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## **SPACE DIPLOMACY – FUTURE PERSPECTIVE<sup>2</sup>**

Space is a new area for diplomacy. Diplomacy plays an important role in all domains from culture, science, and technology, and is a field that focuses on international relations between states. It facilitates communication and exchange of knowledge between states, and is a discipline that has evolved. A new type of diplomacy that has emerged in recent years is “space diplomacy”, which is responsible for arms control and maintaining the “peaceful uses of outer space”. Weaponization and the militarization of space are important and sensitive policy issues for states. The defense of space, and using space for defense, are issues that are now being discussed between diplomats worldwide. Many issues are also being negotiated by international space organizations. This article presents the new discipline of space diplomacy and examines its future by analyzing legal documents negotiated by the international community. The article is relevant to debates on the legal and political aspect of space security and the peaceful use of space for commercial purposes.

**Keywords:** space diplomacy, negotiations, international law, organization, militarization of space.

### **1. INTRODUCTION**

Space is discussed worldwide, not only bilaterally, but mostly internationally. Not only at international conferences or symposias, but mostly at the diplomatic meeting organized by international space organizations. There are new initiatives referring to peaceful uses of space and cooperation between states in space. There is also some legislative examples in Europe and some ideas of space diplomacy. The Author presents some of them about safety and security or defense and shows how the space diplomacy is important today for international community.

### **2. SPACE DIPLOMACY – DEFINITION**

Professor Kai-Uwe Schrögl, a well-known space researcher, claims that diplomacy, understood as dialogue between sovereign states, was the beginning of space law in the 1960s. Since then, diplomacy has played an important role in the process of creating space

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<sup>2</sup> This publication is financed under the project implemented in the Research Grant Program of the Ministry of National Defense Republic of Poland.

law and overseeing its implementation. The application and enforcement of international space law and regulations can be divided into three groups: fundamental problems, other existing problems and problems already on the horizon. Beginning with the fundamental problems, it is clear that at the time of negotiating basic space law in the 1960s and 1970s, neither time was mature nor the confrontation of forces was able to establish mechanisms to enforce space law. Moreover, States are reluctant to refer space law issues to the International Court of Justice and the concept of “space police” is rarely used. In fact, few minor issues have emerged so far in relation to the application of international space law. Among them is the careless registration of space objects, but this does not destroy the foundations of space law. Neither astronauts have been stuck on the ground, nor have objects that have fallen to the ground been returned to them, if they have been identified and demanded. It could be argued that the involvement of diplomacy on the activities of the satellites could be reduced to consultations in order to eliminate their harmful actions against other users of the Space. Does this mean that space law does not have to be enforced now or in the future? While this question is a rhetorical one, since the beginning of the UN, the development and monitoring of the implementation of international treaties on space has been a contentious issue (<https://www.iislweb.org/website/docs/201keynote.pdf>). The first step towards solving these problems was the decision of the UN in 1958 to establish the Committee on the Peaceful Uses of Space COPUOS (UN COPUOS); at the same time, this date is considered the beginning of space diplomacy.

### 3. SPACE ORGANIZATION

COPUOS initially consisted of 18 member states and was intended to coordinate the work of specialised agencies and other international bodies related to the peaceful use of space. This work was intended to facilitate their cooperation within the United Nations and to address legal issues that might arise in space exploration programmes. One year later, the UN General Assembly established COPUOS as a permanent body with 24 members and confirmed its mandate in Resolution 1472 (XIV). Since then, COPUOS has served as a focal point for international cooperation in the peaceful exploration and use of space, maintaining close contacts with governmental and non-governmental organisations involved in space activities, ensuring the exchange of information and assisting in the analysis of measures to promote international cooperation in these activities.

Two subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee, which met for the first time in Geneva in 1962 and now meet regularly each year in Vienna, assist COPUOS in its work. Since 1959, the number of members of COPUOS has been growing steadily, and today it is one of the largest committees in the United Nations. Apart from states, it has a number of international organisations, including intergovernmental and non-governmental organisations; others have observer status in COPUOS and its subcommittees. The United Nations Office for Space (UNOOSA) provides technical support for COPUOS and its two subcommittees ([www://unoosa.org/oosa/en/ourwork/copuos/index.htm/](http://www.unoosa.org/oosa/en/ourwork/copuos/index.htm/)).

UNOOSA is also responsible for promoting international cooperation in the peaceful uses of space and for discharging the UN Secretary-General's responsibilities under international space law and for maintaining a register of objects fired into space. The key to understanding the activities of COPUOS is that it is primarily diplomatic in nature (<http://www.unoosa.org/oosa/audio/v2/meetings.jsp?lng=en>). The participants are

representatives of permanent missions to the UN and not the heads of space agencies. As a result, the talks are more political than technical and often very slow (<https://www.carthage-edu/model-united-nation/points/rules>). Space diplomacy is also used by states, international governmental and non-governmental organisations, often drawing on the opinions of experts, including eminent scientists.

