は託送手荷物の破壊、亡失又は損壊)に対する責任(同法第125条⁶⁹⁴⁾)もワルソー条約第18条とモントリオール第4議定書第18条を

693) 第一百二十四条因发生在民用航空器上或者在旅客上、下民用航空器过程中的事件、造成旅客人身伤亡的, 承运人应当承担赔偿责任; 但是, 旅客的人身伤亡完全是由于旅客本人的健康状况造成的, 承运人不承担赔偿责任。

Article 124. The carrier shall be liable for death or personal injury of a passenger, if the accident took place on board the civil aircraft or in the course of any of the operations of embarking on or disembarking from the civil aircraft; provided that the carrier is not liable if the death or injury resulted solely from the state of health of the passenger.

694) 第一百二十五条因发生在民用航空器上或者在旅客上、下民用航空器过程中的事件, 造成

受容している。中国民用航空法第126条⁶⁹⁵⁾に規定している、航空運送人の旅客、手荷物及び貨物に関する延着賠償責任に対しては、ワルソ一条約第19条を受容し、運送人の立証責任に対しては、ワルソ一条約第19条但書を受容している(過失推定責任主義の導入)。旅客と荷主(手荷物及び貨物)の過失又は寄与過失(contributory negligence)に起因する損害に対して証明できた場合の航空運送人の責任は、民用航空法第127条⁶⁹⁶⁾に規定されている。

中国の国内航空運送における運送人の責任制限は、国務院傘下の主管部署である民間航空総局が制定し、国務院の認可を得たあと公布・施行される(同法第128条⁶⁹⁷⁾)。ただし、旅客と荷送人の託送手荷物又は貨物に対する特別申告がなされ割増料金を支払った場合に特別申告価額を補償する規定は(同法第128条)、ワルソ一条約第22条2項但書とモントリオール第4議定書第22条2項但書を受容している。

国際航空運送においては、各旅客についての運送人の責任は16,600計算単位に制限さ

旅客隨身帶携物品毀灭、遺失或者损坏的、承运人应当承担责任、因发生在航空运输期间的事件、造成旅客的托运行李毀灭、遺失或者损坏的、承运人应当承担责任。旅客隨身傷帶物品或者托运行李的毀灭、遺失或者损坏完全是由于行李本身的自然属性、质量或者欠陷造成的，承运人不承担责任。

本章所称行李，包括托运行李和旅客隨身攜帶的物品。因发生在航空运输期间的事件，造成貨物毀灭、遺失或者损坏的，承运人应当承担责任；但是，承运人证明貨物的毀灭、遺失或者损坏完全是由于下列原因之一造成的，不承担责任。

- (一) 貨物本身的自然属性、质量或者欠陷；
- (二) 承运人或者其受雇人、代理人以外的人包装貨物的，貨物包装不良；
- (三) 战争或者武装冲突；
- (四) 政府有关部门实施的与貨物入境、出境或者过境有关的行为。

本条所称航空运输期间，是指在机场内、民用航空器上或者机场外降落的所有地点，托运行李、貨物处于承运人掌管之下的全部期间。航空运输期间，不包括机场外的任何陆路运输、海上运输、内河运输过程；但是，此种陆路运输、海上运输、内河运输是为了履行航空运输合同而装载、交付或者转运，在没有相反证据的情况下，所发生的损失视为在航空运输期间发生的损失。

695) 第一百二十六条旅客、行李或者貨物在航空运输中因延误造成的损失，承运人应当承担责任；但是，承运人证明本人或者其受雇人、代理人为了避免损失的发生，已经采取一切必要措施 或者不可能采取此种措施的，不承担责任。

696) 筆者は、中国民用航空法第124条から第172条の中で、航空運送人文は運航者の責任と関係がある40カ条を韓国語で翻訳し、原文と翻訳対照文を筆者のHome Page (<http://club.hau.ac.kr/home/doochwank>)にのせた。日本でもインターネットを通じて読めるので同法第127条の原文は、本稿の紙面関係で省略する。ただ同法の主要な条文だけの原文を注に入れた。

697) 第一百二十八条 国内航空运输承运人的赔偿责任限额由国务院民用航空主管部门制定，报国务院批准后公布执行。

れているので(同法第129条⁶⁹⁸) この条文はモントリオール第2追加議定書第2条を受容したものである。託送手荷物又は貨物の運送において運送人の責任は、一キログラムについて17計算単位を限度とし、また旅客の携帯手荷物に対して運送人の責任は、旅客一人当り、332計算単位に制限する条文も(同法第129条)モントリオール第2追加議定書第2条を受容している。

運送人は、航空運送において、損害を生じさせる意図をもって又は無謀にかつ損害が生じるおそれがあることを認識して行なった運送人、使用人又は代理人の作為又は不作為から生じたことが証明された場合には、責任制限と関聯がある民用航空法第128条及び第129条の規定を援用できない(同法第132条)。この条文は、ワルソ一条約第25条に規定している wilful misconduct(故意性ある重大な過失)の概念を導入しものであり、またモントリオール第4議定書第9条の内容を受容している。⁶⁹⁹

他方、荷受人が異議を述べないで旅客の託送手荷物又は貨物を受け取ったときは、良好な状態で、運送証券に従って引き渡されたものと推定すると規定した(同法第134条)。⁷⁰⁰ この条文は、ワルソ一条約第26条1項の prima facie evidence(一応の証拠)の概念を導入したものである。

託送手荷物と貨物の毀損・延着があったときの異議申立期間(同法第134条)については、ワルソ一条約第26条2項を受容している。航空事故に起因する被害者が、航空運送人の責任を訴えるための2年間の提訴期間(同法第135条⁷⁰¹)は、ワルソ一条約第29条第1項を受容している。

民用航空法第136条に規定している相次運送(損害の原因、区間責任、訴提起権者、連帯責任等)と関聯条文は、ワルソ一条約第30条を受容している。航空契約運送人以外の航空実際運送人による契約及び民事責任と関係ある規定は、民用航空法第137条から第144条までの8カ条に当たり、その内容は大体1961年のグアダラハラ条約のものを導入している。

698) 第一百二十九条 国际航空运输承运人的赔偿责任限额按照下列规定执行: 对每名旅客的赔偿责任限额为16, 600计算单位。

699) 第一百三十二条 经证明, 航空运输中的损失是由于承运人或者其受雇人、代理人的故意或者明知可能造成损失而轻率地作为或者不作为造成的, 承运人无权援用本法第一百二十八条、第一百二十九条有关赔偿责任限制的规定。

700) 第一百三十四条 旅客或者收货人收受托运行李或者货物而未提出异议。为托运行李或者货物已经完好交付并与运输凭证相符的初步证据。

701) 第一百三十五条 航空运输的诉讼时效期间为二年, 自民用航空器到达目的地点、应当到达目的地点或者运输终止之日起计算。

飛行中の航空機 またはそれからの落下物が地上の第三者に損害を与えることはしばしば発生し、地上の第三者(被害者)に対して補償の問題が生じている。

民用航空法では、航空機の地上第三者に与える損害の規制について、第12章地上第三者の損害に対する賠償責任、第157条から第172条まで16カ条が規定しており、これらの条文は1952年のローマ条約と1978年モントリオール議定書の一部の内容を受容している。

13. 台湾

台湾政府は民用航空法を制定し、1953年5月30日、総統令によって公布・施行していたが、1974年、1984年、1995年、1998年、1999年にこれを改正した。2003年の改正民用航空法によると、その編成は、第1章総則、第2章航空機、第3章航空従事員、第4章空港、飛行場及び航行救助、第5章飛行安全、第6章民間航空運送企業の管理、第1節民間航空運送企業、第2節一般航空企業、第3節航空幹旋業、第4節航空貨物分配センター、第5節空港地上操業サービス、第7章外国航空機又は外国民間航空運送企業、第8章航空機事故調査、第9章賠償責任、第10章刑罰、第11章附則のように11章、5節及び123カ条となっており、また公・私法規定が混在している。⁷⁰²⁾

改正民用航空法の中で、航空機事故に関する規定は、同法第84条から第88条までの5カ条であり、また航空運送人の賠償責任に関する規定は、同法第89条から第99条までの11カ条である。台湾の民用航空法も、ワルソー条約/ヘーグ議定書等の一部の内容を受容している。

14. 北朝鮮

14.1. 総説

北朝鮮は、1929年のワルソー条約⁷⁰³⁾及び1955年のヘーグ議定書⁷⁰⁴⁾の加入国であり、

702) <http://www.mantraco.com.tw:81/civilairacte.htm#8>

703) 北朝鮮においては、ワルソー条約を1961年3月1日に批准したので、発効日は1961年5月30日である。

またシカゴ条約(国際民間航空条約)の加入書を 1977年8月16日、ICAOに寄託したので、現在、ICAOの会員国である。世界各国の航空会社が加入している国際航空運送協会(IATA)にも北朝鮮の高麗航空会社(Air Koryo)が加入している。北朝鮮の国際航空運送において、航空運送人の責任に関し、前記ワルソ一条約及びヘーグ議定書が適用されている。

北朝鮮の航空運送の民間航空を担当する部署は、平壤市、順安区域に所在している朝鮮民用航空総局がある。1955年に設立された「民用航空局」が、1994年2月、朝鮮民用航空総局として拡大・改編されたものである。⁷⁰⁵⁾

北朝鮮の航空施設は大部分が軍事目的の軍用空港であり、民間航空機の就航空港は、平壤順安空港が唯一の国際空港として航空運送の中核的な機能を遂行している。⁷⁰⁶⁾

順安飛行場は、平壤から北方に22キロメートル離れている順安区域の西側に位置している北朝鮮の国際空港として朝鮮民用航空総局が管理している。

2000年6月現在、平壤―北京(週2回)、平壤―モスクワ―ベルリン(週1回)、平壤―バンコク(週1回)、平壤―マカオ(週1回)、平壤―ウラジオストック(週1回)、平壤―瀋陽(週1回)等に高麗航空(Air Korea)の定期航空路線を開設している。一方、国内空港としては、宣徳、元山、順天、清津、三池淵、恵山、漁郎、价川等、33空港を運営しており、恵山空港を除いては、軍用機と民用機が共に使用している。⁷⁰⁷⁾

14.2. 北朝鮮の民用航空法

(1) 民用航空法の成立経緯

北朝鮮の民用航空法は、2000年3月23日、最高人民会議常任委員会の政令第1419号によって採択されたけれども、2002年5月9日、最高人民会議常任委員会の政令第3025号に従って民用航空法の一部条項が修正・補完された。

さらに北朝鮮は、2005年8月9日、最高人民会議常任委員会の政令第1236号によって民

704) 北朝鮮においては、ヘーグ議定書を、1980年11月4日に批准したので、発効日は1981年2月2日である。

705) <http://www.yonhapnews.co.kr/ynfile/2000/nk/terms/s86.html>

706) http://kin.naver.com/browse/db_detail.php?dclid=8&dir_id=810&docid=16823

707) <http://www.yonhapnews.co.kr/ynfile/2000/nk/terms/s53.html>

用航空法を修正し、この法のなかに新しく「航空保安(第72条～第75条)」に関する4カ条文を新設した。

(2) 民用航空法の構成

民用航空法は、次のように10カ章と94カ条文によって構成されている。

- 第1章 民用航空法の基本 (第1条～第9条)
- 第2章 航空成員 (第10条～第18条)
- 第3章 航空機 (第19条～第25条)
- 第4章 飛行場 (第26条～第31条)
- 第5章 航空機の運行 (第32条～第40条)
- 第6章 航空営業 (第41条～第63条)
- 第7章 他の国の航空機の運行 (第64条～第71条)
- 第8章 航空保安 (第72条～第75条)
- 第9章 航空機の遭難救助と事故調査 (第76条～第84条)
- 第10章 航空保険 (第85条～第87条)
- 第11章 民用航空事業に対する指導統制及び紛争解決 (第88条～第94条)

(3) 民用航空法の主な内容

北朝鮮の民用航空法は、南朝鮮の航空法と違って公・私法規定が混在している。民用航空法は、民用航空事業と関聯がある朝鮮民主主義人民共和国が承認した国際協約は、国内法と同じ効力があると定めているので、国際民間航空条約(シカゴ条約)が一部の内容を受容したと考えられる(同法第9条)。

また、同法第7章第64条に朝鮮民主主義人民共和国は、ほかの国の航空機が政府間の協定または国際協約に従って着陸、離陸、通過飛行ができると規定している。朝鮮民主主義人民共和国に於ける飛行場は、国家の所有であるし、民用飛行場は、国内飛行場と国際飛行場に区別する(同法第26条)。航空運輸営業は、営業許可を受けた航空会社がするし、また航空会社の営業許可は、民用航空管理機関が担当する(同法第42条)。

航空輸送は、航空会社の旅客または荷物の所有者とのあいだに結んだ輸送契約に従って輸送させる(同法第42条)。旅客が航空機に搭乗した時から降機するまでの過程のなかで、

死亡・負傷、輸送遅延によって旅客または手荷物及び貨物に被害をこうむらせた場合、また航空機から落下した物体によって第三者の死亡または人体に被害を与えた場合等に対して航空社の責任を規定している(同法第54条)。航空運送人の人的損害(旅客の死亡又は負傷)に対する責任(同法第54条第1項)は、大体ワルソー条約第17条を受容している。航空運送人の物的損害(旅客の手荷物又は貨物の損傷又は紛失)に対する責任(同法第56条)もワルソー条約第18条をたいたい受容している。民用航空法第54条第2項に規定している、航空運送人の旅客、手荷物及び貨物に関する延着賠償責任に対しては、ワルソー条約第19条を受容したと思う。航空運送人の賠償責任限度額等に対して、民用航空法に具体的な規定がないので有限責任制度を排除していると考えられる。

旅客と荷主(手荷物及び貨物)の過失又は寄与過失(contributory negligence)に起因する損害に対して証明できた場合の航空運送人の免責は、民用航空法第55条に規定されている。

民用航空法では、航空機の地上第三者に与える損害について、地上第3者の損害に対する賠償責任は、同法第54条第3項に規定しており、これらの条文は1952年のローマ条約と1978年モントリオール議定書の内容を一部受容している。

以上、民用航空法の特徴は、航空運送人の運送債務不履行に起因する契約責任と航空運航者が落下物に起因し地上第三者に与えた損害に対する不法行為責任関係を規定している。また国家は、航空事故による被害と損害を適期に補償を受けるため、義務的な航空保険制を実施する(同法第86条)。

民用航空法には、航空社の契約、民事責任及び強制航空保険等、私法的な内容があるし、また航空機の遭難・救難と事故調査関連規定が含まれているし、また事故調査機構と関連し、航空機事故調査委員会を事故が発生した時だけ設置・運営することになっている。

民用航空法第9章航空機の遭難・救難と事故調査のなかで、第76条は航空機の遭難救助と事故調査の基本要求に対して、第77条は、事故をこうむった航空社所属国家の遭難の時、救難活動に対して、第79条は、航空機事故が発生した場合、航空機事故調査委員会の設置と調査の承認に対してそれぞれ規定している。前記第8章の条文は、国際民間航空条約(シカゴ条約)の第12(捜索救難)附属書及び第13(航空機事故調査)附属書に定めている基準を民用航空法に導入したと考えられる。同法第9章では、航空保険に関し規定しているので、航空会社は、航空保険に加入しなければならない。保険に加入していない航空会社は、営業許可を受けることができない(同法第86条)。航空保険は、航空会社と航空

運輸手段を利用している団体及び公民(国民)の安全を担保させるための重要条である。航空保険の種類には、①航空機機体保険、②航空旅客傷害保険、③航空輸送保険、④航空貨物補償責任保険、航空機第三者補償責任保険がある(同法第85条)。

同法第10章では、民用航空事業に対する指導統制及び紛争解決案として、民用航空法は、民用航空法管理機関の指導統制の強化及び権限と紛争が発生した時の処理方法等を規定している。この民用航空法を違反し、民用航空事業に重大な結果を引き起した機関、企業所、団体の責任がある従業員(労働者)と個別的な公民に対して、情状に従って行政的または刑事的な責任を負担させる。

三. 各国の航空関係の立法例に関する内容分析

以上13カ国とヨーロッパ職合(EU)の航空法の制定経緯、主な内容及び航空旅客運送人の責任に関する各国の立法例等を考察したが、大部分の国では、単行法である特別法(航空法又は航空運送法)を制定し施行しており、この特別法のいくつかは公法規定と私法規定が混在しているのがその特徴である。航空法又は航空運送法を特別法に制定した理由は法の改正容易性と航空運送の特殊性を考慮したためと思われる。

前記国家等の航空法の内容を大きなパターン(pattern)に区分した場合、公法的な規定と私法的な規定を混在し定める場合の公法的規定の主な内容は、①領空権(領空の利用自由)、②航空機の登録、③航空従事員の資格及び証明(操縦士等)、④航空路、空港、飛行場等の管理及び保安施設の設置、⑤航空機の安全運航関係、⑥航空運送業関係、⑦外国航空機の就航許可に関する事項等であり、私法的規定の主な内容は、①航空旅客及び物品運送契約、②航空運送状、③航空運送人の損害賠償責任及び賠償限度額、④航空運送人の責任消滅時期、⑤地上第三者に対する航空機運航者の損害賠償責任及び賠償限度額、⑥相次運送、⑦航空契約運送人以外の実際運送人の法律関係と賠償責任、⑧強制航空保険等に関する事項である。私法的規定は、自国内の航空機事故に起因する人的又は物的規害が発生したときの被害者保護のため、航空運送人に損害賠償責任及び賠償限度額を負担させることができる法的根拠を与えるために制定したものである。

四. 航空運送人の責任に関する航空運送約款の問題と航空運送法の立法理由

4.1. 航空運送約款の問題

先に述べた通り 国内航空運送においては、航空運送人の損害賠償責任と賠償限度額について大部分の国家(イギリス、アメリカ、カナダ、ドイツ、フランス、イタリア、日本、スペイン、スイス、オーストラリア、中国、台湾等)は、前記国際条約及び議定書の立法精神と内容を受容し、公・私法規定を入れた自国の航空法又は航空運送法を制定し施行している。

しかし韓国と日本は、国内航空運送において旅客のみならず貨物事件について、航空運送人の責任限界と損害賠償額を規定した一般の法律又は特別法がないので、航空会社の国内航空旅客又は貨物運送約款に従って処理しているのが実情である。特に国内航空運送約款が前記条約及び議定書の内容と一致していない場合には、前記条約及び議定書の内容によって制定した航空会社の運送約款と国内法が抵触した際には約款の法的效力の問題が発生するのである。

日本では航空運送約款の一部の条項が大阪地方裁判所の判決によって無効になった例があったので⁷⁰⁸⁾航空運送業界に大きな波紋が発生した。その対策として航空法研究会内に航空運送特別委員会が設置され、航空運送法に関する国内立法の作業が推進された結果、1974年、航空運送法要綱試案を作成し公表したのである。⁷⁰⁹⁾韓国でも、1981年、航空運送約款の一部の条項(旅客による提訴権の行使期間2年)がソウル地方裁判所の判決によって無効になった事件があったので、一時、問題が発生したことがある。⁷¹⁰⁾特に1989

708) つぼめ号航空機事故損害賠償請求事件、大阪地判、1967年6月12日、下級民集第18巻、56-号、641頁。

709) 日本航空運送法特別委員会、「航空(旅客)運送法要綱試案」、空法(第17号、1974年)、73-80頁。

710) 航空機事故に因る損害賠償請求訴訟事件(ソウル地裁第5部、1981.9.24判決、81カハブ1906、損害賠償): 一審では大韓航空の国際線旅客運送約款第17号第2項(旅客の提訴権行使期間2年)で認定を受けなかったけれども、二審(ソウル高裁第9民事部、1983年3月29日判決、81ナ3430、損害賠償)では認定を受けた事件である; 航空機事故に因る損害賠償請求訴訟事件(ソウル地裁第5部、1981年12月10日判決、81カハブ、求償金); 一審では大韓航空の国際線貨物運送約款第17号第1項(貨物についての損害賠償請求期間)が受けなかったけれども、二審(ソウル高裁第5民事部、1982年7月9日判決、82ナ720、求償金)の訴では受けた事

年3月31日 韓国の企劃財政部(前經濟企劃院)所属の約款審査委員会で大韓航空の国内線航空運送約款の一部条項が無効審決を受けた最初の決定があった。その内容は次の通りである。

請求人、韓国消費者保護院院長崔東奎は、大韓航空の国内線航空運送約款第44条1項に規定している「旅客の死傷に対する賠償責任は、契約不履行又は不法行為に起因する損害について一般の賠償責任とは別に制限しており、国際運送において10万SDR(約13万ドル)と規定しているのに対して、国内線が七万五千ドルと規定しているのは「法の前に平等である人間」を差別することであるから、航空運送契約の公正性の向上と被害者保護を強化する為に運送約款の中で不当な内容は改善しなければならないと請求した。

請求人韓国消費者保護院院長は、大韓航空の国内運送の賠償限度額を廃止するか、または少なくとも国際線と同一に賠償限度額を調整しなければならないと被請求人(株)大韓航空の代表取締役に対する審査請求書を企劃財政部長官(前經濟企画院長官)に提出した(約款規制法第十九条)。經濟企画院長官は「この約款条項の問題点を約款審査委員会に回付し、同委員会で審議された結果、大韓航空の国内旅客運送約款第四十四条一項は無効と審決された。その審決理由は、①国際航空運送において運送人の賠償責任限度額は有限責任原則を規定した条約に基づいて決定されるが、国内運送においては、運送人の賠償責任限度額は各国の国内法又は運送約款で独自に規定できるから(日・米は無限責任主義を採用)、各国の經濟事情、および生活水準等に応じて、その限度額は違うものであるが、韓国の最近の經濟事情、およびアメリカのドル対ウォンの換算率等を勘案すると、人的損害に対する賠償限度額を七万五千ドルと国内旅客運送約款に規定したのは、実情を反映したものと見ることはできないし、国内の他の運送分野における人的損害に関する通常の賠償額にも達しない低額の限度額であるから、約款の規制に関する法律第六条二項一号に規定される「雇客に対して不当な不利条項」に該当しこの約款第四十四条一項の責任限度額「米貨七万五千ドル」と規定した部分は無効だと審決した。711)

その後この審決によって、一九八九年五月十六日から、大韓航空会社とアジアナ航空会社は共に国内線旅客運送約款712)を改正して国際線旅客運送約款と同じく航空運送人の

件である。

711) 拙稿、「韓国における航空運送人の責任に関する法規制の現状と比較法的考察」、空法(第3号、1990)、日本空法学会発行、85-87頁。

712) 1989年の大韓航空会社の国内線旅客運送約款第44条及びアジアナ航空会社の国内線旅客運送約款第41条、参照; 1989年8月7日付、「法律新聞」、10頁参照。

損害賠償責任限度額を大幅に引き上げて 旅客一人当り賠償限度額を10万SDRに決定し施行した。

4.2. 韓国商法の中に航空運送法規定を新設させる立法理由

韓国では現在、航空旅客及び貨物の輸送実績が増加しており、航空機事故の発生可能性も増えているので、もし航空機事故が起った場合、航空運送人と被害者間の責任限界及び賠償限度額について、国際航空運送においては韓国が批准した国際条約と国際航空運送約款によって、当事者間の紛争をある程度解決することができるけれども、国内航空運送の場合には、航空運送人の民事責任に関しては何の規定もないので、国内航空運送約款と民・商法の規定によって裁判をしなければならない。商法の中に陸上・海上運送人の責任関係を詳しく規定しているのは、陸運・海運関係の国際条約に基づいたドイツ・フランス商法等の影響を受けて作った歴史約遺物だと思われるが、新しく発展している航空運送においても、航空運送人の責任原則(過失責任主義を採用するか、過失推定責任主義又は無過失責任主義を採用するか)及び賠償額(有限責任主義を採用するか、又は無限責任主義を採用するか)を明確に定め、航空関係国際条約と先進各国の立法例を参考にして韓国の経済・航運実情に適合する国内立法が必要だと思う。

もしそのような立法措置がとられれば、①国内航空運送約款の一部条項の無効問題もある程度解決できるし、②加害者(航空会社)と被害者との間の責任原則と賠償額が法律で決められておれば、この法律に従って裁判の前に紛争が当事者間で調整、和解、解決基準などについて話し合うことができると思う。③航空機事故に起因する損害の特殊性を考慮した法律が作られれば、裁判官が航空機事件を設判する時に「裁判の基準」とする事ができるので、④裁判の能率性・迅速性をはかる事ができると思う。以上が国内立法を提案した理由である。筆者は、航空関係の国際条約と世界各国の立法例を参考して、韓国の航運実情に適合する「航空運送法要綱私案」を作成し、1998年度に発表したことがある。⁷¹³⁾ この要綱私案は、将来、韓国でこの法律を制定する時に立法資料に活用されればと考へ作成したものである。

2008年8月6日、政府(法務部)が商法の航空運送編一部改正法律(案)を立法予告した

713) 1989年の大韓航空会社の国内線旅客運送約款第44条及びアジアナ航空会社の国内線旅客運送約款第41条、参照; 1989年8月7日付、「法律新聞」、10頁参照。

改正理由は次の通りである

韓国の航空運送産業が飛躍的に発展して、世界8位圏に進入したにもかかわらず、当事者との間の利害関係はひたすら航空社が提供する約款のみに依存していて法的安定性が毀損なる憂慮があるので、乗客・貨主の権益を擁護及び空運送当事者の権利義務を明確にするため商法のなかに航空運送編を制定しようとするのである。

五. 韓国の改正商法草案第6編に航空運送人の責任に関する規定新設

韓国は、国際航空運送人の民事責任と関係がある1955年のヘーグ議定書を1967年7月13日に批准したし、また1999年のモントリオール条約を2007年10月30日に批准したので、韓国憲法第6条によって国内法と同じ法的効力を持っている。

韓国では現在、陸上運送に関し、商法の中に陸上運送契約を中心とした法律関係を規定した条文が商行為編に36カ条(商法第114条ないし150条)あり、海上運送に関しては、海上運送契約を中心とした法律関係を規定した条文が海商編に155カ条(商法第740条ないし第895条)あるので、比較的詳しく定められているけれども、航空運送に関しては、航空運送契約ないし不法行為関係を規定した条文が、1カ条文も規定していないことは、時代おくれだ立法だと思う。

商行為編の中に、陸上事故に起因する陸上運送人の損害賠償責任に関する規定として商法第135条ないし138条があり、海上事故に起因する海上運送人の損害賠償責任に関する規定として商法第746条ないし第752条、商法第787条ないし第828条がある。航空運送人の民事責任に関する規定は、商法にも航空法、その他航空関係法規の中にもない。従って、航空運送人の責任に関しては陸上運送人の責任に関する商法の規定を準用しようとする主張する学説と、海上運送人の責任に関する規定を準用すべきだと主張する学説とが対立しているが、これは法解釈論に偏重した学説だと思う。

筆者は、航空機事故に起因する損害は、陸上又は海上事故の損害と異なる特殊性があるので、航空運送人の民事責任に関する規定を立法するのが必要であると思う。その国内立法の方法として次の三つが考えられる。

第一の方法は、現在の韓国商法典の中に「第6編、航空運送編」という新しい編を設けて航空運送契約を中心とする法律関係と航空運送人の契約責任及び航空運航者の不法行為責任にする規定をおく方法である。第二の方法は、既存航空法を改正してその法の中に航空運送人の契約責任及び航空運航者の不法行為責任に関する規定を挿入する方法、第三の方法は、航空運送契約及び運航者の不法行為関係と賠償責任関係を規定する新しい「航空運送法」を単行法の形態で制定する方法である。

韓国では、法務部(日本の法務省と同じ官署)の商法改正審議委員会で商法中第四編保険法、第5編海商法の改正作業を1986年度から本格的にはじめて、1989年の5月20日に終り、商法改正(保険・海商編)試案が作成されたことがある。そのとき筆者は、商法改正審議委員会内の海商法改正分科委員会で海商法改正審議が終った後に言及された航空運送契約と賠償責任に関する国内立法に対して、先の三つの方法の中のいずれかの方法で立法作業をすすめることが必要だと提案した。筆者がもっとも合理的で望ましいと思うのは、商法の中に航空運送契約と賠償責任関係の規定を入れることである。⁷¹⁴⁾ もし審議する時間がないのなら、先進各国の立法例を参考にして航空法を改正するか、又は新しい航空運送契約法を制定する附帯決議案を出すことを提案した。同海商法改正審議委員会では、筆者の意見が諒解されたので、1989年5月20日に開催した全体商法(保険・海商)改正審議委員会に回付した結果、筆者の意見通りに新しい航空運送契約法を立法することを満場一致で決議した。⁷¹⁵⁾

この決議に従って、1990年4月1日、法務部内に航空運送契約法制定実務委員会が大学教授、判・検事、弁護士等によって組織された。⁷¹⁶⁾ 前記実務委員会は、何回も討議した結果をまとめて1990年9月1日、「航空運送契約法要綱案」が作成された。航空運送契約法制定実務委員会は、この航空運送契約法要綱案を中心として航空運送人の民事責任に関する国際条約及び各国の立法例等を中心として再び討議し、韓国の航運実情に適合する「航空運送契約法試案」が作成され、⁷¹⁷⁾ 1991年4月20日、この試案について審議した結果を整理し、1993年6月19日、同実務委員会の「航空運送契約法の最終試案」が作成された。この「航空運送契約法の最終試案」は、第1章の総則が3カ条、第2章の旅客

714) 拙稿、前掲論文、93-94頁。

715) 1989年8月10日付、「法律新聞」、10頁。

716) 韓国航空宇宙法学会、〈学会消息〉、航空法学会誌(第2号、1990)、343頁。

717) 韓国航空宇宙法学会、〈学会消息〉、航空法学会誌(第3号、1991)、321頁。

運送が13カ条 第3章の貨物運送が13カ条等、合計26カ条により構されている。

この最終試案はワルソー条約、ヘーグ議定書及びグアテマラ議定書の一部の内容を受容している。主な内容は、航空旅客及び貨物運送契約を中心とした法的事項を規定したので、① 旅客航空券、手荷物切符又は航空貨物運送状の記載項目、② 航空旅客、手荷物又は航空貨物運送人の責任(過失推定責任主義を採択する)及び責任限度額、③ 被害者の寄与過失に起因する航空運送人の責任免除又は軽減、④ 航空運送人の責任減免約定の禁止、⑤ 航空運送人の責任限度の適用排除(故意又は認識がある重大な過失; wilful misconduct)、⑥ 航空運送使用人に対する賠償請求額の限度、⑦ 託送手荷物の引き渡し(推定的効力の認定)、⑧ 航空運送人に対する非契約的(不法行為責任等)請求の認定、⑨ 航空貨物の処分請求権の認定、⑩ 航空運送人に対する提訴請求権の時効等である。

しかしこの最終試案の第8条には、各旅客に対する航空旅客運送人の賠償責任限度額は10万計算単位だと規定したので、前記賠償責任限度額について実務委員会では、委員の間で原案通りにしたいという意見と、20万計算単位又は無限責任にしなければならないという意見が対立していた。長い間何回も討議したけれども、合意(意見一致)ができなかったので、実務委員会は遂に機能を発揮することができないまま、惜しくも1993年7月以後、解体したのである。その後、航空運送契約法の立法推進は、2007年まで推進されていなかった。

以上航空運送人の責任及び賠償責任限度額等に関する各国の立法例及び国際条約、議定書等を考察した結果、航空運送人の契約責任及び航空機運航者の地上第三者に対する不法行為責任まで包括した「航空運送法試案」を商法のなかに作成するのがもっとも望ましいことだと思う。

この航空運送法試案を作るときには、必ず航空運送人の民事責任に関する1929年のワルソー条約、1555年のヘーグ議定書、1961年のグアダラハラ条約、1975年の第4議定書及び最新条約である1999年のモントリオール条約⁷¹⁸⁾等の内容と航空機運航者の不法行為責任に関する1952年及び1978年の改正ローマ条約等の内容を参考にして新しい「航空運送法要綱試案」を作成しなければならないと思う。2001年9月11日にニューヨークで起ったいわゆる航空機奪取による同時多発テロ事件の被害は、4機の航空機に搭乗した乗客及び乗務員

718) 1999年のモントリオール条約は、アメリカを始め30カ国以上が批准したので、2003年11月4日から全世界的に発効した。その後、この条約は加入国が継続増加し2008年10月3日現在、86カ国が加入した。

266名が全員死亡したし、ワシントン国防都庁舎での死亡及び失踪が125名、世界貿易センター一での死亡及び失踪が約5,000余名に達する莫大な被害が発生した。⁷¹⁹⁾ そこでICAD理事会は、テロ行為等による大規模な地上損害が生じた場合の特則等を新たに加えた新ローマ条約草案を事務局に起草せしめ、これを検討するため、2004年3月15日～21日の間、モントリオールにてICAO法律委員会を召集した。同法律委員会には52力国、議長にカナダ代表 Lauzon G. H.の議事進行の下、新ローマ条約事務局案につき逐条検討が行われ、最終日にICAO法律委員会案が採択された。⁷²⁰⁾

世界の至るところで、航空機の奪取過程、操縦士の操縦過失、航空機内の部品、機械又はエンジンの故障、整備不良等に起因し、航空機が突然墜落した場合、またはそれからの落下物によって地上第三者に対して人的又は物的な損害を与えるけれども、航空機運航者と地上第三者とのあいだには何の契約関係もないので、航空機運航者は不法行為責任を負うことになり、これらの法律関係についての規定を前記要綱試案に入れるのがもっとも必要である。

前記試案の中に規定する主な内容は、①立法目的、②適用範囲、③「航空手荷物」、「航空貨物」、「航空運送」、「航空運送人」、「航空事故」、「計算単位(SDR)」等の概念定立、④旅客航空券、手荷物切符又は航空運送状の記載事項、⑤航空運送人の責任原則及び責任限度額、⑥被害者の寄与過失に起因する航空運送人の責任減免、⑦免責特約の禁止、⑧航空運送人の責任限度の適用排除(wilful misconduct)、⑨訴の名義、⑩相次運送の法律関係、⑪運送人の使用人(履行補助者)に対する責任、⑫手荷物及び貨物の滅失等の通知義務、⑬航空運送人に対する訴えを提起する期限、⑭契約運送人以外の者によって行われる航空運送の法律関係(実際運送人の責任等)、⑮航空機の墜落又は破片の落下によって地上第三者に与えた人的又は物的損害に対する賠償責任(不法行為責任等)、航空運送状又は貨物受取証について一応の証拠(prim facie evidence)の認定、航空貨物の処分請求権の想定、第三者に対する請求権(求償権)、前払金の支払、複合運送、仲裁制度の導入、航空保険、裁判管轄地、航空運送人の責任消滅時期(時効又は除斥)等である。

719) 経済的被害は、世界貿易センターの建物価値11億ドル、テロ膺懲のための緊急支出額400億ドル、災難克復のための聯邦援助額111億ドル以外に各種経済活動又は財産被害を追加したら、貨幣価値に換算するのがむずかしい程度の被害であった。

720) 日本航空銀興財団、航空私法研究会の「平成15年度航空運送法委員会報告書」、平成16年5月発行、3頁。

2008年8月6日 政府(法務部)が商法の航空運送編一部改正法律(案)を立法予告した改正理由は次の通りである。

2007年10月30日、韓国法務部(省)から受けた航空運送関聯共同プロジェクトのなかで、私が作って提案した航空運送法制定試案(商法第6編新設)の立法を政府(法務部(省))が正式に受け入れたので、2008年1月29日、法務部は、『商法航空運送法制定特別分科委員会(教授3名、弁護士2名、航空社法務部長1名、法務部検事1名、法務研究官1名、合計7名)を構成し作業をし、2008年6月に改正商法試案(42カ条文)が制定された。

国民の意見を収斂するため、2008年6月25日、法務部が主催する公聴会が開かれたし、また同年8月6日、商法航空運送編一部改正法律(案)を立法予告をした。政府(法務部等)が商法一部改正(航空運送編)法律案を確定したあと、今年9月から12月まで開かれる定期国会にこの法案が提出されて、もしこの法案が定期国会で通過して、政府が公布し、2009年から施行されましたら、商法の中に航空運送に関する規定を入れた韓国が世界最初の立法例になるのであろう。2008年6月、政府(法務部)が公表した改正商法試案(航空運送編、42個条文)の編制は次の通りである。

商法第6編航空運送(第896条～第937条)、第1章通則(3個条文)、第2章運送、第1節通則(5個条文)、第2節旅客運送(9個条文)、第3節物件運送(10個条文)、第4節運送証書(10個条文)、第3章 地上第三者の損害に対する責任(5個条文)、合計42個条文である。

六. おわりに

前述した通りに航空運送人の損害賠償責任と立法問題について調査・研究をした結果、もっとも重要なことは、航空旅客運送人の賠償責任について韓国、日本及びアメリカ(国内航空運送だけ)は、賠償責任限度額を定めない無限責任主義を採択しているし、ドイツ、フランス、イタリア、中国等は賠償責任限度額を定めている有限責任主義を採択している。1929年のワルソー条約が発効してから、半世紀以上、78年が過ぎたので、その間多くの社会的・経済的・科学的变化がおこっているし、航空産業分野においても先端航空宇宙科学技術の急進的な発達が見え、韓国のみならず各国の国民所得も漸次増加しているのが現実であり、さらに人間の生命と財産の価値は実質的に増進している。航空機事故に起因し提起で

きた損害賠償額の増加のみならず損害賠償の範囲も漸進的に拡大している

現行の国際航空責任の制度では、航空会社等が責任を負担する損害賠償額について、被害者(遺族又は負傷者等)が満足を得ない場合、彼等は航空会社によって完全な賠償を受けられなかった損害について満足を得るために損害賠償の請求範囲を拡張して、航空機製造業者、空港当局及び航空交通管制官(ATC)等を相手に損害賠償請求訴訟を提起する傾向がある。従って航空運送人が民事責任を負担する損害とその賠償の範囲については、被害者の財産的損害、身体的損害又は精神的損害(mental loss)のみならず航空機事故に起因し、提起できた余暇活動(leisure activity)の期待に関する損害まで含まれるけれども、1929年のワルソー条約と世界最新の航空関係条約である1999年のモントリオール条約は、精神的損害と余暇活動の損害について条文解釈の面ではカバー(cover)することができないのである。

ワルソー条約とモントリオール条約は、航空運送人以外の関係機関又は関係者を相手に損害賠償請求訴訟を提起することは困難である。両条約は、とても複雑に構成されているので、同じ航空機事故によって発生した損害賠償を受ける乗客が、たとえ運賃を同じく支払ったとしても、訴訟を提起した裁判官轄地がどこにあるかによって大変異なる権利を持つのであるし、反面、航空会社は損害賠償額が増加するので問題点になっている。

過去70余年間、世界的な宿願事業であった「ワルソー・システム」の現代化(modernization)及び統合化(integration)等、根本的な改革ためにICAOが制定したモントリオール条約は、2003年11月4日から全世界的に発効し、2008年10月3日現在、86カ国が批准したので、韓国の航空運送法に関する立法問題は、前記条約、議定書又は各国の立法例等を参考にして韓国の航運実情に適合う立法を急がなければならないと思う。韓国の現行航空法は、日本の航空法とだいたい同じく主に公法的及び行政規制的な規定だけによって構成されており、航空運送人の損害賠償責任、賠償価額、責任消滅時期、裁判管轄地等を解決する私法的な規定は、ひとつの条文も入っていないので、損害賠償請求事件を処理するのに当事者間(原被告間)の紛争はもっとも深刻になっている上に航空訴訟事件の解決が遅延しているの現在の実情である。

国際航空運送の私法的な法律関係は、ワルソー条約、ヘーグ議定書、グアダハラ条約、1966年のモントリオール協定、モントリオール三つの追加議定書と一つの議定書、モントリオール条約及び改正ローマ条約等によってある程度解決できるけれども、国内航空運送の

私法的な法律関係について 韓国と日本は法律に何の規定がないので、航空運送約款又は民・商法等によって処理している。けれども、前に述べたように運送約款の一部の条項が無効決定又は無数判決が下り問題を提起している。このような問題点を解決するためには、航空機事故による紛争当事者間の責任限界を定めて、裁判の基準を定める法を制定し、裁判の公正性、迅速性、簡便性を図ることができる航空運送人の責任に関する国内立法が不可欠である。国際無限競争時代に入ってきたこの時期に、航空運送業の国際競争力を培養すると共に航空運送人と被害者のあいだに衡平の原則に立脚した相互間の権益調整のためにも商法(航空運送法編の)制定は急がれるべきで問題である。これらの問題の解決と加害者と被害者間の責任限界を明確に定めるために、現行韓国商法を改正して航空運送人の民事責任に関する規定を挿入するのがもっとも望ましいことである。

国内航空運送に関する立法問題は、運送人と被害者との間に民事法による責任限界、損害賠償責任価額(有限又は無限責任)、責任消滅時期等の法律関係を明確にさせて当事者間の紛争要因をある程度解消させるだけでなく、法の空白状態を脱皮させて先進国の立法例及び国際条約と歩調を合せることによって、190国が加入している国際民間航空機関(ICAO)の信頼をもっと強化させる契機を与えることと予想される。国際化時代に入っているこの時期に、近い将来、韓国航空運送業の育成・発展と被害者保護のために、その根拠になる法的支援策としての商法(航空運送法編)の制定が切実に必要であると信ずる。

(拙稿, 韓国における航空運送人の民事責任に関する国内立法の諸問題, 補完した、「航空宇宙法の新展開」に掲載, 2005年3月, 八千代出版(株)発行, 東京)

第四節 韓国ならびに日本の首都圏空港の現状と協力

一. はじめに

日本と韓国は世界的な航空運輸市場の発展の中で、その発展の度合いにおいて急速な発展を遂げている北東アジアの国家である。事実、1990年代から、日・韓間の航空旅客と貨物との輸送量は、劇的に増加している。こうした趨勢に応じて、両国は空港を新しく開港し、アジアにおける主要な国際的ハブ空港を建設し、空港の能力を拡大してきた。たとえば、北東アジアの主要ハブ空港を目指す韓国の仁川国際空港(ILA)は、2001年に開港した。また、同様の目的を目指す日本の中部国際空港(CIA)も2005年に開港された。しかし、こうした傾向をふまえて、地理的に密接な関係にある韓日それぞれの首都間航空輸送の実態は、旅客輸送に限られている。これら2カ国間の航空輸送の高速化と利便化の促進が図られなければならない。なぜなら、経済や文化交流は、首都圏に集中しているからである。そして、これが、韓日両国の経済成長を促進しているからである。しかしながら、航空輸送において両国の首都が要求している航空需要に答えるような座席/空港でのスロット(駐機場)が十分に確保されていない。また、首都圏空港の能力や安定性の確保についても同様のことが言える。このように、我々があらゆる面からこの問題を検討し、これらの問題を解決して韓・日間の航空運輸を改善する必要がある。本研究は、多角的視点、すなわち、法的ならびに政治的視点、さらに経済的分野からの検討を行い、韓日間の航空輸送の利便性と必要条件を探るための協力を模索するものである。

二. 韓・日両国の首都圏空港の現状と課題

2.1. 韓国の首都圏空港の現状と課題

本研究は 金浦国際空港と仁川国際空港を対象にする。両空港は、韓国への出入口としての役割があることは自明である。これらの空港は、ソウルの西部地域の一部に位置する。忠清北道清州市に位置している清州国際空港は、韓国の首都の一部(行政府の各部処)が2012年に忠清南道燕岐群及び公州地域(予定地域の坪数: 2,212万坪)⁷²¹⁾に移転されることから、新たな首都圏空港としての役割をするのであろう。まず、これら空港に付いて言及することにする。

(1) 金浦国際空港

ソウル(韓国)市の西郊外にある金浦国際空港は、1980年以降、『韓国空港公社法』により設立された韓国空港公社(KAC)によって管理されてきている。本空港は、ソウルへの出入口としての重要な役割を演じてきた。

2000年3月まで本空港は、28カ国との国際路線をもち、日本、アメリカ及びフランスの71の都市に寄航していた。しかし、ソウル—東京路線を除いて、同空港が、増大する旅客と貨物に対処できなくなってきた。

したがって、2002年に国際線が仁川国際空港へ移された。現在、金浦国際空港では、国内便として、金海、済州、大邱、光州、蔚山、麗水、木浦、浦項と泗川間で運航されているし、国際線は、羽田国際空港と中国の海虹橋空港と二路線だけの運航である。したがって、金浦国際空港は、2001年3月の仁川国際空港の開港後、国内便専用空港となった。

金浦国際空港と羽田国際空港間の路線は、両国の大都市圏への空路として大きな人気を得ている。韓国空港公社は、金浦—羽田空路を運営しており、ソウル—東京間の最短時間の空路になっている。韓国の金浦国際空港と日本の羽田国際空港間のルートは、開始以来28ヵ月で計200万人の乗客が利用している。韓国空港公社によると、金浦—羽田ルート

721) 行政複合都市建設庁 Home Page → <http://www.macc.go.kr>

は 航空各社は、その数が2006年には140万人を上回しているし、2007年には160万人を超えている。722)

現在、金浦国際空港と中国上海にある虹橋国際空港間の運航会社は、は、大韓航空、アジアナ航空と中国の上海航空社であるし、2007年の 乗客数は、160万人を上回している。羽田は、東京の中心から凡そ16キロメートル離れている。金浦はソウルの中心から凡そ12キロメートル離れている。また、仁川とソウルとの距離は、52キロメートルであり、成田国際空港と東京と距離である66キロメートルよりも短い。日当たり韓日両国の航空会社が、計16便を運航している。これら4運航会社は、大韓航空、アジアナ航空、日本航空と全日本空輸である。金浦国際空港に於いて旅客の搭乗率は、平均で70～77パーセント以上である。これは、仁川国際空港と成田国際空港ルートの搭乗率と同等である。当初、金浦国際空港は、8便がこれら航空会社によって午前10時から午後3時まで運航された。しかし、現在は便数を二倍にして、乗客の利便のために運航時間を午前8時から午後10時にまで延長している。

最近では、空港は複合施設として空港への訪問者に従来になかったようなエンターテインメントを提供している。文化、余暇と買い物の場所として『空港都市(Sky City)』と呼ばれるまでになっている。『空港都市』の概念は、その持続性保つために空港を開発するものである。韓国空港公社は健全な案と戦略を提案した。それでも、若干の記事は、空港の施設には具体的な問題があることを示している。しかし空港の施設は改善されてきた。

以下の[図表 1]はその概略を示す。

金浦国際空港の施設及び面積 [図表 1]

カテゴリー	サービス	
土地	7,317,630m ²	
滑走路	2(3,600mX45 3,200mX60)	
駐機等面積	226,000m ²	
旅客ターミナル	国内空港	76,045m ²
	国際空港	49,698m ²
貨物ターミナル	国内空港	30,914m ²
	国際空港	115,040m ²

722) 金ラン、『金浦一羽田ルートの記録200万旅客』、韓国タイムズ、2006.04.27;

http://kac.airport.co.kr/kor/airnat/airstat/act_airport_view.jsp

報道によると 金浦空港には、施設面、特に、滑走路とエプロンが危険には至らないが若干の問題があることを指摘している。したがって、金浦空港は2006年9月に滑走路の改修を行った。しかし、本空港が多くの観点からその発展計画に検討を加えなければならない必要がある。韓国空港公社は、また、国際民間航空機関(ICAO)標準の必要条件を満たす空港管理の手順を確立した。また、韓国空港公社は安全管理体系(Safety Management System)を導入して、韓国の航空安全本部(Civil Aviation Safety Authority: CASA)によって承認されている。結果として、韓国空港公社は安全管理に関し、その完全性の強化を実現できている。

(2) 仁川国際空港 (IIA)

仁川国際空港(IIA)は、2001年3月29日に開港した。世界は、2001年3月の仁川国際空港の開港を注目していた。新空港計画担当者が、1980年代後半までに新空港の開港構想を打ち上げたのは、往時において増大する旅客や貨物にソウルの金浦国際空港が対応できなくなっていたからである。現在、同空港は、韓国最初の国際空港と国家イメージを挙げる新しく優れた役割を果たしている。同空港は、流通や旅客輸送の面と同様に情報と文化産業の面でも太平洋・アジア地域のハブ国際空港に成長している。仁川国際空港は、仁川国際空港公社法によって1999年2月1日に設立された仁川国際空港社(IIAC))によって運営されている。

仁川国際空港社の授権資本金は8兆ウォンであるし、株式は、韓国政府によって100%保有されている。公社は、韓国が世界市場での競争を優位に展開するために、空港や海港、そして、双方に跨るビジネスと余暇基盤を開発して業務を促進し、管理するための独立した公的機関である。仁川国際空港のような成功例は、極めて稀である。同空港の高い水準の施設や安定したサービスは、空港に関する国際標準になるまでになっている。

国際空港の開港5年を経て、1億人以上がここを通過した。仁川国際空港は、国際比較において通過旅客数において世界第10位であり、通過貨物量は、第3位にランクされている。

仁川国際空港は、Global Traveler誌(世界有名な旅行誌)によって2004年に世界における最高の国際空港に選ばれた。国際航空運送協会(IATA)と世界空港評議会(ACI)は、仁川を2005年のベスト空港Worldwideの勝者に選定した。仁川国際空港は世界に通用する空港としてトップにまで上り詰めた。

世界 最高の中枢空港(World Best Hub Airport)は、仁川国際空港の新しいスローガンである。そして、世界に通用する空港ハブであるための仁川国際空港の決意と目的を象徴するものである。これは、韓国の目標でもある。

2006年、世界交通学会(Air Transport Research Society: ATRS)が、仁川国際空港にTopアジア太平洋優秀賞を与えられた。これは、残存生産可変要素(residual variable factor productivity)に関して、地域の平均的空港より57%高い効率レベルを成し遂げたからである。

韓国政府は、韓国が北東アジアの中心的流通センターの役割を担い、そのために同空港がその中心になるビジョンの実現のために同空港を支援していくとしている。政府は2006年8月30日に『VISION 2030』を提案して、同空港が『北東アジアの金融と流通のハブ』の設立に重要な役割を演ずることができると示唆している。

開港初年度から、仁川国際空港の利用客数は、重症急性呼吸気症候群 (SARS)⁷²³のために2003年だけは例外にして増大している。これは、韓国の国土海洋部(前建設交通部)が予測する旅客数が、経済成長や東アジアでの協力と開発の促進によって2020年まで毎年7.3%上昇するという予測の根拠のひとつになっている。

仁川国際空港の第1段階建設 [図表 2]

カテゴリー		第1段階の建設
施設	面積	1172万4000の㎡
	滑走路	2 (それぞれの 60m X 3,750m)
	旅客ターミナル面積 搭乗者数	49万6000の㎡/44門
	国際 Businessセンター	16万5000㎡
能力	旅客	3000万/年間(トランジット 12%)
	貨物	270万トン/年間

我々も空港の貨物取り扱い量が2003年を例外として上昇していることが理解できる。現在、国内の貨物総量は、世界の第5位の2,133,000トンあり、国際的な貨物総量は、2,104,000トンで世界の第3位である。我々は、同空港が韓国のVisionを実現できるかどうかの能力について目配りをする必要がある。第一に、以下の[図表3]において、施設面における

723) SARS: Sever Acute Respiratory Syndrome.

