

# ERUPTION OF VOLCANO IN ICELAND, APRIL 2010: OVERVIEW MAP



**Map Information**

According to the Icelandic Met Office, after a few days of quiet in Eyjafjallajökull volcano, a new and much more forceful eruption has begun west of Fimmvörðuháls, under the ice-cap. A plume rises at least 8 km into the air.

Air traffic has been closing progressively during 15 April 2010 in Scandinavia, UK and several other northern European Countries.

The map shows an overview of the affected regions such as the Eyjafjallajökull glacier, Gígjökull lagoon, Markarfljótsbrú, Seljalandsá river, Hvolsvöllur to Þorvaldseyri.

**Legend**

	volcanoes		Nuclear site
	Glaciers		«all other values»
	Capital		International airport
	Major city		Domestic airport
	City		Local / private airport
	Town		Military
	Village		Heliport
			Seaplane base
			ports
			dams
			Motorway / Highway
			Major Road
			Minor Road
			Track / Trail

**Spatial Reference:** WGS84-UTM Zone 27N  
**Map Scale (A3):** 1:500 000  
**Time Reference:** 16th of April 2010  
**Map Production:** 16th of April 2010

**VO Data:** Sm Átthonian Inst.  
**Elevation Data:** GTOPO30  
**Background Data:** World Map - © 2008 Europa Technologies Ltd.

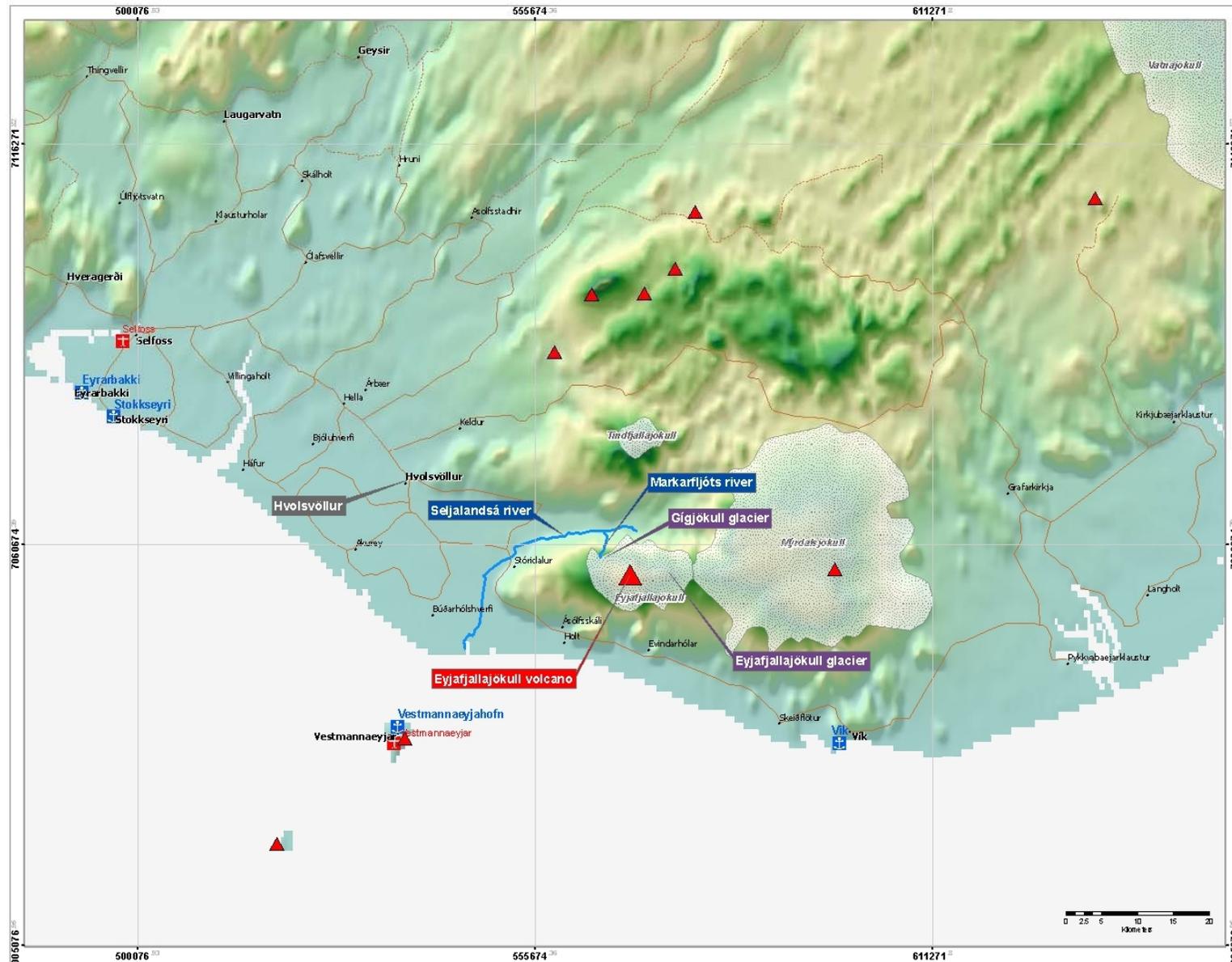
**European Civil Protection**

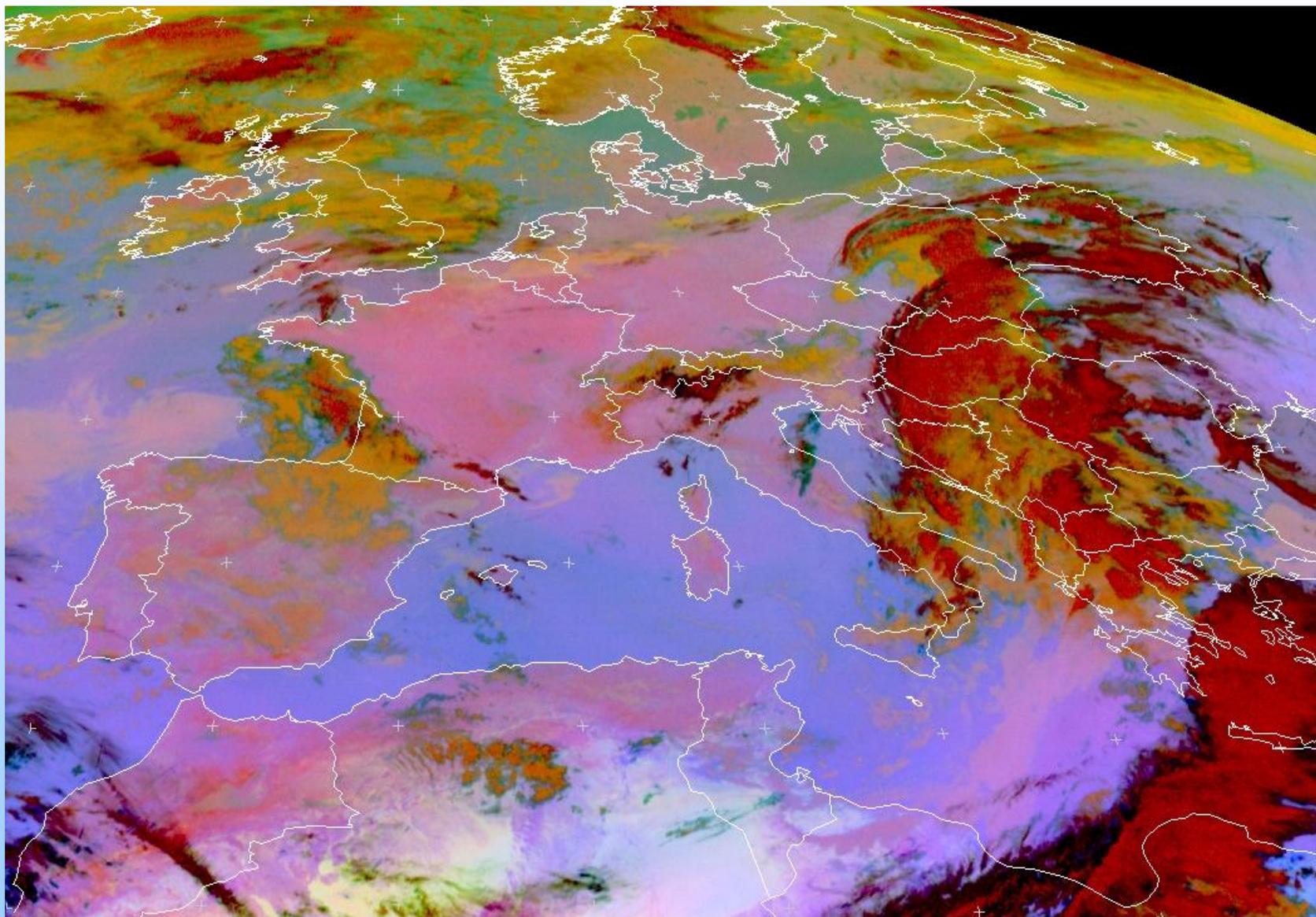
The role of the Community Mechanism for Civil Protection (MCCP) is to facilitate co-operation in civil protection assistance interventions in the event of major emergencies which may require urgent response action.

