>>> NEWSLETTER <<<







OVERVIEW

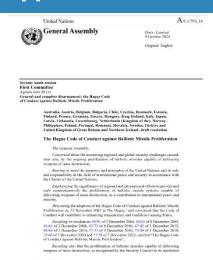
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LATEST HCOC NEWS

The UNGA First Committee adopts a new resolution in support of the Code



On 1 November 2024, the First Committee of the United Nations General Assembly adopted the draft resolution <u>A/C.1/79/L.16</u> under agenda item 98 (x). The draft resolution was introduced by Chile, as current Chair of the HCoC. Most EU members co-sponsored the resolution, in addition to Australia, Iraq, Japan, Norway, the Philippines, Türkiye and the United Kingdom. 167 countries voted in favour of the text, 11 abstained and 1 (Iran) voted against. The resolution will be proposed for a final vote at the UN General Assembly in December.

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THE HCOC & RISK REDUCTION IN SPACE



Nivedita Raju is a Researcher in the SIPRI Weapons of Mass Destruction programme. Her recent research focuses on trends in space security, space governance and transparency and confidence-building measures. Additionally, Nivedita is a Project Coordinator on behalf of SIPRI in the EU Non-proliferation and Disarmament Consortium (EUNPDC)



WHY SHOULD WE BE CONCERNED ABOUT ESCALATION RISKS INVOLVING SPACE SYSTEMS?

Space enables services for a wide range of functions. The overlap between technologies for space launch vehicles (SLVs) and ballistic missiles highlights how space has been, and continues to be used for military purposes. Some states use space systems for nuclear deterrence, for missile early warning and nuclear command, control and communications. Space is also utilized for non-nuclear missions, such as navigation, communications, and intelligence, surveillance and reconnaissance. Space systems can therefore be strategically significant. This means that attacks on such systems, or even perceived threats to them, heighten risk of escalation, including to potential nuclear use.



WHAT FACTORS SHAPE ESCALATION RISK?

Space systems can be vulnerable to attack. Developments in 'counterspace' capabilities demonstrate multiple ways of damaging, disrupting or destroying these systems. Different components of a space system can be attacked – not just the satellite in space, but also the ground segment, data links and supporting infrastructure. Depending on the capability, the effects and consequences would differ. This also raises serious concerns about risks to civilians, as critical services which civilians rely on may be impacted. There is considerable scope for intentions to be misinterpreted in space, possibly fuelling escalatory spirals. The same system could be used for both nuclear and non-nuclear missions. Referred to as 'entanglement' by some, this could contribute to inadvertent escalation. For example, if a state's early-warning satellites are targeted in a regional conflict to undermine its theatre missile defences, that state may view the attack as targeting its nuclear capabilities and respond accordingly. There is also potential for a technical malfunction to be misinterpreted as a hostile act. And there are factors shaping escalation dynamics that are related to the space environment, such as congested orbits (which increase risk of accidental collisions), and challenges regarding attribution of electronic or cyberattacks. The evolving role of the private sector in space can also be a driver for escalation.



HOW DOES THE HCOC CONTRIBUTE TO SPACE SECURITY?

Several measures have been proposed to strengthen space security, with efforts ongoing in different forums. The HCOC is a valuable mechanism given its voluntary provisions on annual information-sharing through declarations for ballistic missiles and SLVs, as well as pre-launch notification procedures. Such notifications help convey intent and lessen scope for misinterpretation. This is important due to worstcase scenario thinking among adversaries and readiness to respond to a perceived threat. So, rivals could even act based on misperception of a launch by an adversary. Pre-launch notifications when states conduct military exercises, including by those that do not subscribe to the HCOC, would be especially useful. There is clear complementarity between the HCOC and the legally-binding treaties governing space. Pre-launch notifications have been recommended repeatedly in space security processes as an essential transparency and confidence-building measure. This raises the related need for continued engagement with states that have not subscribed to the HCOC. It would be helpful to focus on pre-launch notifications given that they align with existing legal obligations, continued emphasis in multilateral space security discussions, and bilateral agreements. For example, the 2023 Joint Statement between China and the Philippines mentioned that "both sides express willingness to establish an information notification system on rocket launches and work on procedures for retrieval and return of space debris." Additionally, non-subscribing states may have varying concerns about the HCOC. Increasing engagement at space security processes and venues, for example briefing sessions and side events, could help assuage concerns about the substance, process and objectives of the HCOC. Ultimately, the HCOC can bolster ongoing efforts towards the peaceful, safe and sustainable use of space, and contribute to preventing an arms race in space. These are shared interests of all states, whether they already depend on space, or have future space ambitions. It will be essential in order to prevent misunderstanding and miscalculation in light of these increasingly dense skies.

