

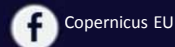


# Copernicus EMS in support of crisis preparedness and response operations

Copernicus Emergency Management Service



Space



Copernicus EU



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[www.copernicus.eu](http://www.copernicus.eu)

## The long way to EMS

2002

Elbe and Danube floods a wake-up call for the EC to provide an operational service to provide support to flood management

2010

Three million people were affected by the quake in Haiti, with death toll estimates range from 100.000 to about 160.000. Many countries responded to appeals for humanitarian aid pledging funds and dispatching rescue and medical teams, engineers and support personnel.

“Strengthening the European disaster response capacity” is the European Union new strategy for the management of natural or man-made disasters, enabling the EU to improve the coordination of its response and the use of existing instruments. The Emergency Response Coordination Centre is set up at DG ECHO

2012

The Emergency Management Service is the first one to become operational in the framework of Copernicus. A powerful European tool to supports crisis managers, civil protection authorities and humanitarian aid actors, as well as those involved in preparedness and recovery activities

2013

Danube flooding affected Hungary, Czech Republic, Germany. Both EMS Early Warning and Mapping components contributed to provide support to the authorities and 100 maps over 22 Areas of Interest, starting from 10 hours after the event were delivered to the users over 10 days during the event

2015

The Nepal earthquake killed nearly 9.000 people and injured nearly 22.000. Copernicus EMS took part to the massive international effort to provide support to local communities and emergency response authorities.

**Emergencies have no boundaries, from Space**

# What are the Emergency Management Services?



COPERNICUS

Emergency Management Service



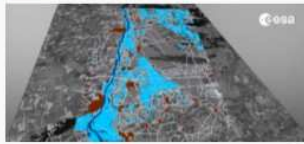
## Copernicus Emergency Management Service

Copernicus Emergency Management Service (Copernicus EMS) provides information for emergency response in relation to different types of disasters, including meteorological hazards, geophysical hazards, deliberate and accidental man-made disasters and other humanitarian disasters as well as prevention, preparedness, response and recovery activities. Three modules constitute the Copernicus EMS:

### Copernicus EMS - Mapping

The Copernicus EMS - Mapping addresses, with worldwide coverage, a wide range of emergency situations resulting from natural or man-made disasters. Satellite imagery is used as the main datasource. The service covers in particular:

- Floods
- Tsunamis
- Earthquakes
- Landslides
- Fires
- Severe Storms
- Volcanic eruptions
- Technological disasters
- Humanitarian crises



0:00 / 1:22

Copernicus EMS - Mapping

### European Flood Awareness System

The European Flood Awareness System (EFAS) is the first operational system that monitors and forecasts flood events across Europe. It provides its partners (national/regional authorities, as well as the European Commission's Emergency Response Coordination Centre) with a wide range of complementary, added value flood early warning information including related risk assessments up to 10 days in advance.



European Flood Awareness System

### European Forest Fire Information System

Specific applications are available in EFFIS:



#### Current Situation

Latest data on the current fire season in Europe and in Mediterranean area. Today's meteorological fire danger maps + forecast up to 6 days, daily maps of hot spots and perimeters.



#### Fire News

News on wildland fires in Europe updated daily by the EFFIS team.

European Forest Fire Information System

[emergency.copernicus.eu](http://emergency.copernicus.eu)

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Emergency Management

# Copernicus EMS - components

## RAPID MAPPING

- On demand
- Standardised
- Hours-days

REFERENCE MAPS  
 DELINEATION MAPS  
 GRADING MAPS

VALIDATION



## RISK AND RECOVERY MAPPING

- On demand
- Tailored to user needs
- Weeks-months

REFERENCE MAPS  
 PRE-DISASTER SITUATION MAPS  
 REFERENCE MAPS  
 POST-DISASTER SITUATION MAPS

VALIDATION

## EARLY WARNING

- Floods: EFAS
- Forest Fires: EFFIS

CONTINUOUS ALERTS

# EMS Mapping: what kind of disasters?



Rapid Mapping activations up to September 2016



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## What is Copernicus EMS Mapping Services?

