CHAPTER 1
INTRODUCTION

Since its inception, aviation has been subject to the general law, both International and domestic. The very first trace of aviation law in history was on 13 April 1784, by the Paris Police, forbidding flights of balloons without a special permission.\(^1\) The 100-year long history of space law is broadly international in character, where a large part of air law is either international law or international uniform law. Space (outer space) law was an idea without shape or substance for more than 20 years and it was first mentioned in a journal published in Paris in 1910. A few years after the Wright brothers’ invention, the Paris Peace Conference, 1919, was convened and the important issue of putting together an international air law code was entrusted to a special Aeronautical Commission of the Conference.\(^2\) The first doctoral dissertation dealing with space law appeared in 1953. By 1954, expanding international exchanges were occurring among jurists and commentators who were then concerned about the need for clarifications and definitions of law, for the anticipated human activity in outer space. Significantly, when Sputnik-1 was launched on October 4, 1957, earlier proposed concepts were no longer conceptual ideas.\(^3\)

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The Paris and Chicago Conventions of 1919 and 1944, respectively, recognized the exclusive sovereignty of states to the airspace above their territory.

Development of space law during the 20th century evolved through four interrelated phases:

1. Development of concepts of space law earlier than Sputnik-1.
2. Clarification and adoption of basic applicable laws.
3. The increasing uses of international and national space laws. In addition, regulations to manage such uses, which has been a process starting since the late 1950s.
4. The regulation of human activities beyond the atmosphere, including the eventual development of law to manage settlements and societies existing off the Earth

Regulation of such activities in space has only recently been seriously addressed.

At the meeting of the American Society (annual) of International Law in April 1956, an evening symposium was held on the topic of “International Air Law”. The annual International Astronautically Congresses held during the 1950s also had progressively increased participation by lawyers addressing space law issues.

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4 International Convention for Air Navigation and Convention on International Civil Aviation respectively held in 1944
7 Id., at 23, 27.
Neither international conventions nor customarily accepted practices have established a commonly acceptable line of demarcation between air space and outer space. Although the debate continued about where outer space begins after airspace ends and, the issue of whether or not sovereignty may be asserted in outer space has been generally settled by customary practice.\(^8\)

The basics of private air law have been derived from the Roman law. Likewise the origin of governmental regulations of aeronautical activities goes back to the era of balloon flight; and those of public international air law (sovereignty) to the beginning of the 20\(^{th}\) century when flight by heavier-than-air aircraft became technically possible.\(^9\)

Significantly, the first concerted attempt at codification on an international scale took place before 1910, when German balloons repeatedly made flights above French territory.\(^10\) The French Government was of the opinion that for safety and security reasons, it would be desirable for the two governments to try to reach an agreement and to resolve the problem. As a result, the Paris Conference of 1910 was convened. It prodded for the sovereignty of states in the space above their territories.\(^11\)

Treaty Law encompasses all international treaties in which multilateral conventions are the primary source of air law. It is important to note that the rights of participants like - the state, the owner, the operator, the passengers, the owner of the on-board goods, the mortgage holders, etc. are properly safeguarded by the achievement of the most important elements of Air Law. The

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provisions relevant to implementation are also found in the international agreements and conventions themselves. Other classifications relevant for Air Law are bilateral instruments, such as national Law, contracts between states and airline companies, or contracts between airlines companies, and general principle of International Law.\(^{12}\)

Within the framework of the newly created United Nations (UN), scholars from all corners of the world formulated many legal principles and expressed them in several international treaties, agreements and declarations, laying the foundations for the international law of space and outer space.\(^{13}\)

Air law and space law are distinct and separate branches of law, although they are occasionally treated as one “Aerospace Law”. Air law, the older of the two, is the body of public and private law, both national and international law that regulates aeronautical activities and other uses of airspace. Space law, on the other hand, regulates activities of states and private entities in outer space, primarily the use of satellites.\(^{14}\) The essential difference between air law and space law stems from the legal status of airspace and of outer space. Whereas airspace, except over the high seas and Antarctica, is under the sovereignty of subjacent states, outer space is governed by the regime of freedom. The question of boundaries between airspace and outer space is awaiting international agreement; it is virtually certain,


however, that the boundary will not be placed higher than 100-kilometers above sea level.\textsuperscript{15}

A further detailed study regarding historical perspective of air and space law is done in chapter 3.

1.1 Air Law

The law relating to air traffic has steadily developed in US and other developed countries right from the time when the first elementary aircrafts were introduced in these countries. One of the major reasons of globalization and vanishing of boundaries between distant continents has been the fact that air was developed as a medium of travel in the beginning of last century. While earlier, it was unthinkable that a person could travel from Asia to Europe in a matter of days with conventional means of transport, airplanes made it possible to navigate across high seas in a matter of few hours. This led to unprecedented development in inter-country trade and political interactions as well as provided impetus to imperialist tendencies of the US and the Europe. It, therefore, becomes necessary for us to understand the development and present status of air and space law in those countries. In Canada, for instance, legal regulation of air navigation is the exclusive competence of Parliament. The major, relevant legislation includes the Aeronautics Act (the cornerstone of the Canadian civil aviation regulatory system); the National Transportation Act (setting up the Canadian Transport Commission as the principal organ for the economic regulation of air transport): the Carriage by Air Act (governing the liability of air carriers relating to international carriage by air).\textsuperscript{16}


\textsuperscript{16} Tang Ut Fong, Air Law, the People’s University, Beijing, Vol. XXXII, No. 6, 621-637, (1979).
Since much of air navigation takes place internationally, many legal norms governing the technical aspects of air navigation have been developed internationally and are implemented by national legislation. The International Civil Aviation Organization (ICAO), headquartered in Montréal, was established pursuant to the Convention on International Civil Aviation, which has a membership of 184 states. The exchange of commercial rights in international air transport is regulated mainly by hundreds of bilateral agreements, along with the multilateral International Air Services Transit Agreement of 1944 and certain provisions of the Chicago Convention.17

The next significant law adopted by the Congress of the United States was the International Telecommunications Satellite Act of 1978,18 anticipating the creation of the International Maritime Satellite Organization. Increased use of international and national programs of remote sensing of the Earth led to US adoption of the Land Remote Sensing Commercialization Act of 1984,19 and that same year, the US Congress adopted the Commercial Space Launch Act.20

The Warsaw Convention of 1929, amended by the Hague Protocol of 1955, is widely accepted and governs the liability of air carriers with respect to the international carriage by air of passengers, baggage, and cargo. Another important aspect of air law is concerned with the suppression of unlawful seizure of aircraft (the Hague Convention of 1970) offences and certain other acts committed on board aircraft (the Tokyo Convention of 1963), and the suppression of unlawful acts against the safety of civil aviation (the Montréal