#### 4. SPACE SECURITY

Space diplomacy has been and continues to be an important element of security and development for the international community. On the one hand, this diplomacy implements practical initiatives that can turn various divergent interests of countries in space into cooperation, beneficial to all countries concerned. On the other hand, it is the art of negotiating for peaceful purposes for the benefit of future generations.

For decades, space diplomacy has been an instrument that has allowed the establishment of important regulations to prevent threats from space (natural and man-made). Nowadays, for the international community to be secure, diplomacy should be more active and willing to seek new solutions than ever. Space diplomacy activities must be prudent and should not be seen as an intention to restrict the freedom to conduct research and implement programmes, provided that they are geared towards peaceful and lawful purposes (Chanock, 2013)

During the “Cold War” period, only two states of the USA and the USSR were active in space; however, international cooperation is now more difficult, as other states have also taken an interest in space. This resulted, among other things, in congestion of the lowest space orbit – therefore, the initiative of states and cooperation of diplomacy to develop its joint management (STM – *Space Traffic Management*) was necessary. Mechanisms such as multilateral space treaties did not work, which is why diplomacy has now engaged in the process of creating the so-called “soft” law, which is non-binding but requires states to have good will and understand the situation.

COPUOS undertook a series of research for sustainable development of space, using new technologies, including the so-called space mining (Ramirez de Arellano y Haro, 2016). Thus, COPUOS diplomacy appears not only as a mechanism for negotiations, but also as a guarantee for sustainable access and achievement of specific benefits from the “space economy” (Chanock, 2019).

As already mentioned, since the end of the 20<sup>th</sup> century, space law has faced new challenges, including the North-South conflict, uneven economic development, increased space communication and the threat of appropriation of space. In this situation, UNCOUOS has created multilateral space diplomacy to replace bipolar diplomacy. The disadvantage of this “new diplomacy” was that its products were either “soft” law (e.g. resolutions of the UN General Assembly) or not found much recognition (Moon Agreement). On the other hand, acting separately (outside UNCOUOS), the International Telecommunications Union (ITU) reached an agreement on equal access to space for all at conferences in 1985 and 1988.

Thanks to the efforts of COPUOS to develop a soft space law, there has been some convergence of countries on disputed space issues. In addition, a number of UN General Assembly Resolutions have been adopted, including on the registration of space equipment and the reduction of space debris. In contrast, diplomatic conferences on the prevention of an arms race in space (PAROS) have failed. Such failures result, among other things, from

the fact that even now during the negotiations, diplomacy is based on the basic conventions of space law adopted in the sixties and seventies, which, as at that time, were a major achievement, but now do not respond to the challenges of today. Despite this, it has been possible for years to draw the line between the peaceful and non-peaceful use of space, thanks to the OST treaty, which included provisions on arms control. However, diplomacy has not taken up many controversial or unexplained issues, such as the stationing of weapons in space.

However, most of the space law created outside UNCOPUOS was developed by the International Telecommunication Union (ITU), these are provisions of the Radio Regulations, which are themselves international law. Space law can also be dealt with by the International Civil Aviation Organisation (ICAO). Already in 2005. The ICAO Council has expressed interest in the subject of space traffic management, and in 2015 it organised a 'learning group' on civilian space travel. Regional organisations such as the European Aviation Safety Agency (EASA) are also interested in private communication in space, as in the US, the Federal Aviation Administration (FAA).

COPUOS and CD (Diplomatic Conferences) have been separated by the Member States and are still operating separately today; in addition, there is a lack of contact between the COPUOS Legal Sub-Committee and the International Organization for Standardization (ISO), which deals, among other things, with the problem of space debris. Surveillance and even review of the situation in the field of space law by COPUOS seems to be lost. However, the biggest challenge for a uniform and coherent international space law from national space legislation comes. Previously, the impression emerged that countries are not really interested in the coherence and uniform development of international space law – a situation which seems convenient, practical or simply in their own interest. What kind of diplomacy is required to change or rectify this? Why has it not been possible to create a coherent and uniform system of space law, while international maritime, aviation and telecommunications agreements work perfectly. Space law has been moving in the opposite direction for some time (<https://www.iislweb.org/website/docs/201keynote.pdf>). Similar opinions to the International Space Law Institute are expressed by other NGOs (non-governmental organizations – Suzuki, 2010).

