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Introduction

Space is increasingly considered an operational domain relevant to states' security, not only because space capabilities benefit multiple economic sectors, thus making space highly strategic, but because some countries have developed a wide range of counter-space technologies (NATO, 2024). Accordingly, national armies have begun urging the development of militarily-relevant space capabilities and the activation of international cooperation over such issue. In fact, the improvement of dual-use, potentially offensive, space technologies evolved as a much faster pace than the elaboration of international space law aiming at regulating the use of space.

The Combined Space Operations Initiative (CSpO), involving US, UK, Canada, Australia, Germany, France, New Zealand, Italy, Japan and Norway, is one of the multilateral efforts to face the challenge of a militarised space domain, gathering an ever-increasing amount of spacefaring nations. However, this US-ed cooperation is not unproblematic, both because of some policy inconsistencies that limit the US capability of sharing information on space matters, and because of the inhibitory effect that reliance on the US for space security has on some parts of the European space industry and on EU strategic autonomy.

Evolving Space Threats and Stagnating Regulatory Means

The only treaty that comprehensively regulates space behaviour is the 1967 Outer Space Treaty (OST), agreed upon by the UN General Assembly through Resolution 2222 (XXI). While the treaty has a multilateral nature, it was profoundly shaped by the bipolarity of the Cold War. It prevented both the US and the USSR from taking advantage of space, with a view of purporting uses of space "exclusively for peaceful purposes" (UNOOSA, OST, Art. IV). In concreto, the treaty forbids placing weapons of mass destruction in space (UNOOSA, OST, Art. IV) and bans nations from declaring the moon and other celestial bodies as sovereign territories (UNOOSA,OST, Art. II). Apart from those specific prohibitions, the treaty sets the guiding principles for space activities in a more general way.

The OST stems from the "spaceflight idea", the notion that "space was for all of humankind and was a fundamentally peaceful domain for scientific and technological advancement and exploration" (Davis Cross, 2023). This idea suggests that only highly prepared individuals, the astronauts, access space for research and discovery, with the mandate of and for the benefit of the entire humankind. While it has always been considered very ambitious and idealistic, it is becoming even more ambitious with recent developments.

While the generality of the principles enshrined in the treaty safeguarded its applicability also in the future (BBC, 2021), the ambiguity in space resource utilisation, and the lack of detailed rules concerning commercial activities and space traffic management have turned the OST into an outdated and inadequate instrument to face current space challenges (Storrs, 2024). Even if the OST may have well remedied the 1967 threats, like the imposition of a specific national sovereignty over the lunar surface and its possible consequences, since then space technology has rapidly evolved with "technology from outside space that has been brought into space", thus accentuating the dual-use nature of space assets and bringing forward the problem of space security (Weeden, 2022).

Nowadays, many states operating in space have specific divisions in their armies that work with military satellites, and the most advanced spacefaring nations, namely the US, China, and Russia, all have Anti-Satellite (ASAT) weapons that could destroy a satellite in space (BBC, 2021). Such ASAT capabilities represent a risk not only for the potential direct targets but also for other military and civilian actors operating in space, as what happens in space impacts everyone. Space can be conceived as a common good subject to the risk of a tragedy of commons (Wang, 2013). For example, in November 2021 Russia's anti-satellite missile test destroyed a Russian satellite and created at least 1,500 pieces of space debris, each one remaining in orbit for years or even for decades, presenting a potential threat to other space missions (US Space Command, 2021). The inadequacy of the space legal framework for the current space threats induced some states to engage in closer space security cooperation.

The Combined Space Operations Initiative

Among the existing cooperation enterprises in space security, the CSpO stands out for its ambition to make up for the current legislative framework's inadequacy. The CSpO is a US-led multilateral forum "to improve cooperation, coordination, interoperability, resilience, training and both national and collective capabilities for joint military operations in space" (NATO, 2023). In July 2018, the Combined Space Operations Centre was established at the Vandenberg US Space Force Base. It stemmed from the reorganization of the Joint Space Operations Centre (JSpOC) to strengthen coordination between the United States and its allies, as well as between commercial and civil space organizations (US Strategic Command, 2018). The Combined Space Operations Centre is directed by the Combined Joint Force Space Component Command and it is organized into six different components. The Combat Operations Division (COD) executes the space tasking order. The Strategy and Plans Division (SPD) creates near-term and crisis action planning, integrating air and cyber plans into space ones. The Intelligence, Surveillance, and Reconnaissance Division (ISRD) provides space intelligence to the other divisions.

The 614th Combat Training Squadron (CTS) provides advanced training, standardization and evaluation, weapons and tactics, system integration, and special technical operations support functions. The 614th Air and Space Communications Squadron (ACOMS) provides communication support. The Commercial Integration Cell (CIC) integrates commercial space organizations in the CSpOC, enabling better communication between military and commercial space (US Strategic Command, Factsheet, 2018). The internal organization of the CSpO shows an innovative conception of space for military uses, whereby space is not only a supportive domain on its own but it is factored into other plans, such as air and cyber. Moreover, relation with commercial space actors is duly considered.

The CSpO is expanding both its membership and scope. The first to cooperate with the US were Australia, Canada, and the United Kingdom in 2014. Then New Zealand joined in 2015, and France and Germany in 2019. The enlargement continued in 2022 with the entrance of Italy, Japan and Norway into the partnership (newspaceeconomy, 2024). Representatives of the 10 nations regularly meet to discuss multilateral combined space operations, such as Operation Olympic Defender "to deter hostile acts in space, strengthen deterrence against hostile actors, and reduce the spread of debris orbiting the earth" (US Secretary of the Air Force, 2023).