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17 Article 11, Chicago Convention, 1944.
18 U.N. Public Law, 95-564, 1 November 1978.
Convention of 1971). Each of these conventions has been accepted by many states, including Canada.\textsuperscript{21}

Significantly, there are two parts of air law:

1. Law relating to Aerial Navigation and
2. Law relating to Aircraft Hijacking

\textbf{1.1.1 Law relating to Aerial Navigation}

Modern aircraft routinely traverse international boundaries for private and commercial purposes. While the safety and ease of air transportation make international travel simpler, it sometimes complicates things when it comes to legal questions. For example if an aircraft that belongs to a US carrier is involved in an accident in France, do US or French laws apply? How can an aircraft with South African registry gain access to airports in Mexico.\textsuperscript{22} Over time, two distinct bodies of international aviation law have developed—public and private international aviation law.\textsuperscript{23}

\textbf{I. Public International Aviation Law}

Public International Law, in an aviation context, refers to agreements and treaties among various nations related to issues such as:\textsuperscript{24}

i) Landing rights

ii) Over flight authorizations

iii) Security and registration

iv) Communications

\textsuperscript{23} Id., at 281-282.
The origin of public international aviation law is rooted in the period following the end of World War I. Before and during the war, aircraft were largely viewed and known as military weapons. In the aftermath of the war, lawyers, judges, and politicians from all over the world recognized the profound impact that air travel would have in challenging traditional notions of borders and “ownership” of airspace. Some of the more significant aviation treaties, conventions (international agreements), and compacts related to public aviation law are outlined below.25

(a) The Paris Convention, 1919

After World War I, the Paris Convention of 1919 was adopted. The Paris Convention marked the first formal efforts at establishing a rule of law related to sovereignty over airspace, registration of aircraft, standards for pilots, and movement of military aircraft. The Paris Convention also created the first formal organization for the oversight of international aviation activities, the Commission International de Navigation Aérienne. Although the Paris Convention was a start in the right direction, it became apparent that more extensive cooperation and legal infrastructure might be necessary to support a growing aviation industry. The Havana Convention of 1928 built on much of what was started in the Paris Convention and established several new legal principles upon which international aviation would be governed.26

(b) The Havana Convention, 1928

From second to 19th of May 1927 the states had met in Washington on the topic of the Pan-American Commission on the aerial and commercial navigation, which had drawn up the project of

25 Bermuda I, II Agreement.
Pan-American Convention of Aerial Navigation. The majority of the states represented were the same ones that had come forward six months before for the *Convenio Ibero Americano de Navegación Aérea* (CIANA) also called the Ibero-American Convention on Air Navigation, signed in Madrid in October 1926). The *Pan American Convention on Commercial Aviation* had been finalized in Havana on early 1928 under the auspices of the Sixth Pan-American Conference (held in Havana, Cuba, from 16 January to 20 February 1928). The United States and twenty other States located in the Western Hemisphere signed the Convention on 20 February 1928. This new Convention weakened the International Commission for Air Navigation (ICAN’s) international stature.27

(c) **The Chicago Convention 1944**

The most significant agreements in public international aviation law are discussed during the Chicago Convention of 1944. One of the most noteworthy achievements of the Chicago Convention was the establishment of the International Civil Aviation Organization (ICAO), which continues to operate today. When the Chicago Convention came into force in 1947, it resulted in the termination of the Paris Convention of 1919 and the Havana Convention of 1928. It is probably fair to state that the Chicago Convention created the foundation for our current system of international transportation by air.28 The Chicago Convention states that each “state has complete and exclusive sovereignty over the airspace above its territory”.29

Although the multilateral Chicago Convention failed to create an open skies environment for international air transportation, it did spawn several bilateral agreements (agreements between individual

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nations) that have effectively created a more open skies type of approach over time. The first of these bilateral agreements was known as the Bermuda I agreement,\(^{30}\) entered into in 1946 and the sole parties involved were the United States and Great Britain. The Bermuda I agreement permitted the airlines of United States and Great Britain to operate to and from each country—but only to designated “gateway” airports. Each airline was allowed as many flights as it desired.\(^{31}\)

(d) **Open Skies Agreements, 1992**

In 1992, in the United States, the Transportation Department initiated an “open skies” initiative that would allow for a more liberal framework for air route selection, capacity determinations, fare setting, and frequency of flights.\(^{32}\) The first open skies agreement was introduced in October 1992 between the Netherlands and United States. Subsequently, the United States entered into open skies agreements with 13 European states.\(^{33}\) Open skies agreements were signed by states such as Canada, South America, Peru, Malaysia, Taiwan, New Zealand, and Singapore, among others.\(^{34}\)

II. **Private International Aviation Law**

Private international aviation law is the body of law relating to agreements and treaties between different countries in which the responsibility of a party in one country to aviation injured party in another country can be established.\(^{35}\) In many ways, the development of private international aviation law is an effort to sort out the

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30 Civil Aeronautics Act, 1983.
35 Ibid.
uncertainties of jurisdiction and responsibility when persons from various sovereign nations are involved in violation of aviation law.

The formation of a body of private international aviation law began in 1925 at the first Conference on Private Air Law, Paris. The conference established an International Technical Committee of Aerial Legal Experts. This committee was charged with providing an ongoing study of the issues involved with private liability stemming from international air transportation. The committee studied the legal landscape of international air transportation. The Warsaw Convention is the centerpiece of private international aviation law. It is discussed below along with some relatively new developments from the Warsaw Convention of 1929 and the Cape Town Convention of 2001.

(a) The Warsaw Convention, 1929

The Warsaw Convention 1929 was adopted in a conference; however, subsequent protocols amended the original convention. Currently, more than 135 nations are parties to the Warsaw Convention. The delegates to the Warsaw Convention had two major objectives. The first was the creation of a uniform system of regulation for issues such as baggage transport, ticketing, movement of cargo, and claims by passengers or customers concerning lost or damaged luggage or cargo. The second primary goal of the convention was to cap the amount of damages an air carrier could incur in an accident with the offsetting limitation to the defenses that

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36 The Warsaw Convention was convened in Warsaw, Poland, in 1929 as a result of the same.
38 Montreal Convention, 1999.
39 Id., at 17.
air carriers could invoke to avoid responsibility. In the end, the main concern of the Warsaw Convention drafters was protection of the fledgling international air transportation industry.\footnote{“Warsaw Convention”, available at: www.mcgill.ca/files/iasl/warsaw1929.pdf and http://dgca.nic.in/int_conv/Chap_VI.pdf, (visited on February 14, 2014).}

However, Warsaw Convention, 1929 has been substituted by Montreal Convention, 1999 which has provided more stringent provisions relating to aerial navigation.

