Sentinel Vision
EVT-963
28 October 2021

2D Layerstack

Medicane Apollo brings exceptional rainfall on Sicily, Tunisia & Algeria

Sentinel-1 CSAR IW acquired on **18 October 2021** from 17:03:51 to 17:04:16 UTC
...
Sentinel-3 SLSTR RBT acquired on **23 October 2021** from 09:32:03 to 10:36:36 UTC
Sentinel-3 SLSTR RBT acquired on **29 October 2021** from 08:38:56 to 09:40:31 UTC
Sentinel-1 CSAR IW acquired on **31 October 2021** from 16:56:28 to 16:56:53 UTC

Author(s): Sentinel Vision team, VisioTerra, France - svp@visioterra.fr

Keyword(s): Emergency, natural disaster, atmosphere, storm, climate, wind, rain, cyclone, hurricane, Algeria, Tunisia, Italy, Mediterranean Sea

Fig. 1 - S3 SLSTR (23.10.2021 pm) - On 23 October, Algeria and Tunisia had already received heavy rainfall. 2D view

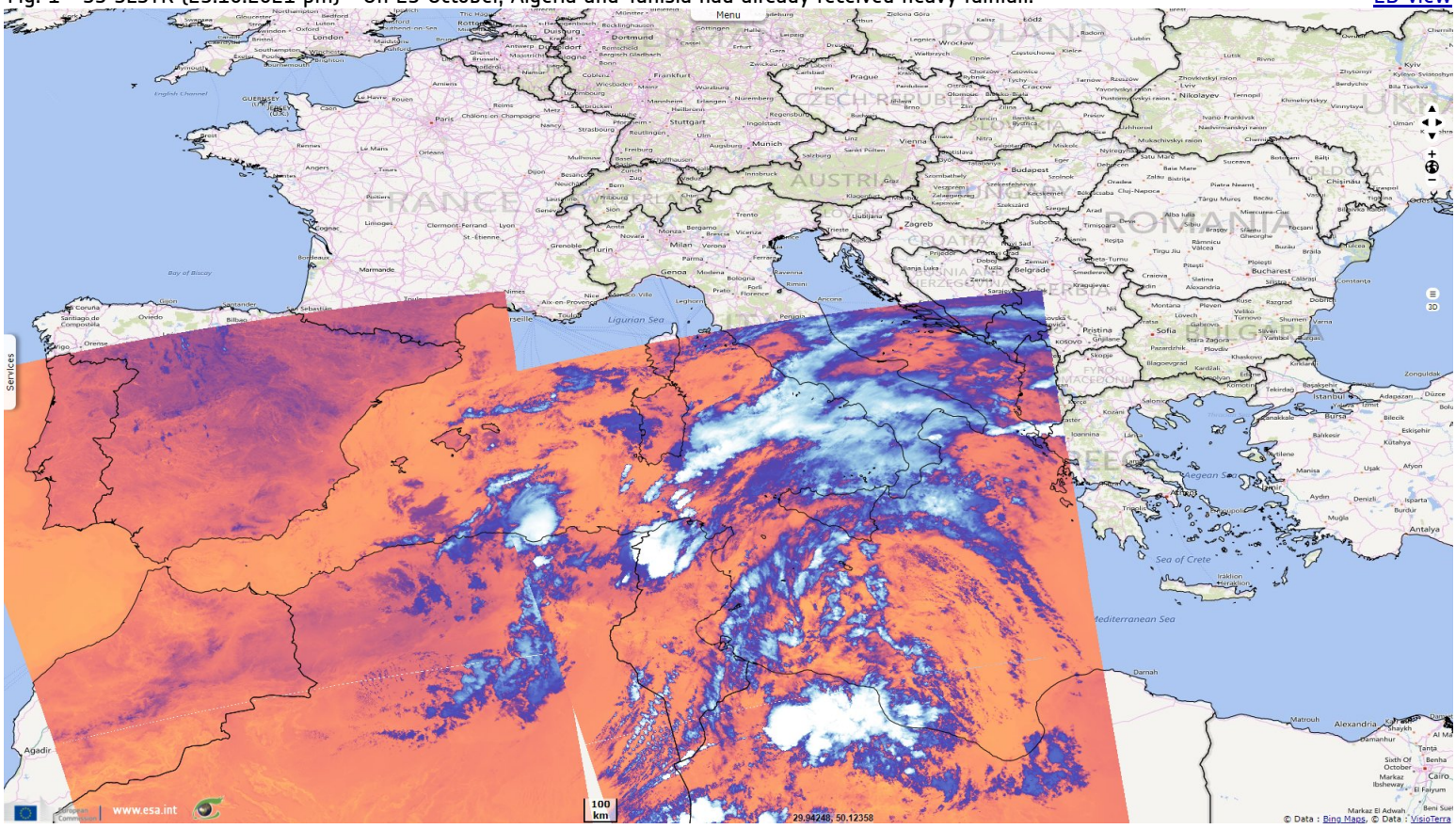


Fig. 2 - S3 SLSTR (24.10.2021 am) - The system began to organize later on warm Mediterranean waters. 2D view