Read our recent publications on <u>The Hague Code and Space</u> and the <u>Rise of Small Launchers</u>. FRS, with the support of the EU, organized two transparency visits to space launch sites in the past few years, in Kourou (French Guiana) and in Naro (Republic of Korea).



NEWS ABOUT THE PROJECT

SIDE EVENT IN THE MARGINS OF THE FIRST COMMITTEE



In the margins of the First Committee of the United Nations General Assembly, the FRS organised a side event focused on the Code and space security. Panelists noted that the Code is not very well known within the space community. However, the HCoC is an important instrument in discussion regarding transparency and space. HCoC is one of the few instruments providing CBMs in the space sector. Subscribing states confirm their commitment to relevant space treaties and



conventions; also, the Code states that they should not be excluded from the benefits of outer space activities for peaceful purposes.

Given ongoing developments, transparency and confidence-building measures become ever more relevant, as evidenced by the joint meetings of the first and the fourth committees of the UNGA. It appears that some of the transparency measures included in the HCoC – which counts more state parties than any of the space treaties - could be replicated specifically for the space sector. The HCoC could therefore serve as a useful model for the space sector. Its contribution to space security means that it has a special relevance for all countries that have assets in space, and not only countries developing missiles. Specifically, developing countries have generally been sceptic of transparency and confidence-building measures, especially of arms control measures, which have not enjoyed a high level of credibility. They are generally wary of joining agreements without a verification mechanism. This types of politically-binding agreement have nonetheless a real value to increase confidence in regions where new space programmes are emerging.

The event was moderated by Dr Xavier Pasco, Director of FRS and opened remotely by Amb. Marjolijn van Deelen, EU Special Envoy for Space. Please check the updated agenda <a href="https://example.com/here-pasco-

ADDRESSING MISSILE PROLIFERATION IN INTERNATIONAL FORUMS





Through the EU project, FRS experts have been addressing how confidence-building measures can play a role in decreasing the instability posed by ballistic missiles. In particular, researchers took part in the <u>UNIDIR Outer Space Security Conference</u> to evoke the functioning of the Code as a transparency mechanism, the <u>Asian Senior-Level Talks on Non-Proliferation</u>, hosted by the Ministry of Foreign Affairs of Japan, as well as the <u>NATO WMD non-proliferation conference</u> and the <u>International Missiles Capabilities Panel</u> organised by ACSIS.



NEWS ABOUT THE PROJECT

REGIONAL SEMINAR ORGANISED IN COSTA RICA



In July 2024, the Foundation for Strategic Research and the government of Costa Rica coorganised a seminar in San José (Costa Rica) to engage with representatives from around 20 countries and key actors from the region. This is part of a series of seminars organised all over the globe by the Foundation to spread awareness on the role of the Hague Code of Conduct with the support of the European Union.



Report, pictures and videos about the seminar here.





NEWS ABOUT MISSILE PROLIFERATION

CHINESE ICBM TEST



On September 25, 2024, China carried out its first intercontinental missile launch towards the Pacific since 1980. The missile used was not specified, but appears to be a variant of the Dongfeng-31 ICBM known as the DF-31AG. The missile was launched from an ad hoc site on the island of Hainan, some 1,000 km from the DF-31AG's nearest deployment zones. This choice avoided flying over parts of Chinese or foreign territory, and thus limited risks, while keeping a relatively optimized flight trajectory and enabling the testing of different types of sensors and satellite capabilities for detecting this type of activity. From a technical and operational point of view, this test was undoubtedly of significant value, as it was closer to actual conditions of use.