(b) Cape Town Convention of 2001

This Convention provides significant help in satisfying the unprecedented demand for new aircraft equipment over the next twenty years, with an estimated value exceeding US $1,200 billion.\footnote{Available at: http://www.awg.aero/assets/docs/Implementation%20Resource%20Materials%20April_pdf (visited on July 13, 2015).}

1.1.2 Some Important Concepts and Bodies Regarding Air Law

(a) The Right to Fly

The Chicago Conference, 1944 had intended to provide rights for aircraft of the contracting states of Chicago Convention, whether engaged in scheduled air services or in non-scheduled flights, to fly into one another’s territories. Some compromise was reached for non-scheduled flights,\footnote{Article 5, Chicago Convention, 1944.} which in practice, however, has been honored more in its breach than its observance. This fact has been manifested in the failure to reach agreement on a multilateral exchange of rights for scheduled international air services by providing that they can be operated into a contracting State’s territory only with the latter’s authorization.\footnote{Ibid, Article 6.} The privilege covered by such authorization is often divided, in the jargon of the industry, into a number of so-called...
“freedoms of the air”. The first two such “freedoms” consist of “transit right”, namely the right of transit without landing, and that of transit with stops only for technical purposes.

(b) Airspace Sovereignty

The airspace sovereignty reaffirms the rule of general international law that “every State has complete and exclusive sovereignty over the airspace above its territory”. The principle of sovereignty over airspace is the point of departure for regulating most problems of international air law, for example, departure, and entry of aircraft, passengers and cargo, crew and jurisdiction over them for regulatory purposes or for the application and enforcement of both, general criminal law and special rules for the protection of international civil aviation.

(c) Aircraft

Aircrafts are defined in the Standards adopted by the Council of the International Civil Aviation Organization (ICAO) as “any machine[s] that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface”; air cushion vehicles, such as hovercraft and ground effect machines, are not classified as aircraft. Aircraft may be lighter-than-air (balloon) and power-driven (airship) or heavier-than-air (glider). The most common aircraft is an airplane - a power-driven heavier than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces, which remain, fixed under given

46 Article 1, Chicago Convention, 1944.
conditions of flight. Helicopters are heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on vertical axes.

(d) International Civil Aviation organization (ICAO)

At the invitation of the US of America, 52 States met in Chicago and signed the “Chicago Convention on 7 December 1944. Chicago Convention is one of the most remarkable international legal documents of the 20th Century”. The first time that sub-orbital flights were mentioned in ICAO was at the 35th Session of the ICAO Assembly in 2004 when Jurist Fabio said, “100 years from now regular passenger flights in sub-orbital space and even outer space could be common”. To this date, we have no definition where the air space ends and where the outer space commences and of course, no international treaty has been established in this regard. Jurist Fabio believes that there is no need to establish a special international organization for future commercial civil sub-orbital flights, not even for spaceflights. ICAO is very well structured to meet the necessary requirements for such development in the future by simply extending its mandate to cover this aspect of flights. Although there is no reference in the Chicago Convention to aviation security and environment, nevertheless these two items, together with safety, are top priority in the ICAO Program and well combined in ICAO activities. ICAO has developed two Annexes, one for the Environment and the other for Security. New Annexes could be

50 Federation Aviation Act, 1958.
51 Convention on International civil Aviation Chicago, 1944.
54 Id., at 35.
55 Ibid.
developed to cover suborbital flights and space flights. Should an amendment be needed to cover the suborbital and ultimately, the outer space civil flights, of course, this could be done but it may take a long time for the amendment to enter into force.

(e) Trial Procedure

Another important question that arises in the context of international air transportation is the place for a trial. Article provides the four possible places where a plaintiff may bring an action against an air carrier are the following:\(^\text{57}\)

(i) The place where the air carrier is domiciled

(ii) The primary place of business for the air carrier

(iii) The country where the contract of travel was made (as long as the air carrier does business in that country)

(iv) The destination country

1.1.3 Law Relating to Aircraft Hijacking

It is important to note that 1968 till 1070 were the worst years for Aircraft Shipping, in 1968 there were 33 successful hijackings; in 1969, there were 70 successful Hijackings.\(^\text{58}\) September 1970 saw the most catastrophic hijacking so far: four aircrafts\(^\text{59}\) were held on the Cairo airport and in the desert of Jordan and were eventually blown up, after the passengers were freed. These events led to adoption of

\(^{56}\) Ibid.

\(^{57}\) Article 28, Warsaw Convention.

\(^{58}\) Course on Criminal Air law, 8 (International Institute of Air and Space Law, 2008).

\(^{59}\) A BOAC DC-10, a Swissair DC_8, a TWA Boeing 707, and a PANAM Boeing 747.
various international conventions. Let's briefly analyze these conventions:

(a) The Tokyo Convention, 1963

This Convention applies in terms of: (a) offences against penal law; (b) acts, (offences or otherwise) which may jeopardize the safety of the aircraft or of persons or property therein or which jeopardize the order and discipline on board. This convention also cover offences committed or acts done by a person on board any aircraft registered in a Contracting State, while that aircraft is in flight or on the surface of the high seas or of any other area outside the territory of any State. Under this Convention, “an aircraft is considered to be in flight from the moment when power is applied for the purpose of take-off until the moment when the landing run ends”.

(b) The Hague Hijacking Convention, 1970

It was only partly successful as its extradition prosecution formula, namely, aut dedere, aut judicare, gave freedom to the States Parties to extradite. In the case that the offender is not extradited, it is up to the States to prosecute and punish him/her or not.

The Hague convention confirmed jurisdiction of domestic legislation and quasi-territorial jurisdiction in case of Hijacking. Significantly, the convention established ‘hijacking’ as a crime punishable by international law. This means when offender is found in

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64 Ibid, Article 3.
65 Extradition is the surrender, upon diplomatic request, of a person having committed an offence to the State where he is held, to neither State having jurisdiction, in accordance with a treaty between the two states.
66 Article 1, Hague Convention, 1928.
the territory of a state Party; the international recognition of the crime of ‘hijacking’ and the recognition of jurisdiction that allows the application of domestic criminal law then will provide the legal framework to justly condemn the offender. According to this, the European Treaty also established substitutive jurisdiction in case the offender is not extradited.  

(c) The Bonn Declaration of 1978

In 1978, during the G-7 summit in Bonn, a declaration was adopted which is known as the Bonn Declaration on Hijacking. The main aim of Bonn Declaration was to impose sanctions on States harboring offenders.