Less critical of COPUOS is the Stimson Center, which states that five decades of space diplomacy have resulted in agreements that form the basis of an international legal regime that promotes the peaceful use of space (<https://www.Stimson.org/content/space-diplomacy>). The breakthrough agreement of this regime is the Treaty on Space, finalised in 1967. This treaty states, inter alia, that space is to be used for peaceful purposes, that space and celestial bodies are not and cannot become sovereign territory of any nation and that it is illegal to place weapons of mass destruction in orbit. Space diplomacy has also established several important standards, including the non-use of weapons of mass destruction in space and the protection of satellites used to monitor the compliance of treaties with intentional harmful interference. However, there are glaring weaknesses in the existing standards promoting the peaceful use of space. For example, the testing and use of destructive methods against satellites is not prohibited by any treaty, even though such tests can produce large fields of rubbish that undoubtedly threaten satellites and other space operations for many decades (Caselli, 2003).

In spite of these criticisms, or perhaps thanks to them, COPUOS has managed to adopt a “soft” code in 2019: “guidelines for the long-term sustainability of space operations” (on which I'll go on) ([www.unoosa.org](http://www.unoosa.org)). Technically developed states are already almost

entirely dependent on space for communication facilities (civil and military) to transmit, among other things, meteorological data and information on the position of aircraft, ships and space objects. Hitting these systems means not only blinding the army but also paralysing entire countries. The process of militarisation of the Space continues (Petras, 2001).

On the other hand, trends towards space protection are increasing. This space security is supposed to provide safe and permanent access to the space and at the same time reduce possible threats coming from this direction (space-based). It seems that the best way to do this is through mutual agreement between states. Therefore, space diplomacy has become an indispensable element of efforts to ensure peace and security in Space and on Earth (Genk, 2010).

## 5. UE SPACE DIPLOMACY

New space activities also present some challenges for the international community. More satellites, more exploration and more space debris make space congested and dangerous for users. The European External Action Service (EEAS) is launching work to promote the need for sustainable space operations. This initiative is called: “Safety, security and sustainable development of space (3 SOS)” will promote “ethical behaviour” in space. For the time being, no compulsory regulation is foreseen – but operators must cooperate. (Clayes, 2019).

European Space Agency (ESA), for its part, is proposing an automatic risk assessment and mitigation initiative, as part of its space security activities. This will provide and demonstrate the types of technology needed to automate the collision avoidance process, speeding up the whole process of machine-generated, coordinated and non-conflicting manoeuvring decisions – which is vital to protect the necessary space infrastructure in the coming years. Three SOS concepts (also adopted by the International Astronaut Federation (IAF)) have been addressed to governments in anticipation of their assistance ([https://eeas.europa.eu/topics/economic-relations-connectivity-innovation/67538/sos-sos-sos-eu-calls-ethical-conduct-space-avoid-collision-and-orbital-debris\\_en](https://eeas.europa.eu/topics/economic-relations-connectivity-innovation/67538/sos-sos-sos-eu-calls-ethical-conduct-space-avoid-collision-and-orbital-debris_en)); 2019 [https://www.esa.int/Safety\\_Security/ESA\\_spacecraft\\_dodges\\_large\\_constellation](https://www.esa.int/Safety_Security/ESA_spacecraft_dodges_large_constellation) 2019). This project was endorsed by the UN General Assembly in June 2019.

The 2007 Lisbon Treaty in its Article 189 concerns the promotion of scientific and technological development, industrial competences, implementation of space policy, etc. The EU is equipped (under the Treaty) with the legal competence to address all space policy issues related to human activities, satellite applications or international cooperation. However, the EU still shares competence in defining European space policy with Member States and their diplomacy. The principle of subsidiarity still applies here (the EU can only act if it does something more effectively than the Member States). The exception is cooperation for research, technological development and space. Shared competence of a parallel nature (cumulatively) does not block national activities. Under the Treaty on the Functioning of the European Union TFEU (Treaty on the Functioning of the European Union) of 2012, which codified the Union's competence in the field of space, the European space policy has become an area of so-called shared competence, between, with one Member State and the ESA, and with

the European Council, the European Parliament and the European Commission). (Słomczyńska 2017).

The three main sets of sources of EU/EC space law are:

1. 12 international space law instruments adopted under the UN systems implemented in the EU/EC system;
2. 31 acts in the form of EU/EC institutional regulations, i.e. regulations, directives and decisions and 237 agreements of Member States with international organisations;
3. 28 regulations concerning the participation of EU Member States in specialised international space cooperation programmes such as Ariane or International Space Stations (Łukaszuk, 2011).

