

2023, Volume 16, Ed.2 ISSN Online: 2443-3527 ISSN Print: 1979-5521

The Obligations and Rights to Obtain Compensation as a Result of the Space Objects Discovery

Sinar Aju Wulandari¹, Izzah Khalif Raihan Abidin², Zainal Abidin Achmad³, Muhammad Ardy Prakoso⁴

- ¹ Faculty of Law, Universitas Airlangga, Indonesia. Email: sinar.aju@fh.unair.ac.id
- ² Faculty of Law, Universitas Airlangga, Indonesia. Email: ik.raihanabidin@gmail.com
- ³ Universitas Pembangunan Nasional Veteran Jawa Timur, Indonesia. Email: z.abidinachmad@upnjatim.ac.id
- ⁴ Graduate School, Universitas Airlangga, Indonesia. Email: ardypx@gmail.com

Received: 01/07/2023. Reviewed: 26/09/2023. Published: 30/12/2023.

Copyright © 2023 by authors (et al) and Jurnal Sosial Humaniora (JSH)

*This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). http://creativecommons.org/licenses/by/4.0/





Subject Area: Space Law

Abstract

Indonesia, as a nation where foreign space objects are discovered, holds the right to seek compensation, thereby addressing the country's claims to reinstate pre-damage conditions. Under international regulations, any country launching objects into outer space from its territory or launch facilities assumes responsibility for damages incurred in other nations. This research employs a qualitative legal research methodology, employing both statutory and conceptual approaches. The statutory method scrutinizes laws pertinent to the identified legal concerns. The primary sources encompass the 1967 Treaty on the Principles Governing State Activities in Space Exploration and Utilization, including the Moon and Celestial Bodies, and Indonesia's Law Number 16 of 2002, Gazette Number 34 of 2002, Supplement State Gazette No. 4195. The study's findings highlight that the 1968 Rescue Agreement broadened a state's obligations concerning astronaut rescue, recovery, and repatriation, extending these responsibilities to encompass the return of space objects for exploration purposes. The repatriation of foreign space objects mandates compensation for any damage resulting from the descent of celestial bodies. Therefore, Indonesia, under international legal frameworks, can pursue restitution for damages caused by space objects from other nations, ensuring accountability and restoration of affected conditions.

Keywords: Outer Space Treaty; Territory Law; International Legal Claim, Indonesia Government; National Authority

Background

Indonesia has the right to file a claim for compensation against the country that launched the space object, part of which fell in Kotawaringin Barat Regency, Central Kalimantan, on January 4, 2021. The location is in Dusun Teluk Ranggau, Kumai District (Ramdhani, 2021). The basis for the claim is the 1972 Convention on International Liability for Damage Caused by Space Objects (from now on referred to as the Liability Convention). As stated by LAPAN that the findings are part of the payload fairing component of the Long March/CZ-8 Rocket belonging to the China National Space Agency (CSNA) (LAPAN, 2021). The statement

was based on identifying the LAPAN team and the joint evacuation team from Basarnas, Central Kalimantan Regional Police Headquarters, Kumai Navy Base, Iskandar Air Force Base, Kodim, KSOP, KumaiPolice, and Kotawaringin Barat Satpolair.

The fairing component is part of the booster rocket released at a certain height. The component fell when the rocket was above the waters of northwestern Kalimantan or around the North Natuna Sea. The Chinese Space Agency estimates that the fairing will detach at about 100 km altitude from the rocket body and fall into international waters in the South China Sea. However, the fairing components only burn partially when the altitude distance before outer space has yet to be reached. As a result, the fairing component, which has lightweight, can float and be carried by ocean currents in the Karimata Strait until it is stranded on the south coast of Central Kalimantan (Rizal & Nugroho, 2021).

The fall of rocket debris into the sea can cause marine pollution, which is explained in the 1982 UN Convention on the Law of the Sea (UNCLOS) that the introduction of a substance or energy into the marine environment by man, either directly or indirectly, may result or is likely to result in damage to biological resources and marine life. China has been criticized several times for the fall of its space debris to earth, which is considered an irresponsible act. Some of those criticisms come from NASA and US Space Command who consider that China has taken unnecessary risks with the uncontrolled re-entry of rockets into their Long March 5B rocket stage. China is deemed not to have shared the specific trajectory information needed to predict the landing zone and mitigate the risk (Paget & Maxouris, 2022).

