







**EFAS Annual Meeting 2023** 

Michaela Mikuličková, Nina Bosshard, Ilias Pechlivanidis

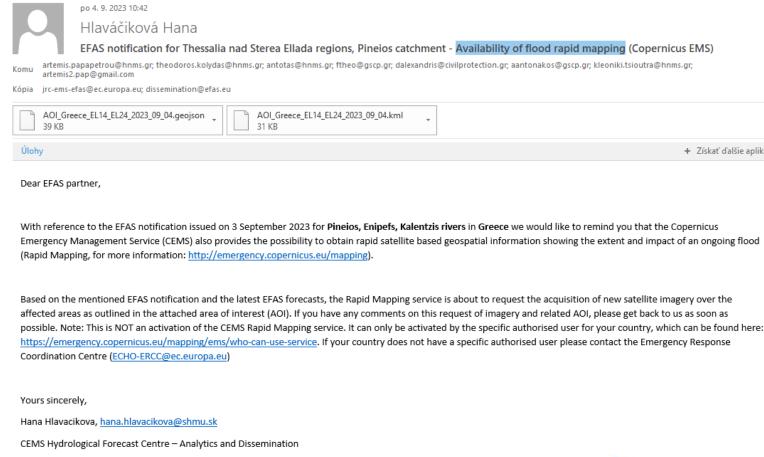


COPERNICUS
EMERGENCY
MANAGEMENT
SERVICE

# NOTIFICATION Availability of flood rapid mapping

#### **CONTENT** of the workshop:

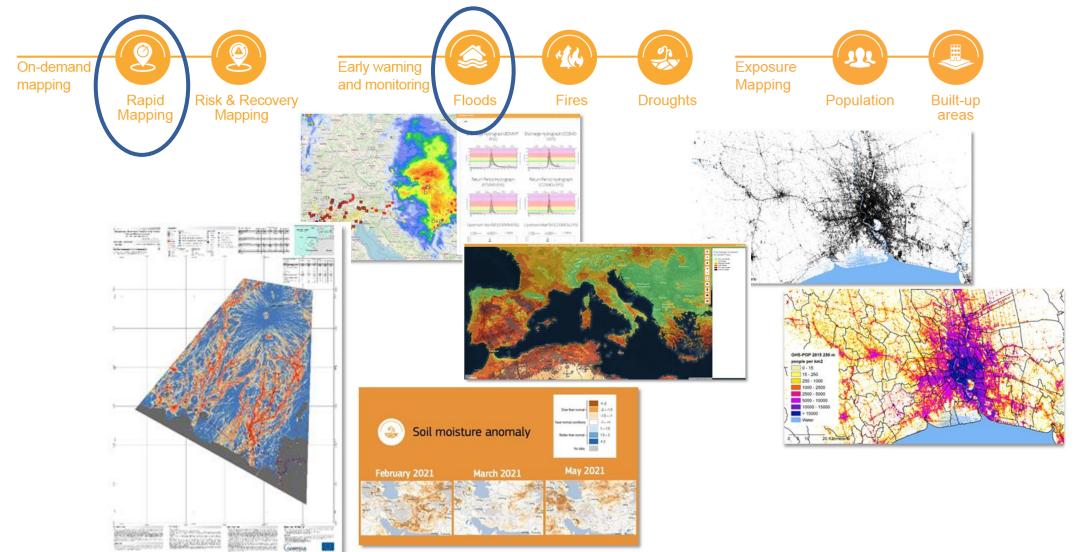
- Goal of the pre-tasking effort
- Criteria for issuing a pre-tasking
- Difference with the standard EFAS Notifications?
- Workflow of actions
- Examples of emails







### THE COPERNICUS EMERGENCY MANAGEMENT SERVICE







# COPERNICUS EMERGENCY MANAGEMENT SERVICE - MAPPING

uses satellite imagery and other geospatial data to provide free of charge mapping service in cases of natural disasters, human-made emergency situations and humanitarian crises throughout the world.

#### Two temporal modes:

- Rapid Mapping within hours or days from the activation in support of emergency management activities immediately following a disaster
- Risk and Recovery Mapping in support of Disaster Management activities not related to immediate response

Can be triggered only by an Authorised User.