According to the <u>US Department of Defense</u>, China tests between 100 and 200 ballistic missiles a year, but these tests take place in the country's desert areas and are neither announced by the authorities, nor even reported openly. This discretion is useful for Beijing insofar as it avoids too-close surveillance of its potential adversaries, but also criticism from states in the region. Indeed, the September 25 launch prompted strong protests from Pacific states such as <u>Kiribati</u>, who stated that 'the Chinese ICBM launch was not welcome' and called on regional states to 'stop these acts to maintain world peace and stability'

The circumstances in which this test took place are interesting. According to publicly available information, Beijing notified the US, France and New Zealand prior to the test (although very late). Australia, China and the Philippines were also informed of the potential fallout of space debris at sea. This sharing of information was described as 'a step in the right direction' by the Pentagon. Indeed, Washington is encouraging China to set up a billateral agreement on mutual pre-notification of ballistic missile tests. According to the White House, the subject was broached in November 2023 during a meeting between President Biden and Xi Jinping, who discussed arms control and non-proliferation, among other issues. This subject was undoubtedly raised during technical discussions between the two countries in early 2024. However, in July, China announced that it was suspending the second round of arms control and non-proliferation consultations, in response to US arms sales to Taiwan. As a result, the proposed bilateral agreement has not yet been concluded.

Nevertheless, this type of <u>confidence-building measure</u> exists between China and Russia. As a sign of a certain pragmatism, this agreement only concerns Chinese missiles fired towards the north-west and Russian missiles fired towards the south-east, and therefore not the one launched from Hainan. The September 2024 launch could serve as the basis for a resumption of discussions between Beijing and Washington on this subject, but also to promote China's subscription to <u>the Hague Code of Conduct against Ballistic Missile Proliferation</u>, which provides for a multilateral missile test notification system.



DF-31AG, Credit: Chinese PLA



NEWS ABOUT BALLISTIC MISSILES & LAUNCHERS

SELECTED MISSILE TEST LAUNCHES

YJ-21/KD-21:



May 2024

In China, first documented launch from the bomber H-6K of the <u>YJ-21/KD-21</u> air-launched ballistic missile.



Dark Eagle:



• June-July 2024

Successful test from Cape Canaveral Space Force Station of the U.S. Army ground-based hypersonic weapon system <u>Dark Eagle</u> in June 2024, reportedly followed by another test in July.



RS-28 Sarmat:



• September 2024

Another failed launched for the new Russian ICBM <u>Sarmat</u>, which from visual observations on the ground seems to have exploded on its launch pad at Plesetsk Cosmodrome.



SELECTED SLV LAUNCHES

Ariane 6:



9 July 2024

Inaugural and successful flight of the European <u>Ariane 6</u> rocket from the Guiana Space Centre.



Unknown rocket, DPRK:



27 May 2024

Explosion of a new rocket developed by the DPRK during the first stage of the flight. The launch, which Sohae Satellite Launching Station, was the 6th (out of 9) failed attempt of the DPRK to put a satellite in orbit.



Starship:



13 October 2024

5th flight test of the <u>Starship rocket system</u>, carried out by the American company SpaceX from the Texan launch site Boca Chica. This test allowed the reusable booster to reach an altitude of 70 km, to separage from the second stage, and to return to the launch center, being 'captured' as planned by a metal structure.







END NOTE

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- Samuel Charap and Christian Curriden, 'U.S. Options for Post–New START Arms Control with Russia,' *Commentary*, RAND, 30 July 2024.
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- Karim El-Baz and Ali Ghanbarpour-Dizboni, *Ballistic Missile Proliferation in Non-Nuclear States. The Origins of Ballistic Missile Programmes in the Middle East*, Routledge, August 2024.

INFORMATION AND CONTACT



- Organisation website: Fondation pour la Recherche Stratégique
- Further information on the project implementation available here.
- Project website: Supporting the Hague Code of Conduct.

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