Many countries have thought about the impact of launching objects into space (space objects) since the first time the Soviet Union launched its first satellite into space, namely Sputnik I. The United States also soon launched its first satellite, Explorer I, a few months then, to be exact February 1958 (Siregar, 1989). Immediately, the United Nations formed The Committee on the Peaceful Uses of Outer Space (UNCOPUOS) to formulate the legal status of "outer space." Namely space limits that can be exploited and used for peaceful purposes by all countries. The General Assembly of the United Nations on December 9, 1966, issued Resolution number 2222 (XXI) concerning the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (from now on referred to as the Outer Space Treaty) (Supriyono, 2014). The Treaty regulates the legal status of space, the principles of space use, the responsibilities of the country launching the space object, and the rights of the country that falls victim to the space object (Noor & Sudiarta, 2016).

Article 1 of the Space Treaty stipulates that all forms of space exploration and use by the state and legal entities, including the Moon and other outer spaces, must be based on the interests of all countries. No matter the level of economic growth or the sophistication of each country's technology ownership, all of them must benefit humanity. All nations have equal and non-discriminatory freedom to exploit and use all outer space, including the Moon and all other forms of celestial bodies. International legal arrangements are based on free access to all forms and regions of celestial bodies, including the freedom to conduct scientific research in space. Every country must encourage and facilitate various forms of international cooperation for space scientific research (Auliarahma et al., 2021).

The concern that arises is that many countries still need to become parties to the space agreements agreed upon within the framework of the United Nations. Despite annual resolutions by the General Assembly inviting States to consider ratification or accession to an international treaty, the apparent decline in the willingness of States to bind themselves to the terms of the Treaty is likely to weaken. Therefore, the Committee on the Peaceful Uses of Outer Space (UNCOPUOS) and the legal Sub-committee have asked countries for their views on obstacles to ratifying five international legal instruments governing outer space (Benkö et al., 2005).

Indonesia has ratified the Space Treaty through "Law of the Republic of Indonesia Number 16 of 2002, State Gazette Number 34 of 2002, Supplement to State Gazette Number 4195 concerning Ratification of the Treaty concerning Principles Regulating Activities of Countries in the Exploration and Use of Space, Including the Moon and Other Heavenly Bodies, 1967" (Simarangkir, 2011). Law Number 16 of 2002 states that "To realize national goals, Indonesia has actively carried out various activities in the utilization and development of space science and technology, including discussing space issues in various international forums" (Auliarahma et al., 2021). As clearly and expressly stated in the fourth paragraph of the Preamble to the 1945 Constitution, that Indonesia's national goal is "to protect the entire Indonesian people and all of Indonesia's bloodshed and to promote public welfare, educate the nation's life and participate in carrying out world order based on freedom, peace and eternal life and social justice" (Simarangkir, 2011).

As stated in The Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, 1968 (from now on referred to as The Rescue Agreement), Indonesia is the place where the components of the Long March/CZ-8 Rocket belonging to China fell, Shall notify China as the Launching Power and to the Secretary General of the United Nations. These rules are stated in article 5. That every country as the discoverer of a celestial body, or the fall of a celestial body in its jurisdiction, or on the high seas, or in other areas not under the jurisdiction of any country, is obliged to report to the owner of the celestial body and the UN Secretary-General. Furthermore, the country that owns the jurisdiction area at the request of the State that owns the foreign band or the country that launches the foreign object can immediately take appropriate action to secure the components of the falling celestial body and can carry out recovery on the object affected by the fall of the celestial body. For the country that discovers the component of the crashed celestial body, it must return it to the launching country after identifying the component data at the request of the launching country.

The Outer Space Treaty of the UN is the first and most comprehensive international law governing outer space. This Treaty regulates the purpose of exploiting and using outer space for the benefit of humankind, including the prohibition of claims of possession of assets and the prohibition of the use of mass destruction weapons. After the end of the space race during the Cold War era, with efforts to accelerate the escalation of technological progress, space exploration by the State and the private sector has increased (Peterson, 2021). The United States and the Union of Soviet Socialist Republics (USSR) after World War II engaged in a series of silent and tense arms development races known as the Cold War. The two superpowers that are very influential in the world are trying to win the race differently based on their respective systems of government and political ideology. Both believed that victory in the cold war was a testament to the superiority of political

superiority, government efficiency, and financial strength. The cold war race was the development of ballistic missiles with nuclear warheads, the arms race, and the space exploration race. In contrast, many countries witnessed the "bloodless" competition between the United States and the USSR as a struggle for supremacy as a superpower. Both are fighting for success in protecting domestic security, making national pride, and trying to strengthen each other's reputation as the greatest country in world history (Peterson, 2021).