仁川国際空港の第1段階の輪郭を占めそう

[図表3]は、仁川国際空港の第1段階建設と第2の段階建設の比較である。

仁川国際空港の第1段階竣工と第2段階建設の比較 [図表3]

カテゴリー	第1段階の竣工	第2段階の建設
管理施設	11,724,000m ²	9,568,000m ²
滑走路	2	1(4,000mX60m)
旅客エプロン	1,267,000m ²	1,170,000m ²
コンコース	—	1(166,000m ²)
貨物ターミナル	129,000m ²	129,000m ²

カテゴリー	第1段階の竣工	第2段階の建設
離着陸数	240,000	410,000 (合計530,000になる)
旅客	3000万名	4400万 (合計100 mになる)
貨物	270万噸	450万 (合計7.2 mになる)

急速な交通発展に対応するために、仁川国際空港は、建設の第2段階に着手している。これは、2002年に新旅客用駐機広場(エプロン)から始まった。最近、4,000メートルの滑走路が建設できた。また、120ヘクタールの駐機広場、16.6ヘクタールのコンコースと13ヘクタールの貨物ターミナルの建設中である。この第二段階は2008年に完了される予定である。

そして、完成時には、三本の滑走路と158,400平方メートルの新しいコンコースと32の搭乗口が増設される第2段階の建設は、年当たり航空機の離着陸数を240,000から410,000に増大させるものである。旅客数は、3000万人から4400万人に増大させるものである。そして、貨物取扱量を、2,700万トンから4,500万トンに増大させるというものである。空港の関税免税区域は、仁川直轄市の中区に位置されている。仁川空港公社は、基盤施設とその上部施設に投資しているし、建造物等は、民間資本によって建設されている。第2段階の建設は、2008年で完了すべく計画されている。

国際ビジネスセンター(IBC)は、二ヶ所に分けられている。IBC 1は、三つのホテル、五つ

のビジネスセンター(BC)と一箇所の商業地区からなるものであった。さらにIBC Iの拡張地域には、ひとつのホテル、10棟のビジネスビルと二棟の商業ビルとゴルフ・コースが設置される予定である。IBC IIIは、娯楽施設、スポーツ・センターおよび駐車施設を含むものである。

仁川国際空港は、地理的にみて、北太平洋ルートとシベリア横断ルートの出入り口としての役割を果たすことが期待されている。これは、韓国から北米ならびに欧州各都市との直接的繋がりを可能にするものであった。また、本空港は、北米ならびに欧州各都市間の繋がりを可能にするものであった。

実際、この航空ルート網は、43の都市を繋げるものである。しかも、これらの各都市は、いずれも100万を超える人口を持つものである。そして、いずれも仁川国際空港から3時間30分の距離内にある都市なのである。⁷²⁴⁾

しかし、国会の「建設 交通委員会」は、空港内での乗り継ぎが、競合する他空港よりも二倍かかることを指摘した。実際に、乗り継ぎによる遅延の1～2時間が80.4%であり、6時間が、3.2%であった。1時間以内の乗り継ぎは、ほんのわずかであった。

ちなみに、欧州の主要国際空港は、一時間以内の乗り継ぎ時間を規定している。それは、通常40分から50分であり、この規則は遵守されている。

ミュンヘン国際空港ならびにチューリッヒ国際空港では乗り継ぎ時間を35分から40以内分に設定している。シンガポール国際空港は、世界でも多い乗り継ぎ旅客数と乗り継ぎ回数をこなしており、40分から50分の範囲で済むようになっている。以下[図表4]は、他の競争的空港の輸送率を示す。

競合国に於ける国際空港の乗り継ぎ旅客率の比較 [図表 4]

国 家	乗り継ぎ旅客率
仁川国際空港 韓国	12.4%
関西国際空港、日本	10.0%
成田国際空港、日本	21.5%
チャンギ国際空港、シンガポール	30.0%
チェランコック国際空港、香港	32.4%

724) 尹徳榮、仁川国際空港のHub化戦略、韓国航空経営学会研究報告書シリーズ(2005-02)、13頁。

航空保安の面からみると 本空港内では、大きな事故は発生していない。実際、航空保安には、現在まで特別の問題はないように見える。唯一の問題は、第二段階の建設後に予測される脅威への航空安全業務を、いかに管理し運用するかであろう。さらに、便利な施設は、空港の商業的運営に、重要な影響を与える。

旅客ターミナルは、左右相似になっている。東側から順にアジアナ航空、大韓航空と外国の航空会社に割り当てられ、チェックインカウンター業務を行なっている。本空港は、輸送量の観点から韓国の航空会社に高く依存している。

そこで特定の時間ならびに需要が高い時間に旅客が集中する。したがって、施設の有効利用と空港の第二段階の建設による各施設間との連携が不可欠になる。

(3) 行政中心複合都市(政府庁舎の一部移転)の建設と清州 国際空港

2004年10月12日 韓国憲法裁判所は、「新行政首都の建設のための特別措置が憲法に違反した」と判決した。⁷²⁵⁾ 2005年3月2日、与党と野党は、『行政都市建設特別法』の制定を合意した。2005年12月24日、憲法裁判所が『行政都市建設特別法』に關する違憲訴訟に對して合憲を決定した。⁷²⁶⁾これに従って政府は、政府の代表的な國策事業である行政都市建設事業の推進に拍車を加した。

韓国は、人口と経済力がソウル首都圏に集中しているのも、このような国土不均衡の問題点は、国家発展にもっとも至大な支障を招来している。これらの問題点の解決には、根本的な国土均衡発展の政策が必要である。

首都圏集中に従う社会・経済的費用の急増と地域間隔差の深化に起因する国家競争力低下を解決するもっとも効果的な代案は、この「行政中心複合都市」の建設である。ソウル首都圏集中の現状を考察したら、韓国の国土面積の11.8%にすぎない首都圏に全体人口の48%(2004年基準)が住んでいるので、現状況が持続した場合、2011年からは 50%が越えると展望している。

首都圏人口集中度の推移 資料: 統計庁(2005年)

年度	'60	'70	'80	'90	'00	'04	'11	'20	'30
集中度(%)	20.8	28.3	35.5	42.8	46.3	48.0	50.2	52.3	53.9

725) <http://www.ccourt.go.kr/>

726) <http://issue.media.daum.net/capital/200511/24/moneytoday/v10894422.html>

首都圏の集中度は フランスが18.7%、イギリスが12.2%、日本は32.4%に比べて韓国は48%なので、韓国の首都圏人口集中度がもっとも高い水準になっている。

韓国は、首都圏の過度な人口集中に従う副作用を是正するため、行政中心複合都市を建設する方法及び手続を規定した「新行政首都後続対策ために燕岐・公州地域行政中心複合都市建設をするための特別法」が2006年1月22日から施行した。

行政中心複合都市の面積は、予定地域2,212万坪(周邊地域: 6,769万坪)であるし、行政中心複合都市の目標人口の規模は、50万名である。

行政中心複合都市の土地補償は、2005年12月20日から始まったので、補償土地が1,659万坪(21,689筆地)であるし、補償金額は3兆4千億Wonである。燕岐・公州地域の政府庁舎の建設は、2008年から始まって2012年に竣工する。

行政中心複合都市の位置図 (政府庁舎移転予定地)



政府が2005年10月5日に樹立した庁舎の移転は、企劃財政部(前財政經濟部及び予算企劃処)、教育科学技術部(前教育人的資源部及び科学技術部)、文化体育観光部(前文化観光部)、農林水産食品部(前農林部)、国土海洋部(前建設交通部)等の12カ部、国家報勲処等の2カ処、18カ庁等の行政単位機関を2012年から2014年まで、燕岐・公州地域の行政中心複合都市に段階的移転をする。

行政中心複合都市の行政区域の位置は、忠清南道燕岐郡南面・錦南面・東面と公州市長岐面・反浦面の一帯にある。地理的特徴は、大田広域市と清州市から、それぞれ10km距離に位置しているし、清州空港とは24km距離に位置している。

政府は、行政中心複合都市を迅速に、また効率的に建設させるため、2006年1月12日から国土海洋部(前建設交通部)の傘下に「行政中心複合都市建設庁(本庁所在地: 忠南燕岐郡錦南面大平里)」を設置・運営している。

上記から解るように、清州国際空港は、行政中心複合都市に関する研究課題のひとつになっている。行政中心複合都市は、旅客ならびに貨物需要の増大をもたらすからである。最近の研究によると、清州国際空港は現在のところ地方空港にすぎないが、行政中心複合都市との関係からより上の対処を求めるものになっているからである。

清州国際空港は、忠清北道(韓国の中中部地区)の清州市に位置し、1997年4月28日に開港された。本国際空港は、国際空港の機能を具備した中部圏拠点空港として、仁川国際空港から250km、金浦国際空港から165kmおよび群山空港から120kmしか離れおらず、これらの中心に位置している。そして、ここから交通路があらゆる方向に繋がっている。

本空港は、年ベースで国内線旅客に関しては1,230万人、国際線旅客は、1,150万人を数えている。駐車施設は、770台の車輛を収容可能である。加えて、年ベースで196,000回の離着陸をこなすことができる。現在では、国内線では済州線、国際線では、北京、上海、瀋陽、マニラ等を連結する4カ国際路線が週14回運航されている。

2009年末までは、中国の杭州、深圳、張家界、広州、延吉路線が運航される予定である。現在、同空港は、韓国空港公社によって運営されている。施設面では、年ベースで2,380,000人の旅客を取り扱う能力を持つ26,611㎡の旅客ターミナルを有している。さらに、19の付属の建物と26,611㎡付属駐車施設を備えている。

清州国際空港の滑走路は、全体として、飛行条件は良好である。また、大きな問題の発生は予測されない。滑走路の長さは、航空機重量、航空機運航等々を考慮しても大型の貨

物用航空機に必要な2,740mを備えている。以下の[図表5]は、清州国際空港の国際航空需要予測を示すものである。

清州国際空港に於ける国際運航に関する需要展望 [図表 5] 727)

年度	既存需要	予測需要	新需要	全体需要
2005	101,000	1,123,700	2,900	1,227,600
2010	122,000	1,545,600	4,900	1,672,500
	3.9%	6.6%	11.1%	6.4%
2015	157,000	1,965,100	7,900	2,130,000
	5.2%	4.9%	10.0%	5.0%
2020	197,000	2,500,100	11,800	2,708,900
	4.6%	4.9%	8.4%	4.9%
2025	247,000	3,183,000	17,300	3,447,300
	4.6%	4.9%	8.0%	4.9%

国立統計局のデータによると、本空港の利用の80%は、忠清北道の住民によるものであること。同道の住民の15%が仁川国際空港と金浦国際空港を利用するとしている。⁷²⁸⁾

この状況の下で、国際便による清州国際空港の活性化は、仁川国際空港から凡そ100万人の旅客を移動させ、清州国際空港は需要規模の面で国際空港との地位を得るようになるであろう。

需要予測上、空域は清州空港の国際空港化を実現する上での障害のひとつである。空港の近接空域が、空軍の管制空域としてコントロールされており、スケジュールの定時性を維持するために必要な直線空路を確保することが困難だからである。

このことが解決されないと、急速に航空運賃の上昇に転化し、しいては国際競争力を弱めることに繋がっていくであろう。

このような事態に至らないためには、軍との協力と空港の改善、空港の運用組織の不全、空港へのアクセスの改善、航空旅客の関心の吸引についての戦略的検討が求められるところである。

727) 国交通研究院、『第3回中長期空港開発計画に関する公聴会(2005.11.16)』と『国内の航空統計、2006』、韓国航空振興協会。

728) 韓国統計庁、『全体人口報告書、2005』、参照。

2.2. 日本の首都圏空港の現状と課題

(1) 成田国際空港

成田国際空港は 1966年以來「東京国際空港公団」によって運営されてきた。本空港は、2004年まで新東京国際空港と呼ばれていた。この空港が民営化されて二年の歳月が経過した。民営化された本空港は、日本発着の大量の国際旅客輸送を取り扱い、韓国の仁川国際空港と同じくアジア、ヨーロッパと北アメリカ間の航空輸送の主要な接続ポイントになっている。

本空港は、日本で航空旅客の取り扱いで第二番めの忙しい空港であり、貨物の取り扱いでは、世界第一位の忙しい空港である。

また、日本航空（JAL）と全日本空輸（ANA）の主要国際拠点であり、ノースウエスト航空とユナイテッド航空のアジア地域のハブとして使用されている。また、成田国際空港と関西国際空港が日本における航空貨物取り扱い量のおよそ90パーセントを取り扱っている。同空港が抱えている問題のひとつは、滑走路の長さが、B747のような大型航空機にとって不十分であるということである。したがって、チャーター便の増大が予測されることから、平行滑走路の増設が必要である。

ちなみに、同空港のもう一本の滑走路を2,180mから2,500mに延長することが計画されている。このように、成田国際空港のスロットル能力が限界域に近づく中で、最優先事項は、2,500m平行滑走路の完成である。

同空港は、2007年までに株式会社に組織替えし、政府保有株の民間への売却計画を決定している。その際に、空港株式会社は、商業施設の建設と着陸料の値下げを決定した。

これは、東京大都市圏を背景にした国際的航空輸送の将来的成長に直面して、東アジアの航空輸送に関する競争的状况に対処すべく打ち出された決定である。たとえば、同空港は、着陸料の値下げを15%から20%の範囲で実施している。さらに、空港へのアクセス能力を改善するため、2010年までに同空港と東京間に高速鉄道の建設が決定されている。なお、所用時間は、40分未満とされている。⁷²⁹⁾

以下[図表6]で成田国際空港の概略を示す。

729) The Annual Report of Narita International Airport of 2005, and see also supra note 1

成田国際空港の概略 [図表 6]

カテゴリー	サービスにおいて
空港用地	940ヘクタール
滑走路	2 (4,000mX60m 2,180mX60m)
誘導路	L: 26.5km W: 30m (約23m)
エプロン	約213ヘクタール
旅客施設	ターミナル1 (260,300㎡),ターミナル2 (303,000㎡), 国内線ターミナル (23,400㎡)
貨物施設	貨物ターミナル施設ならびに関連施設 (249,000㎡)

成田国際空港の最重要課題である暫定平行滑走路 2,500m化工事につきましては2009年度内の供用を 都心とのアクセスを飛躍的に向上させる 成田新高速鉄道の整備につきましては2010年4月の完成を目指し、順調に進めている。⁷³⁰⁾

(2) 東京国際空港(羽田空港)

ジェット機とジャンボジェットの増加は、大量輸送時代を到来させた。国際便が成田国際空港へ移動後、羽田空港は国内便専用空港となった。成田空港への交通起点は東京であるが、同空港は千葉県に位置しており、東京の中心部(最速の電車での約1時間)から遠く離れている。これに比べて国際路線は少ないながら、東京国際空港(羽田空港: 東京都大田区に位置する)は、日本で最も混雑している空港であり、世界でに混雑している空港である。羽田国際空港の概要は、以下の[図表7]のとおりである。

羽田国際空港の概要 [図表7] ⁷³¹⁾

滑走路	A : 3,000×60m
	B : 2,500×60m
離着陸の滑走路容量	およそ285,000/年
スポーツ用航空機	118 (2004年4月 現在)
開港時間	24時間
乗降旅客数	およそ6000万名 (2003会計年度で)

730) 森中小三郎、「成田空港(2007年)～その役割と現状～」、2頁。

さらに 同空港の需要は予想以上の増大傾向にある。同空港は、日当たり400便が離着陸し、その空路は国内48個所に及んでいる。国内線の旅客数は、年当たり6000万人に達している。このように、同空港は、24時間開港をもって日本国内の強い需要に答えている。そのうえ、主要な航空気象施設の充実とあいまって、航空機へのメンテナンス（夜間駐機施設）ならびに大規模な飛行テスト用施設が備えられている。又、同空港は、VIPや政府利用の際の基幹空港としての役割を果たしている。

大都市圏での国内航空輸送の重要な基地として、昼夜にわたってその機能を果たすために、また、早急な航空機雑音問題を解決するために、空港の沖合展開が進捗している。2004年12月1日には、第2ターミナルが竣工した。これによって旅客ターミナルの混雑が、緩和された。またこれにより旅客ターミナル1の混雑が緩和され、ターミナルから航空機への直接アクセス割合が60%から90%へと増加し、利便性が向上することになった。さらに、高速道路または鉄道による空港への直接乗り入れが改善された。

同空港は、国内航空輸送需要の増加によって、その能力は限界に達している。増大する旅客の便宜をはかるために早急な改善が求められるばかりでなく、航空輸送（それは継続的に増大している）の需要増大に対応するための拡大計画の必要にも繋がっている。

新たな国際線の導入によって国際線旅客数の増大が見込まれる。これは、国内航空路線の拡張により年当たり285,000から407,000人に増大すると予測され、そのために拡張計画の一部として4本目の新滑走路の建設が計画されている。完成後には、空港の容量は、かなり増大するであろう。これによって、多様な利益、例えば都市の再生や観光客の増大が予測され得るであろう。特に、経済的効果は、雇用人口を180,000人増大させ、国全体において年当たり2兆円の創出に繋がるであろう。この拡張事業は、大きな経済効果をもたらすものである。これは、日本経済の再生を実現する国家計画である。

新2,500mの滑走路は、現在の空港の南側の海上に建設される。この一部が多摩川河口にかかるので、プロジェクトの環境影響評価アセスメントが実施され、着工が遅れている。工法として水浸透性構築物が採用された。さらに、空港の国際便エリアは民間部門参入のために民間資金等の活用(Private Finance Initiative: PFI)により再建乃至改善され予定である。施設建設と新滑走路建設が、2005会計年度より実施されるならば、開港は2009年に可能になる。空港アクセスについてはふたつの路線がある。これらは、空港と東京ならびに

他の地域とを結んでいる。ふたつの路線の空港駅は、羽田空港駅である。JR山の手線の浜松町駅を結ぶ「東京モノレール」は、羽田と東京の中心部とを接続する路線である。他の主要な路線は、京浜急行羽田空港線である。

同路線は、品川駅でJR山の手線、京浜東北線、東海道線、総武・横須賀線線（成田空港へアクセスする）、さらには、東海道新幹線に繋がっている。また、同線の「空港特急・急行」は、直接に成田国際空港にも繋がっている。また、横浜方面の直行運転も頻繁に行われている。同線は、平休日とも平均5から6分ヘッドで運転されている。空港バスは、成田・横浜線を中心に、東京と首都圏各地の主要ホテル、主要駅やバスターミナルから頻繁に運航されている。

2.3. 韓・日両国の首都圏空港の協力活動

(1) 韓国と日本との航空交渉

韓日両国は、相互の航空輸送を円滑に行う上で、年一回の航空会議を行なっている。この会議の成果のひとつに韓国の金浦国際空港と日本の羽田国際空港間でのシャトル運航がある。2002年のワールド・カップ開催に際して、両国政府が協議し、合意された航空路線である。金浦―羽田間航空路線の合意は、同時に増便への合意に発展していった。本交渉は、両国間の航空輸送の発展に重要な役割を果たした。また、両国間の航空輸送の発展に関する諸問題の解決に重要な役割を果たすであろう。

(2) 東アジア空港協議会

東アジア空港協議会(East Asia Airports Alliance: EAAA)は、同地域における航空輸送市場と需要の急速な拡大に対処するために、2001年12月に韓国の済州道で結成された。加盟メンバーは、中国、日本および韓国の主要空港組織である。メンバーは、年一回定期的協議を開催するとともに、必要に応じて協議を開催できると合意している。過去4回の定期協議は、2002～2005年にそれぞれ成田、上海、仁川とマカオで開催された。第5回の定期協議は、2006年9月に首都空港会社をホストとして北京で開催された。東アジア空港協議会は、空港業務と管理に関連する総合的問題の議論を通じて、東アジア地域で航空輸送と旅客サービスの改善のために活発に活動している。⁷³²⁾

(3) 姉妹都市関係（北京—ソウル—東京）

1988年9月3日 ソウル市長と東京都知事は、地方行政、文化、芸術、科学技術やスポーツ等々に関する交流協定に合意した。中国、日本と韓国は、北京、東京とソウルの姉妹都市協定を締結した。このことが、ソウル—東京、ソウル—北京と北京—東京の航空旅客が年当たり9,000,000人の旅客の増加に繋がった。⁷³²⁾

(4) 国際協力に関する諸問題

航空輸送の需要の増大が、世界におけるのと同様にアジアにおいても生じることは疑問の余地はない。この傾向は、韓国と日本に共通する傾向である。実際に、金浦—羽田間空路の開設が、新しい需要を引き起こしている。言い換えると、短距離の国際航空路線、たとえば、中国・韓国間の自由化協定計画のようなものが実現されれば、便数の制限が廃棄され、新たな航空需要を引起すことになるであろう。

便数と駐機上の配分問題は、需要と供給との両面から検討されなければならないであろう。たとえば輸送供給問題について、清州国際空港について考えてみよう。清州と日本の首都圏空港との直行便が運航されなくては、国際空港としての地位はもつことができないであろう。金浦—羽田路線の開設は、航空路線が、仁川から金浦に移ったというだけでなく、この路線が新たな需要を引起したことに注目している。⁷³⁴⁾当然に、清州—羽田路線の開設が望まれる所以である。

もし、済州国際空港と日本の大都市圏空港のうちの一つとの間で直行空路が開設されるならば、当該国際空港に近接する地域からの需要を掘り起こすことになる。それは、丁度済州国際空港が周辺地域からの需要を掘り起こすことにも繋がってくるであろう。それは、仁川や金浦への需要の一部を清州国際空港に移動することになるであろう。

なぜならば、中部地区の住民にとって、仁川や金浦国際空港より清州国際空港のほうが便利になるからである。清州—日本間の直行路線が待たれる所以である。まず、2008年に清州国際空港と熊本空港路線の開設を推進している。日本の空港のスロットの不十分さ

732) <http://www.narita-airport.jp/en/eaaa.html>

733) 韓国航空政策研究所・清州市、「清州国際空港活性化戦略と実践方案」, セミナール, 1999年11月30日, 7頁。

734) Lee, Young Hyuk, 'Demand Estimate of Local Airports', The Revitalization of Local Airports Conference Distribute, 2006, at 13.

が日本の自由化を妨げる要因になっている。これは、アジア太平洋地域の大部分の空港が抱えている難しい課題のひとつである。日本の成田国際空港と羽田空港におけるスロット問題の解決策として滑走路の新設を計画している。この建設竣工時に合わせてスロット配置が適切に決定されることが期待されている。空港の供給容量は、韓国と日本との航空協定に基づいて決定されている。各航空会社には、決定権がないのである。

しかし、大抵の国家は、Ex Post Facto Review（協定見直し権）をもっており、各航空会社に航空市場の変動に従って増便と減便の自由を認めている。韓国は、アメリカとは部分的に、中国、ヴェトナム、カンボジア、ミャンマー、ドイツとその他の国との間には、自由化を実現させている。しかし、日本は、航空市場についての規制が厳しく、また、後ろ向きで伝統的な政策を固守している。日本の現行政策の変更なしには、2カ国間交渉による航空自由化協定等、航空輸送を新しく立ち上げるのは困難であろう。

2.4. 韓・日首都圏空港関係における諸問題

(1) 空港の施設

先に指摘したように、空港の能力の向上は、空港開発にとって非常に重要な要因であった。こうしたことから、韓国（日本の成田国際空港と羽田国際空港の滑走路と建物と同様に）の仁川国際空港は、その拡張建設の第2段階に入っている。

建設とは別に、スロット配分計画、空港へのアクセス等、各々の空港が対処すべき計画を進めている。実際に本研究の対象となる韓・日の首都圏空港は、ヨーロッパ、アメリカとアジアの他の競合空港より非常に長いアクセス時間への対処という類似の問題を抱えているのである。

(2) 空港管理の効率化

現在、我々はIT（情報技術）に支えられた世界に住んでいる。これは、全体としての航空輸送産業にもあてはまることである。たとえば、バイオ・テクノロジーは、日常の航空輸送も、日常の航空運輸全般ないしは一部に利用され始めている。このようなテクノロジーは、空港管理、特に、安全や危機管理の面で重要であり、搭乗手続や税関・出入国管理及び検疫（CIQ）の簡素化や効率化に係わっている。大部分の国は、ITとBTに基いた案内プログラムを試験中であり、いくつかの試験は、実際にU空港（Ubiquitous Airport）や生物測定（Biometrics）

という名前で空港に試験導入されている

世界中の空港での技術に関するデータと事例を検討する。この流れを追ってみると、日本と韓国は、ITとBTに関して主導的な国として知られている。両国は、北東アジアの航空輸送のためにそれぞれが開発した価値の高い技術に基いた統合システムを考案すること。そして、韓国、日本及び中国との各空港のそれぞれで三国間の協力を検討すべき時が到来している。

(3) 航空会社

航空会社の戦略は、首都圏空港の持続性にとっての必要条件に左右されている。航空会社の競争力は、2つの面に分けられる。ひとつは、収益性である。もうひとつは、競争力に耐える資金力である。たとえば、日本の航空会社は、生産性を相対的に高く維持することによって競争力の維持ができています。ある研究結果によると、日本ならびに韓国の航空会社を除いて、アジアの大半の航空会社における低コスト化は、欧米と比較して競争力を持っている。

このような低コストかによる競争力は、アジア地区における投資の低さによるものである。他方で、業務効率は、欧米の航空会社よりも高いものと評価されている。しかしながら、アジア各国の航空会社の投資が増加しているとしても、欧米における航空市場の単一化に対抗して航空市場を確保するために、その生産性と効率性を増進させなければならない。最近、アジアは金融危機を経験した。これは、結果として投資の増大を引起したが、競争に直面したローカル航空会社に不利をもたらした。

他方で、アジア各国の航空会社の競争力不足への認識は、なぜ、政府が自由化に対する保護政策をとらなければならないかとの問題を妥当なものとしている。すなわち、アジア各国の航空会社が航空市場において十分な競争力をもっていないことを認識していた故に、政府が自由化に否定的な見方をしていたのは、当然であったのである。

韓・日・中三国は、相互に航空会議を開催し、三国間の航空輸送に力を入れてきた。たとえば、先に述べた金浦空港—羽田空港—上海虹橋空港のルートは、この協議によって実現したものである。そして、その成果の大きさは、第2、第3の羽田—金浦—上海虹橋ルートを考える機会を指し示している。

しかし、両国とも航空輸送の自由化には、合意していない。まず、自由化についての見解が異なっている。韓国は、中国、ヴェトナムおよび米国との自由化協定によって自由化政策

を基針としている。そして、自由化政策の実現を漸進的に行なっている。しかしながら、アジアにおいてさえ、自由化に極めて慎重な姿勢をとり続けている。理由は、日本の航空会社は、高コスト体質をもっており、韓国の航空会社よりも低コストの点で競争力を持っていないからである。この状況は、韓日両国間での自由化を妨げることになっている。

今後、自由化協定への積極的な協力が求められるようになるであろう。また、北米のオープン・スカイ市場とヨーロッパの単一市場との協調も必要になるであろう。さらに、これは、北東アジアにおける自由化に基づく基盤的航空市場整備の促進にも繋がることになるであろう。

最後に、これらは、自由化に基盤を置く韓・日・中三国の首都圏空港の持続性を確保することになるであろう。

三. 研究課題に対する対案

3.1. 韓国—日本の航空自由化協定と政策

ここで、上述の内容に基いて、韓国と日本における首都圏空港の持続性について数点の提起をしたい。特に、両国の首都圏空港の中・長期的計画における自由化について言及したい。一般的にアジア諸国は、航空輸送政策決定に関して事前原則を踏襲している。従って、政府規制は、航空運輸全般に影響を及ぼすものになっている。しかし、世界における航空輸送は、競争性を核にし、競争的時代に突入している。北米では、開放的航空市場に基いて航空輸送を行なっている。欧州は、自由化に基く単一市場を作り上げている。加えて、欧州連合（EU）は、EU加盟国が米国との自由化協定を締結することを認めている。アジア諸国も、二国間ならびに多国間での自由化協定を締結し始めている。今年、韓国は、中国との間に自由化協定を締結し、自由化の第一段階に入っている。これは、日本との関係を比較すると著しい変化のように見える。

再三指摘したように、この状況において、自由化に関する基本的合意が韓国と日本の首都圏空港の持続性が必要になっている。自由化協定が締結されて、初めて、抜本的かつ飛躍的な対案を提起することができない。これは、最優先に解決されなければならない問題である。

3.2. 新空路の開設と低価格航空会社(LCC)の輸送への対処

自由化政策によって 両国は、各々の路線強化を行うことができる。また、羽田・金浦間のような新航空路線を開設することができる。私は、羽田—金浦—上海虹橋のような新航空路の開設は、新しい航空需要を引起すと指摘した。同様に、新しい短距路線として清州—羽田—上海虹橋路線の開設が必要である。これは、仁川国際空港と成田国際空港の混雑を解消することになるからである。

羽田—清州—上海虹橋路線は、同様に、日本及び中国の空港の利益や発展に繋がる。韓国旅客の平均往復日数が金曜日から日曜日という具合に3日間という傾向をもつことから、日本と中国の地理的距離の短いこの路線は、最も魅力的な路線のひとつになるであろう。したがって、韓国旅行者が、欧州ならびに米国に向うために日本経由を利用する機会が増大に繋がるであろう。新しい航空路の開設に伴い、清州—羽田—上海虹橋間の低価格航空会社の参入を検討することも首都圏空港の持続性を考えるひとつの問題である。それは、アジアの航空輸送市場を活性化させる。もちろん、新しい航空路の開設と低価格航空会社の参入に関する分析と予測には、実態に即した経済評価が必要になる。望ましいことは、この研究が多様な視点から生まれる問題についての調査と分析に繋がることである。

3.3. 空港業務の能率化

首都圏にある各空港は、その持続性のために地方空港と同様の業務の能率化を促進させなければならない。特に、首都圏空港は、外国旅客の出入口としての重要な役割を担っているので、より高度な空港業務の効率化が求められている。すなわち、世界中の空港は、搭乗手続や検疫のための生物測定施設の効率化計画を持っている。これらのシステムを通じて、空港は、搭乗手続時間や出入国管理の時間の大幅な短縮を目指している。さらに、U空港構想という概念は、滑走路、エアサイド、雑音測定等に適用される。

日本ならびに中国と韓国における首都圏空港は、容量の問題を抱えている。各々の空港の混雑を低減するために、空港は統合システムを導入する必要がある。また、各々の空港は、中長期発展計画に基づく専門的運用ノウ・ハウ・ベースで、空港業務の持続可能な発展を目指す必要がある。さらに、この個所で指摘しなければならない事は、ヒューマン・

サービスである。これは、現在の芳しくない空港のイメージを改善するために、洗練され国際的感覚を身に付けたスタッフによる業務が必要だということである。

3.4. 北東アジアにおける航空輸送市場のための国際協力

アジアにおける航空輸送市場は、北米におけるオープン・スカイ市場や欧州における単一市場に対応して発展する潜在的能力を有している。

韓国、中国と日本の首都圏空港は、アジア諸国との協力を維持しなければならない。そして、それぞれの空港の持続可能性に関する計画を立案しなければならない。東京—ソウル—北京で、EAAAで、および二国間ならびに多数国間での航空会議を通じて、北東アジア各国間の緊密な協力を促進させる努力が尽くされなければならない。

四. おわりに

アジアの航空輸送市場は、制限なき競争の時代に入っている。これは、アジアの航空輸送市場が、非常に重要な時期に差し掛かっていることを意味する。アジア各国は、多くの開発計画に努力を集中させている。また、自国のハブ空港の発展に努力を傾注させている。これらの計画を完遂するために韓国と日本は、より緊密な連携システムを構築しなければならない。

私は、羽田—金浦間のチャトル便の増便、また、清州—羽田間のチャトル便の開設のために“新オープン・スカイ協定”の締結を提案する。これは、多くの韓国人や日本人にとって必要であり、かつ、便利になるからである。

『2008年の北京オリンピック』のために東京—ソウル—北京とのチャトル便の開設と東京—ソウル—上海とのチャトル便の増便のために、日本、中国と韓国の間で『オープン・スカイ協定』を締結することは、三者にとって望ましいことである。相互に協力して、韓国と日本との間で、首都圏空港の開発計画に関する共同研究が必要になっている。

強調しておきたいことは、この研究が空港に関する全ての件についてなされるべきだということである。したがって、我々は現実的にかつ実際的に個々の問題について研究を行わなければならない。

結論として 両国政府は、航空輸送に関する中・長期的計画と戦略、そして、関係機関、航空会社および空港に関する共通基準を構築しなければならない。この共通基準に基づいて、韓国、日本及び中国との間で首都圏空港の開発問題が現実化することが望まれる。

(拙稿、日本と韓国の首都圏空港の発展に関する研究、紀要、第7巻第1号、2006年12月、日本中央学院大学社会システム研究所発行、141～158頁、参照； 首都圏空港の現状と課題、シンポジウム、紀要、第7巻 第2号、2007年3月、日本中央学院大学社会システム研究所発行、8～23頁、参照)

Chapter 2. International Space Law (Japanese Language)

第二章 国際宇宙法(日本語)

第一節 韓国の宇宙開発の現況と展望 ～法的支援策を中心として～

1. はじめに

韓国政府(教育科学技術部)は 1996年4月30日、宇宙開発中長期基本計画を立案して、希望にあふれる21世紀を準備をするため、この基本計画を2回以上修正しながら施行している。教育科学技術部は、さらに具体的な宇宙開発中長期基本計画 細部実践計画を新しく策定した。この細部実践計画は、97年4月10日、新たに制定(法律第5340号)して、7月1日から施行している『科学技術革新ための特別法』第4条によって、97年12月に政府内の『教育科学技術長官会議』での審議と議決を経て施行されるていた。

まず1996年、韓国科学技術法第5条により、韓国科学技術庁が国務総理所属の総合科学技術審議会の審議と決議を得て確定した宇宙開発中長期基本計画と細部実践計画の概要を紹介し、次に航空宇宙産業法的支援を定めるため制定した韓国航空宇宙産業開発促進法及び同法施行令の原文を紹介する。

2. 韓国の宇宙開発中長期基本計画

2.1. 宇宙開発基本計画の目的

韓国は 国家宇宙開発中長期基本計画と細部実践計画を樹立し、宇宙分野の技術開発を体系的に推進すること、韓国は21世紀には宇宙先進国に参入することを目標とする基盤を構築し、研究開発資源の効率的な活用を図ることを目的としてこの開発基本計画を策定した。

2.2. 宇宙開発基本計画の主な内容

- (1) 韓国は、宇宙開発技術分野を総合して調整機能を強化し、また産業界・学界・研究所等との連繫体系を確立するための基盤を構築する。
- (2) 韓国は、2010年まで、国内技術による低軌道衛星及び衛星打上げ機を開発する。
- (3) 韓国は2015年まで、合計19機の人工衛星(通信放送衛星5機、多目的実用衛星7機、科学衛星7機)を開発し打上げる。
- (4) 韓国は、2015年までに、宇宙産業分野において世界で10位圏以内に躍進できるように宇宙開発事業の発展を積極的に推進する。

※ 現在、韓国の航空産業(運送分野等)は、すでに世界10位圏に占有している。

2.3. 宇宙開発基本計画の協議機関

この宇宙開発中長期基本計画を樹立するため、韓国政府内の企劃財政部(前財政經濟部)、教育科学技術部、外務通商部、国防部、農林水産食品部、知識經濟部(前産業資源部)、環境部、国土海洋部(前建設交通部)は、本件につき協議を行った。

2.4. 推進経過

- '94. 7~'95. 10: 教育科学技術部は 宇宙開発中長期計画策定の企劃事業を推進した。
- '95. 7. 23: 韓国の金泳三大統領の『San Francisco宣言』の内容は、次の通りである。「政府は『宇宙開発中長期計画』を策定し、2015年まで20カ以上の人工衛星を打上げ、宇宙産業の新しい地平を開拓」する。
- '95. 9. 19: 宇宙開発中長期基本計画(案)に関する公聴会を開催した。
- '95. 10~11: 政府関係部処の意見を収集した。
- '95.12~'96.2: 政府関係部処の意見を勘案して基本計画(案)を作成した。
- '96. 3. 28: 総合科学技術審議会総括調整分科委員会で、この基本計立案が議決された。
- '96. 4: 政府の総合科学技術審議会にこの基本計立案を上程し、議決を経て確定された。
- '96. 5~10: 各分野別に細部実践計画が策定された。
 - 財源調達、人力確保、国際協力方法等を具体的に綿密に検討しながら分野別に実現可能な細部実践計画が作成された。
- '97.10~12: 科学技術革新のための特別法第4条によって前記細部実践計画が科学技術長官会議で審議された。

2.5. 宇宙開発の必要性

宇宙空間は 新しい挑戦が可能な領域

- 宇宙技術は 21世紀において、先端産業を主導する核心技術であり、明るい展望が開いている。
- 宇宙技術及び宇宙環境の商業的利用を拡大する。
- 宇宙技術は、技術自立のために重要である。

- 宇宙開発能力は経済力、科学技術力と共にその国の総合的国力を象徴する尺度でる。
 - 宇宙技術は、超精密加工・組立技術、高品質電子部品技術及び極限環境技術等が結合した技術先導型、未来指向型先端技術の複合体である。

- 人工衛星及び宇宙環境利用の領域が増大する
 - － 人工衛星の利用範囲は、衛星通信が始めた以後、衛星放送、宇宙観測、宇宙環境利用・地球気象観測・海洋観測及び資源探査等に拡大する。
 - － 衛星を利用した遠隔診療、移動通信、在宅教育、画像会議等の新しい利用分野が登場する。
 - － 新素材及び新医薬品開発に無重力、真空等の宇宙環境を利用することができる。
 - － 宇宙実験室又は宇宙ステーションのなかで高純度の医薬品及び新物質製造等の実験を推進している。
- 独自の宇宙開発能力を確保し、核心情報を自主的に獲得・活用することが必要である。
 - － 衛星を利用した各種情報・資料蒐集に関し対外(外国)への依存から脱皮する。

2.6. 国内・外の宇宙産業の動向

(1) 国外の動向

- 人工衛星の総打上げ数の合計は、4,428回で旧社会主義国家等を除く世界宇宙産業の市場規模は、年間約500億ドルである。⁷³⁵⁾

の衛星打上げ数

(単位・機1993年9月 基準)

区分	科学・実験	通信放送	気象	観測	その他	合計
衛星数	3,252	551	131	87	407	4,428

- － アメリカ、ヨーロッパ連合(EU)、日本等の少数の先進国が世界の宇宙産業を主導している。
- － 世界宇宙産業の市場規模は、年平均10%以上の持続的な拡大が予想される。
- － ランス('65年)、日本('70年)、イスラエル('88年)等の国は1人当りのが5,000~6,000ドルの時点ですでに宇宙開発事業に本格的に進出していた。
- － ヨーロッパ12カ国が参加して製作した共同商業衛星「Arian 5号」は、1997年10月30

735) 韓国科学技術処、宇宙開発中長期基本計画(案)、(1996年4月30日作成)、8頁。

日ギアナ宇宙センター(G.S.C.: フランスの海外領, 南アメリカ)で 衛星打上げの無人ロケットにより打上げた。「Arian 5号」は、コンソーシアムを構成し、Arian Space社が21世紀の世界商業衛星市場の優位を確保するため打上げた商業用衛星である。1979年のArian1号から始め、ヨーロッパの14カ国の共同協助により運営しているヨーロッパ宇宙機関(European Space Agency: 以下 ESAと略称する)は、そのあいだ全部90億ドルを使ってロケットを開発している。

国家別の費用の負担比率

フランス	46.2%	スウェーデン	2.0
ドイツ	22.0	スイス	2.0
イタリア	15.0	ノルウェー	0.6
ベルギー	6.0	オーストリア	0.4
スペイン	3.0	デンマーク	0.4
ポーランド	2.0	アイルランド	0.2

- 旧ソ連/ロシアは、独自の宇宙ステーション『ミールを建設し、運営しているし、最近、アメリカ、ロシア、欧州連合(EU)、カナダ、日本等は、宇宙往復船による『国際宇宙ステーション(International Space Station:以下 ISSと略称する』の建設等を本格的に推進している。736)
- 通信放送分野の場合、Globalizationの戦略により低軌道衛星通信網の構築計画(Iridium、Global-Starプロジェクト等)に基づいて、衛星需要の増大が予想される。1997年から2005年までの期間中には、800~2,000箇の低軌道衛星の打上げが予測された。衛星技術の急速な発達により、衛星の小型・軽量化が趨勢である。737)

736) 財団法人 日本宇宙フォーラム、“宇宙開発データブック”、(平成8年2月19日発行)、307頁。

737) 科学技術宇宙航空調整室、宇宙開発中長期細部実践計画(案)、1997年 10月、2面。

国別人工衛星の打上げ

(’57-’97 7月末 累計 単位: 機)

ロシア	米国	日本	中国	フランス	独逸	英国	韓国	其他	計
3,039	1,383	73	44	36	20	23	4	260	4,882

※ 韓国では 『我ら星の科学衛星第1号(’92)、2号(’93)、3号(’99)』、『無窮花通信衛星第1号(’95)、2号(’96)、3号(’99)、5号(’06)』、『科学衛星第1号(’03)及び『Arirang多目的衛星第1号(’99)、2号(’06)』が別々に打上げられた。

□ 今後 通信・放送需要が増加し、衛星利用分野の拡大等により宇宙産業が持続的に発展することが期待される。

世界衛星の移動通信プロジェクト現況(738)

区分	Spaceway	ICO	Odyssey	Global Star	Iridium	Obcom	Teledestic
軌道	停止軌道	中軌道	中軌道	低軌道	低軌道	低軌道	低軌道
衛星数	8機	10機	12機	48機	66機	28機	840機
投資数	30億ドル	37億ドル	32億ドル	25億ドル	50億ドル	3億3千万ドル	90億ドル
サービス	画像会議等 Multi Media サービス	二重モード電話サービス	二重モード電話サービス	電話、無線呼出、低速データ通信	電話、無線呼出、低速データ通信	データ message サービス	高速Internet、Intranet 画像会議
日程	99年～2000年	2000年	2001年	98年秋～99年	98年9月	97年	2002年

ー イリヂウム(Iridium)、グローバルスター(Global Star)、オデッセイ(Odeysson)等の世界的な民間移動衛星通信事業の拡大、宇宙探査活動の増大、宇宙ステーション事業推進等によって宇宙産業の規模は、飛躍的に拡大することが予想される。

ー 最近5年間、ヨーロッパ聯合(E.U.)と日本等は、この分野において年平均15-20%の高成長を維持している。

738) 朝鮮日報、1997年5月3日、37面。

の宇宙技術の水準

- | |
|---|
| <ul style="list-style-type: none"> ○ 世界22番目の人工衛星保有国である ○ 技術水準は、先進国(アメリカ等)と比較して20~30%の水準である。 |
|---|

(2) 国内の動向

- 韓国科学技術院 (KAIST)の人工衛星センターは 1992年及び1993年に打上げた小型科学衛星である『Uri Byol(我らの星)第1号、第2号』が韓国で初めての衛星であり、つづいて『Uri Byol(我らの星)第3号衛星』も打上げた。完璧な国産技術によって製作した遠隔探査用衛星『Uri Byol(我らの星)第3号』は、1999年5月、インド東南部海岸に位置しているスリハリコター打上げ射場で、インドのPSLVロケットによって打上げられた。2003年9月、『科学衛星1号(Uril Byol第4号衛星)』が打上げられた。
- '95年及び'96年に打上げた通信・放送衛星である『無窮花第1号、第2号』は、すでに衛星の商業的利用を行っている。韓国放送公社(KBS)は、通信衛星である『無窮花号』を使用し放送を行っており、韓国では現在、テレビの難視聴地域はほとんどなくなっている。
- 韓国通信(Korea Telecom: KT)は、『無窮花第3号通信衛星』を1999年8月頃、ギアナ宇宙センター(G.S.C: フランスの海外領、南米)で、ヨーロッパ連合(EU)のArian Space社のArian Rocketによって打上げられた。KTは、2003年8月、国内最初の民・軍共用衛星である無窮花5号通信衛星が、Hawaiiの南方面にある太平洋赤道の公海にある海上打上げ射場で打上げられた。
- 韓国航空宇宙研究院(KARI)が開発し、1999年12月に打上げた『多目的実用第1号衛星』は、地球観測、遠隔探査等、衛星の実用的な利用及び国産化率60%を達成し、衛星技術の自立化を進めながら製作された。KARIが独自技術によって開発した遠隔探査衛星である、Arirang 多目的2号衛星が、2006年7月、ロシアの北東方面にあるPletesk打上げ射場で打上げられた。
- 国内宇宙産業分野の技術水準は、基礎段階であり、通信・放送等の宇宙技術利用の発展に従い量的、質的な面でその発達が急速に達成すると予想される。
 - － '90年以後、Uri Byol衛星、科学衛星及び多目的実用衛星事業の部品製造

- を中心とし、韓国の主要大企業（現代グループ、L.G.グループ、三星グループ、鮮京グループ等）は、相当な関心を持ち、新しい人工衛星の製作に関して積極的に投資している。そのために必要な技術等をアメリカから導入している。
- － 電子分野の民間大企業（現代グループ、L.G.グループ、三星グループ、鮮京グループ等）を中心とし、全世界的な移動通信衛星網事業であるIridium、⁷³⁹⁾ Global Star、Odysseyプロジェクト等のコンソーシアムの形態で持分を持ち、これらの移動通信衛星事業等に積極的に参加している。⁷⁴⁰⁾
 - － 韓国の情報通信部は、国際衛星移動通信サービスに参加して国内事業圏を確保している衛星移動通信事業者に対して、1997年下半期に仮許可を発給し、1998年には本許可を与えた。
 - － 現在、世界衛星移動通信の、Iridium、Global Star、ICO等のプロジェクトには、国内企業体等が参加している。Global Starプロジェクトには、韓国のデイコム株式会社と現代電子株式会社、現代綜合商社が参加しているし、Iridiumプロジェクトには、(株)鮮京テレコムと IridiumKorea Co.が参加している。ICOプロジェクトには、韓国通信とICO Korea CO.、三星電子株式会社、新世紀通信株式会社が各々参加したことがある。
 - － アメリカのMotorola社が主導になって推進しているIridiumプロジェクトには、鮮京テレコムCo.が持分4.5%（19億ドル）を持って参加するし、前記Iridiumプロジェクトには、1998年4月まで通信衛星66機を打上げ、1998年9月から商用サービスをしている。
 - － 金湖テレコムCo.は、中軌道衛星事業であるOdysseyプロジェクトに投資の意思を表明した。
 - － これらの衛星通信事業体は、国内のサービスのため新しく通信衛星地球局等を建設し、1997年から1998年までに竣工した。
 - － 『Global Star』の韓国内の営業を担当しているデイコムCo.は、1997年10月に京畿道驪州に基地局を完工し、年末までシステム試験を完了した。政府から国内サービスの事業許可を受け取った後、担当部署を子会社に分離した。
 - － Iridium Korea Co.は、忠清北道鎮川及び忠州に衛星地球局を1997年7月に

739) [http://en.wikipedia.org/wiki/Iridium_\(satellite\)](http://en.wikipedia.org/wiki/Iridium_(satellite))

740) 朝鮮日報、1997年 5月 3日、37面。

- 完工しだし (株)KT(前韓国通信)は、1998年に忠清南道天安で衛星地球局を竣工した。(株)KTがICOプロジェクトのサービスの海外営業の目的のために設立したICO投資管理Co.は、ニュージーランド、オーストラリア、フィリピン、マレーシア、インドネシア等10余箇国で海外の事業権を獲得するため交渉を推進したことがある。
- 京畿道利川に位置している現代電子研究所内衛星事業団は、アメリカ側から1997年12月に打上げる“Global Star”の衛星体製作の一部に参加したことがある。アメリカの通信衛星企業体が主導している“Global Star”のコンソーシアムに、持分8.33%を持って参加している現代電子と現代綜合商社は、衛星体製作権の一部を確保している。
 - 『Global Star』の海外マーケティングを担当している韓国の現代電子Co.は、中国、印度、タイ、ニュージーランド、フィンランド、チリ、ボリビア等、15カ国に対して事業権を獲得すると共にこれらの国等と事業許可権の獲得のための協商をしたことがある。既にニュージーランドと印度から各その事業許可権と事業投資許可権を確保しだし、8カ国とは、事業意向書(MOU)を締結しだし、5カ国とは現地会社等と合作社設立契約を締結した。⁷⁴¹⁾
 - 現代電子Co.は、『Global Starプロジェクト』に2005年まで全部26機の低軌道衛星の供給を目標として京畿道利川に工場を建設した。初期には、アメリカ、フランス等の外国製品を導入し組立する段階だけでも、1999年頃からは、自力での設計能力を確保している。⁷⁴²⁾
 - 一方、現代電子Co.は世界的に有名なコンピュータ及び情報通信分野の大企業体であるアメリカのMicrosoft社等が推進している低軌度衛星通信等事業の『Teledesticプロジェクト』に参加し、このプロジェクトの持分を3.33%持つし、3億ドルの出資(資本参加)をする。
 - この『Teledesticプロジェクト』には、2002年まで事業費90億ドルを投資するし、低軌道に288機の衛星を打上げてMultimediaサービス、データベース的資料を提供すると共に無線による光ケーブル水準のInternetサービスも提供する。⁷⁴³⁾
 - これらの世界的なプロジェクトが成功したときには、通信衛星を通じ携帯電話を利用し、韓国、日本、米国等を含めて世界どこからの国でも携帯電話をかけることがで

741) 東亜日報、1997年 9月 1日、17面。

742) 朝鮮日報、1996年12月7日、51面。

743) <http://en.wikipedia.org/wiki/Teledestic>

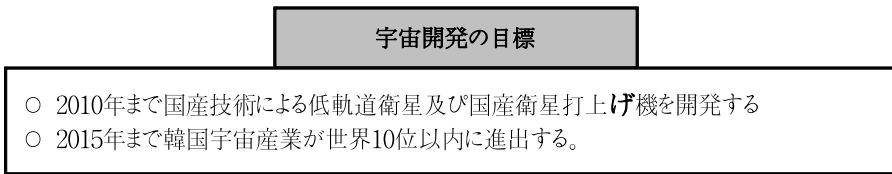
きるし、また受けることができると予想される。まだ無線呼出サービスのみならずデータ通信も可能にならうであろう。

- 韓国では、現在、鮮京テレコムCo.が画面(小型screen)付きの携帯電話が開発したので、2~3年あとには、Iridiumプロジェクトの通信衛星を通じ携帯電話を利用すると韓国では、日本、中国、英国、米国、ブラジル等世界各国の通話者とおたがいに顔を見ながら対話することができると予測される。
- これらのプロジェクトに起因して、将来、世界各国間の無線通信の障壁は、段階的になくなろうであろう。
- 特に現代電子Co.は、この“Teledesticプロジェクト”の海外一部地域の事業権の確保をするため推進している。これらの事業よりも衛星体及び端末機の供給に、もっと大きい比重を置いている。
- 国際海事衛星機構(Inmarsat)が推進している『ICOプロジェクト』には、三星グループ、韓国通信及び新世紀通信CO.が参加している。
- アメリカのTRW社及びカナダのTeleglove社が推進している『Odysseyプロジェクト』には、大宇グループ及び金湖グループが参加している。
- アメリカのHughes社が推進している『Spacewayプロジェクト』には、三星グループが5%の持分を持って参加する。
- 韓国政府が確保した朝鮮半島及び東南アジア地域の上空の衛星軌道5個を民間企業に無料で分譲する。知識經濟部(前情報通信部)は、1997年8月30日、「国内衛星産業の活性化のため、1997年末頃、政府が確保した衛星軌道を民間企業に無料で分譲するし、民間企業に仮許可をし衛星打上げを誘導する計画」を発表した。
- これに従って知識經濟部に衛星打上げ事業を申請した現代グループ等の民間企業は、別途の軌道費用を負担しなくても衛星を打上げることが可能になる。国内では、現在、国際電気通信聯合(ITU)に11個軌道の使用を申請しており、その中で5個の軌道は、日本、中国等の隣接国家と協議をした後ほとんど確保した。
- 現代グループは、1997年末頃、知識經濟部から衛星軌道を分譲を受けた後、2000年頃、自力で衛星を打上げることが可能になるし、まだこれらの衛星サービスを提供することができる。
- 21世紀には、衛星により覆った空で、尖端通信サービスを享受することができるけれ

ども しかし企業の立場では、空の主導権を掌握するため、通信衛星事業を担当している企業のあいだでは、もっともはげしい競争が行なうであろう。

2.7. 韓国の宇宙開発の目標及び推進戦略

(1) 宇宙開発の目標



- 2010年までに国産技術によって低軌道衛星を開発し、開発された国産の衛星打上機により自力で衛星を打上げる。自力による人工衛星の製作・設計・打上げ・運用能力等を確保する。
 - － 低軌道衛星、電子光学搭載衛星等の各種の探査用センサー及び衛星用電子機器等を重点的に開発する。
 - － 多目的実用衛星第5号(2010年打上げ予定)を国内開発の衛星打上げ機により自力で打上げる
- 韓国の宇宙産業水準が、2015年までに世界10位以内に進出させることを目標とする。

1995年	2000年	2010年	2015年
宇宙開発着手及び基盤育成	衛星共同開発 科学ロケット独自開発	衛星・打上げ機 独自開発	宇宙産業世界10位以内 進出

(2) 推進戦略

① 宇宙技術開発の総合調整機能強化

- 宇宙技術開発を効率的に開発及び実用化するためには、政府の宇宙分野に対する総合調整機能を強化しなければならない。

- － 総合科学技術審議会内に『宇宙科学技術分科専門委員会』を設置する
- － 宇宙分野に対する専門的な研究・検討及び事前調整がなされなければならない。
- 研究開発主体間の協力体制の基盤を構築する。
 - － 大型研究開発事業は、関聯部処間で共同に推進し、資源の効率的な活用を行わなければならない。
 - － 分野別(衛星、打上げ機、衛星利用)研究機関間の技術交流のため、定期的に協議体を構成し運営する。
- ② 宇宙技術分野の専門研究機関の育成・支援
 - 宇宙部門に関する研究機関と大学研究グループ等及び既存の研究組織を有機的に専門化させる。
 - 長期的には米国の航空宇宙局(NASA)、日本の宇宙航空研究開発機構(JAXA)等に類する国家宇宙開発総括専門研究機関を設置・育成する。
 - － 韓国機械研究院附設航空宇宙研究所の独立機関化を検討・推進する。
- ③ 産・学・研連繫体系の構築及び国際協力強化
 - 大学の基礎研究支援を通じて基盤技術確保を行い、併せて人材を養成する。
 - 専門研究機関及び民間企業間の役割分担を通じて国家宇宙産業の活性化を図る。
 - 国際共同研究を活性化させるため宇宙分野の国際協力事業に積極的に参加し、長期的には世界的宇宙市場を確保する。

3. 宇宙開発中・長期基本計画の内容

3.1. 衛星(Satellite) 分野

- 2015年まで計19機の衛星打上げ及び低軌道衛星の独自開発能力を確保する。
 - ・通信放送衛星5機、・多目的実用衛星7機、・科学衛星7機
- 多目的実用衛星の開発を通じて衛星開発技術的国産化目標を達成する。
 - ・第2号機から衛星の設計及び組立技術を自力で開発するように推進する。
- 人工衛星の開発に対してはばひろい観点から見た場合、通信放送衛星、多目的実

用衛星 科学衛星の開発事業及び国際共同の衛星開発事業等の参加に分類されるが、衛星間任務の重複を解消し技術的連繋性を保つように推進する。

- 通信放送衛星は、国内及びアジア地域の需要等を考慮し、国内通信分野の企業が参加するように推進する。
- 多目的実用衛星は、気象・環境観測、精密探査等公共目的の需要の充足及び衛星技術基盤を蓄積する。
- 宇宙科学技術は、宇宙環境実験及び宇宙観測、装備試験等の基礎基盤の技術開発及び宇宙分野の専門要員の養成を目標とし推進する。
- 国際共同衛星事業には、先進宇宙技術の習得及び国際協力の増進を目標とし適宜に参加して、2000年以後には、主導的役割を担当する。

3.2. 打上げ機(ロケット)分野

- 2段型及び3段型科学観測ロケットの開発を推進する。
 - － 固体推進剤ロケット、液体推進剤ロケットの開発を更に推進する。
- 多目的実用衛星と低軌度衛星等の軌道への打上げを、可能にするため衛星打上げ機を開発する。
 - － 2010年の多目的実用衛星第5号からは、自力での衛星打上げを計画している。
 - ※ 衛星打上げ機の開発には、技術移転が困難な分野であり、独自の開発が必須である。
- 国内の衛星打上げ射場は、短期的には科学ロケットの打上げのため、打上げの管理・運営をするし、長期的には、低軌道衛星の打上げを行うため、最適な衛星打上げ射場の建設を推進する。
 - － アジア/太平洋地域的共同宇宙打上げ射場の設立・運用事業への参加を検討する。

3.3. 衛星利用及び宇宙探査分野

- 衛星情報利用技術及び利用の基盤を構築する。

- － 電子光学搭載体等 探査用センサー及び衛星用電子装備・機器を開発する。
 - － 衛星データ受信・処理・分析技術及びシステムを開発する。
 - － 農作物的作況、予測、環境・海洋汚染監視及び気象観測網構築等、衛星情報データベースと活用のネットワークを構築する。
- 宇宙科学の育成
- － 地球・宇宙観測及び宇宙探査技術、装備開発の研究を支援する。
 - － 無重力環境を利用した半導体、新素材、新医薬等の基礎研究を支援する。
- 国際協力事業に参加する。
- － 宇宙探査技術及び機器開発、有人宇宙探査等に参加する。
 - － 国際協力事業を通じて宇宙ステーションの事業等に参加する。

3.4. 基本方向

- 宇宙開発は、大規模の投資が要するので、国内の研究開発資源を効率的に活用するため、最適な開発事業を厳密に選択し集中的に投資する。
- － 分野別事業間の連繋性を強化して予算及び人力の重複性を最大限に抑制する。
 - － すでに推進している宇宙開発事業は、『宇宙開発中長基細部実践計画』のなかに吸収及び含め全体的なわくのなかで推進する。
- 将来の宇宙開発は、長期的に計画を策定し推進しなければならない点を考慮し、全体の事業期間を4段階に区分し推進する。
- － 1段階: 1997年～2001年, － 2段階: 2002年～2006年
 - － 3段階: 2007年～2011年, － 4段階: 2012年～2015年
 - － 1段階期間の事業に対しては具体的な実践計画を策定し、2段階以後の事業は方向だけを提示する。
 - － 2段階以後は1段階事業の実績及び国内外与件変化等を参酌し、段階別に細部実践計画を策定し推進する。

3.5. 宇宙開発政策 - 段階別推進戦略

段 階	推 進 戦 略
1段 階	宇宙技術開発の基盤を構築する －重点育成事業を中心に先端技術を確保する
2-3段階	宇宙技術開発を本格的に推進する －基礎控衛及び宇宙技術を並行して開発する
4段 階	宇宙技術の高級化及び商業化を推進する

3.6. 重点育成分野

8大 重点 育 成 分 野

- | | | | |
|-------------------|--------------|----------------------|-----------|
| 【衛星分野】 | 1. 通信・放送衛星分野 | 2. 多的実用衛星分野 | 3. 科学衛星分野 |
| [打上げ機 分野] | 4. 科学ロケット | 5. 低軌道衛星 打上げ機 | |
| [衛星利用分野] | 6. 衛星映像情報獲得 | 7. 映像情報処理 | 8. 衛星通信分野 |

3.7. 宇宙開発中・長期計画の推進日程

段階 分野	1段階('97-2002)	2段階(2002~2006)	3段階(2006~2011)	4段階(2012~2015)
	97 98 99 00 01 02	03 04 05 06 07	08 09 10 11	12 13 14 15
衛星分野				
○ 通信衛星	3号衛星 ▼	無窮花4号衛星 ▼ ▽国際地域放送通信衛星		
○ 多目的実用衛星	多目的1号衛星 ▼ 多目的2号衛星 ▼	多目的3号衛星 ▼ 多目的4号衛星 ▼	多目的5号衛星 ▼ 多目的6号衛星 ▼	多目的7号衛星 ▼
○ 科学衛星	我らの星3号衛星 ▼ 科学1号衛星 ▼	科学2号衛星 ▼ 科学3号衛星 ▼	科学4号衛星 ▼ 科学5号衛星 ▼	科学6号衛星 ▼
発射体 分野				
○ 科学観測ロケット	2段 ▼ 3段型科学観測ロケットを打上げる ▼	小型衛星打上げ機を開発する ▼	小型衛星打上げ機を開発する ▼ 多目的5号衛星を自力で打上げる目標を達成する	
衛星利用分野				
○ Multi Spectral ○ Hyper Spectral ○ 全天候センサー	多目的2号衛星搭載 97年から多目的2号衛星と連携して推進する	多目的実用衛星3号を搭載する ▼ 多目的実用衛星5号を搭載する ▼		

4. 重点分野別の第1段階の推進計画

4.1. 衛星分野

※ 推進方向

	推進方向
通信放送衛星	<ul style="list-style-type: none"> ○ 通信・放送サービスのため停止軌道衛星を利用するサービスを通じて国民生活の質を向上させる。 ○ 韓国通信等通信事業者が衛星開発に参加する。
多目的実用衛星	<ul style="list-style-type: none"> ○ 実用級衛星開発技術の国産化能力を向上させる。 ○ 公共需要に応じて実用性を向上させる。
科学衛星	<ul style="list-style-type: none"> ○ 科学観測等、科学教育目的を達成するように推進するし、大学を中心として衛星分野の要員を養成する。 ○ 国産開発の低軌道衛星部品を搭載させて、実験する。

(1) 通信・放送衛星

※ 1段階期間中の開発計画

<ul style="list-style-type: none"> ○ 無窮花第3号衛星を打上げた。 ○ 無窮花第5号衛星を開発した。
--

i) 無窮花第3号衛星を打上げた。

－ 事業期間: 1996年－1999年(4年)

○ 開発目標 － 無窮花第1号衛星の寿命が終了したので安定的な衛星放送を目標として開発した

○ 推進体系 － (総括機関) 知識經濟部、(事業管理)韓国通信 Co., (開発機関) Rockheed Martin Co.