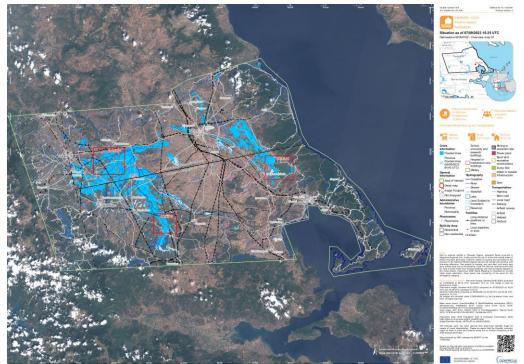


## **CEMS RAPID MAPPING**

#### **Outcomes:**

- ready-to-print maps to quickly visualise the main results
- geospatial data to be integrated in geoinformation systems for further analysis

All mapping products are available for free on the portal <a href="https://emergency.copernicus.eu/mapping/list-of-activations-rapid">https://emergency.copernicus.eu/mapping/list-of-activations-rapid</a>

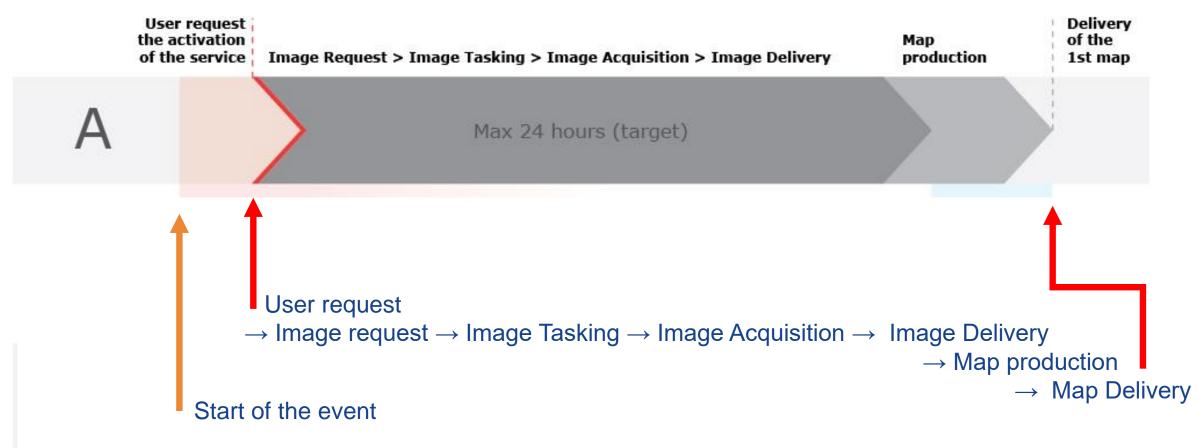


Greece, 7<sup>th</sup> September 2023





# TIMELINE OF RAPID MAPPING ACTIVATION

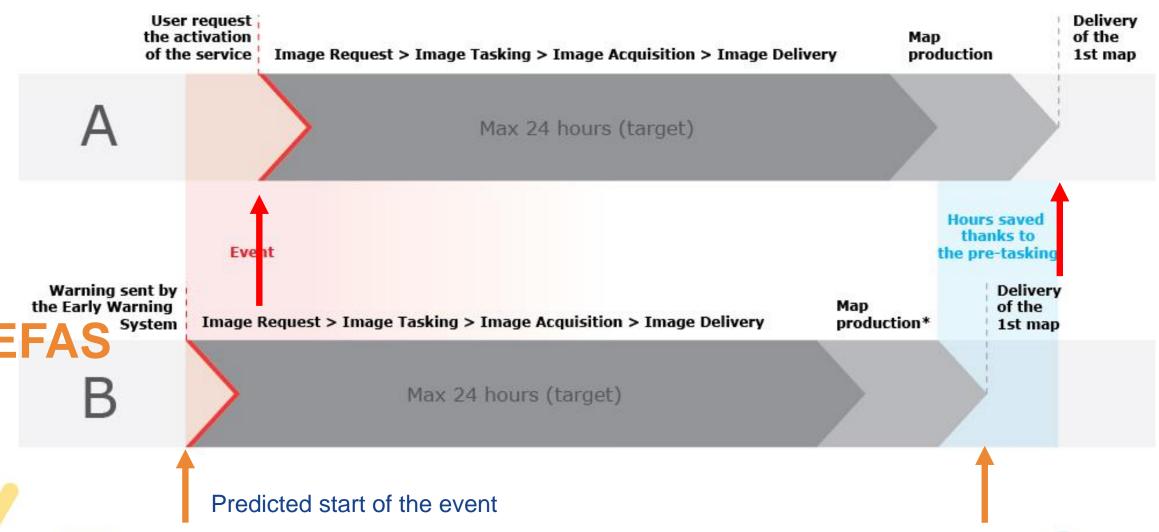


The delay between a request and image acquisition often prevents from capturing the initial phases of a hazardous event