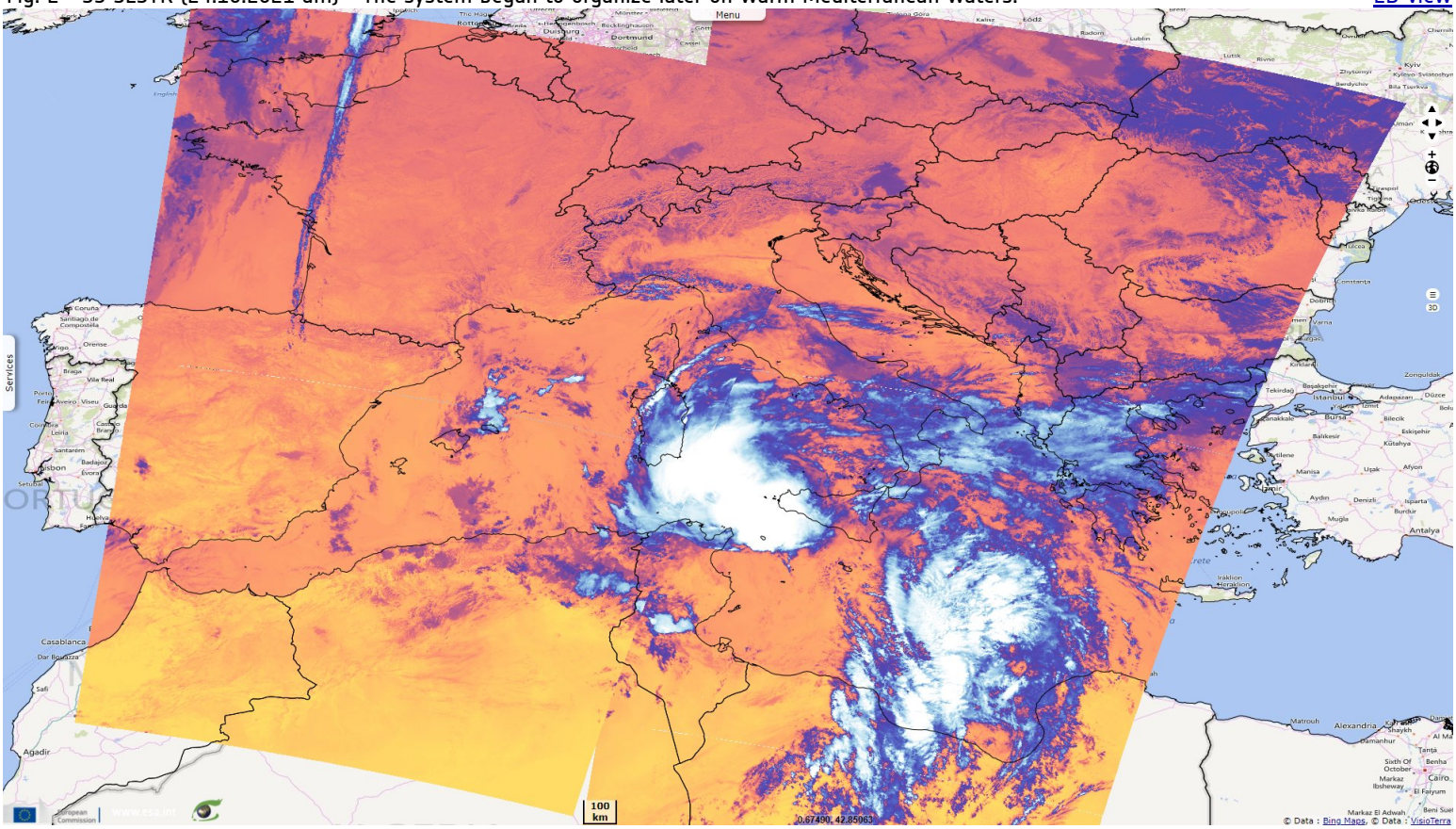
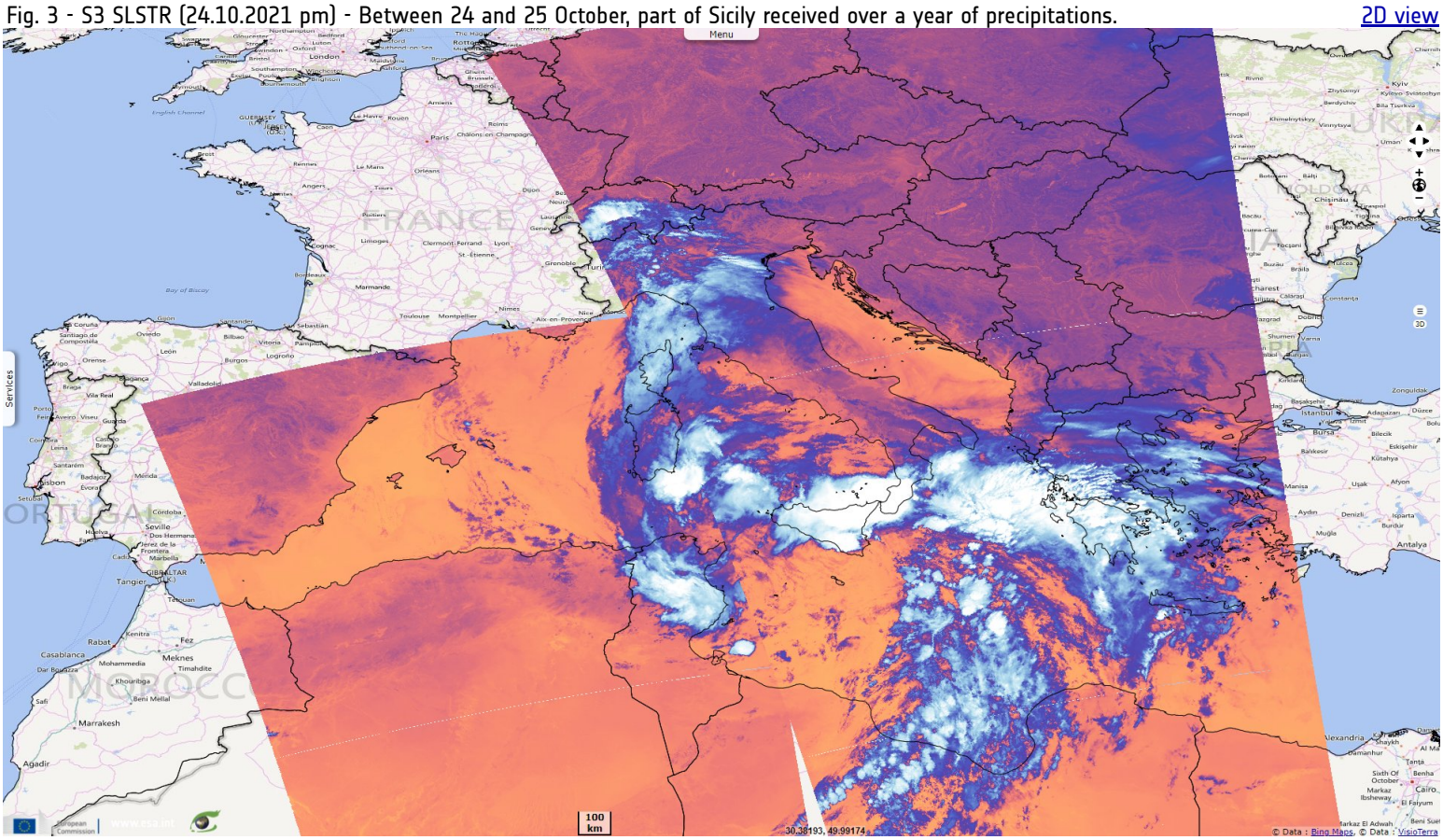


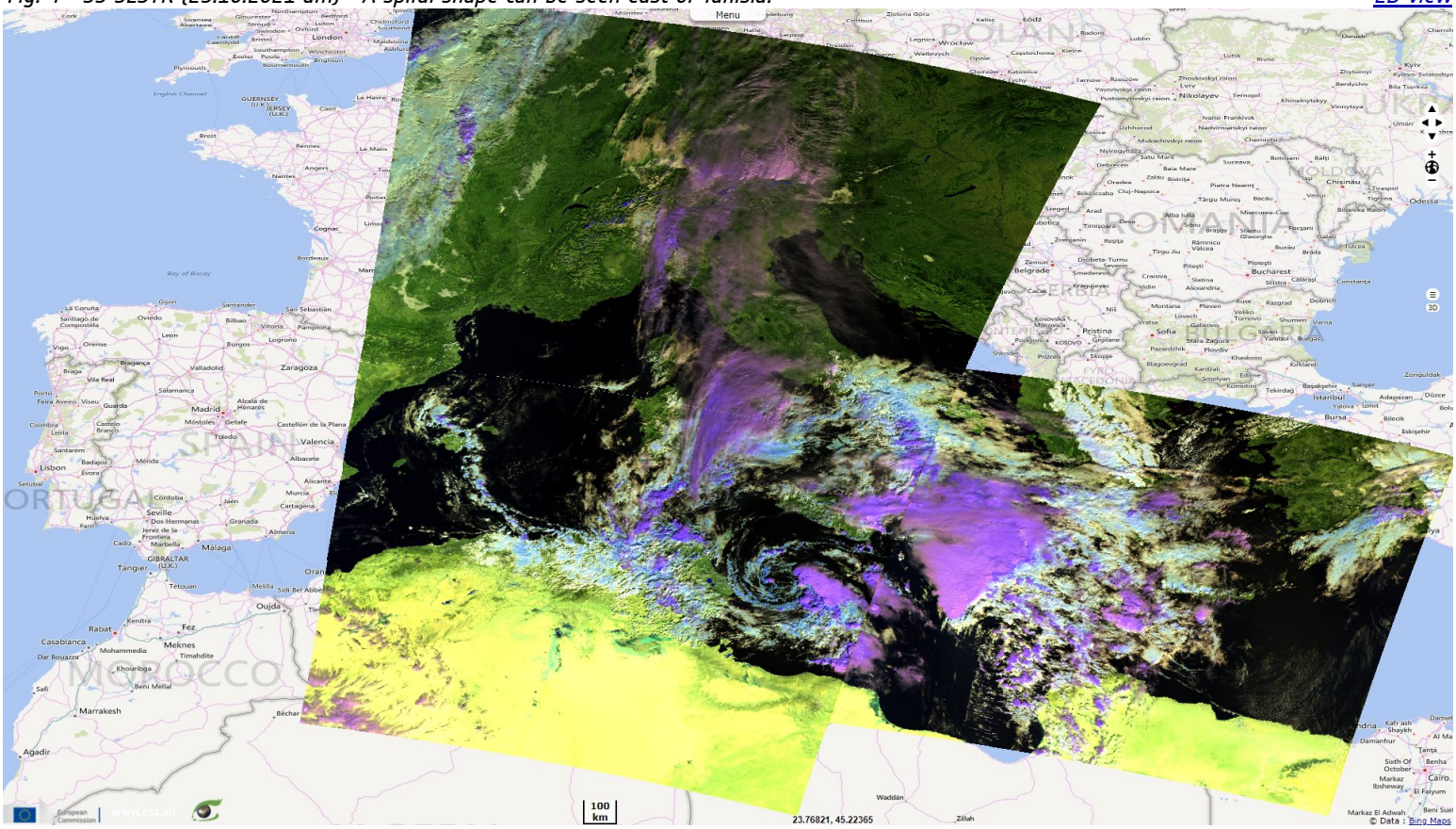
Fig. 3 - S3 SLSTR (24.10.2021 pm) - Between 24 and 25 October, part of Sicily received over a year of precipitations. 2D view



