

SPACE SECURITY INDEX



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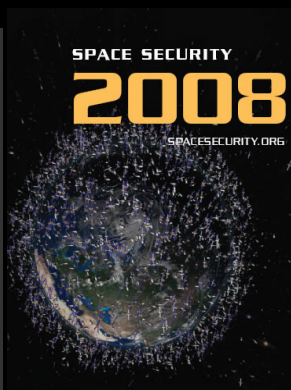
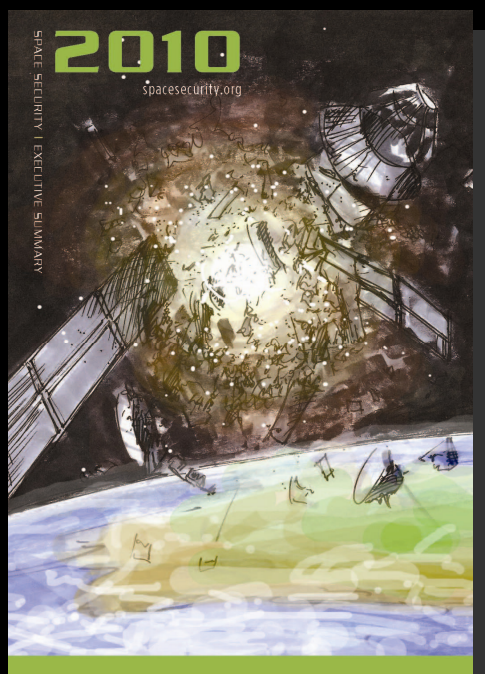
10 June 2010

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The Space Security Index

- **Annual assessment** of trends and developments that affect space security
- Provides objective and fact-based research to promote **transparency and confidence** in space activities
- Supports the development of **policy** to ensure secure access to space for all



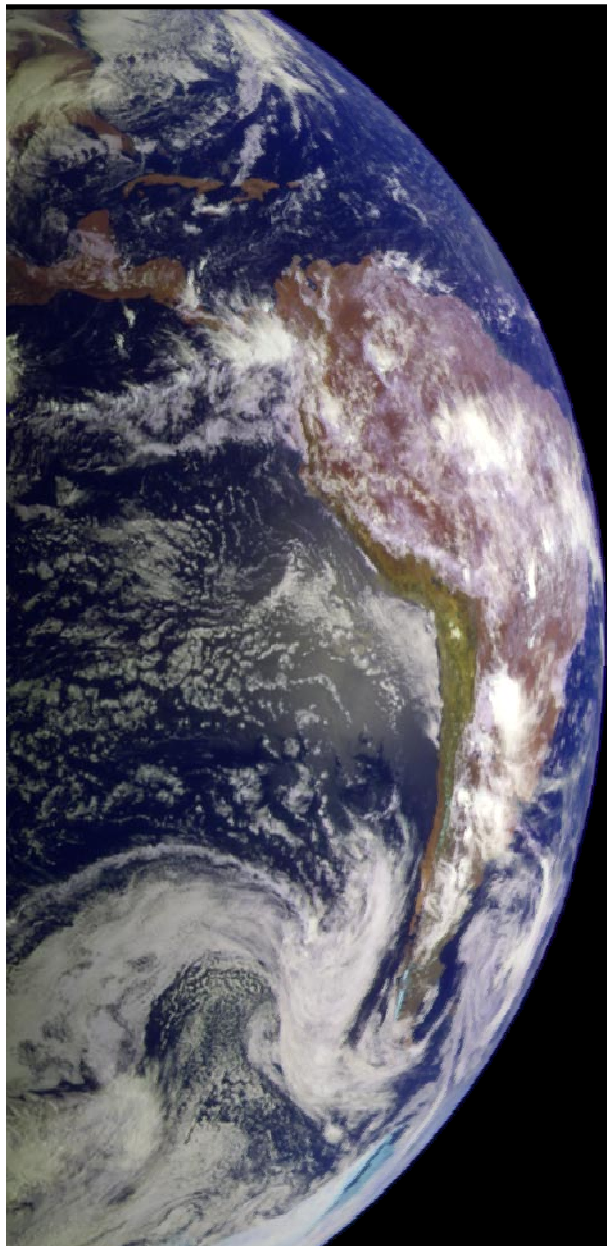


Defining Space Security

- The secure and sustainable use of space
- Freedom from space-based threats

Methodology

- Research on trends and developments from open sources
- Online consultation
- Expert review of research





Space Security Indicators

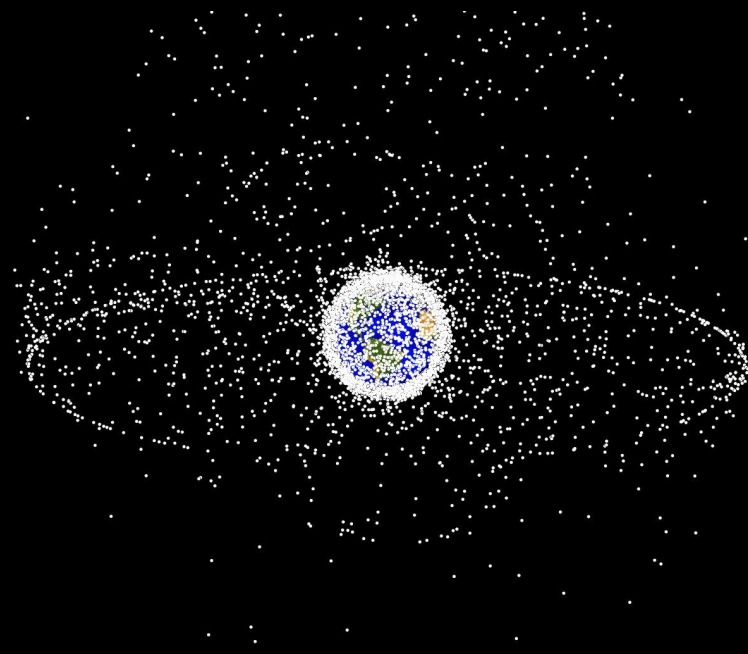


1. The Space Environment
2. Space Situational Awareness
3. Laws, Policies, and Doctrines
4. Civil Space Programs and Global Utilities
5. Commercial Space
6. Space Support for Terrestrial Military Operations
7. Space Systems Protection
8. Space Systems Negation
9. Space-Based Strike Capabilities



Areas of concern:

- *Operating environment*
- *Number and diversity of actors*
- *Militarization/Weaponization of space*

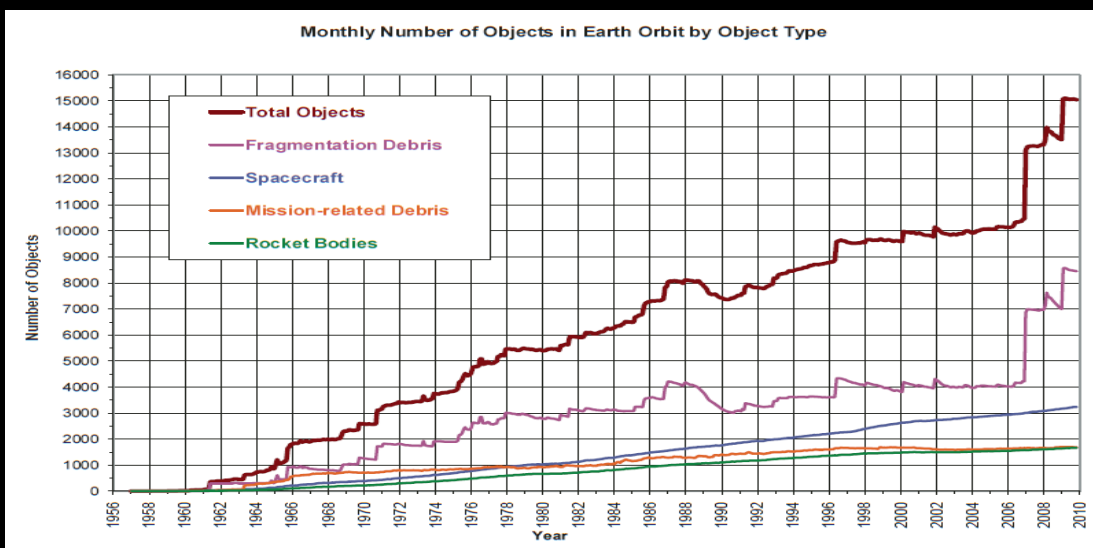




- The Space Environment
- Space Situational Awareness
- Laws, Policies and Doctrines

