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ADR- SPACE DISPUTES

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Aim:

The paper tries to bring out the different aspects of ADR mechanism which is involved in settlement of space disputes. The different types of International Conventions and Treaties contributing to resolving space disputes. The pros and cons of ADR involvement in space disputes and the respective challenges they encounter in settlement of space disputes.

ABSTRACT

In the past few decades space law has been phenomenally increased but there are still few laws and regulations are present. Like many other fields of international law, space law recently functions under the system of alternate dispute resolution and it acts as a preference of states that are party to the respective legal system. This paper tries to bring about the different methods of alternative dispute resolutions that are utilized to resolve space disputes. It also discusses about the pros and cons of all the procedures which would be binding and nonbinding in nature. It has been found out that among the prevailing different methods of alternative dispute resolution the arbitration method seems to be the most effective method in resolving the space disputes. So as why arbitration is preferred most maybe it involves both private entity and the involvement of government. The justifiable nature of disputes must involve a specific agreement and it has to be solved through the existing and prevailing laws according to the changing needs of the society. Heterogeneity may be a concern with respect to redressal of international disputes. And in order to enforce the applicability of legal principles and rules in just and equity manner to resolve the disputes it would include huge investments, reconciliation, usage of technology and level of scientific analysis etc. Therefore, a common accepted and reliable method would be able to resolve the space disputes thereby increasing the trust worthiness between the nations. It also considers whether there would be a need to establish a new Sui genesis to establish and adjudicate disputes relating to space activities.

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Research Problem:

There are different types of conventions involvement in space disputes. ADR is preferred over the conventional method of litigation as it involves speedy process and it is cost effective as well as a confidential method.

Research Questions:

1. What are the different methods of ADR?
2. What are the types of International Conventions involved in the process of space disputes?
3. What are the pros and cons of ADR mechanism in space disputes?
4. What are the future challenges encountered?

Hypothesis:

Different types of ADR methods in settlement of disputes regarding space. It is preferred method other than litigation.

Research Methodology:

The method used in research is doctrinal method and it is purely based on primary sources and data.

CHAPTER: 1

Introduction: ADR in space law

Space law mainly deals with five important treaties none of them have any binding effect in settlement of dispute. The lacuna present in these treaties is due to the unpredictable ways of the space industry in dealing with their disputes. The treaties are however been foundational in activities involving space disputes.

1. First would be the Outer Space Treaty otherwise known as the treaty on principles governing the activities of states in the ways of exploration and use of outer space, including the celestial bodies and moon. It came about in 1967
2. Second would be the agreement on rescue and return of astronauts and return of the objects which are launched in the outer space. It came in 1968

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3. Third would be the liability convention otherwise known as convention on international liabilities on damage that are caused by space objects. It came about in 1972.
4. Fourth the convention of registration of objects launched into outer space. It came on 1976.
5. Fifth would be the Moon agreement it came on 1984.

It has been found that these treaties provide only some sort of relief in the interstate disputes related to space law. Which may be in the form of adjudication and arbitration. It has to be noted that these treaties don't provide any sort of relief to private parties and non-governmental organization because they are not aspects of international law. These reasons help us to notify why space law has to be flexible and be able to balance both the private and public law. Therefore, in the future decades more and more complex number of space disputes would be arising so in order to deal with the future disputes the private players would play an important role in settlement of disputes.

WHAT IS SPACE LAW?

Space law includes all treaties, national and international agreements, conventions, customary international and national laws, executive orders and memorandum of declaration and understanding, judicial orders and decisions that control and regulate the activities of the space related works. Transaction contracts related to launch of satellite can also be considered as an evolving concept of space law. There are many treaties of international law aspect to regulate the space law activities.

Regulation of Space Law:

The space law is currently governed by the treaties and conventions at national and international aspect, diplomatic conventions and treaty protection. The UN on affairs of outer space promotes international harmony among the different contracting states in peaceful use and exploration of different space activities. The UN body on affairs of outer space has regulated certain conventions and treaties to be followed by the contracting states. So, what would be the space related aspect is which includes the objects which are launched by different space agencies and industry as well as it includes information technology used in exploration and identification of information and data regarding space activities. It also includes

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information's regarding earth and other celestial objects on space. The UNOOSA[1] also helps in assists the states and strengthen their capabilities and relation with other nations or space agencies. They may be NASA or UK space industry. It helps in mandating cooperative partnership treaties with the neighboring countries and tries to avoid disputes among the contracting states. It also involves in future activities of space related with NASA in sending a woman to moon and the next man to moon on 2024 to carry out the exploration of space.

Historical aspect of space law:

It was during 1950s the launch of Sputnik1 by the Soviet Union government is considered as a catalyst or beginning of emergence of regulation of space law. It was during these times both the US and Russian government were competing with each other in launching satellites by sending humans as well as domesticated animals. Both the governments contributed funds to carry out many specialized activities in space. It was also decided that the launch of Sputmik1 by the Soviet Union made an attempt to reframe the laws governing the space law because due to overcrowding of satellites in the orbits would cause a breach of contract of international law and sovereign immunity and privilege among the nations. There is a roman saying for whoever would own the soil it would be theirs from the heaven up to the hell. The modern meaning to this statement is that the sovereign power of nations extends fully to all the boundary and territorial aspect of all the countries. As it is mentioned in the Warsaw pact of 1929. These all resulted in the treaty of exploration and use of outer space activities which came about in 1967.

Growth of space agencies and industry in creation of space debris:

During the past decades the use of space activities were very much limited and it was explored only by government agencies. But know due to globalization and diversified use of resources the space industry is nurturing in the field of promoting tourism in space industry as well as engaging in different mining and exploration activities. It has also contributed in launching antisatellite and remote sensing satellites in exploration of military activities in different states and nations. The commercial space industry is nurturing in the field of ongoing 5g technology. The increase usage of low earth orbit by the states and other commercial space industry would render it with risk of collision as well as breaking of space objects which would result in space debris[2]. In increasing cases it would result in Kessler's disorder or syndrome which would provide and retain orbits to be in unstable form. Therefore, the risk related to space debris is so

[1] https://www.lexology.com
[2] https://www.ejiltalk.org

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phenomenal because the satellites are increasing factor sating its protection and its replacement methods and the resulting debris would cause financial burden upon the space agencies or any contracting government or state.

Encountering methods to reduce debris of space:

In the present many several technologies are coming forward to recover the space debris from the space by method of deorbiting the spacecraft from space. Or any type of graveyard is used to remove the junk objects from the space. So, at present Astro scale is currently prepared to remove the junk of space debris from the space. Space craft operators also using their technology would track the space debris objects and would remove the satellites in order to avoid collisions. Legal rules and regulations are needed to prevent the accumulation of space debris objects. Many organizations are used on working to solve the space debris the kind of organization may be UN convention on peaceful use of outer space, interstate space debris convention, space debris mitigation methods. So, one of the methods in mitigating these problems is only through compliance of treaty of outer space as well as liability convention. The launching state should also have interest and responsibility in limiting the junk of space objects. There is also another method preferred by states and private actors in imposing in their contracts to limit the extent and exposure of any substance that would cause space debris in order to avoid its existence in first place.

CHAPTER: 2

NEED FOR DISPUTE SETTLEMENT IN SPACE LAW

The space law in international aspect has been an efficient means to settle disputes amicably which are necessary. So, an accepted and peaceful binding dispute redressal and grievance mechanism would be able to reduce the friction between the contracting states. It is very important to increase the reliability and credibility so that the nations would be able to strengthen the participation of nations to bring about an impact in the dispute redressal mechanism in respect of space law. Space ventures[3] have been increasing in the past decades they are not only limited in exploration activities but also increasing and obtaining a remarkable position in the defense activities and making the dispute redressal mechanism important. Many changes have been brought forth due to entry of SpaceX, NASA, ISRO, ROSCOSMOS and many other space sectors. Now US military and defense activities are more concentrated on

[3] https://www.legalserviceindia.com

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new political adventures along the places of Asia Pacific countries Iraq and Afghanistan which demanded increased reliability on remote sensing and communication activities. At the same time the activities of China are increasing and they are involved in activities of orbit launching and attacking satellites of contracting states and nations. It has been found China have been developing both kinetic and non-kinetic forms of attack to affect the orbits launched by the nearby states. At present China, US, Russia, India are the following countries which have their own Anti-missile satellites.

CHAPTER: 3

Issues regarding space incidents of dispute redressal mechanism

Space is regarded as a most distinctive habitat for humans to survive and most expensive to get into it. It can be explored by humans through use of special instruments and equipment even though it is risky for satellites to operate in it. Though there are many disadvantages relating to many risks people still explore the space and gain ideas and knowledge. It has been useful in remote sensing and telecommunication applications it is also used in defense and security purposes by the nations worldwide. In the past few decades traditional framework has been followed by contracting states because at those times space activities were primarily reserved only for government purposes but now due to intervention of private players in the commercial space industry the disputes and risks are largely solved through diplomatic treaty consultation and negotiations methods. Based on these methods only the issues of space related activities are solved in peaceful and amicable manner. It has noted that no state can declare sovereignty against the space and other related celestial objects because there a lack of definition of a space where it ends and begins. The state liability is also limited because man have created the space objects they remain in infinity and unlimited period of time no one has ability to remove it. At present there are no in space related accidents or incidents which have led to rewrite of the existing treaties and laws. But due to overcrowding of satellites and existing space debris in future have led to a devasting approach of legal experts, economists, political and technical experts. Therefore, the space law has to provide a proper dispute redressal mechanism to resolve the space related issues and risks.

The following are necessary for a proper and effective dispute redressal mechanism:

Accessibility

Fair and proper resolution in an equitable manner

It has to be speed in process and economically benefit

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Proper care and incentives to be provided

Reasonable damages and compensation to be provided

Proper judgements to be enforced in an amicable manner.

CHAPTER: 4

An overview of Dispute Settlement with regard to space activities:

The Permanent Court of Arbitration[4] has defined dispute as a disagreement between the parties or individuals or may be a contracting state on conflicts of interests on their legal opinion and interests which have evolved due to performance and nonperformance of treaty obligations. The parties referred to disputes may natural or legal persons, they may be states, intergovernmental organizations, etc. Therefore, an effective dispute resolution method should be fair and equitable manner. So, with regard to outer space activities disputes which would include a bunch of situations they may be any accident that have been taken place in the space, any kind of space debris, space objects that had affected any private person, destructible activities of space objects etc. The article tries to make an attempt whether the existing laws prevail to remain satisfactory or not according to the future developments in the space activities. According to this future aspect states should come forward to renew the method of dispute settlement mechanism. In a draft a convention of space related activities settlement which came about in 1984 its article 37 mentions that there must be permanent court of arbitration exclusively for space disputes. Various private entities are not open to settlement under ADR mechanism it has to be resolved. There also another type of issue it is with regard to execution and recognition and enforcement of the foreign award. In New York Convention and ICSID conventions both of these conventions also deal with execution of foreign arbitral awards. There is also another type of challenge which comes from the nature of subject of outer space related disputes one deals with the present challenges to proceedings and production of evidence and other deal with the threshold level of arbitrators, conciliator's, mediators, judges in order to comply with the system of dispute settlement.

Basic Framework of International Dispute Settlement

The following are necessary to be considered:

1. What types of disputes arises?[5]

[4] LLM in International Legal studies-Georgetown University of law center
[5] The United Nations Decade of International Law

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2. Actions taken by the parties once the dispute is evolved
3. Whether all the parties tend the initiate alternate dispute settlement?
4. Third party involvement in the dispute settlement mechanism how is affected
5. What would be the caliber and range of the following mechanism of dispute settlement?

Consultation:

It is one of the most appropriate and prior method to resolve disputes beforehand[6]. In this method the one party who is initiating the procedure must inform the intentions to the other party and discuss the matters beforehand to avoid disputes.

Advantages of Consultation process:

1. It permits early resolution of disputes through this process which is very important in settlement of outer space activities.
2. Consultation may give a better understanding of the policy to be affected by the parties.
3. It provides an opportunity to parties through avoidance of potential harm.

The consultation procedure is mentioned in article 11 of outer space treaty it provides for consultations in cases which involve in activities of harmful contentions with the contracting state parties[78].

Negotiation:

It is another type of method through which international disputes are settled. It is an evident method and indispensable component of dispute settlement except in cases which involve arbitration, adjudication, conciliation by any type of agreement. It may be also included in contracts between contracting parties and nations as an obligation of prior concern. Negotiation is also brought forth through permanent commissions establishment. In cases of North Sea[8] Continental Shelf and Fisheries case of Jurisdiction the method of negotiation settlement was obliged by courts because negotiation[9] was used as a method of obligation in their contracts and agreements if these conditions are not fulfilled sanctions can be imposed. Therefore, negotiation method is referred to as alternative method of dispute settlement. Obligations as to

[6] Kriges, R, Prior Consultation in International Law: A study of State Practice, (1983)
[7] Article 9, Treaty on Principles Governing the Activities of States in Exploration and Use of Outer Space.
[8] ICJ
[9] Mavromattes' Palestine Concessions Case, 1924 PCIJ

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negotiate are mentioned in article 283 of UNCLOS 1982 treaty[10]. It is a process in which parties come together they try to communicate among each other argue and at last come to a settlement. There are many reasons that attract this method of negotiation settlement:

1. Risk is comparatively low
2. The parties have control over the process and its outcome.
3. Responsibility lies upon the parties to settle the disputes among themselves.
4. It is cost effective method.
5. It is a type of compromise method among the parties.
6. So, it is the most accepted and stable method of international dispute settlement.

Inquiry and Fact-Finding Method:

Article 9 and 35 of Hague Convention of 1907 describes the method of investigation and inquiry and conventions as to limit to statement of facts. The best example as to inquiry and fact finding was stated in 1904 dogger bank incident[1112]. The UN General Assembly passed a resolution on 1963 on maintenance of international peace and security. Then on 1968 the secretary of general of UN General Assembly prepared to register the experts involved in the process of fact-finding method.

Mediation:

Here in this process the involvement of third party helps to solve the dispute among parties and bring about a compromise situation. This process requires both the consent and cooperation of the parties in disputes. The confidence of the parties should be achieved by the mediator it was brought about in the case of Beagle Channel[12] award.

There are many factors which would be unfavorable for the process of mediation in space settlement.

1. Sometimes in mediation the third party may have influence in the arising disputes among the parties.
2. There is no definite and proper method or procedure.
3. It is always difficult to find whether the mediator enjoys the confidence of the parties.

[10] North Sea Continental Shelf cases
[11] Scott, J.B., The Hague Court Reports, First Series (1916) at 404
[12] , 17 LLM 632

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Conciliation:

1. It is the most flexible movement compared to other methods of dispute settlement.
2. It allows compromise in more effective way.
3. There is a control by the parties until its outcome.
4. There is no legal precedent which involves the future.
5. It avoids disrespect among the parties

   Therefore, many cases have been solved through method of conciliation cases such as Taba dispute, NATO bombardment campaign on former Yugoslavia[13].

ARBITRATION:

The arbitration method in space disputes is more apparent and clearer. It is the ancient method and less formal than litigation. The involvement and best success of international method of commercial arbitration is achieved mainly through the enforcement and recognition of arbitral award which was resolved by the New York Convention on Foreign Arbitral Awards. The method of arbitration would involve a single specific issue or there may be a claim or counter claims. Adhoc and Institutional arbitrations both are involved in the settlement of space disputes.

Arbitration in space disputes is more exemplary in nature. The following reasons make it more apparent on face of record.

1. It is final and binding method
2. The New York Convention on 1958[14] which have been signed by 134 states play a vital role in recognition of foreign awards.
3. It is a neutral in process as this process involves the parties to select the place, venue, language, representation of legality, both substantive and procedural law to be used.
4. It is a speedier process for the economy.
5. It involves confidentiality.
6. Parties to the dispute are more competent to choose their arbitrators according to their will.

JUDICIAL SEETLEMENT:

It is the final method to resolve the disputes if all the alternate dispute redressal mechanism

[13] https://www.un.org
[14] See supra note 42

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fails.

In this method the International Court of Justice plays a vital role[15].

CHAPTER: 5

Types of settlement of disputes in outer space their benefits and problems they encounter:

ADR mechanism exclusively applicable to states:

The UN charter of article 33 established provision that are applicable to activities of space activities. It primarily seeks to provide negotiation, mediation, conciliation to the contracting parties or nations in settlement of space disputes[16]. Further the disputes are also addressed under the Activities and Exploration and use of celestial bodies including Moon and it is also addressed under Liability Convention, also it is addressed by the International Court of Justice. Dispute settlement is also provided under International Telecommunication Union, WTO, NASA legal bilateral agreement.

