European Security and Defence College
Doc: ESDC/2023/061
Date: 23 February 2023
Origin: ESDC Secretariat

Curriculum

To be reviewed by	Activity number	**Image Intelligence Analysis (IMINT)**	ECTS
Feb. 2025	**269**		**3**

Target audience	Aim
The Participants should be officials dealing with aspects in the field of imagery intelligence, Intelligence support to targeting, Intelligence Surveillance and Reconnaissance Operations and Geospatial Intelligence.	This course aims to provide a technical and tactical/operational level training in image intelligence (IMINT) discipline. The course participants will learn how to spot targets, recognise assets, work with ArcGIS and other relevant tools. In addition, this course will offer a forum for the exchange of knowledge and best practices among «IMINT operators» by improving their knowledge, skills and competencies via lab exercises and better align with the overall objectives of CSDP. By the end of the course, the participants will be able to create image intelligence products and develop reports based on the findings.
Open to: • EU Member States / EU Institutions Bodies and Agencies	

CORRELATION WITH CTG / MTG TRAs	EQUIVALENCES
CTG / MTG TRA on Cyber	• *Specialised Intelligence course, at technical and operational level*

Learning Outcomes	
Knowledge	L01 - Identify the basic image intelligence (IMINT) principles L02 - Describe the role and place of IMINT inside the Intelligence Cycle L03 - Recognize the key characteristic of Remote Sensing L04 - Discriminate different projections and coordinate systems L05 - Identify and Determine the proper projection system depending on demands L06 - Define Satellite Imagery characteristics and uses L07 - Define Target Analysis in different categories L08 - Identify and Discriminate different targets and its uses L09 - Describe Target characteristics

Skills	L10 - Apply proper principles and technics in target detection and analysis L11- Analyse targets using ArcGIS software L12 - Detect changes in target status L13 - Categorize targets according to their function and subordination L14 - Infer value of targets according to their properties L15 – Use the appropriate type of satellite imagery depending on intelligence requirements
Responsibility and Autonomy	L16 – Compose a prioritized target list to fulfil commanders objectives L17 – Evaluate the potential impact of each target on the operational environment L18 – Select and validate the targets that must be targeted L19 – Choose between different coordinate systems L20 – Use structured approach to answer an intelligence requirement using Imagery Analysis

Evaluation and verification of learning outcomes

The course is evaluated according to the Kirkpatrick model: it makes use of *level 1 evaluation* (*based on participants' satisfaction with the course*) and *level 3 evaluation* (*assessment of participants' long-term change in behaviour after the end of the course*). *Evaluation feed-back* is given in the level 1 evaluation on the residential modules.

In order to complete the course, the participants have to accomplish all learning objectives, which are evaluated based on their active contribution to the residential modules, including their syndicate sessions and practical activities as well as on their completion of the eLearning phases: course participants must finalise the autonomous knowledge units (AKUs) and pass the tests (*mandatory*), scoring at least 80% in the incorporated out-test/quiz. **However, no formal verification of the learning outcomes is foreseen; proposed ECTS is based on participants' workload only**.

The Executive Academic Board takes these factors into account when considering the award of *Certificates* to participants. Module leaders provide an evaluation report for each residential module. The Course Director is responsible for overall coordination, with the support of the ESDC Secretariat, and drafts the *final evaluation report* which is presented to the Executive Academic Board.

Course structure

The residential module is held over 10 days.

Main Topic	Suggested Working Hours (required for individual learning)	Suggested Contents
1. Introduction to Image Intelligence (IMINT)	8 (6)	• General Brief: Location – Security – Health Care • Training Objectives – Introduction • Introduction to IMINT – Basic principles • Intelligence and Surveillance Cycle – The role of IMINT
2. Remote Sensing	2	• Remote Sensing Science Behind IMINT • Review on Remote Sensing – Viewing / Adding imagery to ArcGIS
3. Earth Shape Projections – Coordinate Systems	1	• Earth Shape – Projections – Coordinate Systems
4. Satellite Imagery	1	• Satellite Imagery (Characteristics, attributes, sources of error)

5. Imagery Interpretation and Analysis	2	• Imagery Interpretation - Interpretation keys • Suggested Methodology of Imagery analysis
6. GIS	13	• Introduction to ArcGIS • GIS for IMINT analysis and reporting
7. Target Analysis	40	• Asset Recognition - Air Force. • Target Analysis Cat.1 – Airports • Asset Recognition – Army • Target Analysis Cat.4 – Barracks, Headquarters • Asset Recognition – Naval Forces • Target Analysis Cat.14 – Ports and Harbours • Target Analysis Cat.5 – Storage and Repair Sites • Target Analysis Cat.12 – Bridges • Target Analysis Cat.17 – Electric Power
8. Image Intelligence Reports	3	• Examples of IMINT Reports Cat.7 – Cat. 9 - Cat. 10 - Cat.11 - Cat.15 - Cat.18
TOTAL	**70(6)**	

<u>Material</u>

Required:

- **AKU: Introduction to Image Intelligence**
- **ArcGIS Manual and Tutorial:** ESRI

Recommended:

- *Council Decision* (2001/80/CFSP) *on the Establishment of the EUMS*
- *HR Decision 013 on the Establishment of an ISA*

Image Intelligence Analysis Training Guide by HNDGS

<u>Methodology</u>

The course is based on the following methodology: Presentations, Panels talks, Q&A and/or workshops

<u>Additional information</u>

Pre-course questionnaire on learning expectations and possible briefing topic from the specific area of expertise may be used.

All course participants have to prepare for the residential module by going through the relevant eLearning preparatory phase, which is mandatory. The materials proposed for supplemental (eLearning) study will reflect current developments in the field of cyber security/cyber defence in general and EU policies in particular.

The Chatham House Rule is applied during all residential phase of the course: "participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed".