



dipam

DİPLOMATİK İLİŞKİLER ve POLİTİK ARAŞTIRMALAR MERKEZİ  
CENTER for DIPLOMATIC AFFAIRS and POLITICAL STUDIES

# EMERGING STRATEGIC AREAS: SPACE

Prof. Dr. Özgün ERLER BAYIR  
Prof. Dr. Aşkın İnci SÖKMEN ALACA  
Prof. Dr. Kerem BATIR

04 April 2024 | DIPAM YouTube Channel

## Panel Notes

Hosted by the Center for Diplomatic Affairs and Political Studies (DIPAM), the second panel of the webinar series titled "**Emerging Strategic Areas: New Competitions, New Threats**" focusing on the theme of **Space** took place online on April 4th, 2024, at 13:00.

The webinar, moderated by DIPAM Researcher Mrs. **Zehra AYDIN İŞCAN**, featured speakers **Prof. Dr. Özgün ERLER BAYIR** (Istanbul University), **Prof. Dr. Aşkın İnci SÖKMEN ALACA** (Istanbul Arel University), and **Prof. Dr. Kerem BATIR** (Izmir Katip Çelebi University).

The topics discussed and the information and opinions shared during the webinar are as follows:

The webinar started with a presentation on "Space Law" by **Prof. Dr. Kerem BATIR**. BATIR began by providing a historical overview of activities in space, highlighting that the foundations of Space Law were laid in the 1950s, shaped by the actions of the Soviet Union in 1957. He emphasized that the Soviet Union, being recognized as the first state to access space, played a guiding role in space studies. He also explained how the Soviet Union's space activities were evaluated by the USA and the United Nations (UN). The Soviet Union's contributions significantly influenced the UN, leading to the formation of new subcommittees and the drafting of new treaties and declarations within this context. BATIR listed these treaties as the Outer Space Treaty, Rescue Agreement, Liability Convention, Registration Convention, and the Moon Agreement. He also listed the declarations prepared as the Declaration of Legal Principles, Broadcasting Principles Declaration, Remote Sensing Principles Declaration, Nuclear Power Sources Declaration, and the Benefits Declaration.

Further in the webinar, BATIR discussed the similarities between maritime law and space law, explaining that the common approaches, terms, and understandings were adopted from maritime law to space law due to these similarities. He also pointed out the differences between the two fields of law, stating that concepts of property and sovereignty present in maritime law do not exist in space law, and sovereignty is not possible in space. Unlike maritime law, space law encompasses the benefits and interests of all humanity, which should be shared by all.

BATIR also touched upon the increasing commercial activities in space and that states have been inadequate in this regard and are not yet prepared. He gave various examples of steps taken by private companies and states, emphasizing the significance of initiatives by Elon Musk's company SpaceX and its work on Starlink satellites. He summarized SpaceX's recent activities and mentioned the company's upcoming project to send 30,000 satellites into the Earth's lowest orbit. BATIR highlighted that this project could lead to monopolization of activities in space by a single company.

In the subsequent part of the webinar, BATIR discussed how private companies, through space stations and satellites sent to Earth's orbit, have enabled global telecommunications and communication, with significant impacts in various fields. He illustrated this point using the Russia-Ukraine War. Ukraine, militarily weaker than Russia, strengthened its communication infrastructure with the help of SpaceX, thereby being better prepared for Russian attacks. Ukraine's strategic advantage over Russia, facilitated by Starlink satellites, was also emphasized, illustrating the influence that private companies have begun to possess over international relations, due to their investments and projects.

Another topic BATIR covered during the webinar was security. He mentioned that the technological and space initiatives of states and companies are perceived by other countries as security threats, particularly because space-based stations and satellites could facilitate intercontinental missile launches. He provided an example by discussing the US's strong rejection of a Chinese proposal aimed at clearing defunct satellites from

the atmosphere, which the US perceived as a threat that could also destroy operational satellites.

An additional subject of international law discussed was the issue of space boundaries. BATIR explained that unlike terrestrial boundaries, which are clearly defined in international law, there are no boundaries or sovereignty in space. He highlighted the ongoing disputes and uncertainties using the example of a Chinese meteorological balloon entering a US airbase and being shot down by the US.

Prof. Dr. Kerem BATIR concluded his presentation with questions directed by moderator Zehra AYDIN İŞCAN, addressing issues regarding private companies and the relationships between the USA and Russia. To the question posed by moderator AYDIN İŞCAN, "Legally, is there a possibility that private companies can declare sovereignty on planets, and does the first discoverer have the right to sovereignty?" BATIR responded that sovereignty cannot be established over celestial bodies in space, and the terra nullius rule present in international law is not applicable to space law. In response to another question by AYDIN İŞCAN about the fate of the proposal given by the USA and Japan to the UN Security Council, concerned with Russia potentially placing nuclear weapons in space to destroy satellites, BATIR mentioned Russia's status as a permanent member of the UN Security Council and its veto power. Finally, addressing AYDIN İŞCAN's question, "Is there a risk of nuclear weapons in space, and could this risk lead us to a space cold war?" he related it to the previous question, suggesting that the tension between the two states could potentially be prevented from turning into a cold war in space in this manner.