Floodlist reported: "*A strong storm system in the Mediterranean, referred to as a 'medicane' (MedIterranean hurricane) has caused severe flooding in Algeria, Tunisia and southern Italy. At least 5 people have lost their lives and 2 more are still missing.*

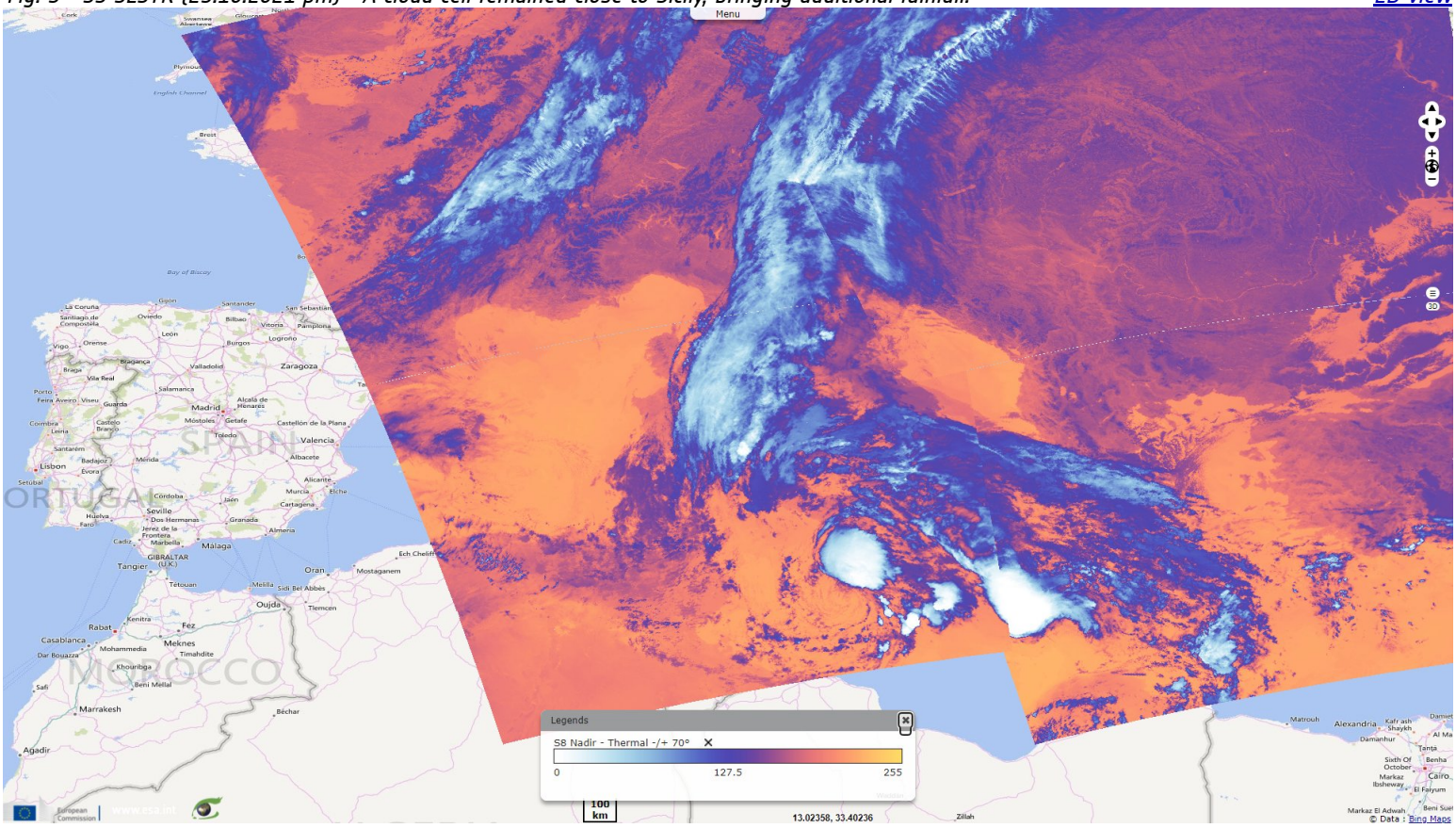
"Some areas of Algiers city recorded more than 140 mm in 24 hours to 24 October. Tunisia's National Institute of Meteorology (INM) reported 166 mm of rain in Ras Jebel, Bizerte Governorate, and 136 mm in Sidi Thabet, Ariana governorate."

Fig. 4 - S3 SLSTR (25.10.2021 am) - A spiral shape can be seen east of Tunisia. 2D view