Literature Review

It is crucial to focus on aspects of militarization, hacking systems, defense from attacks, and espionage while discussing security in space. Moreover, it is necessary from the start to emphasize the basic principles that seek to ensure security in space law as stated in international treaties in the field of space from a wider perspective, the principles of the use and purpose of space exploration, and also to make it clear about the expectation of peaceful outer Space (Bass, 2021). Launching a celestial body which is a form of technological progress in utilizing outer space, has a variety of positive impacts on human life. The positive impact that can be felt is the opening of opportunities for other countries that want to advance their capabilities in space science and technology. Mention one of them, by developing technology and discovering innovations in space science and technology, namely remote sensing functions for resource management. Nature for environmental protection, to increase food productionsuch as plantation agriculture and fisheries, planning settlements and land use, and mapping (Putra et al., 2019).

Regarding security in space, it is essential to focus on aspects of military issues, such as defense systems, espionage, and hacking systems. However, it is necessary to emphasize the basic principles to ensure and seek security in space law. The principles of the use and purpose of space exploration, as stated in international treaties in space from a certain perspective that outer space is expected to be used peacefully (Bass, 2021). Launching a celestial body, a form of technological progress in utilizing outer space, has a variety of positive impacts on human life. The positive impact that can be felt is the opening of opportunities for other countries that want to advance their capabilities in the field of space sciences and technologies, for example, by developing technology and discovering innovations in remote sensing which function for natural resource management, nature environmental protection, increase food production such as plantation agriculture and fisheries, as well as settlement planning and land use, mapping, and others (Putra et al., 2019).\

Each country has its principles in space activities. As a comparison, there are lesson-learned from Japan, Russia, and Germany. Japan's Space policy provides for the interpretation of space for the benefit of everyone. Human activities in exploring space to enlarge the scope of human activities in the future remain significant. A large-scale exploration in space must be based on international cooperation. Japan undoubtedly defines the six pillars of space explorations: (1) Peaceful aim in the use of space; (2) Improving people's lives in the world; (3) Industrial development and innovations; (4) Prosperity of human life and society; (5) Enhancing many international cooperations; and (6) Environmental consideration. Japan's space activities are geared towards fulfilling these pillars which replicate many of the international law principles. Those principles are preserved in the Outer Space Treaty (Bass, 2021).

From other perspectives, The Russian Space Act sets out the following principles in generating space activities: (1) to promote peace and international security; (2) to ensure the safety in providing space activities; (3) to protect the environment; (4) any space activities must respect other countries territory; (5) to obey international responsibility; (6) to commit an equal and reciprocally beneficial international collaboration; (7) to avoid international law violation; and (7) to avoid misleading dissemination of information about outer space (Bass, 2021). Furthermore, Germany has a strategy regarding space with a similar concept. Germany recognizes the peaceful, unlimited use of space for future generations. Any space activities and exploration an essential prerequisites for prosperity and freedom. Concerning international collaboration and ensuring the space environment's sustainability. Germany proposes an expand international collaboration through coordination with its partners to avoid excessive exploration efforts and increase the efficiency of space exploration. Global media coverage paves the way for transparency in the political system and prevents closed national government systems. Space-based infrastructure proves to be an effective instrument for advancing and developing science (Bass, 2021).

In space, it is reported that 360 satellites have military uses, with 80% of them belonging to the United States. The other 20% of satellites belong to China, Russia, and France (Andy, 2017). Based on data from experts at the Union of Concerned Scientists (UCS), who provide the Satellite Database, there are 3,372 operational satellites currently orbiting Earth. The United States is reported to have launched 1897 satellites. Russia is said to have launched 176 satellites. China has also launched 412 satellites, while other countries have launched 887 satellites (ucsusa.org, 2005). While implementing the space program, India faces many domestic and international challenges in the economic, social, and military fields (Guruprasad, 2018). Debris in orbit can eventually cause the "Kessler syndrome," whereby theoretically, the concentrationof objects in Low Earth Objects (LEO) in outer space is very dense so that back-to-back collisions between celestial bodies very often occur resulting in an increasing number of celestial debris. The Organization for Economic Cooperation and Development (OECD) considers this condition to be an ecological tipping point that could disrupt the use of certain orbits. This affects climate monitoring, weather forecasting, geography observation, and space communications activities (Datta, 2020).

