

# **Approaches to Space Security in the Transatlantic Arena - The European Perspective**

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Through its activities, ESPI **contributes to facilitate the decision-making process**, increases awareness of space technologies and applications with the user communities, opinion leaders and the public at large, and supports students and researchers in their space-related work.

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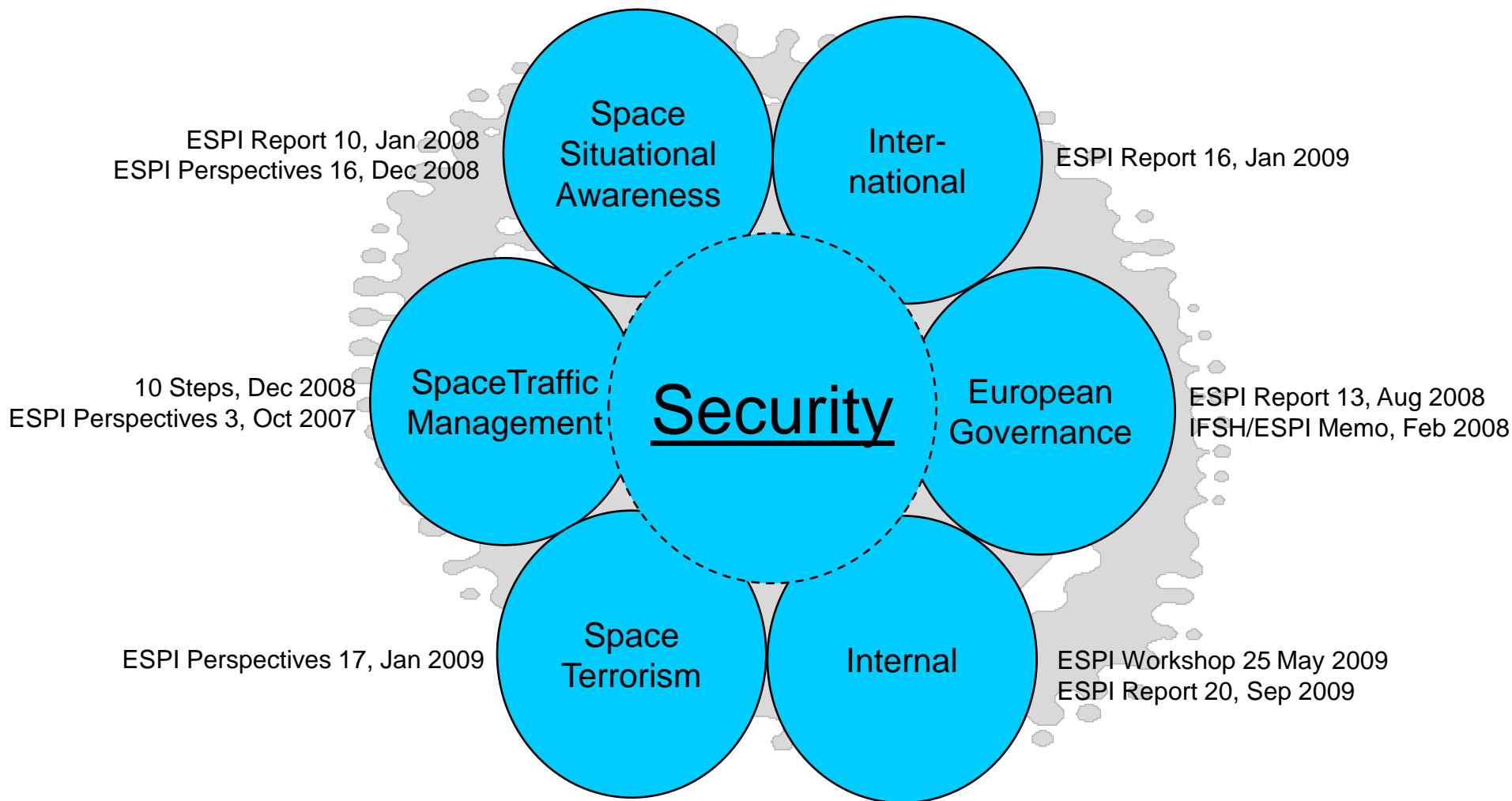


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# ESPI Research Programme Security



## Presentation Contents

1. Current dominating topics for the transatlantic relations
2. The European perspective on transatlantic cooperation in the field of security



Image Credit: EADS

# **1. Current dominating topics for the transatlantic relations**

Security is neither the main nor even a dominating topic, although it contains probably the greatest potential for cooperation

Dominating are:

- Space Exploration
- The strategic economic importance of space

## Space Exploration

- Highest political attention: Augustine Report – Prague Conference
- Need and drive for global cooperation but varying concepts and goals
- Role and future of ISS?