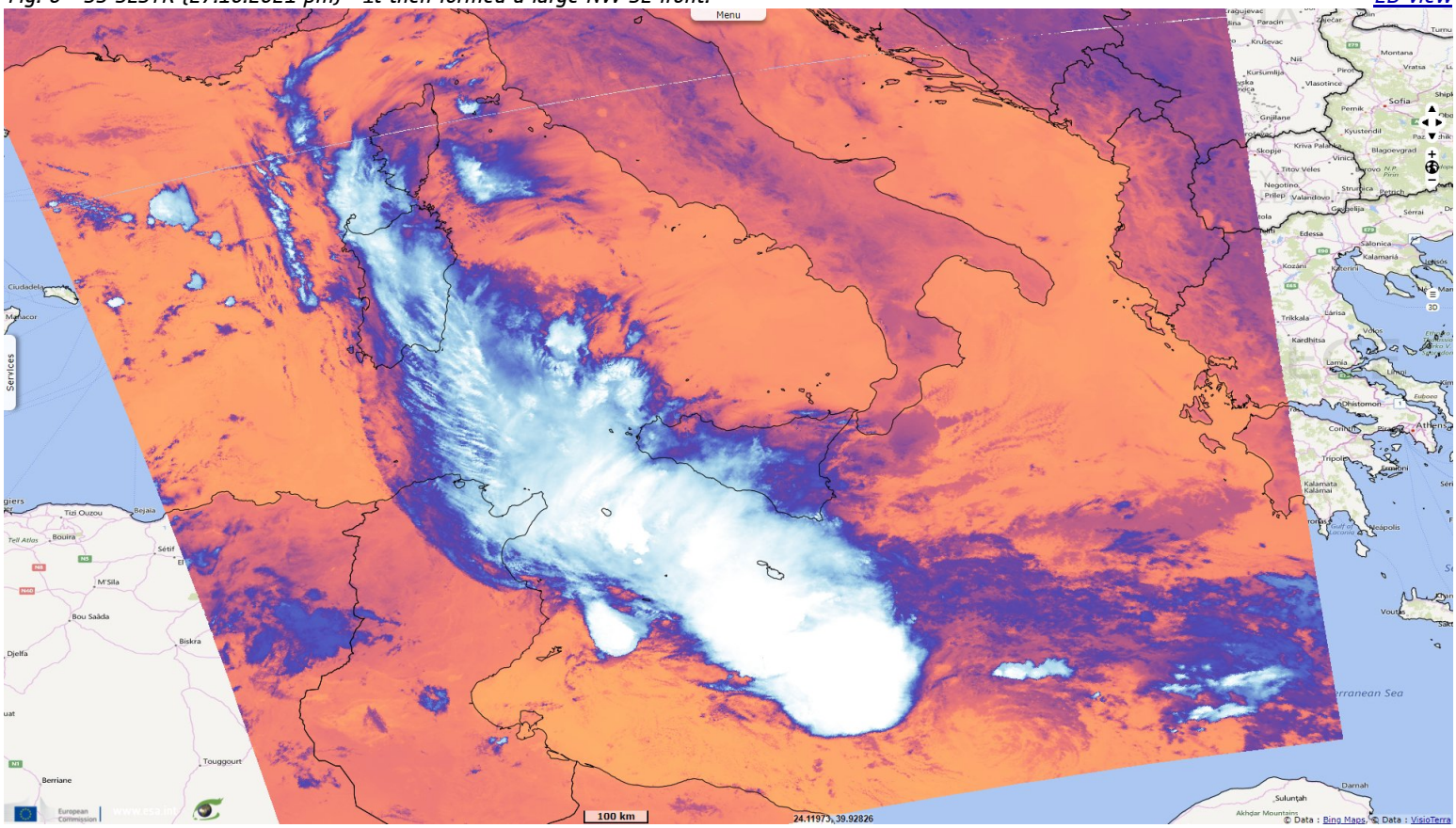
Mary Gilbert, meteorologist at AccuWeather completed: "Sicily Regions meteorological agency Servizio Informativo Agrometeorologico Siciliano reported 312.2 mm of rain fell in 24 hours to 25 October at a weather station at Linguaglossa, while the station as Lentini recorded 279.8 mm during the same period."

Fig. 5 - S3 SLSTR (25.10.2021 pm) - A cloud cell remained close to Sicily, bringing additional rainfall. 2D view



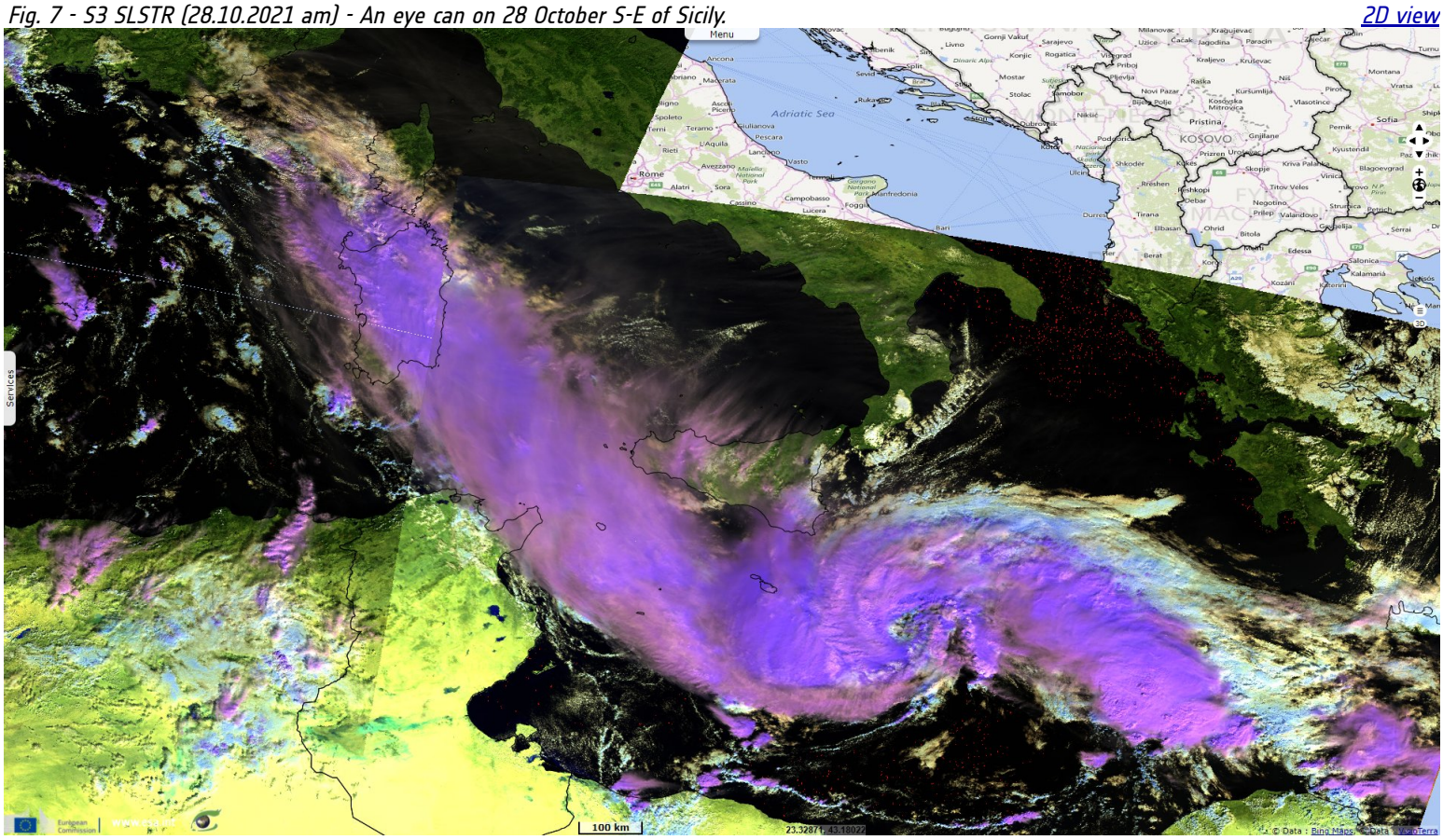
"A potent storm system havoc for days across portions of southern Italy, and AccuWeather meteorologists say the worst may be yet to come. On Tuesday, the storm had already triggered flash flooding and mudslides and was even blamed for two fatalities. On Tuesday alone, over 600 rescue operations were carried out in Catania, according to CNN."