The EU/EC law regulates space policy (satellite techniques, market relations) and the EU economy (satellites, space infrastructure, space launch systems), encourages countries to implement ITU recommendations and regulations and to adopt Space Debris Mitigation Guidelines (developed by UNCOPUOS). Space law therefore applies in the institutional sphere (policies, operational activities, agendas, ESA, the Space Council, the EU Satellite Centre, the European Space Law Centre of ESA). One can also point to the spheres subordinate to the former pillars: scientific, technical and economic issues, GALLILEO, GMES – Global Monitoring for Environment and Security and tasks for the EU Common Foreign, Security and Defence Policy, cooperation outside the EU.

EU space law is evolving. Attention should be paid to the new elements of regulatory areas that have just been shaped in the EU (analogy with aviation law) and the significant role of international organisations (regional cooperation) i.e. ESA, ITU or ISS. European space law is facing new trends (technical and market realities, liberalisation, globalisation, privatisation and cooperation with the private sector). ESA has acquired a broad competence to coordinate Member States' space policies. Therefore, as European space law is rich in normative content (attempts to introduce new legislation, e.g. on intellectual property), there is a need to harmonise activities in different areas and to strengthen cooperation between space law and universal environmental law.

The 2013 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions states, *inter alia*, that

Space is not only a technical challenge. It has, and will continue to have, a strong political dimension which has not yet been sufficiently developed at European level.

The driving force behind the political dimension of space has been those European countries which have carried out the most active activities in space in recent decades. However, the political power of these countries may not be sufficient to cope with future challenges in the face of increasing competition from other countries expanding their activities in space. A common EU space policy is therefore necessary. At the same time, EU intervention could provide a stronger political impetus to space policy, for example by putting in place appropriate framework conditions to sustain and support European space activities and the competitiveness of European companies on the global market.

Some consider that the EU should become a member of COPUOS. European and international cooperation on the International Code of Conduct for Outer Space Activities is important (Wouters, Hansen, 2014). In the face of the stagnation of disarmament of

diplomatic conferences and the US opposition to new space treaties, the European Union states have been looking for another way to ensure the improvement of international security in space. One of the sources used by the EU was an initiative of the American NGO Stimson Center, where the idea of a code of conduct in space was developed.

In 2010, the EU amended this draft and drafted its version of the Code. The EU Code proposes that states voluntarily become parties to it, promoting safe use of space and security principles (consensual norms) – just like club members, agree to respect certain rules. These principles of the EU Code contain provisions on non-interference in operations of other space objects, minimising activities. These principles of the EU Code contain provisions on non-interference in the operations of other space objects, measures to minimise the possibility of satellite collisions and the possibility of their debris escaping into space, participation in the establishment of common electronic bases and consultations. Some principles of the Code reiterate and strengthen certain elements of the OST (Outer Space Treaty) and other previous agreements, bringing them together as if in a single document with an emphasis on all measures to protect space from possible conflict (Jakhu, Sgobba, Dempsey, 2014). In fact, however, in the face of US opposition, this code has not entered into force. Nevertheless, this initiative has not been forgotten and has been reborn in a similar form in 2019 and has been adopted thanks to the activities of COPUOS and the support of a number of countries (including the USA).

#### **New achievements of space policy**

The work of COPUOS has accelerated in recent years: in June 2016. The Committee agreed on a first set of guidelines for the long-term sustainability of space activities (A/71/20, Annex). In 2018, agreement was reached on the preamble and nine additional guidelines (A/AC.105/1167, Annex III and A/73/20). Although the Working Group could not agree on its final report for quite some time, the 62nd COPUOS Session on 21 June 2019 adopted a preamble and 21 guidelines on “the long-term sustainability of space activities” (LTS). These documents contain programmes on policy and regulatory framework for action in space. This is the result of more than 8 years of work by a working group set up by COPUOS and supported by the United Nations Office for the External Space (UNOOSA). Their work has focused on the sustainable use of space. The Committee called on states and international organisations to take appropriate measures to implement the guidelines adopted on 21 June (<https://undocs.org/pdf?symbol=en/A/AC.105/C.1/L.366>). Today UNCOUOS is working on implementation of those guidelines into national systems.

#### **6. CONCLUSION**

Space diplomacy is needed today in case to find solutions and consensus on how to use and protect outer space. This initiative is not an easy task, due to the fact, that states are not willing to negotiate long treaties like in sixties. Today only good negotiators and politicians can discuss soft law solutions and find acceptable provisions for all. The future will show if last achievement of space diplomats, such as SOS or LTS will be successful for next generations. The political will of states play here an important factor of this success.

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DOI: 10.7862/rz.2020.hss.33

*The text was submitted to the editorial office: May 2020.*

*The text was accepted for publication: September 2020.*