



Ejército del Aire
y del Espacio

EUROPEAN UNION MILITARY ACADEMIES COMMANDANTS' SEMINAR 2023

COL. ENRIQUE GARCIA CASTRO

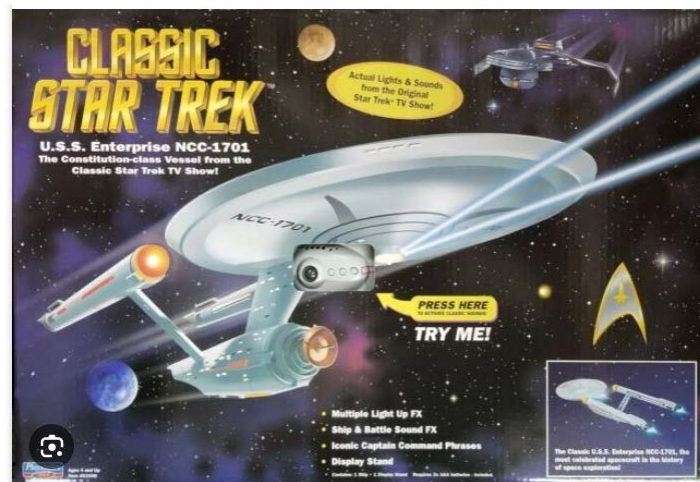
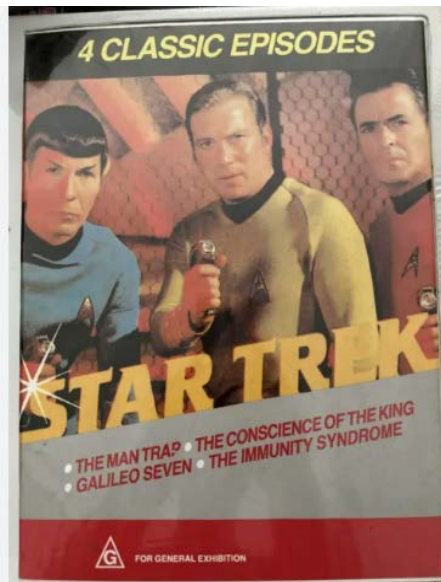
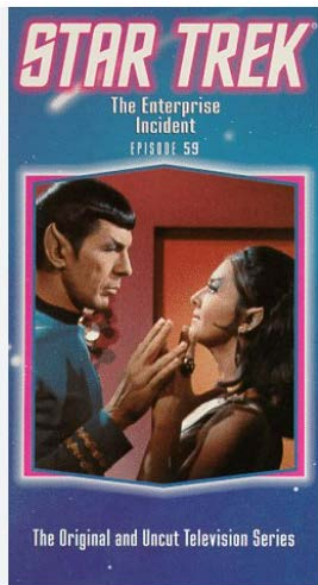


Agenda

“Building and Molding Officers for the New Frontier – Space”

- **Introduction**
- **Topics for discussion**
- **Wrap up & Conclusions**
- **Syndicate presentation and derived conclusions (10 min + Q&A)**

