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Course Guide

CleanSeaNet Course – Beginners level

Type of training: Presential

Date: 8 October 2026





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1. Course Guide

1.1 Course aim - overview

This course was designed and developed by the EMSA Academy to provide participants with the necessary knowledge and skills on CSN service. The course is targeted at Beginners level, thus duty officers working in the maritime administrations, MRCCs, VTS Centres, maritime administrations, and pollution response units, without experience (e.g., newcomers) or with a low level of experience of the CSN service.

1.2 Nominations

Learners are nominated by CSN National Competent Authority for each of coastal state.

1.3 Learning Objectives

At the end of this course, the participants should be able to:

For Learning area Bas-1: Introduction to CleanSeaNet service

ILO 1 – Name the legal basis of CSN service and identify the service scope

ILO 2 – Identify the relevant legislation for the CSN service

ILO 3 – Identify the main EMSA's Earth Observation Services

ILO 4 – Identify the main characteristics of Synthetic Aperture Radar (SAR) and optical imagery

ILO 5 – Explain the advantages and limitations of Synthetic Aperture Radar (SAR) and optical images

ILO 6 – Recall the oil spill and vessel detection principles in SAR imagery

ILO 7 – Identify value-added products

ILO 7 – Explain the different scenarios in which CSN services can be used

ILO 8 – Describe the procedure(s) to activate EMSA's Earth Observation services support during emergencies

ILO 9 - Describe the procedure to request EMSA's Earth Observation services support during exercises and special operations


ILO 10 – Interpret the content and main elements of an alert report

ILO 11 – Identify the main elements of CSN feedback form

For Learning area Bas-2 - Basic use of CSN operation in SEG

ILO 12 – Manage layers and operate filtering functionalities

ILO 13 – Select client preferences and layer visualization

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ILO 14 – Use the search function for Earth Observation (EO) data

ILO 15 – Use the Area Centric Query

ILO 16 – Use the smart and advanced search

ILO 17 – Find and view relevant information such as EO images, VDS correlated and non-correlated information

ILO 18 – Operate the query vessel track

ILO 19 – Recall the main components of the feedback form in the system

ILO 20 – Demonstrate the use of SEG/CSN operation basic functions.

1.4 Pre-requisites for participants

Participants should follow the requirements of paragraph 1.1 of the document. They are required to have an adequate level of spoken and written English, which allows them to actively engage with the group.

1.5 Cost

Participation in this training course is free of charge.

1.6 Language

The course is conducted in English.

1.7 Learning approach and teaching method

The EMSA Academy aims to support its beneficiaries' organisations and individuals to build knowledge, skills and competence. The teaching methods used in this training course are a combination of instructor led (in person delivery) lectures, live demonstrations of the system, combined with practical exercises for the participants.


1.8 Learning activities

The course will be delivered in presential mode. However, all links will be shared through the MaKCs platform. To be enrolled in the course it is necessary to have access to the EMSA Portal <https://portal.emsa.europa.eu/>.

Participants must verify in advance their possession of the credentials or request them timely. Participants may use their own username and password to access the SafeSeaNet Ecosystem Graphical (SEG) interface during the training, if they have existing credentials. If participants do not have access to the SEG, EMSA will provide training accounts to participants during the training.

1.9 Material

All training materials, learning resources, exercises, and certificates will be available to each participant on MaKCs.

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2. Course Structure

2.1 “Get Started” session.

Not applicable.

2.2 Course duration

The course will have a duration of 1 day for a total training duration of 7 hours (morning and afternoon sessions). Please refer to the detailed course Agenda in Annex I of this document. The training course will be at EMSA's premises.

2.3 Recordings of live online sessions (if applicable)

Not applicable.

2.4 Personal data protection

The processing of personal data is regulated by Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018. The rules are available [here](#).

2.5 Assessment

Assessment techniques will be applied to ensure that the intended learning outcomes (ILOs) have been achieved and participants demonstrate that knowledge or skills were gained. There will be a multiple-choice quiz to assess learning area 1 and practical exercises to assess learning area 2.

In order to receive an EMSA Training Certificate, the participant must achieve a pass mark for the quiz of 70% and complete all practical exercises. If a participant does not successfully pass, they may still receive the Certificate of Attendance.

2.6 Post-training evaluation


At the end of the training the participants are required to complete the post training evaluation form. The purpose of the evaluation is twofold, as participants will be able to reflect on their own learning experience while EMSA will gather their feedback to improve the quality of the course.

2.7 Certificate

Subject to a successful verification that the participant has achieved the required learning outcomes, an EMSA Certificate of Training will be provided. Otherwise, the participant will receive an EMSA Certificate of Attendance.

2.8 Required hardware

EMSA will provide a PC for each participant in the EMSA Training Room.

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2.9 Required software

EMSA will provide the required software.

2.10 Procedures for suggestions and complaints

Any suggestions, incidents or complaints should be sent to the EMSA Academy helpdesk at academy.helpdesk@emsa.europa

2.11 Cancellation or postponement

In case of cancellation or postponement of the course by EMSA, the EMSA Training Coordinator will notify the registered participants, or if applicable, the registered participants will be notified by their nominating Maritime Administration or National Competent Authority. In case registered participants need to cancel their participation, they should contact the EMSA Training Coordinator or their national contact point.