-> Memorandum of European think tanks of September 2009





## The strategic economic importance of space

- Frequency management
- Standardization
- Open international markets
- Harmonized regulatory environments

-> SPI-ESPI Memorandum of May 2009



## 2. The European perspective on trans-atlantic cooperation in the field of security

### The Setting: Europe as a whole

- Emerging Awareness of Space and Security
- Strong role of Member States
- Systems at national level
- Intra-European cooperation
- Relatively low budget(s)
- Various institutions involved



Image Credit: DLR

## The Setting: European Union (EU)

- Emerging space actor in Europe
- Involvement in Galileo/GMES
- Provisions of Lisbon Treaty
- Security in intergovernmental domain
- Draft Code of Conduct for outer space activities
- Political authority; build-up of space experience



Image Credit: EU

## The Setting: European Space Agency (ESA)

- European space actor with worldwide reputation
- Enhanced interpretation of mandate
- Ongoing dual-use and activities
- Rich experience in space activities
- Not slated for political leadership

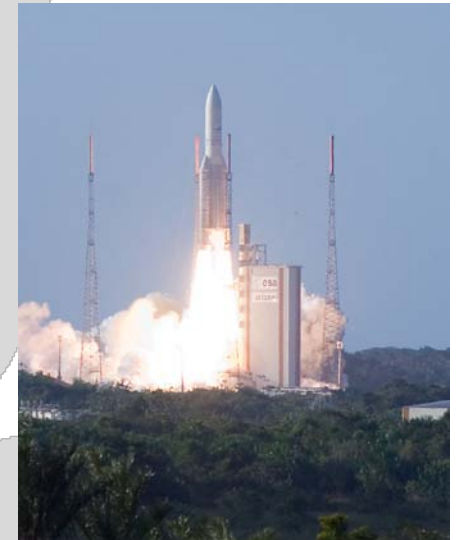


Image Credit: ESA



## The Setting: European States

- Third level of space security activities
  - Capable national space systems
  - Cooperation outside EU structures
- 99% of European space security spending (approximately 1,3 billion U.S. \$) by 5 states
- States retain responsibility for national security



Image Credit: Bundestag

## The Setting: Selected Documents

- Military Headline Goals 2004: Commitment to swift and decisive action in crisis management
- Lisbon Treaty 2007: Space as a shared competence
- European Space Policy 2007: Distinct chapter on security and defence
- 5th Space Council: “Taking Forward the ESP” 2008: Highlights contribution of space to the CFSP/ESDP
- EP Resolution “Space and Security” 2008: European Space Policy must not contribute to militarisation



Image Credit: Council of the EU

## Current Issues at Stake for Europe I

- Security implications of joint flagship projects
- Pursuit of Space Situational Awareness (SSA)
- Avoidance of Space Weaponisation/Arms Race
- Missile Defence issues
- Space Terrorism threats
- Space for internal security



Image Credit: DLR

## Current Issues at Stake for Europe II

- NATO's space posture and the link to Europe
- European Space Security Strategy (E3S)
- Integration of national efforts
- Institutional set up in Europe
- Governance / Political Guidance



Image Credit: EUSC



# Space Situational Awareness (SSA) I

- Various threats to space assets
  - Growing number of debris
  - Space weather
  - Meteorites
  - Intentional attacks
- No European autonomy, reliance on U.S. data
- Key role played by data policy

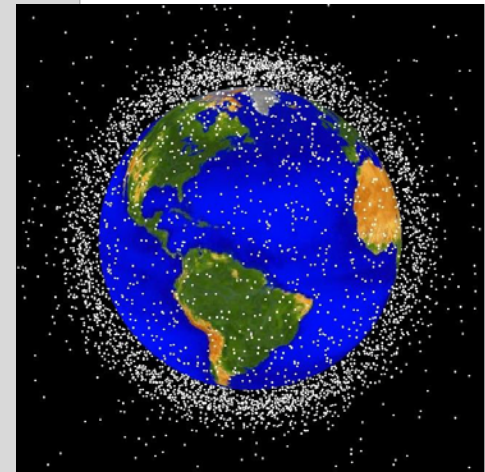


Image Credit: SWF

## Space Situational Awareness (SSA) II

- Collision of Iridium 33 and Cosmos 2251 in February 2009; French satellite Cerise hit by debris in 1996
- Europe strives for autonomy in SSA
- Preparatory Programme started at ESA Ministerial Conference 2008
- Federation of national and European systems; involvement of military entities and assets
- Key role of governance

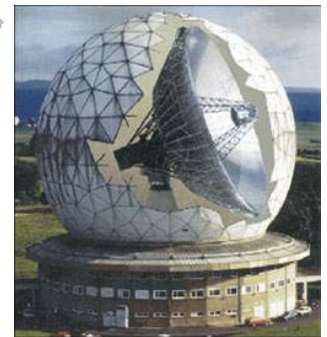


Image Credit: FGAN

## Space Weaponisation

- No (imminent) arms race (yet?)
- Chinese ASAT test in January 2007
- Outer Space Treaty not sufficient
- Update or amendment in form of soft law?
- Code of Conduct as drafted by the EU (nucleus for Space Traffic Management)



Image Credit: USAF

## „Space Terrorism“

- New aspect of space security for Europe:  
 Arising need for protecting space assets and ground infrastructure against terrorist attacks
- Various motives and targets
- Different protective measures
- Counter-terrorism policy for space?
- Need for European approach



## NATO's role in space

- Experience in key applications
- Expertise in Research & Technology
- Reliance on commercial and national assets
- Lack of interoperability standards
- Space Operations Assessment published in January 2009, calling for a coherent and holistic NATO approach to space and for a NATO Space Office



## Conclusions for Europe: „A Formative Role and a Principled Identity“

- Use space for security and defence purposes
- Abide by international law and conventions
- Follow principle of “peaceful uses”
- Secure and protect its assets
- Avoid aggressive doctrine and weaponisation



## Conclusions for Europe: „A Formative Role and a Principled Identity“

- Come up with a distinct approach
- Ensure sufficient funding (PPP?)
- Speak with one voice globally
- Integrate national positions
- Assume leadership in space security



Image Credit: European Union

-> A distinct but cooperative role with numerous areas for trans-atlantic coordination and cooperation