Since 1948 the beginning of space exploration and exploitation, one of the main concerns of space user countries is the provisions of international law in overcoming the problems of astronauts and the possibility of the fall of part of the space vehicle. International agreements at that time had regulated legal obligations to countries sending astronauts and space vehicles. As well as the obligation of the country that finds the wreckage of the space vehicle to return it to the country that owns it (Lee, 2008). Ricky Lee, in his writings, stated that the Rescue Agreement of 1968 expanded the State's obligations concerning the rescue, recovery, and repatriation of astronauts and extended the obligation to return the spaceobjects in their entirety. These obligations vary depending on the specificity and scope of diplomatic relations, but the formulation of these regulations is for state government agencies or military agencies, which are the exclusive actors in exploring and launching humans into space (Lee, 2008). Paul G. Dembling and Daniel M. Arons stated that the return of celestial objects belonging to other countries must be conditional on payment of compensation for all damages caused by these celestial bodies. In light of the growing legal issues associated with space

exploration, academics, and diplomats seek to separate the scientific objective of returning celestial bodies to the launch nation concerned but must ensure compensation for damages (Dembling & Arons, 2007).

As a legal product of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS), The Rescue Agreement has not been ratified by all countries. Only a few countries that are involved in the Outer Space Treaty, do not accept the basic "rules" set by UNCOPUOS. Even though these countries support the existence of UNCOPUOS. The Secretary General of the United Nations has invited member countries to find out the constraints of these countries to ratify five international legal instruments on space regulation (Benko, 2001).

The actions of a State may conflict with the Outer Space Treaty, but it is problematic to impose this Treaty and prosecute desecrations of this Treaty, specifically when the countries conducting space exploration do not ratify entirely international agreements on outer space. In addition, space exploration by private parties is only regulated by their national laws (Martinez, 2021). Only a few countries (mostly without space exploration capabilities) have ratified international treaties in the space segment, especially the Moon Agreement. The United Nations must establish a new international agreement that accommodates the interests of developed countries, update requirements to give altogether countries freedom in space advance, and ensure peaceful exploration. No country can claim or own any object or area in space. If the United Nations and the international public need to prepare to address the need to enforce space laws directly, then they should establish a new treaty to cover private companies and hold them accountable for their actions (Martinez, 2021).

Methodology

The method in this research is qualitative research in legal science called legal research. A legal approach is to find the truth of rationality, namely legal rules according to legal norms in the form of orders or prohibitions by legal values and whether one's actions are under legal or legal values (Marzuki, 2019). Legal research is not a know-about commotion but a know-how commotion in legal science. This research is not just to identify something or get information but to solve legal issues (Abidin et al., 2021). Alternatively, it is not a procedure of noticing laws that apply in social life. Moreover, legal research creates laws to solve problems (Cohen & Olson, 2003).

This legal research uses a statutory approach and a conceptual approach. The statute approach objectives to examine entirely laws and regulations and their innards relating to the relevant legal issues (McConville & Chui, 2007). The first reference of this research is 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 Rescue Agreement of the United Nations in Article 5 Paragraph (3) states: "Upon request of the launching authority, objects launched into outer space, or their parts found beyond the territorial limits of the launching authority shall be returned to or held at the disposal of representatives of the launching authority, which shall, upon request, furnish identifying data before their return." The second reference is the Law of the Republic of Indonesia Number 16 of 2002, State Gazette Number 34 of 2002, Supplement to State Gazette Number 4195 concerning Ratification 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.

According to the Rescue Agreement, each country must alert the launching country and the Secretary General of the United Nations when it obtains evidence or finds a celestial body or part of its components in its region, the high oceans, or areas beyond the authority of any country. Upon request and assistance from the launching nation, take all practicable steps to save the celestial body or its parts. Upon entreaty of the launching nation, space objects or parts found outside the national boundaries of the launching State must hand over to the representative of the launching nation, who, upon request, must provide identification data before they are returned.