The following segment of the webinar was led by **Prof. Dr. Aşkın İnci SÖKMEN ALACA** with her presentation and contributions. SÖKMEN ALACA evaluated space endeavors as a new strategic area and presented on the topic of "Space Wars." She described the domain of space as a new area where various nations attempt to intervene, with organized efforts coming from different states, highlighting that those leading in space efforts gain superiority over others. She expressed how the endeavors of these states directly affect other nations and compel them to engage in space activities. As more nations turn their focus to space, the pace and scope of space activities have accelerated and expanded. Prof. Dr. SÖKMEN ALACA stated that space is also perceived as a military domain due to advancements in armament, creating a power struggle among nations and emphasizing the strategic importance of space and space activities. The military power in space places nations in a superior position internationally, and she analyzed these efforts from a military perspective concerning the balance of power.

In the following section, moving beyond the focus on space as merely a military and political domain, SÖKMEN ALACA stated that space is a multidimensional area and expanded on this multifaceted nature. She provided examples of the work being done in space and on the moon to deepen the topic. Referring to the helium resources on the moon and the projects aimed at utilizing these resources, SÖKMEN ALACA also referred to the field of sustainability on Earth. She discussed the goals of overcoming potential future resource shortages on Earth by bringing underground resources from the moon and other planets. Projects and initiatives

organized to access these resources and bring them to Earth for beneficial use have been diversified with projects undertaken by China. These projects by China have been supported by the efforts of other Asian nations, as summarized by SÖKMEN ALACA.

Moreover, Prof. Dr. SÖKMEN ALACA also covered more comprehensive topics related to space in her presentation, including potential near-future occurrences like alien invasions, meteor impacts, and solar flares. Specifically, she emphasized the significant effects that solar flares and their radioactive emissions could have on electrical systems and satellites, potentially disrupting communication and existing infrastructure. Despite frequent media coverage, the lack of proven recurrences of such events introduces uncertainties about the risks involved in such scenarios.

SÖKMEN ALACA also mentioned the significant impact on Japan and Türkiye of the space elevator planned to be built as an alternative to launch rockets, within the scope of space endeavors. She emphasized the importance of the space elevator project for Türkiye, which has emerged as a rising power in the field. She noted that Türkiye, having recently sent an observer astronaut into space, has begun to position itself among the leading nations in space research through both national initiatives and joint projects with other countries like Japan. She commended Türkiye's success in this area and provided examples of its efforts, which include constructing observatories, producing satellites, collecting space-related data, conducting space-focused studies in high schools and universities, and providing astronaut training.

In addition, SÖKMEN ALACA discussed the presence of electromagnetic spectrum weapons in space research, exemplified by the U.S.'s THOR project, focusing on the capacities and purposes of these weapon systems. She highlighted the risks associated with deploying these weapons in the atmosphere, including potential fires and earthquakes. She described the project as a significant advancement in both military and technology sectors, with the strategic capability for the U.S. to send intense vibrations along detected fault lines to induce earthquakes.

While focusing on the rise of companies in space, SÖKMEN ALACA also addressed individuals like Elon Musk, whose companies have made significant investments and initiatives in space, becoming key players. Musk's emergence as a significant actor has led to a different distribution of power dynamics in space endeavors.

Lastly, SÖKMEN ALACA addressed the activities and initiatives in space undertaken by states, which are primary actors in international relations, illustrating these activities through the establishment of space commands in countries such as the USA, France, and Türkiye. She emphasized that space commands monitoring activities in space and on the moon are critically positioned in anticipation of potential future space wars.

In the subsequent part of the webinar, **Prof. Dr. Özgün ERLER BAYIR**'s presentation focused on international relations and science diplomacy. ERLER BAYIR highlighted the importance of international collaborations in science and technology, particularly mentioning her involvement in NATO and European Union (EU) supported projects. She drew

attention to the shortage of skilled workforce and academic weaknesses globally and mentioned her TÜBİTAK project numbered 3005 "Reconciling Social Sciences with Space," stressing the need for more research and publications in fields such as international relations, political science, law, economics, and business studies.

ERLER BAYIR discussed the importance of including space issues in strategic and policy documents, although she criticized the inadequacy of these efforts. She highlighted the transformative impact of NATO adopting space policy and recognizing space as an operational domain for international security and defense strategies. Detailed information on NATO and EU space policies, comprehensive space strategies, and support for member states' critical infrastructures was included in her presentation. Additionally, she emphasized the necessity of developing comprehensive policies due to the increasing diversity of actors in international relations. This transition from traditional to new space highlights the need for inclusive and well-rounded policy frameworks to accommodate the varied interests and capabilities of emerging space actors.

ERLER BAYIR also emphasized the role of academics, graduate, and doctoral students in international relations and science diplomacy, indicating the need for increased research in this area. She discussed the challenges and gaps faced by Türkiye, as well as the entire world and international institutions, particularly NATO. Highlighting the international competition and the growing influence of China and Russia in space mentioned in the 2030 strategy document, ERLER BAYIR

addressed the effects of this competition on space policies. She noted that both countries have GPS tracking systems, with China planning to land a rover on the dark side of the Moon and establish manned bases in space.

Furthermore, ERLER BAYIR outlined how developments in space are shaping a new space age, emphasizing the growing role of the private sector, the societal and economic impacts of space technologies, and the importance of international collaborations. She described the evolution of space activities from traditional purposes to commercialization and a broader range of actors, creating new collaborations and competitions among states, the private sector, and international institutions.

ERLER BAYIR noted the rapid development of space technologies globally but mentioned that Türkiye is struggling to keep up academically and institutionally. She provided detailed insights into how NATO perceives space and identified China and Russia as competitors. She touched on the significance of international collaboration through the Asia-Pacific Space Cooperation Organization (APSCO) to which Türkiye is a part of, discussing the challenges of keeping up with the pace of development in space technologies.

In the **question-and-answer** session, moderator Zehra AYDIN İŞCAN asked SÖKMEN ALACA about the increasing problems of cyber security concerning satellite security and how Türkiye could protect its space-based infrastructure from attacks, and whether she foresaw any potential international collaboration. SÖKMEN ALACA highlighted China's advancements in quantum teleportation

technology, which could potentially surpass analog computing and access any information through satellites. She emphasized the importance of information exchange with China but noted China's firm stance on not disclosing information. SÖKMEN ALACA pointed out China's capabilities in military and technological intelligence gathering and its capacity to disable satellites through spy software and small satellites. She mentioned China's goal to become a world leader in artificial intelligence by 2030 and discussed how these developments could impact the global balance. Prof. Dr. SÖKMEN ALACA also criticized how international law is overlooked by powerful states like the USA, using the genocide in Gaza as an example, thus offering a deep analysis on international governance and the balance of power.

She underscored that the developments in satellite security and cyber security should be addressed within the framework of international cooperation, technological innovation, and strategic competition. SÖKMEN ALACA predicted that China's advancements in quantum teleportation and artificial intelligence could significantly influence international dynamics. She emphasized the critical importance of the strategies that Türkiye and other countries will adopt in response to these technological advances in terms of international security and cooperation.

During the continuation of the question-and-answer session, moderator AYDIN İŞCAN asked ERLER BAYIR about the responsibilities of states that are not parties to space treaties in terms of international law, and whether these states could later claim rights over issues like space mining. ERLER BAYIR highlighted two fundamental doctrines in international

law: the "consensus doctrine" and the "consent doctrine," noting that states are bound by treaties they sign or regimes they join. However, states that have not signed a treaty or joined a regime are not bound by them, although there could be a consensus on international issues like the common heritage of mankind.

ERLER BAYIR then gave the floor to SÖKMEN ALACA to add to the response. SÖKMEN ALACA stressed that space law does not work for major powers, pointing out that the global power struggle and the tendency of powerful states to bend or violate rules complicate the applicability of international law. She also highlighted the secrecy surrounding developments in space, recalling how certain information hidden by NASA was exposed by a British hacker. She cited another example of the five permanent members of the United Nations Security Council claiming space as their autonomous domain and aiming to exclude other countries.

SÖKMEN ALACA's evaluation focused on how effective international law and space law can be in the competition among major powers and discussed the impacts of this competition on global security, technological development, and international cooperation. She also noted the importance of international cooperation in the exploration and use of space but highlighted the difficulties in achieving such cooperation.

Moderator AYDIN İŞCAN, referencing a statement by NASA, reminded that there are over 500,000 pieces of space debris in Earth's orbit and asked, "Could we face an unforeseen environmental disaster instead of competition and technological advancements, or are there already mechanisms in place to address this issue?"

ERLER BAYIR stated that there is no such mechanism in place, and that she does not believe this issue is on countries' agendas. She illustrated that competition and technological advancement overshadow cooperation, using the current climate crisis as an example, and expressed skepticism that countries unable to reach consensus on global crises would be able to collaborate in space.

Finally, moderator Zehra AYDIN İŞCAN asked SÖKMEN ALACA, "Why is there such insistence on Jupiter despite the weakness of its satellites?" SÖKMEN ALACA's answer highlighted the potential habitability and esoteric significance of Jupiter and its satellites. She mentioned that one of Jupiter's moons might be habitable, referencing the film "Interstellar" and the idea that humanity could potentially sustain life on Jupiter as depicted in the film. She also noted that while a journey to Jupiter has not yet been achieved, though there may be significant, yet undisclosed information discovered or hidden about Jupiter. Additionally, SÖKMEN ALACA mentioned that energy produced through fusion reactors in South Korea, France, and China could replace solar energy, and this technology might be one of the first steps in enabling life on planets far from the Sun.



DİPLOMATİK İLİŞKİLER ve POLİTİK ARAŞTIRMALAR MERKEZİ  
CENTER for DIPLOMATIC AFFAIRS and POLITICAL STUDIES

+90 216 310 30 40 info@dipam.org

+90 216 310 30 50 www.dipam.org

Merdivenköy Mah. Nur Sok. Business İstanbul  
A Blok Kat:12 No:115, Kadıköy/İstanbul