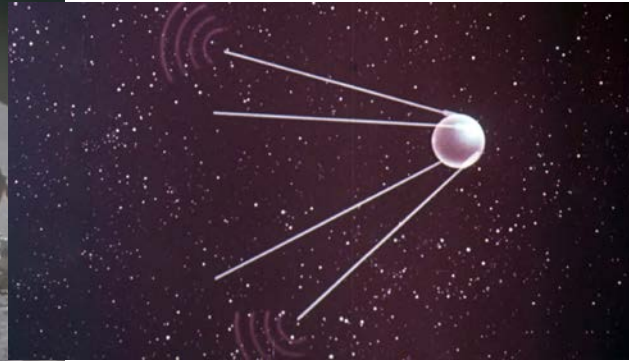
Introduction



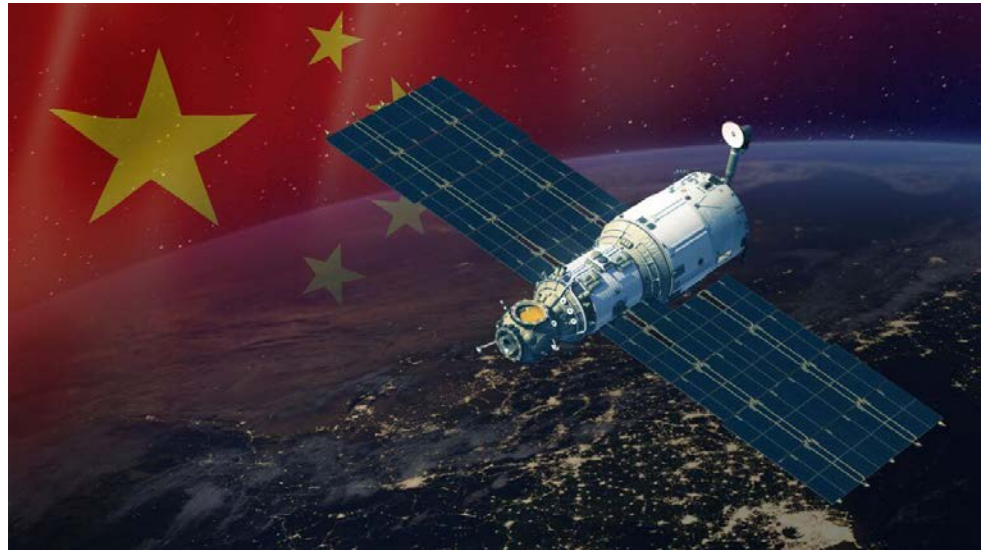
Introduction



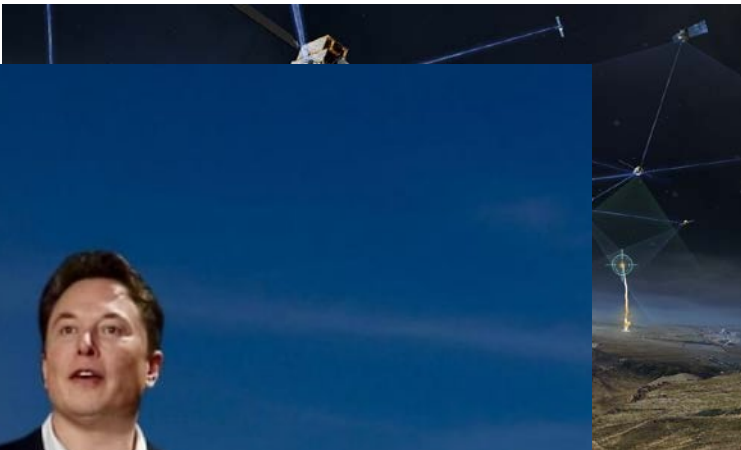
Introduction



Introduction



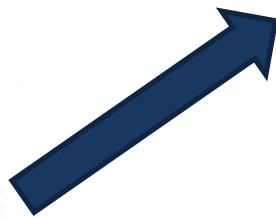
Introducción



Introduction



Introduction



Ejército del Aire
y del **ESPACIO**



Introduction



N3-01

Introduction to Space Support

Conducted by JPOD

Contact

Aim

The aim of this course is to provide students with a comprehensive understanding of the international legal and national policy implications regarding the application and uses of the Space domain.

Learning Objectives

- SPACE SUPPORT EVOLUTION TO NATO OPERATIONS:** Given references, students will explain the evolution of NATO's Approach to Space including the international legal and national policy implications regarding the application and uses of the Space domain.
- Space fundamentals:** Given references, students will explain the fundamental aspects of the space environment, orbital mechanics, satellite design and features, space launched and space system command and control operations in accordance with Allied Joint Publication 3.3(A).
- SPACE FUNCTIONAL AREAS:** Given references, students will identify the capabilities, limitations and vulnerabilities of the Space domain and how they are used in NATO operations.
- MILITARY, CIVIL AND COMMERCIAL PARTNERS:** Given references, students will identify military, civil, government and industry developments within the Space-based environment.

	Course Dates	Open Seats
	04 - 08 Dec 23	Contact POC
	11 - 15 Mar 24	Contact POC
N3-01-B-24	26 - 30 Aug 24	Contact POC

Course Operations	
SP - Space support to Operations	
Knowledge:	2 - Intermediate
ePrime No.:	N/A
ETOC Code:	SOP-SP-21390

BY NETWORKS

Keywords

MODE

Code

Enrolment Instructions

How to book online and student courses.

Course Guide and Calendars

- [Printable Course Guide 2024 as of 31 Oct 23](#)
 - [Printable Academic Calendar 2023 as of 30 Jun 23](#)
 - [Printable Academic Calendar 2024 as of 19 Oct 23](#)
- Due to potential changes, please verify course dates with the specific course number/title in the Course Catalogue. The Course Catalogue lists the most current course dates.

POC Finder

All Categories

Introduction



European Security and Defence College

Doc: ESDC/2022/038

Date: 24 February 2022

Origin: Executive Academic Board

Curriculum

To be reviewed by <i>February 2024</i>	Activity number 27	The Challenges of Space for EU and CSDP	ECTS 1
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CORRELATION WITH CTG / MTG TRAs	EQUIVALENCES
Military Training Discipline 18: Military Role in Space support to Operations	N/A

<p>Target Audience</p> <p><i>Participants should be mid-ranking to senior officials from EU Member States and EU institutions dealing with strategic and operational aspects of 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 at governance level. Academics and members of the business community from the EU Member States may also be invited to participate.</i></p> <p>Open to:</p> <ul style="list-style-type: none"> EU member States / Institutions 	<p>Aim</p> <p>This course is aimed to raise awareness of the importance of space activities in the framework of CSDP, by enabling participants to deliver a broad overview of international space policies, highlighting the strategic importance of space.</p> <p>The course provides an opportunity to create a network of people working in fields related to space activities.</p>
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Introduction

