

The use of outer space for security and defence:
The European perspective

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1. The birth of the European Security and Defence Policy (ESDP)

- The St. Malo Declaration, December 1998
- The European Council meeting in Cologne, June 1999:
ESDP as part of the CFSP
- The European Council meeting in Nice, Dec. 2000 :
The institution-building (EUMC, EUMS, PSC, etc)

2. Main achievements of ESDP:

a) The European Security Strategy, December 2003 defines the threat scenario:

- Terrorism
- Proliferation of WMD
- Regional Conflicts
- Organized Crime
- State Failure

..... and outlines the necessary policy implications for Europe:

- “*more active*” in applying the full spectrum of instruments for crisis management
- “*more capable*” through transforming our militaries into more flexible, mobile forces, etc
- “*more coherent*” through better coordination of the various crisis management instruments

b) The Military Headline Goal 2010, June 2004 stipulates:

- to be able by 2010 to respond with rapid and decisive action applying a fully coherent approach to the whole spectrum of Crisis Management Operations covered by the TEU

c) The Civilian Headline Goal 2008, December 2004

- reinforces the civilian element of ESDP
- Identifies the civilian capabilities to be achieved by 2008, in the areas of Police, Rule of Law, Civil Administration, Monitoring, etc. for civil and mixed civil/military CMO's

d) Introduction of the EU Battlegroup Concept,
November 2004:

- 13 mobile battle groups for crisis intervention
- to be deployed within 10-15 days, for max. 4 months

3. The role of outer space within ESDP

- The relevance of space-based assets for the purposes of ESDP is today undisputed
- The political will to act accordingly starts to develop gradually

The relevant milestones so far:

- a) The EU Commission's Green Paper and White Paper on European Space Policy, 2003
 - defines an Action Plan which recognizes outer space as a tool for the implementation of the EU Policies, including security and defence

b) The SPASEC Report, March 2005:

- Report of a panel of experts on space and security underlines and enlarges the stipulations of the White Paper
- Examines potential synergies between military and civil use

c) European Space Policy: ESDP and Space of November 2004

- First EU Council Strategy Paper on the use of outer space for ESDP purposes

- defines the potential applications of space-based systems for e.g. earth observation, communication, positioning-navigation and timing
- underlines the relevance of dual-use technologies
- stipulates more “pooling and sharing” of existing national space assets
- is complemented by a “road map” from 2005 which serves to implement the actions

d) Generic Space System Needs for Military Operations, February 2006

- building on “ESDP and Space”, it defines in more detail the potential military applications for space based systems, covering communication, earth observation, SIGINT, early warning, PNT and space surveillance
- is complemented by classified document on “Space Systems Requirements” of February 2006
- is complemented on the civil side by the Outline of Generic Space Systems Needs for Civilian Crisis Management Operations of June 2006

e) The European Space Policy, May 2007

- is a joint policy document of the European Commission and ESA
- was approved through a Resolution by the Space Council (ESA Council on ministerial level and the EU Competitiveness Council)
- is a joint EU-ESA space strategy with special focus on applications (navigation, earth observation, tele -communication and security& defence)
- supports the joint ESA-EU programmes GALILEO and GMES
- underlines the dual-use character of military and civil space programmes

- stipulates more “sharing and pooling” of existing systems
- stipulates the establishment of an increased exchange of information allowing a better identification of synergies and coordination
- issues two key actions in the area of security&defence:
 - ❑ The EU Council will identify the ESDP requirements for GMES by the end of 2007
 - ❑ ESA will propose a programme to develop common security technologies and infrastructures
- is complemented by a preliminary Space Programme identifying all current non-military space projects by the EU and ESA member states, as a strategic planning tool

f) The Resolution on the European Space Policy

- underlines the need to make better use of synergies
- calls for a “structured dialogue” with the competent bodies of the member states and within the EU pillars, as well as EDA

4. Today's main actions of the EU within ESDP and outer space:

- a) To finalize the work on the roadmap for “ESDP and Space”:
- Pooling and sharing is well under way (Helios 1, Helios 2, SarLupe, COSOSkymed)
 - The ESDP Space System requirements are agreed
 - A permanent inter-pillar dialogue between Council and Commission has been initiated
 - The overall European Space Policy has been approved
 - EDA takes up more responsibilities
 - The role of the EUSC is reinforced

b) The action items from the “European Space Policy” will be part of an Implementation Plan, scheduled for October 2007

5. The Role of ESA in the area of security and defence

- ESA is a “newcomer”
- How did ESA get there:
 - a) Position Paper on ESA and the Defence Sector , March 2004
 - ❑ provides an interpretation of the “peaceful purposes” in the ESA Convention
 - ❑ recognizes the use of outer space for the purposes of security and defence
 - ❑ underlines the ESA potential in that domain

b) The ESA-EC Frame -Agreement , May 2004

- embeds ESA in the implementation of the EU Policies
- contains an explicit reference to the “security dimension” of space technology and infrastructure

c) ESA Agenda 2011 , October 2006

- highlights the relevance of supporting synergies between civil and military space systems

d) ESA Long-Term Plan 2007-2016 , Dec.2006

defines concrete activities in security and defence, in particular for “dual use”:

- Earth Observation, Telecommunication, Navigation, Space Surveillance

e) The European Space Policy, May 2007

- a mandate for ESA to become active in the area of security&defence:

“ESA will propose a programme to develop common security technologies and infrastructures”

f) The planned ESA Security Strategy, also influenced by:

- The 2006 US National Space Policy in support of homeland security
- Developments in the Russian and Chinese space programmes
- Current debate in the UN (COPUOS) regarding “space traffic management”
- Discussions in the UN Disarmament Conference regarding potential confidence building measures through space-based surveillance of international treaties
- Increased activities of the EU Commission (7th FP) and EDA (UAV’s, MILSATCOM)
- Increased interest in the protection of the new European borders
- Mandate of the European Space Policy

6. Today's ESA activities in the area of security and defence

a) Space Situational Awareness

- aiming at a programme proposal for the Ministerial Conference in 2008

b) GMES

- coordination of access to data from national and European earth observation missions
- MARISS (European Maritime Security Service) as space-based instrument to reinforce security in the coastal border area – cooperation with FRONTEX

c) GALILEO

- The use of GALILEO by armies in EU member states is compatible with the EU Council requirement that GALILEO is “ a civil system under civil control”
- This is confirmed by the European Space Policy
- The role of ESA in the GALILEO Programme will be probably increased, in accordance with the EU Council Decision of 08 June 2007

d) Telecommunication

“Dual-use” activities in the ARTES-1 and ARTES-5 Programme:

- Radiation hardening for satellites
- Anti-jamming, anti-spoofing
- Integration of UAV's and satellites

e) Future perspectives:

- Enhanced Data Relay Satellite
- NewPro and new integrated applications for civil security and space surveillance

Conclusion:

“ESA is the space agency of the European Union”

“ There is no security without space – there is no space without security”