



**Presentation for the GLOBSTATE 2022  
Conference**

**“Shaping National Security to Meet Challenges of  
Future Operational Environment: CEE Perspective**

**Session 2C: Future Battlespace and Military Operations**

**Warsaw, November 29, 2022**

**Configuring Space Strategies in An Asymmetric  
Risk Environment**

**Jana Robinson, Ph.D., Managing Director  
Prague Security Studies Institute**

# Presentation Overview

- Critical Importance of Space To Military
- Current Space Trends and Threats
- Intersection of Commercial and Military Space
- Economic & Financial Dimensions of Space Security
- New Role of Economic & Financial Statecraft in Deterrence
- Strategic Considerations for the Space Domain

# Critical Importance of Space To Military



- Space capabilities provide critical support to the activities of the military, intelligence, civil and commercial users;
- These capabilities are indispensable in all phases of military operations and all levels of conflict;
- Key missions include: communications, PNT, weather, early warning and tracking of missile launches, and ISR;
- New missions are emerging to ensure sustainable use of space (space domain awareness (SDA), and defensive and offensive effects).

## Current Space Trends and Threats

- In the developed world, space essential for socioeconomic (e.g., banking; environmental analysis, humanitarian crisis management, etc.) and security/defense-related needs;
- Increasingly diverse environment with more nations seeking space-derived benefits and indigenous space capabilities and new private actors entering the space domain;
- Great private sector enthusiasm for space investments accompanies by intensification of threats to space operations due to the development of sophisticated counterspace capabilities, heightened geopolitical tensions and the ability to deliver asymmetric, strategic effects;
- Both passive and active space operations of malevolent actors, including what PSSI labels the “ground-based space race”.
- Pressure to improve SDA;

## Intersection of Commercial and Military Space

- The war in Ukraine has highlighted the critical nature of space (both private and public) and real-time information flows in shaping the battlespace, as well as the importance of industrial supply chains;
- Some commercial space companies (HE360, Maxar, etc.) providing conflict support (e.g., imagery, communications, RF mapping)
- Some commercial companies targeted by Russia (e.g., ViaSat, Starlink);



ViaSat Headquarters, Carlsbad, CA  
(Source: REUTERS)



Significant damage to Nova Kakhovka dam in Kherson, Ukraine, on Nov 11, 2022 (Source: Maxar Technologies)

## Economic & Financial Dimensions of Space Security

*"Global space competition has evolved from strategic weapons monitoring and delivery and the pursuit of manned and unmanned spaceflight for national prestige to an ecosystem that impacts all instruments of national power including, increasingly, the economic component."*

(John Huth, Defense Intelligence Officer for Space and Counterspace, US Defense Intelligence Agency, at the 6<sup>th</sup> PSSI Space Security Conference in Prague)

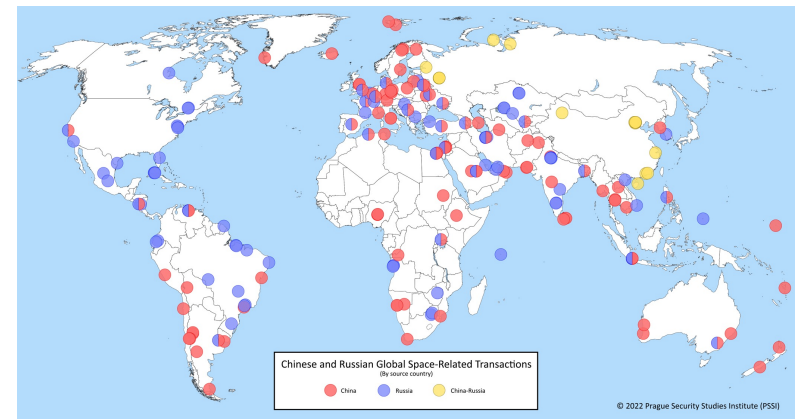


## Economic & Financial Dimensions of Space Security

- **Two key aspects of the economic and financial (E&F) domain** which are relevant to **space security**:
  - Significant asymmetric risks and threats to global standards and norms stemming from the non-market E&F practices of authoritarian space powers (non-transparent, and dependency-inducing contracts and package deal offers);
  - E&F domain as a major new source of deterrence and leverage and a non-kinetic response to malevolent space behavior.



Chinese Beijing Aerospace Yuxing Technology Co. Ltd. (also known as Satelliherd) to install ground station in Río Gallegos, Argentina (Image source: Ministerio de la Producción, Comercio E Industria de Santa Cruz)



## New Role of Economic & Financial Statecraft in Deterrence

- Deterring against space-related malevolent activities or attacks requires capacity to deny benefits, signal/communicate clearly, and demonstrate credibility;
- Asymmetric 'first mover' advantage and the inherent challenges of protecting vulnerable space assets suggests deterrence requires a comprehensive regime - cannot depend on military capability alone;
- Cross-domain response options via E&F policy tools have the potential to deter or penalize a state actor convincingly without endangering the delicate space environment;
- Possessing deterrent capabilities does not equate to stopping an act of aggression but can compel a significant shift in behavior;
- Major allied response in Ukraine stemmed from the use of economic and financial (E&F) tools by the West for both deterrence and penalties.



## New Role of Economic & Financial Statecraft in Deterrence

- When directing instruments of national power to space domain – DIME – E&F capabilities have not been employed despite their compelling non-kinetic effects;
- Reputation/brand and global market acceptance of state-controlled companies are of great importance to Beijing and Moscow as they contribute mightily to their respective military space programs;
- There can, at times, be a direct link made between hostile behavior and authoritarian space companies funding themselves in Western capital markets;
- E&F tools can **deter or penalize hostile, reckless and/or irresponsible actions in space** and should be applied more fulsomely.

# Strategic Considerations for the Space Domain

*“Leadership has to also be built by a strong economic partnership among the allies. There, we have our shared principles and norms, which we should jointly establish and apply to the whole global space economy.”*

(Kai-Uwe Schrogl, Special Advisor for Political Affairs, European Space Agency, at the 6th PSSI Space Security Conference in Prague)



## Strategic Considerations for the Space Domain

- Due to the inherently dual-use space capabilities and growing temptation of adversary space powers to exploit asymmetric space vulnerabilities, a major space incident that will disrupt daily life and possibly put at risk critical military and intelligence systems is likely;
- The allies should more actively translate these realities into effective rule-making, common policies, coordinated investments and deterrence strategies;
- Countering Chinese and Russian models of space partnerships requires innovative investment and outreach strategies, including to non-traditional partners.



# Thank you

[www.pssi.cz](http://www.pssi.cz)

[www.spacesecurity.eu](http://www.spacesecurity.eu)