# TIMELINE OF RAPID MAPPING ACTIVATION





**PRE-TASKING** 



# WHY PRE-TASKING?

- To reduce the time between an event and satellite data acquisition
- To increase the chance of capturing the early phases of that flood
- To help delivering information earlier than with the standard rapid mapping workflow







Local / national partners and authorities



# WHEN PRE-TASKING?

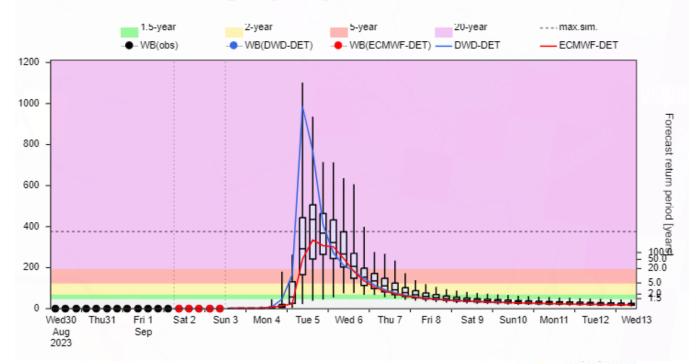




- EFAS Formal or Informal notification has already been sent to EFAS partners
- ECMWF median needs to exceed the 20-yr RP threshold
- Start of the event (i.e. median exceeding the 5-yr RP threshold) is within 24-36 hours from the current time. (Can be less, cannot be more)
- Location EFAS partner region only

# The 93|90(f))

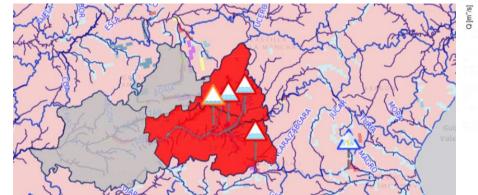
#### Discharge Hydrograph (ECMWF-ENS)



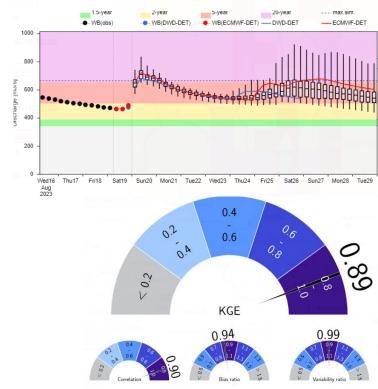
## WHEN PRE-TASKING?

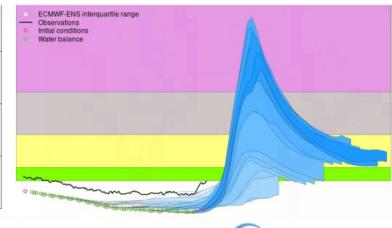
- and in addition
  - The spread of the probabilistic ECMWF forecast is not very wide
  - The historical model performance is adequate indicating that the model is not lacking of process representation
  - Water balance is adequate indicating that the initial model conditions are correct.
  - The forecast should be persistent and affecting a reasonably long stretch of a river
  - Signal from the Rapid Impact Assessment layer or Rapid Flood Mapping layer is considered as supporting

information













# DIFFERENCE WITH THE STANDARD EFAS NOTIFICATIONS?

#### **EFAS NOTIFICATION**

START OF THE EVENT:

> 48 hours

PROBABILITY:

> 30 % of 5-y return period (ECMWF-ENS, COSMO-LEPS)

RECIPIENTS:

all partners in the catchment

ATTACHMENTS:

none

PRE-TASKING EMAIL

24-36 hours

> 50 % of 20-y RP (ECMWF-ENS)

only affected partners

Area of interest (\*.geojson, \*.kml)