This applies also to situations where there may be an involvement on one of such major emergencies.

It is therefore a tool that enhances community co-operation in civil protection matters and was established by the Council Decision of 23 October 2001.

Contact: DG-ECHEL  
 EC-CHO HORTING AND INFO CENTRE  
 (EC-CHO-MCCP@ec.europa.eu)

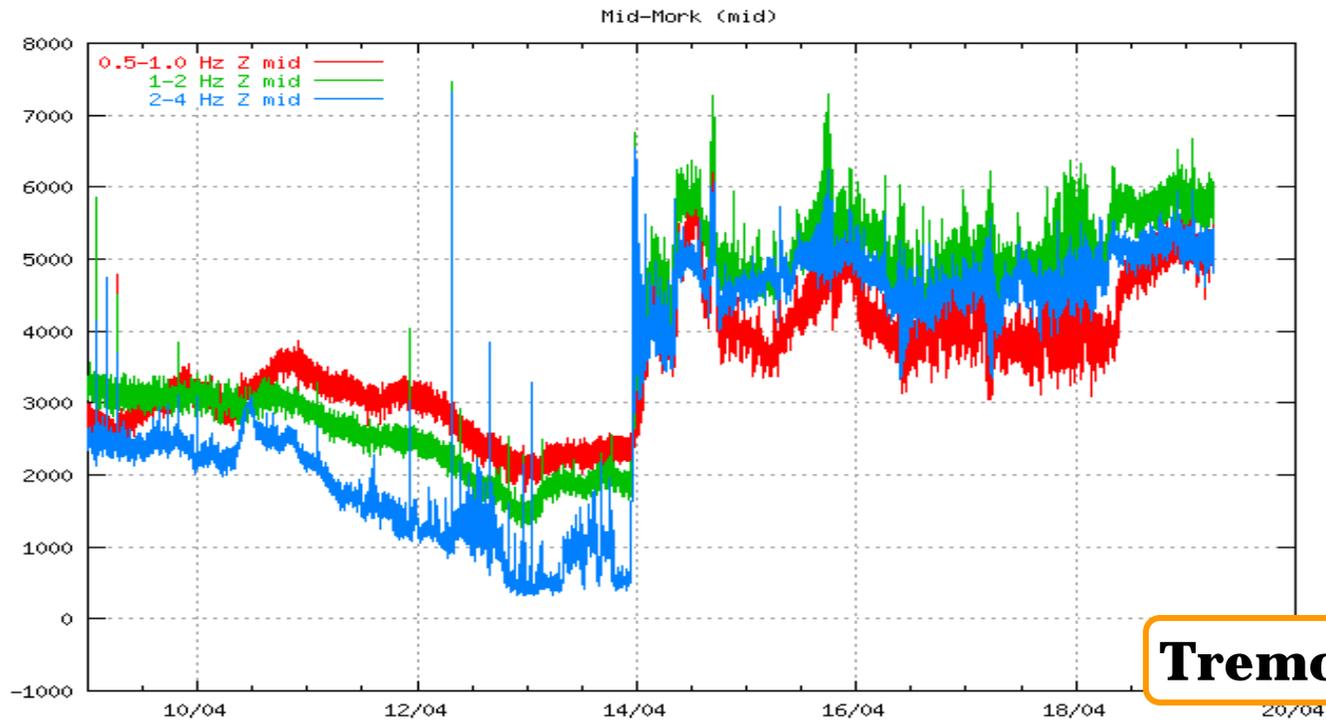




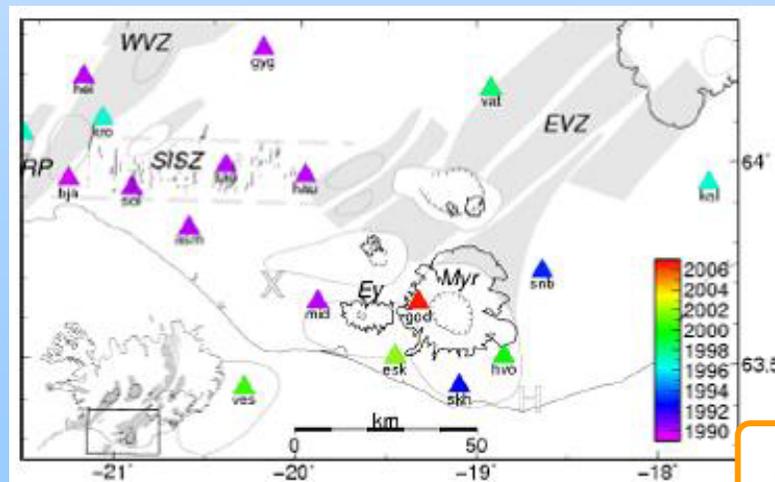
MET9 RGB-dust 2010-04-19 06:00 UTC

 EUMETSAT

**EUMETSAT 19 Aprile ore 6.00 UTC**



**Tremore vulcanico**



**Stazioni sismiche**



## **Aggiornamento mattinata del 19.04.2010**

Fonte: Institute of Earth Sciences