Liability Convention:

Article 9 and 12 of Outer Space Treaty mentions consultation. It is taken as a first step in the process of ADR in order to avoid further occurrence of the dispute. The Liability Convention of Article 8 to 22 deals with ADR mechanism which is mainly concerned about liability concept and regime. The article 5 of the Liability Convention states that all states launching a space object are liable both jointly and severely together among the contracting states. In regards of any dispute settlement under the convention of Liability, the injured party or any contracting state have a right to claim against the contracting state that caused any kind of damage to it. It can be claimed both in international level as well as through diplomatic methods. After the respective claims are presented, it has to be disposed within one year or may a year from the date of occurrence of the damage caused. This one-year limit also applies in cases of appointment of respective Claims Commissions of the contracting parties. Each member is selected by the parties to the commission. The chairman is appointed jointly among the parties. This method of ADR is described and referred by people as ad hoc tribunal or a type of semi arbitration. The main advantage of this type of method is due to exhaustion of respective local laws and remedies. There are many disadvantages to this method they are

[15] Gray, C., Judicial Remedies in International law 1990
[16] Art.3,18 U.S.T 2410- 1967

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1. Customary discretion powers of the state involving diplomatic protection as to how to sustain the claim and to what type of extent the compensation can be granted to the respective state.
2. Another type of disadvantage is to uncertainty in enforcing decisions done by the commissions and legal proceedings are not proper and their lengthy in nature.
3. The Liability Convention entered into force many years ago like it has been become 45 years till now it has been involved only in Cosmos 954 case in 1978 by Canada in this case the Soviet Union agreed to pay a compensation of 3 million dollars to Canada as a final and full settlement of issue.

International Court of Justice:

The main advantage of the ICJ is that as it is a permanent judicial body according to each case [i]whether it is an arbitration or negotiation or any type of ADR mechanism it is well constituted with persons having traditional as well as modern legal aspects and knowledge of the International Public Law. The judges of the ICJ are more competent to hear and dispose cases. Despite these advantages the ICJ has not still disposed even a single case. This may be due to because only 23 states are party to Liability convention and Outer Space Treaty. The best way to increase the method of appeals and disposals of cases in ICJ [17]can be achieved by creating a separate chamber for disposal of space disputes under article 26 of the statute which would be similar to formation of respective chamber for environmental disputes.

ITU aspect in case of dispute settlement:

Another type of dispute settlement in space disputes can be settled through ITU convention. The article 56(1) gives a wide aspect as to methods of negotiation and consultation or it can be any other type of method through which the disputes can be solved. Some jurists disregard this type of ADR mechanism as it resorts only to some aspects pertaining only certain subject matters that can be resolved.

WTO in dispute settlement mechanism:

The dispute settlement in WTO is referred and governed according to procedure established by WTO mechanism. So, what is a dispute according to WTO a member country violating an agreement of the other member country in WTO mechanism. The ADR mechanism in WTO is

[17] Equally authoritative to ICJ cases under Article 38(1)(d) of the ICJ statute

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many composed of qualified personals and officials it is like an informal proceeding it also involves appeals and consultations between the contracting parties in disputes. Article 8 of WTO refers it can be disposed before panels involving qualified individuals or persons. Under article 10 of the WTO mechanism interest of the parties can be taken into account in disposing disputes.

At present only two cases have been disposed by the WTO regime with regard to space disputes. The first case was at the request of US against Mexico due to breach of telecommunication networks and services. The other case was between Japan and European Union in procurement of multifunctional satellite used for Air Traffic Management.

Bilateral Agreements made with the NASA:

NASA has made and concluded many bilateral agreements between the contracting parties or nations in the outer space activities. These bilateral agreements mention different methods of ADR mechanism like negotiations, consultations in order to avoid future disputes. In joint space activities the introduction of cross waiver of liability is defined under section 309 of the NASA act. The parties to the contract or agreement assumes its own risks through waiver of its liability. Through this bilateral agreement or contract both of the parties agree not to sue each other for their wrongs or any type of damages caused by their activities. This solution serves promote the inter state promotions in the activities of outer space.

ADR mechanism accessed by the states as well as private entities:

The mechanism of arbitration is exclusively applicable to all individuals, states, organizations both at national and international level. In many cases of disputes arbitration is preferred because it is more confidential in its way. It is also helpful to parties to choose their own arbitrators of their own concern. It is also a cost-effective method other than the method of litigation. The arbitral awards are not publicly available so the precedents are not available to decide further disputes involving the same aspect. Another type of disadvantage is due to states unwillingness to provide their confidential information and materials to the respective arbitral awards tribunal. The method of arbitration in space disputes involving outer space activities which is involving more than two different contracting parties or states any damage which have taken place in a contracting state the constitution of the tribunal is concerned with respect to where the damage has been caused. In these cases, diplomatic negotiation is not possible. The different methods of ADR mechanism in space related disputes are through Permanent Court

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of Arbitration Rules, if it involves private individuals it is done through ICC or UNCITRAL arbitration rules. The convention on protection of human rights and freedom are also governed[18].