### Rapid Mapping

On-demand and fast provision (within hours or days) of geospatial information in support of emergency management activities immediately following an emergency event such as: natural & man-made disasters globally

- More than **4 years of un-discontinued H24/365** operations
- 194 RM activations and 30 RRM
- More than **40 worldwide Users organizations** triggering the service
- Providing support in more than **50 different Countries worldwide**
- Nearly **3000 maps** delivered to the end users
- Accurate analysis and dossier delivered in RRM mode

### Risk and Recovery Mapping

Delivery of maps and analyses within weeks or months, in support of activities dealing with recovery, reconstruction, disaster risk reduction, preparedness and prevention



# The EMS Mapping operational actors

## DG JRC

Joint Research Centre of the European Commission, technical supervision of operations, management of dissemination platforms

## Authorized Users

Generally Civil Protection Authorities or other National Focal Points, they can submit a request for activation to the ERCC

## ERCC @DG ECHO

The Emergency Response Coordination Centre, entry point for the EMS activations, providing 24/7 responses to all request coming from the EMS users



## ESA

The European Space Agency, providing the REACT, a fully dedicated team to promptly support EO data to the EMS mapping team

## Service Provider

Private sector consortia, in charge of the EMS activation coordination and mapping tasks

# How to access to the Mapping Service

- The Service can be directly activated by nominated Authorised Users (AU)
- Entities which are not Authorised Users and which wish to activate the Mapping service must identify to their NFP or contact ERCC
- The Commission Services and the European External Action's Situation room are Authorized Users
- The AU must fill the Services Request Form (SRF) and send by e-mail to the ERCC

More information on the Mapping service at [www.emergency.copernicus.eu](http://www.emergency.copernicus.eu)

Contact ERCC at [echo-ercc@ec.europa.eu](mailto:echo-ercc@ec.europa.eu) if you want to activate the EMS mapping

**Service Request Form (SRF)** European Commission Copernicus EMS Rapid Mapping

To be sent to the ERCC (24/365 availability) Email: echo-ercc@ec.europa.eu Tel: +32-2-29-21112

The service request must be communicated by email AND followed by a phone call to the ERCC

Please provide the information requested in the areas marked in blue. At least the information in sections "Activation Details" (to be provided once per activation) and "Details for Area of Interest" (to be provided for each Area of Interest) is required to efficiently process your request. The earlier a request form is submitted, the sooner satellites can be tasked for image acquisition. For acronyms see page 4.

For more information on the service and a printable/editable version of this form, please refer to <http://emergency.copernicus.eu>. In case you need help, the ERCC will support you.

**Activation details** (provide this sheet once per activation)

**Activating institution**

National Focal Point  EC Services  EEAS

Organisation Name:  
Contact Person:  
Phone: (Office) Mobile:  
E-mail: Fax:  
Activation date: / / (dd/mm/yyyy)  
Activated on behalf of (optional):

**Details on the disaster**

**Disaster type**

Fire (forest or wild fire)  
 Flood  
 Earthquake  
 Industrial accident  
 Wind storm  
 Other (Please specify):

**Time and location**

Date (dd/mm/yyyy): / /  
Time (UTC): :  
Country:  
Region or District:  
GLIDE number (if available):  
See <http://www.glide-number.net>

Additional information (e.g. extent, damage, affected population, end users, links to media or situation reports):

**Triggering other services** (International Charter, national services, UNOSAT, Sentinel Asia, etc.)

The user triggered other services  No  Yes If yes, please specify:  
The user plans to trigger other services  No  Yes If yes, please specify:

Copernicus EMS Rapid Mapping Service Request Form (SRF) Copernicus





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## Who can use the Service?