Fig. 6 - S3 SLSTR (27.10.2021 pm) - It then formed a large NW-SE front. [2D view]



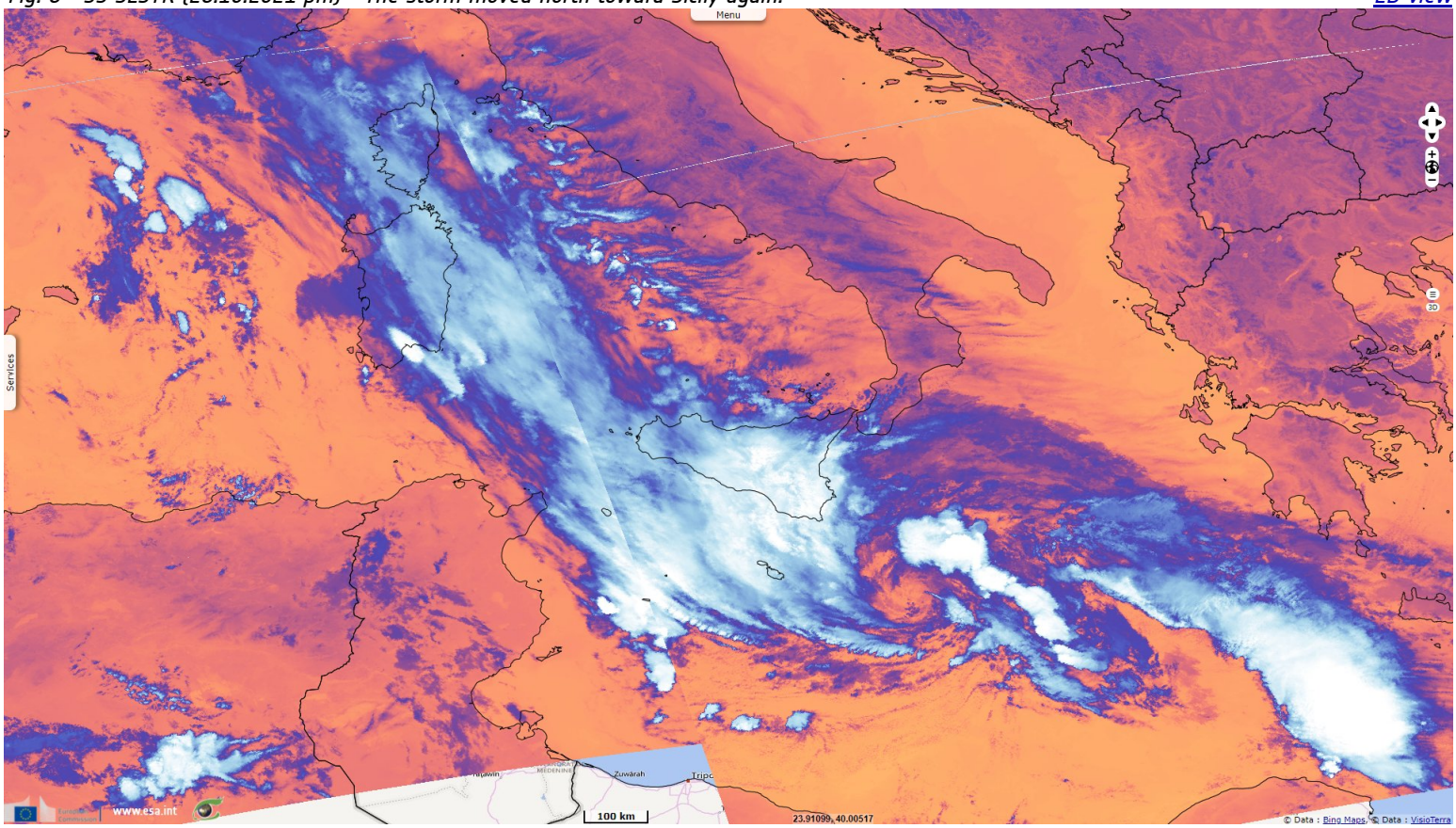
"The current storm first entered the Mediterranean Sea early that week. Periods of rain began as early as Sunday for some portions of Sicily, but heavier rainfall across the region began on Monday for many across both Sicily and Calabria."

Fig. 7 - S3 SLSTR (28.10.2021 am) - An eye can on 28 October S-E of Sicily. [2D view]



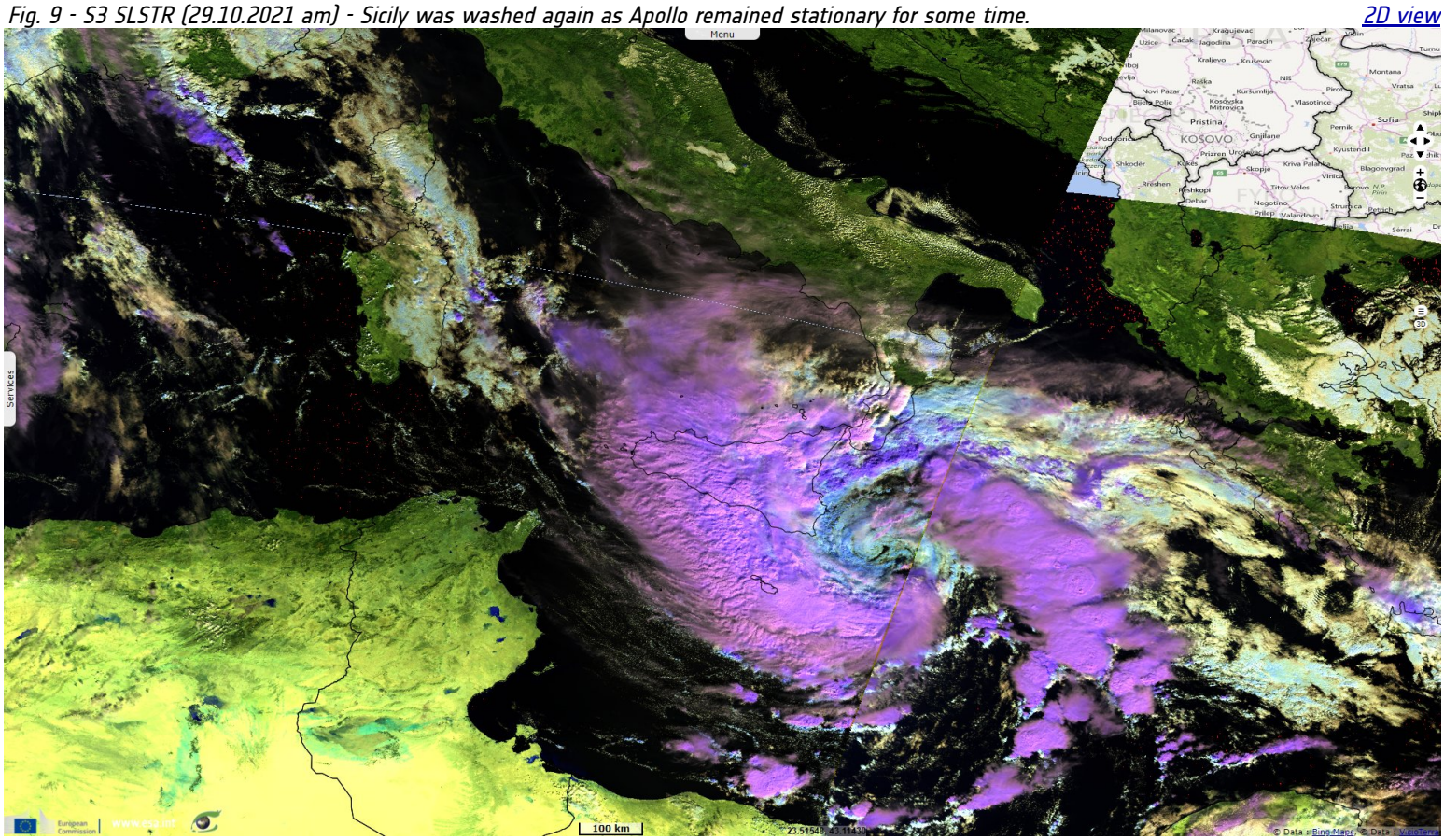
"Sicily's farmer's association said around 11.8 inches of rain fell near Catania during several hours on Sunday, according to Reuters. That amount is nearly half of the island's average yearly rainfall. The storm lost some wind intensity late Monday but began to restrengthen on Wednesday as it churned northward at a snail's pace. Regardless of the storm's ultimate strength, the main impact for portions of Italy will continue to be rounds of heavy rainfall."