○ 所要予算 － 1,780億ウォン(衛星体850億ウォン、打上げ(保険包含) 930 億ウォン)が要した。

無窮花第3号衛星の主な内容 744)

区分	内容
制作社	米国 Locked Martin社
開発及び製作費	980億ウォン
製作期間	97年3月～99年6月
打上げ時点	99年9月
重量	2,564kg～2,678kg
寿命	15年以上
中継器	33機(通信用24機, 放送及び予備9機)

ii) 無窮花第5号衛星

- 開発期間: 2000年～2006年(7カ年)
- 打上げ年度: 2006年8月(サービス開始 2006年)
- 通信/放送・衛星サービスの質を向上させるしまた一部の主要な部品を国産化させる
 - － 多目的実用衛星の部品の製作技術を活用させる。

(2) 多目的実用衛星の開発

i) 開発目的

- 衛星技術の自立化をはかるため低軌道衛星の国産化を推進する。
- 情密探査、気像・環境観測等の公共目的の需要に充足させる。

ii) 第1段階期間中の開発計画

- 多目的実用第1号衛星の開発を完了し 打上げと多目的実用衛星を運用する。
- 多目的実用衛星2号の開発を完了し、打上げた。

i) 多目的実用第1号衛星の開発完了及び打上げと衛星の運用

- 開発目標
 - － 6.5m級の地球観測能力を持つ多目的実用衛星の設計及び開発をした。打上げ及び運用等を全週期にわたって衛星開発・運営能力を確保した。

744) 東亜日報、1997年 7月 31日、11面。

- － 衛星本体及び部品の国産製作目標を60%とした

○ 開発

- － 開発期間: 1994年－1999年(1999年9月に上げた)
- － 総開発費: 1,650億ウオン(政府 1,415億ウオン、民間235億ウオン)
- － 主要内容: 重量500kg、高度 680km

○ 推進実績

- － 多目的実用衛星の設計を完了し、国産部品及びPFM製作を完工した。
- － 打上げ機を選定した(OSC社のTaurus)。

ii) 多目的実用第2号衛星の開発完了及び打上げと衛星の運用

○ 事業期間: 1999年～2003年

○ 開発目標

- － 低軌道実用衛星を国内で開発した。
- － 国産化率を80%達成させたる(設計技術は100%を目標とした)

○ 目標及び内容

- － 任務: 地上観測、大気・環境・気象観測等を目標とした。
- － 軌道: 高度400～800km
- － 重量: 600～1,000kg
- － 搭載体: 科学観測用の高分解像度のカメラを搭載した。

○ 推進戦略

- － 多目的実用第1号衛星の開発経験により多目的実用第2号衛星の開発は、独自に開発した。
- － 部処別に役割を分担し推進した。
システム総合・AITC・打上げ(教育科学技術部)、本体(知識経済部)、管制(知識経済部)

(3) 科学衛星

i) 開発目的

- 人工衛星分野の要員養成及び科学実験のために科学衛星を開発した。

- 実用衛星搭載のため科学搭載体等 各種搭載体の実用衛星搭載前の試験及び主要国産開発部品に対して宇宙環境の適応を実験した。

ii) 1段階期間中開発計画

- 我らの星第3号衛星の開発を完了し 打上げと科学衛星を運用した。
- 新しい科学第1号衛星を開発した。

a) 我らの星第3号衛星の開発完了及び打上げと科学衛星の運用

- 我らの星第3号衛星の開発を完了し、打上げと科学衛星を運用した。
 - － 開発期間: 1995年～1998年
 - － 主な内容:
 - ・ 任務: 地球観測(解像度15m)、宇宙環境を測定する。
 - ・ 軌道: 低軌道 720km
 - ・ 重量: 100kg

b) 科学衛星第1号の開発

- 目標
 - － 我らの星衛星等シリーズ衛星の開発能力を基礎とし、科学衛星を開発した。
 - － 2003年に打上げた。多目的実用衛星2号機の搭載のため、搭載体及び主要な国産開発部品の搭載を実験した。
 - － 宇宙環境観測: プリズム及び紫外線測定機器により搭載の実験をする。
- 開発期間: 1998年～2003年
- 主な内容 – 重量: 100kg
 - － 軌道: 高度 約 800km
 - － 任務: 精密姿勢制御のため姿勢制御用センサー類の搭載を実験しだし、また試験用分光測定装置の搭載も実験した。
- 開発方式
 - － 大学研究センターを中心として、技術開発及び要員を養成した。
 - － 我らの星シリーズ衛星の本体製作の技術を活用した。

- 多目的実用衛星2号機と連繫して科学衛星を開発した
 - 搭載センサー及び部品は多目的実用衛星の開発チームから、一部を分担し開発した。

4.2. 打上げ機分野（参考：北朝鮮のミサイル開発を含む）

(1) 開発目標

- 低軌道小型衛星の打上げ機を、独自の開発能力を確保した。
 - 2010年以後、低軌道小型衛星を、国内で自力によって打上げる。
 - 打上げ機システムの設計・製作及び打上げ運用技術を確保する。
- 低軌道実用衛星を打上げるため、打上げ場の建設及び運用をはかる。

(2) 第一段階開発計画

- 2段型科学ロケットの開発を完了しこのロケットを打上げる
- 3段型科学ロケットを開発する。

(3) 二段型科学ロケットの開発完了

- 概要
 - 高空大気探査用の中型科学ロケットを開発し、打上げた。
 - 開発期間：1993年11月～1997年9月
 - 総開発費：52億ウォン
 - 規模：総重量 2ト>0.4m 搭載重量150kg、高度150km
- 推進現況
 - 地上試験モデルを製作したし、段数分離地上実験及び推進機関の地上試験を完了した。
 - 1次打上げを試験した。(1997年7月)

(4) 三段型科学ロケットの開発

- 開発期間: 1997年～2002年
- 最終目標
 - － 3段型科学観測ロケットを国内で開発し上げた
 - － 衛星打上げ機のコア基盤技術を開発した。
- 任務
 - － 宇宙科学及びイオン層を研究しだし、衛星打上げ機の開発技術を蓄積した。
- 性能－搭載重量: 400kg
 - － 長さ: 約 13.4m

(5) 参考: 北朝鮮のロケット及びミサイルの開発

- 現在、南朝鮮の宇宙開発は宇宙空間を平和的に利用する目的で開発しているけれども、北朝鮮は、主に軍事的に利用をする目的でロケット及びミサイルを開発している。
- 北朝鮮は、深刻な食糧難及び経済難にもかかわらず、1980年代の始めから弾道ミサイル開発計画を達成するため年間、数百万ドルを投入している。
- 北朝鮮は、旧蘇聯製SCUD-Bミサイルを改良し、SCUD-Cミサイルを自力で生産している。SCUD-Cミサイルは、700kgの弾頭を搭載することができるし、射程距離はSCUD-Bミサイルよりも200kmが伸びて500kmに達している。北朝鮮は、このSCUD-Cミサイルの命中率を向上させるため慣性誘導システムを改良した。
- 北朝鮮は、自力で開発したSCUD-Cミサイルをイラン、リビア等中東地域及びアフリカ地域等に輸出したことがある。
- 北朝鮮は、南朝鮮の中部地域の上空まで空中攻撃が可能な射程距離250kmのSA-5地对空ミサイル20機を、休戦線周縁前方地域(朝鮮半島)まで、配置している。
- 最近、化学武器及び核武器の搭載が可能である、射程距離1,000km以上の労働1号ミサイルの試験の打上げは成功しだし、すでに作戦配置段階に入っている。
- 北朝鮮が開発したテポドン1号中距離弾道ミサイルの射程距離は、1,600km～2,200kmであるし、北朝鮮が開発しているテポドン2号長距離弾道ミサイルの射程距離は、4,300km～6,000km以上に達すると予想されている。このような北朝鮮の中長・距離弾道ミサイルの開発能力は、朝鮮半島は勿論、日本等東北アジア周縁国家等に脅威している。⁷⁴⁵⁾

4.3. 打上げ射場（宇宙センター）の建設

- 人工衛星打上げ射場の建設は 第2段階開発計画の期間中に、達成できるように本格的に推進した。
- 第1段階期間中の推進計画
 - － 中型3段型の科学観測ロケットを打上げる。
 - － 低軌道衛星打上げ射場の建設をするため調査及び研究事業を着手した。

4.4. 衛星の利用分野

(1) 開発目標

- － 観測衛星情報の獲得技術及び処理利用技術を開発する。
- 衛星通信の核心技術及びサービスの利用技術を開発する。

(2) 第1段階的開発計画

- 観測衛星の情報を獲得するため科学観測用の高解像度カメラを開発する
- 多目的実用衛星1号機の衛星資料を処理する技術を開発した。
- 衛星通信の核心技術及びサービスを利用する技術を開発する。

(3) 科学観測用の高解像度カメラの開発

- 開発目標：多目的実用衛星2号機の搭載用科学観測のため、超精密高級カメラを開発した。
- 開発期間：1997年～2003年
- 総開発費：600億ウォン（政府及び民間企業体が共同になって負担した）
- 活用分野
 - － 精密地球観測、海洋及び環境観測、GIS等

745) 東亜日報、1997年10月13日、2面；朝鮮日報、1997年10月13日、2面；韓国国防部、「国防白書 1997年～1998年」、(1997年10月12日発刊)、参照。

○ 推進戦略

- － 民間主導により産業体・大学・研究所等と共に共同研究事業を推進する
- － 産業体：衛星及び打上げ機的设计、開発及び製作をする。
- － 先進技術の導入を通じて核心技術を早期に習得する。

(4) 多目的実用衛星の衛星資料の処理技術開発

○ 事業期間

- － 1段階: 1996年～1999年
- － 2段階: 1999年～2002年

○ 目標

- － 1段階
 - ・ 多目的実用衛星1号機から受信する、映像資料の処理技術を開発した。
 - ・ 地図製作等に活用した。
- － 2段階
 - ・ 多目的実用衛星2号機から受信する、映像資料の処理技術を開発した。

(5) 衛星通信の核心技術及びサービスの利用技術開発

○ 事業期間: 1995年～1999年(5年)

○ 開発目標

- － Ka帯域の通信衛星開発及び衛星通信のサービスを試験した。
- － 衛星搭載交換 (On Board Processing) 技術を試験した。
- － 国内産業体的衛星通信技術を確保し、国際競争力を向上した。

○ 開発内容

- － 周波数: Ka帯域(20～30GHz)の衛星中継器を開発した。
- － 通信チャンネル数: 3チャンネル(予備機1チャンネル)を設置した。

○ 開発方式

- － 産業体・大学・研究所等の協同体制により通信中継技術等を国内で自力開発方式を採択する。

4.5. 宇宙開発のために必要な投資及び要員

(1) 投資

- 今後20年間(1996年～2015年)は 韓国の宇宙開発投資に公共 / 民間部門を含めて総額4兆千億ウォンが必要であろうと推定される。
 - － 分野別の単位事業の推進は投資効果等を検討して行う。
 - － 単位事業別に年次別投資計画を策定して推進する。

(2) 要員

- 今後20年間(1996年～2015年)は、韓国の宇宙開発のために4,000名程度の人員が必要だと予測される。
 - － 産・学・研連繫体系を通じて人材開発及び人員の活用を最打上げ大化する。
 - － 分野別に必要な人員
 - ・ 衛星分野: 2,500名
 - ・ 打上げ機分野: 500名
 - ・ 宇宙利用分野: 1,000名

5. 航空宇宙産業開発促進法及び同法施行令の構成

この法律は、航空宇宙科学技術を効率的に研究・開発するとともに、航空宇宙産業を合理的に支援・育成して国民経済の健全な発展と国民生活の向上に寄與することを目的として制定されたものである。この法律は、全文24カ条から成り、同法施行令は22カ条によって構成される。

この法律の主な内容は ① 航空宇宙産業開発基金計画の策定 ② 特定業者の指定及び支援 ③ 性能検査及び品質検査 ④ 資金の支援 ⑤ 国有施設及び機器等の貸與 ⑥ 航空宇宙産業開発政策審議会の設置、機能、構成等 ⑦ 研究機関の設立等であ

る その具体的な内容は、以下の航空宇宙産業開発促進法、同法施行令、同法施行規則の条文を参照されたい。

6. 航空宇宙産業開発促進法

1. 制定 1987. 12. 4 法律 第3991号
2. 一部改正 1991. 12. 14 法律 第4435号 (航空法)
3. 一部改正 1993. 3. 6 法律 第4541号 (政府組織法)
4. 一部改正 1997. 12. 13 法律 第5454号 (政府部処名称等の変更に伴う建築法等
→ の整備に関する法律)
5. 一部改正 1999. 1. 29 法律 第5733号 (政府出捐研究機関等の設立 運営及
→ び育成に関する法律)
6. 一部改正 1999. 2. 5 法律 第5774号
7. 一部改正 2007.12.21 法律 第8772号
8. 一部改正 2008.2.29 法律 第8852号

第1条 (目的) この法律は、航空宇宙産業を合理的に支援・育成して航空宇宙科学技術を効率的に研究・開発することにより国民経済の健全な発展及び国民生活の向上に寄与させることを目的とする。

第2条 (定義) この法律において使用する用語の定義は、次の通りである。〈改正1993.3.6、1997.12.13、1999.2.5、2007.4.27、2008.2.29〉

1. “航空宇宙産業”とは、航空機・宇宙飛行体・関連附属機器類又は関連素材類を生産（製造・加工・組立・再生・改造又は修理することを含み、航空法による航空機の整備・修理・改造等航空機使用者がその運航上の必要で行う作業を除く。以下同じである。）する事業及び航空機・宇宙飛行体を産業資源部令が定めるところにより利用する応用事業（航空法による航空運送事業及び航空機使用事業を除く。）をいう。

1の2. “航空宇宙産業事業者”とは、航空機、宇宙飛行体、関連附属機器

類または関連素材類の生産を業とする者をいう

2. “航空機”とは、航空に使用することができる飛行機・回転翼航空機・滑空機・飛行船及びその他大統領令が定める航空に使用することができる機器をいう。
3. “宇宙飛行体”とは、地球大気圏内外を飛行することができる宇宙発射体・航空宇宙船・人工衛星・有人又は無人宇宙船及びその他大統領令が定める宇宙飛行に使用することができる機器をいう。
4. “関連附属機器類（以下“機器類”という。）”とは、航空機又は宇宙飛行体の構成品をいう。
5. “関連素材類（以下“素材類”という。）”とは、航空機又は宇宙飛行体の生産に使用される材料をいう。
6. “航空宇宙科学技術”とは、航空宇宙産業に関連する科学技術、地球大気圏内外の飛行に関連する科学技術又は航空機・宇宙飛行体を利用する応用科学技術をいう。

第3条（航空宇宙産業開発基本計画の樹立）① 政府は、航空宇宙産業の開発のために次の各号の事項が含んだ航空宇宙産業開発基本計画（以下“基本計画”という。）を樹立しなければならない。〈2007・4・27〉

1. 航空宇宙産業開発の目標及び方向に関する事項
 2. 航空宇宙産業開発の推進体系及び戦略に関する事項
 3. 航空宇宙産業開発の推進計画に関する事項
 4. 航空宇宙科学技術の研究 開発のための総合研究体制及び研究・開発予算に関する事項
 5. 航空宇宙産業開発に必要な財源調達及び投資計画に関する事項
 6. 航空宇宙産業開発に必要な専門人力の養成に関する事項
 7. 航空宇宙其の他航空宇宙産業の開発に関する重要事項
 8. 其の他航空宇宙産業の開発に必要な事項として大統領令で定めた事項
- ② 政府は、第1項の規定により樹立された基本計画により毎年その施行計画を樹立して施行しなければならない。

第4条（航空宇宙産業の育成）① 政府は、航空宇宙産業の育成のため次の各号の事業に関する施策を推進しなければならない。〈改正 2007.4.27〉

1. 旅客用航空機・貨物用航空機及び無人航空機の開発に関する事業
 2. 機動用回転翼航空機・攻撃用回転翼航空機の開発に関する事業
 3. 宇宙飛行体の開発に関する事業
 4. 機器類及び素材類の技術開発に関する事業
 5. 航空機・宇宙飛行体・機器類及び素材類の性能検査と品質検査のため装備開発及び専門人力養成に関する事業
 6. その他航空宇宙産業の発展のため大統領令で定める事業
- ② 政府は 第1項の規定による事業を推進させるため次の各号の1に該当する者をして事業を実施させることができる。 <改正 2006.4.28>

1. 国・公立研究機関
 2. 特定研究機関育成法第2条の規定による特定研究機関、政府出捐研究機関等の設立・運営及び育成に関する法律第8条の規定によって設立できた研究機関、科学技術分野 政府出捐研究機関等の設立・運営及び育成に関する法律第8条の規定によって設立できた研究機関 及び国防科 学研究所法第3条の規定によって設立できた国防科学研究所
 3. 高等教育法第2条の規定による大学・産業大学・専門大学又は技術大学
 4. 「産業技術革新 促進法」第42条の規定による専門生産技術研究所
 5. 航空宇宙産業及び関連技術と関連がある機関・団体又は事業者として大統領令で定めた者
- ③ 政府は、第1項の規定による航空宇宙産業の育成のため事業を実施する者に対してその事業の所要する費用の全部又は一部を出捐することができる。
- ④ 第3項の規定による出捐金の支給・使用・管理等に関し、必要な事項は大統領令で定める。 <本条新設 2004.10.22>

第5条（特定事業者の指定及び支援）① 知識経済部長官は、第3条の規定による基本計画により特別に育成する必要がある品目等を指定することができる。 <改正1993.3.6、1997.12.13、1999.2.5、2008.2.29>

- ② 知識経済部長官は、航空宇宙産業事業者の中で第1項の品目等を生産したし、また生産する事業者を職権又は申請により生産又は研究・開発能力等知識経済部令に定めた要件を充足した場合、特定事業者に指定してこの法律による支援を

優先的に行うことができる <改正 1993.3.6、1997.12.13、1999.2.5、2007.4.27、
2007.12.21、2008.2.29>

第6条（欠格事由） 次の各号の1に該当する者は、第5条第2項の規定による指定を受けることができない。

1. 禁治産者又は限定治産者
2. 破産宣告を受けて復権されない者
3. 禁錮以上の刑の宣告を受けてその執行が終了し、又は執行を受けないことに確定した後1年が経過しない者
4. この法律に違反して罰金の刑を受けて1年が経過しない者
5. 役員中に第1号から第4号までの1に該当する者がある法人

第7条（事業の承継） ①第5条第2項の規定による特定事業者が死亡し、又はその事業を譲渡したとき又は法人の特定事業者の合併があるときは、その相続人、事業を譲り受けた者又は合併した後存続する法人又は合併により設立される法人がその特定事業者の地位を承継する。ただし、その相続人、事業を譲受した者又は合併後存続する法人又は合併により設立される法人が第6条各号の1に該当するときは、この限りでない。

②削除<1999.2.5>

第8条（指定の取消） 知識経済部長官は、特定事業者が次の各号の1に該当するときは、第5条第2項の規定による指定を取り消すことができる。ただし、特定事業者が第4号に該当する場合その理由が発生した日から6月以内にその事業を譲渡し、又は当該役員を変更するときは、この限りでない。 <改正1993.3.6、1997.12.13、1999.2.5、2008.2.29>

1. 特定事業者が正当な理由なくその指定を受けた日から1年以上引き続きその事業を休止したとき
2. 詐偽その他不正な方法で第5条第2項の規定による指定を受けたとき
3. 第5条第2項の規定による知識経済部令が定める要件に適合しなくなったとき
4. 第6条各号の1に該当するようになったとき第9条削除<1999 2・5>

第9条 削除<1999.2.5>

第10条（性能検査及び品質検査） ① 航空宇宙産業事業者が航空機・宇宙飛行体・機器類又は素材類の生産をしたときには、知識経済部長官の性能検査及び品質検査

査を受けなければならない。ただし、輸出を目的とし生産した品目で、知識経済部長官が別に指定した品目に対して、性能検査及び品質検査の全部又は一部を免除させることができる。〈改正1993.3.6、1997.12.13、1999.2.5、2007.4.27、2008.2.29〉

② 知識経済部長官は、次の各号のどの一つに該当した者の申請があった場合、専門検査機関に指定させ、第1項に従う性能検査及び品質検査をさせることができる。〈改正 2007.12.21、2008.2.29〉

1. 「科学技術分野政府出捐研究機関等の設立・運営及び育成に関する法律」に従って設立できた研究機関のなかで、韓国航空宇宙研究院又は航空機・宇宙飛行体・機器類又は素材類の検査業務を取扱う研究機関
2. 他の法律により政府が指定又は承認した検査機関

③ 知識経済部長官は、知識経済部令で定めた要件を具備した宇宙産業事業者が申請した場合、自家検査業体に指定し、自社生産品のなかで知識経済部長官が別に定めた検査対象に対して第1項による性能検査及び品質検査をさせることができる。〈改正 2007.12.21、2008.2.29〉

④ 知識経済部長官は、第1項から第3項までによる性能検査及び品質検査に合格した航空機・宇宙飛行体・機器類又は素材類に対して検査合格証を交付する。〈新設 2007.12.21、2008.2.29〉

⑤ 第1項から第4項までによる性能検査及び品質検査の対象・施設・方法・手続及び免除の範囲と期間、専門検査機関と自家検査業体の指定申請手続、検査合格証の交付等に必要な事項は、知識経済部令で定める。

〈新設 2007.12.21、2008.2.29〉

第11条（使用の制限等）① 第10条の規定による検査を受けない航空機・宇宙飛行体・機器類又は素材類は、これを使用することができない。ただし、試験用において使用する場合には、この限りでない。

② 関係行政機関の長は、航空機・宇宙飛行体・機器類又は素材類を試験飛行等の用途において使用する必要があると認めるときは、これを国土海洋部長官に要請しなければならない。この場合、国土海洋部長官は、特別な事由がない限り「航空法」第15条第3項但書の規定による試験飛行等を許可しなければならない。

<改正1991.12.14 1997.12.13、2007.4.27、2008.2.29>

第12条（資金の支援）政府は、航空宇宙産業の育成及び航空宇宙科学技術の研究・開発と航空宇宙科学技術関聯展示会の開催及び運営のために長期低利資金及び研究開発事業費を支援することができる。<改正 2004.10.22>

第13条（国有施設及び機器等の貸与等）①政府は、航空機 宇宙飛行体・機器類又は素材類の研究・開発又は生産のために必要なときは、「国有財産法」の規定にもかかわらず国有の施設又は機器等を航空宇宙産業事業者に有償又は無償で貸付・譲与又は使用・収益させることができる。<改正1999.2.5、2007.4.27>

② 第1項の規定による貸付・譲与又は使用・収益の条件及び手続に関して必要な事項は、大統領令で定める。

第14条（航空宇宙産業開発政策審議会の設置）政府の基本計画の樹立及びこれに伴う政府の重要政策及び各部処間の主要業務の調整に関する事項を審議するために国務総理所属の下に航空宇宙産業開発政策審議会（以下“審議会”という。）を置く。<改正 2004.10.22>

第15条（審議会の機能）審議会は、次の各号の事項を審議する。

1. 基本計画の樹立
2. 基本計画と関連する政府の重要政策及び各部処間の主要業務の調整
3. 基本計画を施行するのに必要な歳出予算の樹立
4. 航空宇宙科学技術の研究・開発活動に対する総括・調整
5. その他大統領令が定める事項

第16条（審議会の構成等）① 審議会は、委員長1人を含む15人以内の委員で構成する。

② 審議会の委員長は、国務総理がなり、委員は、大統領令で定める。<改正 2004.10.22>

③ 審議会の委員長は、民間・軍事部分間の業務調整及び協力等が必要であると認める場合適切な措置を講ずるために大統領令が定めるところにより諮問委員会を設置・運営することができる。

④ 審議会の案件を事前に検討し、また諮問に応ずるため審議会に知識経済部長官を委員長とする航空宇宙産業開発実務委員会及び国防部長官を委員長とする機動用回転翼航空機開発実務委員会(以下各々“実務委員会”とする)を置き、その所管事項の分は次の各号と同様である。<改正 2004.10.22、2007.4.27、2008.2.29>

1. 航空宇宙産業開発実務委員会: 第2号の規定による事項外の審議会案件
 2. 機動用回転翼航空機開発実務委員会: 第4条第1項第2号の規定による機動用回転翼航空機の開発事業と関聯がある審議会案件
- ⑤ 審議会及び実務委員会の構成 運営等に関して必要な事項は 大統領令で定める。<改正 2004.10.22>

第17条 削除<1999.1.29>

第17条の2 (聴聞) 知識経済部長官は、第8条の規定による特定事業者の指定を取り消そうとする場合には、聴聞を実施しなければならない。[本条新設1999.2.5、2008.2.29]

第18条 削除<1999.2.5>

第19条 (権限の委任・委託) ① 知識経済部長官は、必要であると認めるときは、第10条の規定による検査業務を知識経済部令が定めるところにより他の行政機関・専門検査機関又は一定の資格がある者に委任又は委託することができる。<改正1993.3.6、1997.12.13、1999.2.5、2008.2.29>

- ② 教育科学技術部長官は、その権限の一部を大統領令が定めるところにより科学技術分野政府出捐研究機関等の設立・運営及び育成に関する法律により設立された韓国航空宇宙研究院に委託することができる。<改正1999.1.29、1999.2.5、2000.12.30、2004.9.23、2008.2.29>

第20条 (検査手数料) 第10条第1項の規定により性能検査及び品質検査を受けようとする者は、知識経済部令が定めるところにより手数料を納付しなければならない。<改正1993.3.6、1997.12.13、1999.2.5、2008.2.29>

第21条 (罰則) 第11条第1項の規定に違反した者は、500万ウォン以下の罰金に処する。

第22条 (両罰規定) 法人の代表者や法人又は個人の代理人・使用人その他従業員がその法人又は個人の業務に関して第21条の違反行為をしたときは、その行為者を罰するほか法人又は個人に対しても同条の刑を科する。

第23条及び第24条 削除<99・2・5>

附則

第1条 (施行日) この法律は、公布後1年が経過した日から施行する。

第2条（他の法律の廃止）① 航空工業振興法は これを廃止する。

② この法律施行当時従前の航空工業振興法により行った許可 申告及び検査その他の処分は、この法律による申告及び検査その他の処分とみなす。

第3条（他の法律との関係）この法律施行当時他の法律において従前の航空工業振興法又はその規定を引用した場合に、この法律にそれに該当する規定があるときは、この法律又はこの法律の該当規定を引用したものとみなす。

<改正附則は、省略する>

（この原稿は、韓国崇実大学校と研究協力及び親善増進の結縁大学である日本明治学院大学校法学部と、また韓国航空宇宙法学会の研究協力及び友好増進の結縁機関である日本宇宙開発利用制度研究会(SOLAPSU)の特別招請によって、1997年12月9日から16日まで一週間、東京で滞留しながら、「韓国宇宙開発の現況と展望、～法的支援策を中心として～」というテーマで前記大学及び研究会の教授及び学生達に「スライド(OHP)」を利用し、特別講演をした原稿を、最近、再び整理・補完し作成した原稿である)

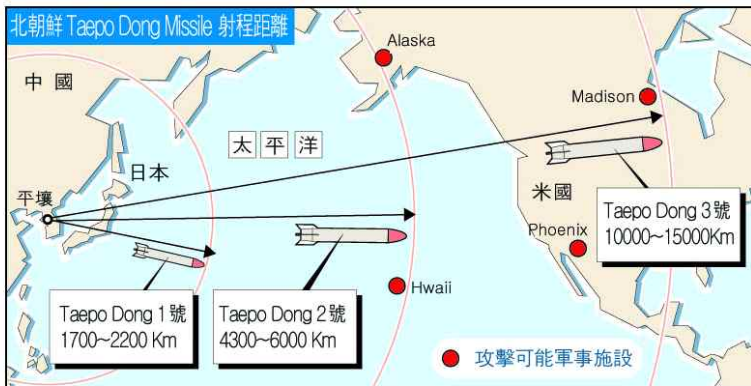
第二節 北朝鮮のミサイル脅威と韓・日・米の対応戦略

1. はじめに

北朝鮮が現在開発中のテポドン3号弾道ミサイルの射程距離は 約10,000~15,000kmなので、もしこの開発が完了すれば、米国領土の全地域を攻撃することが可能になる⁷⁴⁶⁾。

同じく北朝鮮は、日本はもちろん、アラスカ、ハワイ等の米本土一部まで攻撃ができる射程距離約4,300~6,000kmのテポドン2号弾道ミサイルを近い将来、試験発射するという情報がある⁷⁴⁷⁾。このような事態は、韓・日・米の国内及び国際政治、外交、軍事、経済、社会面に深刻な影響を与えることは必至であり、いまでもなく、韓・日・米の安全保障と国民の生命及び財産の保護と直接的な関連を有する。

<北朝鮮テポドン1,2,3号弾道ミサイルの射程距離>



それゆえ、北朝鮮のテポドン弾道ミサイル試験再発射げに対しては正確な情報を得ることが不

746) 米国の雑誌『週刊航空と宇宙技術(Weekly Aviation & Space Technology)』誌の最新号で報道された。; <http://www.chosun.com/w21data/html/news/199907/199907040355.html>;
<http://www.sankei.co.jp/main.html>

747) <http://www.chosun.com/w21data/html/news/199906/199906180443.html>; 米国務省のルービン報道官は、1998年6月3日、北朝鮮がテポドン2号ミサイルの発射実験が今年中に行われ得るとの見通しを示した。

可欠である⁷⁴⁸⁾ また再発射阻止のため韓・日・米が密接に連携し、新しい外交・防衛政策を樹立して対応しなければならないと思う。外交的な面では、韓・日・米三国が連携しながら北朝鮮、中国、ロシア及び国連などと国際外交を通じて、平和的に北朝鮮のテポドン2号弾道ミサイルの試験再発射を阻止し、防衛的な面では、この阻止ができなかった場合に備えて、三国が協力して新しい合同防衛戦略計画を樹立して積極的に対応することが必要である。

2. 南・北朝鮮の関係とテポドン2号弾道ミサイルの打上げ 阻止に関する外交的側面

最近、北朝鮮の韓国西海域(延坪島付近: 領海)への侵入事件⁷⁴⁹⁾、韓国側の金剛山観光客1名を北朝鮮側が抑留した事件⁷⁵⁰⁾及び北朝鮮の羅津・先鋒地区における米国人(韓国系)1名の拘禁事件⁷⁵¹⁾等が発生し、朝鮮半島において南・北朝鮮間の緊張が高まってい

748) 古代中国の孫子兵法の中にある『知彼知己(彼を知り己れを知る事)』は、戦争の勝利に関する有名な格言である。北朝鮮の関係にもこの格言が適用可能だと思う。

749) 北朝鮮警備艇及び魚雷艇が韓国海域(領海)に1999年6月7日から9日間、連日、侵入した。韓国軍同参本部によると、北朝鮮警備艇と魚雷艇が6月15日午前9時25分(日本時間同じ)ごろ、西海(黄海)上の南北境界水域で、韓国側水域の北方限界線(Northern Limit Line: NLL)に侵入した。韓国側の「西海域(延坪島付近)」で北朝鮮の警備艇4隻及び魚雷艇3隻と警戒出動中の韓国側艦艇の間で銃撃戦が発生した。交戦は約18分間続き、艦艇1隻を撃沈し、か2隻は損傷を受けて北朝鮮に撤収した。北朝鮮の海軍乗務員20名以上の死傷者が出た。韓国警備艇の被害は海軍乗務員7名の負傷があったが、軽微だった。現場水域は仁川沖合の韓国領・延坪島付近で、6月7日以降連日、北朝鮮警備艇が南側水域を侵犯している。北朝鮮警備艇は事実上の南北境界である「北方限界線(NLL)を約2キロ以上侵犯した後、韓国警備艇に銃撃を加え、韓国側が76ミリ砲や機関砲で応戦したという。この北朝鮮の韓国海域(領海)への侵犯は、休戦後締結した南北韓間基本合意書に違反している。『朝鮮日報』(韓国)、1999年6月15日、1頁。

750) 『韓国日報』、1999年6月26日、1頁; 『中央日報』(韓国)、1999年6月26日、1頁; 北朝鮮側は、1999年6月19日、現代商船株式会社所属「風楽号(遊覧船)」便により、金剛山(世界的な名山)に観光中であった観光客「関英美女史(主婦: 36歳)」を『北朝鮮の環境監視員に対して韓国への帰順を勧誘した』という理由で6日間抑留した後、6月26日釈放したという事件が発生した。家庭の主婦である関英美女史は北朝鮮の環境監視員に対して韓国への帰順を勧誘したことはなかったという。昨年、韓国の現代財閥が北朝鮮と金剛山開発及び観光事業を合意した以後、韓国人の金剛山観光客数は今年5月13日現在、6万4千名に達している。;

<http://www.kumgangsantour.com/m511>

751) 米務省スポークスマンの発表によれば北朝鮮側は、6月17日から自国法を違反したという理由で米国人1名(韓国系: 女性社長)を北朝鮮の羅津・先鋒地区(外国人による投資自由地域)で

る 近い将来、この種の事件が再び起こる可能性もある。前記事件の再発を防止するため、また韓国海域侵入事件に関連して開かれた在韓国連軍司令部と北朝鮮との板門店での将星級会談、南・北朝鮮間の離散家族の再会及び書信往来に関する次官級の北京会談、北朝鮮の核開発防止及びテポドン2号弾道ミサイルの再発射阻止を目的とする米・北朝鮮間の北京及びワシントンでの高位級会談などが何回も開かれたが、ほとんど成果があがらなかった。韓国政府は基本的に前記事件等を平和的に解決するため、南・北朝鮮間の緊張緩和と包容政策(太陽政策: 和解雰囲気造成等)を一定期間実施した。その結果、肥料20万トンの無償支援、食糧援助、対北朝鮮軽水原子炉2基の総建設事業費46億2千万ドル中、韓国側は32億2千万ドル(総工事費の70%)を、日本側は10億ドルをそれぞれ負担し、KEDO⁷⁵²⁾(朝鮮半島エネルギー開発機構)側に長期借款を提案したけれども、核問題がまた解決できていないので、軽水原子炉建設工事は中断した。しかし、韓国側は南・北朝鮮間の経済交流の活性化、韓国企業の対北朝鮮投資勧誘、学術・文化・体育交流などを推進している。米国のペリー政策調整官(前米国防長官)は1999年5月末、北朝鮮を訪問した際、対北関与政策の詳細を北朝鮮側に説明し、ミサイル・核開発を停止すれば、関係正常化や経済支援を行う用意があることを提案したことがある。

北朝鮮はこれに回答を示さず、現状維持を志向する反応を見せたという。米・日・韓は、北朝鮮が警戒感を解いて、新提案の受け入れを決めるには時間がかかるとみている。当時、3国グループ会合では、黄海の銃撃戦や、難航している北京での南・北朝鮮次官級会談など最近の北朝鮮の動きは、ペリー提案への何らかの意思表示とは受け止めないことを確認し合ったようで、3国としては、北朝鮮の行動に振り回されず、結束を保ち、回答を待ち続ける構えである。

拘禁したと6月25日報道した。； <http://www.chosun.com/w21data/html/news/199906/199906260151.html>

752) 北朝鮮の核開発凍結を定めた米朝枠組み合意(1994年10月)に基づき、1995年3月に設立された国際機構である朝鮮半島エネルギー開発機構(The Korean Peninsula Energy Development Organization: KEDO)は、凍結の見返りとして、2003年をめぐりに北朝鮮に100万キロワットの軽水炉2基を咸鏡南道新浦市琴湖地区に建設して、北朝鮮に提供することを決定した。KEDOには韓日米など10カ国と欧州連合(EU)が参加しており、必要な建設費用は、加盟国から拠出される分担金をもとにKEDOが無利子で北朝鮮に貸与し、軽水炉完成後20年間で、返済されることになっている。その規模(総建設費用)は、46ルを超えるとみられ、「中心的役割」を担う韓国の軽水炉建設の主事業体は、韓国電力公社(国営)である。昨年8月、KEDOは北朝鮮東部海岸の軽水炉建設予定地の琴湖地区で敷地造成の起工式を行って暫時建設したが、現在、建設工事は中断している。

韓国政府は、北朝鮮のテポドン弾道ミサイル2号の再発射防止のため、米・日と共に北朝鮮・中国・ロシアに対してあらゆる外交的努力をしている。1999年6月18日から20日までドイツのケルンで開かれたG-8首脳会談で、小渕恵三前首相により、北朝鮮について、(A)日本を含むG-8諸国の朝鮮半島エネルギー開発機構(KEDO)への貢献、(B)ミサイル再発射が行われないようG-8各国が協調して強い警告を発することの重要性、(C)開発・輸出を含むミサイル活動全般の中止を求める必要性、などにつき発言があった。今回のサミットで、各国より北朝鮮のミサイルへの懸念などについて発言があり、G-8の協調した取組の重要性が確認されたことは、大きな意義がある。ケルンG-8首脳会合の共同声明中、北朝鮮に関する声明は、次のようである。「G-8首脳国は、北朝鮮による最近のミサイル発射実験及びミサイル拡散といった行動を深く憂慮している。G-8首脳国は、この問題に対処するための個別及び共同の追加的手段を検討することを約束するとともに、ミサイル輸出管理レジーム(MTCR)の目的に対するコミットメントを再確認する⁷⁵³⁾」

特にG-8外相会合で北朝鮮に関する次のような結論を下した。「G-8外相は、大韓民国の北朝鮮に対する包容政策を支持し、南北対話の再開を歓迎する。G-8外相は、合意された枠組み及びKEDOを引き続き支持し、その作業に対するより広範な国際的支持を促す。G-8外相は、北朝鮮のミサイル実験及びミサイル技術の輸出を懸念し、北朝鮮に対し、不安定化を招く行動を避けるよう期待する。G-8外相は、北朝鮮に対し、安全保障及び人道上の問題について建設的に行動するよう要請」する。さらに、北朝鮮への対応を話し合う韓・日・米国の「調整・監督グループ」(韓国、日本外務省及び米國務省の高級官僚)は1999年6月24日から26日までの3日間、ワシントンで政策協議⁷⁵⁴⁾を開いた。外交筋によると、3国は、北朝鮮の新型弾道ミサイル「テポドン2号」の再発射などミサイル・核の懸念に対処しつつ、関係改善を模索することを確認した。⁷⁵⁵⁾

韓国の金大中元大統領は、1999年6月24日付のワシントン・ポスト紙とのインタビューで、北朝鮮がテポドン・ミサイルの再試験発射準備をしているとの情報があることを明らかにし、「韓国は北朝鮮に対し、ミサイルの再発射は深刻な事態を招き、北朝鮮が多大な不利益を被ることになると警告しなければならない」と述べた。金元大統領は、北朝鮮が発射準備を進めてい

753) http://www.mofa.go.jp/mofaj/gaiko/economy/summit/cologne99/g8s_com.html

754) この会合の参加者は、日本から加藤良三・外務省総合外交政策元局長、米国のチャーマン 國務省元顧問、韓国は張在竜外交通商部元第1次官補である。

755) <http://www.asahi.com/paper/front.html>

るミサイルが 1998年8月に発射したテポドン1号の改良型で、アラスカなど米本土も射程距離におさめるテポドン2号とみられると指摘した。ただ金元大統領は、北朝鮮が実際にミサイルを発射する決定を下したとの証拠はないとし、再試射を行うにはさらに2～3カ月の準備期間がかかるとの見通しを示した⁷⁵⁶⁾。1999年7月2日、米国ワシントンを訪れた金大中元大統領は、7月3日、ホワイトハウスでビル・クリントン元大統領と対北政策の懸案問題などを論議した。両国首脳は、会談後、西海(黄海)侵入事態のような北朝鮮の挑発に対して厳重に対処し、確固たる安保を基礎にして対北包容政策を継続推進していくことで合意したと発表した。両国首脳は、特に北朝鮮がミサイルの発射実験を強行する場合、朝鮮半島と東北アジアの安定に否定的な結果を招来することになるだろうということで認識を共にし、また北朝鮮のミサイル発射の自制を強力に求めることでも意見が一致し、発射阻止のための対策についても深く論議した。さらに北朝鮮がミサイル発射実験を強行した場合に対応するための共同対処案を検討したと報道された⁷⁵⁷⁾。

金大中元大統領とクリントン元前大統領は、北朝鮮のミサイル脅威に対処するため、韓国が射程距離500kmまでのミサイルを開発する方策についても論議した。金前大統領は、クリントン元大統領との会談を終えた後、ワシントン駐在韓国特派員達との懇談会の席上、「今回の会談で韓国側は、射程距離300kmまでのミサイルは、すでに韓米両国のあいだで諒解されているので、近い将来、射程距離500kmまでのミサイル開発を研究し、発射実験はしなければならないという立場を伝達した」ことを明らかにした。金元大統領はまた次のように語った。「このような韓国側の立場に対して、米国は、当初全世界的にミサイル拡散(軍拡競争)に発展する恐れがあるという考えだったが、結局クリントン元大統領は韓国の立場を聞き入れ、両国の実務者レベルで継続的に協議させることにした」。

近い将来、韓国が射程500kmのミサイル開発に着手した場合、北朝鮮の全地域を韓国のミサイルの射程圏内に入れることができるであろう。これまで米国が韓国の300km以上のミサイル開発をMTCR(Missile Technology Control Regime: ミサイル技術規制機構)約定⁷⁵⁸⁾

756) <http://www.yomiuri.co.jp/news/news05.htm>

757) <http://www.chosun.com/w21data/html/news/199907/199907020600.html>

758) MTCR(Missile Technology Control Regime: ミサイル技術規制機構)約定は、一部国家のミサイル輸出を規制するため1987年6月17日、G-7国である米・英・日・独・仏・伊・カナダの7か国が中心として作られた国際機構であり、1999年7月10日現在、32カ国が加入している。MTCRによれば加入国は、弾頭500kg、射程距離300km以上のミサイルなどの完製品、または部品などの輸出を禁止している。特に米国がもっとも関心を持っている北朝鮮、中国、インド、中東地域国家などは、現在加入していない。； <http://iva.com/mtrc.htm>

の関係で抑制していた。もし米国が韓国の500kmまでのミサイル開発を諒解すれば、韓国は3年以内に独自の技術による自主的開発が可能である。1999年6月末に北朝鮮を訪れた日本の明石康・元国連事務次長が7月5日、首相官邸で小渕元首相に会い、北朝鮮政府当局者らとの会談内容を報告した。明石氏は3日の北京での記者会見で北朝鮮側が「第2弾の人工衛星発射準備はできている」と述べたことを明らかにしたが、この点について野中元官房長官に「北朝鮮としては防衛政策は主権の一部であり、日米韓の包囲政策にあっている以上、防衛をきちんとしておく必要がある」という北朝鮮の立場を伝え、日本を脅かすようなざらついた形で話が出たわけではないと説明した⁷⁵⁹⁾。

<韓国が保有及び開発を推進しているミサイル射程距離>



北朝鮮がテポドン・ミサイルの第2回発射の準備が完了したとの観測を受けて、このミサイル問題が小渕恵三元首相の1999年7月8日から3日間の中国訪問における主要議題になったと推測されている⁷⁶⁰⁾が、中国当局は日米両国に対し、日米共同の戦域ミサイル防衛(TMD)

759) <http://www.asahi.com/0705/news/politics05008.html>

760) <http://www.mofa.go.jp/mofaj/gaiko/happyo/kaiken/kako/hodo9907.html#l-C>;

構想の推進がテポドン・ミサイルの再発射を加速させると反論していることが、7月4日の報道で明らかにされた。この反論は、中国の軍と外交の当局者が訪中した米国の政府高官らに言明したとされるものである。すなわち、米側が中国側に北朝鮮のテポドン・ミサイルの新たな発射や、新型ミサイル開発の抑制に向けて影響力を行使するよう要請したのに対し、中国側は『米国と日本が共同で進めようとしているTMD構想が、北朝鮮にとって脅威に映っており、逆に北朝鮮のミサイル開発や再発射を加速させている』と反論し、米日両国にTMD構想推進の自粛を求めたという。

米中関係筋によると、中国側の外務省や総参謀部の高官らは、中国と北朝鮮がなお緊密で「特殊な関係」にあるとしながらも、北朝鮮に対しテポドン・ミサイルの発射や開発をやめるように求める具体的な言動をとることはできないとして、①北朝鮮は新たな「日米防衛協力のための指針」(ガイドライン)関連法採択により、軍事上の脅威を感じている、②韓国軍の近代化継続も北への脅威となっている、③北朝鮮は独立した主権国家であり、ミサイル実験もその主権の範囲内の行動である—などという点をその理由としてあげた。

米側の外交関係評議会代表団はこれに対し、中国が北朝鮮のミサイル開発や発射の動機を日米ミサイル防衛にリンクさせることは順序が逆であり、非論理的だと反論し、中国は北朝鮮との「特殊な関係」のゆえにこそ、ミサイル発射などの冒険主義的行動の自制を効果的に求められるはずだと述べたという⁷⁶¹⁾。

第2次世界大戦以降、中国と北朝鮮は友好親善関係を深く保持しており、隣接国家という地理的関連もあって、朝鮮戦争の時には、中国・北朝鮮防衛条約や軍事同盟関係を結んで中国人民軍が参加したという歴史的な経緯がある。もし偶発的ないきさつで再び朝鮮戦争が起こって米軍が参加した場合、中国人民軍も戦争に参加する恐れがあると予想される。

<http://www.chosun.com/w21data/html/news/199907/199907050297.html>
761) 『産経新聞』、1999年7月5日；<http://www.sankei.co.jp>

3. 北朝鮮のテポドン1号弾道ミサイル打上げと国際法及び 航空・宇宙法との関係

3.1. 近年におけるテポドン1号弾道ミサイルの打上げ内容

(1) 経緯

1998年8月31日 米国より、北朝鮮の弾道ミサイルが日本時間同日12時すぎに発射され、弾着地域は東海(日本海)ウラジオストック南方海域と推定されるという内容の早期警戒情報を韓国国防部と日本防衛庁が受け取った。

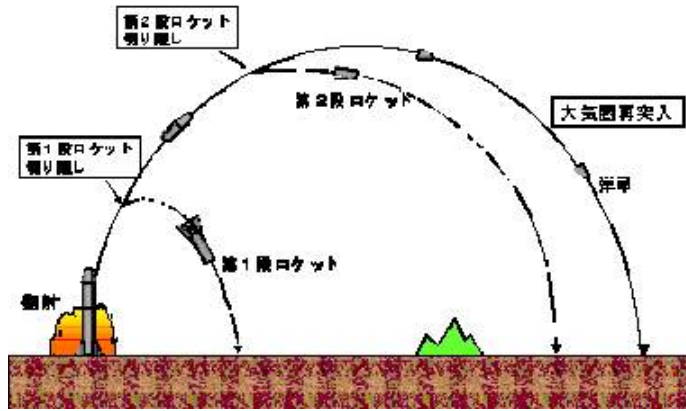
その後、収集したいろいろな情報を分析した結果、ひとつの物体が日本海に、またふたつの物体が日本北海道の三陸沖に落下したものと推測され、発射されたものは2段式ミサイルであり、第1段目の推進装置が東海(日本海)に、また第2段目の推進装置及び弾頭が三陸沖に落下したものと判断し、その内容が9月1日に公表された⁷⁶²⁾。

1998年9月4日、北朝鮮の朝鮮中央通信社が、今般の発射は「人工衛星(近接地点219km、遠接地点6,978kmの楕円軌道)」の打ち上げであると発表した。この点について、当該時点までに保有していた解析結果をもとに検討し、北朝鮮側の主張するような物体が地球周回軌道に乗ったことを示すデータは確認されなかったことなどから、北朝鮮報道のいう「人工衛星」は存在せず、実際に人工衛星が軌道に投入された可能性は少ないものと韓国国防部、日本防衛庁及び米国国防省などは判断した。

762) 1998年9月1日の朝刊各紙の一面トップに掲載された。『朝日新聞』朝刊、北朝鮮ミサイル太平洋到達:2段式ロケット日本海に: 首相周辺、「テポドン1号試射」;『読売新聞』、北朝鮮がミサイル発射:日本本土越え三陸沖着弾: 2段式「テポドン」;『毎日新聞』朝刊、北朝鮮弾道ミサイル発射: 三陸沖に着弾:日本越え「テポドン」か;『産経新聞』朝刊、北朝鮮ミサイル 試射:日本越え三陸沖に着弾:2段式「テポドン1号」か; 『東京新聞』朝刊、岩手沖に北朝鮮ミサイル: 新型「テポドン」か日本上空を通過: 列島全域射程に;『日本経済新聞』朝刊、北朝鮮弾道ミサイル発射: 日本越え三陸沖に:新型テポドン; 日本防衛庁

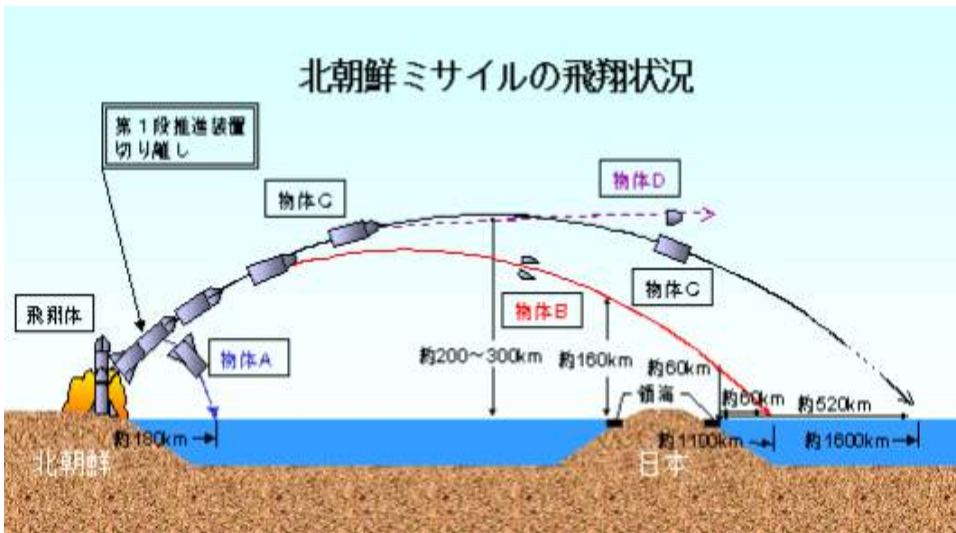
<http://www.jda.go.jp/j/news/1998-10/b981030a.htm>

弾道ミサイルの飛翔概念図



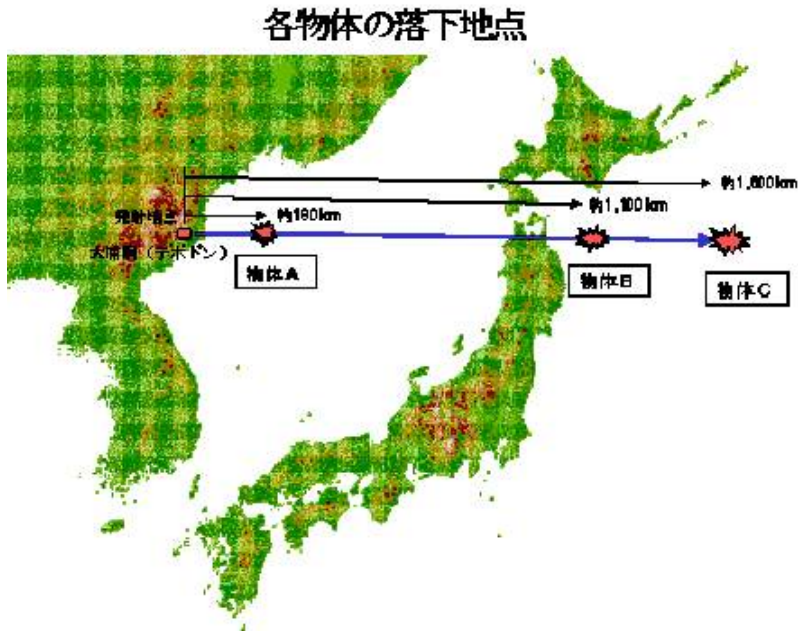
(2) 事実関係

1998年10月30日までに韓国国防部、日本防衛庁及び米国国防省が入手し得た諸情報を分析検討して得られた、同年8月31日発射の飛翔体に関する事実関係は、以下の通りである。



- ① 1998年8月31日12時すぎ 北朝鮮東部大浦洞(テポドン)付近のミサイル発射施設より1基の飛翔体が発射された。
- ② 1-2分後、当該飛翔体は物体(物体A)を分離し、同物体は日本海に落下したものと推定される(推定着水地点は、テポドンより約180km)。この物体Aは第1段目の推進装置であると考えられる。
- ③ 物体Aを分離した飛翔体は、さらに加速を続け、物体Aを分離してしばらく後に別の物体(物体B)を分離した。この物体Bは、日本上空の最高高度約160kmから最低高度約60kmの空域を通過し、三陸沖の太平洋に落下したものと推定される(推定着水地点はテポドンより約1,100km、日本領海外縁より約60km)。なお、物体Bについては、その飛翔態様などから、飛翔体先端部の外郭覆いである可能性があると判断されるが、具体的内容は不明である。
- ④ 残余の飛翔体(物体C)はさらに数分間、平坦な弾道軌道(最高高度約200~300km)を描いて飛翔した後、大気圏に再突入。その後、三陸沖のさらに遠方の太平洋に落下したものと推定される(推定着水地点はテポドンより約1,600km、日本領海外縁より約520km)。
- ⑤ さらに、精密分析の結果、物体Cがその推進力を失う直前に何らかの小さな物体(物体D)が分離し、この物体Dは、短時間飛翔したのみであり、衛星軌道に乗るために必要な速度には達しなかった。なお、この物体Dには、その飛翔態様から、固体燃料が使用されていたものと思われる。

昨年8月末に発射された飛翔体は、飛翔態様などを踏まえれば、米国がテポドン1号と分類する2段式のミサイルを基礎とした飛翔体であったと判断される。なお、北朝鮮の朝鮮中央テレビの映像について分析を行った結果としては、飛翔体の全長は約25m、その中間に明瞭に視認し得る接合部を境として、第1段目は長さ約14m、直条約1.3m、第2段目は長さ約11m、直条約0.8mと算定される。テポドン1号弾道ミサイルは、射程2,000kmの中距離弾道ミサイル(IRM、ソ連のスカッド・ミサイル)を原型として北朝鮮で改良開発されたミサイルである。



3.2. 国際法及び航空・宇宙法との関係

(1) 国際法との関係

テポドン1号弾道ミサイルの第2の推進体が日本列島の空域を通過し、発射地から1,100km地点に落下した。高度は約200～300kmだったとされているが、実際には第2推進体が日本の領空を通過した高度は100～60kmだったと分析されている。結果的に、この第2推進体は日本の領空を侵入したとみられている。領空と宇宙空間の境界に対する学説には、①境界を必ず区分しなければならぬという境界分離論、②飛行物体の機能に従って区分する機能主義論、③宇宙空間の境界は画定することはできないまた画定する必要もないという留保論がある⁷⁶³。

763) 境界分離論者(Spatialist)の主張である領空無制限説は、国家がその上空に対して高度に関係なしにいかなる制限と統制を受けずに垂直上方向に向かって無制限に国家の主権を行使することができるという説である。この説はローマ私法の原理である「土地を所有した者は、その上部まで所有する(Cujus est solum ejus est usque ad coelum)」という法諺を国際法に導入し、宇宙空間に対して下土国の主権を上空の無制限まで行使することができるというのである。接続空域説では、国家の上空を①領空、②接続する空域、③宇宙空域に区分する別名「3分説」という説なので、接続空域は高度83kmから480kmまでであり、この接続空域ではあらゆる国家

領空の縦及び横の範囲に対していくつかの学説がある⁷⁶⁴⁾ 航空機と人工衛星の高度の利用をみると、高度30kmまでは一般航空機とU-2機、SR-71機等が飛行できる。また高度200kmまでは偵察衛星が利用できるが、高度1,000kmはICBMの弾道軌道である。高度26,000kmは人工衛星が1日2回転をする高度であり、特に米空軍ではこの軌道をGPS衛星が利用している。一般的に大気圏というのは、高度33,600kmまでを意味している。他方、通信衛星の適当な高度は、地球静止軌道衛星である高度35,786kmであるが、赤道上空だけで可能である。国連の宇宙関連機構である、COPUOS(Committee on the Peaceful Uses of Outer Space)では、領空と宇宙空間の境界を明確にすることが必要であると判断し、先に旧ソ連邦が提案した⁷⁶⁵⁾ 海拔100kmから110kmまでの高度を宇宙空間の境界として仮定した⁷⁶⁶⁾。1979年、旧ソ連邦は“Approach to the solution of the delimitation of

の飛行物体の無害通航が可能であるという説である。引力説はJoseph Kroellが主張した説で、地球の引力が消滅する場所で、領空の限界が終るという説である。だが地球の引力が宇宙空間にどこまで到達できるのか、その正確な限界を発見するのは困難である。揚力説は約831kmの上空の地点で、1秒に25,000フィートを飛行できる飛行体はその気体力学的に推進力を喪失して、遠心力の作用が始まる高度から宇宙空間をみるという説である。実力説は、下上国の国家が実際に統制可能な上空までを領空とみる説である。

しかし弱小国の主権が相対的に制限を受けるので主権平等という国際法の大原則に反し、宇宙空間の探査と利用において宇宙は人類共同の遺産であるという宇宙法の大原則にも違背するという反論がある。大気圏説は、国家の主権は、「大気が存在する限度までの空間」すなわち大気圏範囲内で主権が存在するという説である。しかし現在、大多数の人工衛星の高度が400～1,000km内に位置しているのに比べて、大気圏の高度は33,600kmなので大気圏を領空としたいという大気圏説の主張には問題点がある。

機能主義者(Functionalist)は、飛行物体の活動性格と機能により、または両者の性格に従って、飛行体を区別する国際法を制定することが必要だと主張している。また宇宙空間を使用する目的は平和的であるか、政治的な目的であるか、あるいは下土国に及ぶ影響如何に従って解決しなければならぬという主張があるが、人工衛星は高度の科学技術の集合体であり、特に軍事衛星の飛行において発射と衛星の目的が秘密になっているので、航空宇宙先進国などでも、他国の軍事衛星の機密を確認するのが困難である。従ってこの機能説が主張する領空と宇宙の限界を明確に区別するのは難しい。留保論者などの見解によれば、現在領空と宇宙空間の境界を画定する程度の成熟した時期ではないので、境界画定を留保するとし、先端宇宙科学技術の発達をみてもっと研究するのが必要だと主張する説である。；辛聖煥「北朝鮮の人工衛星発射による航空宇宙法的考察」、『韓国航空宇宙法学会誌』、(第11号、1999)、418-421頁。

764) 坂本昭雄、『国際航空法論』、(有信堂、1992年)、25-29頁。

765) 国連総会の法律小委員会で旧ソ連邦代表が水面上空100km～110km(さらに広範囲にすると90～130km)までを宇宙空間の境界であると提案した。U.S. Senate, Committee on Armed Services, Subcommittee on General Procurement, *Soviet Defense Expenditures and Related Program*, Hearings, at 78-83.; See also *Soviet Military Power* (Washington, DC; GPO, 1981), p.75.