The European Space Agency's Experience with mechanism of settlement of disputes:

ESA it is an organization established and signed in Paris on May 30 1975 by the 12 representatives of the respective member states. Entered into force on October 30 1980. At present there are currently 15 member states adhering to the instrument. The main purpose of the agency is to provide and promote co operation among the EU sates regarding the activities of space in research and technology aspects. So how about the working of ESA dispute settlement is a great challenge. This is due to the attributable nature and effect of its dispute settlement clauses due to its final and binding nature which is mainly done through arbitration. So why it is preferred means the investment of money and time is limited so the parties to the agreement are encouraged the most to settle their disputes in an easier way. An overview of ESA in experiencing the mechanism of settlement of disputes first the provisions will be discussed. Analysis of the following provisions mentioned in ESA contracts to resolve the disputes and how it is concluded by ESA with regard to research act for the purpose of carrying out the agency programs. Annex 1 – ESA Convention mainly pertains to organization privileges and immunities which would have an impact on dispute settlement. Every year ESA would recommend and record numerous contracts with international organization, institution, government for the purpose of its conduct in space activities. It regularly conducts and concludes contracts, agreements, with its institution or its member states for implementation and execution of its program in regard to its establishment of its facilities. The main disadvantage of this type of dispute resolution it is limited in scope as it is concerned only with the annexure states in the ESA convention 1975. It is known that 85% of the value is spent on private entries and contractors on space industry.

PCA ARBITATION RULES ON SPACE:

There has been a great increase in the number of industries in space sector it has be noted that 30 countries possessing space industry they opposed to the domination of US and USSR countries. The development of various commercial activities in the outer space has led to the introduction of variety of non-state actors and private entities. PCA arbitration Rules was

[18] REDFERN; HUNTER, 2015, p. 34-37

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created to address the lacuna in the ADR mechanism.

Advantages of PCA arbitration rules:

1. The PCA arbitration rules were purely based on 2010 UNCITRAL arbitration rules in order to have a particular role or characteristic in the outer space activities which involves private entities, organization's, individuals, states etc.
2. It is more apparent and clearer to parties to select their own arbitrators and required procedures and rules to be applied.
3. Article 26 of the PCA rules provide for arbitral award tribunal to grant interim orders.
4. Article 28 and 34 of the PCA rules provide for confidentiality of the hearing of appeals and awards which is important for states involving in activities of commercial space industry with respect to technological advancement and remote sensing.

Disadvantages:

There are not so many disadvantages as to interstate arbitrations. They have limited scope in arbitration of disputes involving private individuals.

ICC rules applicability as to outer space disputes:

Advantages:

1. The ICC rules on arbitration is preferred because they help the parties to choose a proper venue, confidentiality of hearings in disposal of disputes and finality of awards, the parties are also free to choose their arbitrator of their own concern.
2. Another important advantage is the supervisory functions done by the international court of arbitration to make sure the proceedings done in an efficient manner.
3. It involves higher degree of reliability.

Disadvantages:

1. It imposes high fees on the parties the fee structure is imposed mainly according to the nature and subject matter of disputes of outer space activities. Therefore, the monetary value is considerable high in value.

Draft Convention on ILA:

The space law tribunal on international aspect established under the article 37 of the ILA act. The main advantage of this convention is inclusion of both states and private individuals in

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their dispute settlement. It is first proceeded by the conciliation method then it is followed by the arbitration method. If the parties agreed by the conciliation, they are bound by the proceedings mentioned in article 21 of the act. The exclusive jurisdiction by the tribunal in determining the disputes may help the parties to refer the cases to ICJ or any type of ad-hoc tribunal.

Adjudication by ECHR:

The European Court of Human Rights had established mainly to decide cases with respect to violation of rights of human by the parties to the convention. The article 10 of the convention with freedom of speech and expression. This provision has arisen in several space disputes which mostly relates to licensing on broadcasting aspect and rights denied on installation of satellites.