**Stima preliminare del volume del materiale fine eruttato nei primi tre giorni dell'eruzione = 140 milioni di metri cubi di cui:**

**30 milioni nelle immediate vicinanze del cratere**

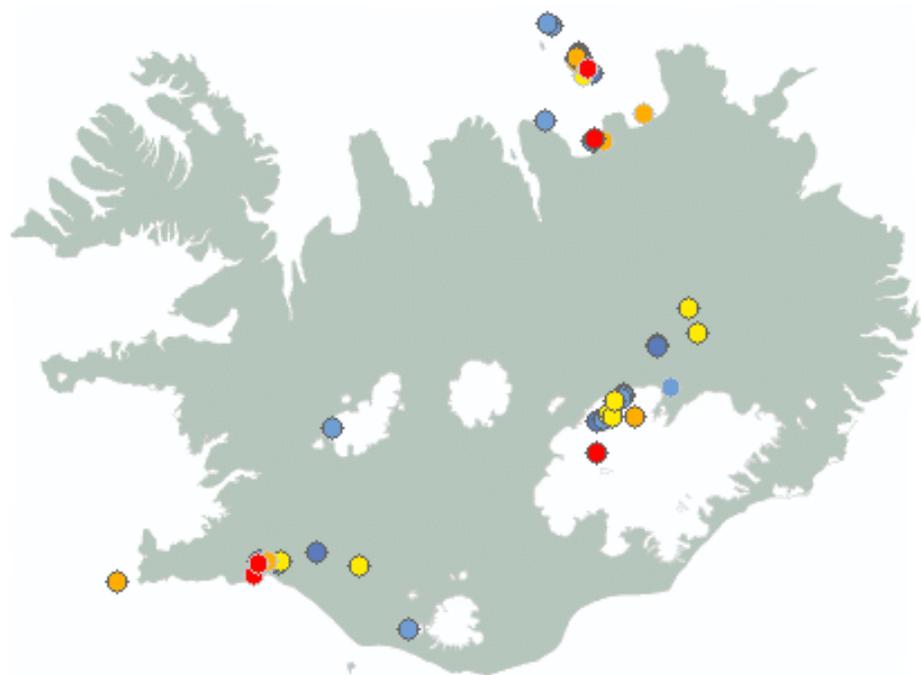
**10 milioni sul lago ghiacciato di Gígjökulslón**

**100 milioni è stata dispersa dai venti verso i settori orientali e meridionali del vulcano.**

**Tasso eruttivo medio stimato: 300 m<sup>3</sup>/s (750 tonn/s), che corrisponde a circa 10-20 volte il tasso eruttivo della frattura apertasi sul fianco del vulcano nel marzo scorso.**

Earthquakes during last 48 hours. at 19 Apr 07:35 GMT

Preliminary results



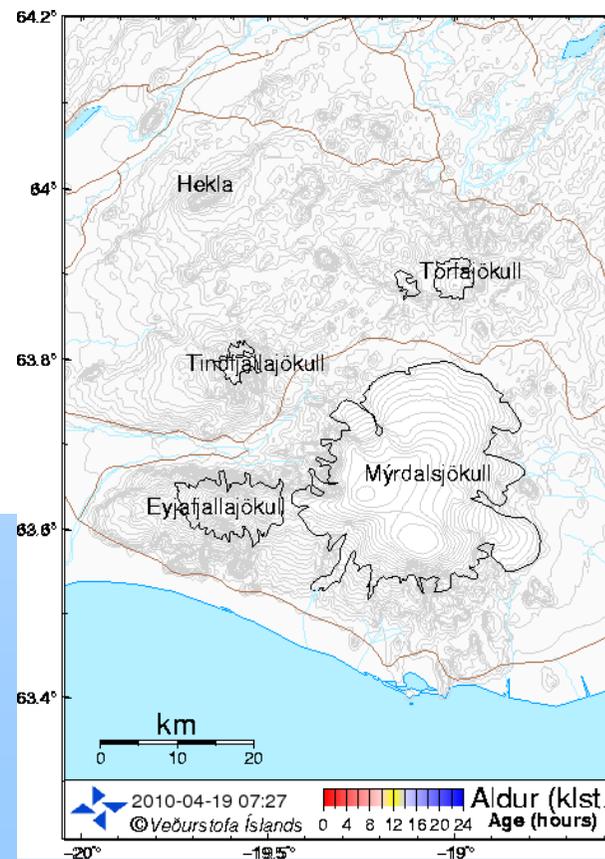
● Magnitude < 3  
★ Magnitude > 3

Hours since earthquake:

0-4 4-12 12-24 24-36 36-48

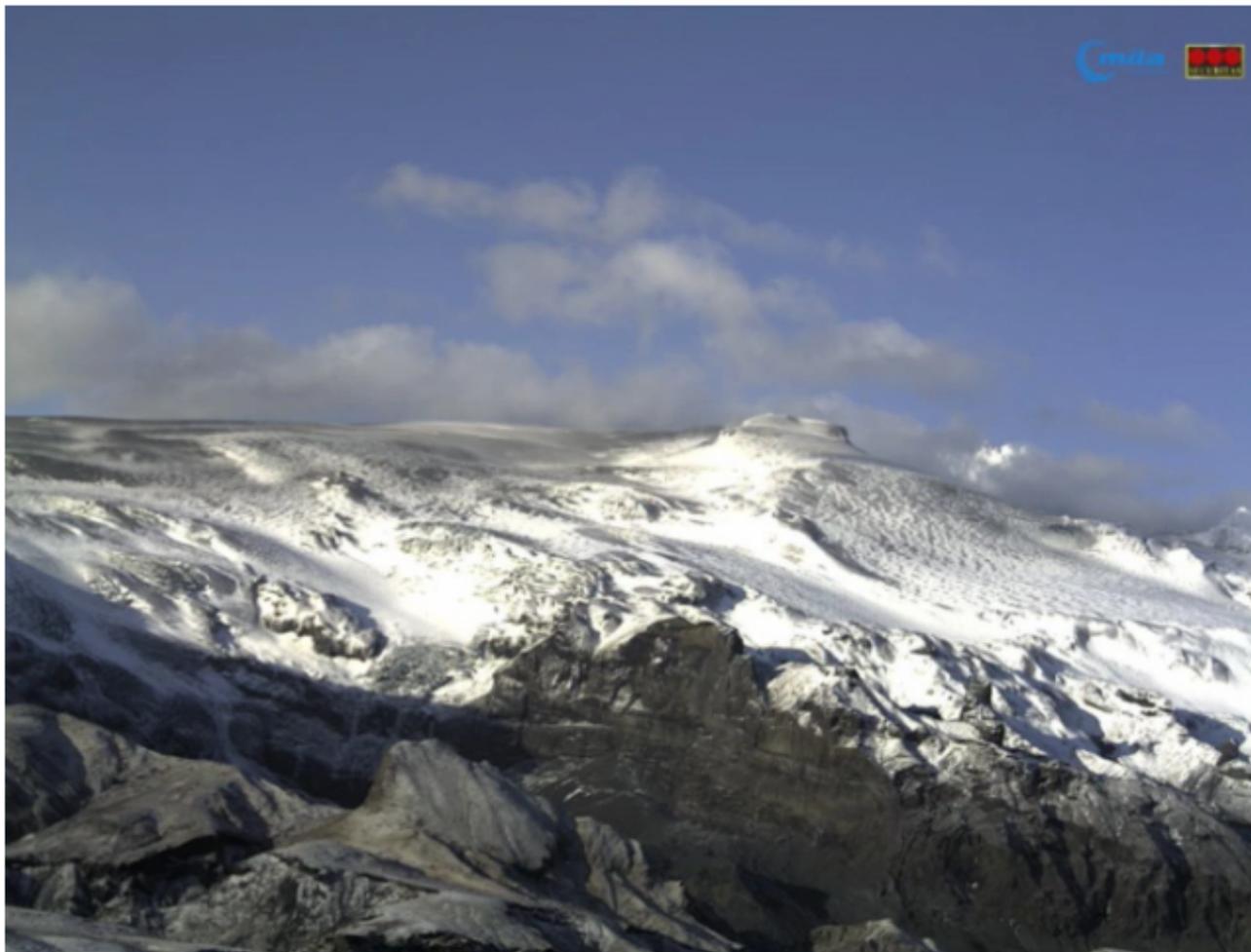
Biggest earthquakes during the last 48 hours

