

Emergency Warning Satellite Service

projected for 2025 launch

A new emergency warning satellite service, due to be launched by the EU's global satellite navigation system (Galileo) in 2025, aims to alert people in the event of hazardous incidents. The fourth and final demonstration of the service was hosted by the European STELLAR project in the Belgian city of Arlon in January.

The Galileo infrastructure offers satellite capacity to national civil protection authorities to broadcast an alert message, which is then received on any type of navigation device, such as a mobile phone, located within the affected area.

This emergency warning satellite service (EWSS), which remains available

even when telecommunications networks are disrupted or down, is free of charge and can serve as a complementary alerting channel for civil protection authorities to integrate into their public warning system. The service will be launched in 2025.

The STELLAR project, which started in 2022 and is managed by the European Commission (DG DEFIS), demonstrated the capabilities of the Galileo EWSS in four realistic disaster scenarios.

These included a factory explosion, based on the AZF Factory explosion of 2001 in Toulouse, France and the Chempark explosion of 2021 in Leverkusen, Germany; a wildfire and a tsunami in Cyprus based on two incidents in the Mediterranean; and a flood affecting an area spanning the border of Belgium and Luxembourg, based on the summer flooding in several European countries in July 2021.

European civil protection authorities participated in these demonstrations to experience the characteristics, performance and potential of the service. They were shown how to use the system to generate alert messages and to better understand the type of information individuals within affected areas of a disaster would receive in an alert message.

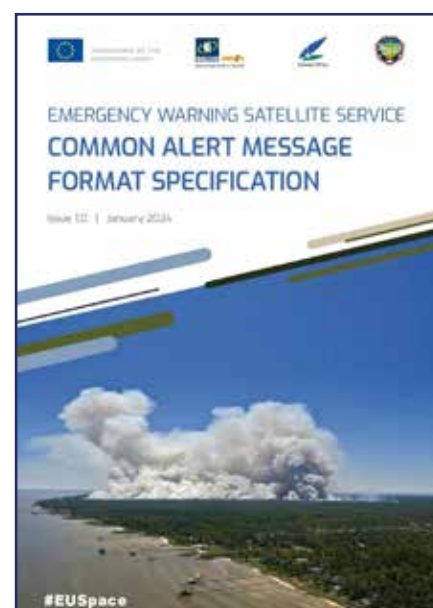
This information includes the type and severity of the disaster, the expected onset and duration, a precise overview of the affected area and instructions to protect individuals and their properties. Over the course of the four demonstrations, 16 European

member states were represented by national and local civil protection authorities, first responders and emergency call-takers.

In January 2024, the European Commission released the first format specification for EWSS. The document provides the full specification of the common message format that can be implemented in any sat nav system to code and broadcast alert messages encapsulated in the sat nav signals. It is intended for use by satellite navigation providers, satellite operators, national civil protection authorities and receiver manufacturers.



During the demonstration in January, an alert was broadcast focused on a flood scenario – providing an initial alert and an update of the severity of the flood, asking recipients to evacuate the danger area.



¹<https://www.gsc-europa.eu/electronic-library/programme-reference-documents#EWSS>