

ARE YOU WORKING IN A RESCUE COORDINATION CENTRE?

EMSA's Earth Observation (EO) services can assist Maritime and Joint Rescue Coordination Centre's (RCC) in a wide range of activities at sea, including support to search and rescue operations and exercises. EO information, combined with EMSA's maritime data and external sources, can provide you with a better understanding and improved monitoring of activities at sea.

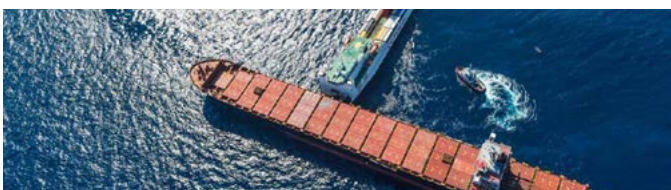


SUPPORT TO SEARCH AND RESCUE

National authorities can use EMSA's EO services in a wide range of emergencies at sea, including support to search and rescue operations (SAR). During a SAR operation RCC's can request EMSA to support them in a wide range of activities: detection of vessels in distress, detection of life rafts, detection of drifting objects at sea, location of missing vessels, etc. According to the assistance required, different EO services can be activated by EMSA in support to timely and effective response of Member States.



In May 2021, the fishing vessel Wakashio Maru No 68 lost communications after an explosion on board, off the Crozet Islands. A satellite image delivered by EMSA complemented by the MRCC Reunion drift model computation was paramount in finding the stricken vessel and rescuing 24 crew members.



In October 2018, the roll-on/roll-off vessel Ulysse and cargo ship CSL Virginia collided off the north coast of Corsica. MRCC La Garde requested satellite imagery to monitor the incident both from a maritime safety perspective but also in terms of monitoring an eventual spread of pollution.

SUPPORT TO SPECIFIC OPERATIONS

EMSA supports surveillance operations to assist RCC's in specific maritime safety and pollution monitoring activities. These operations encompass not only search and rescue but also the prevention of accidents and collisions, tracking of objects at sea, and extensive surveillance of remote or inhospitable regions.



Bunkering is a delicate operation with an entailed risk of oil pollution. Satellite images can be used to ensure that vessels are complying with the international conventions regarding pollution prevention from ships.

SUPPORT TO EXERCISES

EMSA is available to support multipurpose exercises, that include a wide range of activities, including pollution monitoring, search and rescue and detection of objects adrift.



EMSA supported MRCC Delgada during a search and rescue exercise in July 2020. A life raft was launched south of the Azores and remain adrift for more than 27 hours. Very-high resolution images were successfully used to assist national air and naval assets in locating the raft.

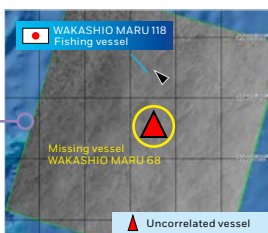
EARTH OBSERVATION PRODUCTS

EO value-added products offer additional information to satellite images. These can be provided either as a layer on top of the original satellite image or as a separate layer of information. EMSA offers the following products in to supporting search and rescue, specific operations and exercises at sea:



VESSEL DETECTION

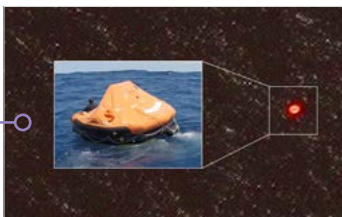
Vessels detections derived from radar and optical images are correlated against vessel reporting information (e.g. T-AIS; SAT-AIS; LRIT and VMS) to provide an overview of which vessels are reporting in a given area, and which are not.



In this EO image, a non-reporting vessel, corresponding to the FV Wakashio Maru No 68, was detected 300 NM from its last known position after 7 days adrift, during the search and rescue operation, in May 2021.

FEATURE DETECTION

Detects features of interest at sea, in the shoreline and in harbour areas which are not covered by other EO products.



In an exercise with the Portuguese Navy, a drifting life raft was detected in a very-high resolution optical image, in July 2020

ACTIVITY DETECTION

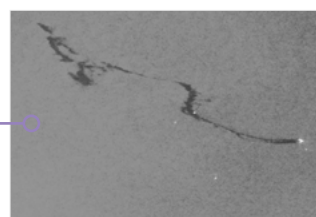
Uses very high-resolution images to report information about activities of interest detected at the sea surface, including search and rescue operations, rendezvous at sea, vessels loitering close to ports or to ships lines



In the aftermath of the sinking of Grande America, in March 2019, drifting containers were detected in very- high resolution optical images

OIL SPILL DETECTION

Uses high and medium-resolution radar images and very high-resolution optical images, focusing on oil spill detection and associated pollution source.



An oil spill of large dimensions was detected in a radar image, following the collision of Ulysse and CSL Virginia, in October 2018.

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Get in touch for more information

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Credits:

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Maritime Support Services (MSS)

The MSS centre is a 24/7 facility located at EMSA's premises in Lisbon.

It coordinates EMSA's assistance in the event of an accident at sea, whether pollution or safety related.

MaritimeSupportServices@emsa.europa.eu