Type of multi door method of court system

This concept is based on method that all matters in dispute are brought under a roof. It refers to a method where the court assists the parties in choosing the best mechanism to resolve their disputes. The method first begins with screening of the respective disputes then after that an appropriate method needed to resolve the disputes. The method is usually done by experts in taking account of all the facts and preferences of the parties. The process should generally require a comprehensive method of analyzing the cost, confidentiality, speed, as well as binding nature of the solution. Even though it is an efficient method it has been mentioned by some people that the screening process should involve some transparency in selection of the experts in resolving the disputes.

Arbitration court on aviation and space aspect:

It is developed and established by the France which is referred by the French on aspect of air and space law. It aims at resolution of space disputes that are exclusively between international as well as national parties or they can be private individuals. The procedure followed by the court are confidential in nature. It is final and binding in nature. The court has a power to issue interim order. They have a specialized set of arbitrators who are specialized in different sectors. The main disadvantage is mainly because the fees argued by the arbitrators are generally high for hearing the arbitral award. As it is a commendable and remarkable initiative still now no cases have been discussed so far.

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CHAPTER: 6

Current ways and methods to resolve disputes which concern the space incidents and accidents:

Disputes regarding government intervention:

In case of collision of space objects or destruction and colliding of satellites or any matter relating space, debris which originates from a spaceship or spacecraft. Depending on these following circumstances the government may own a satellite or may have a control over it. The first and foremost step done by space treaty in resolving government intervention disputes is through diplomatic consultation and negotiation. The amicability settlement of issue was raised in a case called Cosmos 954 in which damage was claimed by Canada. This case clearly mentioned that it was a damage terrestrially caused by the space objects[19]. The liability convention mentions about the absolute type of liabilities is attributed by the launching government or state in launching spacecraft objects. Therefore, the damages occurring on space have made an attempt to find out on whom the burden of proof would lie and it has been far more difficult to find. In such cases negotiations and diplomatic methods would seem far easier and more precise. The treaty on outer space brings out that all states are responsible for activities of their nations in the space. The states are responsible to maintain and control the jurisdiction of the objects launched in the space. So, states are liable to the damages as well as it is their responsibility to prevent them from harmful contentions in exploration of other states activities. Therefore, the liability convention mentions about imposing fault-based liability upon the states for the damages caused upon each other. The international laws also mention about liability fixation upon the respective launching government or state. The claims commission which was mentioned in liability convention is final and recommendatory in nature of resolving disputes. The procedures are established in article 14 and 20 of the treaties. It has been 40 years since the liability convention came into existence still now no cases have been decided. In some claims against government mediation also plays an important role. There was an instance in which mediation was invoked by the UN security member council in a case against North Korea in launching of satellites. As these satellites were ballistic in nature and involved a danger in the space or kind of accident. The Permanent Court of Arbitration[20] had also notified and published rules to deal with the cases of space disputes. The state-to-state dispute are internationally solved through ICJ. The final resort in application of cases is through litigation in courts.

[19] Article 2 of Liability Convention
[20] www.pca-cpa.org

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Private party's claims involving accidents of outer space:

There is no proper established method to deal with the private party's cases involving incidents of outer space. In case a private owner suffers a damage from the other party the liability falls on the person who have caused the respective damage. In case if the defendant is a foreign government the private party may get the help from the national government to sue him. In such cases between government-to-government interaction takes place through diplomatic protection. Alternatively, if the plaintiff is the government and the defendant is the private actor the government who is a plaintiff may sue the private actor in his home country or government. Ultimately if both of them are private actors they can be tried in either plaintiff court or the defendant court which is decided according to their advantage of the case.

CHAPTER: 7

Indispensability of new alternate ADR mechanism in international aspect:

In the past it was not recognized that many accidents may occur in outer space so many legislations were not framed to deal with such cases. But later in 1970 s a proposal was made to bring new alternate dispute resolution to deal with the outer space accidents and incidents. The decade between 1980s to 2000 many developments were brought into space through involvement of private sector and involvement of telecommunication industries and remote sensing industries in GEO. The expansion of space industry in the commercial sector in large run have felt the need of different methods of alternate dispute mechanism. The diplomatic protection and negotiation method was usually followed to resolve the disputes. One of the famous academic articles that brought by the academia Bock Stiegel proposed detailed rules regarding binding arbitration which would develop a new method of space dispute settlement[21]. The commercial arbitration methods are used in disputes regarding manufacture of space craft materials and their equipment, and their insured materials upon the space objects. It has been noted that space objects are assets of both private and state actors so in order to resolve these types of disputes it has to record all the objects surrounding space which constitutes its liability of fault, responsibility of state remedies of economic aspect in disputes of space law. The ESA agency, ITU convention, UN convention of law and sea, WTO have all the provision with respect to binding arbitration methods to resolve the disputes of space. Therefore, arbitration has been preferred as an alternate method to dispute settlement. The ICJ also has played an important role in settlement of disputes through appointment of specific judges for specific