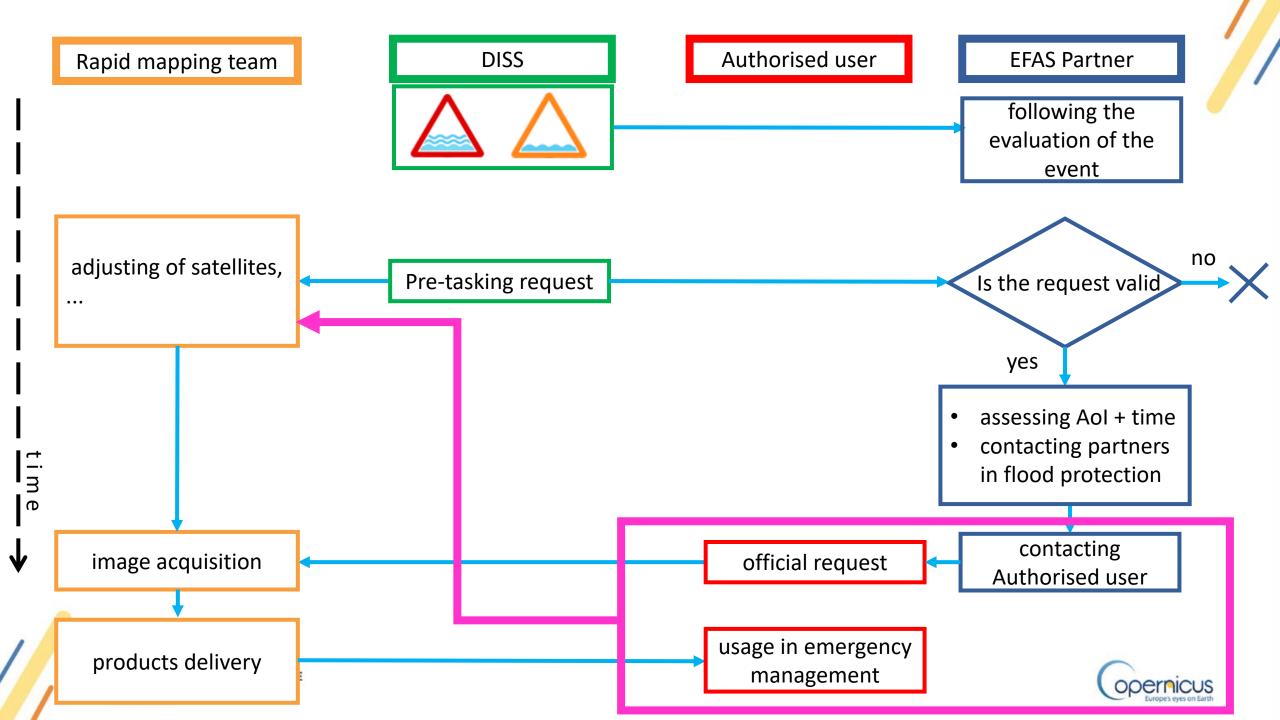


# **WORKFLOW OF ACTION**









# **EMAIL TO PARTNERS**









po 4, 9, 2023 10:42

#### Hlaváčiková Hana

EFAS notification for Thessalia nad Sterea Ellada regions, Pineios catchment Availability of flood rapid mapping (Copernicus EMS)

artemis.papapetrou@hnms.gr; theodoros.kolydas@hnms.gr; antotas@hnms.gr; ftheo@gscp.gr; dalexandris@civilprotection.gr; aantonakos@gscp.gr; kleoniki.tsioutra@hnms.gr; artemis2.pap@gmail.com

Kópia jrc-ems-efas@ec.europa.eu; dissemination@efas.eu

delineated Area of Interest

Úlohy

+ Získať ďalšie apliká

Dear EFAS partner,

With reference to the EFAS notification issued on 3 September 2023 for Pineios, Enipefs, Kalentzis rivers in Greece we would like to remind you that the Copernicus Emergency Management Service (CEMS) also provides the possibility to obtain rapid satellite based geospatial information showing the extent and impact of an ongoing flood (Rapid Mapping, for more information: http://emergency.copernicus.eu/mapping).

