

International Perspectives on Space Security

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THE SPACE GENERATION
ADVISORY COUNCIL



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What is space security?



**Secure and sustainable access to
and use of outer space in
accordance with international
laws and treaties, free from threat
of disruption**



Why is space security important now?



Space technology development has led to more players in space and current regulation is not set to handle the increase

- Space technology has developed beyond traditional military and pure sciences and is now increasingly integrated into our daily lives for both developed and developing countries
- Increasing number of nations have recently developed or acquired space abilities to reap new space benefits
- **Bottom line: There is a threat to the long-term use of space as it is becoming crowded by space crafts, debris, and potentially, weapons**
- While there are developing international agreements by way of diplomacy (e.g, through the United Nation's Committee on the Peaceful Uses of Outer Space [COPUOS]), there have been no new space treaties since 1972 to address the current situation



American Perspective



Traditionally, the US defines space security as protecting America's space assets and capabilities – security of space

Historic and Political Context:

- The era in which space activities started, trended the US to use space for military uses
 - Modern space has only been post-WWII where US has been a dominant political force, often in offensive engagements or intense non-engagement (Cold War)
 - Starting with the Cold War, space has been primarily used for military and defense
- One of oldest players in space
 - This has been the US's approach a long time
 - The US is used to being one of few in space
 - Space has enabled its national security and economic power



American Perspective



What is the view now?

- US openness in space diplomacy has ebbed and flowed
- There is a general opening in diplomacy Obama administration
- US is recognizing the increased number of commercial players (many of which are American) and foreign players in space
- US realizes that even its inward approach to space security will require international collaboration to maintain



European Perspective



Space security is an element of the collective effort to protect the “European Citizen” – space for security

Historic and Political Context:

- Since World War II, many of Europe’s political and space activities have been done as a union/collective/group of states
- Having been the battleground of World War II and suffering the consequences of the war, Europe has a focus on diplomacy and conflict prevention
- They are used to thinking with a collective good in mind
- Through CERN and other projects, they are used to working on massive scientific undertakings together



European Perspective



What is the view now?

- Space Security emerged in late 1990's and early 2000's as an official part of the "Security of the European Citizen" policy
- Space Security is seen as being in line with European "Political Maturity" (i.e., where the continent strives towards collective security)
- Space is seen as an optimal arena in which the Europeans can band together for soft power
- Traditionally peaceful use = non-military, but following space uses in peace-keeping efforts, peaceful use = non-aggressive
- Even when European countries examine space security policy on an individual basis, a primary element/goal is collective surveillance (e.g., FRA & GER)



European Perspective



Example: July 10th, 2008 European Parliamentary resolution on Space and Security

- -“Notes the importance of the space dimension to the security of the European Union and the need for a common approach necessary for defending European interests in space (...)
- -(...) Encourages the Member States of the European Union , the European Space Agency and the various stakeholders to make greater and better use of the existing national and multinational space systems and to foster their complementarity (...)
- - (...) Applauds the efforts of the International Academy of Astronautics and the International Association for the Advancement of Space Safety to promote remediation, understanding and measures in respect of space debris; (...)
- -(...) Supports the creation of a European space surveillance system leading to space situational awareness (including, for example, GRAVES and TIRA) to monitor the space infrastructure, space debris and, possibly, other threats; (...)
- -(...) Supports the possibility of funding the future European space situational awareness system from the EU budget;



Asian Perspective



The mix of space programs with different motivations and stages of development lead to little consensus in Asian

Historic and Political Context:

- Asian countries are newcomers to the space stage and have been developing at very different times and paces
- The primary Asian space players (China, India, Japan and South Korea) have different objectives of their space programs
- Historically, there has not been much collaboration and even rivalries among Asian nations
 - Indians competing versus Chinese
 - Historical tensions between Chinese and Japanese
 - South Koreans looking to establish themselves



Asian Perspective



What is the view now?

- The major Asian space players all claim to support sustainable, peaceful space activities
- They support UN COPUOS space debris guidelines
- On the other hand, space is becoming more integrated into each country's military
- Contradictory actions and words combined with technological and economic means could be potentially volatile



Developing Nation Perspective



These newcomers hope to see space for long-term use to help bridge the developmental gap

Historic and Political Context:

- Many of these countries have been focused on creating political, economic, and social stability
- Resources were traditionally not put towards space
- At the same time, they have kept an eye on space and have had to band together politically to create a voice for themselves via COPUOS despite their lack of visible presence in space
- Many of these countries have been at the receiving end of what could be the future if we do not focus on space security – this includes being hit by falling space debris



Developing Nation Perspective



What is the view now?

- Space technology has developed to a level where it can help them develop and bridge the gap to the developed nations
 - Telecommunication: tele-health and tele-education, e.g.
 - Earth Observation: environmental and crop observation, e.g.
- These nations see themselves as having the most to gain in long-term uses of space, so they call for the most limitations in space regulation
- These nations want to use collaboration and information sharing to ensure the continued uses of outer space



Brief review



Country Review

- **US:** historically very strategic → vital interest → militarized protection
- **Europe:** non traditionally military oriented → focus on civilian, cooperative strategic programs → more diplomacy and non-aggressive military
- **Asia:** up and coming, disjointed region with technological means → want to say the right thing but are anxious to grow
- **Developing Nations:** space as a development provider → call for strict limitations in “space control”

Key battling perspectives

- New player vs. old player
- Country (e.g., US) vs. collective (e.g., Europeans)
- Developing vs. developed countries



Conclusions



There may be differing perspectives among the regions but there are common understandings about the trends in space:

- The space landscape will be deeply transformed as technology rears applications valued by all countries
- Increased, diverse players and stakeholders will bring more traffic ,debris, and possibly weapons into space
- Space could be rendered unusable if the situation is not addressed as current policies cannot manage these changes

Though we have different visions for how to benefit from space, we do share the common goal of benefiting from space far into the future ... ensuring space security must be a priority



Thank you and questions



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