Group of Governmental Experts on Further Practical Measures for the Prevention of an Arms Race in Outer Space

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The work to date of the GGE is of great interest to the space security community. The Chair's Report raises a number of substantive issues that will provide ample challenges to the work of the GGE. This commentary will reflect on some of these challenges and the extent to which they might be overcome.

1. Scope of the Proposed Agreement

- 1. One of the key issues that the Chair's Report notes is the substantial distance between states on the scope of a binding agreement on PAROS. This divide is between those that argue that the agreement should focus on banning specific applications and those that argue that is should focus on regulating behavior. Both approaches have strengths and weaknesses. It might be useful in this context to draw on a lesson from the Outer Space Treaty (OST).
- 2. The OST was negotiated at a time when it was unclear what space technologies would be developed in the future. Instead of creating substantive restraints and obligations based on specific technologies and capabilities, the OST adopts a framework that is neutral with regards to the technology to which it will be applied. Similarly, the work of the GGE is happening in the context of an innovation explosion in space, and it will be very difficult to draft a substantive treaty that reflects specific restrictions on technology. This is, of course, the source of the debate over dual use technologies within the GGE, which is based on the difficulty of defining 'arms' within the context of substantive restrictions.
- 3. However, a middle path may be available. The OST's general principles were later followed up with 4 treaties that elaborated on the provisions of the OST. Unfortunately, these treaties function as wholly separate agreements, and often contain clauses that create ambiguity and inconsistency when read in conjunction with the OST. To avoid such a situation, the GGE might consider a model similar to the Convention on Certain Conventional Weapons (CCCW), which adopts the structure of a central treaty with associated protocols that states may choose to be bound by. Similarly, the GGE might consider a structure for a PAROS treaty that adopts a central convention of substantive restrictions on behavior and

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then gives state parties the option to create protocols that place restrictions on specific types of technologies, e.g. kinetic ASATs, or capabilities, e.g. proximity operations.

4. This approach would allow for flexibility and responsiveness within the proposed legal framework, and at the same time allow states to 'ease in' to the treaty making process. This approach has many benefits. It could maximize buy-in of states by allowing them flexibility, but at the same time allow space for the building of consensus on specifics moving forward. Further, a treaty that limits behavior will be easier to verify than one that limits technologies. This treaty structure would allow for the drafting of protocols that deal with verification on a case by case basis rather than holistically, which has proved to be an issue in the past. Verification in the context of PAROS is not a one size fits all problem. Further, this treaty structure would, at least initially, allow for cost effectiveness for the state parties, as the initial central agreement could likely be verified using National Technical Means.

2. The Relationship to STM

- 5. With regards to verification, the Chair's Report notes that some delegations endorsed more public sharing of SSA data. This raises the issue of how a potential agreement on PAROS might interact with the notion of an international Space Traffic Management (STM) system. STM as a technical and legal framework for conducting space activities will require openness and transparent data in order to ensure that on-orbit risks are reduced. This is because stakeholders in STM will need to trust the data in order to trust the system.
- 6. Within the context of restricting behavior in space, SSA data will be the cornerstone of verification. As a result, the needs for open data would serve two purposes. First, open data can help to foster the development of STM internationally. Second, open data can serve a substantive role providing state parties to a PAROS agreement the vital information that they need in order to trust that the agreement is being followed by other state parties.
- 7. The challenge is that the major collectors of SSA data treat this data as militarily sensitive, and much of it is hidden behind the veil of classification. There is, however, a strong case to be made that an open SSA data catalog will better secure space for all actors by providing a global public good that supports responsible operations, reduces risks of onorbit conjunctions, and creates trust and transparency among space actors. Arguably, if the GGE endorses a model that seeks to regulate behavior, then open SSA data will be essential to making the agreement meaningful.

3. Establishing a Forum

- 8. One of the problems with negotiating space security arrangements, whether binding or non-binding, has been the forum and procedure in which those discussions should take place. Currently, the CD is deadlocked and no substantive discussions are occurring; UNCOPUOS lacks a clear mandate to discuss PAROS, which has affected its ability to make inroads into the topic; the UNGA has the ability to discuss, but can only pass resolutions rather than negotiate an agreement; and the EU Code of Conduct negotiations were scuttled in part due to disputes over the proper venue. The result is that numerous state parties believe that some sort of agreement, whether binding or not, should be reached, but substantive discussions have been repeatedly quashed based on procedural concerns. This trend must be reversed, and is likely the largest barrier to achieving any agreement.
- 9. The GGE offers an excellent opportunity to bring experts together and to begin to have discussions on space security. The GGE should set a clear path to keep this discussion moving forward in a substantive manner after its work has concluded. Open communication on these issues will not necessarily lead to the conclusion of a legally binding agreement, but

it can facilitate the building of trust and transparency among the parties. Such trust and transparency is inherent in the space law regime. A large portion of the OST concerns the sharing of information, the goal of which is to lessen the chance of conflict among the state parties. Consultations and negotiations should move forward in this spirit by placing value not just on the outcome of an agreement (and whether it is legally binding) but also on the utility of discussions in providing for trust in space and facilitating future security.

10. The work of the GGE can provide a foundation on which states will negotiate the future of space security. As the range of space actors and assets diversifies, states will increasingly need some framework for ensuring that the strategic domain of space is protected from bad actors as well as the breakout of conflict. The approach identified by the GGE needs to give states flexibility to pursue emerging technologies, but at the same time set clear restrictions on what constitutes responsible behavior. It is hoped that these brief comments can contribute to that process.