Size	Time	Quality	Location
2.4	18 Apr 00:49:57	Checked	2.4 km ESE of Kistufell
2.1	18 Apr 07:39:19	Checked	11.0 km SW of Kistufell
1.9	18 Apr 14:54:45	90.0	27.4 km SE of Grímsey
1.8	18 Apr 00:25:46	Checked	15.9 km ESE of Húsafell
1.7	18 Apr 03:13:15	Checked	14.2 km N of Grímsey
1.6	17 Apr 18:12:56	Checked	3.7 km ENE of Kistufell



**Eventi sismici**

## Eyjafjallajökull frá Valahnúk



**19 aprile ore 9.40**

**Telecamere  
realtime**

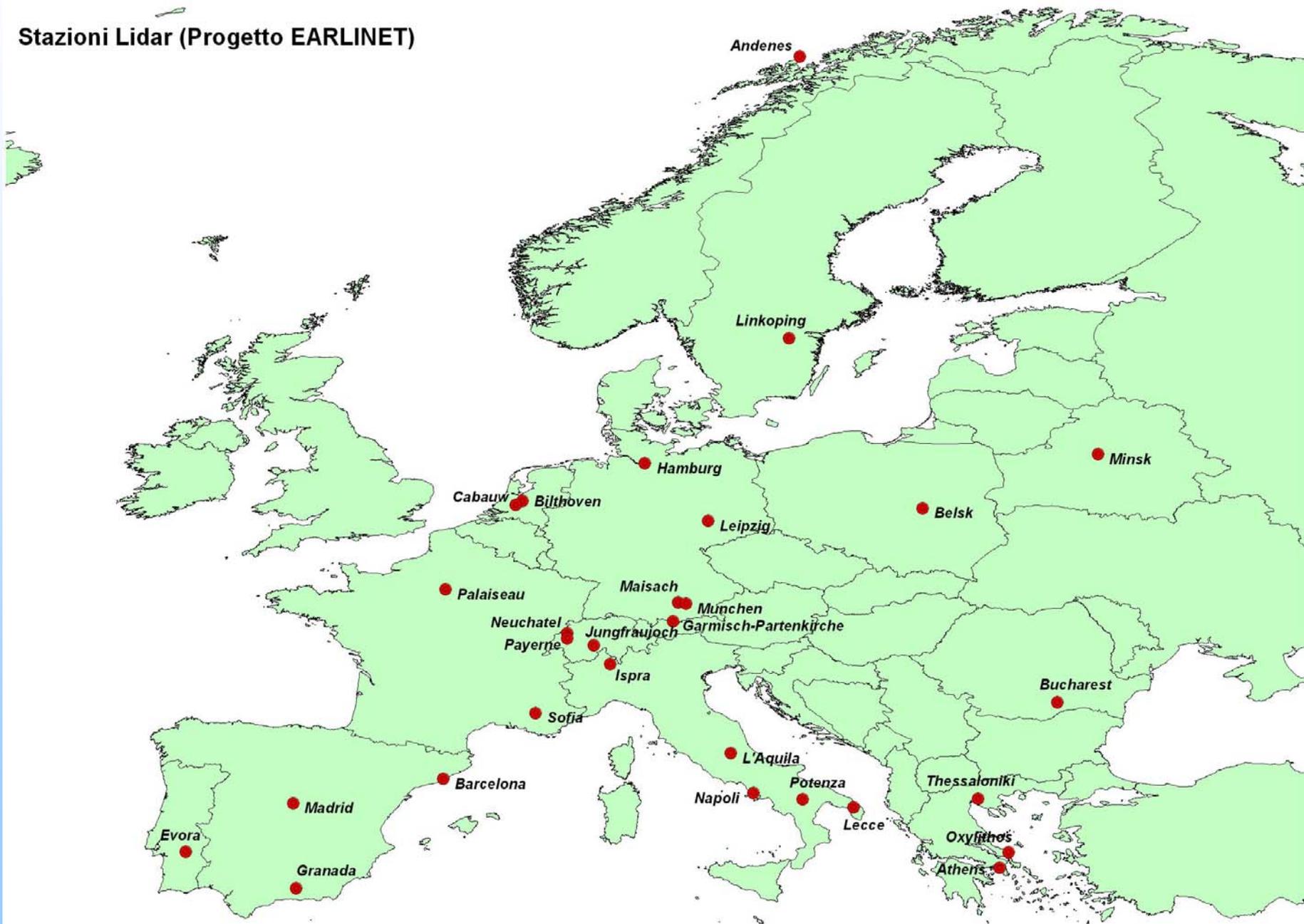