Fig. 8 - S3 SLSTR (28.10.2021 pm) - The storm moved north toward Sicily again. [2D view]



The British Broadcasting Corporation [added]: "Fierce storms battered southern Italy for a third day on Tuesday 26, leaving roads completely submerged in parts of the island of Sicily. Dramatic video from Catania showed water gushing through the streets as floods engulfed the city."

Fig. 9 - S3 SLSTR (29.10.2021 am) - Sicily was washed again as Apollo remained stationary for some time. [2D view]



"The mayor of Catania, Salvo Pogliese, said eastern parts of Sicily were experiencing exceptional weather events 'unprecedented' in their intensity. Citing the 'seriousness of the situation', the mayor ordered the closure of all businesses in Catania except essential services until midnight on Tuesday. 'I urge the entire population to not leave home except for emergency reasons, because roads are overrun by water,' the mayor posted on Facebook."

Fig. 10 - S1 (18-23.10.2021) - Eastern Algeria and Tunisia before Medicane Apollo. [2D view]

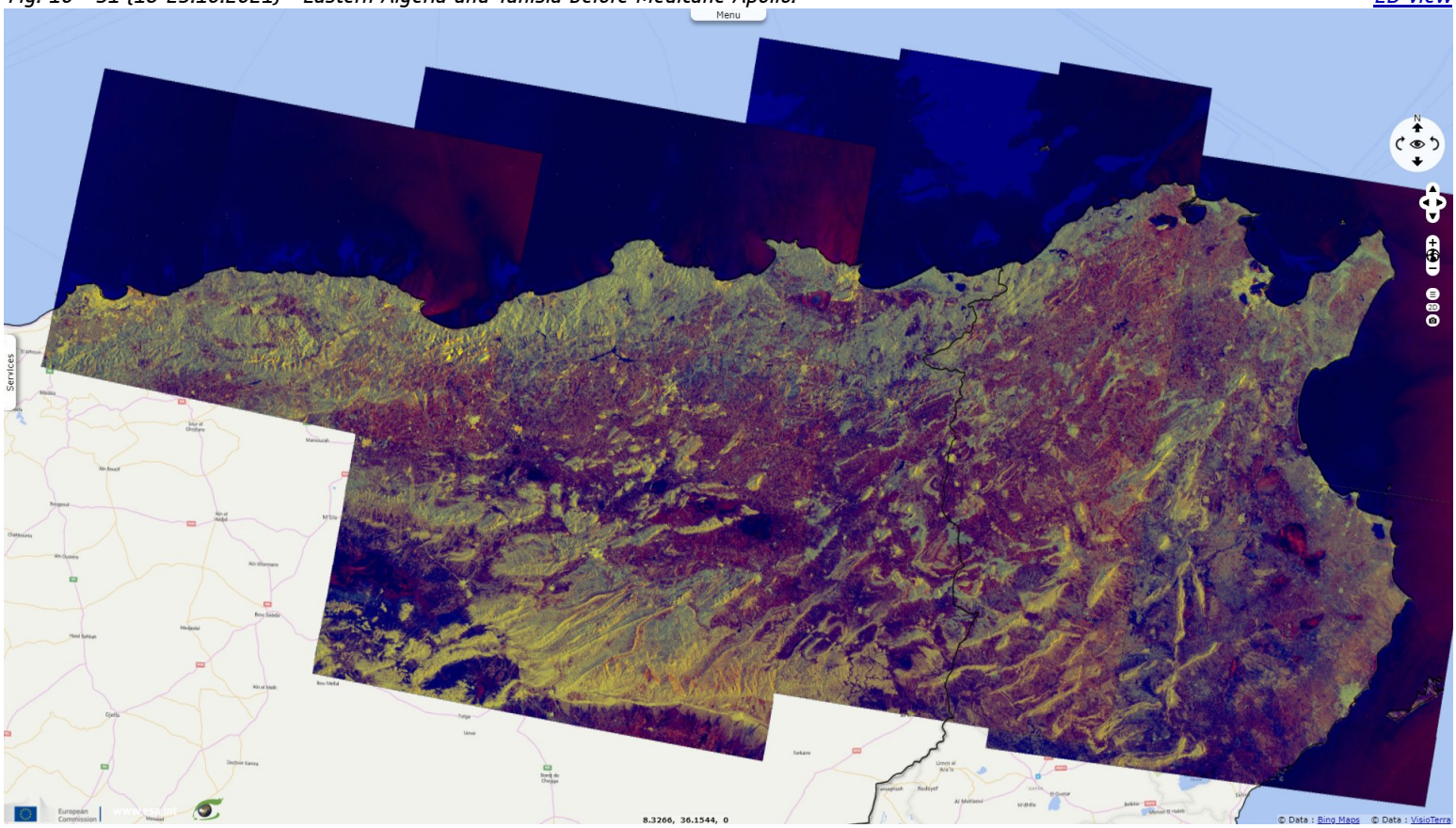


Fig. 11 - S1 (24-29.10.2021) - Eastern Algeria and Tunisia after the rainfall. [2D animation] [2D view]

