

EU Space for Emergency Management & Humanitarian Aid

What is Emergency Management & Humanitarian Aid?

The Emergency Management & Humanitarian Aid segment covers all activities performed by civil protection actors and stakeholders, including firefighters, first responders, humanitarian NGOs and volunteers, covering the **whole disaster lifecycle** from prevention-mitigation and preparedness to response and recovery.

Emergency Management involves organising, planning, and implementing measures to prepare for, respond to, and recover from disasters.

Humanitarian Aid focuses on delivering life-saving assistance to those in need.

How does EU Space contribute?

From crisis anticipation to rescue, the EU Space Programme can significantly contribute to emergency management and humanitarian aid operations.

When disaster strikes, information, location and communication are key.

- **Information:** Copernicus provides useful Earth Observation (EO) information and services for performing risk assessments of crisis scenarios, monitoring hazards and mapping the impact of disasters on infrastructure and the environment.
- **Location:** The use of Galileo and EGNOS improves the safety and efficiency of first responders, providing the authenticated signals situation rooms needed to properly manage personnel and other assets on the ground.
- **Communication:** By bridging the gap between the need for assured and secure communication and the capabilities already offered by Copernicus, Galileo and EGNOS, GOVSATCOM delivers connectivity to first responders and enables secure and resilient communication and data transmission services.

Benefits of using EU Space



Prevention and mitigation

Safeguarding communities and the environment by better understanding the risks and mitigating the impact of hazards



Preparedness

Saving crucial time – and lives – by enabling efficient early-warning systems



Response

Improving the situational awareness, safety, efficiency and coordination of an emergency response mission



Search and rescue

Saving lives using Galileo-powered beacons



Humanitarian aid

Making informed decisions and better manage available resources and funding.



Recovery

Prioritising post-disaster actions

Where can it be used?

Disaster management

Copernicus supports public authorities in all phases of disaster management, from preparedness, prevention and response, where it provides civil protection operations with products such as disaster maps, to the recovery phase, where it helps monitor the disaster's impact on the environment, safety and the economy.



Wildfires

Public authorities rely on Copernicus services to detect and monitor the evolving situation, while on the ground, firefighters and emergency first responders use EGNOS and Galileo to safely find their way.



Flooding

Secure satellite communication, together with Copernicus and Galileo, provide rescue teams with the spatial awareness, connectivity and highly accurate positioning needed to save lives.



Maritime

Galileo-enabled beacons decrease the time it takes to detect and localise a distress signal, speeding up the rescue response and increasing the chance of survival.



Health

By providing information on such pertinent environmental factors as water, sanitation, food and air quality, Copernicus helps public health authorities identify areas prone to the emergence and spread of epidemics.



Cyberattacks

GOVSATCOM provides secure, cost-efficient communication capabilities to security and safety-critical missions, operations and infrastructure.

EU Space can also assist with such emergency situations as:

- Droughts
- Earthquakes
- Heatwaves
- Landslides
- Mass migrations
- Storms
- Volcanic activity
- Avalanches
- Tsunamis

Facts and figures

- 1 The Galileo Search and Rescue (SAR) service, via the Cospas-Sarsat system and including Galileo's Return Link Service, **saves more than 2,000 lives a year.**
- 2 Galileo, along with services like EGNOS, can **help locate aircraft and ground assets** in emergency situations, and drones equipped with GNSS can provide mapping in hard-to-reach areas.
- 3 The Copernicus Emergency Management Service has been activated more than 1000 times since 2012. Only in 2025, the service was activated 78 times mainly for **wildfires and floods.**
- 4 The addition of secure connectivity **ensures resilient communication**, including between GNSS-based drone operations and EO data, in situations where land networks and infrastructure are damaged or non-existent.
- 5 Following a disaster, GNSS-enabled data gathering systems can be used in conjunction with satellite imagery to properly **plan and monitor recovery initiatives.**



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