## **Sintesi del Tavolo Tecnico riunitosi il 18/04/2010**

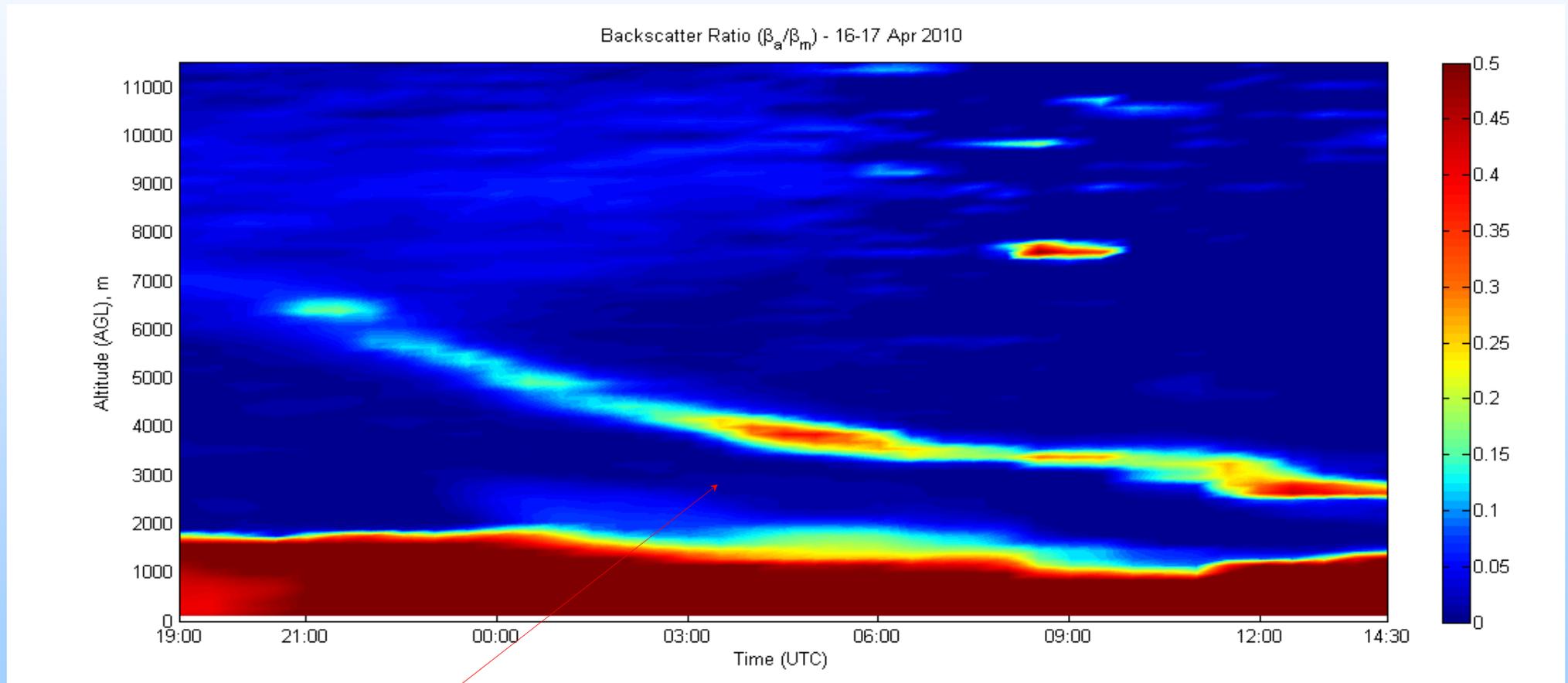
**Sono stati individuati 3 obiettivi principali:**

- 1. Valutazione del modello di simulazione VAAC di Londra e di possibili, e meno automatici, meccanismi di interpretazione delle mappe prodotte, in confronto con altri modelli di dispersione.**
- 2. Analisi delle tecniche per la misurazione del particolato in quota e raccolta dei dati disponibili in Europa ed in Italia.**
- 3. Raccolta dei dati di misurazione diretta del particolato al suolo, in Europa ed in Italia.**