The data assortment comprised documenting altogether related legal papers as the primary source. Secondary sources of law come from literature studies such as scientific texts pertinent to research, theses, journal articles, and law books to accompany and relay to regulatory analysis. This study also used virtual explorations to acquire data from several sites and online news for sustenance analysis (Achmad & Ida, 2018). Finally, this study conducts a word-based analysis of legal documents and virtual explorations to acquire evidence of space activities and objects from outer space.

Result and Discussion

Based on the background, this research elaborates on the obligation of Indonesia's Government as a country that finds parts of celestial bodies belonging to other countries. Moreover, it describes the mechanism for filing a claim for compensation against the country that owns the part of the space object component found to have fallen into Indonesian territory. Finally, to give insight into those two objectives, this research explains that developing countries are increasingly involved in space activities and actively participate. However, while some countries have achieved significant milestones in space activities, others are just starting to develop their space programs and policies.

That situation increases the awareness of evolving countries about the potential, importance, and effect of space activities. In this regard, it is imperative to intensify efforts to outspread to altogether countries the assistance of space activities to increase the peaceable use of outer space for socio-economic growth. Furthermore, matched with increasing international collaboration in space activities, it is essential to encourage more involvement of developing countries through the active assistance of developed countries. Enhanced knowledge and technical assistance are critical factors for expanding capabilities, enabling developing countries to draw on the expertise and technology of more advanced space exploration nations (General Assembly, 2007).

Each country is obliged to alert the launching country and the Secretary General of the United Nations when it obtains information or finds a celestial body or part of its components on its territory or the high oceans, or in areas beyond the jurisdiction of a country. Upon request and assistance from the launching nation, take all practicable steps to save the celestial body or its parts. Upon request of the launching nation, space objects or their parts found outside the territorial boundaries of the launching State must also be returned or handed over to the representative of the launching nation, who, upon request, must provide identification data before they are returned. A State with a motive to accept as true that a celestial body or its parts found within

its jurisdiction, or found elsewhere, is harmful or harmful may notify the launching State so that it must proximately take adequate steps, under the direction and control country, to eliminate the possibility of harm.

The costs acquired in fulfilling the obligation to save and return the celestial body or its parts are borne by the launching country, as stipulated in Article 5 Paragraph (5) of the Rescue Agreement. The only provision for reimbursement by the launching nation relates to costs incurred to convalesce and return the celestial body or its parts. No special provisions in the Rescue Agreement regulate the compensation of expenses acquired in the rescue and return of astronauts or the cost of cleaning up hazardous materials and their risks. Based on the provisions of this article, it is known that the compensation of the necessary costs is regulated separately from responsibility for damage caused by celestial objects (Lee, 2008).

With the increasing human activity in launching human and tool objects into space, the problems that arise are also increasingly complex. One of the complexities of the problems regarding activities in outer space is concerning losses that can arise against certain parties, both parties who have participated in space activities and parties who have yet to participate in these activities at all (Akase, Trihastuti and Pramono, 2017) One of the well-known principles of international law is the *pacta sunt servanda*. This principle requires that the State must implement the agreement in good faith. This principle is one of the basic principles of international law which cannot be ignored (*jus cogens*). Space exploration has been less discussed in recent decades, but the problems that arise are the opposite. With the increasing participation of many countries, private entities, and individual entities, space exploration, and activities are becoming more complicated (Gupta & Raju KD, 2019).

The mechanism for Filing a Compensation Lawsuit against the Country Owner of Parts of a Space Object Component Found Falling in the Indonesian Territory

Compensation for the launching country due to loss or damage can be done through diplomatic conduits. If a country does not have diplomatic relations with the launching country, it can request help from other countries that have diplomatic relations with the launching country. The country might also file a lawsuit over the assistance of the Secretary General of the United Nations, as long as the complaining country and the launching country are members of the United Nations. This is regulated in Article 9 of the Liability Convention, 1972. Diplomatic relationships are arrangements between two countries that respectively have a representative in another country. The establishment of diplomatic relationships between countries, and diplomatic missions, occurs by reciprocated agreement; this has been regulated in Article 2 of the Vienna Convention, 1961: "The establishment of diplomatic relations between States, and permanent diplomatic missions, takes place by mutual consent."

