SELF-DEFENSE IN SPACE:
PERSPECTIVES, ANALOGIES, AND PROSPECTS

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Self-defense in space

• Introduction

• Why this is an issue for the long-term sustainability of space

• Panel on international law and military activities of space

• Workshop on national perspectives on self-defense in space

• Scenario workshop on issues related to self-defense in space

• Conclusions
Importance to space sustainability

• Increasing number of and diversity in new actors, concurrent with increasing importance of space in daily activities globally

• Stability rests upon reliable and predictable access to space

• Self-defense in space has become a sticking point for international discussions on space sustainability and stability

• Affecting multilateral initiatives like the COPUOS LTS guidelines and the draft International Code of Conduct
Int’l law and military activities in space

• **International law has a direct impact on military activities** in peacetime and in conflict, so SWF co-hosted an open panel discussion on this issue in March 2015 in Washington, DC

• **International humanitarian law (IHL)** and the spectrum of activities that go from peace to conflict

• Tallinn Manual for cyber: authors worked on defining armed attack and actual cyber war

• **Clarity in norms and legal principles would help improve stability**
National perspectives on self-defense in space

- Co-hosted a closed event in March 2015 in Geneva, Switzerland

- Focused on the concept of an armed attack for outer space, proportional responses, the principle of distinction in outer space, and frequency interference

- What is a proportionate response? What is the role of attribution?

- Art. 51 of the UN Charter, the PPWT, and self-defense in other documents

- ITU and the role it plays in “naming and shaming” RFI
Co-hosted a closed workshop in September 2015 in Washington, DC

Scenario 1: uplink jamming of a commercial satellite that prevented command and control and degraded military capability

- Assuming it was intentional, could fall within a spectrum of impermissible actions which violate international law

- Reticence by states to make clear distinctions in order to have more options for response
Scenarios exploring self-defense in space (2)

• Scenario 2: one country’s satellites in Low Earth Orbit (LEO) started to experience anomalies after passing over a suspected ground-based laser weapons installation in another country

• *Proportionate response does not necessarily mean in-kind*

• IHL discussions of distinction and proportionality
  – Satellites versus human life

• Space does not have military infrastructure in place to make these kinds of decisions
Scenarios exploring self-defense in space (3)

- Scenario 3: Jamming interfering with satellite navigation-based system, anti-satellite attack leaving debris on orbit and disabling more satellites

- *Hybrid warfare* and the complications thereof

- *Attribution of actions* and non-state actors

- *Deliberate creation* of space debris
Conclusions

• Simply mentioning the *topic does not lead to the de facto weaponization of space*

• Important to have this discussion because already affecting other initiatives

• As more countries become more dependent on space, loss of space assets becomes *more destabilizing*

• Space community needs to start looking at this issue to see ripple effects, same as have been done in other domains
Questions?

Thanks.

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