

Seminar on Intelligence and Space - 21-22 February 2022 – Paris

Space has become a territory of competition and confrontation between powers, a new field of conflict. The question today is whether the great powers will succeed in establishing a framework of international law to operate in.

Henceforth, space involves much more than military and security issues. Its mastering involves daily applications ranging from communications, connectivity and synchronisation, to geolocation and meteorology. These applications are of daily use and their resilience is strategic.

During the seminar organised on February 21 and 22 2022 in Paris, before an audience made up of members of the Intelligence College in Europe, speakers from research, institutions, industry and services elaborated on the challenges that space represents now.

Mr. Xavier PASCO, Director of the *Fondation pour la Recherche Stratégique* (FRS, Foundation for Strategic Research) reminded that there is no space policy without a connection between technological capabilities and a political project. He mentioned the salient features of the space domain in 2022: the return of space exploration, the development of constellations, which postulates the industrialisation of space and its militarisation. Through numerous examples, he confirmed that there are now competitive, normative and informational issues in space. He elaborated these issues through the presentation of the evolution of space policies and then that of *New Space* and its consequences. This introductory overview provided participants with keys to understanding, essential for grasping to the rest of the presentations.

On the subject of space law and the militarisation of the space environment, Mr. Philippe ACHILLEAS, Director of the *Institut du droit de l'espace et des télécommunications* (IDEST, Institute of Space and Telecommunications Law), reminded which institutions are in charge of regulating the space-based activities, starting with the United Nations. Through a chronological overview from the 1960s to the present day, we see that the normative dynamic has evolved from a top-down logic to a bottom-up logic. Today, practices make the principles of law, and no longer the principles decided on multilaterally that ought to be binding for practitioners. With regard to the framework of space-based activities for military use, the non-appropriation of space and the freedom of space are bases. However, the changing technology and the “peaceful” use of space means that today, debates and negotiations are open. Grey areas as to the legality of space-based activities still exist and impact on the exploitation of space resources, as much as on the management of debris or the liability of operators, whether private or state-owned.

Once these bases laid out, Brigadier General of the French Air Force Thierry BLANC, Deputy to the Space Commander, presented to the audience the French space strategy aiming at responding to emerging threats, revisiting the industrial model and extending cooperation to operations in space. Based on these three objectives, intelligence and operations support

capabilities were presented (the Ares and AsterX programmes, as well as the innovation laboratory LISA), as was the landscape of French *New Space* and the cooperation of the Air Force Command. Space with its historical European partners, with the Combined Space Operations (CSPO), with the European Union (with its SST, SATCOM and PNT-Galileo programmes) and with the United Nations.

In a context of growing strategic competition between powers and growing conflicts in the space domain, the presentation of the services engage exchange with the audience on how to carefully monitor the development of the capacities of actors. This monitoring has a triple objective:

- characterising the space support for an adversary military strategy on the ground,
- characterising space anti-satellite capabilities that may affect the freedom of action of our forces in space and/or those of our allies,
- and characterising anti-satellite capabilities on the ground that could affect the freedom of action in space of our forces and/or those of our allies.

Although there have been no offensive acts against nations in space to date, anti-satellite capabilities are increasing. The Russian-led Nudol test launch on 15 November 2021, which could have endangered the crew of the International Space Station, is a prominent example of that threat, whether deliberate or not. The insertion of new players into the space landscape also risks upsetting the balance.

Having very similar missions, the DGSI and the DRSD jointly presented their actions in the face of the evolution of threats in the space sector. Space holds remarkable economic prospects and civil and military structures of vital importance will increase their dependence of this environment in the future. It is therefore essential that the services have good knowledge of the industrial fabric concerned. In this context, the DGSI and the DRSD devote significant efforts to monitoring establishments with advanced know-how or technology, to raising their awareness in order to increase the vigilance of foreign stakeholders in this domain and to contribute to the detection of any weak signals of potentially interfering foreign players. The action of the services also relates to the detection and hindrance of foreign channels for the acquisition of space equipment on the territory.