2009 Collision between Cosmos 2251 and Iridium 33

Parent Object	Country	Date	Estimated #of Pieces*	Cataloged # of Pieces	Lifespan of Pieces
Iridium 33	USA	10 Feb	Several hundred	491	Decades
Cosmos 2251	Russia	10 Feb	Few thousand	1143	Decades



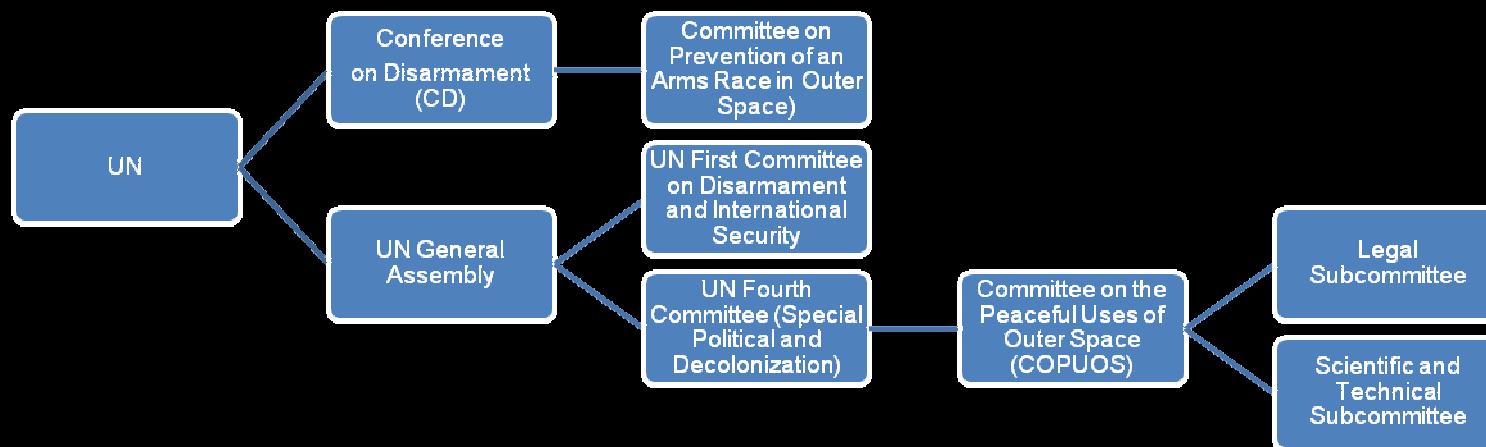


Laws, Policies, and Doctrines

Existing normative architecture for space activities is *outdated* and *insufficient*

Proposals to consider:

1. Sino-Russian PPWT
2. Canada's '3 principles'
3. EU Code of Conduct





Number and diversity of space actors

- Civil Space Programs and Global Utilities
- Commercial Space



Access to outer space is growing

New space actors emerging

Greater demands on ***space resources***



Militarization/Weaponization of Space

- Space Support for Terrestrial Military Operations
- Space Systems Protection
- Space Systems Negation
- Space-Based Strike Capabilities

Vulnerability of ground stations, communication links, and space assets

Abilities to detect, withstand, recover, and deter attacks

PAROS



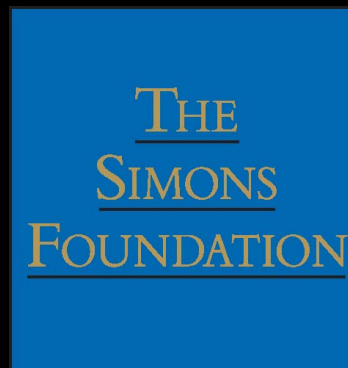
Key Developments Covered in the SSI

- **2009**
 - For the first time ever, two satellites collide in orbit
 - US Space Policy Undergoes Review Process
 - EU draft Code of Conduct
 - Canada call for security guarantees at the CD
 - Major satellite operators form coalition - SDA
 - Boeing conducts successful test of air-based laser weapon for USAF
 - Iran launches domestic satellite
- **What to follow in 2010-2011?**
 - Competing proposals for a space security instrument
 - US Space Posture Review
 - Private access to space
 - Increased interest in/capabilities for SSA
 - New/emerging space-faring states
 - Space shuttle retirement



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SSI Project Partners



www.spacesecurity.org



Canada