(d) The ‘Airport’ Protocol of 1988 to the Montreal Convention, 1971

A great number of attacks at international airports, for instance, in Athens, Rome, Tel Aviv, Vienna Frank Furt, and Beirut, led to the initiative of Canada, in 1986, to propose the adoption of a new instrument for the suppression of unlawful acts of violence at airports serving international civil aviation.

The Protocol aims at the suppression of acts of violence against facilities, persons and aircraft-not-in-service at airports serving international civil aviation, for which a new Article was added to the Montreal Convention.

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68 The participant to the G-7 summit are the Heads of States and Government of France, the United States, Japan, Italy, the United Kingdom and Canada. See Article 6.
(e) **Convention on Marking of Explosive for the Purpose of Detection, 1991**

Plastic explosives have been very difficult to detect using commonly available airport security equipment. However, less than two and one-half years after the threat posed by plastic explosives was made alarmingly clear, the international civil aviation community has taken a significant step regarding Aircraft hijacking.\(^\text{72}\)

(f) **The Beijing Convention and the Beijing Protocol, 2011**

September 11, 2001 inspired the adoption of Aviation Counter-Terrorism Convention and Protocol which prohibited use of the hijacked aircraft as a weapon for destruction. Significantly, under this Convention various serious offences were mentioned. Detailed analysis of the international air law is done in chapter 1.2

**1.2 Space Law**

The origin of space law can be traced after the launching of Sputnik I on 4 October 1957 by USSR, it was the first artificial Earth satellite. Since that time, the legal regulation of space and outer-space activities has been largely centered in the UN Committee on the Peaceful Uses or (scientific uses) of Outer Space.

The United Nations has played commendable role in enacting space law. Presently, following five international treaties or conventions are governing outer space.

(a) **Outer Space Treaty, 1967**

Among all UN treaties, the most important Treaty is the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other celestial bodies.

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1967, also known as Outer Space Treaty. The commendable feature of this treaty is that it clearly provided that outer space must be used for peaceful purposes. Apart from this, it has given certain important principles for activities in space.

(b) **Rescue Agreement, 1968**

Another important Agreement relative to Outer Space Law is the Agreement on Rescue and Return of Astronauts and Space Objects, 1968 also known as Rescue Agreement. It is mainly concerned with the safety of astronauts and other scientists. Significantly, this treaty has also given importance to keep the space free of all used space objects and waste material and to bring them back to Earth for proper disposal.

(c) **Liability Convention, 1971**

On November 29, 1971, the United Nations General Assembly endorsed the ‘Convention on International Liability for Damage Caused by Space Objects’. This convention has played significant role in fixing the liability of launching state for any accident of the space object incurred in the space.

(d) **Registration Convention, 1975**

It was adopted in 1975 and it came into force in 1976 with main objective to encourage Member States conducting space launches to register the space objects to be launched.

(e) **The Moon Agreement, 1979**

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73 Also known as the Outer Space Treaty (OST).
74 Available at: http://digitalcommons.unl.edu/spacelawdocs, (visited on May 28, 2015).
75 UNGA, from 1962 to 1967 (1967).
76 UNO, Liability Convention, (1971).
Adopted in 1979\textsuperscript{77} and came into force in July 1984, the Agreement reaffirms and elaborates, on many of the provisions of the OST\textsuperscript{78} and states that outer space including moon and celestial bodies should be used exclusively for peaceful purposes and for science purposes.\textsuperscript{79} An important principle laid down in this agreement was that no state can claim sovereignty over moon.

1.2.1 Some Important Concepts and Bodies relating to Space Law

(a) Global Space Traffic Management (GSTM)

Current activities in space cannot be maintained in the long term as number of used space objects are moving in space and causing pollution. Therefore, there should be uniformly implemented debris mitigation measures, well-coordinated debris remediation operations, and global space traffic management (GSTM).\textsuperscript{80}

(b) United Nations Committee on the Peaceful Uses of Outer Space (COPUOS)

COPUOS is the main inter-governmental forum for the development of international legal principles governing space and outer space activities. It was established in 1959 by the United Nations General Assembly (UNGA)\textsuperscript{81} and its main purpose is to review the scope of international cooperation in peaceful uses of outer space and for the purposes of science. The Committee and its two Sub-committees (the Legal Sub-committee and the Scientific and Technical

\textsuperscript{77} United Nations Resolution 34/68, (1979).
\textsuperscript{78} Available at: http://www.unoosa.org/oosa/SpaceLaw/moon.html (visited on April 12, 2015).
\textsuperscript{79} Ibid.
\textsuperscript{81} Under and by virtue of its Resolution, 1472 (XIV).
Sub-committee) meet annually to consider issues raised or reports submitted to them by the UNGA and the Member States.\textsuperscript{82}

The Committee and its Sub-committees work based on consensus and make recommendations to the General Assembly to be considered for adoption as UN resolutions.

(c) \textbf{Aerospace Vehicles}

More than 25 different concepts and aerospace vehicles are currently under study or development. These are mainly in the US, but also in Russia, Canada, and Europe. Spaceports dedicated to suborbital flights have been, or are in the process of being constructed in, \textit{inter alia}, the U.S, Singapore, United Arab Emirates, Malaysia, Scotland, and Sweden. Several civil aviation authorities have initiated their own studies on possible regulatory frameworks.\textsuperscript{83}

Composites will be owned and operated by the UK Company: Virgin Galactic. Similarly, the Canadian Arrow suborbital vehicle built in Canada would be operated by the American company Space Adventures.\textsuperscript{84} There are plans to operate such vehicles from third-party countries, and, in due course, to use them for point-to-point international supersonic/hypersonic transportation. Because of such cross-border relationships, complicated legal and regulatory issues arise. For example, with the SS2 classified as a rocket, the UK’s Virgin Galactic had to obtain technical assistance agreements under US International Traffic in Arms Regulations (ITAR) to work and exchange data with the US manufacturer Scaled Composites. This


\textsuperscript{83} See also file:///C:/Users/DELL/Downloads/104366.pdf Its (visited on June 9, 2015)

translates into additional costs amounting to hundreds of thousands of dollars and long delays in obtaining the required permissions. Then, there are restrictions on what Scaled Composites can disclose to Virgin Galactic (the eventual owner) about the design characteristics of the vehicle. Furthermore, any country from which Space Ship 2 will be operated falls within the scope of launching States in accordance with the UN space treaties. Therefore, all such countries will be “responsible” and “liable” for the space activities that take place from their territory involving that vehicle.  