Based on the mentioned EFAS notification and the latest EFAS forecasts, the Rapid Mapping service is about to request the acquisition of new satellite imagery over the affected areas as outlined in the attached area of interest (AOI). If you have any comments on this request of imagery and related AOI please get back to us as soon as possible. Note: This is NOT an activation of the CEMS Rapid Mapping service. It can only be activated by the specific authorised user for your country, which can be found here: https://emergency.copernicus.eu/mapping/ems/who-can-use-service. If your country does not have a specific authorised user please contact the Emergency Response Coordination Centre (ECHO-ERCC@ec.europa.eu)

Yours sincerely,

Hana Hlavacikova, hana.hlavacikova@shmu.sk





# **List of Authorised Users**

https://emergency.copernicus.eu/mapping/ems/who-can-use-service

ID	COUNTRY Authorised Users (National Focal Points, EU services, bodies and agencies)					
1.	Austria	Federal Ministry of the Interior - Situation Room				
2.	Belgium Nationaal Crisiscentrum (NCCN) - National Crisis Cent					
3.	Bulgaria	DG Civil Protection				
4.	Cyprus	Ministry of Interior - Civil defence, Centre of Operations				
5.	Czech Republic	Ministry of Interior - General Directorate of the Fire Rescue Service of the Czech Republic				
6.	Denmark Danish Emergency Management Agency (DEMA)					
7.	Estonia	National Situation Centre, Government Office of Republic of Estonia				
8.	Finland	Government Situation Centre				
9.	France Centre Opérationnel de Gestion Interministériel de Crises (C.O.G.I.					
10.	Germany	Bundesamt für Bevölkerungsschutz und Katastrophenhilfe (BBK) - Gemeinsames Melde- und Lagezentrum von Bund und Ländern (GMLZ)				
11.	Greece	Disaster Planning and Management Directorate - General secretariat for Civil protection – Ministry of Climate Change and Civil Protection				
12.	Hungary	National Directorate General for Disaster Management (NDGM)				
13.	National Directorate for Fire and Emergency Management Department of Environment, Heritage and Local Government  Presidency of the Council of Ministers - Italian Department of Civ					
14.						
15.	Latvia	State Fire and Rescue Service				
16.	Lithuania	Ministry of the Interior - Fire and Rescue Department				
17.	Luxembourg	Ministère de l'Intérieur - Administration des services de secours				
18.	Malta	Civil Protection Department				
19.	Netherlands	Ministry of Security and Justice / National Coordinator for Security and Counterterrorism / National Operations Center				
20.	Poland	The National Centre for Coordination of Rescue Operations and Protection of Population/ National HQ of the State Fire Service				
21.	Portugal	National Command for Relief Operations - National Authority for Civil Protection				

22.	Romania	General Inspectorate for Emergency Situations					
23.	Slovakia	Ministry of Interior - Section of the Crisis Management					
24.	Slovenia	Ministry of Defence – Administration for Civil Protection and Disaster Relief / Notification Centre of the Republic of Slovenia					
25.	Spain	Ministry of Interior - Centro de Coordinación Operativa (CECOP) de la Dirección General de Protección Civil y Emergencias					
26.	6. Sweden Swedish Civil Contingencies Agency (MSB)						
27.	Croatia	National Protection and Rescue Directorate in the Civil Protection Sector					
28.	Iceland	Iceland National Commissioner of the Icelandic Police Civil Protection Department					
29.	Norway	Directorate for Civil Protection and Emergency Planning (DSB)					
30.	Albania	National Civil protection Agency (NCPA)					
31.	Rosnia and Protection and Rescue Sector - Operational and Communication Cen						
32.	Montenegro	Ministry of the Interior – Rescue and Protection Directorate					
33.	North Macedonia	Protection and Rescue Directorate of the Republic of North Macedonia					
34.	Serbia	Ministry of Interior, Sector for Emergency Management					
35.	Ministry of Interior Disaster and Emergency - Management Presidence						
36.	EC Services	e.g. DG-ECHO, DG DEFIS, DG DEVCO, DG HOME, DG JRC					
37.	EU Services	EEAS (EU Intelligence Analysis Centre), Delegations of the European Union					
38.	EU bodies/agencies	e.g. EEA (European Environmental Agency)					

National Focal Point User – EU Member State
National Focal Point User – Civil Protection Mechanism Country
EC/EU Focal point User