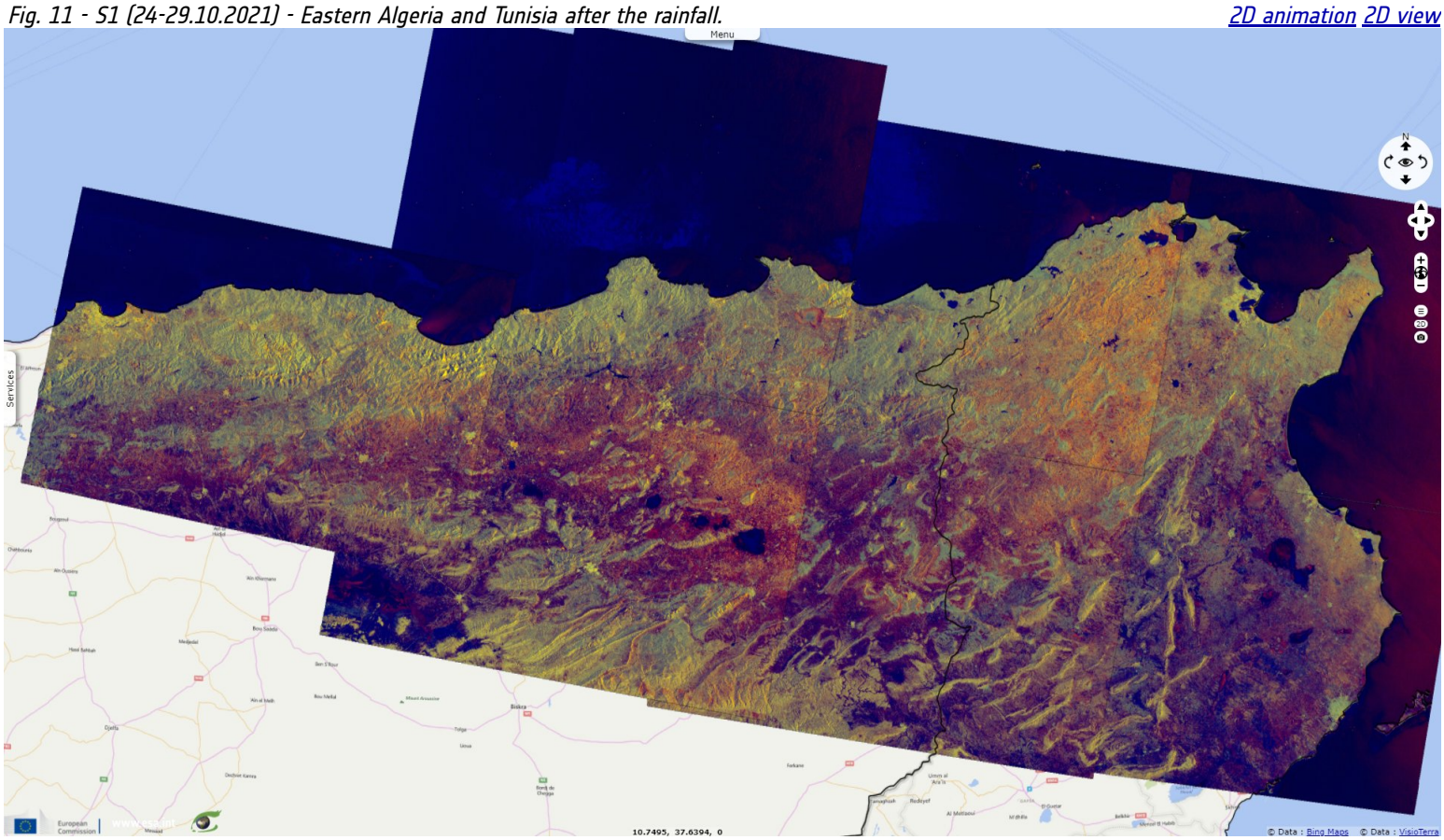


Fig. 12 - S1 (18-23.10.2021) - Sicily before the rainfall. [2D view]

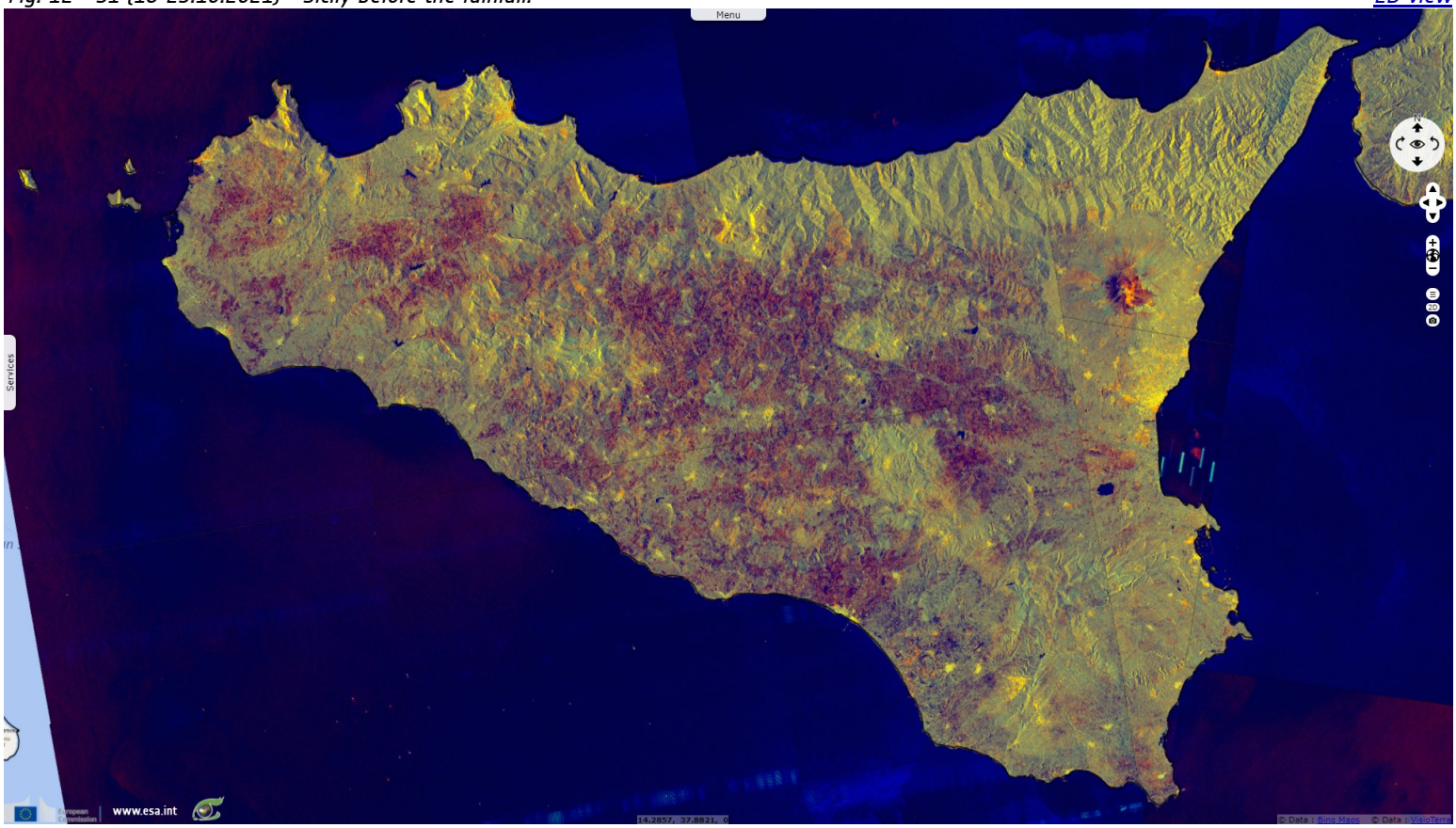


Fig. 13 - S1 (24-29.10.2021) - Sicily after a first episode of rainfall. [2D view]