(d) Celestial Bodies

Significantly, in the years preceding the finalization of the 1967 Treaty on principles governing the activities of States in the exploration and use of outer space, including the Moon and other celestial bodies, the need to define the notion ‘celestial body’ was raised frequently. Whatever matter such definition would comprise, it was argued that celestial bodies were physically markedly different from their largely void surroundings and should therefore be subject to a separate legal regime. The main space law resolutions in force at the time did not undermine this contention as they referred to ‘outer space and celestial bodies’ when defining the scope of their provisions, thus leaving open the possibility of installing two separate legal regimes, determined by the physical characteristics of their subject matter.

A further study of international space law is done in chapte 4.

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85 Ibid.
86 Mark J. Sundahl (ed.), *New Perspectives on Space Law*, 53rd IISL, Young Scholars Session, Cleveland-Marshall College of Law Cleveland State University, Ohio, USA.
87 Declaration of legal principles governing the activities of States in the exploration and use of outer space in UNGA Res. 1962 (XVIII) of 13 December 1963; UNGA Res. 1721 (XVI) of 20 December 1961 on international cooperation in the peaceful uses of outer space.
1.2.2 National Scenario of Air and Space Law: Disparity between Developing and Developed Countries

It is commendable to note that the members state ratified various conventions relating to air and space law and enacted their own laws. For example, the first major law in the United States was the National Aeronautics and Space Act of 1958, which established NASA, and set out basic national policies regarding activities related to space.\(^{88}\) Considering national air and space law the developed countries have enacted strong laws. In case of hijacking the US considered the following measures of ‘retaliation’:

(a) To boycott countries harboring offenders;

(b) To declare such countries dangerous for tourist and business travelers;

(c) Not to admit persons and aircraft which have visited such countries, unless screened by third party;

(d) No sale of arms or provision of nuclear facilities;

(e) Not to operate services to those countries;

To blacklist the airports, parts and facilities of such countries, whereas IATA added the banning ICAO and IATA.\(^{89}\)

In any study of air and space law, the jurisprudential realm typically belongs to the US and other western countries. There are obvious reasons for this. One of the primary reasons is that developed countries have a much more evolved network of air traffic and therefore, their laws are in a much more advance state than the developing countries. The latter are either following the developed nations or are in such a nascent stage of development of air traffic that


\(^{89}\) UN Public Law 98-575, dated 30 October 1984.
perusal of their legal regime in this regard would not be of much assistance to any legal endeavour. The developed countries also have a much more marked presence in the space owing to their superior economic and technological infrastructure. This is signified by the fact that US, Russia and other European nations have sent multiple missions to Mars and Moon apart from various satellites in the outer periphery of the earth. In such a situation it is but natural that developed nations would have a much greater say in determining and formulating laws related to the subject of air and space. Their presence in the UN being remarkably stronger than the developing nations, it is but natural that most of the laws related to air and space traffic would be tilted in their favour. Hence, it becomes the bounden duty of the developed nations to provide necessary know-how and an equitable treatment under the international legal regime to the developing nations.

A detailed study of national scenario of air and space law is done in chapter 5.

1.3 Liability under Air and Space Law

Regarding air navigation, carrier is liable for death or damage done to the passenger or his cargo.

The Warsaw Convention, 1929 provides that an international air carrier will be liable for a passenger’s death or injury.\(^90\) The Montreal Convention modified the Warsaw Convention by defining baggage as both checked and unchecked (carry-on) baggage,\(^91\) and accident that takes place when a passenger is A) on an aircraft, B) boarding an aircraft, or c) disembarking an airplane.\(^92\) Article 18 imposes liability on an air carrier for baggage that is checked and goods that are

\(^90\) Articles 17, 18 Warsaw Convention, 1929.
\(^91\) Montreal Convention, 1999.
\(^92\) Article 19, Warsaw Convention.
damaged while in the care and custody of the air carrier. Exposure to liability for baggage was expanded in states that an air carrier is liable for any damages resulting from delays of passengers, cargo, or baggage.\footnote{Ibid.}

While under Warsaw convention straightforward in application, the use of the word “accident” to trigger liability and it has sometimes spawned conflicting views.\footnote{Articles 18 and 19.} In a 1985 case, the US Supreme Court defined the term “accident”\footnote{Article 17, Warsaw Convention.} as “an unexpected or unusual event or occurrence that is external to the passenger”.\footnote{\textit{El Al Israel Airline Ltd. v. Tsui Yuan Tseng}, available at: www.law.cornell.edu/supremecourt/text/525/155, (visited on July 11, 2015)\footnote{Nullum crimen sine lege: no crime without law.}\footnote{Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies(The Outer Space treaty), 1967; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, (the Rescue Agreement), 1967; Convention on International Liability for Damage Caused by Space Objects (The Liability Convention), 1971; The Convention on Registration of Objects Launched into Outer Space (The Registration Convention), 1974; and The Agreement on the Registration of Outer Space Objects, 1976.}}

However, the Montreal Convention, 1999 provides provisions for liability of the Carrier and Extent of compensation for damage.

In case of aircraft hijacking criminal liability arises and the general principles of international criminal laws such as \textit{Nullum crime sine lege} (no crime without law)\footnote{Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies(The Outer Space treaty), 1967; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, (the Rescue Agreement), 1967; Convention on International Liability for Damage Caused by Space Objects (The Liability Convention), 1971; The Convention on Registration of Objects Launched into Outer Space (The Registration Convention), 1974; and The Agreement on the Registration of Outer Space Objects, 1976.} and \textit{nulla poena sine praevia lege poenali} are general principles of criminal law (no punishment without a pre-existing penal law) are applicable. In this regards apart form earlier Conventions, the Montreal Convention, 1999 and the Beijing Convnetion and Protocol contains significant provisions.

Considering liability under space law, important principle is that launching state is responsible for any damage caused by the launched object. Undoubtedly the five space treaties\footnote{Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies(The Outer Space treaty), 1967; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, (the Rescue Agreement), 1967; Convention on International Liability for Damage Caused by Space Objects (The Liability Convention), 1971; The Convention on Registration of Objects Launched into Outer Space (The Registration Convention), 1974; and The Agreement on the Registration of Outer Space Objects, 1976.}, contain
provisions regarding liability of the launching state but the Liability Convention, 1971 is very important in this regard. A detailed study of liability under air and space law is done in Chapter 6.

1.4 Significance of the Research Study

In recent years, progress in Science and Technology for using air and outer space for peace has led to growth of the industry at quite a fast pace and this growth of industry has now turned towards sky and without air and space law it will progress slowly. The biggest issue is that air and outer space should be used in positive way for human kind. Following points are noteworthy in this respect:

(a) Air and outer space is an opportunity as well as a challenge to the world, particularly for the major developing economies.

(b) For tackling the problem of air hijacking in a lawful way development and study of air and space law is highly significant. Crimes can be reduced and security can be increased in aircrafts by using conventions and agreements.