766) GA Official Records 33rd Sess., Supp. No.20 (A/33/20), para. 64, p.12. It should be

air space and outer space”の提案で100～110kmの境界を再び提案した⁷⁶⁷⁾ 国際機構による宇宙空間の境界に対する論議をみると、1980年、ベルグラードの国際法協会(International Law Association: ILA)において、1978年のマニラ国際法協会での宇宙空間の境界を海拔高度100kmに定めた決定に対して慎重に審議した⁷⁶⁸⁾。

宇宙空間の境界を画定するためには、あらゆる国家等の利益を公平に保護しなければならないので、宇宙開発の現実的な問題などを解決できる領空と宇宙空間の境界画定に関する国際条約はまだ存在しない。このような問題を解決するために、新しい国際条約を作るか、あるいは既存の国際条約(例: 宇宙条約など)を改正(条文の挿入など)することが近道だと思う。

ただ多くの国際機構と国際会議の結果からみて、現在、国際慣習法により宇宙空間の境界は100～110kmとみるのが妥当であろう。例えば韓国及び日本政府が、自由の領空の高度範囲に関してはいかなる公表もしなかったが、北朝鮮が日本政府に事前通告や諒解なしに、昨年8月31日にテポドン1号弾道ミサイルを試験発射して日本領空を通過させたことは、国際慣習法による領空の範囲の高度が100～110kmであることから、結果的に日本領空を侵入したとみるのが妥当であろう。他方、領空と宇宙空間の範囲が国際慣習法により100～110kmであるとされているが、慣習法規の効力はそれを黙示的に法規範として承認した国家に限っている。それゆえこの慣習法に明示的に反対している国家などに対して、100～110kmを適用させることは困難である。ましてそのような黙示的合意の存在を拒否する国家に対して、その慣習法規の適用を強要させることはもっとも困難であるという反論がある⁷⁶⁹⁾。

noted that the limit of 100～110km above the sea level is a proposal of the USSR. Maurice N. Andem, “*International Legal Problem in the Peaceful Exploration and Use of Outer Space*”, University of Lapland, 1992, at 137.

- 767) 1. The region above 100 (110)km altitude from the sea level of the air is outer space.
 2. The boundary between air space and outer space shall be subject to agreement among States and shall subsequently be established by a treaty at an altitude not exceeding 100 (110)km above sea level.
 3. Space objects of States shall retain the right to fly over the territory of other States at altitudes lower than 100 (110)km above sea level for the purpose of reaching orbit or returning to earth in the territory of the launching State.”; Reproduced in A/AC.105/240. Appendix N, at 6.
- 768) For details, see ILA: Report of the 59th Conference, Belgium(1980), op. cit., p.168 et seq.. See for comparison, ILA; Report of the 58th Conference, Manila (1978), op. cit., p.2.
- 769) Are dissenting and non participating States bound by custom? ” May a state be bound if it has no practice and if the precedents did not involve it? Can a State prevent a rule of customary law from becoming binding on it? At what time must it express opposition? Are new states bound by established custom in which they had no

(2) 航空法との関係

北朝鮮は1998年8月のテポドン1号弾道ミサイル試験発射を 現在まで人工衛星の発射だったと主張しているが、たとえ人工衛星であっても、この衛星の推進体の一部が日本の領空を通過し、この推進体の宇宙物体(Space Objects)の一部が高度60kmの上空から日本の三陸沖に落下したのであるから、領空を侵入したとみる。特に北朝鮮が主張する人工衛星発射の時間前後に、この衛星推進体の弾着地点の付近にあった太平洋上空では、大韓航空機2機、全日空(ANA)航空機2機、台湾EVA航空機1機、その他日米の航空会社の航空機2機、合計民間航空機7機が飛行中であった。それゆえこのミサイル弾頭と民間飛行機が衝突する危険のおそれが充分存在していたのである。北朝鮮は1944年の国際民間航空条約(シカゴ条約)の締約国であるので、「国際民間航空の安全な運航のため」人工衛星発射体の飛行軌度、推進体、予想落下地点及び時間などを事前に通報するのが当然である。シカゴ条約の締約国である北朝鮮は、この条約の前文に規定している「締約国は国際民間航空の安全と合法的な発展の原則に合意する」という前文の精神に違反したとみる。1995年7月18日、中国が台湾に対して政治的圧力を加えるため台湾付近海域を弾着地点とするミサイル試験発射をする前に、この海域及び空域にあるあらゆる船舶と航空機は避難するように事前公表したことがある。この公表に従って台湾政府は一時的に中国東海に設定した予想弾着地点付近の航空路(air route)を閉鎖して、中国ミサイル実験発射による航空機との衝突危険を避けたことがある。

(3) 宇宙法との関係

北朝鮮がテポドン1号弾道ミサイル試験発射を人工衛星の発射であると主張するのならば、宇宙の平和的利用のために締結した宇宙関係条約で規定している法秩序を遵守しなければならないと思う。1967年に発効した宇宙条約第9条は、「条約の当事国は、宇宙空間の平和的な探査及び利用における他の当事国の活動に潜在的に有害な干渉を及ぼすおそれがあると信ずる理由があるときは、その活動又は実験が行われる前に適当な国際協議を行なうものとする」と規定している⁷⁷⁰⁾。この条文の立法趣旨は「他国の利益尊重の原則」である。

opportunity to participate? How many they change rules to which they are opposed?», Louis Henkin, Richard Crawford Pugh, Oscar Schachter, Hans Smit, *International law, cases and materials*, West Publishing co. ST. Paul, Minn., 1987. at 38.

770) I.H.Ph. Diederiks – Vershoor, *An Introduction to Space Law*, (Kluwer Law Publishers, 1993), at 153.

上記条約第11条に「条約の当事国は 宇宙空間の平和的な探査及び利用における国際協力を促進するために、その活動の性質、実施状況、場所及び結果について、国際連合事務総長並びに公衆及び国際科学界に対し、実行可能な最大限度まで情報を提供することに同意する」という『情報提供の原則』が規定されている⁷⁷¹⁾。

もちろん、北朝鮮は上記宇宙条約の締約国ではないので、『情報提供及び他国の利益尊重の原則』に関する法的義務はないけれども、北朝鮮のテポドン1号弾道ミサイル試験発射の推進体が日本領空に侵入したわけであるし、また事前通報がなかったので、推進体の弾頭と民間航空機が衝突するおそれが充分あった。このことから、北朝鮮が日本に対して上記両原則の精神に鑑み、道義的及び国際協力義務に違反したことは明らかである。

北朝鮮が引き続き人工衛星発射を平和的な利用目的でしようとするならば、韓国が加入している①1967年の宇宙条約、②1968年の宇宙救助返還協定、③1972年の宇宙損害責任条約、④宇宙物体登録条約などに北朝鮮も加入し、南北朝鮮間に宇宙探査、開発及び利用に関して相互協力するのがもっとも望ましいことだと信じている。

4. テポドン1号 2号弾道ミサイルの内容と配備

4.1. テポドン1号 2号弾道ミサイルの仕様と性能

テポドン1号ミサイルは、完全に在日米軍基地及び日本全土を攻撃するために開発されたと推定される(日本全土がちょうどスッポリ射程に入る)。当面の敵対国である韓国にはこのような長い射程のミサイルは不要で、スカッド改良B、スカッド改良Cミサイルで充分である。テポドン1号、2号弾道ミサイルの仕様と性能については次の図表で説明する。

771) Bin Cheng, *Studies in International Space Law*, (Clarendon Press, Oxford, 1997), at 252 - 258.

テポドン1号 2号弾道ミサイルの仕様と性能

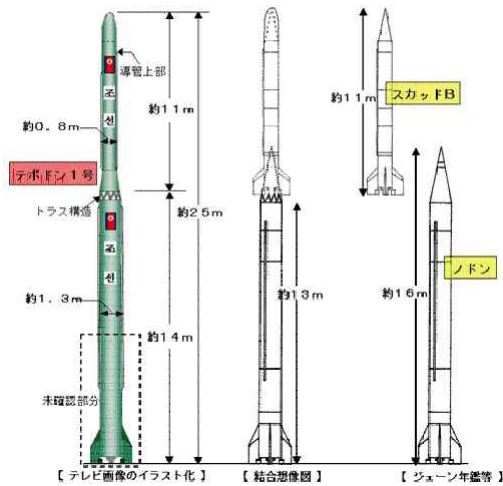
区分	全長(m)	直径(m)	発射重量(kg)	ペイロード5	弾頭	誘導方式	推進方式	射程(km)
テポドン1号	25.0	1.3	27,000	単弾頭 1,000kg	不明 核?	慣性	2段式 液体	2,000
テポドン2号	32.0	2.4(第1段)	60,000	単弾頭 1,000kg	不明、核?	慣性	2段式 液体	3,500~6,000

北朝鮮弾道ミサイルの開発現況 772)

1999年4月1日現在

名称	スカッドB	スカッドC	労働1号	テポドン1号	テポドン2号
射程距離	340km	500km	1300km	1800~2300km	3500~6000km
開発時期	1985年	1989年	1993年	1998年実験発射	2~3年内開発
発射台/ミサイル	24基/500発	24基/500発	9基/?	?	?

テポドンミサイルに関する判読図



- ★ ミッション: 中距離弾道ミサイル
- ★ 開発国名: 朝鮮民主主義人民共和国 (北朝鮮)
- ★ 配備国名: 未配備
- ★ 開発開始年: 1994年

772) 『朝鮮日報』、1999年4月1日、5頁。

★ 配備開始年: 2000年(テポドン-1号)

2004-2006年(テポドン-2号)

北朝鮮の東海岸の基地にあるテポドン1号弾道ミサイルは、ノドン3号ミサイルともよばれていた。1998年8月31日の日本海・三陸沖への発射実験が北朝鮮としての初めての実験であった。テポドン2号は、射程距離3,500~6,000kmの中距離弾道ミサイル(IRBM)といわれている。テポドン2号弾道ミサイルの任務は、究極的にはアメリカ本土攻撃であるが、当面はグアム島の米軍基地やハワイ、アラスカなどが対象になる。1994年の報告書によると、北朝鮮はノドン1号、2号ミサイルの改良強化バージョンとして新型ミサイルのモックアップを組み立てたという。

アメリカは、偵察衛星を利用し、北朝鮮のテポドン1号弾道ミサイルの発射地点を発見し、その弾道ミサイル発射地点の名前が咸鏡北道花台郡大浦洞なので、地名であるテポドン(大浦洞)をとりテポドン・ミサイルと命名した。しかしテポドン1号ミサイルの実験は、これが初めてではない。というのは、1998年4月のパキスタンのGhauri1号ミサイルの実験は、ノドン1号ミサイルそのものか、または多少の改造バージョンとみられているからである。

4.2. 中東諸国に対する北朝鮮のミサイル技術支援と輸出

1999年4月中旬頃、パキスタンが試験発射した新型中距離弾道ミサイルGhauri2号は、北朝鮮のノドン1号ミサイルの改良型と確認され、またこの試験発射によって北朝鮮がテポドン1号ミサイルの開発に利用している。また1998年8月のイランの新型ミサイルShahab3号も、北朝鮮のノドン1号ミサイルかテポドン1号ミサイルの改良型だといわれている。北朝鮮はこれらの国にミサイル又はその製造技術を提供し、その見返りに実験データを受け取り、それをテポドン1号弾道ミサイルの改良に使っているわけである。

最近、米国の中央情報局(CIA)は、北朝鮮を世界最大のミサイル輸出国家として分類し、北朝鮮は1980年代からパキスタン、イラン、イラクなどの中東諸国に対して、年間約10億ドルの各種ミサイルを販売しているという情報があると伝えている⁷⁷³⁾。もともと、北朝鮮のミサイル貿易問題については、開発禁止そのものが中心課題にならないといけない。開発の抑制よりもイラク、イランなど中東諸国に対するミサイル輸出禁止に焦点をあわせるような米国の消極的

773) <<http://203.235.118.2/w21data/html/news/199905/199905280204.html>>

協商態度に われわれは警戒しなければならないと思う⁷⁷⁴⁾。

北朝鮮は1997年度に射程距離1000kmのノドン1号ミサイル20基を生産し、また1998年には10基を生産した。このミサイル30基のうち一部はパキスタンとイランなどに輸出し、残余のミサイルは、北朝鮮の西海岸地域に位置しているShinhoriの軍事基地に実戦配備したという情報がある。この地域には数多くのミサイル移動発射装置が設置されており、多くの関連軍事施設が配置されている⁷⁷⁵⁾。

4.3. 北朝鮮におけるミサイルの配備基地

北朝鮮のテポドン弾道ミサイル発射基地は咸鏡北道花台郡に位置している大浦洞と舞水端にあり、同発射基地はノドン・ミサイルの発射基地から約3km離れている。中国と北朝鮮の境界にある白頭山付近に位置しているYongjo Dongと休戦線付近の支下里には、二つのミサイル発射基地が建設した。また北朝鮮は、有事を想定して韓・米両国軍から攻撃されないように中国の国境からわずか20余kmしか離れていない地域に、地下ミサイル基地を建設した。韓国政府のある筋によれば、「北朝鮮は両江道のYongjo Dong地域に地下ミサイル基地を建設したけれども、この基地は中国から20余kmしか離れていないので、有事には空襲が不可能となり、韓・米軍当局はその対策に腐心している」と伝えている。

この筋によれば、「特にこの基地の地下発射台が南方面ではなく北方面(中国側)に向かっているので、トマホーク巡航ミサイルなどの精密誘導武器を使って発射台の入口を攻撃するのは大変困難だと」分析している。このようなことから、Yongjo Dong地下ミサイル基地は、Kumchang Ri 核疑惑施設以後、テポドン弾道ミサイル発射試験場とともに、韓・米軍当局がもっとも神経を使っている北朝鮮の地下ミサイル基地である。

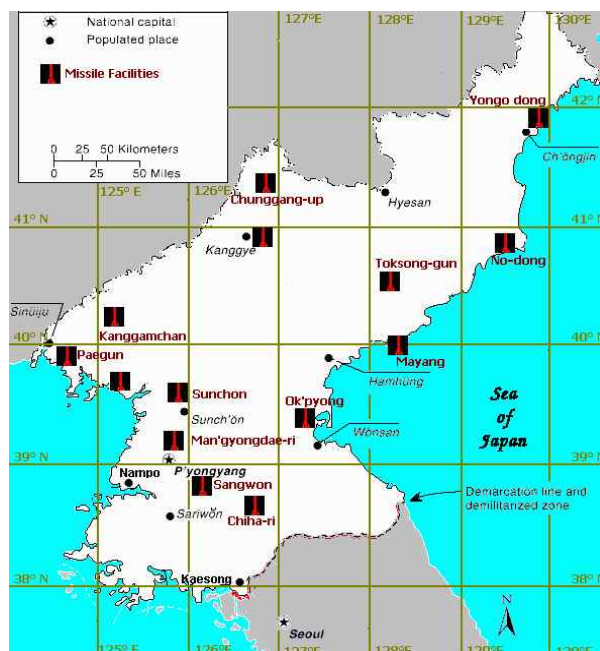
Yongjo Dongミサイル軍事基地から、朝鮮半島の有事に韓国全域並びに大部分の日本地域をテポドン弾道ミサイルなどによって射程圏内に入れることができると予想される。北朝鮮は現在、前・後方地域に10余箇所のミサイル基地を保有しているし、Yongjo Dong基地を始め三つの場所に地下ミサイル基地を追加、建設した⁷⁷⁶⁾。

774) 『朝鮮日報』、1998年9月2日、4頁。

775) <http://www.chosun.com/w21data/html/news/199901/199901060398.html>

776) 『朝鮮日報』、1999年7月7日、1頁。

現在 Yongjo Dongミサイル地下基地は、この基地の地下発射台が合計で10余個に達している。昨年8月に試験発射したテポドン1号弾道ミサイル、開発中のテポドン2号弾道ミサイルとともに実戦配備されているノドン1号ミサイルなどをも配備し、もともと重要な北朝鮮の地下ミサイル基地となると展望している。北朝鮮のミサイル配備基地を次の地図表で説明する。



のミサイル配備基地

4.4. 北朝鮮における弾道ミサイルの開発現況

北朝鮮が、現在、射程距離300～500km級の短距離弾道弾(SRBM)、スカッド・ミサイル500余基と1,000km級の中距離弾道弾(MRBM)、労働1号12発を実戦配備している。⁷⁷⁷⁾ 弾道弾(Ballistic Missile)について、射程距離を基準として次のように区分する。

777) 『Newsmaker』, Weekly Magazine, No.290, (1998.9.17, Seoul), p.32; 『朝鮮日報』、1998年9月1日、3頁。; <http://www.chosunilbo.com>

- (1) 短距離弾道弾(SRBM: Short Range Ballistic Missile)
- (2) 中距離弾道弾(MRBM: Medium Range Ballistic Missile)
- (3) 長距離弾道弾(ICBM: Inter-Continental Ballistic Missile)

SRBMとMRBMは戦域ミサイル(theater missile)であり ICBMは大陸間弾道弾である。SRBMは、射程距離が 1,000km未満、MRBMは1,000km以上5,000～6,000km以下、ICBMは、6,000km以上の弾道弾を呼称している。現在、北朝鮮が実戦配置した弾道ミサイルと1998年8月31日、試験発射したテポドン1号弾道ミサイルの仕様図表は、次の通りである。

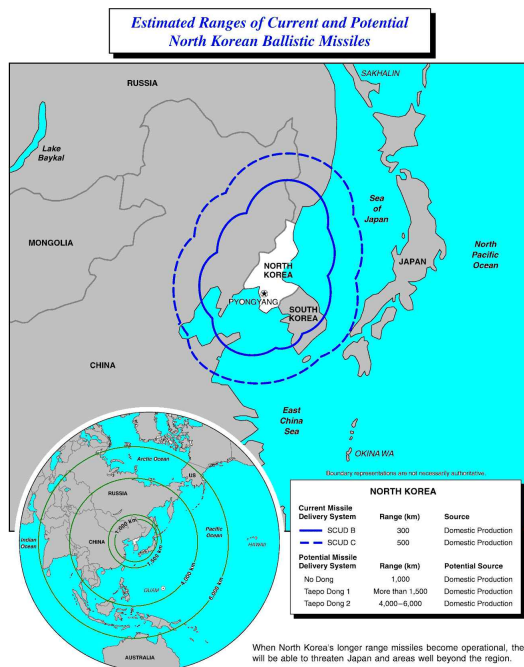
北朝鮮における実戦配置 / 開発中の弾道弾の仕様図表

最初の発射試験	1984年	1985年	1990年	1993年	1998年	開発中
長さ / m	11.25	11.25	12.55	15.50	23.00	未詳
直径 / m	0.88	0.88	0.88	1.30	1.30	未詳
射程距離 / m	300	340	500	1,000	1,700	3,500以上
弾頭重量 / kg	985	985	600	1,000	1,000	1,000

約500余基の北朝鮮の戦域弾道弾に核弾頭を装着するには、相当な期間がかかると予想される。しかし現在、休戦線北側の北朝鮮が朝鮮半島全域を射程圏に入れる労働1号がすでに実戦配備していることは、明らかに脅威である。留意しなければならない点は、人工衛星と攻撃用ミサイルは、同じロケットによって発射され、発射技術の面ではほとんど差異がないので、軍事能力の強化を目標に人工衛星を打ち上げることが可能であるという点である。しかし、いまでもなく、このような事象は東北アジア地域の安定を害し、米国と日本をはじめ周辺諸国にとって脅威の対象になっている⁷⁷⁸⁾。他方で、北朝鮮がテポドン1号弾道ミサイルを戦略用攻撃武器として実戦に配置するのは難しいという一部の意見もある。ミサイルの正確度の測定単位であるCEP(Circular Error Probability)を基準としてみた場合、テポドン1号の航法の正確度は、1,500kmの射程距離に20～30kmの偏差があり、正確度がおちるので、直接的な戦略用攻撃武器よりも、脅威用あるいはテロ用を使用する可能性が高まっている、と述べる米国の専門家達がいる。先述したように、人工衛星の技術と大陸間弾道弾(ICBM)の技術はほとんど差異がなく、ロケットの前面端に人工衛星代わりに弾頭を装着したときには、そのま

778) 『朝鮮日報』、1998年10月4日、4頁。

まICBMに転換することができる。しかしICBMの場合には、核弾頭に精密航法誘導装置 (precision guidance system)が必要なので、北朝鮮がこのような技術を獲得するには、かなり時間がかかると思う。779) 北朝鮮は現在、世界第3位の化学兵器強国であり、万一、これらの弾道ミサイルを利用して化学兵器攻撃をしたときには、非常に大きな威力(破壊力)を発揮することができる。北朝鮮は2,500~5,000の化学兵器を保有しており、かれらが保有しているスカッド・ミサイルの弾頭の50~60%が化学兵器になっていると推定されている。すでに米国の政界は、米本土に対する北朝鮮の化学兵器による攻撃の可能性を心配している780)。スカッド・ミサイル一発に搭載できる化学兵器は0.65トンであり、被害面積は50ha(約15万坪)に及ぶ。テポドン1号の場合、弾頭の大きさがスカッド・ミサイルと似ているので、化学弾頭を搭載した場合には同様の威力を発揮すると予想される。



779) Joseph C. Anselmo and Robert Wall, *Missile Test Extends North Korea's Reach*, Aviation Week & Technology, Vol.149, No. 10 (September 7, 1998), at 56-57.

780) 『朝鮮日報』、1998年9月8日、3頁。

5. 米国の国家ミサイル防衛(NMD)計画

次表は Joseph S. Bermudez Jr. 氏が発表した北朝鮮の弾道ミサイルの特徴である 781)

DPRK Ballistic Missile Characteristics

(Copyright 1989 - 1999, by Joseph S. Bermudez Jr., 3 March 1999)

Class	Name(Alternate names)	Max. Rang (km)	Warhead (kg)	Stages	Length (m)(a)	Diameter (m)	Weight (to)	DPRKI OC(b)
SRBM	SA - 2 / HQ - 2SSM			2				1976
	DF - 61	600	1,000(C)	1	9.0	1.0	6.0	n.a.
	Scud B(R - 17E)	300	1,000	1	11.164	.884	5.86	1981
	Hwasong5 Prototype (Scud Mod.A)	300	1,000	1	11.164	.884	5.86	1984
	Hwasong5(d)(ScudMod.B, Scud B)	320 - 340	1,000	1	11.164	.884	5.86	1985
	Hwasong6(d)(ScudMod.C, Scud C Scud PIP)	500	770(e)	1	11.3	.884	5.93	1989
MRBM	No - dong(No - dong1, Ro - dong1, Scud Mod.D, ScudD)	1,300	1,200(f)	1	17.4	1.33	16	1997
IRBM	Taepo - dong1(Daepo - dong1, No - dong2, Scud X, ScudMod.E, Rodong2)	1,500 - 2,200(g)	700 - 1,000	2	27.3(16.3 / 8.1 / 3.5)	1.33 / .884	20.4	1998
ICBM	Taepo - dong1 SLV	4,000(h)	100	3	7.29(16.3 / 8.1 / 3.5)	1.33 / .881 / .884	19.9	1998
	Taepo - dong2 (Daepo - dong2, No - dong3)	4,000 - 6,000	700 - 1,000	2	35.4(18 / 17.4)(i)	2.4 / 1.33(i)	69.4	2000

米国防長官は、防衛予算66億ドルがNMDの配備に使用され、NMD体制の開発などのためすでに割り当てられた40億ドル規模の予算と合わせた場合、NMD予算は106億ドルをこえると言明した。さらにコーエン元米国防長官は国防省で開いたNMD関連特別会見で、「現在ミサイルの脅威が存在しているし、まだ増加すると予想している。このことは海外駐留米軍のみならず、本土米国人にまでも危険が及んでいることを意味している」と明確に語った。

米国防長官は、近い将来、米国が北朝鮮のような不良国家(Rough Nations)によるミサ

781) Notes available and should be regarded as provisional.

イル脅威に直面することになるであろう。特に1998年8月の北朝鮮によるテポドン1号弾道ミサイルの発射実験は、米国がまったく予想しなかった3段階推進装置まで使用した多端階弾道ミサイルであり、これは大陸間弾道ミサイル開発の一端が表面化したものである、と指摘した。

米国防省が1999年1月20日に発表した4段階NMD計画は、①衛星感知装置を通じてミサイル発射を確認する、②カリフォルニア州、アラスカ州、マサチューセッツ州などにある早期警報レーダーを通じ飛行経路を追跡する、③アラスカ州に所在している地上レーダーを通じて敵国のミサイルを照準する、④時速25,000マイルの迎撃ミサイルを発射して地球大気圏で撃墜する、といった内容からなっている。これは80年代、レーガン大統領時代に推進した「宇宙戦争(Stars War: SDI)」計画の部分的復活である。

実際、コーエン元米国防長官は、「SDIの継承者として推進するつもりだ」と記者会見で明らかにした。米国防省はまた、大気圏内でミサイルを迎撃する低空ミサイル防衛システムの改良型パトリオット(PAC-3)の配置を検討しており、さらに地对空高空迎撃ミサイル体制であるTHAADと海上高空撃墜ミサイルシステムである「海軍戦域ミサイル防衛(Navy-Theater-Wide)」をそれぞれ2005年から2007年まで開発・実験を繰り返し、実戦配備できるように計画している。このような米国ミサイル防衛システムの増強は、韓・米連合防衛システムなど、朝鮮半島に大きな影響を与えると予想される。

当初、米国防省は2003年をNMD配置可能時限として提案したが、コーエン元長官は「米国はいま失敗をするひまがない」と記者会見で語り、現実的に可能なNMD体系構築時限を2005年までと提案、最終NMD施設及び迎撃ミサイルの配備は、1999年の夏に決定された。米国防省のこのようなNMD決定は、共和党の強力な要求にもかかわらず、非現実性などを理由として「ミサイル防衛システム」に消極的立場を取ってきたクリントン政府の態度を急変させたものである。

1998年8月31日に実施した北朝鮮のテポドン1号弾道ミサイル発射がアメリカの政治状況を変えさせたわけで、その背景には北朝鮮のミサイル発射が大きな役割を果たしたことになる。

TMD構想の核心であるTHAAD(上層防空システム)開発のため、米国が実施した6回の発射実験のうち、成功したのは1回だけであるが、今後も継続して発射実験をする予定である。

米国は1999年6月10日、中距離ミサイル迎撃システムであるTHAADミサイル発射実験に成功し、軍事技術上、重要な進展を達成したと報道している。この日の午前、ニューメキシコ州にあるホワイト・サンズのミサイル発射試験場に向けてスカッド・ミサイルを仮想したヘラ・ミ

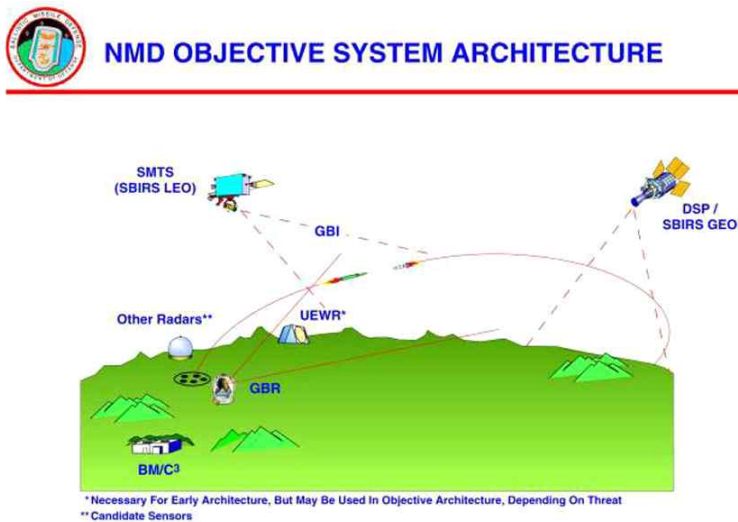
サイルが飛行してきた

前記発射試験場から直ちに迎撃用THAADミサイルが発射された。THAADミサイルは、熱追跡装置を利用してマッハ6の速度で飛行し、大気圏の終わり付近で目標物を迎撃した。THAADのレーダーと追跡システム、集積回路システムは、すべて完璧に作動したと伝えられている。

軍関係者達は、「銃弾が銃弾を当てるように正確であった」と伝えている⁷⁸²⁾。パトリオットは迎撃ミサイルだが、低高度迎撃用なので、目標ミサイルをまっすぐに打撃するのではなく、接近したあと自体爆発によって撃墜効果を得るのであるから、THAADとは違う点がある。米国は、1992年から今日までTHAAD開発に40億ドルを投入した。

THAAD開発を担当しているLockheed Martin社は、1999年の3月まで6回の試験発射に失敗したことがある。近い将来、THAADミサイルの試験発射が2回成功したときには、この開発プログラムは生産段階に入る予定である。

米軍関係者達は、2007年までにTHAADを実戦配備する目標を立てている。しかしながら、一部科学者達は、「試験発射の成功と実戦で敵のミサイルを撃墜するのとは大きな差異がある」として、実用性に疑問を提起している。



Based Infrared System)

782) 『朝鮮日報』、1999年6月12日、9頁。

DSP/SBIRS GEO:	諜報静止軌道軍事衛星(防衛支援プログラムー 赤外線ミサイル追跡装置) Defence Support Program(Space Based Infrared System)
GBI:	地上迎撃ミサイル Ground Based Interceptor
UER:	高品質早期警報レーダー Upgraded Early Warning Radar
GBR:	地上基地レーダー Ground Based Radar
BM/C3	作戦/指揮 統制及び通信 Battle Management / Command, Control and Communication
Others Radar:	Forward X-band Radar

ミサイルを発射したときには、軍事衛星に装着している赤外線センサーによって、即刻感知し、数分内に地上と海上に配置されている対抗ミサイルを発射して撃墜するというものである。撃墜地点がどこにあるかによって、大気圏内の「下層システム」(MEAD: Medium Extended Air Defense)と大気圏外の「上層システム」(THAAD: Theater High Altitude Air Defense)に区分される。

米国防省の「TMD(戦域ミサイル防衛)構想」というのは、飛行している敵の弾道ミサイルを衛星によって探知し、空中から追撃・撃墜するシステムなので、これまでのところ弾道ミサイルに対する唯一の直接防衛手段である。

6. 日本の防衛と戦域ミサイル防衛(TMD)

米国と日本がTMD(戦域ミサイル防衛体制)開発に取りかかったことにより、再び緊張が高まっているといえる。すなわち、米国が北アジア地域における「TMD構想」実現に向けて最近、日本と共同開発に努力することで合意した。この合意は一面で同地域の安全保障に有

効な役割を果たすが、他面で北朝鮮はもちろん、中国とロシアが反対を表明しているので政治的な面で難しい点がある⁷⁸³⁾。

日本政府はTMD開発のため1999年度予算に9億6000万円を計上し、米国との共同研究を本格的に推進する。日本と米国のTMD開発の共同研究は、5か年計画を立てて始まったが、開発と実戦配備までには約15年間かかると見込まれている。しかし北朝鮮、中国及びロシアは、日・米のTMD共同開発に強く反対している⁷⁸⁴⁾。

日・米両国政府は、戦域弾道ミサイル防衛(TMD)構想⁷⁸⁵⁾の共同研究・開発の諒解覚書(MOU)に署名を終え、両国の共同研究が本格的に始まった。日・米両側の諒解覚書は、5～6年はかかる上層海上発射用の海軍戦域防衛(Navy Theater Wide Defense: NTWD)システムを共同研究・開発する中で、最初3年程度は設計段階の研究として、日本は改良型NTWDのスタンダード・ミサイル弾頭など4個分野を担当すると伝えられている⁷⁸⁶⁾。

日・米両国政府は、1998年9月の安保協議会(2+2会談)で1999年度からイージス艦に搭載するNTWDの共同研究に着手することで合意し、日本の1999年度予算が確定された後、覚書の内容を調整した。その結果、1999年7月に調印した覚書は、研究段階に限定し、それ以後の実験は研究進展状況に従って新しい覚書を日・米間で調印する手はずとなっている。しかし北朝鮮が新型弾道ミサイルのテポドン2号を試射した場合、韓・日・米国と北朝鮮との緊張関係は極度に高まるので、このような時期に、南・北朝鮮の間に何か偶然な突発事件が起こり北朝鮮が先制攻撃をした場合には、再び戦争が起こる可能性もある。最近北朝鮮が持っているミサイル基数が増加し、韓国を攻撃できるミサイルの総数は600基である⁷⁸⁷⁾。もし戦争が起こった場合、韓・米相互防衛条約に従って米軍は第2次朝鮮戦争に参加し、また「日米安全保障条約第6条」及び「日米防衛協力のための指針」によって使用している

783) 『東亜日報』、1998年9月22日、5頁。

784) <http://www.chosun.com/w21data/html/news/199903/199903310518.html>

785) TMD構想—アメリカが進めている戦域ミサイル防衛。Theater Missile Defenseの略。敵国から飛来する弾道ミサイルを、ミサイルで撃ち落とすというもの。探知する方法は、偵察衛星や空中警戒管制機など。そして迎撃ミサイルはハイテク護衛艦イージス艦や陸上配備のものから発射する。アメリカは日本に対し構想に参加するよう繰り返し要請してきており、日本政府は1995年度から約5億円の調査費で技術的可能性を研究したが、実際の配備には1兆円を超える巨額の費用がかかると予想している。だが日本とアメリカは、共同技術研究を推進している。現在は米側の研究が遅れているイージス艦(横須賀)に搭載する上層用海上発射ミサイル(LEAP)の研究をしている。； <http://www2s.biglobe.ne.jp/~kohryu/tmd.htm>

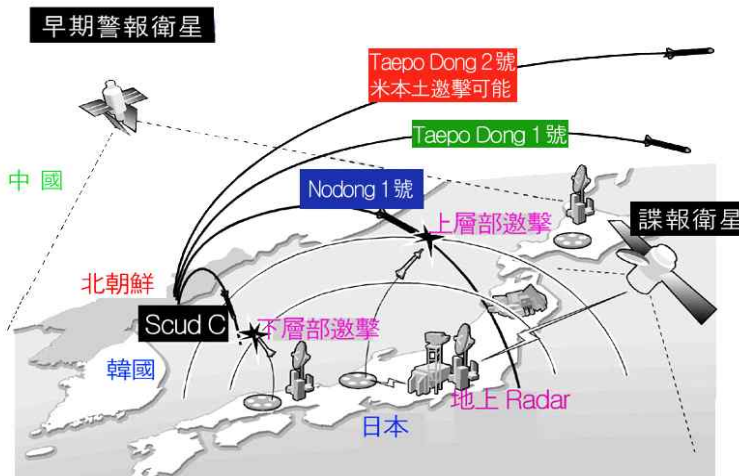
786) 『韓国日報』、1999年6月18日、8頁。

787) 『東亜日報』、1999年6月17日。

在日米空軍基地(三沢 横田、厚木《在日米海軍機》、沖縄の嘉手納基地など)、在日米陸軍基地(座間、横田など)、在日米海軍基地(横須賀の第7艦隊、佐世保など)、在日米海兵隊基地(岩国)などが北朝鮮のノドン1号及びテポドン1号弾道ミサイルの第一次攻撃目標地点になるであろう。特に横田基地には、米第5空軍司令部及び在日米軍司令部が置かれ、アラスカから中東という広大な米軍の軍事行動をつかさどっている。また地球的規模の輸送を行う航空機動軍(AMC)の輸送・中継ターミナルとなるなど一大輸送拠点となっている。司令部には、全世界軍事指揮統制システム(WWMCCS)の作戦室があると言われている⁷⁸⁸⁾。これは、米大統領を中心とする国家安全指揮機能(NCA)に情報を伝え、全世界の米軍部隊を指揮する根幹である。在日米軍は空軍、陸軍、海軍、海兵隊の4軍の編成になっていて、地球的規模で活躍する米軍のアジア・太平洋のキーストーンの役割もっている。

横田基地は朝鮮戦争・ベトナム戦争を通じて、爆撃機や戦闘機の直接の出撃拠点となった時もあった。横田基地はまた、朝鮮半島の有事にもっとも重要な出撃及び空輸拠点になると予想されている。従ってアメリカの要請により、また日本の防衛のため、もし日本の自衛隊もこの戦争に参加したならば、自衛隊の陸・海・空各隊の基地などは、ノドン1号及びテポドン1号ミサイルの第2次攻撃目標地点になるため、日本は莫大な被害を受ける可能性もある。

戦略 Missile 防衛(TMD)作戦図



788) <http://www.ne.jp/asahi/santama/roren/yokota/siryo/pa3.htm>

在日米軍の兵力は22,000名であり 戦闘機などは140機配備されている。横須賀を中心とする佐世保などの在日米海軍基地には、第7艦隊の軍艦60隻(66万トン)と艦載機130機が配備されている⁷⁸⁹⁾。

日本政府は1999年6月2日、米軍を支援するため「日本国の自衛隊とアメリカ合衆国軍隊との間における後方支援、物品又は役務の相互の提供に関する日本国政府とアメリカ合衆国政府との間の協定」を改正した。特にTMD及びTHAADは、海外駐屯米軍を敵の中距離ミサイルから保護するための防空システムである。

1950年6月25日に起こった朝鮮戦争のときは、日本は国民も財産もまったく被害を受けなかったが、前述した今後起こりうる戦争の様相は、第1次朝鮮戦争のときとはまったく違い、北朝鮮が開発している中・長距離弾道弾ミサイルが完全に日本列島を射程圏内に入れているため、日本国民とその財産が被害を被る可能性も予想される。日本政府は、国土防衛と国民及び財産の保護のため、戦争抑止について米・中・韓・北朝鮮・ロシアに対し積極的な外交的折衝を必要とするし、また戦争が勃発することを仮想して事前に、完璧な対応を施すために、韓・米と連携し共同で協力しながら、具体的な韓・日・米合同の中・長期防衛計画を樹立しなければならないと思う。

7. 韓国の防衛と戦域ミサイル防衛(TMD)

韓国に駐屯している米軍は、1994年度から駐韓米軍防空砲部隊に「パトリオット・ミサイル1個大隊」を配備し、現在は北朝鮮の地対地ミサイルの脅威に対処するため、いわゆる韓国型戦域ミサイル防衛体制(TMD)を発展させている。これはソウル市役所から南方約60kmに位置している米鳥山空軍基地に配備して、韓国の地理的条件と作戦環境に適合するためのものである。

「TMD計画」は、弾道ミサイルの発射位置固定状態から発射直後のロケット推進が発散する火焰の強度を測定しながら、侵入してくる弾道ミサイルの飛行経路を早期に探知するため、① DSP(Defense Support Program)早期警報衛星、② KH-11/12写真撮影諜報衛星、③ RC-135 Cobra Ball 弾道ミサイル追跡偵察機、④ 地上レーダー、⑤ 海洋監視

⁷⁸⁹⁾ <http://www.jda.go.jp/jasdf/asdf/mission.htm>

衛星など 国防省の各種偵察支援体制を立体的に活用しなければならない。また燃料注入など発射前の準備に高い費用がかかり、高度の技術と熟練工が必要である。

別名“Key Hole”と呼ぶKH-12写真撮影諜報衛星は、一日に数回、北朝鮮の100～800km上空軌道をまわりながら、約30cmくらいの物体をも識別している。またDSP早期警報衛星は、ICBMなど弾道ミサイルの発射時に起こる強力な火焰を探知できる大型赤外線感知器と、弾道追跡のためのTVカメラなどを装着して、36,000km上空の静止軌道から24時間、ミサイル発射を監視している。実際、米国が保有している情報は世界的にもっとも高水準にあるため、情報を担当する機関はCIAなど全部合わせて13機関に達しており、傘下所属職員の数約10万名の人力と装備を利用して各種情報を収集分析している。 정보

情報は、国外、合同軍事、技術など3分野に分けて収集したものを、①Image(映像)情報、②電波/電子/信号などによる信号情報、③各種計器によって測定した測定情報、④人的資源による人的秘密情報などの4分野に分類して総合している。Image情報はNIMA(National Image Management Agency)、信号情報はNSA(National Security Agency)、測定情報はDIA(Defense Intelligence Agency)、人的情報はCIA(Central Intelligence Agency)がそれぞれ管掌している。

特に北朝鮮など第3世界及びテロ集団の動向を、人工衛星を通じた画像によって捕捉しているが、主に使っている衛星はCORONA、ARGON、LANYARDなど、3個の衛星システムである。しかし現在、米国は韓国の射程300km以上の弾道ミサイルの開発を頑なに抑制している。このため技術移転は不可能であり、韓国が北朝鮮など敵性国のミサイル脅威から解放されるには、今後5年以上かかる⁷⁹⁰⁾と思われる。もし米国政府が、韓国の中・長距離弾道ミサイル開発に対する抑制を解除した場合、韓国は今後5年以内にこれらの弾道ミサイルを開発するだけの独自の技術・能力を持つことが可能だと予想される。

ミサイルの空中迎撃は、「突然飛んでくる銃弾を、空中又は大気圏内で、飛ぶ銃弾によって命中させる程度の高難度技術」がどうしても必要である。湾岸戦争の当時(1991年)、パトリオット地対空ミサイルの命中率はわずか9%に過ぎなかったことは、戦史の記録が技術の高難度を説明している⁷⁹¹⁾。

現在、韓国烏山空軍基地に配備している米軍のパトリオット・ミサイルは、改良型である

790) 『朝鮮日報』、1998年9月22日、3頁。

791) U.S. News & World Report, *TRIUMPH WITHOUT VICTORY: The Unreported History of the Persian Gulf War* (NY: Times Books, 1992), at 328–331.

PAC-3(Patriot Advanced Capability-3)であり、北朝鮮の「スカッド」と「労働」級の弾道ミサイルを防禦するためには、下層防空システム(MEAD / 中高度拡大防空体制: Medium Extended Air Defense System)が必要である。

装着カメラは、地上の軍輸送車両の登録番号、種類、性別、人種区分、対象物の材質まで、把握可能な高感度情密偵察能力を持っている。しかしたとえ早期に探知したとしても、弾道弾の特性と朝鮮半島の地理的制約性に起因して韓国の標的に到達する前に空中で迎撃するには、現在のところ、大変困難だと思う。

「テポドン」級以上の弾道ミサイルは、THAAD(戦域高空防衛)システムならば防禦が可能だが、まだ実用開発にはいたっていない。THAADを実戦配置するならば、今後20年の期間にわたり140億ドルの莫大な予算がかかると予想される⁷⁹²⁾。米国防省は1999年6月29日、韓国・日本・台湾などの東北アジア地域の戦域ミサイル防衛システム(TMD)展開に関する報告書を議会に提出した。この報告書は、韓国に対して「ソウル防衛のためには、北朝鮮の低空弾道ミサイルを迎撃できる改良型パトリオット(PAC)3ミサイルを大規模に配備する必要がある」と報告した。また韓国全地域の防衛のためには、4基の戦域高高度防衛ミサイル(THAAD)と3基の首都防衛用底層防衛システムが必要であると要請した。

テポドン1号を含めた北朝鮮の弾道ミサイルは、①100～300kmの高度から秒速3km/hの超高速の飛行、②発射から弾着まで10分以内の短い到達時間、③小さいレーダー反射面積(RCS: Radar Cross Section)など、弾道ミサイルの源泉の特性によって軍事専門家は、朝鮮半島のような山岳丘陵地帯(戦場縦深)に属する小さな戦域では、これらの空中迎撃を成功させることは、当分の間、現実的に不可能だとの見解を明らかにしている。

例えば、平壤の北側に位置している安州から250余km離れているソウルを目標としてスカッド、ノドン、テポドンなどの弾道ミサイルを発射した場合、発射後わずか5分以内に音速の12倍であるマッハ12の超高速(super high speed)でソウルの上空に到達する⁷⁹³⁾。

792) Joseph C. Anselmo, *Anti-Missile Effort Faces Big Problems*, Aviation Week & Space Technology 149: 10 (September 7, 1998), at. 58.

793) 『朝鮮日報』、1998年10月4日、4頁。

8. これからの北朝鮮のミサイル発射に対する韓国の防衛戦略

8.1. 韓国のミサイル発射に関する防衛戦略

最近 ある程度の期間内に北朝鮮の弾道ミサイルによる攻撃に対処する明白かつ効果的な防禦妙案を策定するのが困難になっている。この案件の深刻性はもっとも大きな問題である。したがって北朝鮮をミサイル技術統制体制(Missile Technology Control Regime: MTCR)のような国際法体制の枠内に誘導しなければならない。また必要などときには、「北朝鮮のミサイルを規制することができる適切な集団的制裁措置」をとらなければならない。

攻撃武器としての弾道弾とクルド・ミサイルは、再使用が不可能であるし、一旦発射したら回収も不可能であるという短所がある。だが、再出撃と回収(帰還)が可能な、操縦士が搭乗する有人爆撃機の大きな障害となっている気象の制約(例: 悪天候、turbulence)を受けないことや、操縦士の被害がないなどの長所もある。

適正数の攻撃用弾道弾とクルド・ミサイルを確保することは、空中攻撃作戦の効率性と融通性を伸張させることになる。また韓国軍は、韓国の地理的条件(山岳・丘陵地帯)にかなう有用な無人武器体系(例: 無人遠隔操縦飛行機 Remote Pilotless Vehicle: RPV)の積極的な開発と実戦配置が必要であると思う。弾道ミサイルの攻撃武器としての効率性、弾頭の破壊力、航法誘導統制装置、射程距離、戦力運営体制などの考慮要素によって決定されるが、韓国陸軍が現在保有している「玄武(Hyeonmoo: NHK-Ⅱ)」弾道ミサイルの性能改良と戦力運営体制の持続的な改善が必要である。在来式弾頭であっても、高性能拡散弾あるいは高性能浸透弾などを活用することができれば有用である。

弾道弾の核心は、航法誘導装置(Guidance and Control: G&C)であるので、もしG&Cを改善して弾道弾の正確度(accuracy)をF-16級新鋭誘引戦闘機より高い性能に向上させた場合には、ピンポイント攻撃が可能であるし、気象条件の悪いときにも飛行場または北朝鮮軍の指揮本部に向かつて時限的に、制限空中攻撃を行う能力を持つことができる。

射程距離については、弾道ミサイル発射位置を休戦線付近に前進配置し、あるいは空中で発射できる体制を開発すれば、これを伸張させることができる。例えば、弾道ミサイル「玄武」を西海岸休戦線の境界線のすぐ南方に位置している白翎島から発射した場合には、少なくとも平壤を含めて「Choonghwa」に位置している北朝鮮空軍司令部と黄州飛行場など、北緯39

度10分線以内の西部地域北朝鮮の大部分を射程圏内に入れることができる。北朝鮮は1999年4月から、長距離弾道テポドン2号ミサイルの推進装置点検と発射台の大型化工事を進め、1999年7月、新発射台の一部が竣工した⁷⁹⁴。

1999年中にテポドン2号ミサイルを再び試験発射する可能性があるとしてアメリカの偵察諜報衛星が確認したことを報道している⁷⁹⁵。韓国軍の弾道弾ベレーティング・システムは、もし北朝鮮から弾道ミサイル攻撃を受けた場合には即刻、迅速な反応ができるようにもって改善しなければならないし、政府水準では「玄武」を対北朝鮮戦略武器として運用するのが望ましいと考えている。戦略武器運用は北朝鮮の全体標的が管理できる韓国空軍の作戦司令官の指揮統制に任せ、国家的戦略次元で運用すれば、その運営と管理の効率が伸張できる。現在保有している弾道弾の部分的改善努力と共に弾道ミサイルの新技術開発と関連がある国際政治的制約(MTCRなど)に協助しながら、自己能力による技術開発と生産的伸張に努力しなければならないと思う。

まず、1979年に米国の強要によって合意した「韓・米ミサイル指針」に従って、射程距離を180km以下に制限し、開発した国産弾道ミサイル「玄武」の射程距離から、漸次的に拡張できるように米国と交渉することが絶対に必要である。北朝鮮は、すでに韓国全域を射程圏内に入れている労働1号などを保有しており、これに対処するため韓国も対北抑止戦力として、北朝鮮内のあらゆる標的を狙うことができる射程距離500～1000km級のミサイルを開発しなければならないのである⁷⁹⁶。東北アジアの勢力均衡者になっている韓国政府は、武器体系の開発と確保に絶対的影響力を行使している米国政府との間で、高級レベルの政策交渉を持続的に強化しなければならないと思う。朝鮮戦争が終った後、1953年には、韓・米間に締結した韓米相互防衛条約第4条により、「米国の陸海空軍を韓国領土に配置することを許諾する」という規定に従って、在韓米軍駐屯の法的根拠を与えた。1954年の韓米議定書では「韓国軍は国際連合司令部の作戦指揮権に従う」と規定しているし、また1967年の韓米駐屯軍協定によって、駐韓米軍の法的地位を与えた。1999年、駐韓米軍の戦力は兵力が37,000名であり、戦車が140台、ヘリコプターが300余機、戦闘機及び対地攻撃機が100余機、パトリオット・ミサイルが48基、多連装ロケット40機が韓国に配備されている⁷⁹⁷。韓国の周辺国家

794) 『朝鮮日報』、1999年7月14日、1頁。

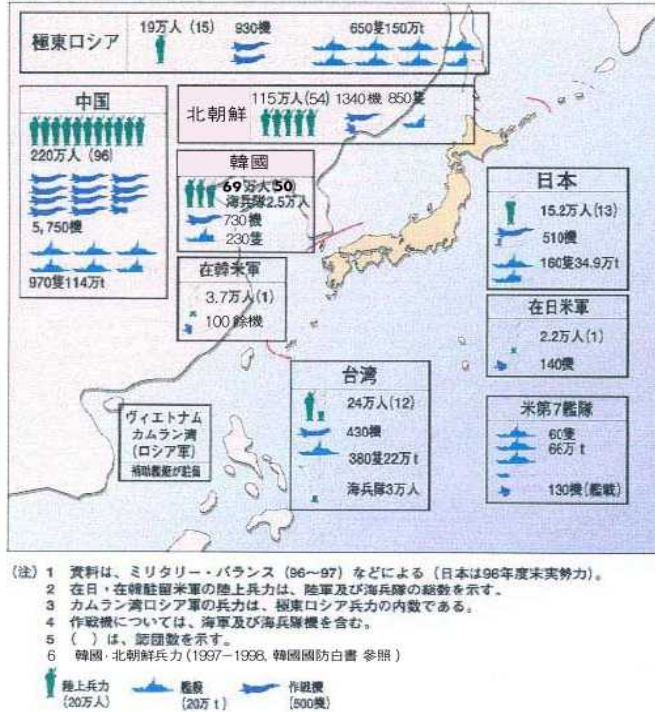
795) <http://www.chosun.com/w21data/html!news/199906/199906180003.html>

796) 『朝鮮日報』1、998年9月9日、4頁。

797) 『朝鮮日報』、1999年4月12日、4頁。

などの兵力配備状況と北朝鮮の弾道ミサイル再発射とは 新しい対応戦略を樹立する場合に、直接関連があると思う。韓国を中心に周辺国家(北朝鮮、中国、日本、極東ロシア)の兵力配備状況は、次の地図表の通りである。

韓国周辺における兵力配備状況(概数)



8.2. 朝鮮半島で起こる南北朝鮮間の全面戦争に備えた戦略(作戦計画)

韓国国防部の「NATOによるユーゴ空襲は、朝鮮半島にどのような影響を与えているか?」についての報告書⁷⁹⁸⁾によれば、「中国とロシアがユーゴ空襲に反対し、国連安保理事会の決議がない状況で、NATOが主権国家を一方的に軍事行動(空襲など)を敢行するという先例を残したことは、北朝鮮と米国の関係に大きな影響を与えている」と指摘した。

特に北朝鮮は、大規模空襲への対応策としてミサイルを持つことが戦略的に重要であること

798) 『東亞日報』、1999年5月3日、3頁。

をさらに再確認したため 北朝鮮・米国ミサイル協商で強硬な立場を表示しながら、ミサイル開発放棄の代償(補償)をもっと引き上げる可能性もある。

この報告書によるとコンボ事態では、①山岳の地形で先端航空武器体系運用と情報収集能力は制限され、②難民対応策が疎遠になって作戦に蹉跌を発生した点と関連して、さらなる対応策が必要であることが強調された。NATOの空襲作戦の成功率はわずか43%であった。これはユーゴが山岳地形であって、軍装備と兵力を民間建物に隠蔽したことに起因している。このことを北朝鮮が参考にする可能性が大きくなると分析している。

朝鮮半島は、大部分が山岳渓谷地形であるし、有事に北朝鮮から大量流入する難民問題を効果的に対応しなかった場合、前・後方軍事作戦に莫大な支障が生じることが予想される。特に、これと関連して北朝鮮は、核製造施設、生化学武器製造施設、弾道ミサイル基地、空軍戦闘機格納庫及び基地、各種軍事施設(軍需工場、兵站施設、地下トンネルなど)をすでに地下に移動し、または建設中である。多くの険峻な山岳を有する朝鮮半島の特性上、空中作戦だけでは限界が予想されるため、韓国軍及び駐韓米軍は新しい作戦戦略を開発しなければならないと思う。一般的に、人々は、いつでも戦争が起こることを予想するが、現にいつ(When)、どこで(Where)、どのように(How)起こるかは、世の中で誰も知ることができないのである。

韓・日・米が連携して北朝鮮の新型テポドン2号弾道ミサイル試射を中止させるよう外交的努力をしたにもかかわらず、突然北朝鮮がこのミサイルを発射した場合、韓・日・米と北朝鮮の間には緊張関係が極度に高まる。このような時期に南・北朝鮮の間に偶然の突発事件が起こって北朝鮮が先制攻撃をした場合には、再び全面戦が起こる可能性もある。

朝鮮半島でこのような有事に起こる南北朝鮮間の全面戦争に備え、1992年韓米両軍が樹立した5段階の戦略(作戦計画5027)の内容を、韓国のマスコミが報道したので、この内容を要約して紹介する⁷⁹⁹⁾。

この「作戦計画5027」は米国が全世界を対象にした作戦計画の中の一つであり、通常2～3年ごとに修正・補完をしている。1998年、この「作戦計画5027」は大幅に修正されたため、現在の作戦計画は「作戦計画5027-98」と称し、また第6段階作戦計画に変更した⁸⁰⁰⁾。この「作戦計画5027」の内容は、もし朝鮮半島に全面戦争が起こった場合、①米軍戦力の増

799) <http://www.chosun.com/w21data/html/news/199906/199906170393.html>

800) <http://www.chosun.com/w21data/html/news/199906/199906230363.html>

強配備 ②ソウル以北で北朝鮮の南侵を阻止し、③休戦線を突破して北進する、④首都平壤を占領した後、占領地の軍事統治を実施する、⑤最後に朝鮮半島の統一である。

韓・米両国軍は北朝鮮が全面戦争を挑発した場合、「作戦計画5027」に従って5段階により段階的に対応を展開するようになっている。

第1段階は、米軍の戦闘力増強(FE: Force Enhancement)及び「迅速展開抑制戦力(FDO: Flexible Deterrence Option)」を朝鮮半島に強化する。一旦戦争勃発の徴候が濃厚となった場合には、米軍は戦争抑止のため空中早期警報統制機(AWACS)、航空母艦戦闘団及び戦闘機、パトリオット・ミサイルなどを朝鮮半島に配備し、1個航空母艦戦闘団、200～300余戦闘爆撃機、2万余名規模の海兵遠征軍などで構成した「迅速展開抑制戦力」軍を共に投入する。しかしこのような予防措置にもかかわらず、戦争が勃発した場合、韓・米両国軍は第2段階作戦を展開する。

第2段階作戦の核心は、ソウル以北地域で北朝鮮の南侵を阻止し、北朝鮮の後方軍事施設を破壊すると同時に、大規模米軍事力を投入して北進準備に着手する。第1段階の抑制策にもかかわらず全面戦争が勃発したときには、米軍を時差別部隊展開目録(TPFDL)に従って戦争勃発3か月以内に最大40～50万名の地上軍、1200余機戦爆機、5個航空母艦戦闘団などの大規模米軍戦力を朝鮮半島に段階的に配備する。米援軍により戦力が大幅に強化できたときには、韓・米両国軍がすぐ第3段階の作戦に突入し、北朝鮮の主要戦闘力を撃滅しながら現在の休戦線を突破し、本格的に北朝鮮に進撃する。

この作戦の過程で韓・米両国軍は大規模な上陸作戦(元山など)を敢行する。続いて第4段階作戦は、平壤を占領した後、朝鮮戦争当時の経験などを土台として中国を刺激しないようにするため、清川江～元山線まで進撃し、また北朝鮮内の占領地域に対して軍事統治(軍政)を実施する。

最後の第5段階では、韓・米両国軍が主導して朝鮮半島の統一目標を達成する、というのがこの「作戦計画5027」の内容の骨子である。

上記の作戦計画には三つの問題点があると思う。①まず、米員戦力を配備する時期と本格的に反撃作戦が始まる時期が遅れている点である。大規模な米軍戦力が完全に朝鮮半島に配備して、本格的な北進作戦を遂行するには3か月程度かかるし、また地上軍だけでも40万名を超える大規模戦力を計画の通り配備できるか、の点について疑問がある。

米軍は1991年の湾岸戦争(Gulf War)当時、兵力と軍装備を展開するのに、イラク軍の

妨害がなかったにもかかわらず 6か月を要した。しかし韓国で米軍兵力と軍装備を展開する場合には、湾岸戦争と違い、北朝鮮が激しい攻撃をしかけることが予想され、米軍の展開には相当な時間がかかると思われる。②米国は朝鮮半島と中東(Middle East)などの二つの主要戦場(中東と朝鮮半島)で共に勝利する「ウィン・ウィン(Win-Win)」の戦略を持っているが、実際に二つの場所で同時に戦争が勃発した場合、北朝鮮の攻撃を阻止するのに十分な戦力を朝鮮半島に配備できるかどうかについては疑問点が多くある。③アラスカなど米本土まで到達できるテポドン2号弾道ミサイルの開発に北朝鮮がもし成功した場合には、上記作戦計画は全面的に修正しなければならない、という問題点もある。