The advance of science, knowledge, and technology achieved by humankind in the last few decades has opened up opportunities for the usage of space through various space object placements, for example, satellites. The background of these celestial bodies' placements is for various determinations and interests for defense/security purposes, peaceful purposes (telecommunication, weather detection), or other scientific development needs. It is estimated that the number of celestial bodies in Earth's orbit reaches 6 thousand and resolves to endure to grow in the future (Wood, 2020).

In principle, all celestial bodies, still functioning, and those not functioning, have the same opportunity to fall or return to Earth. Most celestial bodies use nuclear energy so that even though they are no longer functioning, they still contain nuclear material. As a result of the celestial body falling, it will also bring nuclear material with it. The content of nuclear material is the main danger accompanying the fall of celestial bodies because it can interfere with health and even cause death in humans and other living things. This nuclear material can also cause damage that is very difficult to repair in the environment it pollutes; even if it can be repaired, it will take a long time (Wood, 2020). No binding international agreements or standards require satellite providers to remove satellites from a Geo Stationary Orbit (GSO) (Tronchetti, 2013).

The liability Convention must clearly explain what 'compensation' means, primarily whether it covers lost profits or income (Tronchetti, 2013). Liability Convention, 1972 Article 1 regulates the definition of loss. The term "loss" refers to injury, health problems, death, damage to state assets, private property or legal entities, or property belonging to any intergovernmental organizations. The term "launch" comprises efforts to launch. The term "launching country" means (1) A country that launches or participates in the execution of a celestial object launch; (2) A country whose territory or facilities are used for launching celestial bodies. The term "celestial body" covers the components of the celestial body, including the glider and its parts. The liability Convention requires the plaintiff to prove the defendant's guilt. The Liability Convention does not define what constitutes a 'fault.' Evidencing this may not only be difficult, but its interpretation can also diverge contingent on the case (Tronchetti, 2013).

Settlement of Compensation Lawsuits Through the Claims Commission

The Organization for Economic Cooperation and Development (OECD) warns in its newly published statement that financial and social vulnerability to space hazards, particularly debris, is increasing. The OECD reveals that the damage can account for around 5-10% of the entire launch cost, which can be hundreds of millions of dollars for satellites in geostationary orbit. In Low Earth Orbit (LEO), damage can be as significant as 5-10% of the cost of each launch (Datta, 2020).

The amount of compensation that necessity be paid is the responsibility of the launching country, determined following the provisions of International Law and the principles of justice and equality, to make repairs due to damage to restore the original State of every person or legal entity or intergovernmental organization, as regulated by Article 12 of Liability Convention, 1972. Compensation must be paid under the currency of the claimant country or the currency of the State that has to pay compensation except for the claimant state and the country paying compensation agrees to payment of compensation in another form. This is regulated by Article 13 of the Liability Convention, 1972. Claim compensation claims through Claims commissions are settled if claims through diplomatic negotiations are not reached.

Claims Commission must consist of three members; the first member is appointed by the claimant country, the second member is appointed by the launching country, and the third member as chairperson is jointly elected by the two countries. Each country must make the appointment within two months of the application to establish the Claims Commission. If there is no agreement regarding the election of the chairperson, then within four months from the application for the formation of a Claim Commission, one of

the countries may ask the Secretary General of the United Nations to appoint a Chair within two months, this becomes regulation regulated in Article 15 of the Liability Convention, 1972.

If one of the countries ensures not make a selection within the specified time, the chairperson may, at the request of the other country, determine a single-member Claim Commission. Somewhat vacancies appearing in the commission must be filled immediately with the same method as the original appointment. The Claim Commission can determine its settlement procedure. The commission can determine the place or places where the hearing is held and all other administrative matters. Except in the case of single-member Commission decisions, all Commission Decisions develop a majority vote as stipulated by Article 16 of the Liability Convention, 1972.

The addition of members of the Claim Commission is not allowed for reasons of two or more claimant countries or launching countries joining the trial process before the commission. The joined claimant countries must appoint one commission member with the same procedures and requirements as in the case of a single claimant state. If two or more launching countries join, they must jointly appoint one commission member with the same procedures and conditions. If the claimant countries or launching countries do not make appointments within the allotted time, the chairperson shall determine a single member Commission as regulated in Article 17 of the Liability Convention, 1972.