(c) Outer space including celestial bodies are common heritage of mankind and must be used for peaceful purposes.

(d) States have exclusive sovereignty over air space but no State can claim sovereignty over outer space.

(e) The airlines operating under the umbrella of conventions or agreements could benefit enormously from a more liberal or favorable access to international routes and gain a competitive advantage over other airlines that

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Governing the Activities of States on the Moon and Other Celestial Bodies, (The Moon Agreement), 1979.
continue to operate in the traditional restrictive regimes. This is the reason why so many countries have been pulled into the game and multiple liberalization endeavors have emerged around the world. This is also a contributing factor of ensuing globalization and liberalization of the modern world economies.

(f) Modern aerospace technology allows aircraft to operate efficiently and safely under a very wide range of conditions, to areas and climates throughout the world.

The developed countries are using air and outer space more than developing countries because technologically developing countries are less advance. Therefore, for equitable and appropriate use of air and outer space an even air and outer space law and its study is required, hence the significance of present study.

1.5 Objectives of the Study

Important objectives of the present study are:

1. To study the evolution of international air and space laws;
2. To analyze the existing international air and space conventions;
3. To study the impact of international air service on developing and developed countries; and
4. To study the impact of air and space law on globalization.

1.6 Hypotheses of the Study

Important hypotheses of the study are:
1. International law does not provide immediate measure to protect territorial airspace and to cease the violation;

2. The ‘freedom of the air’, similar to the ‘sovereignty’, cannot be considered absolute and unrestricted under international law;

3. The air and space law are tilted more in the favor of technologically advanced country (developed country); and

4. The air and space law has given maximum flip to Globalization.

1.7 Research Methodology

The research methodology to be used in this research is doctrinal. It involves the study of both primary and the secondary data; the primary data is in the form of international conventions, documents such as the law commission reports, municipal legislations etc. The secondary data will be collected from the sources as various books, documents, articles, magazines, reports, journals etc.

1.8 Limitation of the Study

Due to lack of time and financial resources, the study will be doctrinal and not an empirical study. As available books have much less commentary on this subject, therefore, the researcher relied upon mainly on international documents, state laws and articles available on the internet. Further, not all international documents are accessible and hence the study is not fully comprehensive. In other words, there is room for further research and dialogue regarding this topic.
1.9 Review of Literature

Books

Peter P.C. Haanappel in his book titled “The Law and Policy of Air Space and Outer Space: A Comparative Approach”\(^{99}\) has explained the impact of law and policy on air and space law. This book, covers the history and development of air and space law; their interrelationships; their relationships with the law of the seas and the law of Antarctica; institutions working in the field of air and space law; sovereignty in national airspace; freedom of exploration and use of outer space; public international air law; penal air law; private international air law, especially liability law; and public and private space law. The book much attention is devoted to the law of air commerce: bilateral air services agreements; inter-airline cooperation; the effects of competition, anti-trust and European Union law; deregulation, privatisation and commercialisation of air transport; ownership and control of airlines, and airline alliances; multilateralisation of air transport; and congestion and environmental controls. The book briefly deals with the legal aspects of commercial outer space applications. Increasingly, air transport, both in fact and in law, is becoming an ordinary industry like any other and is being treated as such. Rapidly, commercial outer space activities are being privatised and commercialised.

Frans Von Der Dunk & Fabio Tronchetti book titled as “Book of Space Law”\(^{100}\) addresses the legal and regulatory aspects of activities in outer space and major space applications from a comprehensive and structured perspective. This book fundamentally addresses the dichotomy between the state-oriented character of international space

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\(^{100}\) Frans Von Der Dunk (Author, Editor), Fabio Tronchetti (Author, Editor), Handbook of Space Law (Research Handbooks in International Law Series), (Elgar Original Reference) University of Luxembourg, (December, 2009).
law and the increasing commercialization and privatization of space activities. The book focuses on international space law in the broadest sense of the word, not only including the UN-based space treaties and international customary (space) law, but also the many specialized regimes such as those applicable to the international satellite organizations, the International Space Station, the international trade and the security-sensitive aspects of space technology exports, the financing of space ventures and environmental concerns. The novelty of this holistic approach to space law notably includes the profound and ever-increasing commercialization of space activities and the attendant involvement of the private sector in such activities. This authoritative book thus presents a unique standard work of reference for anyone interested in studying or researching the legal and regulatory aspects of space activities and their major applications in depth.

Michael Milde in his book titled as “International Air Law and ICAO” has tried to define concepts regarding air law and the role of ICAO.\textsuperscript{101} The book has covered all the latest developments which have taken place in the field. The book, specialized legal literature dealing with different aspects of international air law is rare, the developments often overtake the existing writings and there is a continuous need not only for updating but also for future-oriented thinking. There is a practical need for a compact but exhaustive and easily comprehensible textbook or reference book that deals with the most general aspects of international air law, as well as with the constitutional issues and law-making functions of the International Civil Aviation Organization (ICAO). This book is the second edition of the acclaimed ‘International Air Law and ICAO’, first published in 2008. This book fills this gap as it is a general treatise of the law of international civil aviation aimed at the needs of university students.

\textsuperscript{101} Michael Milde, International Air Law and ICAO, Eleven Law, (2012).
and educators, government authorities, airlines, practicing lawyers, journalists, international organizations and the general public.

This book is motivated by the author’s 25 years of experience (1966-1991) in the Secretariat of ICAO in Montreal – his last 8 years as Director of the Legal Bureau. In equal measure the inspiration for the content of this book came from the author’s academic work as Director of the Institute of Air and Space Law of McGill University (1989-1998) and his role as Professor of Law at that Institute until 2006 teaching this subject to graduate students from different parts of the world and different legal cultures.

Bin Cheng in his book “Studies in International Space Law”102 has tried to explain various studies on space laws and treaties. The book is a detailed and meticulous study of the area of international space law by a leading international lawyer. The book draws conclusions relevant to international law and lawyers in general as well as those working in the more specific field of space law. In this book the publication of this title coincides with several important anniversaries in international air and space law, including the launch of Sputnik 1. This book consists of a collection of studies in international space law by a leading authority in international law, air law, and space law. Those that have been previously published are thoroughly revised and updated.

The book examines the major developments and issues of the law governing human activities in space, ranging from television broadcasts, the regulation of space junk, and the governance of state activities on the moon to the legal status of astronauts, the nationality of spacecraft, and arms control. It also examines the effect and influence of UN Treaties in this area. The author has, in his

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examination of this exciting branch of the law, drawn from it valuable lessons for the future development of international law in general.