9. むすびにかえて

テポドン2号弾道ミサイル発射の問題を平和的に解決するため、韓国政府は、日・米はもちろん中国・ロシアなど、東北アジア安保に直接的利害関係を持っている国家と緊密に協力する雰囲気を作成し、また外交的に折衝し、北朝鮮の挑戦的なミサイル開発を阻止しなければならないと思う⁸⁰¹⁾。弾道ミサイルを含めた北朝鮮の戦略武器は、韓国の問題でありながら同時に日本と米国との問題でもあり、米・日と緊密な協力を得て解決するのがもっとも望ましいと考える。

北朝鮮ミサイル問題に対しては、日・米・韓の連携が確認された。日韓両国の外務・防衛当局は1999年7月14日、日本の外務省で開いた「日韓安保対話」で、北朝鮮の弾道ミサイル・テポドンの再発射準備に対しては、米国を含む三カ国の連携を強化することで一致した。次回は、2000年に開催する方針だが、北朝鮮の動向次第では随時協議する。

北朝鮮の国内情勢について日韓両国は、金正日総書記の国内掌握力が高いとの見方で一致した。韓国側は、コソボ紛争で北大西洋条約機構(NATO)軍がユーゴを空爆したことなどを背景に、北朝鮮が「奇襲攻撃能力を向上させ、防空能力を強化している」との見方を示した。⁸⁰²⁾ 北朝鮮の外務省スポークスマンは7月15日、「人工衛星発射は自主的な主権国家の合法的権利に属する問題なので、必要な時にはいつでも人工衛星を発射する」という

801) 『朝鮮日報』、1998年9月3日、5頁。

802) <http://www.yomiuri.co.jp/newsj/news01.htm>

内容の会見を7月16日 北朝鮮の平壤放送で報道した。803)

最近、西側諸国の報道では、北朝鮮が人工衛星発射であると主張するテポドン2号弾道ミサイルの、再度の試験発射が間近であるとしている。これに対応するためには、二つの面がある。

一つは、まず韓国、日本など周辺国家の主権行使の保護のため、領空と宇宙空間の境界を明確に画定すること、弾道ミサイル発射国が周辺国家に対してミサイル発射を事前通報する法的義務を与える規定を新設するための新たな国際条約を作るか、または既存国際条約(宇宙条約など)を改正して法的根拠を与えることが必要である。

二つは、韓国の防衛と国民の生命及び財産の保護のため、日米と共に連携しながら、韓国は戦域ミサイル防衛網(TMD)の研究と構築事業に積極参加するのがもっとも望ましいと考える。韓国では一部の論者が韓国のTMD参加について、①韓国で戦域ミサイル防衛網を構築するには莫大な政府予算が必要となり、②北朝鮮からミサイルを発射された場合、発射後わずか5分以内にソウルの上空に到達するため、それより早く空中でミサイルを迎撃するのは無理だというTMDの実効性に対する疑問、③中国との関係、などを理由としてTMDの参加に反対する意見もある。

だが筆者の意見は、①韓国政府は北朝鮮のため対北朝鮮軽水原子炉2基の建設事業費32億2千万ドルを長期借款でKEDOに段階的に提供しているので、韓国の国民の安全と防衛のために使う予算に、始めは前記軽水炉建設事業費の30分の1くらいの予算をTMD予算に反映するのが望ましいし、②韓・日・米が連携してTMDに積極的に参加したならば、韓国は高度な先端軍事科学技術を日米から伝授され、技術波及効果に従って他の防衛産業が発達すると共に自主国防に大きな役割を持てる、③中国との関係は、韓国が日米と連携して外交的にいくらかでも解決できる可能性があるので、韓国は日米と協力しながらTMDに積極的に参加することが必要だと思う。

東北アジア及び朝鮮半島の平和を維持するため、また北朝鮮のテポドン2号弾道ミサイル試験発射と開発を抑制するには、韓・日・米国が協力して時宜適切な外交的及び防衛的対応戦略を樹立することが必要である。国連の居中調整により又は南北朝鮮間の直接交渉によって「軍縮会談」を聞くのが、ミサイル問題を解決するひとつの望ましい方法だと考えている。また東北

803) <http://www.dongailbo.co.kr/fbin/output?f=todaynews&n=199907160028&main=1>(1999年 7月 20日脱稿)

アジア諸国の多者間(Multilateral) 安保協力のため 韓・日・米・中・ロシアに必ず北朝鮮を加え、6者会談の対話の場所に参加させ、この弾道ミサイル再発射及び開発問題を国際外交的に解決するのがもっとも望ましいと思う。

(拙稿、『北朝鮮のミサイル脅威と戦域弾道ミサイル防衛』, 補完した、防衛法研究, 第23号, 1999年10月, 日本防衛法学会発行, 43-85頁)

第三節 韓国に於ける宇宙法制定の必要性と 世界各国の宇宙関係法の立法例

1. はじめに

現在 世界各国は宇宙開発と自国民の便益提供及び自国の安全保障のため通信衛星、遠隔ないし宇宙探査用衛星、科学衛星、多目的衛星、有人または無人宇宙船、国際宇宙ステーション基地(ISS)、軍事ないし諜報衛星、ミサイル等を数多くロケットを利用し宇宙に打上げている。

このような人工衛星及び宇宙船とミサイル等は段階的に分離し、加速が発生し推進できる2段階、3段階または4段階等の多段式ロケットによって打上げている。打上げロケットのペイロード(搭載物)が衛星であるときには低軌道または静止軌道に進入し、その機能を発揮するのである。この搭載物がミサイルのときには攻撃用武器として使用することができる。ロケットは宇宙空間に人工衛星またはミサイルを運ぶ一種の手段であるので、もしロケットがなかった場合には、人工衛星またはミサイルを打上げることができないのである。

世界的にロケットの技術開発力は、その国の宇宙科学技術の発展を評価する尺度になっている。このように人工衛星及び宇宙船とミサイル等をロケットを利用し打上げるとき、予想できなかった事故に起因し、地上にある第三者が突然被害を受ける場合がときどき発生している。

国際的に宇宙物体(Space Objects: 人工衛星または宇宙船等)を打上げた国家ないし国際機関が、打上げ時の事故に起因し、地上第三者に対する人的または物的損害を与え賠償責任を負担する場合、公平性と均衡性を図るため、1972年、国連(UN)の宇宙平和的利用委員会(UNCOPUOS)で「宇宙物体により引き起こされる損害についての国際責任に関する条約: Convention on the International Liability for Damage Caused by Space Objects)を制定し、1971年11月29日、国連総会の決議を得た後、1972年9月1日から施行されている。

世界の人工衛星打上げ総数

(単位: 機 1998年基準)

区分	科学・実験・探査	通信放送	観測・気象	軍事	その他	総計
衛星数	1,818	1,364	656	909	305	5,052

<参考> 世界宇宙産業の市場規模は年平均10%以上の持続的な伸張が展望される

国家の打上げた宇宙物体により引き起こされた国際損害賠償事件について この条約によって解決することができる。韓国政府は宇宙開発中長期基本計画を樹立し、1999年から2015年まで5兆1千570億 Wonを投資して20機の人工衛星を打上げると共に3機の衛星打上げ機(KSLV: ロケット)を開発する等、国内の宇宙産業をさらに育成・発展させる計画をたてている。

韓国は2008年12月、全南高興郡蓬英面外羅老島に「ナロ宇宙センター」の建設の竣工を予定している。この宇宙センターで2008年の下半期から100kg級の科学衛星2号(KSLV-1)の打上げを始め、2010年には1トン級以上の多目的実用の衛星の打上げを計画している。今後2015年までには17機の衛星を打上げる計画があり、このような衛星等の打上げの許可と登録(1975年の宇宙物体登録条約を参照)及び登録簿を付置し、法的根拠を与えるため「宇宙開発振興法」を制定したのである。

韓国は2009年からは、朝鮮半島の南海岸に位置している外羅老島にある「Naro宇宙センター」から人工衛星の打上げと試験打上げを頻繁に行うことが予想することができる。これらの打上げに伴って、予想することができない打上げ事故が発生する可能性が高まっている。

アメリカは人工衛星及び宇宙船の打上げの免許、または打上げ事故に伴う賠償責任を保障するため、地上第三者に対して宇宙責任保険関係を1984年の商業宇宙打上げ法に規定している。また、イギリスにおいても1986年に宇宙法を制定している。オーストラリアでは、人工衛星の打ち上げの許可、補償責任及び保険関係を規定した1998年の宇宙活動法(Space Activities Act)を新らしく制定し施行している⁸⁰⁴。しかし、韓国と日本は、2005年2以前、宇宙活動関係(人工衛星の打上げ許可、登録、損害賠償責任等)の行政及び民事責任関係を規定した独立の法律は存在していなかったのである。韓国では、ただ政府出捐研究機関(韓国航空宇宙研究院: KARI)または大学附設人工衛星センター等でロケットを利用し、人

804) <http://scaleplus.law.gov.au/html/comact/10/5911/top.htm>

工衛星を打上げるとき 予想することができなかつた打上げ事故が発生した場合、他の国または外国人等に被害を与えたとき、これに対する賠償処理基準として、1972年の国連の宇宙責任条約に韓国は加入しており、韓国憲法第6条により同宇宙責任条約は、国内法と同一な法的効力があるので、この責任条約を適用し解決することができる。韓国は、ロケットによる人工衛星の打上げ事故による国際宇宙事故が発生した場合は、前記宇宙責任条約によって解決できるが、国内の宇宙事故に対しては、これを解決する法律が存在していなかったもので、これを解決することができる国内宇宙法として、2005年の宇宙開発振興法及び2007年の宇宙損害賠償法を制定したのである。そこで、これらの解決基準として、前記兩法には、人工衛星の打上げの許可、登録、登録簿備置、損害賠償責任、責任保険等の行政及び民事責任関係を規定している。

2. 宇宙産業の積極的な育成

宇宙産業は知識及び労働集約産業であり、また附加価値が高い産業なので他の産業に及ばず技術波及効果をもっとも高い産業である。今後、政府は、この宇宙産業を地の産業を導く先導産業(Leading Industry)として策定し、経済政策を施行し韓国の経済構造をさらに高度化させると共に、経済発展を促進させることができるのであろう。現在、韓国の宇宙産業分野は、航空産業分野(航空旅客輸送占有率は世界第10位、航空貨物輸送占有率は世界第3位を占めている)に比べて宇宙産業の発展が遅れがちではあるが、政府は宇宙開発中長期基本計画を基礎に、今まで以上に宇宙産業分野に集中投資することによって韓国の宇宙産業分野の発展は2015年に世界10位圏に入ることができると予想される。

3. 宇宙事故の特性と事例

3.1. 宇宙事故の特性

宇宙事故は 宇宙空間または地上で、いつ、どこで、どのように発生するか誰もが予想することは困難である。もし宇宙事故が発生した場合、その事故の特性は、①全損性(All or nothing)、②瞬間性、③損害の巨額性、④地上損害性、⑤国際性等の特別な性格を持っている。

3.2. 宇宙事故の発生事例

アメリカ、ロシア、フランス、日本、中国及び印度等の宇宙事故の発生事例は次の通りである。

- (1) ロケット打上げの失敗及び事故(第2段、第3段ロケットの分離失敗、爆発、エンジン故障等)等の発生件数は、1990年2月から1999年12月末までに合計56件である。
- (2) 衛星の低軌道進入失敗、軌道離脱、通信遮断、電気回路故障、太陽電池パネル故障等の事故の発生件数は1989年8月から1999年末まで合計69件がある。
- (3) 通信・商業・軍事・観測衛星等の静止軌道の進入に失敗した事故発生件数は、1963年2月から1998年11月末まで合計18件である。
- (4) 有人宇宙船の飛行に起因する故障、宇宙船内の火災、宇宙船が地上に帰還するとき、落下傘が開かず地表との衝突、宇宙船内の酸素タンクの爆発等、事故の発生件数は1967年から1990年5月末まで合計16件である。また死亡者が14名と負傷者は6名が発生した⁸⁰⁵⁾。

- (5) 最近日本のロケット打上げ事故及びアメリカの有人宇宙船帰還時の事故

- ① 日本で人工衛星のロケット爆発

1999年11月15日、人工衛星の打上げ直後、エンジン故障による原因で、約9,500

805) 編輯:日本宇宙開発事業団、「宇宙開発データブック2000」、財団法人日本宇宙フォーラム発行、平成12年3月、737-754頁。

万ドルの高価な人工衛星を運搬した途中ロケットが爆破した。日本の人工衛星プログラムの核心であるH-2ロケットに問題が発生してMTSAT(人工衛星)を軌道に進入することができなかった事例がある。

② アメリカの有人宇宙往復船(Space Shuttle)コロンビア号の爆発事故

2003年2月1日宇宙往復船コロンビア号が地球に帰還する途中、空中で爆発し乗務員7名が全員死亡した。このコロンビア号は2003年1月16日、初めてのイスラエル宇宙人1名とアメリカ宇宙人6名(女性宇宙人2名を包む)を乗せてFlorida州にあるKennedy宇宙センターから打上げ、宇宙で各種類の科学実験を終ったとあと2月1日午前9時16分、Kennedy宇宙センターに着陸する予定であった。

(6) スペースデブリ(宇宙破片)の諸問題

- ① 低軌道及び静止軌道でまわっている人工衛星、宇宙往復船の機能停止及び廃棄と国際宇宙ステーション(International Space Station: ISS)の建設等に起因する数多いスペースデブリ(Space Debris: 宇宙破片)が継続発生しているので宇宙環境を汚染している。またスペースデブリの落下により地上第三者に対して人的または物的損害を与えている。

日本のH-2ロケットによる人工衛星打上げの場面



日本種子島宇宙センター

② スペースデブリ(宇宙破片)の数量

現在までの宇宙開発により地球周回軌道上には 使用済みロケット、打上げ時や軌道上で切り離されたロケットの部品、役割を終えて宇宙に放置された人工衛星、それらが破碎してできた破片など、多数の宇宙ゴミ(デブリ)が存在している⁸⁰⁶⁾。これらが、地球周回軌道を超高速で周回しているため、たとえ小さな破片でも衝突時には甚大な損害が予想される。これらが今後の宇宙開発の障害になることは必然である。今後国際宇宙ステーションなどの活動を行っていくのに相当な影響を及ぼすと考えられる。アメリカの国立航空宇宙局によって出された1979年の報告によると、それまでに11,366個の宇宙物体が打上げられ、4,633個がスペースデブリになり6,733個が大気圏に再突入したとされている。⁸⁰⁷⁾

北米防衛司令部(NORAD)報告書によれば、地球から500kmの上空にある直径10cm以上のスペースデブリを追跡・監視した結果19,037個の宇宙物体が打上げられ、そのうち12,000個が大気圏に再突入したと発表した⁸⁰⁸⁾。最近レーダーと天体望遠鏡を通して定期的に宇宙空間をまわっている人工物体(宇宙破片等)は10,000個以上だと探知されている。規格範囲が1cmから10cmまでの非追跡物体(宇宙破片等)の数は100,000個ないし150,000個に算定している。

日本航空宇宙学会の1993年の最終報告書によると、直径10cm以上のスペースデブリが5,000km以下の軌道には、約7,000個があるということである。そして、宇宙空間においてそれらによる衝突事故の発生確率は、2005年には1987年の3倍にも達すると報告した⁸⁰⁹⁾。これを裏付けるかのように、アメリカのNASAは、高度800から1,000kmの地球周辺の空間には、約20,000個ないし70,000個のスペースデブリがあると報告した。

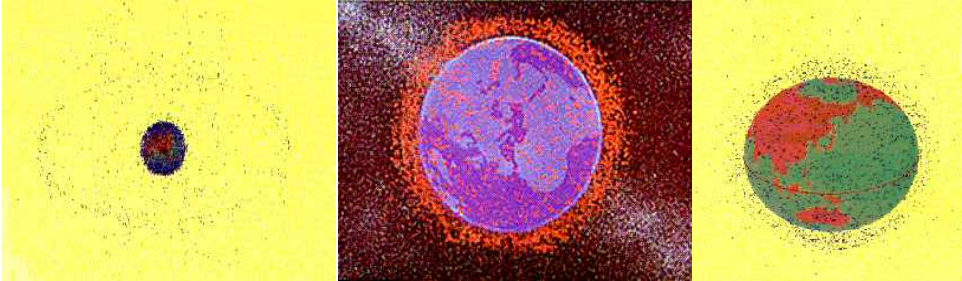
806) <http://ssdl-www.aero.kyushu-u.ac.jp/debris/index-j.html>

807) Goddard Space Flight Center, "Space Objects Box Score" in NASA, 30(April, 1979), 19[2] Satellite Situation, Report quoted by G. P. Sloup, "Liability and Insurance Aspects of the Transportation System under the New Section 308 of the National Aeronautics and Space Act" (1979), 4 Annals of Air and Space Law, at 639-640.

808) A. E. Potter, "Measuring Debris"(June,1988) Aerospace America at 18-19.

809) Japan Society for Aeronautical and Space Sciences, Space Debris Study Group Report (1993), *Supra*, at 435.

地球周邊 軌道をまはっている宇宙破片



③ スペースデブリに起因する事故と被害事例

1960年にアメリカが打上げた人工衛星の部品がキューバに落下し、一頭の牛の死を含む、その他の資産に損害を与えた事故が発生した。さらに、1969年6月5日には、旧ソビエットの人工衛星の破片が日本人漁夫に当たったという痛ましい事故が発生したことがある。この他にも、同類の事故は大西洋でも発生している。1977年9月18日に打ち上げられた、旧ソビエットの海上偵察原子力衛星であるコスモス954号が、他の人工衛星と宇宙で衝突し、翌年2月24日に、カナダ北部地域に落下し、オーストリアの面積に匹敵する地域が放射能によって汚染されているという事故も発生したことがある⁸¹⁰。

④ 国際宇宙ステーション(ISS)建設の宇宙破片に対する対策

1998年、アメリカ、ロシア、カナダ、日本、ブラジル、欧州宇宙機関(フランス、ドイツ、イタリア等11カ国が参加)等16カ国が宇宙空間で国際宇宙ステーションの建設に着手し、現在建設中にある国際宇宙ステーションに対して宇宙破片等の衝撃に耐えるため約1cm~2cm規格の約200個の遮蔽物を設置した。

⑤ 韓国は過去に人工衛星8個を打上げたことがあり、その中で大部分の衛星等は現在、低軌道及び静止軌道をまわっている。これらは衛星の機能停止後の問題も検討しなければならないと思う。

810) Bruce A Huetwitz, "State Liability for Outer Space Activities" in accordance with 1972 Convention on International Liability for Damage Caused by Space Objects, Martinus Nijhoff Publishers (1992), at 2.

国際宇宙ステーション(ISS)



4. 各国の宇宙関係法の立法例 811)

4.1. アメリカ

- (1) 国家航空宇宙法(The National Aeronautics and Space Act of 1958)
この法の主な内容は宇宙活動の基本になる法であるし、航空宇宙局(National Aeronautics Space Administration: NASA)の設置根拠法である。
- (2) 宇宙商業化促進法(Space Commercialization Promotion Act of 1996)
- (3) 商業宇宙法(Commercial Space Act of 1998)
- (4) 商業宇宙競争法(Commercial Space Competitiveness Act of 1999)
前記(2)、(3)、(4)3個法の主な内容は、国家の宇宙関連政策の方向及び宇宙技術の商業化推進に呼称し樹立できた原則等と商業化推進の主体と多くの宇宙活動に関する許可、制限、責任等を規定している。
- (5) 通信衛星競争及び民営化法(Communications Satellite Competition and Privatization Act of 1998)

811) <http://www.oosa.unvienna.org/Spacelaw/national/index.html>

この法の主な内容は国際通信衛星機構(Intelsat)と国際海事衛星機構(Inmarsat)の競争的な民営化をするための範轄に関する規定と軌道選定 サービス許容権限等を規定している。

(6) 商業宇宙打上げ法(Commercial Space Launch Act of 1984、改正1990年)

この法の主な内容は、①適用範囲、②一般的責任、③打上げに関する免許要件、④行政及び裁判上の審査、⑤免許できた行為の監視、⑥政府資産の使用、⑦責任保険、⑧他の法律及び国際責任との関係等を規定し23カ条文によって構成されている。

(7) 宇宙輸送サービス購買法(Space Transportation Service Purchase Act of 1998)

(8) 商業宇宙輸送競争法(Commercial Space Transportation Competitiveness Act of 1999)

(9) 商業宇宙輸送費用節減法(Commercial Space Transportation Cost Reduction Act of 1999)前記(7)、(8)、(9)個法の主な内容は、宇宙物体輸送サービス、自国及び海外需要の急増に伴う市場対応の一環として整備を始めたのでこのことを規制している。また政府と民間とのあいだに宇宙物体輸送サービスの範囲、免許発給、責任、賠償範囲等を規定した。

(10) 遠隔探査商業化法(Land Remote Sensing Commercialization Act of 1984: 廃止)

(11) 遠隔探査政策法(Land Remote Sensing Policy Act of 1992)

この法の主な内容は地球観測衛星(Landsat)プログラムの遂行主体及び計画、データ使用、landsat7の運営政策、遠隔探査データ受信の権限移転等を規定している。

(12) 遠隔探査応用法(Remote Sensing Application Act of 2002)

この法の主な内容は公共及び民間分野のデータ使用を拡大するため規定した法である。

(13) 遠隔探査法(Space Exploration Act of 2002)

この法の主な内容は今後10年ないし20年にわたって宇宙探査と宇宙船を利用した宇宙飛行士の宇宙探査関係等を規定している。

4.2. ロシア

(1) ロシア連邦宇宙活動法(Law on Space Activity of 1993)⁸¹²⁾

この法の主な内容は ①総則(宇宙活動の概念、目標及び諸原則)、②宇宙活動の組織(国家立法及び行政諸機関の権限、ロシア宇宙庁(RSA)、ロシア連邦の国家安全保障の目的での宇宙活動、ロシアの連邦宇宙計画、宇宙活動の免許、宇宙技術の証明書交付等)、③宇宙活動に対する経済的条件(宇宙活動への出資及び外国の投資、宇宙基金、宇宙技術の使用及び移転等)、④宇宙基盤施設(宇宙物体の登録、宇宙基盤施設の地上物体、宇宙飛行の管制、宇宙飛行士)、⑤宇宙活動の安全性(宇宙活動の安全性の確保、宇宙事故に対する調査、搜索と救助及び宇宙事故に対する解決、宇宙活動の保険)、⑥国際協力(宇宙活動の分野における国際的な義務、国際協力の法規制)、⑦責任(公務員、機関員及び市民の責任)等6個節と30個条文により構成している。ロシア連邦宇宙活動法は、1996年に改正された。

(2) ロシア連邦商業宇宙活動法(1997)

(3) ロシア連邦宇宙活動認可手続の樹立ための法(1996)

この法の主な内容は宇宙活動の認可機関、対象及び手続等を規定している。

(4) ロシア連邦宇宙科学及び産業構造安定のための法律(1997)

この法の主な内容は、宇宙科学、産業の知的及び経済的防衛潜在力の保存を立法目的として制定した。

(5) ロシア連邦宇宙活動の管理構造に関する法令(1992)

この法の主な内容は宇宙庁(Russian Space Agency: RSA)の設立及び部署間の宇宙分野専門家委員会の設立関係等を規定している。

(6) ロシア連邦宇宙産業分野の国家政策履行に関する法令(1998)

この法の主な内容は、ロケット及び宇宙産業分野の効率的な国家政策を実行する目的で構造調整を承認し、国家の安保と防衛向上、経済、科学的課業の達成、ロシアの世界市場での地位強化のために制定した法である。

4.3. イギリス

宇宙法(Outer Space Act of 1986)

812) 中央学院大学地方自治研究センター編、「原典宇宙法」、竜沢邦彦監修、(1999年3月、丸善プラネット株式会社発行)、652-668頁。

この法の主な内容は①この法の適用範囲(宇宙物体の打上げまたは購入 運営、宇宙空間での活動とイギリス市民または法人)、②宇宙活動の許可(申請、免許、国際的義務の履行、情報提供、検査、継続的監督、免許取得者の賠償責任保険)、③其の他の管理(宇宙物体の登録等15カ条文によって構成している。

4.4. ドイツ

宇宙探査領域に於いて行政課題移譲のための法律(Gesetz zur bertragung von Verwaltungsaufgaben auf dem Gebiet der Raumfahrt)

前記宇宙探査行政課題移譲法は1998年8月22日、制定公布した。この法律の内容は、連邦政府がドイツ航空宇宙センターに宇宙探査分野の行政(国策)課題の移譲と宇宙探査計画の立案、委託または嘱託等による宇宙探査プログラムの実行、ドイツ航空宇宙センターの資金、連邦政府監督等及び連邦会計検査局の検査権を規定した法律である。

4.5. フランス

国立宇宙研究センター設置法(LOI in°61-1382 du 19 decembre 1961 instituant un centre national d'études spatiales)

1961年12月19日フランス政府は国立宇宙研究センターを設置するために前記法律を制定公布した。

4.6. カナダ

カナダ宇宙庁法(Canadian Space Agency Act of 1990 and 2000)

この法はカナダ宇宙庁法の設置根拠法であるし、主な内容は①カナダ政府機関である宇宙庁の設置、②宇宙庁の設立目的と機能、③長官の権限及び機能、④宇宙庁の組織、⑤諮問委員会議の設置、⑤経過附則等を規定している。

4.7. 日本

(1) 宇宙委員会設置法(1968年)

この法の主な内容は ①設立目的及び設置、②管掌事務、③意見の尊重、④資料提出の要求、⑤組織、⑥委員長、⑦委員、⑧会議、⑨委員の職務、⑩参与及び専門委員、⑪政令への委任等を規定している。

(2) 宇宙開発事業団法(National Space Development Agency Law of 1969)

この法の主な内容は①総則、②役員等、③業務、④財政及び会計、⑤監督、⑥雑則等を規定している⁸¹³⁾。

(3) 独立行政法人宇宙航空研究開発機構法(Japan Aerospace Exploration Agency of 2003)

この法の内容は、2003年10月1日から日本の宇宙開発事業団(NASDA)、宇宙科学研究所(ISAS)及び航空宇宙技術研究所(NAI)等宇宙3カ機関が統合し⁸¹⁴⁾、新しく宇宙航空研究開発機構(JAXA)を発足させた設立根拠法である。

(4) 宇宙基本法(Basic Space Law of 2008)

1) 立法経緯

日本の自由民主党が推進していた「宇宙基本法案」は、2007年6月、与党である自由民主党と公明党との間で骨子案についての合意がなされた。その後は継続審議となっていたが、2008年4月には最大野党である民主党と基本合意したため、いったん法案を取り下げた上で新法案を第160回(常会)に提出し、同年5月13日に衆議院本会議で可決された。同年5月21日に、参議院本会議にて、自民党、公明党、民主党等の賛成多数で可決、成立した。同年5月28日、日本政府は、「宇宙基本法」を法律第43号によって公布したので、同年8月27日から施行された。⁸¹⁵⁾

2) 宇宙基本法 主な内容

① 宇宙開発戦略本部の設置 (第25～30条)

従来、宇宙開発は文部科学省、経済産業省、国土交通省といった省庁がそ

813) 編輯代表栗林忠男、「解説宇宙法資料集」、平成7年、慶応通信発行、399-417頁。

814) http://www.jaxa.jp/about/history/index_j.html

815) 青木節子、「宇宙基本法」、ジュリスト、No. 1363、2008・9・15、有斐閣、36～39頁。

れぞれ実施してきた。本法案では新たに宇宙開発担当大臣を置くことが定められており、内閣総理大臣を本部長、官房長官と宇宙開発大臣を副本部長とする宇宙開発戦略本部を設置する。また、宇宙開発戦略本部の本部員は、国务大臣全員を充てる。

2008年5月に成立した宇宙基本法が8月27日、施行され、内閣に宇宙開発戦略本部（本部長・前福田康夫首相：現麻生太郎首相）が発足した。事務局を設けた東京都港区の民間ビルで、副本部長の野田聖子宇宙開発担当相が看板を掛けた。事務局 内閣府や総務、文部科学、経済産業、防衛各省などから集まった約20人の職員で構成された。⁸¹⁶⁾

② 宇宙局の設置

内閣府に宇宙局(仮称)を設置する。これは日本版NASAとも呼べるもので、文部科学省に代わって日本の宇宙開発政策を立案することになる。2009年に宇宙局が発足する。

③ 宇宙基本計画の策定（第24条）

宇宙開発戦略本部は、国の宇宙開発の基本方針、総合的な施策と計画を定めた宇宙基本計画を策定する。

④ 平和利用と安全保障（第14条）

「宇宙の平和利用に関する国会決議」が日本の宇宙開発を非 軍事目的に制限しているのに対し、本法案では平和目的の基準を国際条約と日本憲法に置いており、さらに目的のひとつとして「国際社会の平和・安全の確保、日本国の安全保障に資する」ことを明記している。国会決議と本 法案では「宇宙の平和利用」についての考え方に差があることから、本法案は「宇宙の軍事利用を可能にする法案」であると大々的に報道される結果となった。⁸¹⁷⁾

⑤ 地方公共、大学、民間企業 等との協力（第10条）

国だけでなく、地方公共団体にも自主的な宇宙開発への努力義務を定めた。またと地方公共、大学、民間企業等が協力して宇宙開発を推進していくことが明記された。

816) <http://sankei.jp.msn.com/culture/academic/080827/acd0808271203008-n1.htm#>

817) <http://ja.wikipedia.org/wiki/5%E6%9C%8821%E6%97%A5>

JAXAの見直し (附則 第2條)

附則において、宇宙航空研究開発機構(JAXA)その他の宇宙開発機構について見直しを行うことが明記された。JAXAは文部科省所管の立行政法人だが、他にも省廳ごとに宇宙開発を所管する法人等が存在することから、宇宙基本計畫に合わせて直すことになる。

4.8. 中国

(1) 宇宙物体登録管理弁法(Space object registration management valve method of 2001)

2001年02月08日から施行されている宇宙物体登録管理弁法は、16カ條文によって構成されている。この法は、宇宙活動に対する国の管理を強化し、中国の宇宙物体登録制度を確立し、中国の宇宙物体打上げ国としての合法的な権利及び利益を保護し「宇宙空間に打ち上げられた物体の登録に関する条約」(以下「登録条約」という。)の締結国の義務を有効に履行するため、本弁法を制定したのである(第1条)。

(2) 民生用宇宙飛行打上げプロジェクト許可証管理暫定弁法(A consumer space trip launching launching project permit management tentativeness valve method)

2002年12月21日から施行されている、民生用宇宙飛行打上げプロジェクト許可証管理暫定弁法は、5個章(第一章 総則、第二章 申請及び審査認可手続、第三章 監督及び管理、第四章 法律責任、第五章 附則)及び28カ條文によって構成されている。

この法は、生用宇宙飛行打上げプロジェクトの管理を規範し、民生用宇宙飛行産業の健全な発展を促進し、国家の安全及び公衆の利益を維持し、中国が宇宙条約の締結国としての義務を履行するため、本弁法を制定したのである。

4.9. スウェーデン

宇宙活動に関する法律(Act on Space Activities of 1982)

スウェーデン法における宇宙活動とは 「宇宙空間においてのみ行われる活動、宇宙空間への物体の打上げ及び宇宙空間に打上げられた物体を操作し又はその他の手段によって影響を及ぼすすべての措置」である(第1条)。

この法の主な内容は①宇宙活動の許可及び罰則、②損害賠償の償還等を規定している。

4.10. オーストラリア

宇宙活動法(Space Activities Act of 1998)⁸¹⁸⁾

この法は8個章と17個節、110個条文により構成しているのでその内容は次の通りである。

第1章 紹介(略称、発効、立法目的等)

第2章 定義(用語定義、関係当事者)

第3章 宇宙活動の規制

第1節 宇宙活動に対する承認要件、

第2節 宇宙許可、

第3節 打上げ許可、

第4節 海外打上げ証明書、

第5節 海外で打上げた宇宙物体の帰還、

第6節 免除証明書、

第7節 保険(附保)と金融要件、

第8節 打上げ安全官、

第9節 行政手続、

第4章 宇宙物体に起因する損害に対する責任

第1節 適用範囲、

第2節 第三者の損害に対する責任、

第3節 訴訟手続、

第4節 外国からの請求による補償、

第5章 宇宙物体の登録(長官の宇宙物体登録簿備置、登録番号附与、登録はコ

818) http://www.oosa.unvienia.org/SpaceLaw/national/australia/space_activities_act_1998E.html

ンピュータに保管 登録の検査)

第6章 罰則

第7章 事故に関する調査

第1節 適用範囲

第2節 調査(調査官の任命、権限、調査官の支援要請、調査官の情報蒐集権、調査報告、宇宙物体の保管、事故発生後の打上げ許可の自動停止、安全記録の公開)

第3節 事故場所に関する権限、

第8章 雑則等を規定している。

4.11. ブラジル

(1) ブラジル宇宙機関設置法 (Law Establishing the Brazilian Space Agency of 1994)

(2) ブラジル領域からの商業打上げ活動に係る決議51(Resolution No. 51

Resolution on Commercial Launching Activities from
Brazilian Territory)

ブラジルは、1994年2月10日、法律8.854号によってブラジル宇宙機関(Brazilian Space Agency)設置法を制定した。したがって1994年に、ブラジル宇宙機関を設置し、2001年1月26日には、ブラジル領域から商業打上げ活動についての決議51を公布した。同年6月20日には科学技術省の行政令第27号により、全27條打上げ免許附與手続きを明記した。

4.12. ノルウェー

ノルウェー領土から宇宙に宇宙物体打上げに関する法律(Act on launching Objects from Norwegian Territory into Outer Space of 1969)

ノルウェー法は、全3条からなる短いものである。

4.13. 南アフリカ

宇宙事業法 (Space Affairs Act of 1993)

南アフリカ法では、宇宙活動を「宇宙物体の打上げ、宇宙空間での運営及びそれらに直接貢献する活動」と定義する (第1条)。

なお、宇宙事業法は 1995年に小改正を行った。

4.14. アルゼンチン⁸¹⁹⁾

アルゼンチンには、宇宙活動に関する次のような二つの法律がある。

- (1) 宇宙活動に関する国立委員会の創設法 (Creation of the National Commission on Space Activities of 1991 : National Decree No. 995/91,)
- (2) 宇宙空間に打上げた物体の国立登録所設置法 (Establishment of the National Registry of Objects Launched into Outer Space of 1995 : National Decree No. 125/95,)

14. チリ

チリには、「宇宙機関としての大統領諮問委員会の設置法」がある。

(Establishment of a Presidential Advisory Committee known as the Chilean Space Agency of 2001 : Supreme Decree No. 338)

15. ⁸²⁰⁾

ウクライナには、宇宙活動に関する次のような二つの法律がある。

- (1) ウクライナ国立宇宙廳規定に関するウクライナ大統領令

819) http://www.unoosa.org/oosadb/browse_all.jsp?level1=countries&level2=none

820) http://www.unoosa.org/oosadb/browse_all.jsp?level1=countries&level2=none

(Decree of the President of Ukraine on Regulations for the
National Space Agency of Ukraine of 1997 : No. 665/97)

(2) ウクライナ宇宙活動法

(Law of Ukraine of 15 November 1996: Ordinance of the
Supreme Soviet of Ukraine on Space Activity)

ウクライナ宇宙活動法において「宇宙活動」とは、「宇宙科学研究、設計、宇宙技術の應用及び宇宙空間の利用」と定義されている(同法第1條)。

4.16. 韓国

韓国には、宇宙産業の育成および活動と関聯がある次のような三の法律がある。

(1) 航空宇宙産業開発促進法(2004年)

この法の主な内容は ①立法目的、②用語定義、③航空宇宙産業開発基本計画の樹立、④航空産業の育成、⑤特定事業者の指定及び支援、⑥欠格事由、⑦事業の承継、⑧指定の取消、⑨性能検査、品検査、⑩使用の制限等、⑪資金の支援、⑫国有施設及び機器等の貸与、⑬航空宇宙産業開発政策審議会の設置、審議会の機能、審議会構成等、聴聞、⑭権限の委任・委託、検査手数料、⑮罰則等であるし、19カ条文により構成している。この法は、1987年から2008年9月まで12回改正された。

(2) 宇宙開発振興法(2005年)

韓国の宇宙開発を体系的に推進するため制定された、この法の主な内容は①宇宙開発振興基本計画の樹立、②国家宇宙委員会の設置、③宇宙物体の国内及び国際登録、④宇宙打上げ許可及び取消、⑤宇宙事故調査委員会の設置、⑥民間宇宙開発事業の支援、⑦宇宙飛行士の救助、⑧宇宙物体の返還、⑨宇宙開発等に関する資料収集及び実態調査、⑩秘密厳守の義務、⑪罰則等であるし、29カ条文により構成している。この法は、2005年から2008年2月まで2回改正された。

(3) 宇宙損害賠償法(2007年)

この法の主な内容は①無過失責任主義の採択及び責任の集中 ②損害賠償責任限度額の設定、③責任保険の加入義務等であるし、8カ条文により構成している。この法は、2007年から2008年2月まで1回改正された。

韓国の宇宙開発振興法および宇宙損害賠償法の成立背景、経緯および主な内容等は、次の通りに説明する。

第四節 韓国における新しい宇宙開発振興法と 宇宙損害賠償法の内容及び課題

1. はじめに

宇宙産業は 知識集約・労働集約型産業であり、またハイリスク産業、高附加価値産業および省エネルギー産業でもある。宇宙産業の分野は、通信、放送、気象観測、地球観測、監視、科学等、宇宙空間の利用及び研究に必要な手段・機材等の生産を含むものであり、また国民生活に重要な役割を果す産業でもある。そして、高度な技術を結集した先端技術産業であることから、他の産業への広汎な技術波及効果が期待でき、技術立国を目指す韓国にとっても極めて重要な産業部門である。韓国の宇宙開発は欧米に遅れて参入したが、国の指導のもと、ロケット・人工衛星の打上げ、利用等のシステム開発に学界及び産業界が協力し、漸進的にその成果を上げてきた。

近年、通信衛星、放送衛星等の発達により、人工衛星は多様な分野で活用されるようになり、宇宙産業、宇宙利用産業の急速な拡大が予測されている。

世界の宇宙産業で2010年の市場規模を宇宙機器産業9.8兆円、宇宙利用産業30.4兆円、計40.2兆円と推計している。⁸²¹⁾人工衛星がその中核ビジネスのひとつになることは間違いない。

世界の衛星産業市場は、最近、年平均13%以上の割合で成長しているし、今後10%以上の成長が予想されている。しかしながら、アメリカ・ヨーロッパをはじめとする最近の宇宙開発の状況を見ると、莫大な国家予算の下で大規模な新規計画が立案されている。また、商業分野の比率が高まる等々の下で、韓国の宇宙産業をとり巻く環境は大きく変化している。特に、国際市場の変革の下で韓国の宇宙産業のアジア各国との競争や協力に不可欠なのは、韓国宇宙開発の産業的基盤の強化を急務とすることであろう。⁸²²⁾

韓国では、航空宇宙産業を効率的に発展させるために、1987年12月14日に制定され、1988年1月1日から施行された「航空宇宙産業開発促進法」は、2008年2月まで12回改正さ

821) 日本経団聯: http://rikunabi-next.yahoo.co.jp/tech/docs/ct_s03500.jsp?p=fjf035

822) http://www.autorace.or.jp/hojo_jigyo/kikai/dantai14/05_14.htm

れた⁸²³⁾しかし本法は、主に航空産業の支援・育成に力点を置いたものであり、宇宙活動(人工衛星の打上げの許可、登録、宇宙物体の落下事故に起因する地上第三者の人的又は物的損害に対する賠償責任、宇宙責任保険等)に関する規定は定められていなかった。したがって、宇宙活動を規制し、宇宙産業をさらに効率的に支援・育成させるための新しい宇宙法の立法が必要に迫られていた。

韓国は、2008年末まで、全羅南道高興郡蓬萊面外羅老島に、国内最初の「ナロ宇宙センター」を建設し、韓国が独自の開発した宇宙打上げ機を利用し、科学技術衛星2号を打上げる予定である。そして衛星打上げに随伴する安全管理履行及び事故が発生した時を予想し、宇宙損害賠償責任及び責任保険制度を管理・運営するために国内立法の制定を計画した。

さらに、人工衛星の製作・運用及び宇宙打上げ機による衛星の打上げ、国内打上げ射場の運営等、宇宙開発国家として、国連(UN)の宇宙条約、宇宙損害責任条約、宇宙物体登録条約等に規定している国家監督義務を履行することと宇宙物体の国内及び国際登録、又は宇宙事故が発生した場合、宇宙救助返還協定等に従って、宇宙飛行士の救助・救難等の措置と履行を行なうために、韓国では、国内宇宙法である「宇宙開発振興法」の制定がもっとも必要になったのである。

韓国の宇宙開発振興法は、2005年5月31日に制定(法律7538号)し、同年12月1日から施行されたが、2008年2月29日まで2回改正された。韓国の宇宙損害賠償法は、2007年12月21日に制定(法律8714号)されたが、附則①(施行日：法の公布後、6カ月経過)によって、2008年6月22日から施行された。しかし宇宙損害賠償法は、政府組織法改正にしたがって、2008年2月29日、1回改正された。韓国が加入した主な宇宙関係条約は、①1967年の宇宙条約⁸²⁴⁾、②1968年の宇宙救助返還協定⁸²⁵⁾、③1972年の宇宙損害責任条

823) この法の主な内容は、①立法目的、用語定義、③航空宇宙産業開発基本計画の樹立及び航空宇宙産業の育成、④特定事業者の指定及び支援、⑤事業の承継及び指定の取消、⑥性能検査、品質検査及び使用の制限等、⑦資金の支援、国有施設及び機器等の貸与、⑧航空宇宙産業開発政策審議会の設置、機能及び構成等、⑨聴聞、⑩権限の委任・委託、⑪罰則等22カ条文及び附則によって構成されている。； Cf, <http://www.geocities.co.jp/wallstreet/9133/index.html> (韓国WEB六法, 24, 2008年1月30日)。

824) 宇宙条約(原名: Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and the Other Celestial Bodies)には、韓国が1967年1月27日に署名し、1967年10月13日、政府が批准書を国連に寄託をした。

825) 宇宙救助返還協定(原名: Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space)には、韓国が1968年5月9日

約⁸²⁶⁾ ④1975年の宇宙物体登録条約⁸²⁷⁾である。まず「宇宙開発振興法、同法施行令及施行規則」と「宇宙損害賠償法」の立法趣旨と背景、立法経緯、立法理由、主な内容と論評及び将来の課題として宇宙関係機構の改革等を次のように考察する。

2. 宇宙開発振興法の趣旨・背景と経緯及び主な内容

2.1. 宇宙開発振興法の趣旨・背景

2005年5月に修正された「宇宙開発中長期基本計画」によれば、2005年から2010年まで、13機の各種の衛星と2機の打上げ機を開発し、「ナロ宇宙センター」で試験打上げと一般の打上げを計画している。衛星の打上げは、予想することができない打上げ事故とその他の宇宙事故が引き起る可能性も考えられる。前記衛星等が国内外で宇宙打上げ機(ロケット)を利用し、打上げをする過程で予測される、ロケット打上げ事故(爆発等)に起因し、地上にある第三者に人的損害(死亡又は負傷等)又は物的損害(破壊、亡失、毀損等)を与えた場合、迅速に解決するため、加害者と被害者の両者間の公正な責任原因の解明、責任範囲及び裁判の基準、損害賠償責任等を規定した国内宇宙法の制定がさらに必要になったからである。

アメリカは、人工衛星及び宇宙船の打上げの免許、又は打上げ事故に従がう賠償責任を担保するため、地上第三者に対する宇宙責任保険関係を、1984年の商業宇宙打ち上げ法(Commercial Space Launch Act)に、規定している。オーストラリアでは、人工衛星の打上げ許可と補償責任及び保険関係を規定した1998年の宇宙活動法(Space Activities Act)を、新しく制定し施行されている。⁸²⁸⁾

しかし、2005年4月末以前には、日本、中国、インドと韓国は宇宙活動関係(人工衛星

に署名し、1967年10月13日、政府が批准書を国聯に寄託をした。

826) 宇宙損害責任条約(原名: Convention on the International Liability for Damage Caused by Space Objects)には、韓国が1972年3月29日に署名し、1979年12月3日、国会が批准同意をして、政府が批准書を1980年1月14日に国聯に寄託をした。

827) 宇宙物体登録条約(原名: Convention on Registration of Objects Launched into Outer Space)には、1981年10月15日、韓国政府が批准書を国聯に寄託をした。

828) <http://scaleplus.law.gov.au/html/comact/10/5911/top.htm>

の打上げ許可（衛星登録、損害賠償責任等）の行政及び民事責任関係を規定した法律は存在していなかった。韓国は、政府の出捐研究機関である韓国航空宇宙研究院（KARI）ならびに大学の附設人工衛星センター等で、宇宙打上げ機を利用し人工衛星を打上げの際、予想していなかった打上げ事故の発生し、これにより、他の国又は外国人等に被害を与えた場合、その賠償の処理基準として、韓国が加入している1972年の国連の宇宙損害責任条約を適用し解決することができる。同宇宙損害責任条約は、韓国憲法第6条によって国内法と同一な効力がある。

韓国政府が、「宇宙開発中長期基本修正計画」を2015年まで成功的に遂行・達成し、韓国の宇宙産業分野を世界10位圏内に入るためには、宇宙産業をさらに発展させなければならない。これらの発展を支える法的支援策が前記「宇宙開発振興法」の趣旨と背景のひとつである。韓国では、独自の人工衛星打ち上げ基地である「ナロスペースセンター(Naro Space Center)」が、2008年に竣工されるので、このスペースセンターから、衛星又はロケットの打上げ事故が偶然に発生した場合、この宇宙事故を解決する法律がないので、実務上さまざまな難点がある。

これらの宇宙事故の予防と宇宙損害事件を解決できる基準として人工衛星打上げの許可、人工衛星又は宇宙船の登録、登録簿の備置、宇宙事故調査委員会の設置、宇宙飛行士の救助等の行政監督規定と宇宙事故に起因する損害賠償責任、賠償限度額、強制責任保険等の民事責任関係を規定した国内宇宙法の立法が、前記スペースセンターの竣工に伴い必要になり、これらが「宇宙開発振興法」と「宇宙損害賠償法」を制定した立法趣旨と背景である。

韓国の「宇宙開発振興法」の中には、前記行政監督規定と民事責任関係を規定しているので、公法的な性質と私法的な性質が混在しているが、「宇宙損害賠償法」は、私法的な性質がある民事責任関係だけを規定しているのがその特徴である。宇宙活動と直・間接的関係がある「宇宙開発振興法」と「宇宙損害賠償法」は、アジア諸国の中で、韓国が一番最初に制定した法律である。

2.2. 宇宙開発振興法の立法経緯

筆者は、2003年4月18日、韓国航空宇宙法学会が主催した第30回航空宇宙法の学術

報告会で「韓国に於ける宇宙開発計画と立法に関する諸問題」というテーマで研究論文を発表した。当時、筆者は、先進国(アメリカ、イギリス等)の宇宙関係立法例等を参酌し、韓国の現実に適合する国内宇宙法の立法が必要であると提案した。⁸²⁹⁾ また、筆者は、2003年6月23日、韓国航空宇宙研究院(KARI)の招待を受けて、同研究院の会議室で、「国内宇宙法の制定の必要性」というテーマで、発表したことがある。

当時、韓国、日本、中国とインドには、宇宙活動の行政的な規制と宇宙事故に関する民事責任を規定した特別法がなかった。2005年5月31日、制定された韓国宇宙開発振興法のなかには、筆者が前記第30回航空宇宙法学会報告会及びKARIの報告会で提案した、①宇宙打ち上げ機(ロケット)の打ち上げ許可、②宇宙物体の登録及び登録簿備置、③宇宙事故に起因する損害賠償責任、④損害賠償責任保険の強制加入、⑤宇宙事故調査委員会の設置、⑥民間宇宙開発事業の支援、⑦宇宙飛行士の救助等(前記韓国航空宇宙法学会誌及び日本の学術誌参照)⁸³⁰⁾が、この法に反映している。

2004年、韓国教育科学技術部(省)が立案した「宇宙開発振興法案」は、関係部処の審議と協議を得たあと国務会議(閣議)に上程し、2004年12月21日、国務会議で通過できたので、韓国政府がこの法案を韓国国会に提出した。2004年12月30日、国会の教育科学技術情報通信委員会で、この法案を検討・審議された後、2005年4月22日、通過させたし、再び法制司法委員会の審議と公聴会を通じて国民の輿論を収斂した後、国会の本会議に上程し、2005年5月3日、この法案は通過した。2005年5月17日、国会が通過させた宇宙開発振興法を政府に移送し、2005年5月31日、政府は、移送を受けた「宇宙開発振興法」を法律第7538号で公布され、同法の附則によって、公布日から6カ月が経過した日付である2005年12月1日から韓国で施行された。しかし、2007年12月21日、同法第15条(損害賠償責任保険の加入義務)を削除するため同法を改正し、損害賠償責任保険の加入義務を宇宙損害賠償法第6条に新しく規定した。

829) Kim, Doo Hwan, “The Problems on the Space Exploitation Program and Legislation” written by Korean Language”, The Korean Journal of Air and Space Law(Vol.16, 2002), published by the Korean Association of Air and Space Law, at 197-223.