Claims Commission necessity decides the amount of compensation that can be paid, as regulated in Article 18 of Liability Convention, 1972, as follows: "The Claims Commission shall decide the merits of the compensation claims and determine the amount of compensation payable, if any." If the parties agree, the Claim Commission's pronouncement must be final and obligatory. If the parties do not reach an agreement, the Claim Commission must decide the form of a recommendation, which the parties must carry out in good conviction. In addition, the commission must provide a reason for its decision to the claimant and the launching countries. Finally, the commission must make a decision very soon and not later than one year from the date of establishment, except if an allowance of time is deemed compulsory by the commission.

Paragraph 3 of Resolution 2777 (XXVI) by the UN General Assembly on November 29, 1971, regulates regarding the Liability Convention that each State may, by becoming a party to this convention, declare that it will recognize binding, related to any other State that accepts the same obligation, the decisions of the Claims Commission regarding any disputes involving it. With essential deviations in international relations and the end of the Cold War, the question of the compulsory nature of Claims Commission decisions must now be utterly considered by altogether States. This will meaningly increase the usefulness and validity of the Liability Convention depriving it of the need to amend it (Benko, 2001).

The costs associated with carrying out the Claim Commission's duties must be stood equally by the parties unless else obvious by the commission as decided in Article 20 of the Liability Convention, 1972. If the damage caused by a celestial body founds a large-scale hazard to human life or disrupts the living environments of the people or the functions of vital midpoints, the Contracting States and the launching State must consider assisting as soon as possible to the State suffering the damage. Nevertheless, no provisions distress the rights or responsibilities of the countries party to the convention.

Not all countries launching celestial bodies are willing to resolve disputes over the payment of compensation under the Liability Convention of 1972. For example, Russia is unwilling to resolve disputes using mechanisms regulated by international space law (in the case of the collision of the United States' Iridium satellite with a Russian satellite), making the international community aware that there are deficiencies in space-related dispute settlement arrangements. This has led many legal professionals to wonder whether adequate, well-organized, and accessible mechanisms exist to resolve such disputes (Tronchetti, 2013). Furthermore, to admit the compulsory force of the Claims Commission's decisions must also be well-thought-out emerging countries that may not be involved in space actions but may be potential sufferers of accidents instigated by extraterrestrial objects (Benko, 2001).

All countries participating in the Space Treaty shall be internationally responsible for their government activities in space, including the Moon and other celestial bodies, including those carried out by governmental or non-governmental agencies, and for guaranteeing that those activities are nationally under the provisions of the Space Treaty. The actions of non-governmental organizations in outer space, including the Moon and other celestial bodies, must obtain permits and continuous direction from their countries.

Agenda for International Organizational Collaboration in Space Exploration

Space law is a total amount of rules of international law overriding relationships between states and international organizations in joining their Space actions and creating a regime of international law for outer Space and other celestial bodies (Zhukov & Kolosov, 2014). International organizations play a substantial role in space utilization activities. All state activities in utilizing and using outer space are regulated by international space law. Thus, international space law is several special rules governing the relations of states with each other and international intergovernmental organizations, as well as the reciprocal relations of these international organizations (Zhukov & Kolosov, 2014).

The joint activities of countries in exploiting and using outer space, including their activities in international organizations, arise in an explicit arena of international relations that requires special arrangements in international law. Therefore, objective prerequisites emerged within the agenda of international law, a new subdivision of general international law similar to the International Law of the Sea, International Air Law, and other divisions of international law. This objective prerequisite was realized by the deduction of an international treaty on outer space and the establishment of international space law rules (Zhukov & Kolosov, 2014).

Conclusion

Rescue Agreement of 1968 expanded the State's obligations regarding the salvage, retrieval, and repatriation of astronauts and extended these obligations returning of space objects. These obligations vary in specific scope and condition, but they are formulated to regulate state government agencies or military agencies, which are the exclusive actors in exploring and launching humans into space. Claims for compensation to the launching country due to loss or damage can be completed over diplomatic conduits. If a country does not have diplomatic relations with the launching country, it can ask forhelp from other countries

that have diplomatic relations with the launching country. The country can also file lawsuit through the assistance of the Secretary General of the United Nations, with the condition that the complaining country and the launching country are members of the United Nations.