Francis Lyall, & Paul B. Larsen in their book titled “Space Law: A Treatise”\(^{103}\) have attempted to describe important treaties relating to space law. The book of “Space Law: A Treatise” contains a fountain of knowledge. It is not only an ambitious work but one that makes good reading. The book can be a standard reference work for those consulting and interacting with the space community. Its title is truly reflected by its content. ‘Space Policy’, fundamental knowledge of the subject and vast experience of the book authors make this treatise a valuable source of information for students, practitioners and all those interested in the origins and development of this exciting legal discipline. The book makes readers gain a good insight into the current state and many challenges facing the legal regulation of outer space activities.

It is written with clarity necessary for comprehension of the complex issues covered from the speculative beginnings of space law to its practical applications in governmental and commercial space activities. An outstanding educational and reference tool that may well be used by generations of scholars and practitioners.

This treatise, authored by two of the leading experts in the complicated and rapidly-developing field of outer space law, is a unique asset. It is both comprehensive (covering a wide swath of public and private law issues) and current (providing both the historical background and the up-to-the-minute details of contemporary controversies.

I.H. Ph. Diederiks-Verschoor & V Kopal in their book titled “An Introduction To Space Law”, attempted to explain the enormous growth during the last decade of outer space operations like direct broadcasting by satellite and the exploration of natural resources by remote sensing satellites have brought space law into dramatic prominence among the fields of international law. The book focus on International, because the fundamental principle of space law since the cornerstone Outer Space Law of 1967 clearly requires that outer space and celestial bodies are free for exploration and use by all states in conformity with international law and are not subject to national appropriation. The book is in light of the many new considerations now falling under the scope of international law because of their connection with space that this new edition of the best-known handbook in the field now appears. Among the many salient issues the legal implications of which are covered in this third edition book are the following: the boundary problem arising because state sovereignty can no longer be accepted as unlimited in its vertical projection; prior consent of states to whom information is transmitted or whose territories have been sensed by satellites; space tourism; development of liability regimes for eventual commercial spaceflights; space traffic management. The book also focuses on search and rescue operations and the rescue and return of astronauts; liability for damage caused by space objects; purpose and functioning of spacecraft registration; and the Moon Agreement and ‘the common heritage of mankind; The latest developments in the field are closely monitored to provide the most updated information.

Ruwantissa Abeyratne in his book titled as “Air Navigation Law” has tried to define various concepts to understand navigation

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laws.\textsuperscript{105} In this book the aviation community, in which the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) and the Civil Air Navigation Services Organization (CANSO) play leading roles are explained clearly. Some of the subjects discussed in this book are: sovereignty in airspace; flight information and air defence identification zones; rules of the air; personnel licensing; meteorological services; operations of aircraft; air traffic services; accident and incident investigation; aerodromes; efficiency aspects of aviation and environmental protection; aeronautical charts and information; the carriage of dangerous goods. The book also focuses, in the fields of personnel licensing, rules of the air, accident investigation and aeronautical charts and information, significant strides are being made in moving from mere regulation to implementation and assistance calculated to make all ICAO member States self sufficient in international civil aviation. However, these objectives can be achieved only if the aviation industry has a sustained understanding of the legal and regulatory principles applying to the various areas of air navigation. This book provides that discussion.

Tronchetti & Fabio in their book titled “Fundamentals of Space Law and Policy”\textsuperscript{106} has attempted to describe the fundamental laws and policies in relating to space law. The book presents and addresses key space law and policy issues for the benefit of wider informed audiences that wish to acquaint themselves with the fundamentals of the space law field. This brief analyzes in a concise manner the combined influence of space law and policy on international space activities. Read in conjunction with the other books ‘Space Development’ series, it supports a broader understanding of the business, economics, engineering, legal, and procedural aspects of

\begin{itemize}
  \item \textsuperscript{105} Ruwantissa Abeyratne, \textit{Air Navigation Law}, (Springer Science & Business Media, 2012).
  \item \textsuperscript{106} Fabio Tronchetti, \textit{Fundamentals of Space Law and Policy}, (Springer, 2013).
\end{itemize}
space activities. This book will also give the casual reader as well as experts in the field insight on present and future space law and policy trends, challenges and opportunities.

Detlev Wolter, in his book called “Common Security in Outer Space and International Law” has explained the challenges which states faces in relating to common security. This publication explores the concept of common security and the legal foundations for its application in outer space law, based on the premise that outer space is an internationalised common area beyond the national jurisdiction of individual states, and therefore security in space must be the common security of all states. The book chapters cover a range of issues including: the principle of the peaceful use of outer space, passive military uses, and multilateral negotiations to prevent an arms race in outer space; structural change of international law and the common heritage of mankind principle; and proposals for a multilateral agreement and the creation of an International Organisation for Common Security in Outer Space.

**Articles**

Roberta L. Wilensky, in his article titled “Flying the Unfriendly Skies: The Liability of Airlines under the Warsaw Convention for Injuries Due to Terrorism” attempts to explain this, Comment will first explore the history of the Warsaw Convention, then examine the expansion of airline liability in cases of terrorism and willful misconduct. Finally, the Comment will explore alternative means of compensating victims of terrorism.

Frans Von Der Dunk, in his paper “Liability Versus Responsibility in Space Law: Misconception or Misconstruction?”

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sets out to do the relation between the two legal notions of ‘responsibility’ and ‘liability’ in space law, although the Article highlight’s the problem turns out to be too complex to really realize that goal. First it goes back to those notions as they are dealt with in general international law, where their relation has indeed been a topic for discussion and research. Frans Von in his Article describes the notions are analyzed with three key concepts as guidelines: the indispensable criteria for each of the notions to become applicable; the role of ‘due care’ as a special problem regarding attributability in each of the two cases; and the consequences once the respective notions are found to be applicable. This article’s analysis leads to, that the traditional construction of the two concepts in general international law is a misconception. The International Law Commission’s effort at redefinition of the concepts indeed manages to avoid this misconstruction, however, at the cost of creating a misconception.

Transferred to space law, analysis of the two notions in this article along the same lines leads to that here the traditional construction is followed, with only a minor improvement relating to the ‘due care’ concept. The consequences of this misconstruction are then indicated, and claimed to be not merely of theoretical and academic importance. On the other hand, it is argued that application of the ILC’s misconception to space law would not solve those problems either.