830) Kim, Doo Hwan, op. cit., at 219-220; 拙稿、「韓国に於ける宇宙法制定の必要性」、(紀要第四巻第一号、平成15年9月)、日本中央学院大学社会システム研究所発行、39-49頁。

2.3. 宇宙開発振興法の主な内容(総括)

宇宙開発振興法を制定した目的は、韓国の宇宙開発を体系的に振興させ、宇宙物体を効率的に利用・管理をするため、法的・制度的な枠を用意し、宇宙開発国家として国際条約が規定している国家義務を履行するために、法的な根拠を作ることにある。韓国の宇宙開発を体系的に推進するため、制定した「宇宙開発振興法」の主な内容は、この法律に従って、政府は、5年ごとに1回毎に「宇宙開発振興基本計画」策定し、宇宙分野の重要な政策と部処間の業務調整等のため、教育科学技術部長官を委員長とする「国家宇宙委員会」を、大統領の直属の委員会として設置・運営することにした。

また宇宙開発事業を効率的・体系的に推進させるため、宇宙開発専門機関を指定し、支援をする条項も含めている。これとともに、民間部門の宇宙開発事業を活性化させ、研究開発投資を拡大させるために、優秀人材の供給、税制及び財政上の支援と優先購買等の支援施策を講究した。

韓国が加入した、「宇宙空間に打上げられた物体の登録に関する条約」等、国際条約を履行させるため宇宙物体の登録及び管理を制度化させた。これに従って宇宙物体の打上げ者は、宇宙物体を教育科学技術部に予備登録をし、宇宙物体が衛星軌道に進入した後、90日以内に本登録をしなければならない。宇宙発打上げ機による打上げは、高危険・高費用及び高度な専門性と注意が要求するので、「打上げ許可制」を導入し、宇宙事故の発生可能性を最小化させた。宇宙開発振興法は、宇宙開発のため、宇宙事故調査委員会等の機構を新設させる他に、衛星の打上げ等、宇宙活動に起因し、被害を受けた地上第三者に対する損害賠償規定を明示した。この法は、国内の衛星打上げ射場(Space Center)で、外国の衛星を打上げをするときも適用される。次に「宇宙開発振興法」の中で、主要な内容及び条文だけを抜取り、その内容を要約し説明する。⁸³¹⁾

(1) 宇宙開発振興法の概要

政府は毎5年ごとに宇宙開発振興基本計画を樹立し施行しなければならない。宇宙分野の重要な政策と部処間の業務を調整させるため、国家宇宙委員会を設置し、運営する。韓

831) <http://www.most.go.kr>; 科学技術部政策弘報担当官室、宇宙開発振興法の制定、報道資料、2005年5月3日配付。

国が加入した「宇宙物体の登録に関する条約」等 国際条約の履行のため宇宙物体の登録及び管理を制度化させた。宇宙打上げ機による衛星又は宇宙船等の打上げは、高危険・高費用及び高度な専門性と注意が要求しているため、打上げ許可制を導入し、宇宙事故の発生可能性を最小化させるのが必要になったからである。

(2) 宇宙開発事業体制の構築及び整備

□ 宇宙開発振興基本計画の樹立・施行(第5條)

高費用・高危険が随伴する国家戦略・公共事業である、宇宙開発を積極的に推進するため、政府の宇宙開発振興計画の樹立が必要である。政府は毎5年ごとに宇宙開発振興計画を樹立し、国家宇宙委員会の審議を確定したあと、教育科学技術部長官は、毎年、その施行計画を樹立・施行する。

□ 国家宇宙委員会の設置・運営(第6條)

国家宇宙分野の重要政策及び部処間、主要宇宙開発業務の審議・調整等をさせるため大統領所屬下に国家宇宙委員会(委員長: 教育科学技術部長官)⁸³²を設置・運営する。委員会の業務を効率的に遂行するために、宇宙開発振興実務委員会を設置する。

□ 宇宙開発専門機関の指定・運営(第7條)

教育科学技術部長官は、宇宙開発事業を体系的・効率的に推進させるため、宇宙開発専門機関を指定し、支援することができる。専門機関を指定・運営することによって、投資費が沢山かかるし、また危険度ももっとも高い宇宙開発事業を蹉跎なく円滑に遂行することが期待できる。

(3) 宇宙物体の管理体系を構築

□ 宇宙物体の予備登録及び国際登録(第8條乃至第10條)

宇宙物体を打上げる者は、打上げ予定日から180日前まで、宇宙物体を教育科学技術

832) 韓国では、前の科学技術部長官の職位が副總理大臣級であった。

部長官に予備登録をしなければならないし、また宇宙物体が衛星軌道に進入した後、90日以内に教育科学技術部長官に登録をしなければならない。教育科学技術部教育長官は、同法第8条第3項の規定によって打上げ計画書を検討した結果、同法第14条の規定による損害賠償責任を負担する能力が不十分だと判断した場合には、是正・補完を要求することができる。教育科学技術部長官が、宇宙物体に登録したときには、「宇宙空間に打上げられた物体の登録に関する条約」によって外交通商部を経由し、国連(UN)に登録しなければならない。教育科学技術部長官は、教育科学技術部令に定めによって、宇宙物体の予備登録台帳及び登録台帳を備置・管理しなければならない。

□ 宇宙打上げ機による 打上げ許可・取消・聴聞(第11条乃至第13条)

宇宙打上げ機を打上げたい者は、教育科学技術部長官の許可を受けなければならないし、もし不正な方法によって打上げ許可を受けた場合には、宇宙打上げ機による打上げ許可を取消することができる。打上げ許可を取消する時には聴聞をし、打上げをした者の被害を最少化し、事前行政措置が可能になるようにしなければならない。

□ 宇宙事故に対する 損害賠償・事故調査(14条乃至16条)

宇宙物体を打上げた者は、その宇宙物体に起因による宇宙事故に対して、損害賠償責任を負担する。宇宙事故を調査するため、宇宙事故調査委員会(委員長: 委員中で定める)を構成・設置及び運営することができる。

□ 宇宙開発事業の促進及び支援(法第18条乃至21条)

教育科学技術部長官は、人工衛星によって獲得した衛星情報の普及・活用を促進するために、必要な措置を講ずることができる。教育科学技術部長官は、民間部門の宇宙開発事業を活性化して、研究開発投資の拡大を誘導するために優秀な宇宙開発人力の供給、税制・財政上の支援及び優先購買等の支援施策を講ずる。

戦時・事変の時には、宇宙開発事業を中止するようにして国家目的を遂行するのに差し支えないようにする。

□ **国際条約の遵守(法第22條乃至23條)**

外国の宇宙飛行士が非常着陸・遭難又は事故が起つた場合 可能な援助を提供して宇宙飛行士を登録国に帰還措置させる。

外国の宇宙物体が大韓民国の領土に墜落するとか非常着陸をした場合には、安全に打上げ国に返還する。

□ **罰則(27條乃至29條)**

打上げ許可(変更許可を含む)を受けなく打上げた者は、5年以下の懲役や5千万ウォン以下の罰金を賦課する。

宇宙物体の予備登録又は登録をしない者は、1千万ウォン以下の過怠料を賦課する。宇宙事故調査を拒否・妨害又は忌避した者などは、500万ウォン以下の過怠料を賦課する。

2.4. 宇宙開発振興法の各条文の内容を要約した主な内容

各 條 文	各条文の内容を要約した主な内容
第1条(目的)	宇宙空間の平和的利用, 科学探査・促進, 国家の安全保障及び国民経済の健全な育成と国民生活の向上に貢献・寄与させる
第2条(定義)	宇宙開発、宇宙物体、宇宙、宇宙事故、衛星情報、宇宙開発事業等に関する用語の定義を説明した。
第3条(国家の責務)	宇宙空間の平和的利用及び宇宙開発の推進等を国家責務として明示したし、宇宙閣聯条約の遵守を規定した。
第4条(他の法律との関係)	宇宙開発の振興と宇宙物体の利用・管理に関し、他の法律に特別に規定した場合を除き、この法のみ適用する。
第5条(宇宙開発振興基本計画の樹立)	国家宇宙開発事業を総合的・体系的に推進するため、宇宙開発振興基本計画を樹立し施行する。
第6条(国家宇宙委員会の設置)	国家宇宙開発と閣聯がある、重要な政策及び政府省庁間の業務調整等のために、国家宇宙委員会を設置する。
第7条(宇宙開発専門機関の指定)	宇宙開発事業の効率的遂行のために、専門機関を指定し支援することができる。
第8条(宇宙物体の国内登録)	宇宙物体の所有者に対して義務履行など管理のための登録根拠規定を定めた。
第9条(宇宙物体の国際登録)	国際条約(宇宙物体登録条約)による、国内宇宙物体を国際聯合に登録させるため規定を新設した。
第10条(宇宙物体登録台帳の管理)	宇宙物体の効率的な管理及び被害発生を糾明するため、教育科学技術部内に登録台帳を備置・管理する。
第11条(宇宙打上げ機による打上げ許可)	宇宙打上げ機による、打上げの危険性等に対備するため、打上げ許可制施行の法的根拠を用意した。
第12条(欠格事由)	宇宙開発閣聯法規の違反者などに対する、打上げ許可の資格を制限した。
第13条(打上げ許可の取消)	打上げ遅滞、虚偽、国家安保に脅威等の問題発生の際は、打上げ許可の取り消し措置及び聴聞をすることができる。
第14条(宇宙事故による損害賠償責任)	宇宙物体による宇宙事故で、第3者に被害が発生した時、宇宙物体の打上げ者は、損害賠償責任を負担する。
第15条(損害賠償責任保険の加入)	2007年12月21日、宇宙開発振興法の改正によって同条文を削除し、この条文の内容を宇宙損害賠償法に規定した。

各 條 文	各條文の内容を要約した主な内容
第16条(宇宙事故調査委員会の構成等)	宇宙事故調査委員会の設置 構成、任務等の規定と事故調査のとき、関係行政機関に協力を要請することができる。
第17条(衛星情報の活用)	衛星情報の普及・活用及び専担機構の指定・設立ができる法的根拠を明示した。
第18条(民間宇宙開発事業の支援)	民間の宇宙開発事業の活性化のため、また研究開発、人力養成等を支援するための法的根拠を与えた。
第19条(宇宙開発中止及び是正)	教育科学技術部長官は、国家安全保障のため国防部長官の要請がある時、宇宙活動の中止・是正を命令することができる。
第20条(宇宙開発の支援及び協定要請)	教育科学技術部長官は、宇宙開発を推進するため必要がある時、関係中央行政機関の長及び地方自治団体に支援及び協力を要請することができる。
第21条(国家安全保障 関係宇宙開発事業推進)	教育科学技術部長官は、国家の安全保障と関係がある宇宙開発事業を推進する時には、関係中央行政機関の長と協議をしなければならない。
第22条(宇宙飛行士の救助)	政府は宇宙飛行士が韓国の領域、近海に非常着陸、遭難又は事故の時、国際条約による救助等、援助を提供する。
第23条(宇宙物体の返還)	政府は宇宙物体が韓国の領域に墜落、非常着陸した時、国際条約によって宇宙物体を打ち上げた国に返還する。
第24条(宇宙開発等に関する資料収集及び実態調査)	教育科学技術部長官は、週期的に宇宙開発に関する資料収集及び実態調査を行うことができるように法的根拠を規定した。
第25条(秘密厳守の義務)	同法による職務に従事している者と従事した者は、職務に関する秘密を厳守しなければならないし、違反した時には処罰する。
第26条(権限の委託)	教育科学技術部長官が、政府出捐機関または関係機関に委託をすることができる業務を明示した。
第27条(罰則)	宇宙物体を許可なしに打上げた者に、打上げの中止・是正命令を未履行した者に対して処罰する。
第28条(両罰規定)	法令を違反した時、法人の代表者のみならず法人、個人の代理人及び従業員に対しても処罰する。
第29条(過怠料)	宇宙物体の予備登録及び登録をしていない者、事故調査の拒否又は妨害した者に対して過怠料を賦課する。
附則(施行日)	この法は、政府が公布した後、6カ月が経過した日(2005年12月1日)から施行する。

2.5. 宇宙開発振興法施行令及び同施行規則の立法経緯と主な内容

(1) 宇宙開発振興法施行令及び同施行規則の立法経緯

韓国政府(教育科学技術部)は、宇宙開発振興法制定・公布(2005年5月31日)によって、法の委任事項及び法執行に必要な手続きなどを決めるために、「宇宙開発振興法施行令及び施行規則」を制定した。しかし教育科学技術部は、2005年7月、「宇宙開発振興法施行令案」を制定し、関係部処と協議を得た後、国民の意見を取り集めるため、2005年8月、立法予告をし、それらの意見を一部、反映して最終案を決めた後、党政協議(9月)及び法制処の審議(10月)などの過程を経て、同年11月30日、「宇宙開発振興法施行令及び施行規則」を公布し、2005年12月1日から施行している。

政府(教育科学技術部)は、2006年7月4日、「宇宙開発振興法施行令」第6条(実務委員会の構成及び運営)を改正し、小委員会の設置根拠を定め、また第15条(事故調査委員会の運営等)を改正し、そのほか事故調査委員会の運営に関する必要な事項は、事故調査委員会の審議をした後、委員長が決定することを定めた。また、政府(教育科学技術部)は、2007年9月7日、「宇宙開発振興法施行規則」第5条(打上げ許可の申請)を改正し、打上げ許可証明書の発給関係を規定した。「宇宙教育開発振興法施行令」は、2008年5月27日まで、3回改正されたし、「宇宙開発振興法施行規則」は、2008年6月20日まで、3回改正された。

(2) 宇宙開発振興法施行令及び同施行規則の概要

前記「宇宙開発振興法施行令」よると、韓国政府の企劃財政部、外交通商部、国防部、行政安全部、知識経済部、国土海洋部長官、国家情報院長等などの長官によって「国家宇宙委員会」を構成し、主要な宇宙開発計画と事業を審議することができるように定めた。そのほか、「国家宇宙委員会」の所属下に、教育科学技術部次官が委員長となるし、前記部処の局長級と民間専門家が委員となる「宇宙開発振興実務委員会」を構成し、設置・運営することができるように規定した。

これと共に宇宙開発専門機関の指定要件がいう宇宙事業を遂行することができる人力及び設備を取り揃えとか、宇宙関連研究または事業を直接遂行した実績及び経験を取り揃え

た機関等を明示した。同時に ①宇宙基盤施設の指定及び支援、②打上げ計画書の作成方法及び内容、③宇宙事故調査委員会委員の資格要件・任務・調査対象・調査手続きなどを同法施行令に規定した。

(3) 宇宙開発振興法施行令及び施行規則の各条文の内容を要約した主な内容

□ **宇宙開発振興法施行令及び施行規則の各条文の内容を要約した主な内容は、次の通りである。**

9個部処長官及び民間委員によって「国家宇宙委員会」を構成する(同法行令第4条)。国家主要宇宙開発計画及び事業を審議する「国家宇宙委員会」委員の所属関係中央行政機関を明示した。

前記「国家宇宙委員会」には、企劃財政部長官、外交通商部長官、国防部長官、行政安全部長官、知識経済部長官等、国土海洋部長官、国家情報院長等によって構成される。また「宇宙開発振興実務委員会」の構成も規定した(同法行令 第5条)。

前記「宇宙開発振興実務委員会」は、委員長一人を含んだ国家宇宙委員会委員所属部処高位公務員等及び民間専門家など21人以内で構成される(同法行令 第6条)。

宇宙開発専門機関の指定要件を明示した(同法行令第7条②)。この宇宙開発専門機関は、宇宙事業(宇宙物体の製作・実験・打上げ等)を遂行することができる人力及び設備を取り揃えとか、宇宙関連研究または事業を直接遂行した実績及び経験を取り揃えた機関でなければならない。

宇宙基盤施設の指定及び支援を規定した(同法行令第9条)。宇宙物体打上げ場の基盤施設を指定し支援・管理する。打上げ計画書の次のような作成方法及び内容を決めて、具体的な事項は、科学技術部長官の告示で決める事にした(同法行令 第13条)。

1. 打上げ予定日及び大気圏での飛行軌(航)跡
2. 打上げ機の諸元及び性能
3. 安全性分析報告書
 - 1) 打上げ機の安全対策
 - 2) 打上げ場の安全管理対策
 - 3) 保安全管理対策
4. 搭載体運用計画書

- 1) 搭載体の使用目的
- 2) 搭載体の所有及び利用権者
- 3) 搭載体の使用期間
- 4) 搭載体の製作者・製作番号及び製作年月日
5. 損害賠償責任負担計画書
 - 1) 打上げ事故に起因する第三者の死亡 負傷、財産上の損失予測額
 - 2) 損失予測額に対する負担計画

宇宙事故調査委員会委員の資格要件、任務、調査対象、調査手続きなどを明示した(同法行令第15条～18条)。

安全保障関連事故調査委員会は、国家安全保障と関連がある行政機関の長が構成・運営させるし、国家安全目的で打上げた衛星に起因し発生した事故調査は、前記事故調査委員会が伴う事になっている(同法行令第19条)。国家安全保障関連宇宙事業に関する「保安対策の樹立」することを決めた(同法行令第21条)。保安対策に含まれる内容明示及び教育科学技術部長官の承認を得るようにしている。

□ 施行規則の主要な内容は次のようである。

宇宙物体の予備登録申請書、登録申請書などの書式を定めている(同法施行規則第2条)。

宇宙物体の予備登録台帳及び登録台帳などの書式を定めている(同法施行規則第4条)。

宇宙打上げ機による、打上げ許可申請書の書式を定めている(同法施行規則第5条)。

当初、宇宙打上げ機による、打上げ許可を受けようとする者が、加入しなければならない責任保険の最小限度額を次のように決められたけれども(同法施行規則第9条)、2008年6月20日、宇宙開発振興法施行規則第9条が削除され、責任保険の最小限度額がなくなりました。

- － 搭載重量 1トン未満の場合: 4,000万 SDR(約万US\$)
- － 搭載重量 1トン以上の場合: 6,000万 SDR(約万US\$)

※ SDR(Special Drawing Rights, IMFの特別引出権 → 計算単位): アメリカ、日本、欧州連合(EU)、イギリスなどの貨幣価値を決定(2008年8月20日現在)

1SDR = 1.57 USドル)

(アメリカの場合 宇宙打上げ機ひとつに最大5億ドルまでの損害賠償責任がある)

3. 韓国の宇宙損害賠償法

3.1. 宇宙損害賠償法制定の経緯

政府(科学技術部)は、2005年の特定研究開発事業の一環として、宇宙事故に関する損害賠償法を制定し、「宇宙事故に対する損害賠償の構築」という課題を実現させるため、ある国策研究機関に用役を提供した。

2005年10月、ある国策研究機関から、筆者に宇宙事故に関する損害賠償法の体系構築のため、法律案の構造及び条項の作成等の法令体系の提示の旨の正式公文の要請があり、筆者は本格的に研究に着手し、研究結果として新しい「宇宙損害賠償法試案(仮称)」に関し、19個条文を立案し、2005年12月、前記国策研究機関に同法試案を提出したことがある。⁸³³⁾ 前記国策研究機関は、前記法試案を基礎として検討・審議し、前記「宇宙損害賠償法試案」を再び整理して教育科学技術部に提出した。しかし、教育科学技術部は、「宇宙損害賠償法」の立法を、議員立法のかたちで制定することを諒解した。2006年8月30日、国会で「宇宙事故損害賠償法案制定のための専門家懇談会」が開かれたので、筆者も参加し、意見を発表したことがある。2007年2月5日、国会議員12名(代表: 洪昌善議員)が発議した、「宇宙損害賠償法案(議案番号6051号)」が、正式に国会に上程できましたので、2007年4月12日、第267回臨時国会の教育科学技術情報通信委員会で、この法案に関する専門委員の検討報告があった。

2007年10月2日、第269回定期国会の教育科学技術情報通信委員会で、この法案の一部が修正し議決された。⁸³⁴⁾ 2007年11月21日、第269回定期国会の法制司法委員

833) 拙稿、「韓国に於ける新しい宇宙宇宙開発振興法と宇宙損害賠償法試案の主な内容及び将来の課題」、(紀要第6巻第2号、2006年3月10日)、日本中央学院大学社会システム研究所発行、124-126頁。

834) 国会事務処、第269回定期国会科学技術情報通信委員会会議録(2007年10月2日、第4号)、3-4頁。

会で この法案の一部(第8条権利行使の期間→除斥期間 3年等)が修正し議決された。⁸³⁵⁾

2007年11月22日、前記「宇宙損害賠償法案」が第269回定期国会の本会議に上程され審議したあと、電子投票をした結果、在席議員183人の中で賛成179人、反対1人、棄権3人でこの法案は通過された。⁸³⁶⁾ 政府は、この「宇宙損害賠償法」を2007年12月21日、公布(番号 8714号)したけれども、附則①(施行日：法の公布後、6か月経過)によって、2008年6月22日から施行された。

3.2. 宇宙損害賠償法制定の法的根拠と制定理由

- (1) この法律は、宇宙開発振興法第14条の規定に根拠し、損害賠償範囲と責任限界に関する規定を制定することによって、宇宙事故に起因し、損害を受けた被害者の保護と共に紛争当事者間の迅速な解決基準を定めるのを目標として立法したものである。
- (2) 宇宙損害賠償と関聯がある国際条約と世界各国の国内宇宙損害賠償関聯法の立法例等と比較しながら研究したあと、韓国の現実に適合う「宇宙損害賠償法」を立法した。
- (4) 世界各国は、宇宙開発のため各種事業を活潑に進行しているし、人工衛星を活用する民間事業者の登場に従い発生可能性が高くなった宇宙事故に対備する必要性が提起できた。さらに、宇宙技術が航空宇宙、電気電子、通信、材料等に先端科学技術が集合した専門領域だという点で宇宙事故に従う損害賠償に「民法」上の過失責任主義を適用させるのが適当でないので、無過失責任主義を採択した。
- (5) 莫大な規模の損害額全部を賠償させることは、民間の宇宙開発事業の参加をむずかしくすることから、別途な賠償体系を確保する必要性が提起された。宇宙物体の打上げ、人工衛星の運用等の宇宙開発と関聯がある宇宙事故に対する損害賠償の範囲及び責任限界等に関する具体的な基準と手続を定める法律が必要になったので、この法律を制定した理由である。

835) 国会事務処、第269回定期国会の法制司法委員会会議録(2007年11月21日、第14号)、29-36頁。

836) 国会事務処、第269回定期国会本会議会議録(2007年11月22日、第10号)、14頁。

3.3. 宇宙損害賠償法の主な内容

宇宙損害賠償法は 8カ条文によって構成しており、その主要な条文だけを説明する。

(1) 国際条約との関係等(第3条)

宇宙損害賠償に関する条約である「宇宙物体により引き起された損害についての国際責任に関する条約」の適用を受けない宇宙損害賠償に対してこの法を適用させるし、また他の国家に対しては、相互主義原則を適用させる。

(2) 無過失責任及び責任の集中(第4条)

宇宙損害賠償に関し、「無過失責任主義」及び「責任集中の原則」を採択し、「求償権の制限」の規定及び「製造物責任法」の適用除外を規定した。

(3) 損害賠償責任の限度額(第5条)

宇宙事故が発生した時、宇宙物体打上げ者が賠償しなければならない責任限度を2千億ウォンに定めた。

(4) 責任保険の加入義務(第6条)

宇宙損害賠償責任を担保するため、宇宙物体打上げ者に責任保険の加入義務を賦課した。

(5) 施行日

この法律は、政府が公布した後、6カ月が経過する日である、2008年6月22日から施行される。

3.4. 宇宙損害賠償法に関する論評

前記宇宙損害賠償法に関し、次のような六つの点を再検討する必要がある。

- (1) 宇宙事故 起因し、地上第3者に人的または物的損害を与えたとき、被害者保護のため英米法の法理論であ *wilful misconduct* (認識がある重大な過失→ 無限責任)の概念を導入する必要がある。

(立法例)

1929年のワルソー条約 第25條

1999年 モントリオール 第22條
1978年のUN 海上物品運送條約 第8條
1992年の日本國際物品運送法 第13條の2
2007年の韓國改正商法 第769條, 797條

- (2) 宇宙堪航能力擔保義務(Space-worthiness)という新概念を導入する必要がある。
宇宙運送に於いて、宇宙航行の安全と宇宙事故を予防するため、堪航能力擔保義務(Space-worthiness)という、新しい概念を導入するのが望ましいこと
だと思ふ。

(立法理由)

宇宙打上げ機(ロケット)または宇宙物体の事業者が、宇宙堪航能力擔保義務を怠慢に起因し、宇宙事故が起って、被害者に莫大な損害を与えたとき、被害者が加害者に損害賠償を請求することができる法的 根拠を定めるのが必要である。

(立法例)

韓國商法 第787條 → 堪航能力注意義務 (Seaworthiness)
日本商法 第738條 → 海商編 → 堪航能力擔保義務
韓國航空法 第15條 → 堪航証明(Certificate of Airworthiness)
日本航空法 第10條 → 耐空證明

- (3) 損害賠償責任限度金額の貨幣單位の變更が必要である。

韓國貨幣單位 Won から IMF の貨幣單位である、特別引出權(Special Drawing Right: SDR)を、韓國商法及び日本商法で採擇している計算單位(unit of account)を韓國宇宙損害賠償法にも法の統一のため導入するのがもっとも望ましいことだと思ふ。

<改正試案>

損害賠償責任の限度金額(第5條)

『宇宙事故が発生した時、宇宙物體打上げ者が賠償しなければならない責任限度を2千億計算單位に變更する』

(立法例)

1975年のモントリオール追加議定書 No.1、No.2、No.3 第2條

1975年 モントリオール議定書 No.4 第22條

1999年のモントリオール 第22～23條

1978年のUN 海上物品運送條約 第6條

1980年のUN 國際複合物品運送條約 (UN Convention on International Multimodal Transport of Goods) 第18條

1992年の日本 國際物品運送法 第13條

- (4) 2人または2人以上の法人が 共同に宇宙物体を打上げた場合、これらの個人または法人等は、宇宙事故に起因し発生した損害を受けた被害者に対して連帯賠償責任を負担させるのが必要である。
- (5) 被害者の保護のため、責任保険金額に対して他の債権より、優先弁済を受けることができる権利を被害者に認定するのが必要である。
- (4) 宇宙紛争を迅速に調整・解決させるため、宇宙損害賠償審議委員会の設置に関する規定を新しく定めるのが望ましいことだと思われる。

4. 将来の課題として宇宙関係機構の改革

世界各国は、自国の宇宙産業を振興・発展させ、国際競争が熾烈な人類の遺産である宇宙資源の開発と探査を先行して行うため、宇宙開発政策から主要な執行機能まで総括する中央行政機関としての機構を設置している。それらの中央行政機関のわくとして、アメリカの航空宇宙局(NASA)、ロシアの航空宇宙局(RASA)、中国の国家宇宙局(CNSA; 国家航天局)、印度の宇宙省(DOS)、カナダの宇宙庁(CSA)、イスラエルの宇宙庁(ISA)、ブラジルの宇宙庁(AEB)等がある。

一方、中央行政部署の傘下にある宇宙研究センター、機関乃至公社等の機構には、イギリスの国立宇宙センター(BNSC)、フランスの国立宇宙研究センター(CNES)、ドイツの航空宇宙センター(DLR)、イタリアの宇宙事業団(ASI)、日本の宇宙航空研究開発機構(JAXA)、スウェーデンの宇宙公社(SSC)、中国の航空宇宙科学技術公社(CASTEC; 中国航天科技集团公司;⁸³⁷)総従業員10万名、技術者、エンジニア及び其他の専門家4

万名) 印度の宇宙研究機関(ISRO: 職員の数: 16,800名)⁸³⁷)等がある。

現在、韓国の宇宙開発中長期基本計画の樹立と宇宙開発政策から主要な行政執行機能まで総括する機構としては、主に教育科学技術部の基礎研究局内に宇宙開発政策課、宇宙技術開発課及び宇宙技術協力 Teamで担当しているし、人工衛星及び打上げ機開発と研究、宇宙センターの建設等は、政府の出捐機関である韓国航空宇宙研究院(Korea Aerospace Research Institute: KARI)が担当している。

2005年に修正された韓国宇宙開発中長期基本計画によれば、2005年から2010年までに13機の衛星及び打上げ機2機の開発と宇宙センターの建設、宇宙飛行士の養成等、10年間に投資する総投資費(政府予算: 物価上昇率勘案)は、約5兆ウォン以上の資金が予想される。

このよな全体の投資予算を管理・監督及び執行と宇宙開発中長期基本計画を効率的に成功的に達成させるためには、世界各国の行政機構の事例を参酌し、政府内に宇宙庁又は宇宙局に拡大・改編するのがもっと望ましいことだと思う。また前記イタリアの宇宙事業団、日本の宇宙航空研究開発機構、スウェーデンの宇宙公社、中国の航空宇宙科学技術公社⁸³⁹)、印度の宇宙研究機関等の例のように、韓国航空宇宙研究院(KARI)を、もっと拡大・改編する必要がある。

韓国航空宇宙研究院(KARI)を、拡大・改編する方法としては、韓国宇宙航空開発公社(仮称)の設置法の制定するのが望ましいことだと思う。

もし、この韓国宇宙航空開発公社(仮称: 国営企業体)の設置法を作成する場合には、①設立目的、②法人格、③事務所、④資本金(政府の現金出資及び現物出資等)、⑤組織(任員の任命、任員の数、任期、理事会、任員の欠格要件等)、⑥業務の範囲、⑦事業計画、予算及び資金計画の認可、⑧決算の承認、⑨利益及び損失の処理、⑩宇宙開発基金の助成、⑪宇宙活動、宇宙物体の製造及び宇宙センターの施設と敷地等に関する金融及び税制の支援、⑫宇宙関連施設及び敷地に対する国有財産の無償貸付、⑬監督等の項目を規定するのが必要である。

一般的に国営企業体の本質は、公益性と収益性というふだつの性格を持っているし、将来、前記韓国宇宙航空開発公社(仮称)が設立した場合、この公社で値段がやすい、性

837) <http://www.casic.com.cn/docc-e/jie-shao/jianjie.asp>

838) (財)日本宇宙フォーラム、「宇宙開発データブック2000年」、(2000年)、314頁。

839) 中国航空宇宙科学技術公社の原名は、中国航天科技集团公司(China Aerospace Science Technology Cooperation)である。

能がすぐれた小型・中型乃至大型の優秀な各種の人工衛星と航空機を研究・開発したあと、東南亜・中東・南美市場に進出し、輸出もできるので収益性があるし、展望も明かるい事業である。

将来、もし韓国航空宇宙開発公社(仮称)が設立したときには、この公社は、他の国営企業体等と同じく政府投資機関管理基本法が適用される。宇宙政策担当部署の機構改革と韓国航空宇宙研究院(KARI)機構の拡大・改編を提案する理由は、2015年まで、宇宙開発中長期基本計画の成功的な達成することによって、2015年、韓国は、宇宙産業の分野で世界10位圏に入ることができるのである。

最近、各種衛星の打上げと「ナロ宇宙センター」の建設等が、当初の政府目標の達成時期に、ありのまま達成ができていないので、このような衛星打上げと宇宙センター建設等の遅延を防止するため、前記宇宙政策担当機構の拡大・改編が必要である。

衛星打上げと宇宙センター建設等の遅延事例は、宇宙開発中長期基本計画にしたがって従って、当初、2004年11月に打上げる予定のKARIが開発していた多目的実用衛星2号の打上げが、当初より19カ月が遅延し、2006年7月に打上げられた。⁸⁴⁰⁾

科学技術衛星2号(SSat-2)と宇宙打上げ機(KSLV-1)の開発事業が2005年に開発完了し打上げる予定であったが、その事業期間が2008年まで3年間延長された。⁸⁴¹⁾ 2005年に打上げ予定の通信・放送衛星(KOREASAT-5: 無窮花5号)も1年間延期され、2006年8月に打上げられた。さらに全南高興郡蓬萊面外羅老島に建設している「ナロ宇宙センター」の当初の竣工期日は、2005年であったけれども、3年間延長し、2008年内に竣工できる予定である。

このように当初の宇宙開発中長期基本計画対実績が、1年乃至3年間延長また遅延している理由は、外国と宇宙技術に関する対外交渉をする優秀な専門家の確保不足と資金の供給等が適期適時に達成していない要因があげられる。しかし、それよりも宇宙関係機構等の組織改革に関する問題点が浮上している。これらの改善方案として宇宙開発中長期基本計画を成功的に達成するため、前記先進国の事例のように、政府の宇宙関係担当部署と韓国航空宇宙研究院の機構を拡大・改編するのが望ましく、将来、我等が再び綿密に検討し解決しなければならない課題であろう。

840) <http://blog.naver.com/k2sh0405?Redirect=Log&logNo=20019988392>

841) http://news.naver.com/news/read.php?mode=LSD&office_id=096&article_id=0000022652§ion_i

5. おわりに

以上本論文では「宇宙開発振興法、同法施行令及施行規則」と「宇宙損害賠償法」の立法背景、経緯及び主な内容と論評、将来の課題として宇宙関係機構の改革等を順序的に考察した。特に韓国政府は、昨年12月21日に「宇宙損害賠償法」を制定し、今年6月22日から「宇宙損害賠償法」を施行する予定である。この「宇宙損害賠償法」は、アジア諸国の中で、韓国が一番始めに制定したものである。

この論文の中で、もっとも重要な項目である、「将来の課題として宇宙関係機構改革」の問題は、前で言及した通りに、2003年4月、韓国航空宇宙法学会が主催した第30回航空宇宙法学会発表会と筆者の論文で、既に、「韓国航空宇宙開発公団(仮称)」の設立の提案を発表したことがあるし、また宇宙開発振興法の立法過程でも論議したことがある。

この論文で再び、筆者が政府の宇宙関係担当部署の機構改革と韓国航空宇宙研究院の機構を拡大・改編し、韓国航空宇宙開発公社(仮称)の設立を提案した理由は、各種の衛星及び打上げ機の開発遅延と「ナロ宇宙センター」の建立が、なおさら遅延できないようにさせるし、また将来、宇宙開発中長期基本計画に従って、各種の衛星及び打上げ機の開発が2010年と20015年まで、当初定めた目標年度に、それぞれ完成させ、韓国の宇宙産業を世界10位圏以内に早期に進入させるのが目標である。

しかし、韓国では、2008年2月25日、李明博大統領が就任し、新しい政府が出帆するけれども、新政府の目標は、政府機構の縮小及び統廃合をする予定なので、政府(韓国科学技術部)の宇宙関係担当部署の拡大・改編は難点があるし、また困難であるけれども将来ひとつの課題だと思われる。

6. 韓国の宇宙損害賠償法(全文)

[制定 2007年12月21日 法律 第8714号]、施行日 2008年6月22日

第1条(目的) この法は、宇宙損害が発生した場合、損害賠償の範囲及び責任限界等を定め被害者を保護し、宇宙開発事業の健全な発展に寄与させることを目的とする。

第2条(定義) この法で使用する用語の定義は次の通りである

1. “宇宙物体”とは、「宇宙開発振興法」第2条第3号に従う宇宙物体をいう。
2. “宇宙物体打上げ者”とは、「宇宙開発振興法」第8条に従って宇宙物体を予備登録又は登録した者や同法第11条によって宇宙打上げ体の打上げ許可を受けた者をいう。
3. “宇宙物体打上げには、”「宇宙開発振興法」第11条第1項にしたがって許可を受けた者が宇宙物体を打上げするのをいうし、また打上げ準備・試験打上げ及び成功できなかった打上げも含む。
4. “宇宙損害”とは、宇宙物体の打上げ・運用等に起因し発生した第3者の死亡・負傷及び健康の損傷のような人的損害と財産の破壊・毀損・亡失のような物的損害をいう。

第3条(国際協約との関係等) ① 政府は、「宇宙物体により引き起された損害についての国際責任に関する協約」に従って政府が外国政府に対して損害賠償をした場合、宇宙物体の打上げ者に対して求償することができる。

②この法は、大韓民国国民、大韓民国の法令により設立できた法人・団体または、大韓民国政府が受けた宇宙損害の賠償を禁止したか制限する国家の個人・法人・団体または、政府に対してその適用を排除または制限することができる。

第4条(無過失責任及び責任の集中等) ①宇宙損害が発生した場合、該当宇宙物体の打上げ者がその損害を賠償する責任がある。しかし、国家間の武力衝突、敵対行為、内乱または反乱に起因する宇宙損害と宇宙空間で発生した宇宙損害の場合には、故意または過失がある場合に限する。

② 第3者の故意または過失に起因し引き起された宇宙損害を第1項にしたがって賠償した宇宙物体打上げ者は、彼に対して求償することができる。ただしその損害が宇宙物体打上げ等に提供される資材の供給乃至役務(労務を含む。以下同じ)の提供によって引き起されたときは、該当資材の供給または役務を提供した者とその従業員の故意または重大な過失があるときに限って求償することができる。

③ 宇宙損害に対しては、「製造物責任法」を適用することができない。

第5条(損害賠償責任限度額) 宇宙物体打上げ者が賠償しなければならない責任限度は2千億ウォンである。

第6条(損害賠償責任保険の加入) ① 「宇宙開発振興法」第11条に従い宇宙発射体の打上げ許可を受けたい者は 損害賠償を目的とする責任保険にの加入しなければならない。

② 第1項に従い加入しなければならない保険金額は、第5条による損害賠償責任限度額の範囲内で宇宙 物体の特性、技術の難易度、打上げ場周辺と物件及び国内外保険市場等を考慮し教育科学技術部長官が定めて告示する。

第7条(政府の措置) ① 政府は、宇宙損害が発生した場合、被害者の救助及び被害の拡大防止に必要な措置を施行しなければならない。

② 政府は第4条第1項に従い宇宙物体打上げ者が賠償しなければならない損害賠償額が第6条第2項の保険金額を超える場合、この法の目的を達成させるため必要だと認めるときには、宇宙物体打上げ者に対して必要な支援をすることができる。

③ 政府が第2項の支援をするときには、国会の議決によって許容された範囲内です。

第8条(権利行使の期間) ① この法に従う損害賠償請求権は、被害者またはその法定代理人がその損害及び第4条第1項による損害賠償責任を負担する者を知った日から1年以内に行使しないときには、時効によって消滅する。

② この法に従う損害賠償請求権は、宇宙損害が発生した日から3年が経過した場合は、行使することができない。

附則 <第8714号, 2007.12.21>

①(施行日) この法は、公布した後、6カ月が経過した日から施行する。

②(他の法律の改正) 宇宙開発振興法 一部を次のように改正する。

第15条を削除する。

(拙稿、韓国における新しい宇宙開発振興法と宇宙損害賠償法試案の主な内容及び将来の課題、紀要[第6巻第2号、2006年3月]、<本論文の内容中、一部補完した。>日本中央学院大学社会システム研究所発行、115-138頁)

第五節 アジア宇宙開発機関(ASDA)の創設可能性

1. はじめに

アジア宇宙開発機関(Asian Space Development Agency 以下ASDAと略称する)の創設に関する構想は、私個人の学問的かつ個人的な意見であることを前提とする。アジア宇宙機関の創設は、アジア人による宇宙空間の共同開発のため、アジア地域の協力共同体として必要な中心的な国際機構になるであろう。この組織はアジア諸国に恵沢を与えるため独立機構として組織し、資源、技術、人力と財政等を中心に集中的に管理を行ないアジアの宇宙開発に触媒的な役割を果たすものである。

宇宙は、国境のない無限の空間であり、その開発は国家の枠を越え、各国が協調して、人類の利益のために取り組むことが望まれる⁸⁴²⁾。「宇宙空間は既にアジア諸国の宇宙開発のために存在している」。我等は、この宇宙に於いて我等が開発しなければならない仕事がかつという課題に直面している。我等は、このようなすばらしい機会をアジア各国間の宇宙開発力の統合(integration)のために利用するのが必要であろう。21世紀にはアジア地域においても宇宙科学及び技術等が急速度に発展すると展望する。約半世紀の間に宇宙活動及び開発を活発に推進しているアジア地域の一部の国家は、この宇宙開発が社会及び経済の生産性と発展に多大に貢献し、また刮目すべき成果を得ていることを知っている。宇宙技術の継続的な発展と応用は、アジア諸国の現代化推進に大きな役割をすると予想される。

2. アジア宇宙開発機関(ASDA)創設の必要性

現在、アジアの航空宇宙産業市場は、世界でもっとも大きな市場的価値をもっており、また明るい展望をもっている先端産業市場のなかでのひとつである。しかし、一部のアジア国家は、過去20余年間、各種衛星の打上げ失敗に起因し、数多くの事故が発生したことがあった。

842) http://yyy.tksn.nasda.go.jp/Home/Int_coop/index_j.html

その後においても事故が発生している。もし近い将来、アジア宇宙機関がアジア各国の協力により設立した場合、打上げ事故の原因をアジア各国の優秀な宇宙科学技術者等の共同協力によって、事故原因を調査分析し合うことが出来る。集中的に予防対策を樹立し実施したら、ある程度の打上げ事故をへらすことが可能であると思う。

アジア宇宙開発機関の設立は、アジアの法的、経済的及び社会的協力の機関としての役割をするだけでなく、主にアジア諸国間の宇宙技術協力機関として、アジア宇宙産業の国際競争力強化の向上と共に、宇宙開発に大変重要な機能を発揮させることがであろう。21世紀に於いて、このような成功を支えるためにはアジア諸国によるASAの設立が必要なので、ASAの設立を持続的に推進しなければならないと思う。

アジア各国間の宇宙政策、経済、法律、科学及び技術等の協力を増進させるためには、まずASAの設立が何よりも必要である。ASAの設立は、フランス、パリに本部がある『ヨーロッパ宇宙機関(European Space Agency: ESA)』と似た、宇宙開発及び応用のみならず宇宙探査及び地球遠隔探査、多目的衛星及び宇宙駐車場の共同開発等、アジア諸国間の国際協力を増進させるのにもっとも必要な国際機関になるであろう。

3. 宇宙に関するアジア各国間の地域及び国際協力

アジアの同じ地理圏にある各国は、政治、経済、技術及び社会的な活動の面により結成したアジアの政治および経済協力機構がある。宇宙産業分野においても将来、国際協力機構の継続的誕生が不可欠な現象になるであろう。

アジアの政治・経済及び外交の国際協力機構として誕生したのが、①アジア太平洋経済協力機構(APEC)⁸⁴³、②東南アジア国家連合(ASEAN)⁸⁴⁴、③アジア・ヨーロッパ頂上会議(ASEM)⁸⁴⁵等がある。また宇宙協力関係会議としては、東京で開かれた①「アジア・太平洋地域宇宙機関会議(APRSF)」、②北京で開かれた「アジア・太平洋地域において持続的な開発のため宇宙応用に関する閣僚会議会」、③「アジア・太平洋地域の多国家

843) <http://www.apecsec.org.sg/>

844) <http://www.mofa.go.jp/mofaj/area/asean/>

845) <http://www.asem3.go.kr/english/index01.htm>

間宇宙技術協力シンポジウム」④インドで開かれた「アジア・太平洋地域において持続的な開発のため宇宙応用に関する第2回UN-ESCAP閣僚会議」等がある。このような現象に付随して、将来、アジアの宇宙開発協力機構としてASAの誕生も可能であろう。

3.1. 韓国

韓国の宇宙産業を主導している韓国航空宇宙研究院(Korea Aerospace Research Institute: 以下KARIと略称する)は、韓国政府(教育科学技術部)が確定した「国家宇宙開発中長期計画(2000年～2015年)⁸⁴⁶⁾をKARIが、現在、積極的に推進している。この計画によると韓国は、2015年までに19の衛星(5つの通信衛星、7つの多目的衛星、7つの科学衛星)を開発することを目指している。韓国では1987年に航空宇宙産業開発促進法が制定され、1989年10月に韓国航空宇宙研究所(KARI: 2001年1月、韓国航空宇宙研究院に名称変更)が設立された。韓国政府は、KARIを中心に産・官・学共同様制の下で本格的な宇宙開発推進を目標に掲げた。1996年4月、韓国政府は、「韓国宇宙開発基本長期計画」を策定した。同計画において、衛星分野、打ち上げ分野、衛星利用及び科学分野についての具体的目標が掲げられ、それに必要な資金及び人材が示された。1999年4月、航空宇宙産業開発政策委員会により、「航空宇宙産業開発のための基本計画」が策定された⁸⁴⁷⁾。

KARIは、「コンプサット実験衛星プロジェクト」、「通信衛星プロジェクト」、「観測ロケットプロジェクト」などほとんどの衛星及びロケットプログラムを管理している。

KARIは、国連宇宙空間平和利用委員会(UNCOPUPUS)及び国際宇宙飛行連盟(IAF)の会議、各種国際会議及び国際機構が主管するフォーラム等への参加を通じ、国際的な動向を分析し、また技術協力議題の導出により国家間研究開発協力のため、橋頭堡的な役割を遂行している。KARIはアメリカ、日本、イギリス、フランス、ロシア、中国、イスラエル等の17か国の宇宙開発研究機関(研究所包含)と宇宙技術協力に関する約定締結、又は諒解覚書(MOU)を交換している。2001年1月30日、韓国政府(教育科学技術部)は、ナロ宇宙センター(宇宙打ち上げ射場)の建設基地を朝鮮半島の南海岸地域に位置している外羅老島(全羅南道高興郡蓬萊面所在)に確定し、150万坪の敷地(施設敷地5万坪)に衛星ロケット発射台を

846) <http://www.kari.ri.kr/total.htm>

847) 編集: 日本宇宙開発事業団、発行(財)日本宇宙フォーラム、「宇宙開発データブック2000」、2000年3月、340頁。

始めロケット組立棟 統制所、気象観測棟、燃焼試験棟、科学追跡装備、その他の支援設備等を2009年上半期まで竣工及び科学衛星打上げを目標にすると発表した⁸⁴⁸⁾。

ナロ宇宙センターで2008年の下半期に模擬打上げ試験をしたあと2009年上半期には始めて韓国が開発した打上げ台を利用し、自主的に科学衛星2号を高度700kmの上空まで打上げる予定である。教育科学技術部は、この宇宙センターを先端科学技術と宇宙開発の教育の場に活用できるように段階的に宇宙体験館、宇宙博物館等を建設するし、また外羅老島宇宙打上げ射場付近にある「多島海海上国立公園」と連携し観光名所に発展させる計画を樹立している。アジア諸国のなかで韓国が一番始めに宇宙損害賠償法(2007年)を制定した。

3.2. 日本

2002年(平成14年)12月13日、独立行政法人宇宙航空研究開発機構法(法律第161号)が制定され、2004年(平成16年)6月23日最終改正(法律第130号)されました。2003年10月、宇宙科学研究所(ISAS)、航空宇宙技術研究所(NAL)、宇宙開発事業団(NASDA)が1つになり、日本で唯一の宇宙航空開発、研究を行う機関が独立行政法人宇宙航空研究開発機構法によって誕生しました。それが、独立行政法人宇宙航空研究開発機構(Japan Aerospace Exploration Agency: 以下JAXAと略称する)である。

宇宙開発利用と航空研究開発は、国の政策目標を達成していくための手段であり、問題解決に貢献することはJAXAにとって重要な使命である。⁸⁴⁹⁾

日本の宇宙開発体制は、宇宙開発委員会の行う総合的な企画・調整に基づいて利用の分野を宇宙航空研究開発機構(JAXA)が、中心となって関係機関の協力のもとに進められている。

JAXAは、2003年の設立以来、日本国の自主的な宇宙計画を推進することもに諸外国と積極的に協力を実施してきました。これまでのプロジェクトの多くは、何らかの形で国際協力と関係があり、それなくしては実施することのできなかったプロジェクトも少なくありません。

アメリカからの技術導入という形でスタートした国際協力であるが、協力相手方はアメリカ、ヨーロッパ、アジア等、世界各国の宇宙機関及び研究所等になり、協力分野も宇宙環境利用、地球観測、追跡管制等すべての分野が対象になっている。

848) http://www.kohung.chonnam.kr/popup/event_00.htm

849) http://www.jaxa.jp/about/index_j.html

最近の国際協力の例としては 1999年4月、技術試験衛星VII型(ETS-VII、おりひめ・ひこぼし)のロボットアームを使った実験が、欧州宇宙機関(ESA)やドイツ航空宇宙技術センター(DLR)と共同で行われました。また、現在、米、欧、日、露の5地域が参加する大規模プロジェクト、国際宇宙ステーション計画が進められている⁸⁵⁰⁾。

特にアジア、太平洋地域の各国との国際協力の例としては、JAXAが、タイ、オーストラリア、インドネシア、中国、マレーシア、韓国の各国と、地球観測衛星データの直接受信や観測データを利用した共同研究を実施している。1976(昭和51)年からは、キリバス政府の支援を受け、キリバスのクリスマス島に、日本のダウンレンジ局を設置し、運用を続けている。2006年、韓国航空宇宙研究院(KARI)と「宇宙航空分野での協力のための取り決め」に関して、調印をおこなった。

1993年、日本が主体となってアジア太平洋宇宙機関会議 (APRSAF) を設立し、アジア・太平洋地域の26カ国が参加して、アジア太平洋地域での国際協力に関して定期的な会合をおこなっている。2006年には「アジア防災・危機管理システム」の構築に向けて「Sentinel-Asia (アジアの監視員)」を18カ国34機関と4国際機関の参加を得て発足させた。

文部科学省(MEXT)及び宇宙航空研究開発機構(JAXA)は、インド宇宙研究機関(ISRO)との共催により、2007年11月21日(水)～23日(金)の間、インドのバンガロールにおいて、「第14回アジア太平洋地域宇宙機関会議(APRSAF-14)」を開催した。

主にアジア太平洋地域の18カ国、また6国際機関から計約130名が出席し(日本からは原田政務官、インドからはネイヤISRO総裁が出席)、“Space for Human Empowerment”をテーマとして、全体会合、4つの分科会を実施し、各国の活動報告、意見交換のほか、具体的な協力実施に向けた議論が行われました。

全体会合の最終日には、(1)2008年～2012年までのセンチネルアジアプロジェクトの次期フェーズの立ち上げの宣言、(2)小型衛星に係る新たな研究開発協力の奨励等を含む12件の勧告が採択された。⁸⁵¹⁾

次回は、ベトナム科学技術院並びにベトナム科学技術省との共催にて、2008年11月～12月頃を目途にベトナム・ハノイにて開催される予定である。

大規模な国際協力のプロジェクトとして、ISS (国際宇宙ステーション) の組み立てが順調

850) http://yyy.tksa.nasda.go.jp/Home/Int_Coop/index_j.html

851) http://www.jaxa.jp/about/law/index_j.html

に進められているが、日本も「きぼう」日本実験棟で参加することになっている。そこでは、宇宙空間や無重力の環境を利用した実験や研究が予定されており、現在、それらを担当するISS搭乗宇宙飛行士たちの訓練がJAXAで行われている。

3.3. 中国

中国は宇宙開発のための政府機関として、第8回全国人民代表大会(NPC)の承認を得て、1993年、中国国立宇宙庁(中国国家航天局: CNSA)が設立された。中国はアジア・太平洋地域において宇宙協力に関し至大な関心をしめした⁸⁵²⁾。1992年、中国は、タイ、パキスタンとその他の国家等が共同主管で、「アジア・太平洋地域の多国家間宇宙技術協力シンポジウム」を開催した。1994年、中国は国連のアジア・太平洋経済社会委員会(ESCAP)と共に共同主管し、「アジア・太平洋地域に於いて持続的な開発のための宇宙応用に関する閣僚会議」を北京で開いた。またこの会議で十分な討議を基礎に「北京宣言」を発表した。

このような地域協力の結果、中国の代表者は韓国、イラン、モンゴル及びタイ政府の代表者と共に1998年4月、タイで「小型多目的人工衛星とこれに関連がある活動に従う協力に関する諒解覚書」に署名した⁸⁵³⁾。さらにアジア・太平洋地域にある前記署名国とその他の国等は、アジア・太平洋地域に於いての宇宙技術及び宇宙応用の発展を向上させるため、宇宙協力プロジェクトに参加することができる。1998年以来、中国は毎年、宇宙技術長期訓練のため開発途上国の訓練生等に奨学金を与えている。

1999年9月、中国政府は国連とヨーロッパ宇宙機関(ESA)からの協力を得て「宇宙応用と農業発展支援増進に関するシンポジウム」を開いた。

昨年7月から8月まで、中国政府の宇宙関連部署は、国連宇宙部(OOSA)とESCAPとの共同主管で宇宙技術及び応用に関するアジア・太平洋多国間協力のための短期訓練課程の教育を実施した。この短期訓練課程には、アジア・太平洋地域から10カ開発途上国の訓練生が参加した。

2001年9月18日から21日まで、中国国立宇宙庁(CNSA)が主催する「多国間宇宙技術及び応用協力に関する第6回アジア・太平洋地域会議(The 6th Asia-Pacific Conference

852) http://www.cnsa.gov.cn/administrator_message.htm

853) <http://www.cnsa.gov.cn/policy-space.htm>

on Multilateral Cooperation in Space Technology and Applications: APC-MCSTA)が北京で開かれた⁸⁵⁴⁾ この国際会議は、国立宇宙庁から認可を受けた中国宇宙飛行協会(Chinese Society of Astronautics: CSA)とイランが共同に組織をした。この国際会議の目的は、アジア・太平洋地域に於いて宇宙技術及び応用協力に関する自主的な能力開発を、促進させるとともに多国間の宇宙技術及び応用協力を制度化させるものである⁸⁵⁵⁾。

中国は、「宇宙物体登録管理弁法」を制定・公布し、2001年2月8日から施行している。この法律の立法目的は、宇宙活動に対する国の管理を強化し、わが国の宇宙物体登録制度を確立し、わが国の宇宙物体打上げ国としての合法的な権利及び利益を保護し、「宇宙空間に打ち上げられた物体の登録に関する条約」(以下「登録条約」という。)の締結国の義務を有効に履行するため、本弁法を制定した(同法第1条)。宇宙物体登録管理弁法は、16カ条文によって構成している。中国では、「民生用宇宙飛行打上げプロジェクト許可証管理暫定弁法」を制定・公布し、2002年12月21日から施行している。この法律の立法目的は、民生用宇宙飛行打上げプロジェクトの管理を規範し、民生用宇宙飛行産業の健全な発展を促進し、国家の安全及び公衆の利益を維持し、中国が宇宙条約の締結国としての義務を履行するため、本弁法を制定した(同法第1条)。民生用宇宙飛行打上げプロジェクト許可証管理暫定弁法は、5カ章(①総則、②申請及び審査認可手続、③監督及び管理、④法律責任、⑤附則)、28カ条文によって構成している。⁸⁵⁶⁾

3.4. インド

インドは国民の経済的利益のため、宇宙技術及び宇宙科学の発展と応用を増進させる国家宇宙計画を策定し、1972年6月、インド宇宙委員会(ISC)、宇宙省(DOS)及びインド宇宙研究機関(ISRO)により樹立された⁸⁵⁷⁾。この国家宇宙計画の全体の調整は、衛星通信、地球観測システム、打上げプログラム、宇宙科学、技術移転及び産業調査、国際協力、出版物発刊及び広報、予算と経済分析等のあらゆる分野において、インド宇宙研究機関のプログラム局によって遂行されている。

854) <http://www.cnsa.gov.cn/news/2001071200le.htm>

855) <http://www.donga.com/fbin/searchview?n=200101300569>

856) <http://stage.tksc.jaxa.jp/spacelaw/index.html>

857) <http://www.cmmaacs.emet.in/nal/icast/isro.htm>

宇宙委員会(ISC)は DOSが実施する政策の作成、宇宙プログラムの承認、DOS予算の準備及び宇宙政策の実行に責任を負う。宇宙省(DOS)は1972年に設置され、内閣レベルの地位を有している。DOSはISCの政策を実行し、ISRO及びその他の宇宙機関の活動を監督する。

宇宙省は、1992年、Bangaloreで宇宙生産品及びサービスを市場化(商業化)するために国営企業であるアントリックス公社(Antrix Corporation)を設立した。

インド宇宙研究機関(ISRO)は、1969年インドの中心的宇宙研究機関として設立されたし、そのISRO本部はBangaloreに位置している。ISROは、4つの主要センターと多数の小規模施設を有し、打上げロケット及び推進システム、打上げ射場、衛星、並びにそれらの追跡システムの開発、運営に責任を負う。インドの宇宙開発と研究及び宇宙活動は、ISRO、国立リモートセンシング機関(NRSA)、物理学研究所(PRL)、国立中間層 / 成層圏対流レーダ施設(NMRF)、その他の機関によって遂行している。宇宙科学諮問委員会は、宇宙科学分野の研究プログラムを策定、主導している。インドは、宇宙分野における国際協力の推進のため、国連と強い協力関係を有している。

1995年11月、インドに「アジア太平洋宇宙科学技術教育センター(The Centre for Space Science and Technology Education Asia and Pacific: CSSTE-AP)」が設立され国連と提携している。同センターは、リモートセンシング、地理情報システム、衛星通信、気象及び宇宙科学の分野において質の高い教育を提供している。1999年11月、インドは「アジア・太平洋地域に於いて持続的な発展をさせるため、宇宙応用に関する第2回UN-ESCAP閣僚会議」を主催し開かれました⁸⁵⁸⁾。

4. アジア宇宙開発機関(ASDA)設立のための段階的手続

アジア宇宙開発機関の設立に関し、次のような5つの段階の推進過程が必要だと思う。

第1段階では、アジア宇宙開発機関の設立に関し、アジア諸国のなかで、宇宙法に関心を持っている学者、法学教授、弁護士、宇宙科学技術者、高級公務員、各宇宙開発団体の幹部等の意見を集約するため、まず韓国、日本、中国及びインドが参加する

858) <http://www.isro.org/intematiomal.htm>

Workshop セミナール、又はシンポジウム等の開催とインターネット等の情報媒体を通じて意見を集約するのが必要である。

第2段階では、アジア諸国間の閣僚会議、又は外交会議を通じてアジア宇宙開発機関の設立に関する準備(組織)委員会、又は発起事務所の設立が必要である。

第3段階では、前記準備(組織)委員会で優秀な宇宙法専攻教授及び弁護士等が外交官及び宇宙科学技術専門家等の諮問を得て「仮称: アジア宇宙開発機関の設立に関する条約草案(Draft Convention for the Establishment of an Asian Space Development Agency)」を必ず立案・作成しなければならない。

第4段階では、アジア宇宙開発機関に加入を希望するすべてのアジア地域にある国家等が参加する閣僚会議、又は外交会議で前記条約草案を具体的に審議したあと、満場一致又は参加国の2/3の多数決によって前記条約草案を採択しなければならない。

第5段階では、アジア宇宙開発機関に加入を希望する、すべてのアジア地域にある国家等は、前記閣僚会議、又は外交会議で可決できた、前記「アジア宇宙開発機関の設立に関する条約(Convention for the Establishment of an Asian Space Development Agency)」を批准しなければならない、また批准をした国は批准書をアジア宇宙機関の本部の事務局に寄託する。

5. アジア宇宙開発機関(ASDA)の設立に関する 条約試案の主要骨子

アジア宇宙開発機関の設立に関する条約試案のなかに、必ず入れられなければならない主要な10カ項目(要点)を次のように提案する。また、既存「ヨーロッパ宇宙機関(ESA)の設立に関する条約」の全文を参酌し、同条約試案にも必ず全文を挿入するのが必要である⁸⁵⁹⁾。

859) In 1975, European Space Conference, meeting in Brussels, approved the text of the “Convention for the Establishment of a European Space Agency” setting up the European Space Agency. The member states are now fifteen countries: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. Canada is a cooperating State: United Nations, “Space Activities of the United Nations and International Organizations”, UN (New York, 1992), at 135; H.L. van Traa – Engelman, “Commercial Utilization of Outer

5.1. 加盟国と法人格

アジア宇宙開発機関の加盟国は、「アジア宇宙開発機関の設立に関する条約」に加入した国家が当事国になる。アジア宇宙開発機関は法人格を有する。

5.2. 設立目的

アジア宇宙開発機関の設立目的は、もっぱら平和目的のために、宇宙の調査、探検、宇宙技術及び宇宙での応用において、これらが科学的目的及び費用の宇宙応用システムに利用させるため、すべての締約国間の国際協力を確保し、また促進させることがその目的である。

5.3. 宇宙政策

アジア宇宙開発機関は、ASA加盟国とほかの国際機構及び研究所と関連があるアジア国家の宇宙プログラムとの調整、又は宇宙分野に関連がある政策の樹立、実際上の活動及びプログラム等を開発する。そしてアジア宇宙開発中長期計画を樹立し実施する。

5.4. 情報交換

アジア宇宙開発機関と加盟国は、宇宙政策、宇宙応用プログラム、宇宙科学及び技術分野に属する科学及び技術情報の相互交換を促進させる。

5.5. 教育と研究

アジア宇宙開発機関は、加盟国の宇宙に関係がある教育、調査、将来のプロジェクト等に関する研究と技術的研究作業の実施を確保する。

5.6. 国際協力

アジア宇宙開発機関は、全加盟国の2/3以上の投票により成立できた理事会の決定に従って、他の国際機構及び研究所と政府、非加盟国等の機関及び研究所との国際協力ができ、またこのような協力目的のため条約や約定を締結することが必要である。

5.7. 財政負担

アジア宇宙開発機関は、全加盟国等から財政支援を受ける。この機関の共同経費のため加盟国の分担金拠出比率は、統計で利用できる最近3年間の加盟国の平均国民所得に基づいて分担する。しかし、各加盟国は、活動計画及び拠出比率を定める3年毎の再検討の際に、この新しい拠出比率表を決定する場合には、理事会がすべての加盟国の2/3の多数決によって決定する。

5.8. 組織

アジア宇宙開発機関の組織は、理事会、職員によって補佐される事務局長並びに幹部である。

(1) 理事会

- (a) 理事会は、3年任期の理事国(加盟国)の代表によって構成され、重要な業務執行の決定機関になる。
- (b) 理事会は、必要に応じて、代表レベル又は閣僚レベルで会合する。理事会が別段の決定を行わない限り、会合は機関本部で行う。
- (c) 理事会は、3年任期の議長及び副議長を選出する。その任期は一度に限り2年間更新することができる。

(2) 事務局長

- (a) 理事会は、すべての加盟国の2/3の多数決によって、5年の任期で事務局長を任命する。理事会は、多数決によって事務局長を解任することができる。
- (b) 事務局長は、機関の最高の行政職員であり、すべての行為において機関を代表する。事務局長は、理事会から受ける支持に従って、機関の管理、計画の実施、方針の適用及び任務の遂行に必要な措置をとる。機関のすべての施設はその権限の下に置かれる。
- (c) 事務局長は、投票権を有することなく、機関の会合に参加する。

(3) 高位幹部及び職員

- (a) 理事会が定める高位幹部は、事務局長の推薦によって理事会が任命し、かつ解任

する 理事会が行う任命及び解任は、すべての加盟国の2/3の多数による議決を必要とする。

- (b) その他の職員の構成員は、理事会の代理者として行動する事務局長によって任命され又は解雇される。

5.9. 国際紛争の仲裁

- (1) 各加盟国間又はアジア宇宙開発機関と会員国間の紛争は、まず理事会が解決する。もし、このような紛争が理事会により解決できない紛争は、紛争のいずれか一方の当事者の要請によって仲裁裁判に付託される。
- (2) 仲裁裁判所は3人の仲裁人で構成する、各紛争当事者は、1人の仲裁人を任命する。最初の2人の仲裁人は、仲裁裁判所長となる第3者を3番目の仲裁人として任命する⁸⁶⁰。
- (3) 紛争当事者が別段の決定を行わない限り、仲裁裁判の手順は、理事会がすべての加盟国の2/3の多数によって採択する仲裁規則に基づいて行われる。

5.10. 本部

アジア宇宙開発機関の本部は、アジア諸国間に於いて地理的に中心部に位置しているもともと交通が便利な都市に設置する。⁸⁶¹

6. おわりに

アジア宇宙開発機関は、アジア地域の宇宙政策の立案と宇宙開発のための新しい道を開拓するのが任務である。さらに、アジア宇宙機関は、アジア諸国間において、直面しているさまざまな新しい問題を解決するのが必要である。幅広い思考を持って調整するのがもともと重要

860) E.R.C. Van Bogaert, "Aspects of Space Law" *Kluwer* (1986), at 271.

861) Doo Hwan Kim, *The Possibility of Establishing an Asian Space Agency*, Singapore Journal of International & Comparative Law (Special Feature, Vol.5, No.1, 2001)", Faculty of Law, National University of Singapore, pp.216-225.

であると考えられる。将来、地上に住んでいるアジア諸国住民の便益提供のため、効率的な宇宙開発と性能がもっともすぐれた多目的及び通信衛星等を開発したら、アジア諸国の未来の社会及び経済発展において明るい展望を提供することができると思う。

インターネット(遠隔データ通信)、通信衛星及び宇宙停車場等の開発と発展により、希望にあふれる千年(Millennium)中には、アジア、ヨーロッパ、北・南アメリカ、アフリカ及びオセアニア州にある国家等の国境の垣根(境界線)が、漸進的になくなるであろう。

ドイツの有名な詩人であるゲーテ(Johann Wolfgang von Goethe)の詩を次のように紹介する。

「学問と芸術は世界性があり、これらの学問と芸術の前では、国境の垣根(境界線)はなくなる(Wissenschaft und Kunst gehören der Welt an, und vor ihnen verschwinden die Schranken der Nationalität)」⁸⁶²⁾。

この詩の精神が宇宙法の精神と同じだと私は信じている。⁸⁶³⁾

アジア宇宙開発機関を設立する前の第一段階として、インターネットによる電子アジア宇宙法センターのみならず電子アジア宇宙開発機関の設立も可能であろう。

アジア航空宇宙産業分野の市場は、21世紀に於いて大変有望な市場になるので、アジア諸国と先進国であるアメリカ、EU加盟国、ロシア、カナダ等との間に、アジア宇宙産業分野市場の先占、または市場占有率を向上させるため、国際競争がもっと激しくなると予想される。現在、国際競争が熾烈になっているアジア航空宇宙市場を、アジア諸国が継続市場を確保しながら国際競争に勝つためには、アジア諸国間の協力と団結を一層強化し、共に働くことができるアジア宇宙開発機関の設立とアジア諸国間の親善紐帯関係の強化がもっと必要であろう。

おわりに、もっとも重要な点は、アジア宇宙開発機関の設立のための首脳会談開催とASDAの設立趣旨と展望を明した宣言文の採択が必要である。そしてアジア諸国の意志が一箇に結集できるアジア首脳等の政治的決断力と推進力が望ましいことだと思ふ⁸⁶⁴⁾。東洋

862) Dr. jur. Hans Wüstendörfer “*Neuzeitliches Seehandelsrecht*”, Verlag J.C.B. Mohr(Paul Siebeck), Tübingen(1950), S.17.