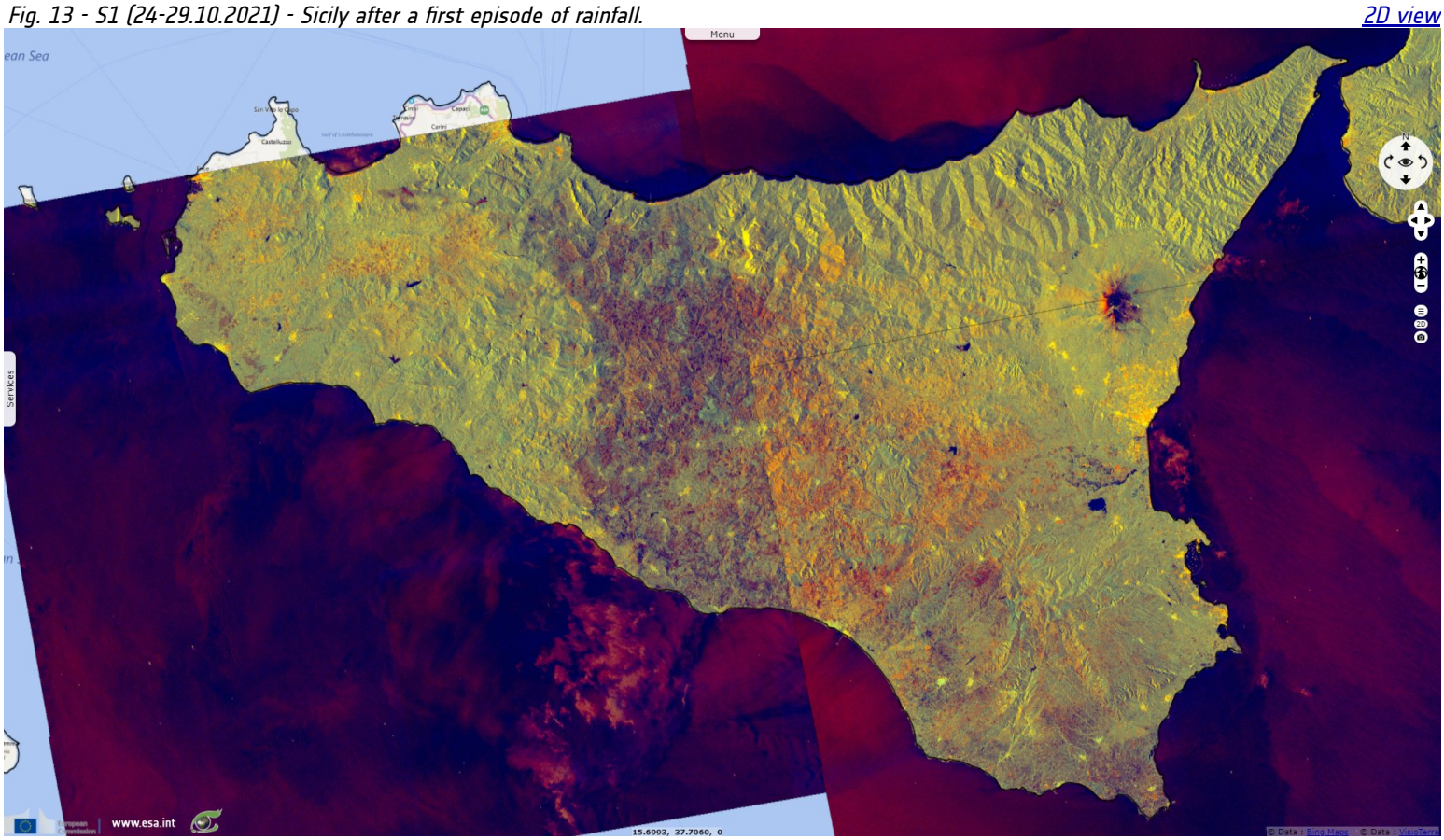
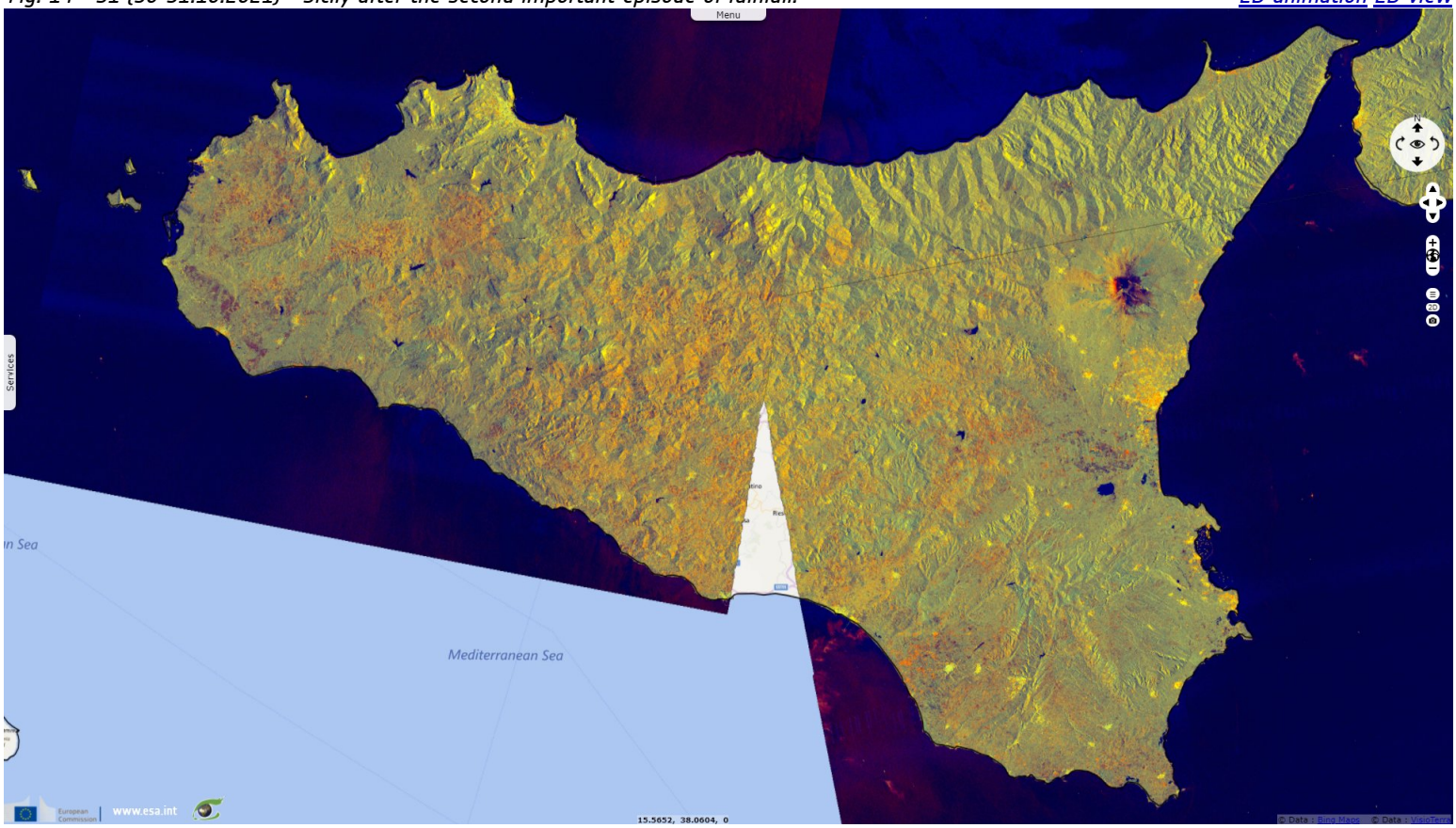


Fig. 14 - S1 (30-31.10.2021) - Sicily after the second important episode of rainfall. [2D animation](#) [2D view](#)



The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.
Contains modified Copernicus Sentinel data 2021, processed by VisioTerra.

More on European Commission space:						
More on ESA:	S-1 website	S-2 website	S-3 website			
More on Copernicus program:	Scihub portal	Cophub portal	Inthub portal	Colhub portal		
More on VisioTerra:	Sentinel Vision Portal	Envisat+ERS portal	Swarm+GOCE portal	CryoSat portal		

Funded by the EU and ESA EVT-963-SentinelVision powered by VisioTerra