References

- Abidin, I. K. R., Wulandari, S. A., & Achmad, Z. A. (2021). Business competition related to the rapid test service for diagnosis of COVID-19 in hospitals in Surabaya, Indonesia. *Journal of Peace, Development, and Communication*, 5(04), 48–62. https://doi.org/10.36968/JPDC-V05-I04-04
- Achmad, Z. A., & Ida, R. (2018). Etnografi Virtual Sebagai Teknik Pengumpulan Data dan Metode Penelitian. *The Journal of Society & Media*, 2(2), 130–145. https://doi.org/10.26740/jsm.v2n2.p130-145
- Auliarahma, A. N., Anis, H., & Voges, S. O. (2021). Pengaturan Pemanfaatan Ruang Angkasa Menurut Perjanjian Internasional Space Treaty 1967. *Lex Administratum*, *9*(7), 86–95.
- Bass, T. M. (2021). Persistent Optimism: The Inherency of Security within International Space Law. *Florida Journal of International Law*, *31*(2), 257–272. https://scholarship.law.ufl.edu/fjil/vol31/iss2/4
- Benkö, M., Schrogl, K.-U., Digrell, D., & Jolley, E. (2005). Space law: current problems and perspectives for future regulation. In M. Benko & K.-U. Schrogl (Eds.), *Essential air and space law: Vol. EASL vol.*Eleven International Publishing.
 https://books.google.com/books/about/Space Law.html?id=VxqnITyrnHMC
- Cohen, M. L., & Olson, K. C. (2003). Legal Research in a Nutshell. Thomson/West.
- Paget, S. & Maxouris, C. (2021, July 31). Remnants of an Uncontrolled Chinese Rocket Reentered the Atmosphere Over the Indian Ocean, US Space Command Says. CNN. https://edition.cnn.com/2022/07/30/world/china-rocket-debris-enters-atmosphere/index.html
- LAPAN. (2021, January 5). *Obyek langit yang ditemukan di Kalimantan Tengah adalah bekas roket China*. Lapan.Go.Id. https://lapan.go.id/post/6822/lapan-obyek-langit-yang-ditemukan-di-kalimantan-tengah- adalah-bekas-roket-china
- Marzuki, P. M. (2019). Penelitian Hukum (Revisi, Ce). Prenadamedia Group (Divisi Kencana).
- McConville, M., & Chui, W. H. (Eds.). (2007). *Research Methods for Law* (2nd ed.). Edinburgh University Press.
- Noor, D. A., & Sudiarta, I. K. (2016). Tanggung Jawab Negara Berdasarkan Space Treaty 1967 Terhadap Aktivitas Komersial di Luar Angkasa. *Kerthanegara*, 4(1), 1–5.
- Peterson, L. (2021). Governing The Unknown: How The Development of Intellectual Property Law in Space Will Shape The Next Great Era of Exploration, Exploitation, and Invention. *Northwestern Journal of Technology and Intellectual Property*, 18(3), 335–353. https://scholarlycommons.law.northwestern.edu/njtip
- Putra, S. D. P., Pramono, A., & Supriyadhie, H. M. K. (2019). Analisis Yuridis Eksistensi Yurisdiksi Satelit Ruang Angkasa Menurut Hukum Internasional. *Diponegoro Law Journal*, 8(1), 706–713.

- Ramdhani, J. (2021, January 8). *Lapan Update soal Puing di Kalteng: Fairing Roket Long March/CZ-8*. DetikNews. https://news.detik.com/berita/d-5326491/lapan-update-soal-puing-di-kalteng-fairing-roket-long-marchcz-8
- Rizal, J. G., & Nugroho, R. S. (2021, January 9). *Lapan: Obyek Langit yang Ditemukan di Kalimantan Tengah adalah Bekas Roket China*. Kompas.Com. https://www.kompas.com/tren/read/2021/01/09/103000065/lapan-obyek-langit-yang-ditemukan-di-kalimantan-tengah-adalah-bekas-roket?page=all
- Simarangkir, E. I. (2011). Analisis Status Yuridis Ruang Angkasa dari Perspektif Hukum Agraria Indonesia dan Space Treaty 1967. *Risalah Hukum*, 7(2), 1–21. http://staff.uny.ac.id/system/files/pendidikan/Dr.
- Siregar, H. B. (1989). Beberapa Dasar Penerimaan Berlakunya Outer Space Treaty 1967: Suatu Tinjauan dari Sudut Hukum Internasional. Universitas Airlangga Surabaya.
- Supriyono, S. N. (2014). Pengaturan Outer Space Treaty 1967 Terhadap Penelitian yang Dilakukan oleh Amerika Serikat di Planet Mars. Universitas Brawijaya Malang.