863) Doo Hwan Kim, *Some Considerations on the Possibility of Establishing an Asian Space Agency*”, German Journal of Air and Space Law (Vol.50, No.3, 2001), Köln University in Germany, at 397-407.

864) Gabriel Lafferranderie, “*Outlook on Space Law over the next 30 years*”, *Essays Published for the 30th Anniversary of the Outer Space Treaty*, Kluwer Law International (1997), at 427.

的な理念 倫理観及び創意力を基礎に、アジア諸国間の宇宙産業の発展と研究協力を増進させるためには、アジア宇宙機関の設立が不可欠であり、できるだけ早急に推進することがもっとも必要である。もし将来、アジア諸国間の首脳会談でアジア宇宙開発機関の設立を合意した場合、ASDAの設立も可能になるのであろう。

(本論稿は、2001年3月、世界国際宇宙法学会(International Institute of Space Law: IISL) 及びシンガポール国際法学会(Society of International Law, Singapore)が共同主催し、シンガポールで開いた2001年度の宇宙法大会に招待を頂き報告した小生の英語論文[テーマ: The Possibility of Establishing an Asian Space Agency)を新しく補完した論文である)

第六節 アジア太平洋諸国の宇宙保険 に関する法的諸問題

1. はじめに

世界的に有名な実存主義哲学者HeideggerやJaspersが述べた通りに 現代の世界は不安の世界であり、われらは不安の時代に住んでおる。現代先端科学技術の発達に依って自動車、船舶、航空機、人工衛星、宇宙船(Space Shuttle)等は全て数十万乃至数百万の附属品に依って組立て作っております。従って現代の航空宇宙産業は組立産業(Assembly Industry)であります。飛行機、人工衛星、宇宙船等がいつ、どこで、なぜ、どのように事故が起るのか世の中で事前、唯も知らないのである。このような不安と危険を予防する為には、危険責任を転嫁する保険が絶対必要である。「危険なくしては、保険もなし(Ohne Gefahr, Keine Versicherung)」と言う法格言の通り、危険が保険産業の基礎になっている。宇宙産業は保険がなくては、絶対発展することができないのである。

韓国を含めて世界各国は、人工衛星を、今まで6千個以上打ち上げましたけれども、人工衛星の耐用年数が経過し機能が喪失してきた衛星(宇宙迷児等)、人工衛星打上げロケットの爆発、第2段、第3段ロケットからの分離に失敗、第1段点火後エンジンの推力不足と姿勢制御の異状で破壊、第2段エンジンの不具合(故障)、通信の途絶に依る静止軌道(Geostationary Orbit)への投入失敗、目標軌道からの離脱等の起因で発生した宇宙破片(Space Debris)等は毎年増加しておる。現在数万個に達する宇宙破片等は、宇宙空間の軌道及び他のCourseを、そのまま回っておるけれども、アメリカ、ロシア、イギリス、フランス、ドイツ、日本等の先進国は、この様な機能が喪失した人工衛星と宇宙破片を、回収する宇宙科学技術がまだ発達していないので、この宇宙破片がそのまま地球の地上に落下し事故(人的又は物的損害)が頻繁に起っておる。この宇宙破片の落下は、地球に住んでいる人間の活動と財産、宇宙環境の保護に於いて相当な脅威と危険に直面しておる。人間の生命と財産、地球環境の保護のため先進国は、国際的協力を通じて宇宙破片の除去・減少問題を解決しなければならないと思う。最近、発生した、①主なロケットによる衛星打上げ失敗事例、②主な衛星の不具合に起因した事故事例、③静止軌道への進入失敗事例等を次のような図表で説明する。

① の主なロケットに依る衛星の打上げ失敗例

No	打ち上げ日	衛星	ロケット	射場	不具合内容
1	1994.1.25	EUTELSAT2-F5	アリアン4	クールー	第3段エンジンの液酸ターボポンプのベア
		(欧州通信衛星)TURKSAT-1(トルコ通信衛星)	(V-63)(佛)		リングの異常で燃焼圧 酸素ポンプ出口圧回転速度が急激に低下し第3段エンジンが中斷
2	1994.5.22	OSMOS-2281(ロシア・エリント衛星)	サイクロン(ロシア)	プレセック	第3段エンジンの不具合
3	1994.6.27	STEP-1(米軍事衛星)	ペガサス(米國)	空中發射	第1段點火後、エンジンの推力不足と姿勢制御の異常で破壊
4	1994.8.26	COSMOS-2290(地球観測衛星)	ゼニット(ロシア)	チョラタム	第2段の不具合
5	1994.12.1	PANAMSAT-3(米國通信衛星)	アリアン4(V-70)(佛)	クールー	第3段エンジンのターボポンプを駆動するガスジェネレータへの液體酸素の供給不足で燃焼圧が低下し第3段エンジンの推力が不足
6	1995.1.15	EXPRESS(日獨回収型宇宙實驗衛星)	M-3S II(日本)	鹿兒島縣内之浦	第2段燃焼中、異常振動により姿勢制御用噴射液を全部消費し制御不能
7	1995.1.26	APSTAR-2(香港通信衛星)	長征2E(中國)	西昌	打ち上げ1分後に爆發(原因:衛星の不具合)
8	1995.6.22	STEP-3(米軍事衛星)	ペガサスXL(米國)	空中發射	第二段エンジンから、インターステージが正常に分離せず自爆指令で破壊
9	1995.8.5	KOREASAT-1(韓國通信衛星)	テルタII(米國)	ケープカナベラル	9つのロケットブースターのうち1つが分離せず、衛星を目標軌道に投入できず
10	1995.8.15	GEMstar-1(米國通信衛星)	LLV-1(米國)	ハンナデンバグ	打ち上げ79秒後から大きな振動が発生、自爆指令で破壊

(注記: 上記不具合のデータは1989年から 1995年2月6日までの期間を、対象としたものである。)

出典: SPACE REVIEW, AIR CLAIMS、21.DECEMBER,1994、SPACE LOG, TRW,1957-1993、JANE'S SPACE DIRECTORY、1994-1995

② な衛星不具合に起因した事故例 865)

No	不具合発生日	衛星		不具合内容	備考
1	1994.1.20(打上げ1991.9.26)	ANIK - E1.ANIK - E2(静止通信衛星)	カナダ	磁気かぜの影響を受けて姿勢制御システムの電子回路が故障	その後復舊しミッションを継続
2	1994.5.7(打上げ1994.1.25)	CLEMENTINE - 1(月探査衛星)	(米國)	姿勢制御用燃料を消費し 姿勢制御不能(ソフトウェア不良)	ミッションを中止
3	1994.8.30(打上げ1994.8.28)	ETS - 6(技術試験衛星)	日本	アポジエンジンの不具合により静止軌道投入に失敗	長楕圓軌道でミッションを継続
4	1994.9.8(打上げ1994.9.8)	TELSTAR - 402(通信衛星)	(米國)	衛星の推進系の故障により通信途絶	ミッションを中止
5	1994.9.18(打上げ1998.9.24)	NOAA - 11(氣象衛星)	(米國)	AVHRR(超高分解能ラジオメーター)の故障(エアロソルのデータが取得出来ず)	制約条件の中でミッションを継続
6	1995.1.7(打上げ1994.11.30)	DFH - 3東方紅 - 3號(通信放送衛星)	(中國)	姿勢制御スラスタの燃料漏れにより全燃料を消費し、所定の静止位置での継続的使用が不可能	ミッションを中止

出典: 昭和58(1983年度)「世界の人工衛星・ロケットの不具合調査」、1984. 3.

③ 静止軌道への投入失敗例

發生年	衛星名	軌道上重量	不具合事象	不具合理由	ミッション・軌道状況
94年	ETS - N(日本の技術試験衛星)	2000kg	液體アポジエンジンの推力が十分でなく、2回目の着火後停止できなくなり燃料枯渇	液體アポジエンジンの燃料供給辦のパネがはみみ、動作できなくなった	楕圓軌道でミッションの一部を實施
94年	TELSTAR402(米國の商業通信衛星)	1880kg	衛星分離後數分後に異常回轉が発生し通信途絶となった	スラスタ燃料がリークし、衛星の異常な回轉が生じたため電力障害が発生し通信途絶となった	ミッション失敗
94年	DFH - 3(中國の商業通信衛星)	1000kg	ドリフト軌道投入後、姿勢制御用の燃料を使いきり所定の静止位置での運用が不可能となった。	液體アポジ噴射後、姿勢制御スラスタの燃料漏れ。	ミッション失敗

SATELLITE SITUATION REPORT, NASA, 1994. 3 ; ESA ANNUAL REPORT, 1989.

865) (注記: 上記不具合のデータは1994年1月1日から、1995年2月6日までの期間を、対象としたものである。)出典: SPACE REVIEW, AIR CLAIMS, 21 DECEMBER, 1994, SPACE LOG TRW, 1957 - 1993, JANE'S SPACE DIRECTORY, 1994 - 1995.

世界の人工衛星の保険市場は急速度に成長・発展している。1995年12月4日現在、145個の人工衛星が静止軌道を回っているけれども、加一層増加するであろう。将来、数年内に急速に増加する衛星市場需要に対応する為、新しい人工衛星製作費が130億ドルが投資すると予想する。⁸⁶⁶⁾

21世紀初頭、50個以上の新しい大型静止軌道衛星が打上げられ、各国の民間企業体は世界的に約1,000個以上の静止軌道衛星を運営することが予測される。

近い将来、約350余個の通信衛星が打ち上げることを、各国が計画を樹立しておく。この中には広域通信の為、約840個の衛星を軌道うえに打上げる野心的な、Teledesic計画⁸⁶⁷⁾は考慮していません。

アジア地域をcoverする通信衛星産業は、もともと競争がはげしくなると思う。その例として、AsiaSat-2号、JC Sat-3号及びPalapa-CI号、Thaicom第1号、第2号衛星等がある。Thaicom第1号、第2号衛星の運営者はShimatra企業体であるけれども、第3の衛星も運営している。東アジア地域に於いて、衛星サービス市場も急激に成長している。

機能が喪失した衛星が他の衛星と衝突し発生した宇宙破片の落下は、地球上に住んでいる人間の活動と財産、宇宙環境の保護に於いて多大な脅威と危険に直面している。

人間の生命と財産、地球環境保護のため先進国は、宇宙破片の除去・減少問題を解決するため国際的協力をしなければならない。

宇宙空間の軌道上の物件と軌道から落下した宇宙破片等を次のような「宇宙飛行物体及び宇宙破片リスト」の図表で説明する。

866) Abdul Halim B. Abdul Hamid, *Satellite Insurance an Operator's Perspective*, a reported article in "the Telecommunications & Satellite Projects Insurance Conference '95" in Singapore on December 4-5, 1995, at 2.

867) http://findarticles.com/p/articles/mi_m4070/is_n104/ai_17184166

び宇宙破片リスト

國名	軌道上の物體			軌道から落霞した物體		
	ベイロード	破片等	計	ベイロード	破片等	界
アルゼンチン	1	0	1	0	0	0
オーストラリア	7	2	9	1	1	2
ブラジル	6	0	6	0	0	0
カナダ	16	0	16	1	0	1
チェコ	1	0	1	1	0	1
歐洲宇宙機關(ESA)	27	158	185	4	456	460
歐洲宇宙研究機關(ESRO)	0	0	0	7	3	10
フランス	23	19	42	7	59	66
ドイツ	14	3	17	6	5	11
フランス/ドイツ	2	0	2	0	0	0
インド	11	4	15	6	8	14
インドネシア	6	0	6	1	1	2
インマルサット	3	0	3	0	0	0
インテルサット	48	0	48	1	0	1
イスラエル	1	1	2	2	2	4
イタリア	4	0	4	5	0	5
日本	55	53	108	10	78	88
大韓民國	2	0	2	0	0	0
ルクセンブルグ	4	2	6	0	0	0
メキシコ	4	0	4	0	0	0
北大西洋條約機構(NATO)	8	2	10	0	0	0
オランダ	0	0	0	1	3	4
パキスタン	0	0	0	1	0	1
ポルトガル	1	0	1	0	0	0
中國	15	92	107	24	81	105
サウジアラビア	3	0	3	0	0	0
スペイン	3	0	3	0	0	0
スウェーデン	4	0	4	0	0	0
タイ	2	0	2	0	0	0
トルフ	1	0	1	0	0	0
イギリス	18	1	19	8	4	12
米國	656	2815	3471	663	2895	3558
奮ソ連/CIS	1323	2499	3822	1635	9709	11344
計	2269	5643	7920	2384	13305	15689
合計	23609					

※ ベイロード：人工衛星として登録された物體出典：Satellite Situation Report(Internetにより NASA・ゴダト宇宙飛行センタから取得)

1996年 アジア太平洋地域では少なくとも12個の衛星が打上げられましたし、2000年まで東経57度から128度までアジア太平洋地域に於いて、約79個の商業用衛星が停止軌道上に打上げられました。⁸⁶⁸⁾

現在世界の保険市場動向は、1994年1月以後、ArianV第63号、V第70号衛星の打上げ失敗とTelstar第402号衛星がロケット発射体から分離した後、全損(total loss)事故に起因する保険事故金額が9億ドルを超過したので、衛星保険を担当している海外大型再保険会社の支払準備金が不足状態になったことがある。

また、1995年1月、長征ロケット(中国)に依るApstar第2号の打上げ失敗事故に対して、1億6千万ドルの保険金が支払されたので、これらの失敗等は、今後打上げ予定になっているすべての衛星に影響をあたえたので、世界各国の衛星保険を担当している海外再保険社は、高い再保険料率(re-insurance rate)を要求しておる。1995年度に外国再保険会社が引き受け可能な保険金額は、US\$525,000,000規模であったので、韓国の無窮花号衛星を引き受けたいと考えていた13の海外主要再保険会社等が全体引き受け限度の85%を占めておりました。

ArianeV71号の打上げ(95年)以前までに有効であった再保険料率は低かったので、韓国通信公社の再保険料率は、この低い再保険料率15%に決定したことがある。⁸⁶⁹⁾ アジア太平洋諸国の宇宙保険に関して、まずアジアでは国土が一番大きいし、人口が最大な中国から説明する。

2. 中国の宇宙保険 ⁸⁷⁰⁾

2.1. 中国の保険市場

中国本土には全部26カ of 保険公司(会社)がある。この保険会社の中で19カ of 保険公司は生命保険公司であり、損害保険業者として中国政府から許可を受けた7カ of 保険公司の中で宇宙分野に参入している公司は三つがある。

⁸⁶⁸⁾ Abdul Halim B. Abdul Hamid, *supra*, at 3.

⁸⁶⁹⁾ 韓国通信公社 衛星事業本部「無窮花號衛星 保険加入 推進現況」、(報道資料 1996年 6月 1日)、2頁。

⁸⁷⁰⁾ 財團法人日本宇宙フォーラム、「宇宙開発データブック」～中國の宇宙開發～、(監修日本宇宙開發事業國、1995年8月)、383-391頁。

この三つの会社の名前は ①中国人民保険公司(People's Insurance Company of China: PICC), ②中国太平洋保険公司(China Pacific Insurance Company Limited: CPIC) ③中国平安保険有限公司(China Pin An Insurance Company Limited: PAIC)である。⁸⁷¹⁾

2.2. 中国人民保険公司(PICC)の宇宙保険

中国人民保険公司は中国において国営保険公司である。1940年以後、この保険公司は約40余年間、中国の宇宙保険市場をほとんど独占しておりました。中国人民保険公司(PICC)が宇宙保険を引受た主要保険件数は次の様である。

- 長征ロケット(Long March Rocket: 商業的打上げ)に依る外国衛星の打上げと、打上げ装備に関する保険
- 中国科学衛星第1号、第12号に関する単独保険引受
- AsiaSat第1号(香港)の主保険引受
- DFH3飛行第1号衛星の単独保険引受
- 中国科学衛星第15号と第16号に関する共同保険引受

2.3. 中国平安保険有限公司(PAIC)の宇宙保険

- 中国科学衛星飛行第13号の単独保険引受
- 中国科学衛星飛行第15号と第16号の共同保険引受

2.4. 中国太平洋保険有限公司(CIPIC)の宇宙保険

- 中国科学衛星第14号の主保険引受
- 中国科学衛星第15号及び第16号共同保険引受

871) Li Ming, *Opportunities and Challenges—The Space Insurance in China Mainland*, a reported article in “the Telecommunications & Satellite Projects Insurance Conference '95” in Singapore on December 4–5, 1996, at 1.

- APSTAR－第 I 号 APSTAR－第 II 号、APSTARIA 衛星の打上げ及び第三者責任保険
 - APSTAR－第 I 号の軌道寿命保険
- 以上の衛星保険は、中国の三つの保険会社が引受た宇宙保険の内容である。

2.5. APSTAR－第 II 号衛星に関する中国 CPIC 保険金請求事件

(1) APT 衛星有限公司

APT 衛星有限公司は1992年4月香港で成立・登録した会社であり、① Yuan Wang(Group)公司、② 中国衛星通信放送公司、③ Evez-Victory System 有限公司、④ Chai Tai 国際通信公司等、四つの大株主公司に依って設立できた通信衛星開発公司である。そのあと次の三つの会社もこの会社の株主になりました。APT 衛星有限公司が株主になった三つの会社は、① 中国旅行 Fok Tai(Macau) 有限公司、② Singa Sat Pte 有限公司、③ Kwang Hua 開発投資公司である。APT の投資は4個の人工衛星の購買と APSTAR 衛星システムを構成する打上げ用役を含めており、APT 衛星管制センターは香港の新市街地内にある Tai Po Industrial 地域に位置している。

APT 公司はアジア太平洋地域において共同投資者と共に衛星通信の技術と衛星通信市場に適合する設備開発を目的として設立された。APT 公司には、60名以上の従業員と宇宙及び打ち上げ台、衛星システム、通信技術、地上設計システム等の通信産業に関して専門経験を持つ優秀な40名以上の専門技術者が働いている。⁸⁷²⁾

(2) APSTAR－第 II 号衛星プログラム

APSTAR 第2号衛星は、Ku-バンドとC-バンド通信サービスを提供する目的で設計した静止軌道用衛星である。この衛星はヨーロッパ、中東の一部とオーストラリアの大部分の地域を cover するし、搭載機器は26-C-バンド Channels と8Ku-バンド Channels を設置したし、設計上の寿命は15年(推進寿命13.8年)である。またこの衛星は、長征2E 打上げロケット

872) Li Ming, Case Study: *The Apstar 2 Insurance Program*, a reported article in “The Telecommunications & Satellite Projects Insurance Conference ’95” in Singapore on December 4-5, 1996, at 1.

によって上げた

2.6. 保険契約の条件

保険依頼会社であるAPT会社は宇宙保険に関して、外国保険会社と折衷した結果、主保険契約会社は中国太平洋保険公司(CPIC)であるし、保険相談会社はWillis Corroon 会社、再保険ブローカー会社はアメリカの Johnson & Higgins 保険会社に決定したし、次のような条件で保険契約を締結した。

- (a) 保険金額: 160,000,000ドル(衛星売買価格、打上げ用役価額、保険料等包含)
- (b) 危険期間: 打上げ台の点火時から1年間(保険証券上の期間は2年)
- (c) 保険範囲: 全損及び分損

2.7. 保険契約締結の経緯

APSTAR－第1号衛星の保険プログラムの交渉が成功した後、1994年3月24日、APSTAR－第Ⅱ号衛星に関する主保険業者として、中国太平洋保険公司(CPIC)を指定し、APT会社とCPIC保険公司間の保険契約書に署名した。1994年6月1日、APT会社は、アメリカのJohnson & Higgins 保険会社を再保険ブローカーに選定したので、ブローカー確認書を発行した。またAPT会社は、Willis Corroon 会社を保険相談社に決定しました。

APSTAR第2号衛星に関する保険契約締結の手続は、次のようである。⁸⁷³⁾

- (a) 1994年3月24日: 主保険者に中国太平洋保険公司(CPIC)を指定した。
- (b) 1994年6月1日: Johnson & Higgins 保険会社にブローカー確認書を発行した。
- (c) 1994年6月: 告知義務不履行に関する関係文書を全部署名
- (d) 1994年9月: ロンドンの再保険会社に技術的事項通報
- (e) 1994年11月: APSTAR－第Ⅱ号衛星プログラム保険契約締結完了
- (f) 1995年12月: APT会社に依る保険料支払
- (g) 1995年1月10日: 中国太平洋保険公司に依る保険証券発行
- (h) 1995年1月26日: APSTAR－第Ⅱ号衛星打上げた。

873) Li Ming, *op.cit.* p.3.

全体23再保険業者はAPSTAR－第Ⅱ号衛星の再保険を引受ました
主幹事再保険会社は英国ロンドン、ロイド側からのAriel SyndicateとドイツのMunich
再保険会社でした。

2.8. 保険金請求額の解決

1995年1月26日午前6時40分(北京時間)、西昌衛星センターで長征2E打上げロケットに
依って、APSTAR－第Ⅱ号衛星が打上げられた。点火後、打上げロケットは正常飛行軌
道に向って打上げが始まりました。このロケットが正常飛行途中、突然爆発が起ったので、ロ
ケットと衛星の打上げに莫大な損害を興えたのであります。

1995年1月27日、中国太平洋保険有限公司は、APT公司からこの損害通報を受けまし
た。1995年1月30日APT公司はこの損害証明書類を中国太平洋保険有限公司(CPIC)側
に送りました。

APT公司は、アメリカの保険ブローカーであるJohn Son & Higgins保険会社を通じて、
主幹事再保険会社に損害証明書等の書類全部を送付した。これらの文書等を全部具体的
に検討した後、1995年2月8日CPIC公司とふたつの主幹事再保険会社は、この損害証明
書を認定した。1995年3月8日APT公司は、保険金請求額160,000,000ドルを受け取りま
した。

2.9. APSTAR－第Ⅱ号衛星の事故原因調査

APSTAR－第Ⅱ号衛星の爆震後、すぐアメリカのHughes航空機製作会社及び人工衛
星製作会社と中国長省工業公司(China Great Wall Industry Corporation: CGWIC;
中国宇宙公司 China Aerospace Corporation: CASCの下部機関)は事故原因を調査
するため、調査委員会を設置したし、事故原因に関しCGWIC公司とHughes航空機製作
会社及び人工衛星製作会社は公式的に合同記者会見を開いて発表した。

APT公司とCPIC公司間に締結した保険契約を根拠とし発行した保険証券の宇宙保険約
款と再保険約定にしたがって、APSTAR－第Ⅱ号衛星の宇宙飛行任務が失敗したので保
険会社は、保険契約上の義務覆行をしなければならぬと確定した。この会議でCWGIC公

司とHughes航空機製作会社及び人工衛星製作会社は APT会社とCPIC会社を通じて最終報告書を提出し、保険者と関聯再保険者に事故原因調査結果と修正意見書を提出したのである。以上の説明の通りにAPSTAR-第Ⅱ号衛星の保険金請求額の支払が解決できたのである。⁸⁷⁴⁾

3. インドネシアの宇宙保険

3.1. インドネシアの宇宙保険の概要

インドネシアには、PT Asuransi Gasa Indonesia保険会社がある。この会社は国営企業体(BUMN)で出発し、この企業体の法的地位は1969年、法律第9号に依って設立した国営会社である。この法律による前記保険会社は、1973年6月2日 Mohaminad Aliの公証(Notary)に依って設立したのである。

PT Asuransi Jasa Indonesia 保険会社は、ふたつの国皆保険会社である ① PT Umum 国際保険会社と ② PT Asuransi Bendasryaが合併し設立した会社である。この合併は、1972年12月9日インドネシア大学大臣の決定(N0.764 / MK / TV / 12 / 1972)に依って合併したのである。⁸⁷⁵⁾

- 最初のインドネシア衛星は、1976年7月9日に打上げをした。
- 衛星通信システムは、インドネシアの全地域をcoverしておる。
- 衛星通信システムは、他の国と比べて安い値段で設置したのである。
- 最近インドネシアは、三つの通信衛星PALAPA B2P号、PARAPA B2R号とPALAPA B4号を運営している。
- PARAPA B2P号衛星は、1996年に停止軌道に投入し、PARAPACI 号衛星と代替した

874) Li Ming, *op. cit* p.4.

875) Edehy Sjawaluddin, The Satellite Communications System and Satellite Insurance in Indonesia, a reported article in "the Telecommunications & Satellite Projects Insurance Conference '95" in Singapore on December 4-5, 1996, at 3.

- PT. Asuransi Jasa Indonesia 保険公社は 1976年以後衛星打上げ保険を取扱った経験を持っている。
- PT.Asuransi Jasa Indonesia保険公社は、既にPALAPA B 停止軌道保険証券のみならず、PALAPA C1 打上げ保険証券を発行した経験を持っている。

3.2. PALAPA衛星保険プログラムの経験

PT Asuransi Jasa保険会社は、1976年以後、PALAPA衛星打上げ保険と軌道寿命保険を取扱った経験を持っており、PT suransi Jasa保険社は合理的に保険経理及び保険技術等を改善した。東南アジアの保険会社等が良く知っているようにPALAPA衛星等は、インドネシアの通信網を相当に改善したのである。

PALAPA衛星の所有権は、① PT. Telekornunikasi Indonesia会社、② Satelit Palapa Indonesia(Satelindo)会社、③ PT. Pasifik Satelit Nusantara(PSN)会社等3社が持つており、PT. Asuransi Jasa Indonesia会社は、インドネシアの全体保険市場で、10%以上の再保険を保有する能力を持っている。

現在インドネシアには、国内で保険業を営む90社の保険会社があるし、この保険会社の中には国営や合作損害保険公社もある。1992年PALAPAB4号衛星打上げ保険に、参加した全体保険公社の保有額(保険金)は、国内営全体保有額が 21,189,740ドルで国営保険公社の保有額は、各社ごとに50,000ドルから2,500,000ドルに附保してある。

1994年度と1995年国内総保険引受可能額は、20,000,000ドルであり、PALAPAC衛星打上げの全体保険金額は200,000,000ドルであるが、国営全体保有可能額は全体保険金額の10%である20,000,000ドルである。⁸⁷⁶⁾

3.3. PALAPA C2号打上げ保険 ⁸⁷⁷⁾

- 被保険者名
P.T.Satelit Palapa Indonesia(SATELINDO)
P.T.Pasifik Satelit Nusantara(PSN)

⁸⁷⁶⁾ Endhy Sjawaluddin, *supra*, p.p.7-8.

⁸⁷⁷⁾ Endhy Sjawaluddin, *supra*, p.9

- 保険期間
1995年12時1分から1998年12時まで(被保険者住所の国内標準時間)に なる。
- 被保険者の保険範囲
ALAPAC2号衛星の打上げと、静止軌道投入に関連がある一切の進入過程を附保した。
- 受取人の損害
保険約款(証券)に依って決定できた損害額は、被保険者に支払する。
- 危険の追加
保険約款に依る損害危険には、保険期間中の打上げの試みも、含めている。
- 打上げスケジュール
星名: PALAPAC2号打上げ日: 1996年4月打上げロケット:Ariane 第4号 Co
-payload: AMOS or MEASAT

3.4. PALAPA C2号打上げ保険 878)

- 被保険者: ① PT. Telekomunikasi Indonesia(PT. TELKOM)
② The Directorate General Posts and Telecommunications
③ The Ministry of Tourism, Posts and Telecommunications
④ The Republic of Indonesia
- 保険期間: 1993年11月8日12時1分から、1995年11月8日12時10分までになっている。
- 保険範囲: PALAPA B2P号、B2R号 及び B4号通信衛星が打上げ時点から、静止軌道投入及び回転までcoverしている。
- 全損: 人工衛星は次のような場合には全損だと見做す。
 - ① 人工衛星の完全亡失、破壊又は失敗した時。
 - ② 人工衛星が持っている12 transponderの失敗した時。
 - ③ 事故発生日から計算して人工衛星の残存寿命年数が50%未満に減少した時。

4. マレーシアの宇宙保険

4.1. 概況

1989年から1996年まで8年間連続 毎年国内総生産(GDP)は、8%の経済成長率を達成したので急速な経済発展を達成してある。東・西マレーシアと西・東マレーシア間の効率的な通信料金体系を、劃策するため通信に関する社会間接資本投資が潤沢になりました。このような通信に関する社会間接資本投資に、約RM80億を使ったことがある。⁸⁷⁹⁾

Binariang's MEASAT衛星は、マレーシアにおいて各種産業に対する通信及び情報交換に、大きな役割を果たした。Binariang衛星は、能率的であり技術的に向上してきたサービス(通信)を、国民にあたえることができました。特にこの衛星は、通信サービス及び費用面での効率性を向上し、都市から奥地まで全国土に通信サービスを、提供することが可能になっている。

4.2. Binariang衛星

マレーシアの第1号通信衛星、第2号通信衛星の所有者及び運営者は、電話会社及び衛星事業団である。Binariang衛星は、data、video通信等を有線又は無線網を通じて視聴者等にmultimediaサービスを提供することができました。Binariang衛星は情報交換技術、通信及び娯楽等の新しい産業の創出(emerging)をリードしてある。

4.3. MEASAT衛星 ⁸⁸⁰⁾

マレーシア衛星システムであるMEASATシステムは、二つの高出力HS376Spacecraftを、アメリカ、カリフォルニアにあるHughes航空機製作会社が製作した。このMEASAT 第1号衛星は1995年12月下旬頃Arianspaceのロケットに依って打上げられ、続々いてMEASAT第II号衛星は、1996年10月に打上げた。このMEASAT第I号、第II号衛

879) Abdul Halim B. Abdul Hamid, *supra*, p.3.

880) Abdul Halim B. Abdul Hamid, *supra*, p.4.

星は 高出力(high-powered)のCバンドとKバンドのdigital capacityを持っており、マレーシアのみならず東アジア地域をcoverしている。

4.4. 危険管理

衛星事業は危険性が非常に大きい事業である。アジア太平洋地域において衛星事業の危険管理は本当に重要である。衛星事故に起因した損害原因を調査・分析した場合、事故原因の大部分が打上げる時の事故であり、これは75%にのぼっている。一方、衛星自体の原因で事故が起る確率は約20%くらいである。マレーシアも宇宙保険に関し、非常に興味を持って研究している。マレーシアMEASAT衛星第1号と第2号の保険契約の内容は、地上設備に対する保険及び打上げ保険を附保しているし、特にMEASAT衛星第1号だけは、打上げ前の保険と軌道投入保険も附保している。

5. ベトナムの宇宙保険

- (1) ベトナムにおいて全国をcoverする保険会社は、ベトナム保険公社(The Vietnam Insurance Company; 以下BOAVIETと略称する)である。このBOAVIET保険公社は、ベトナムに於いて顧客(customer)に対する損失予防サービスを提供し、危険を管理する他の保険会社に比べると、顧客に於いて最も有利な保険会社である。ベトナム保険公社は、特に通信と衛星projectに投資する外国の通信と、衛星関係会社のため最も良い保険Programmeを提供する目的で保険市場の情報と技術、経験を学ぶ為、外国の保険会社との協力及び提携を望んでおる。ベトナムは、2,000年まで外国の投資が2/3必要である通信分野に関する社会間接資本の拡充及び開発のため、25億ドルを使う計画を持っている。⁸⁸¹⁾
- (2) このベトナム保険公社は、ベトナム戦争中の1965年に設立された。前記保険公社の保

881) Ha Vu Hien, The Opportunity for Insurance of Telecommunications and Satellite Projects in Vietnam, an reported article in “the Telecommunications & Satellite Projects Insurance Conference ’95” in Singapore on December 4-5, 1995, at 3.

険料収入の大部分は 海上貨物保険と航海中ベトナムに対する身体及び責任保険に関する保険からなっている。しかし前記保険公社は、他の保険公社とほとんど競争がない、保険商品が売ることが容易ではではありません。また前記保険公社は、ベトナム政府がある程度、保険市場開放化政策を採択しており、その結果、過去5年間直接保険料の年平均成長率は60%以上となり、1997年には全体として80%の成長率を示している。⁸⁸²⁾

- (3) ベトナムの通信及び人工衛星、社会間接資本の施設投資及び開発は、1986年から始まりました。その当時国内の保険市場は、保険を引き受ける与件が充分でなかったためである。だから1989年までは通信プロジェクトに関する保険証券を、発行するのができなかったためである。1989年から始めて通信projectsに関する保険証券を発行した。この保険証券はベトナム保険公社が作成した、「建設危険保険証券」が始めて発行したのである。

航空宇宙保険分野の附保(coverage)は、国営ベトナム郵便及び通信公社(Vietnam Post & Telecommunications Company: VNPT)と、Telstraとのあいだで共同合作により衛星地球局を建設した。ベトナム保険公社は、アメリカ、フランス、イギリス、ドイツ、日本及び韓国等の海外保険及び再保険公社と提携し、たくさんの海外保険関係を持ちました。最近では、衛星保険を引き受ける態勢がことになっている。

6. ホンコンの宇宙保険

- (1) ホンコン(香港)では最初の通信衛星である、AsiaSat第1号衛星がアジア地域をcoverする民間商業用衛星であったので、1990年4月7日に打上げ、1990年6月から商業的サービスが始まりました。⁸⁸³⁾その次にアジア、オーストラリア、中東地域をcoverする商業通信衛星である、AsiaSat第2号衛星が1995年11月28日、中国の長征2Eロケットによって打上げられて、1996年6月から商業サービスを開始した。⁸⁸⁴⁾AsiaSat第2号衛

882) Ha Vu Hien, *supra*, at 5.

883) Asia Satellite Telecommunications Company Limited (AsiaSat) was formed in 1988 as Asia's first privately owned regional satellite operator. Since the launch of its first satellite, AsiaSat 1, on 7th April 1990, the company has been dedicated to providing high quality satellite services in the Asia Pacific region.

884) AsiaSat 2 was launched by a Long March 2E rocket in November 1995 and commenced

星 第3号衛星及び第4号衛星は、三軌道を利用し、シベリアからオーストラリアまで、また日本から中東まで、世界人口の3分2が住んでいる50カ国以上をcoverしておる。⁸⁸⁵⁾

アジア衛星通信会社は、1999年3月、Proton D-1-EロケットによってAsiaSat 第3号衛星を打上げ、1999年5月から商業的サービスが始まりました。⁸⁸⁶⁾ 1999年にAsiaSat 第1号衛星の寿命が終るので、この衛星を代置させるため、アジア地域で高品質及び高出力transponderの需要の増加に適合うAsiaSat第3号衛星を1999年度に打上げたのである。⁸⁸⁷⁾ 2003年4月、Atlas IIIBロケットによってAsiaSat 第4号衛星を打上げたし、2003年7月から商業的運営を開始した。⁸⁸⁸⁾

- (2) AsiaSat第1号衛星と第2号衛星は、軌道保険(in-orbit insurance)に附保しているし、AsiaSat第3号衛星は打上げ保険に附保している。アジア衛星通信会社は、AsiaSat 第1号衛星と第2号衛星に対して、第三者責任保険にも附保(cover)しました。AsiaSat 第3号衛星の打上げと最初の軌道投入の保険金額は1億8千万ドル(HK\$1,392.2 million)であるし、第4号衛星の打上げと軌道投入の保険金額は2億2千万ドル(HK\$1,701.59 million)であった。

これらのAsiaSat第3号及び第4号衛星の附保範囲は、①衛星打上げの失敗(全損)、② 適切な軌道進入への失敗と軌道内で特定事項の任務遂行による失敗等を附保している。AsiaSat衛星の打上げ保険証券に書かれている約款の規定に依ると附保範囲は、衛星が打上げた後、365日までに起った事故に関する損害賠償請求権もcoverしている。

AsiaSat第3号衛星に対する打上げと軌道進入保険の費用(cost)は、3千4百5拾万ドルである。アジア衛星通信会社は、AsiaSat第1号衛星に対して衛星の軌道投入保険を1億ドル(HK\$ 773.5 million)に附保したので、最近3年間毎年平均保険料は170

commercial operation in January 1996.

885) AsiaSat currently operates three in-orbit satellites, AsiaSat 2, AsiaSat 3S and AsiaSat 4 that provide access to more than 50 countries and regions across the Asia Pacific, and over two-thirds of the world's population.

886) AsiaSat 3S was launched by a Proton D-1-e rocket in March 1999 and started commercial service in May 1999 when it replaced AsiaSat 1 at the orbital location of 105.5 degrees East.

887) Asia Satellite Telecommunications Holdings Limited, *AsiaSat*, (June, 1996, Hong Kong), p.47.

888) http://www.asiasat.com.hk/eng/01_company/overview.html

万ドルである。また軌道内衛星第三者責任保険が最近3年間平均毎年70,000ドル(HK\$541,415 million)でありました。前記AsiaSat第1号衛星と第2号衛星の軌道投入責任保険金額は、5億ドル(HK\$38,672拾万)である。⁸⁸⁹⁾

7. 韓国の宇宙保険

7.1. 韓国の衛星事業(無窮花号)の概要

無窮花号衛星事業は、通信及び放送用衛星システム(主衛星及び副衛星各一基)を構築し、国内外に衛星通信及び放送serviceを提供する計画なので、事業者は(株)KT(Korean Telecom: 前韓国通信公社)である。この衛星体の製作社は、打上げサービスの提供社を全て国際競争入札を通じて選定したので、(株)KTは1991年12月にアメリカのGE Astro-Space会社と衛星体製作契約を締結したし、1992年8月アメリカのMcDonnell Douglas会社と打上げサービス提供契約を締結した。

衛星体購買契約と打上げサービス契約は、① 購買契約書(Purchase Agreement)、② 数百枚の技術性能規格書(Performance Specification)、③ 品質保証計画書(Product Assurance Plan)、④ 作業指示書(Statement of the Work)等に依って構成された。両契約は全て大韓民国国内法を、したがるようになっている。打上げサービス契約によって、打ち上げサービス提供会社であるアメリカのMcDonnell Douglas会社の契約上の義務は、無窮花衛星を、地球遷移軌道まで上げることであった。それができない場合には、McDonnell Douglas会社は全体契約金額の10%を受け取ることができないのであるし、如何なる過失、重過失又は不法行為に起因する責任があっても、McDonnell Douglas社を訴追する権利を韓国通信公社が抛棄するし、McDonnell Douglas社の責任は、契約金額の10%を受領することができないということに制限されておりました。

889) Asia Satellite Telecommunications Holding Limited, *supra*, at 64-65.

7.2. 無窮花号衛星(KOREASAT)の保険加入現況 890)

- 無窮花号衛星(KOREASAT)の保険は 国内の11個保険会社が共同引受をした後、海外に再保険を附保した。
- 諸般業務を処理する為、必要な保険代行業者を選定し活用した。
- (株)KTは、幹事会社を選定し保険代行業者等を構成して全担班を運営した。
- 主衛星と予備衛星を、単一契約に締結し、同時に保険に加入した。

[推進経緯]

- 基本計画 樹立: 1993年2月5日
- 国内幹事社 選定: 1993年4月
 - 主幹事会社: 三星火災海上保険株式会社(20%)
 - 副幹事会社: Lucky火災海上保険Co.、現代火災海上保険 Co.(各12%)
 - 共同参加会社: 高麗火災海上保険Co.、国際火災海上保険 Co.、大韓火災海上保険Co.、東洋火災海上保険Co.、新東亜火災海上保険Co.、第一火災海上保険Co.、自動車保険Co.、海東火災海上保険Co.(各7%)
- 保険代行業者 選定: 1993年4月
 - 選定社: Marsh & McLennan(美国) 保険Group内の C. T. Bowring Space Projects Ltd.(英国所在)
- 全担班 構成: 1993年6月
 - 運営期間: 保険加入準備及び最終claim 終了時まで
 - 主要 活動事項
 - 海外衛星保険市場の調査: 1993年11月～1995年2月
 - 海外市場附保(cover)及び技術要約書の作成: 1993年10月～1994年10月
 - 約款作成及び再保険社の協商: 1994年2月～契約締結の時
 - 海外国説明会の開催(アメリカ、イギリス): 1994年11月22日～29日

890) 韓国通信公社衛星事業本部, 「無窮花號衛星 保険加入推進現況」, (報道資料, 1996年 6月10日), 1面.

- 保険料率: 15%(1995年2月24日)
- 参考: 1986年1月から1995年1月まで 保険に加入した115個衛星の保険料率
(最高: 25.55%、最低: 15.25%、平均: 18.45%)
- 被保険者: (株)KT(前韓国通信公社)

- 契約締結: 1995年3月6日
 - 保険加入金額(保険金額): 無窮花第1号衛星 US\$ 103,914,500無窮花第2号衛星 US\$ 102,614,500 合計 US\$ 206,529,000
 - －衛星体 2 器購買価格: US\$ 115,429,000
 - －打上げ用役費用: US\$ 91,100,000
 - －保険料: US\$ 30,979,350
- 保険期間: 1995年3月6日から1997年5月1日まで(午前:12時1分基準)

- 保険料納入: 無窮花 第1号衛星 US\$ 15,587,175 無窮花 第2号衛星 US\$ 15,392,175 計 US\$ 30,979,350
 - 先納保険料: 1995年4月4日(保険料の10%)
 - 主衛星: 1995年6月18日(保険料の45%、打上げ30日前)
 - 予備衛星: 1995年12月(保険料の45%、打上げ30日前)
 - 保険契約上衛星打上げ日字: 無窮花第1号衛星 1995年8月3日
 - 衛星打上げ機: Delta“7925”ロケット(無窮花第1号, 第2号衛星)1995年12月
 - 衛星打上げ射場: 米国 Cape Canaveral (Florida州)無窮花通信衛星に関する海外再保険者名单及び増加率は次の別表で説明する。

♣ 韓国の「無窮花」通信衛星海外再保険者の名单及び増加率

再 保 險 者 名		増 加 率(%)	備 考
LLOYD'SYNDICATE	800	2.915489248	
	282	1.70496312	
	457	0.852486752	
	62	0.340992624	
	375	0.511494128	
	672	0.997400192	
	1084	0.255740928	
	925	0.085250752	
	955	0.255774872	
	902	0.511494128	
	957	0.255741872	
	102	0.426243376	
	1036	0.681985248	
	625	0.170490176	
	735	0.681985248	
	376	0.085250752	
	55	0.059673072	
	40	0.2557741872	
	609	0.085250752	
	271	0.119347088	
	588	3.4098224	
	457	0.3409728	
	102	0.3409728	
	625	0.0852432	
	488	0.7928656	
	2488	0.9120928	
	270	0.127912	
	824	0.1534944	
	173	0.1022352	小計:17.5183744

再 保 險 者 名	増 加 率(%)	備 考
BRITISH AVIATION INSURANCE GROUP	0.0852432	
ASSICURAZIONI GENERALI S.P.A	13.6394784	
MUNICH RE.	18.168696	
ASSURANCES GENERALES DE FRANCE IART	14.4272464	
ACE LTD.	4.2623488	
SCOR REASSURANCE	8.175512	
AXA REINSURANCE CO.	11.10645264	
SKANDIA INT'L INSURANCE CORP.	1.3639856	
USAIG	0.48700016	
DEUTSCHER LUFTPOOL	1.1934992	
UNI STOREBRAND	1.0229184	
BAYERISCHE RUCK AKTIENGESELLSCHAFT	0.8525264	
GIO INSURANCE LYD	0.852432	
ROYALE BELGE RE	0.2557296	
AVIABEL COMPAGNE BELGE D.A.S.A	0.3068944	
DOWA FIRE AND MARINS. CO., LTD.	0.136408	
LE ASSICURAZIONI DTTADA SPA	0.1045952	
COMPAGNIE D'ASSURANCES MARITIMES	0.2055088	
LA FONDIARIA ASSICURAZIONI SPA	0.116112	
MTOKIN MARINE AND FIRE INS. CO., LTD.	0.0511648	
COMPAGNE TRANSCONTINENTALE DE RE.	0.0678736	
合 計	94.4	

7.3. 無窮花 第1号衛星(KOREASAT)事故に関する保険金受領関係

○ 事件概要

1995年8月5日アメリカ空軍基地 Cape Canaveral(フロリダ州)で 打上げた韓国の放送通信複合衛星である「無窮花第1号衛星」を打上げた時、打上げ過程に於いて第1段階ロケットの異常性能により予定した遷移軌道(transfer orbit)に進入することができなかった。この衛星は打上げ2分11秒の後、分離しなければならない九つのロケットブースターのうち3個の補助ロケットの中で、ひとつが性能異常に依って分離できなかったので目標軌道の進入に失

敗し 目標軌道から6,351kmをはなれて長いあいだ離脱し楕円型軌道をまわった後、静止軌道に進入したけれども、この衛星の寿命が5年6か月くらい短縮したので、(株)KTは莫大な損害を受けたのである。

○ 当時、(株)KTは、1995年8月5日に打上げた「無窮花第1号衛星」の寿命が設計寿命(10年)より50%以上短縮し、4年4か月になったことが判明できた。これに関する全損処理保険請求と共に第1号衛星の再購買を折衷した結果、再保険会社が提案した価格より1千万ドルひくい値段である3,950万ドルに再購買し、第1号衛星の所有権が(株)KTに確定できたことを発表した。⁸⁹¹⁾

○ 無窮花第2号衛星の打上げ成功とともに、1995年の保険約款にしたがって全損処理し、無窮花第1号衛星の再購買が妥結できたのである。

○ そのあいだ(株)KTは、無窮花第1号衛星の寿命が短縮したので損害賠償を受けるため衛星保険約款によって、1995年11月11日、約1億3百9拾ドル(衛星体製作費 5,770万ドル 打上げ用役費4,620ドル)の全損処理保険金を請求した。

○ 一方、無窮花第1号衛星は性能が良好であることを、確認できたので衛星の再購買の交渉をした結果、再保険会社の代表であるドイツのミュンヘン再保険会社(Munich Re-insurance Co.)が、当初提示した値段である5千万ドルより1千万ドルひくい3,950万ドルで(株)KTが購買することに最終合意をした。これによって全損保険金総額から再購買額3,950万ドルを除外した、損害補償額約6,440万ドル(約515億円)を受け取りました。⁸⁹²⁾

○ 衛星の再購買と損害保険補償妥結に依って(株)KTは、Intersat衛星を賃借し提供中であったCable TV Program中継と衛星通信網、又は各種衛星Video中継サービス(社内TV SNG: 衛星移動中継、競馬TV中継等)を1996年2月から無窮花衛星に転換し、本格的な衛星サービスを提供することができた。当時、放送用中継機を利用し直接digital TV放送を試験運用することができた。

○ 1996年1月14日、打上げに成功した無窮花第2号衛星は、当初無窮花第1号衛星の燃料消耗を対備し低軌道に置いた後、1998年度から運用する計画であったが、衛星通信サービスの需要増加と通信市場の対外開放等に対備し、正常軌道に進入する1996年7月から衛星サービスを提供した。

891) 韓国通信公社 弘報室、「無窮花 第1号衛星 3,950万ドル」, 韓国通信報道資料, 1996年 6月 10日, 1面.

892) 韓国通信公社 弘報室、「韓国通信報道資料」, 1996年6月10日, 1面.

○ 無窮花第2号衛星の成功的な打上げは 当初第1号衛星の打上げ墜落に起因した憂慮を完全に解消したので、韓国は通信及び放送の先進化を達成する契機をあたえたのである。

7.4. 打上げサービス提供会社の責任成立と法理論的な根拠

(1) 製造物責任の法理

アメリカのケーブカナベラル打上げ射場で、無窮花第1号衛星を打上げたDelta第Ⅱロケットには欠陥がありました。これは打上げ機というロケット製造物の欠陥に起因するので、それに対する責任、すなわち「製造物責任」の法理がここで適用されるた。一般的に、製造物責任とは商品の製造者が商品の欠陥に起因して発生した損害に対して、直・間接的に被害者に対し損害賠償責任を負担するのである。

製造物責任に対しては各国ごとに、その立法趣旨及び法律体系等が、相違している。しかし無窮花衛星の製造業者がアメリカの会社であるけれども、その契約が韓国の国内法にしたがうことを明文に規定されている。アメリカの製造物責任訴訟に於いて加害者の責任は ① 過失責任(negligence)、②保証責任(warranty)、③不法行為法上の厳格責任(strict liability in tort)の三つに分類できる。

(2) 韓国の瑕疵担保責任

韓国の場合、商品の欠陥に依って損害が引き起された法的問題に対して、契約責任の法理又は不法行為責任の法理等が適用されるのが通例である。被害者が契約関係がある商品の売渡人に対して、契約債務不履行又は瑕疵担保責任を追及し損害賠償を請求することができるし、また直接契約関係がない場合には、製造業者等に対して、被害者は不法行為に起因する損害賠償を請求することができる。

無窮花衛星の打上げサービス契約は、韓国国内法を適用することができますから、打上げ失敗に対する責任を追及する根拠として、「製造物責任法」を適用されることが可能である。人工衛星の製造物責任と直・間接的に関係がある外国判例を次のように紹介する。

(3) 外国の判例

◎ Appalachian Insurance Co. vs. McDonnell Douglas 事件

原告: Appalachian Insurance Co. 外 保険社 等

被告: McDonnell Douglas, Morton Thiokol, 及び Hitco社 等

概要: 製作社が製作した固体Rocket Motorがあまり早く点火して 衛星体が願う軌道に進入する前にロケット燃料が消尽したので、衛星体が軌道進入に失敗した。

判決内容: 責任排除条項にしたがって被告には賠償請求することができないと被告側の主張を裁判所が受け入れた。

◎ INTELSAT vs. Martin Marietta Corp. 事件

原告: INTELSAT

被告: Martin Marietta Corp.

概要: 被告側は原告側の停止軌道用通信衛星の打上げサービスを提供する契約者である。衛星打上げた後、軌道上で打上げ機と衛星体の分離中、打上げ機の欠陥に起因し衛星体が打上げ機から成功的に分離せず、衛星体は諸軌道に進入できなかったとことで被害を受けた。

判決内容: 同打上げサービス契約により衛星の打上げと関聯があり、重過失 (gross negligence)に起因する損害のみならず如何なる損害に対して、被告側は賠償責任を負担しないと規定した条項は有効なので、裁判所は原告側の損害賠償請求を棄却した。

参考: 1989年に改正した商業宇宙打上げ法(Commercial Space Launch Act)には、打上げサービス提供社がサービス提供契約において、重過失に起因する損害賠償責任を負担する条項を契約書に挿入することを禁止した。

8. おわりに

宇宙空間の軌道を回っている衛星が、設計の瑕疵又は部品製作上の欠陥に起因する故障が生じても製作社は免責されるし、ロケットによって打上げた瞬間、打上げ体が爆発したとき、打ち上げサービス提供会社は免責されるというのが今までの宇宙産業界の慣行であっ

た 故障が起った衛星体が無償で修理するし、あるいは全額還払を受るし、又は無償で再び打上げを行う瑕疵補償の義務および損害賠償の義務は製作社側にはないと言うことです。さらに衛星関連製作品の技術上の瑕疵に起因した、損害賠償を請求する訴訟権を購買者側に拋棄する内容を契約に明示しているのが慣行となっております。

1997年まで打ち上げた約150余個の商業衛星の製作契約及び打ち上げサービス契約の全てがこのような趣旨の免責条項を規定していた。このような免責条項は、法律的な面で見たら問題点がある。

だけれども衛星製作者はこのような免責条項に関して、購買者と販売者との不公平な関係を表出れものではなく、危険な産業に従事する事業者の利益も保護し、かつ購買者の利益を財政的に保障できる面は、むしろ衡平に適合することだと主張している。しかし前記免責条項は人工衛星製作責任保険と直接関係がありますので、衛星購買者と販売者この法律関係を衡平(公平)の原則を維持させるし、また衛星購買者と被害者權益を保護するためこの免責条項を再検討しなければならないと思う。

人工衛星製造過程の瑕疵に起因した衛星打上げ及び目標軌道投入に関する事故は莫大な損害が発生したけれども、被害者が事故原因を立証するのはほとんど不可能でありますから、衛星購買契約内容に製造業者の無過失責任と被害者に損害賠償請求訴訟権を、認定する契約条文を規定するのが正しいと考えられる。

宇宙破片に起因する人的・物的損害賠償責任に関する法的諸問題を解決するため、1994年8月14日から24日までアルゼンチンのブエノスアイレスで開催した、第66回世界国際法協会(International Law Association; ILA)宇宙法委員会で、新しい「宇宙破片に起因した環境保護に関する国際条約草案(Draft for the International Instrument on the Environment Caused by Space Debris)」の採択が満場一致で議決された。この条約草案は国連の宇宙平和的利用委員会(UNCOPUOS)の科学技術小分科委員会及び法律小分科委員会で検討したことがある。筆者は、前記ILAブエノスアイレス大会の宇宙委員会に参加し次のように意見を述べました。⁸⁹³⁾

「宇宙空間の低軌道、中軌道及び停止軌道を回っている人工衛星と宇宙破片とのあいだに衝突する危険が沢山あるので、これらの危険責任を保険会社に転嫁し宇宙産業を育成し

893) Doo Hwan Kim, *Some Considerations of the Liability of the Compensation for Damage Caused by Space Debris*, Law / Technology (USA), Vol.28, No4 (1995), at 21-23.

なければならないし、また地球環境の保護と損害の完全な補償のため、衛星打上げ業体及び衛星事業団は、人工衛星又は宇宙船を打上げる前、必ずこの衛星又は宇宙物体に対して責任保険を義務的に加入しなければならないと述べました」。

機能が喪失した衛星と宇宙破片に起因する損害が発生した場合、保険会社は該当損害に対して、「保険法の一般原則」にしたがって保険価額に該当する保険金を被保険者に支払しなければならないのである。アメリカの航空宇宙局(National Aeronautics and Space Administration: NASA)と連帯している銀行団は、NASAが附保している衛星の保険価額及び保険金額の超過分に対して保証しているし、アメリカの国内法もこれを認めている。⁸⁹⁴⁾

前記新しい「宇宙破片に起因した環境保護に関する国際条約草案」第8条の後段に、次のような新しい文句を第2項として規定を新設しなければならないと思う。

「人工衛星打上げ国は、被害国、被害法人又は被害個人等が宇宙破片に起因し発生した損害に対する人的または物的損害賠償を完全に保障するため、責任保険を義務的に加入しなければならない」。

以上のように宇宙保険に関してアジア、環太平洋諸国とアメリカ、ヨーロッパとのあいだに、さまざまな法的問題が発生しておるので、これらの問題を解決するため、アジア太平洋諸国はお互いに保険情報を交換し、また宇宙産業と宇宙保険法を発展させるために相互協力をしなければならないと思う。

(拙稿、『アジア太平洋諸国の宇宙保険に関する法的諸問題』、補完した、法学論叢、第10輯号、1997年2月、韓国崇実大学校 法学研究所 発行、1-26頁)

894) 金斗煥, 宇宙破片に起因した損害賠償責任に関する研究, 韓国航空宇宙法學會誌, 第7號 (1995), 220-253面.

[Annex:]

1. Author's Curriculum Vitae (Personal History)
2. Bibliography
3. ICAO Lists of Multilateral Treaties and Current Status
of International Air Law
4. United Nations Treaties, Principles on Outer Space and
Others Related General Assembly Resolutions
5. Index

1. Author's Curriculum Vitae (Personal History)

Curriculum Vitae

Name: Doo Hwan Kim
Degree: Jurisprudence Science Doctor (JSD)
Present Position: Honorary President, The Korean Association of Air and Space Law.
Visiting Professor, Korea Aerospace University in Korea and Research Institute of Social System, Chuogakuin University, at Abiko, Chiba, Japan.
Honorary Prof. Gujarat National Law University in India.
Residence: 174-5, Pyongchang Dong, Chongro Ku, Seoul 110-012, Korea. Tel. 82-2-379-0626, Fax. 82-2-379-0627,
E-mail: doohwank3@kornet.net
Website: <http://club.hau.ac.kr/home/doohwank>

Education

Apr.1953~Mar.1957 J.D. degree: The College of Law, Seoul National University, Seoul, Korea.
Apr.1957~Mar.1959 LL.M. degree: The Law Department, Graduate School, Seoul National University, LL.M. Thesis, "*A Study on the Legal Issues for the Commercial Letter of Credit.*"
Sep.1980~Feb.1984 JSD degree: The Law Department, Graduate School of Kyung Hee University at Seoul. JSD Dissertation, "*A Study on the Liability of the Air Carrier and its Legislative Problems.*"

Carrier in Teaching Experience and Position

- Mar.1960~Aug.1962 Lecturer of Law, The College of Law, Kookmin University, Seoul.
- Mar.1960~Aug.1962 Lecturer of Law, The College of Law, Konkuk University, Seoul.
- Mar.1968~Feb.1975 Lecturer of Law, The College of Law and Politics, Kyonggi University, Seoul.
- Sep.1971~Aug.1972 Lecturer of Law, The College of Law & Politics, Ewha Womans University, Seoul.
- Apr.1972~Mar.1973 Lecturer of Law, The College of Law, Hankuk University of Foreign Studies, Seoul.
- Apr.1976~Mar.1977 Lecturer of Law, The College of Law and Economics, Soongjeon University, Seoul.
- Mar.1979~Feb.1981 Associate Professor, Faculty of Economic and Commerce, King Saejong University, Vice President, The Korean Aerospace Research Institute, Seoul.
- Sep.1979~Feb.1981 Lecturer of Law, The College of Law, Sungkyunkwan University, Seoul.
- Mar.1981~Feb.1999 Professor of Law, The College of Law, Graduate School (LL.M. and JSD Course), Soongsil University at Seoul.
- Sep.1981~Aug.1983 Lecturer of Law, The College of Law, Seoul National University.
- Mar.1983~Aug.1986 Lecturer of Law, The College of Law, Graduate School (LL.M. and JSD course), Korea University, Seoul.
- Sep.1983~Aug.1986 Lecturer of Law, The College of Law, Graduate School (LL.M. and Doctor course), Sungkyunkwan University, Seoul.
- Mar.1984~Aug.1986 Lecture of Law, The Education Institute of Seoul City Officials.
- Aug.1986~Jul.1988 Dean, The College of Law, Soongsil University.
- Aug.1988~Jul.1988 Director, Institute for the Legal Studies, Soongsil University.
- Jan.1990~Feb.1991 Visiting Scholar, School of Law, University of California at Los Angeles (UCLA), Washington College of Law, The American

- University, Washington D.C., USA and Institute of Air and Space Law, McGill University, Montreal, Canada.
- Aug.1992~Jul.1996 Dean, The College of Law, Soongsil University.
- Aug.1996~Jul.1998 Director, Institute for the Legal Studies, Soongsil University, Seoul.
- Apr.1998 ~Jul.1998 Director, Board of the Social Science Research, Soongsil University.
- Aug.1998~Feb.1999 Director, The Research Center for the Small Business Law, Soongsil University.
- Feb. 1999 Retired from the College of Law, Soongsil University as a Professor.
- Oct. 2000~Present Visiting Professor, Research Institute of Social System, Chuogakuin University, Abiko, Chiba, Japan.
- March 2001~Present Visiting Professor. Department of Air and Space Law, Korea Aerospace University.
- Nov. 2004~Present Honorary Prof. Gujarat National Law University in India.