[21] Bock Stiegel, Karl -Heinz, Settlement of space disputes, Vol.21, No. 1, 1993, pp 1-10

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type of cases.

CHAPTER: 8

Investor of state arbitration role and procedures:

As there are no proper and effective international and national methods to monitor the space debris caused by the respective space industry in order to resolve this dispute method resolution on the investor state was established. So, on 2011 the PCA arbitration rules have been tested by the UNCITRAL Rules. The ICSID have been a viable option in settlement of outer space activities through investor state method of arbitration rules. The disputes arising out of outer space activities are likely to be resolved under the ISDS. The ICSID treaty would require a high amount of economic contribution, loss as well risky methods in operation of high-level projects that would face high risk of outer space activities problems. If any object launched on outer space it has to be registered in respective state registry. The operators of satellite should also get license with the contracting state about the bands of frequency and position of orbiting to be used. The satellite operator of A company launches a satellite which has been registered by company of another state if the A company is using the bands and frequency of B company then they would be considered as investor of foreign origin from an A company. In cases of disputes between them investor state arbitration rules prevail over it. Therefore, most of the multilateral treaties provide safe and protection to the host country. They are obliged with due care and diligence to protect the host country from further type of damage and harm. In present the international space law is not well contributing to the lacunas of compensation of liability aspect in ways of accumulation of space debris. The method of ISDS were used in three international cases. They are Devas vs India, Deutsche telecom v India, Eutelsat v Mexico.

CHAPTER: 9

Merits and Demerits of Arbitration in space disputes:

Therefore, arbitration is not only a method best suited to solve the disputes of space. Space sector[22] has not yet flourished in arbitration like many other sectors so the issue has to be considered and many legislations is to be made.

Merits:

The merit of this method is it is like a normal and informal method instead of formal

[22] Article 11 (2)- Liability Convention

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proceedings or litigation at national as well as international courts.

1. It is open to all parties, government, newer organization, corporations etc.
2. It is a speedy and fast process.
3. The parties are able to choose the arbitrators of their own professional concern.
4. It is mainly settled through contracts and underlying agreements.
5. Cost effective method than litigation.
6. There is a treaty which is enforced and states or nations are there by obliged to the enforcement of the award by the tribunal.

Demerits:

1. The states would be not willing to state their problems even though there are safe and proper guards.
2. The company involved in arbitration would not be willing to state the problems regarding the information on proprietorship to the arbitrator.
3. There is no proper system to be followed by arbitration on matters involving space sector even though there are many treaties. The arbitration method concise mainly on environmental problems, IP disputes etc.
4. The involvement of third person in arbitration agreement does not render proper contract between the concerned parties.
5. There may be delay among the arbitrator or type of bias would be followed by the arbitrator to solve the issue at faster pace.

CHAPTER: 10

Conclusion:

The method of arbitration binding should be viewed as an important method in settlement of space disputes. In order to reach the arbitration binding there needed to be mutual understanding between the parties. Then there had to be agreed mechanism among them. The agreed mechanism is mainly reached through licensing agreements with the national and international treaties for solving disputes. Then there had to be proper rules and procedures that has to be followed more accurately. The contracting states dissolve disputes at first phase through method of diplomatic process of negotiation. The disputes that would be involved in space sector would be accidents in outer space, damage caused by a contracting state or party

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to another state or party, then space debris, fault finding methods[23] they would be due negligent method etc. These all cannot be resolved through diplomatic negotiated methods it can only be resolved through arbitration. The need of alternate dispute resolution method in space sector has been recognized long ago way back in 1980s itself. But now a workable and variable method of arbitration or any type of ADR methods are needed to resolve the space disputes due the advancement of the technology, use of space by many states or governments or private actors.

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[23] UNCLOS Treaty on Sea bed tribunal