Jeremy Straub & Joe Vacek in his article “The International Trafficking in Arms Regulations: Precluding Innovation in Academic Spacecraft Engineering — or Are They?” declared government regulations and uncertainty about their enforcement can be a significant barrier to innovation. In this article mentioned, in business, it is undesirable to consume time and other resources developing a product that cannot be sold or which requires navigating significant bureaucracy for each sale. This paper reviews the International
Trafficking in Arms Regulations (ITAR) and their impact on spacecraft research in academia, private research labs and industry. It reviews the exemptions available, in particular, to academic institutions and how the limited-scope ‘basic research exemption’ may increase the possibility of starting a space-craft development project but limit the ability to collaborate with industrial partners on proposal development and research activities. Also reviewed is the impact of the combination of ITAR, Title VII of the Civil Rights Act of 1964 and other regulations on program implementation in an academic and collaborative academic-industrial research environments. Several common approaches to ITAR compliance are discussed and their efficacy and their prospective impact on innovation is evaluated. Risk factors are discussed and the common and several prospective compliance solutions are evaluated from a risk management perspective.

Justin Silver, in his article titled “Houston, We Have a (Liability) Problem”,109 described that, the development of private manned space flight is proceeding rapidly; this article elaborates about the historically dangerous nature of space travel, an accident will probably occur at some point, resulting in passengers’ injury or death. This article highlighted in the event of a lawsuit stemming from such an accident, a court will likely find that a space flight entity operating suborbital flights is a common carrier, while an entity operating orbital flights is not. In this article given that the private manned space flight industry is brand new and can provide many benefits to the United States and the world, it is important to protect the industry while it grows. This article presents that, individual states have attempted to protect the industry by passing liability immunity statutes, but passing statutes on a state-by-state basis is insufficient to

109 Justin Silver, Houston, We Have a (Liability) Problem, (University of Michigan Law School, 2014).
protect the industry from the liability it faces. As a result, this note proposes a national tort liability immunity statute to shield the industry until it reaches a more advanced stage of development.

Scott Ervin in his article titled “Law in a Vacuum: The Common Heritage Doctrine in Outer Space Law”,\(^{110}\) mentioned difficulties of interpretation have resulted in a deadlock between nations seeking to formulate rules governing direct television broadcasting and remote sensing by satellite. A similar problem of interpretation has arisen over the Moon Treaty, the Moon Treaty is a recent attempt to expand the scope of outer space law by declaring that the natural resources of outer space are the common heritage of mankind. Despite the controversies over the principles of freedom of space and common heritage, a resolution of the problems consistent with existing principles of space law is possible. The author suggests that space activities functionally related to earth should respect traditional notions of state sovereign control over territory. Similarly, the division of benefits accruing from space exploitation should be in accordance with traditional notions of equity. There is support for these suggestions in the literature on space law and in the language of the Outer Space Treaty and the Moon Treaty. In this article these requirements could reduce the conflict which has arisen over the interpretation of space law principles. Moreover, they would ensure the flexibility which space law needs to remain a viable branch of international law and to meet the future challenges arising from mankind’s continued exploration and use of outer space.

Zach Meyer in his Article titled “Private Commercialization of Space in an International Regime: A Proposal for a Space District”\(^{111}\) declared, after launch Sputnik I over the past five decades, the

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progress of the Space Age has not matched the measure of that hope. National space agencies have slowly and inefficiently explored and developed the space frontier. In this article has elaborated discussed, the success of a recent private competition suggests a better channel for facilitating space exploration and development: private commercial enterprise. Zach Meyer declares certain problems are holding private commercial space enterprise back, including the current structure of space law, which leaves too much uncertainty for a private commercial space enterprise, in particular regarding property rights and profitability. It has also highlighted some commentators have suggested reforms to space law to remove that uncertainty, but most of these suggestions bend, dismiss, or call for wholesale abandonment of clearly applicable international law. This Article suggests a seed of a very different sort of reform that works within the confines of established international law: the international community could organize a space district tailored to encourage private commercial space enterprise, but exclusively regulated by international authority and consensus.

James J. Trimble, in his article titled “International Law of Outer Space and its Effect on Commercial Space Activity” has tried to define that the United Nations, through a series of five treaties, has created a body of international space law which controls the activities in space of states, international organizations, and private interests. This article describes corporations planning an investment in commercial space ventures must consider the restrictions and obligations which space law will impose on their activities. This article discusses the substantive principles of the law of outer space and focuses on those provisions which will affect commercial space activities.

Frans G. Von Der Dunk in his article named “The Integrated Approach—Regulating Private Human Spaceflight As Space Activity,
Aircraft Operation, And High-Risk Adventure Tourism”, has explained one of the overriding issues concerning private human spaceflight concerns how to properly regulate this specific new type of activity. Noting that in the discussion regarding regulation thereof usually the three distinct regimes of space law, air law and high-risk adventure tourism law are drawn upon to look for solutions, the present paper addresses the key elements of each of these approaches as they are to some extent already currently being applied and where, as a consequence, gaps and overlaps arise, as well as presents an effort to address the latter in a sensible, coherent, efficient and feasible manner.

Frans G. Von Der Dunk in his paper titled “Europe and Security Issues in Space”, has tried to discuss, in the current timeframe, the relevance of discussions on the existing use of space for national security purposes and the potential of it to be used for non-peaceful purposes are clearly increasing. In this paper as a consequence, it becomes more important to address the role of Europe as a geopolitical, albeit far from monolithic, entity in this context. From this perspective, the present paper analyzes some of the fundamental institutional parameters shaping the European presence in the space security domain, focusing on the two key players in space, which are truly European, the European Space Agency (ESA) and the European Union (EU). Interestingly, the starting point for both entities was that the security domain was a “no-go” area, a starting point that only over the last two decades has begun to erode. That is why, in addition the Western European Union (WEU), Europe has a certain role in this context, precisely from the security perspective rather than from the space perspective. This article describes that, even the European

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\begin{itemize}
\item Frans G. von der Dunk, The Integrated Approach—Regulating Private Human Spaceflight As Space Activity, Aircraft Operation, And High-Risk Adventure Tourism, (University of Nebraska – Lincoln, 2013).
\item Frans G. von der Dunk, Europe And Security Issues In Space: The Institutional Setting, (University of Nebraska, Lincoln, 2010).
\end{itemize}
Community, as the most tightly developed “pillar” of the EU, could not be considered a supranational entity let alone a federal state. It mentions in all cases therefore, the individual member states of those organizations are still relevant as players in their own right. These states continue to be essential to determining the shape of European actions and approaches in the field of space issues, and this is even truer for the security domain.

1.10 Plan of Study

The research study is divided into following chapters:

Chapter 1: Introduction

Chapter 2: Air and Space Law: Historical Perspective

Chapter 3: Air Law: International Scenario

Chapter 4: Space Law: International Scenario

Chapter 5: Air and Space Law: National Scenario

Chapter 6: Liability under Air and Space Law

Chapter 7: Conclusion and Suggestions