# **List of Authorised Users**

https://emergency.copernicus.eu/mapping/ems/who-can-use-service

				<b>-</b>					
			Authorised Users	22.	Romania		General Inspectorate for Emergency Situations		
ID	COUNTRY	(Nation	nal Focal Points, EU services, bodies and agencies)	23.	Slovakia		Ministry of Interior - Section		
		(Nation	iai rocai roints, Eo services, boules and agencies)	Ministry of Defence – Administrat					
-	Acceptation							Republic of Slovenia	
1.	Austria							inación Operativa (CECOP) de la ión Civil y Emergencias	
2.	Belgium	Nati							
3.	Bulgaria							cies Agency (MSB)	
4.	Cyprus	Min						rate in the Civil Protection Sector	
5.	Czech Republic	Ministry of In						f the Icelandic Police	
Э.	czecii kepublic							Department	
6.	Denmark		We recommend you to					d Emergency Planning (DSB)	
7.	Estonia	National S	we recommend you to					n Agency (NCPA)	
8.	Finland		• discuss the workflow	d Heor	al and Communication Center Bih -				
9.	France	Centre Op	<ul> <li>discuss the workflow with the Authorised User</li> </ul>					and Dustration Disastenate	
10.	Germany	Bundesar	of your country in a	ntry in advance				and Protection Directorate	
	dermany	Gemeinsam	or your occurry in a	avarioc				the Republic of North Macedonia	
11.	Greece	Disaster Plann	<ul> <li>agree on contacts i</li> </ul>	o coco of an avant				•	
40	***************************************	protec	agree on contacts i	ii ca.	se of all e	/CIII		Emergency Management	
12.	Hungary	Nationa						gency - Management Presidency	
13.	Ireland	Natio						anagement Center	
		Depart						EVCO, DG HOME, DG JRC	
14.	Italy	Presiden						Delegations of the European Union	
15.	Latvia							ronmental Agency)	
16.	Lithuania	Mi							
17.	Luxembourg		de l'interieur - Administration des services de secours						
18.	Malta	Fillistere	Civil Protection Department	-					
		Ministry of S	ecurity and Justice / National Coordinator for Security and	1			National Focal Point User – EU Member State		
19.	Netherlands	Counterterrorism / National Operations Center					National Focal Poin	it user – EU Member State	
			entre for Coordination of Rescue Operations and Protection of				National Focal Point User (	Civil Protection Mechanism Country	
20.	Poland		Population/ National HQ of the State Fire Service				National Focal Point User – Civil Protection Mechanism Country		
			· oparation/ material ing of the state the service						

National Command for Relief Operations - National Authority for Civil

Protection

21.

**Portugal** 

Civil Protection and Disaster Relief
Republic of Slovenia
inación Operativa (CECOP) de la
ión Civil y Emergencias
cies Agency (MSB)
rate in the Civil Protection Sector
f the Icelandic Police
Department
d Emergency Planning (DSB)
n Agency (NCPA)
al and Communication Center Bih -
and Protection Directorate
he Republic of North Macedonia
Emergency Management
gency - Management Presidency
anagement Center
EVCO, DG HOME, DG JRC
Delegations of the European Union
ronmental Agency)

EC/EU Focal point User

# EMAIL TO THE RAPID MAPPING TEAM





AOI\_Greece\_EL14\_EL24\_2023\_09\_04.kml 31 KB



NOTE: This is NOT an activation of Copernicus EMS Rapid Mapping (RM) but a request for pre-tasking satellite images in view of a potential RM activation by the Mapping Authorised User.

Request ID: <EMSR972>

Early warning system: <EFAS>

Phenomenon type: <Flood>

Situation description: < EFAS predicts high probability of exceeding the 20 year threshold level due to heavy rainfall for Pineios catchment >

Expected start of the event: <05/09>

Expected event peak: <05/09 18:00 UTC>

Expected duration: <3 days>

Recommended image acquisition window: <05/09 06:00 UTC> to <08/09 00:00 UTC>

Affected country(s): <GREECE>

Affected region(s): <Thessalia\_EL14, Sterea Ellada\_EL24>

Affected major citie(s): <Larisa>

Affected river basin(s): <Pineios, Kalentzis, Enipefs>

For further information contact: < Hana Hlaváčiková > < +421 2 59415407 >

# STAY CONNECTED

**EVENTS, ONLINE, and MAP VIEWERS** 



@CopernicusEMS



emergency.copernicus.eu



activations.emergency.copernicus.eu

Thank you for your attention

Do you have any questions or comments?

info@efas.eu

