

EUROPEAN SECURITY AND DEFENCE COLLEGE



THE CHALLENGES OF SPACE FOR EU AND CSDP

(ESDC activity number 27)

- Curriculum Outline -

June 2015

Aim

The overall aim of the Space course is to enable participants to :

1. To deliver a broad overview of current space programs and ongoing project ;
2. To highlight structures, agencies, services in charge of conducting Space programs ;
3. To measure the extensive nature of space challenges and to recognise its complexity and the different threats we are undergoing ;
4. Measure the contribution of European space programs on the European Defence Technological and Industrial Base (EDTIB) ;
5. To raise awareness of the importance of Space activities in the framework of CSDP missions
6. To provide Member States with knowledgeable personnel, capable of contributing to the planning of EU missions and operations at the strategic level.
7. Provide opportunity to create a network of people working in fields related to space activities.

General description and organisation

1. ***Required level of course participants*** : Participants should be mid-ranking to senior officials dealing with strategic and operational aspects related to space activities and, by this way, have an advanced knowledge or experience regarding Space activities. They should be either working in key positions or have a clear potential to achieve leadership positions in particular within space programs' conducting services and at governance level.

The audience should be a well balanced mix of diplomats, civilians working in the field of rule of law (including police) or civil administration, and military personnel. Academics and members of the business community may also be invited to participate in this course.

Course participants must be available for the whole course and must be ready to bring in their specific expertise and experience throughout the course

2. ***Cognitive objectives*** :

At the end of the course the participant will be able to :

- ✓ To understand the basic notions and concepts related to Space activities ;
- ✓ To be aware of the different trends in space programs and political initiatives ;
- ✓ To understand the ins and outs of Member States and the EU's spatial policies ;
- ✓ To identify the EU institutions involved in space activities and their respective roles ;
- ✓ To understand how EU and its Member States are getting affected by space issues ;
- ✓ To be aware of the International legislation in this field and implementation in States' law ;
- ✓ To identify the challenges of space at the European level and the way ahead;
- ✓ To evaluate the potential impacts of the space issues on EU governance.

3. ***Affective objectives***

At the end of the course the participant:

- ✓ Demonstrate an informed view on space issues and political orientation in this case;
- ✓ Openly act and actively contribute in EU's cases dealing with space issues ;
- ✓ Share a common approach and view on aims of the EU space policy.

4. *Duration of the course*

The module will normally take 2,5 working days.

5. *Methodology*

In general, interactive learning methods should be used throughout the residential module. The focus should be on deepening knowledge of the various issues and giving the course participants the chance to discuss issues in a wider context and with key players working within the EU. Each participant will be encouraged to take an active role and will have the opportunity to ask questions.

Whenever possible, case studies should be conducted to allow course participants to see and learn how theory works in the context of actual EU activities. Workshop and group discussions can be favoured to deepen the understanding of certain areas.

Overall structure

6. *Internet-based Distance Learning (IDL)*

Before attending the course, participants are expected to complete the IDL preparatory module made up of the Autonomous Knowledge Units 1, 2, 3, 4 and 7. Completing the AKUs (reading and passing the tests) is mandatory in order to get the certificate at the end of the course.

7. *Module Program*

(cf. Annexe a)

The Course Programme can be adapted according to recent needs and to national agenda priorities.

8. *The presentations and discussions will focus on the general following topics :*

- Space characteristics and challenges ;
- Space legal framework and law approach of Space and ‘outer space’ ;
- Introduction to European space programs and national space policies in the EU ;
- Overview of European space industries and activities ;
- Implementation of space activities within the framework of the CSDP today and operational issues : space support to EU operations ;
- Further space issues and development within CSDP.

9. *Contents for teaching*

a) Space characteristics and challenges:

- basic physical characteristics of space
- general strategic layout of space
- today defense and security space threats and risks at the EU and national level

b) Space legal framework:

- international structures dealing with space

- the 5 space international treaties
- the 5 space international resolutions
- the EU Code of conduct for outer space activities
- outer space status and uses

c) National space policies in the EU:

- the French space structures and policy
- the Italian space structures and policy
- the German space structures and policy
- the British space structures and policy

d) Space and CSDP today:

- the European space policy (2007)
- the Lisbon treaty (art 189)(2009)
- the EU defence councils (2013, 2015)
- the EU Satellite Center
- the European space agency (ESA)
- the Commission and EEAS space structures (DG Grow, Task Force for Space)

e) European space programs:

- Copernicus
- Space surveillance (SSA and SST)
- satellite communications (GovSatCom, MilSatCom)

f) Focus on the Galileo project

- general overview
- uses and operational issues
- governance approach and involved actors
- way ahead

g) focus on EU space-launch capability and the need to guarantee an autonomous access to space

h) European space industry:

- major European companies case studies
- main cooperations in space defense industry and presentation of EDA activities in this field
- space industry stakes for defense and security

i) Further space issues for CSDP:

- operational uses
- borders monitoring
- international cooperation

10. Reading Materials.

DG GROWTH

http://ec.europa.eu/growth/sectors/space/index_en.htm

European Space Agency (esa)

<http://www.esa.int>

European Defence Agency (EDA)

<http://www.eda.europa.eu/home>

Code of Conduct for Outer Space Activities

http://eeas.europa.eu/non-proliferation-and-disarmament/outer-space-activities/index_en.htm

EU Satellite Center

<http://www.satcen.europa.eu/>

CNES

<http://www.cnes.fr/web/CNES-fr/6919-cnes-tout-sur-l-espace.php>

ANNEXE

a. Module program

Day 1 Framework and stakes	Day 2 Tools and programs	Day 3 What next?
<p>a) Space characteristics and challenges:</p> <ul style="list-style-type: none"> - basic physical characteristics of space - general strategic layout of space - today defense and security space threats and risks at the EU and national level <p>b) Space legal framework:</p> <ul style="list-style-type: none"> - international structures dealing with space - the 5 space international treaties - the 5 space international resolutions - the EU Code of conduct for outer space activities - outer space status and uses <p>c) National space policies in the EU:</p> <ul style="list-style-type: none"> - overview - the French space structures and policy - the Italian space structures and policy - the German space structures and policy - the British space structures and policy 	<p>d) Space and CSDP today:</p> <ul style="list-style-type: none"> - the European space policy (2007) - the Lisbon treaty (art 189)(2009) - the EU defence councils (2013, 2015) - the EU Satellite Center - the European space agency (ESA) - the Commission and EEAS space structures (DG Grow, Task Force for Space) <p>e) European space programs:</p> <ul style="list-style-type: none"> - Copernicus - Space surveillance (SSA and SST) - satellite communications (GovSatCom, MilSatCom) <p>f) Focus on the Galileo project</p> <ul style="list-style-type: none"> - general overview - uses and operational issues - governance approach and involved actors - way ahead <p>g) focus on EU space-launch capability and the need to guarantee an autonomous access to space</p> <p>h) European space industry:</p> <ul style="list-style-type: none"> - overview - major European companies case studies - main cooperations in space defense industry and presentation of EDA activities in this field - space industry stakes for defense and security 	<p>i) Further space issues for CSDP:</p> <ul style="list-style-type: none"> - operational uses - borders monitoring - international cooperation <p>j) Move ahead : a new space policy for EU and CSDP ?</p> <p><i>Closing Speech</i></p> <p><i>Evaluation of the course</i></p> <p><i>Certificate handout</i></p>