Carrier in Business Practice

- Apr.1959~Feb.1976 Chief of Property Control Section, Accountant General of Account and Finance Department of the Korea National Coal Corporation, Executive Director of the Korea National Coal Corporation appointed by Minister of Industry and Commerce of the Korean Government.
- Mar.1967~Present Advisor, Vice President and Secretary General of the Korean Association of the Kyong Ju Kim's Kinship.
- Nov.1976~Feb.1979 Executive Director of The Korean Explosive Co. (Han Hwa Group) and Tai Pyong Development Co. (Radisson Seoul Plaza Hotel).

Gold Medal & Prize

- 1965~1975 The Prize of Documents for the Meritorious Service was honored three times by the President of the Korea National Coal Corporation.
- Dec.1994 The Prize of Gold Medal for the Order of National Service Merit on the developments of aviation law and industry was honored by the Korean Government
- Sep.1998 The Prize of Plaque for the Meritorious Service was honoured by the President of Soongsil University.

Career in the Advisory Council of the Government

- Dec.1980~Jul.1983 Member of the Advisory Council for the Policy Making of the Office of Prime Minister, the Korean Government.
- Dec.1980~Jul.1985 Member of the Advisory Council for the Policy Making of Ministry of Transportation, the Korean Government.
- Jul.1982~Oct.1992 Examiner of the 24th, 31th and 34th National Bar Examination (three times) and the 5th Military Judicial Official's Examination.
- Jul.1982~Present Arbitrator of the Korean Commercial Arbitration Board.
- Jul.1982~Apr.1986 Examiner of the 16th, 18th and 20th Certified Public Accountant (CPA) Examination.
- Jul.1985 Examiner of the 29th National High Official's Examination.
- Jul.1985~Jun.1989 Member of the Advisory Council for the Legal Policy Making of Ministry of Justice, the Korean Government.
- Nov.1985~Jul.1994 Member of the Special Committee for the Commercial Revision in the Advisory Council of the Judicial Affairs of the Ministry of Justice, the Korean Government.
- Aug. 1996 Member of Space Law Committee, International Law Association

(Headquarter, London)

Feb. 1997 Member of the Judging Committee of Jurisprudence Science Doctor's Degree entrusted by International Institute of Air and Space Law, Leiden University, The Netherlands.

Honour's Year Book and Certificate of Qualification

1993~present Asia / Pacific Who's Who (India), Asian / American Who's Who (India)

2002 present 2000 Outstanding Intellectuals of the 21st Century (Cambridge, England, UK)

1998~present Who's Who in the World (USA).

Jan.1964 A certificate of qualification for the licensed Tax Accountant from the Ministry of Finance, the Korean Government.

Position of the Domestic and International Organization

Sep.1959~Present Member & Former Director of the Korea Commercial Law Association.

Aug.1983~Dec.2007 Advisor, Former Director of the Korean Maritime Law Association, The Korea and Japan Law Association, The Korean Institute of International Private Law, the Korean Law Professor's Association, Member of the Korea International Trade Law and the Korean Association of Economic Law.

May.1984~Present Member of the Air Law Institute of Japan (Tokyo), Member of the International Law Association (London), Member, Former Director & Vice President of the Korean Branch of the International Association, Member of Japan Association Private Law and Member of the Japan Association of

- International Economic Law.
- Aug.1986~Present Member of the World Jurist Association (Headquarters: Washington D.C., USA), Chair of the Air and Space Law Panel of the World Law Conference.
- Oct.1989~Jan.1993 Vice President of the Korean Association of Air Law.
- Oct.1990 Participation to the 28th Special General Assembly of the International Civil Aviation (ICAO) as a Delegate of Korea (Montreal, Canada).
- May.1991~Present Director of the Asian Institute of Air and Space Law (Headquarters: Taipei).
- Feb.1993~Feb.1999 President of the Korean Association of Air and Space Law.
- Apr.1994~Present Member of the Study for the Study of Law and Policy on Space Utilization (SOLAPSU) at Tokyo.
- Oct.1998~Present Member of the International Institute of Space Law (Headquarters: Paris, France).

Participation to the International Conference as a Speaker & Chairman

- May~Jun. 1977, Taipei Participated to the 3rd Korea–Taiwan Conference for the Promotion of the Tourism as a Korean Delegate at Taipei, Taiwan and then to the Inspection Tour for the Entertainment Facilities in Hong Kong, Thailand and Japan.
- May. 1984, Tokyo Participated to the 30th General Assembly and Symposium sponsored by the Air Law Institute of Japan as a member and then visited to the Ministry of International Trade and Industry, Ministry of Transportation in order to exchange the view for the Problems on the Air and Anti Trust Law and it's data with Japanese Officials at Tokyo, Japan. Participated to the Seminar on the Commercial Law of the Faculty of

- Law, Tokyo University as an observer.
- Aug. ~Sep.1984,
E.U. Participated to the 61st Paris International Conference organized by the International Law Association as a member and then visited to the Institute of Air and Space Law, Köln University, Bonn, Freiburg, Heidelberg, Berlin University in Germany, Oxford University in the United Kingdom and Paris University in France in order to exchange the academic data with it's professors.
- Aug. ~Sep.1986, Participated to the Air Law Workshop of Conference organized Seoul by the International Law Association as an invited speaker (attendants: about fifty countries' famous law professors and lawyers.)
- Sep. 1986,
Taipei Participation to the International Symposium organized by the Taipei Branch of the International Law Association as a panelist (attendants: approximately fifteen countries' famous law professors and lawyers etc.)
- Sep. 1987,
Seoul Participated to the Air Law Committee of the 13rd World Law Conference as an invited speaker (attendants: approximately sixty countries' lawyers and law professors, prosecutors and judges etc.).
- Aug. ~Sep. 1988,
Warsaw Participated to the Air Law Committee of the 63rd International Law Association as a speaker (attendants: approximately seventy countries' lawyers, scholars, professors, prosecutors and judges etc.).
- 1989 ~May1995,
Tokyo Participated to the 35th (1989) and 41th (1995) General Assembly and Symposium of the Air Law Institute of Japan as a speaker and lectured the Korean Revised Company Law, Admiralty and Insurance Law to the Faculty of Law, Aoyama Gakuin University and Meiji Gakuin University (two times) at

- Tokyo and the Faculty of Law, Osaka City University (two times) by Japanese language.
- Jan. 1990, Los Angels Participated to the Asian Law Seminar sponsored by UCLA Law School at Los Angels, California, USA
- Mar. 1990 Dallas Participated to the 24th Air Law Symposium organized School of Law, Southern Methodist University, Dallas, Texas, USA
- May 1990 Washington D.C. Lectured to the International Legal Studies Program, the Washington College of Law, The American University as a speaker at Washington D.C., USA
- May 1990~Aug. USA Visited to the Law School, Stanford University, U.C. Berkley, Chicago University, George Town University, University of Pennsylvania, Columbia University, New York University, Yale University, Havard Law School, Cornell University, Hawaii University etc. in order to collect the research data.
- Aug. 1990, Montreal Participated to the 13th International Congress of Comparative Law organized by the International Academy of Comparative Law.
- Sep. 1990 Canada Visited to the Faculty of Law, Quebec University, University of Ottawa, University of British Columbia, University of Victoria in Canada and School of Law, University of Washington at Seattle, USA in order to collect research data.
- Oct. 1990 Ottawa Participated to the 14th Annual Conference co-organized by the Canada and Japanese Association of International Law.
- Dec. 1990, Stony Point Participated to the Asian Faculty Conference by the United Board for Christian Higher Education in Asia of the United States, New York, USA.
- Jan. 1991, Montreal Lectured to the LL.M course students of the Institute of Air and Space Law, McGill University as a speaker.
- May 1991, Taipei Participated to the 1st Taipei Asian Conference of International Air and Space Law co-organized by the Graduate Institute

of European Studies, Tamkang University, Taipei and the International Institute of Air and Space Law, Leiden University, The Netherlands and as an invited speaker (attendants: approximately 20 countries's delegates).

Jun. 1993,
Tokyo Participated to the 2nd Tokyo International Conference of Air and Space Law as an invited speaker and chairman co-organized by the Japanese academic organizations and with the abovementioned three foreign countries's Institutes (attendants: approximately 20 countries's delegates).

Oct. 1993,
Manila Appointed as a chairman and invited speaker of the Air and Space Law Panel, the 16th Manila World Law Conference sponsored by the World Jurist Association (Headquarters: Washington D.C. USA) which was attended by approximately 3,500 lawyers, professors, prosecutors and judges from 153 countries).

Aug. 1994,
Buenos Aires Participated to the Space Law Committee of the 66th Conference of the International Law Association as a speaker (attendants: 16 countries' delegates).

Dec. 1994,
Montreal Participated to the "*International Conference on the Legal Aspects of the International Regulation of Civil Aviation*" to Commemorate the 50th Anniversary of the Chicago Conference" sponsored by Institute of Air and Space Law, McGill University as an invited speaker at Montreal (attendants: 40 countries' delegates).

Dec. 1994,
Osaka Lectured to the Faculty of Law, Osaka City Unity, Osaka University of Economics and Law and the Society for the Study of Law and Policy on Space Utilization (SOLAPSU) as an invited speaker.

May 1995, Lectured to the Japanese Association of the Fair Trade and

- Tokyo SOLAPSU as an invited speaker
- Aug. 1995, Montreal Appointed as a chairman and invited speaker of Air and Space Law Panel of the 17th Montreal World Law Conference organized by the World Jurist Association which was attended by approximately 580 lawyers, professors, prosecutors, judges etc. from sixty countries.
- Aug. 1995 Beijing Participated to the 3rd Beijing International Conference of Air and Space Law co-organized by Peking University, China with the aforementioned three foreign countries academic organization(attendants: approximately countries' 20 delegates).
- Dec. 1995, Singapore Participated to the '95 Singapore Conference of Telecommunications & Satellite Projects Insurance sponsored by IBC Technical Service Ltd as an invited speaker (attendants: approximately 20 countries' delegates).
- Jul. 1996, Japan Lectured to the Active Center of the Chuogakuin University and the said SOLAPSU as an invited speaker at Tokyo.
- Jan. 1997, Macau Participated to the Macau International Conference on Air Law Sponsored by Civil Aviation Authority of Macao and Faculty of Law, Macao University as an invited speaker (attendants: approximately 20 countries delegates).
- Feb. 1997, Leiden Examined a dissertation on the international law of Phd degree candidate as a member of Judging Committee invited and entrusted by International Institute of Air and Space Law, Leiden University, The Netherlands.
- June. 1997, Seoul Participated to "*The 4th Seoul International Conference of Air and Space Policy, Law and Industry*" as a Chairman and Speaker co-sponsored by the Korean Association of Air and Space Law and the R.O.K Air Force Academy and supported by the abovementioned four foreign countries' Academic

Institutes such as Canada, The Netherlands, Japan, Taiwan (attendants: approximately 450 participants from 20 countries and the United Nations).

Dec. 1997,
Tokyo Lectured as topic entitled "*Prospects and Main Contents for the Revised Company Law in Korea*" to students and professors of the Faculty of Law, Meiji Gakuin University and also lectured my topic entitled "*Present Situation and Prospects for Space Policy and Developments in Korea*" to members of SOLAPSU in Japan as an invited speaker.

Nov. 1999,
Hangzhou Lectured as topic entitled "*The Company Law and Economic Developments in Korea*" to members of the Law Association Zhejiang Province of China Hangzhou, China according to the invitation of its Association.

Shanghai Lectured as topic entitled "*Recent Case Law on the Liability in International Transport*" to "the Millennium Conference on the Future of Air and Space Transportation" as an invited speaker sponsored by Shanghai Jia Tong University at Shangrira Hotel at Shanghai, China.

Nov. 1999,
Tokyo Lectured as topic entitled "*The Missile's Threat from the North*

Korea and Countermeasures by the Korea, Japan and USA" spoken by the Japanese language to members of Asia Friendship Association, Japan Society of Defence Law, World Forum at Tokyo and to students and professors of Law, Faculty of Law, Komazawa University and Tokyo International University, to

Sapporo about 300 high ranking officers of Northern Army Headquarters, Japan Ground Self Defence Force at Sapporo, Hokkaido, Japan according their invitation.

- Osaka Lectured as topic entitled "*Prospects and Main Content on the Recent Revised of the Korean Commercial Code*" by Japanese language to members of the Kansai Society of the Commercial Law at in Japan.
- June 2000,
Strasbourg
Paris Visited to International Space University (ISU) at Strasbourg, France and Headquarter of European Space Agency (ESA) at Paris accompanying with Mayor of Cheongju City in Korea and then exchanged the view on the reciprocal cooperation between ISU, ESA and Cheongju City.
- Oct. 2000,
Abiko Participated to the Symposium for the "*Regional Problems and International Cooperation for the 21st Century*" as a Panelist at Chuogakuin University in Japan.
- March 2001,
Singapore Lectured as theme entitled "*The Possibility of Establishing an Asian Space Agency*" to the "2001 Space Law Conference" as an invited speaker co-organized by the International Institute of Space Law and the Society of International Law, National University of Singapore.
- July 2001,
Seogwipo Chaired the 3rd Session of the 5th Air Seogwipo Transport Conference as a Chairman organized by the Air Transport Regional Group under the World Conference on Transport Research (WCTR) which was held at KAL Hotel at Seogwipo, Jeju Island in Korea.
- Sept. 2001,
Karuizawa Lectured by the Japanese language as my theme entitled "*Idea for Establishing an Asian Space Agency*" to the monthly meeting as an invited speaker of the Society for the Study of Law and Policy on Space Utilization (SOLAPSU) which was held Karuizawa in Japan.
- Nov. 2001,
Abiko Lectured as theme entitled "*Safety of Air Transport and the Convention regulating to the Hijacking*" to the Symposium

- organized by Research Institute of Social System, Chuogakuin University as an invited speaker in Japan.
- April. 2002,
New Delhi Proposed my own opinion on the Problems for the Revision Relating to the Space Treaty at the Space Law Committee of the 70th International Law Association which was held at New Delhi.
- June 2002,
Kyoto Participated to the monthly meeting of the Japan SOLAPSU as a panelist according to its invitation that was held at the conference room of Ritsumeikan University in Japan.
- July 2002,
Seattle Lectured as theme entitled “*Some Considerations on the Air Traffic Controller*” to the World Conference of the Air Transport as a speaker co-organized by the Air Transport Regional Society and the Boeing Company in USA.
- July Aug.2003,
Russia, Finland & Estonia Investigated the feasibility for the economic study on the connection between Trans Siberian Railroad and Trans South and North Korean Railroad from Vladivostok via Irkutsk (Baikal lake) and Moscow to St. Peterburg in Russia.
Visited to the Faculty of Law, the University of Helsinki and Tallinn in Estonia.
- April 2004,
Beijing Lectured as a topic entitled “*The National Space Program, Policy and Legislation in Korea*” to “the Space Law Conference 2004” as an invited speaker co-organized or with the International Institute of Space Law (IISL) and China Institute of Space Law co-sponsored with China National Space Administration,
Ministry of Science and Technology, Chinese Academy of Science and China Aerospace Science and Technology Corporation that was held at Beijing.
- March, 2005 Participated to the assembling of commemoration for the

- Tokyo publication of book entitled “Beyond Boundaries of Air and Space Law” written by Japanese language as an author at the conference room of Komazawa University at Tokyo.
- Tsukuba Visited to the Tokyo Future Science Hall and Tsukuba Space Center of JAXA at Chiba in Japan.
- June, 2005 Inspected to master plan for the construction of seabed tunnel
Fukuoka between Fukuoka, Kyushu and Geoje Island located near Busan of the South Korea.
- Oct. 2005 Presented my article entitled “*The Main Contents of the New Space Exploitation Act in Korea*” to the 48th Fukuoka Colloquium as a speaker in Japan co-organized by the Fukuoka City, International Institute of Space Law and International Astronautical Federation (IAF: Paris) which was participated about fifty countries’ delegates.
Fukuoka
- May, 2006 Presented an article entitled “*Some Considerations on the Aviation Safety and Draft Convention on the Modernization of Rome Convention (1952)*” to the “2006 ICAO Legal Seminar in Asia-Pacific Region” as a speaker co-sponsored by the International Civil Aviation Organization (ICAO) and Ministry of the Construction and Transportation of the Korean Government which was participated by the more than 20 countries’ delegate in Asia-Pacific Region.
Seoul
- Dec. 2006 Presented an article entitled “*Present Situation and Cooperation of the Metropolitan Airport between Korea and Japan*” to the Symposium as an invited speaker organized by the Research Institute of Social System, Chuogakuin University in Japan.
- May 2007 Presented an article entitled “*Main Contents and Future Task for the Space Laws in Korea*” to the 53th Symposium of Air
Tokyo

- and Space Law as a Speaker organized by the Air Law Institute of Japan.
- Aug. 2007
EU Visited and collected the research data to the UN Office for Outer Space Affairs at Vienna, European GNSS Supervisory Authority, Headquarter of the European Union at Brussels, Belgium, Institute of Air and Space Law, Köln University and Faculty of Law, Frankfurt University in Germany.
- June 2008
Abiko, Tokyo
& Kogoshima Made a speech entitled “Korean Space Development and Space Law” to students of Faculty of Law, Chuogakuin University by Japanese language as a speaker according to it’s invitation. Lectured with the theme entitled “The Korean Space Development and new Space Laws” to staff members of the Japan Aerospace Exploration Agency (JAXA) by the Japanese Language (PowerPoint) at Tokyo. This lecture relayed lively by Internet Video from JAXA to rural Tsukuba Space Center. Visited and observed to the Uchinoura Space Center, Tanegashima Space Center and Masuda Tracking and Communication Station accompanied with Manager, Legal Affairs Division of JAXA at Kagoshima in Japan.

Language

Though I can speak and write fluently the Japanese and English language, but I can read only German language books.

Academic Achievements

♠ Books:

- Mar.1992 “*The Accounting System of Company in Korea (369 pages)*”, published by Korea Listed Companies Association at Seoul, Korea.
- Apr.1994 “*Issues in International Air and Space Law, in Commercial Law (1,167 pages)*”, published by Bobmun Publishing Company at Seoul, Korea.
- Apr.2000 “*The Utilization of the World’s Air Space and Free Outer Space in the 21st Century (414 pages)*” co–edited by Chia–Jui Cheng and Doo Hwan Kim published by Kluwer Law International, The Netherlands
- Jan. 2005 *Theory of Jurisprudence for the New International Aviation Law,(759 page)*, published by the Korean Studies Information Co. Ltd, in South Korea.

♠ 41 Articles published by Foreign Law Journal

♠ Law Journal of USA

1. *Some Considerations of the Draft for the Convention on an Integrated System of International Aviation Liability*”, Journal of Air and Commerce (Vol.53, No.3, 1988), Southern Methodist University, Dallas, Texas, USA, pp.765 – 796.
2. “*Legal Aspects of Foreign investment in Korea*”, The Hasting International Comparative Law Review (Vol.15, No.2, 1992), Hastings College of the Law, University of California, USA, pp.227 – 252.
3. *Some Considerations of the Liability of the Compensation for Damages Caused by Space Debris*”, Law/Technology (Vol.28, No.4, 1995), World Jurist Association (Washington D.C. USA), pp.1 – 28.
4. “*Beijing International Conference on Air and Space Law*”, Journal of Space Law (Vol.24, No.1, 1996), Law Center, Mississippi University, USA, pp.46 – 48.

♠ Law Journal of the United Kingdom

1. “*Korea’s space development programme: Policy and law*”, *Journal of Space Policy* (Vol.22, Issue 2, May 2006), Scotland, pp.10–117.

♠ Law Journal of Canada

1. “*Legal Aspects of ATCA Liability*”, *Annals of Air and Space Law* (Vol. X X, Part 1, 1995), Institute of Air and Space Law, McGill University, Montreal, Canada, pp.209–220.

♠ Law Journal of Germany

1. “*Some Considerations on the Possibility of Establishing an Asian Space Agency*”, *German Journal of Air and Space Law* (Vol.50, No.3, 2001), Institute of Air and Space Law, Köln University in Germany, pp.397–408.
2. “*Space Law in Korea: Existing Regulations and Future Tasks*”, *German Journal of Air and Space Law* (Vol.57, No.4, 2008), Institute of Air and Space Law, Köln University in Germany.

♠ Law Journal of The Netherlands

1. “*Some Considerations on the Liability of Air Traffic Control Agencies*”, *Air Law*(Vol.13, No.6, 1988), Kluwer Publishing Co. The Netherlands, pp.268–272.
2. “*Liability of Governmental Bodies in International Civil Aviation*”, *The Highways of Air and Space Over Asia* (Book, 364 pages, 1991), Martinus Nijhoff Publishers, pp.177–193.
3. “*The Liability of International Air Carriers in a Changing Era*”, *The Use of Airspace and Outer Space for all Mankind in the 21st Century* (Book, 1993), Kluwer Law International, The Netherlands, pp.89–130.
4. “*The Liability for Compensation for Damage Caused by Space Debris*”, *The Use of Airspace and Outer Space Cooperation and Competition* (Book, 1998),

Kluwer Law International, The Netherlands, pp.305–341.

5. “*The Innovation of the Warsaw System and the IATA Inter-carrier Agreement*”, *The Utilization of the World’s Air Space and Free Outer Space in the 21st Century* (Book, 2000), Kluwer Law International, The Netherlands, pp.65–96.

♠ Law Journals of Japan written by Japanese language

<Commercial Law: 商法>

1. 『最近の韓国会社法の主な改正内容について』 国際商学法務(第25巻、3号、1997年3月)、日本国際商学法研究所発行、235–240頁。
“*Draft for the Revised Company, Maritime and Insurance Law in Korea*”, *Annals of the Legal Science* (No.7, July 1990) published by the Institute for the Legal Science of Meijigakuin University at Tokyo in Japan, pp.45–61.
2. 『最近の韓国会社法の主な改正内容について』、国際商学法務 (第25巻、3号、1997年3月)、日本国際商学法研究所発行、235–240頁。
“*Main Contents of the Korean Revised Company Law in 1995*”, *Journal of Kokusai Shoji Homu* (Vol.25, No.3, 1997) published by the Japanese Institute of International Business Law at Tokyo, pp.235–240.
3. 『韓国の改正独占規制及び公正取引法の内容と事例』、公正取引(通巻540号、1995年10月)、日本公正取引協会発行、38–45頁。
“*The Main Contents and Legal Problems on the Recent Revised Korean Company Law*”, *Annals of the Legal Science* (No.7, July 1990) published by Institute for the Legal Science of Meijigakuin University at Tokyo in Japan, pp.45–61.
4. 『最近の韓国会社法の主な改正内容について(上)』、国際商学法務(第31巻、3号、2003年3月)、日本国際商学法研究所発行、328–332頁。
“*Main Contents of the Korean Revised Company Law(1)*”, *Journal of Kokusai Shoji Homu* (Vol.31, No.3, 2003) published by the Japanese Institute of International Business Law at Tokyo, pp. 328–332.
5. 『最近の韓国会社法の主な改正内容について(中)』、国際商学法務(第31巻、4号、

2003年4月) 日本国際商学法学研究所発行 494-498頁。

“Main Contents of the Korean Revised Company Law(2)”, Journal of Kokusai Shoji Homu (Vol.31, No.4, 2003) published by the Japanese Institute of International Business Law at Tokyo, pp.494-498.

6. 『最近の韓国会社法の主な改正内容について(下)』、国際商学法務(第31巻、5号、2003年5月)、日本国際商学法学研究所発行、647-653頁。

“Main Contents of the Korean Revised Company Law(3)”, Journal of Kokusai Shoji Homu (Vol.31, No.5, 2003) published by the Japanese Institute of International Business Law at Tokyo, pp.647-653.

<Air and Space Law>

1. 『国際化の中で伸びる韓国航空事情』、おぞら(季刊、No.45、1984年7月)、日本航空(JAL) 弘報室発行、36-41頁。

“The Situations for the Korea Aviation of Developing in the Globalization”, Journal of Ouzola (No.44, Quarterly) published by Japan Airlines, pp.36-41.

2. 『韓国における航空運送人の責任に関する法規制現象と比較法的考察』、空法(第31号、1990年5月)、日本空法学会発行、77-100頁。

“Present Legal Aspects of Air Carrier’s Liability in Korea and a Comparative Study of Laws”, Journal of Air Law (No.31, May 1990) published annually by the Air Law Institute of Japan at Tokyo, pp.77-100.

3. 『航空交通管制機関の損害賠償責任に関する法的考察』、空法(第37号、1996年5月)、日本空法学会発行、133-149頁。

“Some Legal Consideration on the Liability of Air Traffic Control Agencies”, Journal of Air Law (No.37, May 1996) published annually by the Air Law Institute of Japan at Tokyo, pp.133-149.

4. *“The International Aviation Law: Regulation of Air Traffic”*, The Law of International Relations (Book, 636 pages, 1997) published by the Local Public Entity Study Organization, Chugakuin University, Japan, pp.359-438.

5. 『韓国宇宙開発促進法及び同法施行令』、原典-宇宙法(1999年3月)、日本中央学

院大学地方自治研究センター発行 425-435頁。

“Act and Enforcement Ordinance for Promotion on the Developments of the Korean Aerospace Industry”, The Original Text of Space Law (Book: March 1999) published by the Local Public Entity Study Organization, Chuo Gakuin University in Japan, pp.425-435.

6. 『北朝鮮のミサイル脅威と戦域弾道ミサイル防衛』、防衛法研究(第23号, 1999年10月)、日本防衛法学会発行、43-85頁。

“Threat of North Korean Missile and the Theater Missile Defense (TMD)”, Journal of Defense Law Studies (No.23, October 1999) published by the Japan Society of Defense Law at Tokyo, Japan, pp.43-85.

7. 『Asian Space Development Agencyの設立可能性』、紀要(第2巻 第2号、2001年12月)、日本中央学院大学社会システム研究所発行、83-93頁

“The Possibility of Establishing an Asian Space Development Agency”, Japanese Journal for the Social System (Kiyoo, Vol.2, No.2, Proceeding, December 2001) published by the Research Institute of Social Systems, Chuo Gakuin University, pp.45-56.

8. *“Resent Case Law on the Liability in International Air Transport and a New Montreal Convention”*, Social System Review (Vol.1, March 2002) published by the Research Institute of Social Systems, Chuo Gakuin University in Japan, pp.11-31.

9. 『韓国に於ける宇宙法制定の必要性』、紀要(第4巻第1号、2003年9月)、日本中央学院大学社会システム研究所発行、39-52頁。

“Necessity for Enacting the Space Law In Korea”, Japanese Journal for the Social System (Kiyoo, Vol.4, No.1, Proceeding, September 2003) published by the Research Institute of Social Systems, Chuo Gakuin University in Japan, pp 39-52.

10. 『韓国における航空運送人の民事責任に関する国内立法の諸問題』、～各国の立法例を中心として～ 航空宇宙法の新展開 (関口雅夫教授追悼論文集)、2005年3月、37

–130頁

“*Domestic Legislative Problems on the Civil Liability of Air Carrier in Korea,*”
～Focus on the Example of Every Countries’ Legislation,～ Beyond Boundaries
of Air and Space Law”, Liber Memorials for Prof. Maso Sekiguchi, Ychiyo
Publishing Co., March 2005, pp.37–130.

11. 『韓国における新しい宇宙開発振興法と宇宙損害賠償法試案の主な内容及び将来の課題』、紀要(第6巻第2号、2006年3月)、日本中央学院大学社会システム研究所発行、115–138頁。

“*The Main Contents of the New Space Exploitation Promotion Act and Preliminary Draft on the Act of the Compensation for Space Damage and Future Task in Korea*” Kiyō (Vol.6, No.2, 2006), Bulletin of the Research Institute of Social Systems, Chuo Gakuin University, pp.115–138.

12. 『日本と韓国の首都圏空港の発展に関する研究』、紀要(第7巻第1号、2006年12月)、米田富太郎翻訳、日本中央学院大学社会システム研究所発行、141–158頁。

“*A Study on the Development of Air Transportation at the Metropolitan Airports between Japan and South Korea*”, Kiyō (Vol.7, No1, 2006), Bulletin of the Research Institute of Social Systems, Chuo Gakuin University, pp.141–158.

13. “*A Study for the ICAO Draft Convention on Compensation for Damage Caused by Aircraft to Third Parties*”, Social System Review (Vol.2, 2008), The Research Institute of Social Systems, Chuogakuin University, pp.14–34.

14. 『韓国における新しい宇宙関係法の主な内容と課題』、空法(第49号、2008年5月)、日本空法学会発行、51–83頁。

“*The Main Contents and Tasks for the New Space Acts in Korea*”, Journal of Air Law (No.49, May 2008) published annually by the Air Law Institute of Japan at Tokyo, pp.51–83.

<International Business Law: 国際取引法>

1. 『韓国への対外投資の法的側面についての考察(上)』、国際商学法務(第21巻、5

号 1993年5月)、日本国際商事法研究所発行、598-604頁。

“Some Considerations on the Legal Aspects of Foreign Investment in Korea (1)”, Journal of Japanese Institute of International Business Law (Vol.21, No.5, May 1993) published by the Japanese Institute of International Business Law, Inc. pp.598-604.

2. 『韓国への対外投資の法的側面についての考察(中)』、国際商学法務(第21巻、6号、1993年6月)、日本国際商事法研究所発行、27-737頁。

“Some Considerations on the Legal Aspects of Foreign Investment in Korea (2)”, Journal of Japanese Institute of International Business Law (Vol.21, No.6, June 1993) published by the Japanese Institute of International Business Law, Inc., pp.727-737.

3. 『韓国への対外投資の法的側面についての考察(下)』、国際商学 法務(第21巻、7号、1993年7月)、日本国際商学法研究所発行、857-862頁。

“Some Considerations on the Legal Aspects of Foreign Investment in Korea (3)”, Journal of Japanese Institute of International Business Law (Vol.21, No.7, July 1993) published by the Japanese Institute of International Business Law, Inc., pp.857-862.

<Economic Law: 経済法>

1. 『韓国の改正独占規制及び公正取引法の内容と事例』、公正取引(通巻540号、1995年10月)、日本公正取引協会発行、38-45頁。

“Contents and Case on the Monopoly Regulation and Fair Trade Act in Korea”, Japanese Journal of Fair Trade (No.540, October 1995) published by the Japanese Association of Fair Trade at Tokyo, pp.38-45.

<The Others: 水資源及び鐵道連結>

1. 『21世紀における韓国のIT、水資源および南・北朝鮮間の鐵道連結問題と展望、紀要』(第2巻第1号、2001年7月)、日本中央大学社会システム研究所発行、83-93頁。

“Prospect and Problems of the Korean IT, Water Resources and Link of Railway

between South North Korea in the 21st Century,”

Japanese Journal for the Social System (Kiyo: Vol.2, No.2: Proceeding, July 2001) published by the Research Institute of Social Systems, Chuo Gakuin University in Japan, pp.83–93.

◆ Subtotal: 25 articles written by Japanese Language

♠ Singapore

1. “*The Possibility of Establishing an Space Agency*”, Singapore Journal of International & Comparative Law (Special Feature, Vol.5, No.1, 2001)”, Faculty of Law, National University of Singapore, pp.216–226.

♠ Macao

1. “*The System of the Warsaw Convention on Liability in International Carriage by Air*”, Journal of Faculty of Law (Vol. No.2, 1997), Macao University, pp.55–95.

♠ Philippine

1. “*Dramatic Reform in the Warsaw System and IATA Inter-carrier Agreement*”, *The World Bulletin* (Vol.14, Nos.12, Jan. Apr. 1998), The Institute of International Legal Studies, University of the Philippines Law Center, pp.57–80.

♠ Subtotal: 41 articles composed of 16 articles written by English language and 25 articles written by Japanese language.

♠ Korea

Total: 110 articles written by the Korean language in the field of Air and Space Law, Antitrust Law, Company Law, Commercial Law and International Trade Law etc.

⊙ Total: 151 articles (Korean, English and Japanese language)

I hereby affirm the above to be correct and true in every detail.

December 10, 2008

Doo Hwan Kim

2. Bibliography

Journals and Proceedings

Annals of Air and Space Law (1982–2008), Institute of Air and Space Law, McGill University, Montreal, Canada.

Air and Space Law (1981–2008), Kluwer Law International, The Netherlands.

Journal of Air and Commerce (1981–2008), School of Law, Southern Methodist University, Texas, USA.

Report of Space Law Committee (1968–2008), The International Law Association (London, the United Kingdom).

Zeitschrift für Luftund Weltraumrecht (German Journal of Air and Space Law, 1982–2008), Institut für Luftund Weltraumrecht der Universität zu Köln, Deutschland.

Journal of Air Law (KUHO: 空法, 1955–2008), The Air Law Institute of Japan (日本空法学会).

Proceedings of the Workshop on Space Law in the Twenty–First Century organized by the International Institute of Space Law with the United Nations Office for Outer Space Affairs, UN SPACE – III Technical Forum, July 1999, United Nations, New York, 2000.

Proceedings and Bulletin (紀要) of the Research of the Social Systems (2001–2008), Chuo Gakuin University in Japan.

Proceedings of the 2006 Seoul ICAO Legal Seminar in Asia–Pacific Region in Korea, 2006.

The Korean Journal of Air and Space Law (航空宇宙法学会誌, 1989–2008), The Korean Association of Air and Space Law

Proceedings of the International Conference for the Air and Space Law (1990–2008), The Korean Association of Air and Space Law.

- Proceedings of the 3rd International Conference on the Advancement Aerospace – oriented Technology in the 21st Century, Korea Aerospace University in Korea, 2005.
- Proceedings of the 2006 International Air and Space Law Seminar: Presentation Materials – Military Aviation Law on the Public & Private Legal Issues, Republic of Korea Air Force, 2006.
- Proceedings of the 39th International Symposium in 2007 on the International Air and Space Law and Situation around Korea, The Korean Association of Air and Space Law.
- Proceedings of the 39th International Conference in 2008 on the Legal & Policy Issues for the Development of Aviation, Space and Tourism of Korea in the 21st Century”, The Korean Association of Air and Space Law.

Books

- Aleksander Tobolewski, *Monetary Limitations of Liability in Air Law*, De Daro Publishing, Montreal, 1986.
- Andreas F. Lowenfeld, *Aviation Law*, Matthew Bender, New York, 1974.
- Carole Blackshaw, *Aviation Law & Regulation*, Pitman Publishing, 1992.
- Bin Cheng, *The Law of International Air Transport*, Stevens & Sons Limited, London, 1962.
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- Bhupendra Jasani, *Outer Space, A source of Conflict or Co-operation?*, United Nations University Press, Tokyo, Japan, 1991.
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- 21st Century, Kluwer Law International, The Netherlands, 1993.
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- Clive M. Schmitthoff, *Export Trade: The Law and Practice of International Trade*, 8th ed., Stevens & Sons., London, 1986.
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- Taxation Publishers, Second Revised Edition, Netherlands, 1999.
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- Stephen Gorove, *Developments in Space Law*, Martinus Nijhoff Publishers, The Netherlands, 1991.
- Tanja L. Masson – Zwaan, Pablo M.J. Mendes de Leon, *Air and Space Law: De Lege Ferenda*, Martinus Nijhoff Publishers, The Netherlands, 1992.
- Thomas Buergenthal, *Law Making in the ICAO*, Syracus University Press, 1969.
- Werner Guildman and Stefan Kaiser, *Future Air Navigation Systems*, Martinus Nijhoff Publishers, The Netherlands, 1993.

Germany

- Abraham, *Der Luftbeförderungsvertrag*, 1955.
- Alex Meyer, *Freiheit der Lufts und Rechtsproblem*, Zürich, 1944.
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日本書 (Japanese Books)

<国際航空法・商事法・宇宙法>

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小町谷操三	空中運送法論	1954	有斐閣
石井照久・伊藤孝平	海商法・航空法	1969	有斐閣
矢沢恂	企業法の諸問題	1981	商事法務研究会
唄孝一・有泉亨	現代損害賠償法講座(4)	1972	日本評論社
田中耕太郎	世界法の理論(1・2・3)	1973	岩波書店
田中耕太郎	続世界法の理論(上・下)	1972	岩波書店
石井照久	商法論集	1974	勁草書房
金沢理	交通事故と責任保険	1974	成文堂
浅野裕司・野口明宏	空法	1978	八千代出版(株)
吉永栄助・板本昭雄	最新国際航空法要論	1976	有信堂
板本昭雄	国際航空法論	1992	有信堂高文社
板本昭雄	新しい国際航空法	1999	有信堂
坂本昭雄・三好 晋	新国際航空法	1999	有信堂高文社
伊藤良平(編集)	航空輸送概論	1981	日本航空協会
木村秀政・増井健一	日本の航空輸送	1979	東洋経済新報社
津崎武司	国際航空と空の自由	1977	日本経済新聞社
津崎武司	日本の空港	1980	りくえつ社
平井宜雄	損害賠償法の理論	1982	東京大出版会
野上鉄夫	空商法論	1984	嵯峨野書院
野上鉄夫	世界統一空商法の形式への道	1994	嵯峨野書院
関口雅夫	国際航空運送人の責任制度	1998	成文堂
藤田勝利	航空賠償責任論	1985	有斐閣
藤田勝利・工藤聡一編	航空宇宙法の新展開	2005	八千代出版
藤田勝利編	新航空法講義	2007	信山社
池田文雄	宇宙法	1961	勁草書房
池田文雄	宇宙法論	1971	成文堂
城戸正彦	宇宙法の基本問題	1970	風聞書房

著者	著書名	発行年度	出版社
著・栗林忠男 監訳	国際宇宙法	1993	信山社
栗林忠男(編集代表)	解説宇宙法資料集,	1995	慶応通信(株)
稲原泰平	宇宙開発の国際法構造	1995	信山社
中央学院大学地方自治 研究センター編	原典 宇宙法	1999	丸善フラネット(株)
龍沢邦彦	宇宙法上の国際協力と商業化	1993	興仁社
龍沢邦彦	宇宙法システム	2000	興仁社
編集 宇宙開発事業団	宇宙開発 データブック	2000	(財)日本宇宙フォーラム
国際法学会編	陸・空・宇宙(日本と国際法の 100年) 第2巻	2001	三省堂
茅原郁生	中国の核・宇宙戦力	2002	蒼蒼社
毛利衛	果てしない宇宙のなかで思う 未来のこと	2002	数研出版(株)
青木節子 (社)日本航空宇宙工業会	日本の宇宙戦略 日本の航空宇宙工業50年の歩み	2006 2005	慶應大学出版会
的側泰宣	ロシアの宇宙開発の歴史	2002	東洋書店
大田憲司	有人宇宙基地・ミール	1995	新読書社
山本草二	宇宙通信の国際法	1967	有信堂
山本草二	放送衛星—その法制度的研究	1981	放送出版協会
富田二三彦	中国 宇宙開発	2002	KEC

韓國書 (The Korean Books)

著者	著書名	發行年度	出版社
孫珠瓚	航空運送契約法	1989	博英社
金斗煥	最新國際航空法學論	2005	韓國學術情報(株)
眩谷金斗煥教授華甲 紀念論文集	國際航空宇宙法 商事法의 諸問題	1994	法文社
洪淳吉	新航空法精解	1999	東明社
崔竣璿	國際航空運送法論	1987	三英社
N.M.Matte著・梁承圭訳	國際航空運送法	1987	法文社
李泰元	現代航空輸送論	1991	서울컴퓨터프레스
申東春	航空運送政策論	2001	禪學舍
Die. - Vershoor · 朴憲穆訳	航空法入門	2002	慶星大學校 出版部
崔興鈺編著	航空事故調查實務論	2002	建設交通部航空 事故調查委員會
李根杓	航空年鑑 2003-2007	2006	韓國航空振興協會

3. ICAO Lists of Multilateral Treaties and Current Status of International Air Law

Date and place of signing	Air law instrument	Short title / Description	Date of entry into force	Document No.	Depository and status (pdf)
12/10/1929 signed at Warsaw	Convention for the Unification of Certain Rules Relating to International Carriage by Air	Warsaw Convention (1929). Rules for international carriage by air	13/02/1933		Poland
07/12/1944 done at Chicago	Convention on International Civil Aviation	Chicago Convention. Constitution of ICAO	04/04/1947	Doc 7300	US
07/12/1944 done at Chicago	International Air Transport Agreement	Transport Agreement. Five freedoms of the air	08/02/1945		US
07/12/1944 signed at Chicago	International Air Services Transit Agreement	Transit Agreement. Two freedoms of the air	30/01/1945	Doc 7500	US
27/05/1947 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 93 <i>bis</i>]	Article 93 <i>bis</i> (1947). Expulsion or suspension	20/03/1961	incorp. in Doc 7300	ICAO
21/11/1947 Adopted by the General Assembly of the United Nations	Convention on the Privileges and Immunities of the Specialized Agencies – application to ICAO	Convention on the Privileges and Immunities of the Specialized Agencies (1947)	02/12/1948		UN

19/06/1948 signed at Geneva	Convention on the International Recognition of Rights in Aircraft	Geneva Convention (1948). Recognition of rights in aircraft	17/09/1953	Doc 7620	ICAO
07/10/1952 signed at Rome	Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface	Rome Convention (1952). Damage to third parties on surface	04/02/1958	Doc 7364	ICAO
14/06/1954 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 45]	Article 45 (1954). Seat of the Organization	16/05/1958	incorp. in Doc 7300	ICAO
14/06/1954 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Articles 48(a), 49(e) and 61]	Articles 48(a), 49(e) and 61(1954). Frequency of Assembly sessions and budgets	12/12/1956	incorp. in Doc 7300	ICAO
28/09/1955 done at The Hague	Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929	The Hague Protocol (1955). Amending Warsaw Convention of 1929	01/08/1963	Doc 7632	Poland
19/04/1956 signed at Paris	Multilateral Agreement on Commercial Rights of Non – Scheduled Air Services in Europe	Paris Agreement (1956). Commercial rights of non – scheduled services in Europe	21/08/1957	Doc 7695	ICAO

25/09/1956 signed at Geneva	Agreement on the Joint Financing of Certain Air Navigation Services in Greenland and the Faroe Islands	Joint Financing, Greenland (1956)	06/06/1958	Doc 9585	ICAO
25/09/1956 signed at Geneva	Agreement on the Joint Financing of Certain Air Navigation Services in Iceland	Joint Financing, Iceland (1956)	06/06/1958	Doc 9586	ICAO
22/04/1960 signed at Paris	Multilateral Agreement relating to Certificates of Airworthiness for Imported Aircraft	Paris Agreement (1960). Certificates of Airworthiness for Imported Aircraft	24/08/1961	Doc 8056	ICAO
21/06/1961 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 50(a)]	Article 50(a) (1961). Increase of Council to 27 members	17/07/1962	incorp. in Doc 7300	ICAO
18/09/1961 signed at Guadalajara	Convention, Supplementary to the Warsaw Convention, for the Unification of Certain Rules Relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier	Guadalajara Convention (1961). Supplementing Warsaw Convention of 1929	01/05/1964	Doc 8181	Mexico
15/09/1962 signed at Rome	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 48(a)]	Article 48(a) (1962)	11/09/1975	incorp. in Doc 7300	ICAO

14/09/1963 signed at Tokyo	Convention on Offences and Certain Other Acts Committed on Board Aircraft	Tokyo Convention (1963). Offences and other acts committed on board aircraft	04/12/1969	Doc 8364	ICAO
10/07/1967 signed at Paris	International Agreement on the Procedure for the Establishment of Tariffs for Scheduled Air Services	Paris Multilateral Agreement (1967). Tariffs for Scheduled Air Services	30/05/1968	Doc 8681	ICAO
24/09/1968 signed at Buenos Aires	Protocol on the Authentic Trilingual Text of the Convention on International Civil Aviation (Chicago, 1944)	Protocol on the Authentic Trilingual Text (1968)	24/10/1968	Doc 7300	US
16/12/1970 signed at The Hague	Convention for the Suppression of Unlawful Seizure of Aircraft	Hague Convention (1970). Unlawful seizure of aircraft	14/10/1971	Doc 8920	Russian Federation, UK and US
08/03/1971 signed at Guatemala City	Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929 as Amended by the Protocol done at The Hague on 28 September 1955	Guatemala City Protocol (1971). Amending Warsaw Convention of 1929 as amended by The Hague Protocol of 1955	not in force	Doc 8932	ICAO

12/03/1971 signed at New York	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 50(a)]	Article 50(a) (1971). Increase of Council to 30 members	16/01/1973	Doc 8970, incorp. in Doc 7300	ICAO
07/07/1971 signed at Vienna	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 56]	Article 56 (1971). Increase of ANC to 15 members	19/12/1974	Doc 8971, incorp. in Doc 7300	ICAO
23/09/1971 signed at Montreal	Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation	Montreal Convention (1971). Unlawful acts against the safety of civil aviation	26/01/1973	Doc 8966	Russian Federation, UK and US
16/10/1974 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 50(a)]	Article 50(a) (1974). Increase of Council to 33 members	15/02/1980	Doc 9123, incorp. in Doc 7300	ICAO
25/09/1975 signed at Montreal	Additional Protocol No.1 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929	Additional Protocol No.1 (1975). Amending Warsaw Convention of 1929	15/02/1996	Doc 9145	Poland

25/09/1975 signed at Montreal	Additional Protocol No.2 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929 as Amended by the Protocol done at The Hague on 28 September 1955	Additional Protocol No.2 (1975). Amending Warsaw Convention of 1929 as amended by The Hague Protocol of 1955	15/02/1996	Doc 9146	Poland
25/09/1975 signed at Montreal	Additional Protocol No.3 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929 as Amended by the Protocols done at The Hague on 28 September 1955 and at Guatemala City on 8 March 1971	Additional Protocol No.3 (1975). Amending Warsaw Convention of 1929 as amended by The Hague Protocol of 1955 and Guatemala City Protocol of 1971	not in force	Doc 9147	Poland
25/09/1975 signed at Montreal	Montreal Protocol No.4 to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air signed at Warsaw on 12 October 1929 as Amended by the Protocol done at The Hague on 28 September 1955	Montreal Protocol No.4 (1975). Amending Warsaw Convention of 1929 as amended by The Hague Protocol of 1955	14/06/1998	Doc 9148	Poland

30/09/1977 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Final Paragraph, Russian Text]	Final Paragraph (1977). Referring to the authentic Russian text	17/08/1999	Doc 9208, incorp. in Doc 7300	ICAO
30/09/1977 signed at Montreal	Protocol on the Authentic Quadrilingual Text of the Convention on International Civil Aviation (Chicago, 1944)	Protocol on the Authentic Quadrilingual Text (1977)	16/09/1999	Doc 9217, incorp. in Doc 7300	US
23/09/1978 signed at Montreal	Protocol to Amend the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface signed at Rome on 7 October 1952	Montreal Protocol (1978). Amending Rome Convention of 1952	25/07/2002	Doc 9257	ICAO
06/10/1980 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 83 <i>bis</i>]	Article 83 <i>bis</i> . Lease, charter or interchange	20/06/1997	Doc 9318, incorp. in Doc 7300	ICAO
03/11/1982 signed at Montreal	Protocol for the Amendment of the 1956 Agreement on the Joint Financing of Certain Air Navigation Services in Greenland and the Faroe Islands	Joint Financing, Greenland (1982). Amending Agreement of 1956	01/01/1983 prov. 17/11/1989 def.	incorp. in Doc 9585	ICAO

03/11/1982 signed at Montreal	Protocol for the Amendment of the 1956 Agreement on the Joint Financing of Certain Air Navigation Services in Iceland	Joint Financing, Iceland (1982). Amending Agreement of 1956	01/01/1983 prov. 17/11/1989 def.	incorp. in Doc 9586	ICAO
10/05/1984 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 3 <i>bis</i>]	Article 3 <i>bis</i> . Non – use of weapons against civil aircraft in flight	01/10/1998	Doc 9436, incorp. in Doc 7300	ICAO
16/06/1987 done at Paris	International Agreement on the Procedure for the Establishment of Tariffs for Intra – European Scheduled Air Services	Paris Tariffs Agreement (1987). Replacing Agreement of 1967	05/06/1988		ICAO
16/06/1987 done at Paris	International Agreement on the Sharing of Capacity on Intra – European Scheduled Air Services	Paris Capacity Agreement (1987). Sharing of capacity on intra – European scheduled air services	17/07/1988		ICAO
24/02/1988 signed at Montreal	Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation done at Montreal on 23 September 1971	Montreal Supplementary Protocol (1988). Acts of violence at airports	06/08/1989	Doc 9518	Russian Federation, UK, US and ICAO

01/07/1988 done at Paris	The International COSPAS – SARSAT Programme Agreement	COSPAS – CARSAT Agreement (1988). International satellite system for search and rescue	30/08/1988		ICAO, IMO
06/10/1989 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 56]	Article 56 (1989). Increase of ANC to 19 members	18/04/2005	Doc 9544	ICAO
26/10/1990 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Article 50(a)]	Article 50(a) (1990). Increase of Council to 36 members	28/11/2002	Doc 9561	ICAO
01/03/1991 done at Montreal	Convention on the Marking of Plastic Explosives for the Purpose of Detection	Convention on the Marking of Plastic Explosives (1991)	21/06/1998	Doc 9571	ICAO
29/09/1995 signed at Montreal	Protocol on the Authentic Quinquelingual Text of the Convention on International Civil Aviation (Chicago, 1944)	Protocol on the Authentic Quinquelingual Text (1995)	not in force	Doc 9663	US
29/10/1995 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Final Paragraph, Arabic Text]	Final Paragraph (1995). Referring to the authentic Arabic Text	not in force	Doc 9664	ICAO

01/10/1998 signed at Montreal	Protocol Relating to an Amendment to the Convention on International Civil Aviation [Final Paragraph, Chinese Text]	Final Paragraph (1998). Referring to the authentic Chinese Text	not in force	Doc 9722	ICAO
01/10/1998 signed at Montreal	Protocol on the Authentic Six – Language Text of the Convention on International Civil Aviation (Chicago, 1944)	Protocol on the Authentic Six – Language Text (1998)	not in force	Doc 9721	US
28/05/1999 done at Montreal	Convention for the Unification of Certain Rules for International Carriage by Air	Montreal Convention (1999). Rules for International carriage by air	04/11/2003	Doc 9740	ICAO
16/11/2001 signed in Cape Town	Convention on International Interests in Mobile Equipment	Cape Town Convention on Mobile Equipment (2001)	01/03/2006	Doc 9793	Unidroit
16/11/2001 signed in Cape Town	Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Aircraft Equipment	Cape Town Protocol on Aircraft Equipment (2001)	01/03/2006	Doc 9794	Unidroit

Cf. ICAO Website: <http://www.icao.int/cgi/airlaw.pl>

4. United Nations Treaties, Principles on Outer Space and Others Related General Assembly Resolutions

1. 1967 OST: Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty) Adoption by the General Assembly: 19 December 1966 (resolution 2222 (XXI))
Opened for signature: 27 January 1967 in London, Moscow and Washington, D.C. Entry into force: 10 October 1967
Depositaries: Russian Federation, United Kingdom of Great Britain and Northern Ireland and United States of America
2. 1968 ARRA: Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement)
Adoption by the General Assembly: 19 December 1967 (resolution 2345 (XXII))
Opened for signature: 22 April 1968 in London, Moscow and Washington, D.C.
Entry into force: 3 December 1968
Depositaries: Russian Federation, United Kingdom of Great Britain and Northern Ireland and United States of America
3. 1972 LIAB: Convention on International Liability for Damage Caused by Space Objects (Liability Convention)
Adoption by the General Assembly: 29 November 1971 (resolution 2777 (XXVI))
Opened for signature: 29 March 1972 in London, Moscow and Washington, D.C.
Entry into force: 1 September 1972

Depositaries: Russian Federation, United Kingdom of Great Britain and Northern Ireland and United States of America

4. 1975 REG: Convention on Registration of Objects Launched into Outer Space (Registration Convention)

Adoption by the General Assembly: 12 November 1974 (resolution 3235 (XXIX))

Opened for signature: 14 January 1975 in New York Entry into force: 15 September 1976

Depositary: Secretary – General of the United Nations

5. 1979 MOON: Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement) Adoption by the General Assembly: 5 December 1979 (resolution 34/68)

Opened for signature: 18 December 1979 in New York Entry into force: 11 July 1984

Depositary: Secretary – General of the United Nations

6. 1963 NTB: Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water Opened for signature: 5 August 1963 in Moscow Entry into force: 10 October 1963

Depositaries: Russian Federation, United Kingdom of Great Britain and Northern Ireland and United States of America

7. 1974 BRS: Convention Relating to the Distribution of Programme – Carrying Signals Transmitted by Satellite Opened for signature: 21 May 1974 in Brussels Entry into force: 25 August 1979

Depositary: Secretary – General of the United Nations Institutions

8. 1971 ITSO: Agreement Relating to the International Telecommunications Satellite Organization (ITSO), with annexes Opened for signature: 20 August 1971 in Washington, D.C.

Entry into force: 12 February 1973

Depositary: United States of America

9. 1971 INTR: Agreement on the Establishment of the INTERSPUTNIK International System and Organization of Space Communications
Opened for signature: 15 November 1971 in Moscow Entry into force: 12 July 1972
Depositary: Russian Federation
10. 1975 ESA: Convention for the Establishment of a European Space Agency (ESA), with annexes
Opened for signature: 30 May 1975 in Paris
Entry into force: 30 October 1980
Depositary: France
11. 1976 ARB: Agreement of the Arab Corporation for Space Communications (ARABSAT) (amended in May 1990)
Opened for signature: 14 April 1976 (14 Rabi' II 1396 H) in Cairo Entry into force: 16 July 1976
Depositary: League of Arab States
12. 1976 INTC: Agreement on Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes (INTERCOSMOS)
Opened for signature: 13 July 1976 in Moscow Entry into force: 25 March 1977 Depositary: Russian Federation
13. 1976 IMSO: Convention on the International Mobile Satellite Organization, with annex (amended in April 1998 to provide for the restructuring of Inmarsat; the amendments entered into force on 31 July 2001)
Opened for signature: 3 September 1976 in London Entry into force: 16 July 1979
Depositary: Secretary-General of the International Maritime Organization

14. 1982 EUTL: Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT)
(amended in accordance with decisions taken by the EUTELSAT parties in May 1999 to provide for the restructuring of EUTELSAT) Opened for signature: 15 July 1982 in Paris
Entry into force: 1 September 1985 Depository: France
15. 1983 EUM: Convention for the Establishment of a European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)
(amended in June 1991 to broaden its objectives to include climate monitoring and to allow for the execution of optional programmes; the amendments entered into force on 19 November 2000)
Opened for signature: 24 May 1983 in Geneva Entry into force: 19 June 1986
Depository: Switzerland(Sources: Germany, Bundesgesetzblatt, Jahrgang 1987, Teil II (1987), p.256.
16. 1992 ITU: International Telecommunication Constitution and Convention
Opened for signature: 22 December 1992 in Geneva Date of entry into force: 1 July 1994
Depository: Secretary-General of the International Telecommunication Union and Convention
(Source: ITU Secretariat, Place des Nations, 1211 Geneva 20, Switzerland)

5. Index

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• 著 者 •

金斗煥

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Seoul대학교 法科大学 卒業
Seoul대학교 大学院修了 (法学碩士)
慶熙대학교 大学院修了 (法学博士)
崇実대학교 法科大学 教授 (18年間) & 學長 (6年間) 歴任
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(現) 大韓商事仲裁院所屬 商事仲裁人
(現) 韓國航空宇宙法學會 名譽會長
(現) 韓國航空대학교 航空宇宙法學科 兼任教授
(現) 日本 中央學院大學 社會System研究所 客員教授
(現) 印度 Gujarat國立法科大学校 名譽教授

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