For what concerns the scope, the CSpO has become much more than a command centre for space. Indeed, its member states increasingly try to establish new principles that could serve as international standards for member states' action in space, seeking to be responsible partners in space and contributing in the long term to a rules-based international order in space (NATO, 2023). The "CSpO Vision 2031", released in 2022, has made clear such an intent. This programmatic document outlines the initiative's overarching purpose and highlights its guiding principles, making explicit the principles underlying the CSpO MoU (US DoD, 2022). Those principles are freedom of use of space, responsible and sustainable use of space, partnering while upholding sovereignty, upholding international law (ibid.). Therefore, the CSpO provides a forum to discuss updating the rules-based international order in space, centred around responsible behaviour.

Problems of the CSpO for European States

Although the CSpO constitutes a valuable attempt to further space-related defence cooperation, it is not free from challenges. One can individuate two categories of such challenges: operative dysfunctionalities and the side effects of entering this specific cooperation. Regarding the first category, there is a mismatch between the leading intellectual role played by the US and its effective capacity to coordinate an alliance in space, since US policies on disclosing classified information are inconsistent, if not contradictory (RAND, 2024). For example, US regulations for using the Not Releasable to Foreign Nationals (NOFORN) caveat, which can follow a SECRET or TOP SECRET designation, differ between the Department of Defense (DoD) and the IC.

While DoD rules encourage the common use of a no-caveat marking, IC personnel is invited "to use releasability caveats, such as NOFORN, as soon as practicable" (RAND, 2024). This mismatch might seriously impair cooperation with the allies. The situation is worsened by the fact that the US Department of Defence (DoD) space enterprise roles and responsibilities remain ambiguous and disputed (RAND, 2024), thus making unclear who should interact with the allies for what. Regarding the second category, for European states, adhering to the CSpO implies delegating to other states some key decisions about the development of their own space industry and potentially undermines their commitment to other fora for space cooperation, especially the EU-related ones. The US leadership in the CSpO induces other countries to develop their space-based capabilities assuming that the US will always remain their primary ally in this domain. Accordingly, they are prone to complementing US efforts with niche capabilities able to plug the gaps in the US spacearchitecture, rather than duplicating existing ones (Nadal, 2024). Although this is functional in the cadre of the CSpO, the "allied by design approach" (US DoD, 2024) goes to the detriment of US allies' space industry, as those countries will be disincentivized to develop those core space capabilities and technologies that are already efficiently provided by the US. For example, when the UK Ministry of Defence considered constructing an Intelligence, Surveillance and Reconnaissance (ISR) satellite constellation in 1984, "the idea was to invest on synthetic aperture radar and infra-red sensors to supplement photography-based US capabilities" (Nadal, 2024). This complementary intent in space capabilities development by the side of many CSpO member states is even more problematic when it comes to space access capabilities, thus condemning such states to rely on the US for those fundamental services. Furthermore, excessive reliance on the US could undermine European countries' strategic autonomy in space by disincentivizing the development of autonomous access to space and full operative independence. Since strategic autonomy is at the top of the EU's space agenda (Commission, 2023, p.8) and the CSpO could impede rather than foster such an aim, at least potentially there could be an opposition between a US-led European space policy and an EU-led European space policy. Until now, such opposition has not been especially manifested because the EU has no direct competence on the security-related aspects of space policy (Cellerino, 2023), and is therefore focusing its action on boosting a thriving, competitive and innovative space economy (Ressese, 2024). However, friction can arise if the EU pushes towards strategic autonomy in space and the CSpO does not grant a fair and balanced relationship between its member states.

Final remarks

The increasing importance of space technologies for several policy sectors and the proliferation of offensive space capabilities pose a serious problem. Since the UN-sponsored international space law is unable to effectively address the issue, some spacefaring nations, politically aligned with the US, have engaged in space cooperation that specifically concerns military uses of space. Among such efforts, the Combined Space Operations Initiative should be noticed for its rising number of members as well as its ambitious scope.

Nevertheless, although the CSpO constitutes a considerable effort to build a common framework for space operations by considering their security and defence aspects, it is far from unproblematic.In fact, allied countries are negatively affected by inconsistencies in US law concerning information sharing and disclosure with foreign actors. Moreover, European countries are hindered in their space-related technological and industrial development and the EU-sponsored aim of strategic autonomy in space is undermined.

To avoid future incompatibilities between the CSpO and the EU as different fora for space cooperation, increasing involvement of EU countries in the CSpO is desirable. In fact, only by involving a great amount of EU countries in the CSpO it will be possible for them to negotiate with the US and other non-EU partners in the CSpO arrangements and divisions of tasks that wouldn't be incompatible with their commitments with the EU. Since there are some new spacefaring nations in Europe, that are developing their specific capabilities thanks to EU funds and according to EU priorities, it might be useful to include them in the CSpO for two reasons. First, this would increase the overall capabilities of the CSpO, and secondly it would imply having in the CSpO some more countries bringing in EU stances, to avoid overlappings or contradictions between these two different cooperations. For instance, Poland is an emerging space economy, which is specialising in dual-use Earth Observation satellites and nanosatellites (Spros, 2022) thanks to the European Space Agency and the European Investment Bank (Mundell, 2023). Welcoming Poland into the CSpO would allow increasing the amount of specific capabilities in the CSpO while having European space interests represented by a wider range of countries.

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