In the third module of the seminar devoted to European space strategies and their prospects, Mrs. Charlotte MATHIEU, Head of the Economic Analysis and Industrial Policy Department of the European Space Agency, presented the European space policy. The representatives of Airbus Defence and Space and of ArianeGroup then reported on the industrial vision and contribution to the European space strategy.

After reminding how space had a strategic dimension for Europe (observation, gathering and transmission of information, environmental issues and understanding of the Universe), Mrs. Charlotte MATHIEU presented the triple decision-making dimension resulting from the Treaty of Lisbon of 2009, giving a mandate to the EU to develop a “European” space in

cooperation with ESA (which is an intergovernmental structure). This triple dimension of Member States, ESA and EU can prove difficult to implement with new agreements such as the Financial Framework Partnership Agreement (FFPA). The economic weight of space was underlined in numerical terms (jobs, investments, markets) and by emphasising the speed at which developments in the space industry in Europe have been observed. Today it is a fiercely competitive sector, globalised, and facing new challenges (security, sustainability, renewal of human resources). The speaker presented ESA, reminding its missions, its history, its members (22 as of date), its locations and its budget. Since ESA's objectives are geared towards dialogue with Member States and their manufacturers, as well as a return on investment for each of them, its programmes are all demonstrations of the validity of this format. As examples of these successful programmes, Huygens, Rosetta, Mars Express, Solar Orbiter and for the future James Webb Space Telescope (launched in December 2021), Euclid and JUICE were mentioned. In terms of earth observation, ESA programmes such as Copernicus and its Sentinels tend to guarantee Earth security. Finally, the development of Galileo contributed, and keeps contributing to the strategic positioning of Europe. 2022 represents a pivotal date for ESA with the interdepartmental meeting in Toulouse (Space Summit) on February 16 and in fall, the ESA interdepartmental conference to validate European ambitions for 2025.

Mr. Alain FRIZON, Vice-President of Airbus Defence and Space, and Mr. Sébastien VOURET, ArianeGroup Programme Manager, defined public-private partnerships. As a meeting of institutional bodies and industry, these public-private partnerships are used to finance space programmes. They are the manifestation of the connection between policy and technology, as mentioned Mr. PASCO in his introduction. The benefits and limits of these partnerships were presented through several examples (SkyNet 5, Syracuse IV, etc.). Thanks to these public-private partnerships, manufacturers develop skills from which they provide services to institutions but also to other customers to make their investment profitable. This service provision to third-party customers of public-private partnerships remains under the control of the industry's supervisory authorities. It is a combination of private and public investment that makes it possible to develop a space policy where both parties are winners. There is not just one form of public-private partnerships. The role of industry is more or less developed. Among the limits of these public-private partnerships, we can mention the fact that a state actor places its trust in a given operator for 20 years. To avoid this overly long-term commitment, public-private partnerships services are now divided into lots (as for the IT service), which allow a more flexible and regular reopening of competition. It remains an instrument of European space power.

Partnerships have developed in the space field because space activity is intrinsically a dual activity, civil and military. It aims to associate industry and state power. These partnerships support European sovereignty in terms of autonomy in assessing a situation. Geotracker (space observation – Space Surveillance Tracking) is an example of a public-private partnership whose development offers the advantage not only of providing a guaranteed service, but above all of ensuring its maintenance and even its improvement according to technological developments.



The State (or States) acquires a service, and not a fixed technology, which contributes to the preservation of sovereignty.

Finally, His Excellency Ambassador Sorin Dumitru DUCARU, Director of the European Union Satellite Center – SatCen, concluded the seminar. SATCEN has been in existence for 30 years. It is a symbol of the desire to have strategic autonomy by the EU and its Member States, and therefore sovereign and strategic tools. Space activities provide intelligence that policy makers can rely on. SATCEN is an intergovernmental service provider whose mission encompasses security from space but also the security of space itself (EU SST).

SATCEN is not only an eye, it is also a brain which analyses the observed elements. Facing the ocean of data available today, SATCEN is developing automated analysis tools (at least partly) that its customers can benefit from online. AI tools are also used and developed by SATCEN.

SATCEN is an operational asset, which demonstrates that cooperation between Member States is efficient and fully in line with the EU's strategic autonomy and with the Strategic Compass.