

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

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#### **Mission Statement**

The mission of the European Space Policy Institute (ESPI) is to provide decision-makers with an independent view and analysis on mid- to long-term issues relevant to the use of space.

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.

To fulfil these objectives, the Institute supports a network of experts and centres of excellence working with ESPI in-house analysts.



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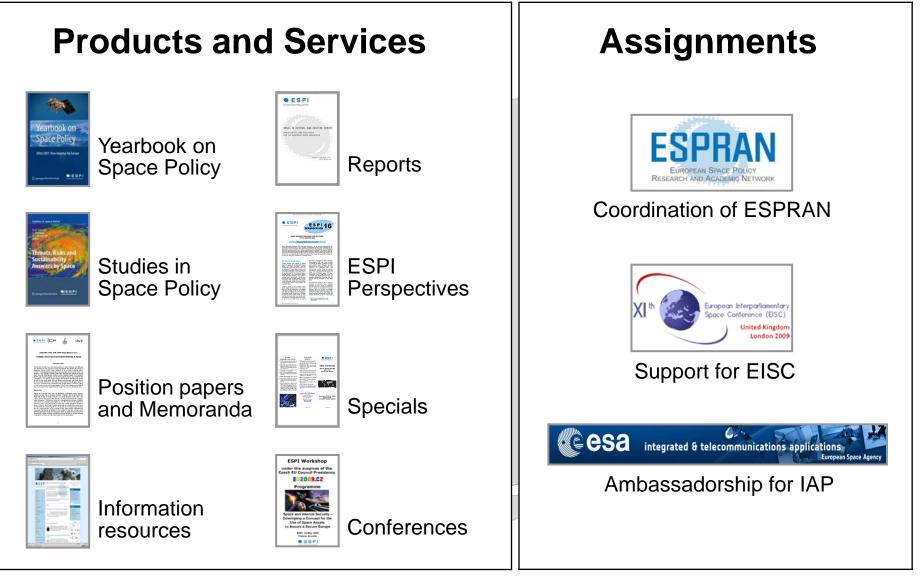




and the European Space Policy Research and Academic Network (ESPRAN) coordinated by ESPI

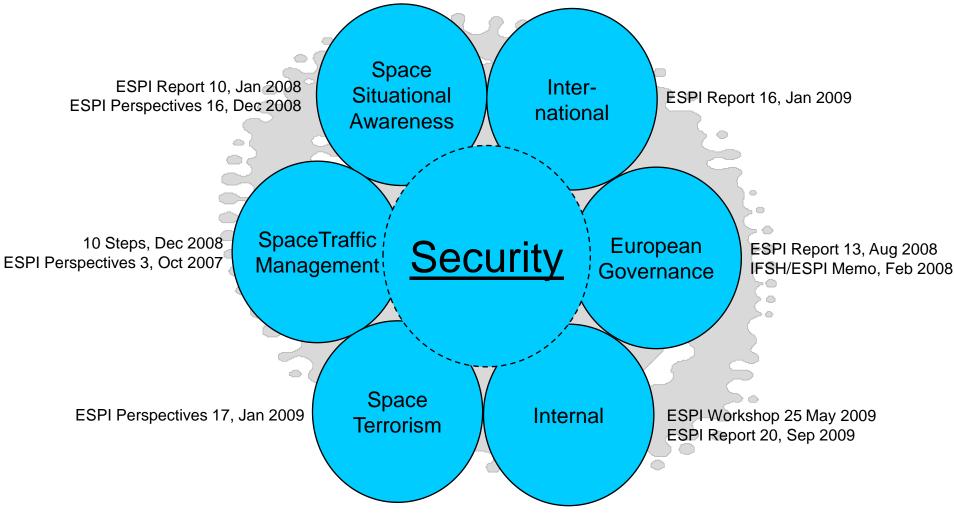














#### **Presentation Contents**

- 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

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## The strategic economic importance of space

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

-> SPI-ESPI Memorandum of May 2009



Joint Statement by the Space Policy Institute and the European Space Policy Institute (ESPI) in the Strategic Economic Importance of Space

Vashington, DC/Vietosa, 14 May 2009

Investing in space activities is a promising element in dealing with the summit economic crass. This Joint Statement addresses the U.S. Office of Science and Technology Policy and the European Space Council, meeting in May 2009

Space achieve continue to the long-term well being of accord, through improved scattering is contentending in a weary that of Anonege, most noday, who moded to the goldal environment. The design, development, and speciation backet systems controller mays therbitma and management, and uperation adjacency and thus help strengthen the engineering supportes of participating attribute.

Most investigated, passe spatient such as satellite communications, environmental monitoring, and gotta negative spaties spatients are resultad to the probability of many types of national and international influences such are at uses, and hydroxy thresponistion, oil and gas populines, financial relivants, and gottad communications.

Information services enabled by the unsue councilies and good vasit of space systems are sound to the functioning of the good economy, in a tree of plote economic ones, the united State, Exotes, and other space-tarray native meets to cooperate more closely in termines tarrains to international taxe and mathematical monocides, and to protect space systems. This international are universitival interference.

While each space-foring rulies will need to individually assess which particular space activities and projects are must beneficial to its interests, we believe there are clear assess of overners referred that support a somervar active approx. The rest-four-stated EU-US space dialogue is an appropriate forum to proceed in this respect.



# 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





#### 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





#### 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









#### **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







#### **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





#### **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 7 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

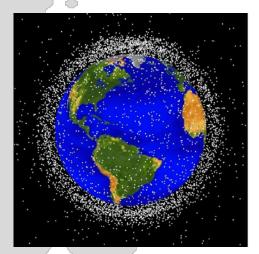


Image Credit: SWF



#### 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

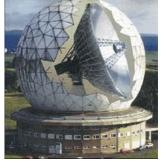


Image Credit: FGAN



#### **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)





### "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



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#### 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