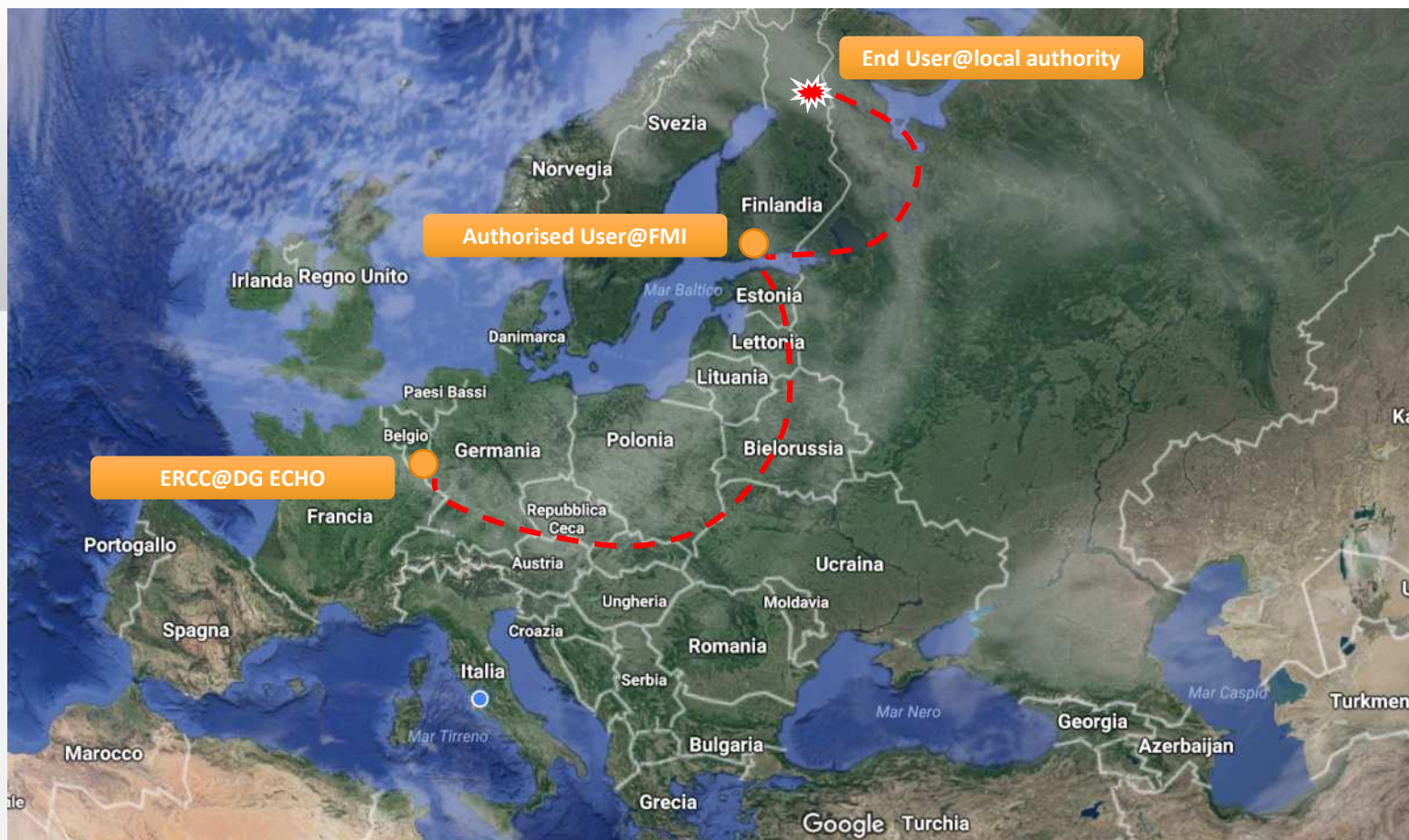
There are three distinct user categories:

- **Authorized Users** may trigger the service directly to the European Response Coordination Centre (ERCC)
  - National Focal Points (NFPs) in EU Member States and in countries participating in the European Civil Protection Mechanism as well as EC Services (DGs) and the Situation Room of the EEAS.
- **Associated Users** must go through the Authorised Users to trigger the service
  - local, regional and other public entities
  - International Governmental Organisations (e.g. UN agencies, World Bank), and National & International Non-Governmental Organisations
  - entities and institutions within the EEAS sphere such as EU Delegations, the INTCEN, the EU Satellite Centre
- **General Public Users** are not authorised to trigger the service, but can be informed of an activation request through the web portal [emergency.copernicus.eu](https://emergency.copernicus.eu)



Emergency Management

# To whom shall I send my request?





Emergency Management

# Will my request be accepted?

Send the SRF via mail to:

 **ECHO-ERCC@ec.europa.eu**

Followed by a phone call to:

 **+32-2-29-21112**

Authorization process



**Check of the relevance:** emergency situations and humanitarian crises related to natural disasters or man-made emergencies



**Technical Feasibility check:** to verify that satellite based geoinfo shall meet your requirements



**Sensitivity check:** to decide whether specific confidentiality measures shall be applied



**Capacity check:** in case of multiple simultaneous activations to verify that the service can actually cover the requests



If the request is rejected, the ERCC notifies the Authorised user



ERCC sends the SRF to the Copernicus EMS Service Provider



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Europe's eyes on Earth

 **European Commission**