2.12 Point of Contact

For further information on this training course please contact the EMSA Academy helpdesk at academy.helpdesk@emsa.europa .

3. Course Outline

3.1 Training content

3.1.1 Introduction

The Training will cover the following areas: 1. Introduction to the CSN Service and 2. Basic use of CSN operation in SEG.


3.1.2 Aim

This Training aims to provide participants with the necessary knowledge and skills on CSN service to designated duty officers working in the maritime administrations, MRCCs, VTS Centres, maritime administrations, and pollution response units, without experience (e.g., newcomers) or with a low level of experience with CSN service.


3.1.3 Syllabus

The course contains the following syllabus.

#	Intended Learning Outcome	Syllabus (topic content)
	Learning area Bas-1: Introduction to CleanSeaNet service	

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1	Name the legal basis of CSN service and identify the service scope	Directive 2005/35/EC on ship source pollution and introduction of penalties, as amended
2	Identify the relevant legislation for the CSN Service	Specific articles in Directive 2005/35/EC on ship source pollution and introduction of penalties, as amended
3	Identify the EMSA's Earth Observation Services	CSN, Frontex, Copernicus Maritime Surveillance service, EMSA support to emergency main elements (scope, user communities)
4	Identify the main characteristics of Synthetic Aperture Radar (SAR) and optical imagery	SAR imagery main characteristics: black and white, resolution, size. Optical imagery main characteristics: resolution, colour, light dependency, size.
5	Explain the advantages and limitations of Synthetic Aperture Radar (SAR) and optical images	Use of SAR and optical imagery in different operational scenarios
6	Recall the oil spill and vessel detection principles in SAR imagery	Oil spill detection basic principle: dark patch, rugosity of the sea surface. Vessel detection principle: bright spot, reflectivity properties of the material.
7	Explain the different scenarios in which CSN services can be used	Routine, emergencies, exercises, special operations
8	Describe the procedure(s) to activate the EMSA support during emergencies	Activation of EMSA's contingency plan procedure
9	Describe the procedure to request CSN support during exercises and special operations	Support of CSN service during exercises and special operations
10	Interpret the content and main elements of an alert report	Information displayed in the CSN alert report, such as centre position of the possible pollution incident, its width, area and length, meteorological information, identification of possible polluter, alert level.
11	Identify the main elements of CSN feedback form	CSN feedback form fields: reason for no verification, observation method, type of substance confirmed
Learning area Bas-2: Basic use of CSN operation in SEG		
12	Manage layers and operate filtering functionalities	SEG platform/CSN operation
13	Select client preferences and layer visualization	SEG platform/CSN operation

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14	Use the search function for Earth Observation (EO) data	SEG platform/CSN operation
15	Use the Area Centric Query	SEG platform/CSN operation
16	Use the smart and advanced search	SEG platform/CSN operation
17	Find and view relevant information such as EO images, VDS correlated and non-correlated information	SEG platform/CSN operation
18	Operate the query vessel track	SEG platform/CSN operation
19	Recall the main components of the feedback form in the system	SEG platform/CSN operation
20	Demonstrate the use of SEG/CSN operation basic functions	SEG platform/CSN operation
30	Recall the concept of priority and edit functions in the context of the CSN feedback form	CSN feedback form: concept of priority. How to edit information previously introduced in the feedback form.

3.2 Training Course Coordinator(s)

Malgorzata.Nesterowicz@emsa.europa.eu - Senior Project Officer for Capacity Building, Sustainability & Technical Assistance Unit, 1.3

3.3 Subject Matter Expert(s)

Project Officers for Copernicus Maritime Surveillance service, Unit 2.2

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Annex I

CleanSeaNet Course – Beginners Level

Lisbon, 8 October 2026

Module 1 Introduction to the CleanSeaNet service	
Time Lisbon (UTC+1)	Agenda Item
09:00 – 09:15	Welcome <ul style="list-style-type: none"> ■ Tour de table ■ Outline of Module
09:15 – 10:30	Introduction to the CleanSeaNet service (part I) <ul style="list-style-type: none"> ■ CSN service scope and legal basis ■ Main characteristics of Synthetic Aperture Radar (SAR) and optical images ■ Oil spill and vessel detection principles
10:30 – 10:50	Break
10:50 – 11:45	Introduction to the CleanSeaNet service (part II) <ul style="list-style-type: none"> ■ How to interpret the CSN alert report ■ How to provide feedback on the service using the CSN feedback form
11:45 – 12:00	<ul style="list-style-type: none"> ■ Questions and Answers
Module 2 Basic use of the CSN operation in SEG	
Time Lisbon (UTC+1)	Agenda Item
13:00 – 13:10	<ul style="list-style-type: none"> ■ Outline of Module 2
13:10 – 14:40	Exercises in SEG (part I): <ul style="list-style-type: none"> ■ Manage layers and operate filtering functionalities ■ Customise client preferences ■ Search of EO data in SEG with Advanced Search and Area Centric Query.
14:40 – 15:00	Break
15:00 – 16:30	Exercises in SEG (part II): <ul style="list-style-type: none"> ■ View of EO Images, possible pollution incident, correlated and uncorrelated vessels ■ Query for vessel track ■ Operational use of alert report, feedback visualisation and provision
16:30 – 17:00	<ul style="list-style-type: none"> ■ Quiz ■ Evaluation form