

In order to take part in the final session of the OEWG and with the aim of contributing actively to the international reflection carried out by the United Nations, the Defense & Aerospace Chair, hereinafter referred to as "The Chair", intends, as set out in the agenda of the session, "to make recommendations on possible norms, rules and principles of responsible behaviours relating to threats by States to space systems, including, as appropriate, how they would contribute to the negotiation of legally binding instruments, including on the prevention of an arms race in outer space".

A – AN APPROACH TO SPACE THREATS

1 – Spatial threats described by their effects and their temporality

The spatial threats applied by some States can be described in several ways according to the desired effects (political or military effects) but also by their temporality, which does not modify their effects but registers them in an appropriate kinetics.

1-1 - Threats and effects

We first underline the interest of a representation of space threats by their effects rather than by their technology or their modus operandi. According to this approach, our vision of space threats classifies them into 4 broad generic categories:

- **Space threat resulting from an unintentional action resulting from a lack of control or operational precaution** with regard to the space environment in which the State intervenes (uncontrolled launch, drift of an insufficiently reliable satellite, untimely jamming, etc.). This type of act leads to the production of an **accidental aggressive effect** which can, by misunderstanding, result in a brutal reaction from the party victimized, or having the feeling of being victimized. If the Party at the origin of the threat does not recognize its clumsiness, which may be the case by national contingency, it could lead to an escalation towards the triggering of an International Armed Conflict (IAC) ;
- **Space threat resulting from voluntary risk-taking without initial aggressive intention** (risky tests of military devices, perilous operational space maneuvers, use of an ambiguous duality device, etc.). This type of risky behavior leads to the creation of a **hazardous aggressive effect** which can be likened to an act of aggression or a threat of aggression (Art. 2.4 Charter) and lead to a reactive measure of individual or collective self-defense (Art. 51 Charter). This escalation may give rise to armed reprisals, which – although unlawful – are likely to trigger a IAC;
- **Threat resulting from a manifestly hostile action but the control of which will make it possible to avoid an incident or an accident** (deliberate but controlled approach of a satellite of a third State, Show of spatial force, etc.). This type of operation aims to induce **an intimidating effect** which, as a safety or even over-reactive reflex, can

generate an active defense measure, in other words an action of an offensive nature, kinetic or not, aimed at thwarting the opposing intention", potentially favoring the development of a CAI;

- **Threat resulting from a deliberately hostile action from Earth or space, having the effect of an armed attack** which shows, in this case, a violation of the legal framework of the adverse Party and can, according to its space means, lead to a spatial CAI. The action can be kinetic and have the effect of immediately producing a lot of space debris when destroying its target. It can also be stealthy and act without having been detected beforehand (case of a virus circulating on the cyber flow). In all cases, it makes it possible to bring together the material and intentional elements essential for the legal qualification of a CAI, whether it arises at that time or whether it is part of an existing CAI.

1-2 - Threats and temporality of their effects

Independently of the effects they produce when they occur, threats can also be classified according to the temporality of their effects: duration of implementation and dissemination of the effects of the threat (notions of immediacy, sequencing or phase shift threatening effect), etc. In this matter, we discern:

- **Slow-acting threats**, whose effects will occur over several days if it occurs, weeks or months and which therefore allow time to detect, attribute, monitor the threatening effect and then, if necessary, to interrupt by the use of diplomatic (countermeasures) or technical-operational (active self-defence) means;
- **Rapid-effect threats**, the effects of which we can assume will occur within a few hours after the threat has occurred and which will leave a limited reaction time (corresponding to a few orbits of the target targeted by the threat) but allowing, however, to determine a possible responsibility, to act diplomatically or to set up a deception action from the Earth or from a space platform (jamming, decoy, avoidance maneuver, etc.);
- **Threats with almost immediate effect**, the effects of which we can assume will occur within a few minutes after the threat has been realized and which will leave a reduced reaction time on a segment of the orbit of the threatened object but which will allow certain systems to be safeguarded by a rapid reaction of operational self-protection;
- **Fleeting threats**, which are not immediately perceptible or whose emergence is faster than any human reaction time and which can only be suppressed thanks to automation based, among other things, on artificial intelligence.

2 - Ever-changing space threats

Whatever the way of describing spatial threats, by their effects and/or their temporality, their prioritization cannot be definitive because new or more evolved forms of threatening factors will arise over the years or decades to come. It can therefore be assumed that the classification of threats is set to evolve.

For example, one might think that the increasing maneuverability of objects in orbit will create forms of threat that we are not considering at this stage. The same is true for objects orbiting at very low altitude (150 km and below) or in interspace (physical space between air and orbital space between 30 km and 150 km) and for which the traditional classification criteria will be insufficient. Other technological advances or breakthroughs could also modify the perception of space threats as conceived in 2023 and then generate weaknesses in the legal framework, hence the interest in adopting standards of behavior or flexibility mechanisms to apprehend future challenges, as a possible prerequisite for the amendment of binding legal texts.

3 – Legal approach to space threats

The fourth family of spatial threats (deliberately hostile and destructive action) obeys an assumed conflictual logic and relates to the law of armed conflict.

The other three families are part of a legal interstice (or in-between) (and not a "legal vacuum") between the international space law in force, applicable to peaceful activities in space and international humanitarian law (IHL), applicable to means and methods of warfare during an armed conflict. This interstice, or gray zone, is characterized by the vagueness surrounding the legal qualification of certain space operations materialized by a significant level of uncertainty, ambiguity or ambivalence and doubt, which they introduce on the international scene and, in itself generates a risk of conflict escalation as dangerous as the space threat itself.

Nevertheless, this risk factor can be curbed by appropriate standards or rules governing the activity concerned, or by the use of good practices reflecting responsible behavior. But these legal tools, although not legally binding, can only emerge if the conditions for their international acceptance exist. These conditions can only be the result of mutual trust between Member States.

B – FIGHTING SPACE INSECURITY THROUGH TRUST

1 – Legal diplomacy and operational diplomacy

Having the ambition to reduce space threats by means of norms, rules and principles of responsible behavior inevitably involves diplomatic work, on the political and legal levels, aimed at finding a convergence of views in the strictest respect of the existing international law. But the risk is that the orientations, which can result from it, are first guided by national

interests more than by the search for maximum efficiency in terms of international space security. If we can only wish for a diplomatic agreement. Without therefore calling into question the diplomatic approach, we propose to simultaneously develop an “operational diplomacy” which would make it possible to collectively build a common vision based on concrete cases and the experience acquired. This method, of a rather bottom-up type, aims to develop an agreement through operational experimentation and would differ from the top-down approach which can only reduce the ambitions of the United Nations in favor of a political compromise which, given the diversity of Nations and the ways in which they view Space, there is a risk of ending up in a *modus vivendi* that is more random than operationally efficient.

Behind this hypothesis of "operational diplomacy", stands the desire to create trust because without trust, even limited, no normative agreement can be found. However, trust cannot be decreed politically. It manifests itself through common and concrete actions that must be patiently and methodically built collectively so that they become shared evidence. Operational diplomacy is the creation of a strong relationship able to rule out any reflex of mistrust or even defiance. Of course, this form of dialogue is not enough in itself and the operational agreement obtained will have to be politically validated after having been scrutinized legally.

2 – A proposal for a trust development mechanism

Trust cannot be acquired without going through a stage of collective operational experience. This is what security contexts other than exo-atmospheric space have successfully demonstrated (terrorism, proliferation, etc.). We propose, below, a trust-building process that includes a framework for action, operational actors, a methodology and concrete examples of useful operational activities:

- The action framework: informal environment favoring an unofficial dialogue (non-legally binding initiative) which could take the name of Space Security Operational Dialogue (SSOD);
- The ecosystem (unlimited composition): operational leaders of voluntary States with the inclusion of non-State technical-operational actors not politically affiliated with a State (State or independent research bodies, civil society structures collectively approved by the States);
- Methodology: development of a research approach, studies and collective analyzes based on concrete cases, whether fictitious or real (scenarios of space threats) with determination of conclusions by open majority vote;
- Concrete examples of operational activities:
 - Table exercise: collective exercise of strategic anticipation, coordinated reaction, application of the law, etc.
 - Impact Assessment: study of the effects linked to different types of threats;
 - Practice game: simulation of concrete cases with simulated diplomatic activity;

- Experience feedback: feedback and legal analysis of cases experienced.