ESCUELA DE TÉCNICAS
AERONÁUTICAS

USO OFICIAL

JEFATURA DE ESTUDIOS



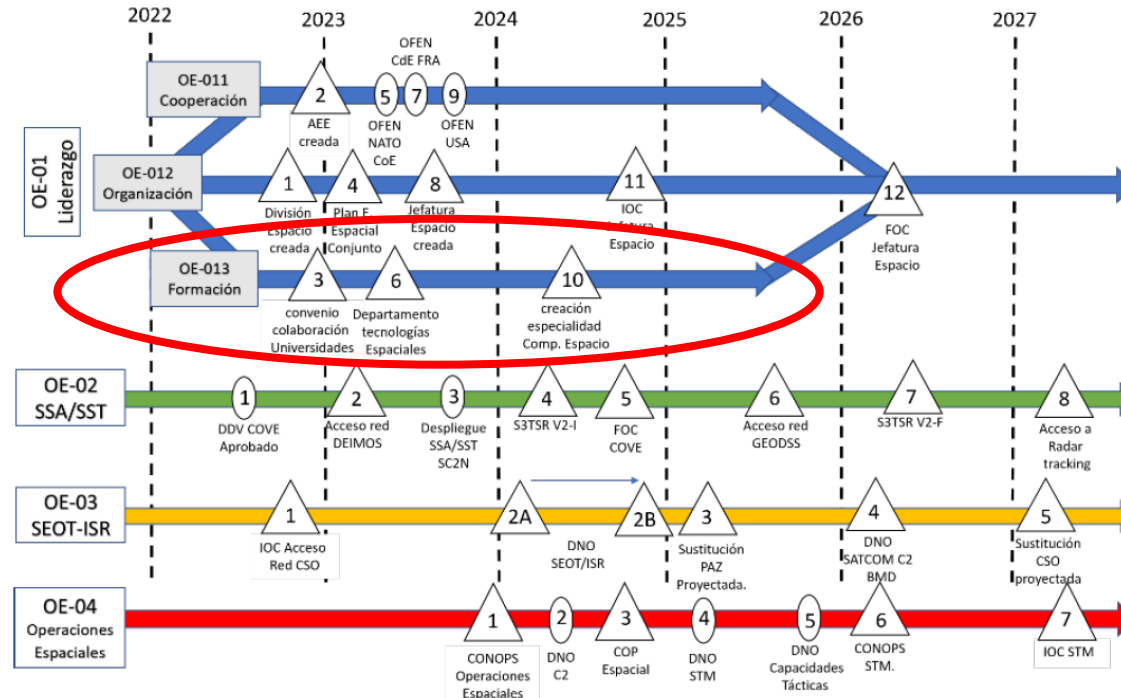
**CURRÍCULO DEL
CURSO DE INTRODUCCIÓN A LAS OPERACIONES ESPACIALES**

FEBRERO 2020

USO OFICIAL

Introducción

concurrentemente se desarrollarán a lo largo de los próximos años. La siguiente figura describe los aspectos generales de las líneas de acción estratégicas, que se detallan en los anexos correspondientes para cada objetivo estratégico.



Aproximación MIRADO-I

Las capacidades espaciales del EA se entienden como el conjunto de sistemas,

Introduction



Universidad
Politécnica
de Cartagena



AIRBUS
DEFENCE & SPACE

Topics for discussion: (around the table)

1. Air & SPACE Force? / Space Education?
2. Space: Separate Service / Separate Career Field / Own Academy & Force
3. Space Education:
 - Specific (just AF), Joint (All Services), Combined (EU / NATO), CIV-MIL
 - Standardization (NATO CoE)
 - Exchanges (EMILYO)
 - Exercises, Training and Evaluation
4. Education Specifics: ECTS / resources dedicated (HW, SW, Tech elements)

Conclusions:

- Space education: just beginning for all.
- Different levels of education across countries / services
- All aware of the importance of space education (Basic Officer Education / Post-Grad levels)
- Differentiate between
 - ✓ Technical education (Space Education): more AF-oriented
 - ✓ Operational training (Space Threats): joint effort and orientation
- Importance of standards in education both within EU / NATO levels (interoperability)
- EMILYO: way to go:
 - ✓ Line of Development by experts to create a common module on “Space Awareness”
 - ✓ Building a pool of lecturers
- Cooperation with civil institutions / companies is key.

Conclusions:

- EU Common Space Strategy for Security and Defence (Mar 2023): starting point for everything below
 - ✓ Shared understanding of space threats to the EU
 - ✓ Resilience and protection of space systems and services in the EU
 - ✓ Responding to space threats
 - ✓ Use of space for security and defence
 - ✓ Partnering for responsible behaviours in space (EU-NATO cooperation)
 - ✓ Operational training (Space Threats): joint effort and orientation



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DISPONIBILIDAD | FLEXIBILIDAD | CAPACIDAD DE RESPUESTA