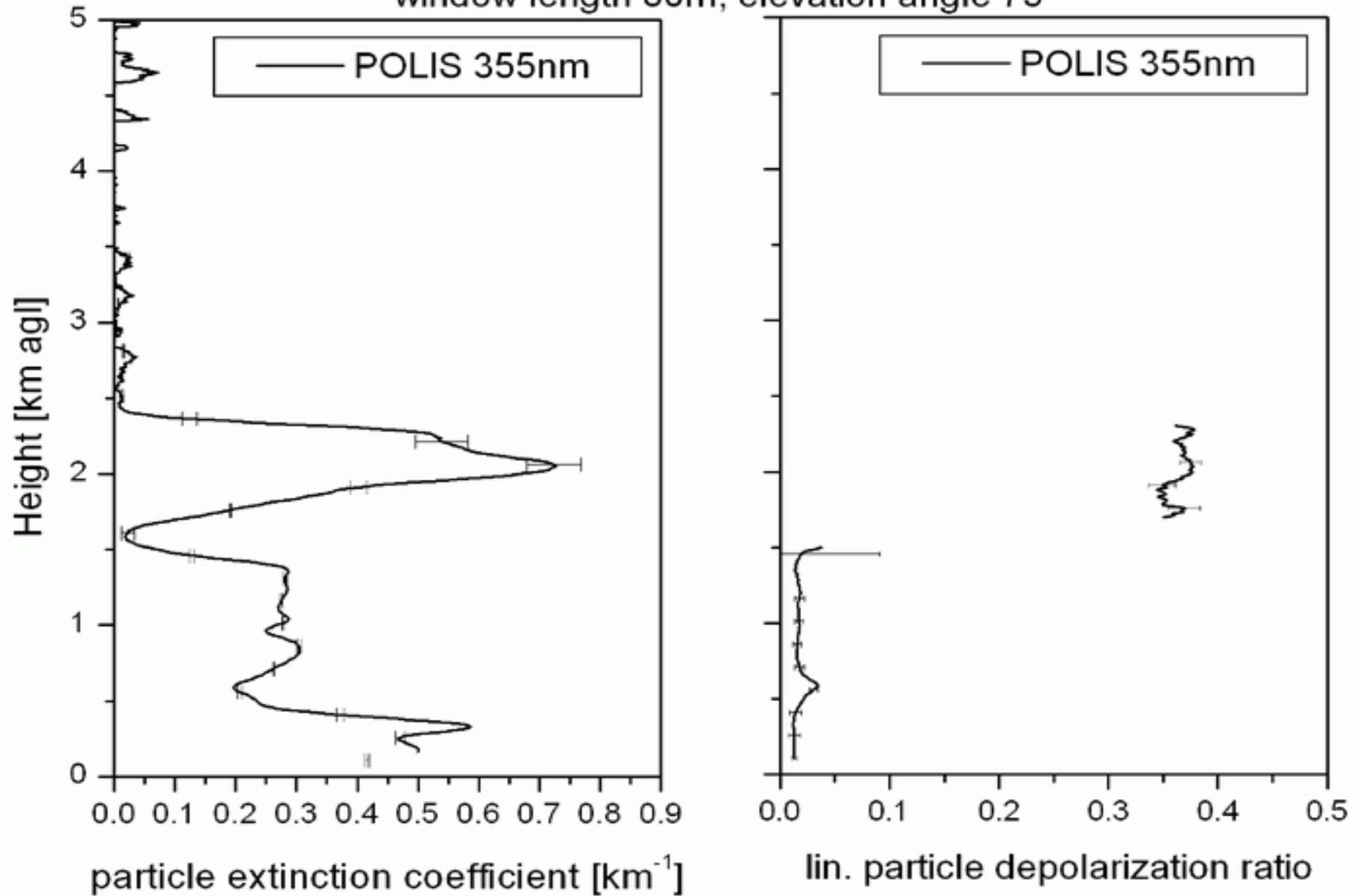
Stazioni Lidar (Progetto EARLINET)



18 April 2010 Payerne, Switzerland 19 UTC



17.04.10 Maisach/Germany 06:30 - 07:30 UTC  
window length 80m, elevation angle 75°





## DIPARTIMENTO DELLA PROTEZIONE CIVILE CENTRO FUNZIONALE CENTRALE

18 April 2010 – 17:20 UTC

- The weather over Thessaloniki (Greece) during the last two days is cloudy and rainy. We did few measurements on Friday noon, where we observed above the PBL dust from Sahara (according to the DREAM forecast) and most probably a cirrus cloud around 8-10km. Trajectories for that day did not show any connection with the volcano. According to the EURAD simulation the plume might "hit" Northern Greece on Monday. As soon as the weather improves we will start measuring.

18 April 2010 – 17:00 UTC

- According to EURAD the ash plume will be very strong over UK, France, Germany, Italy and Greece on first hours of 21/4/2010. file sent in a separate mail.

18 April 2010 – 16:00 UTC

- No volcanic cloud observed over Sofia, Bulgaria



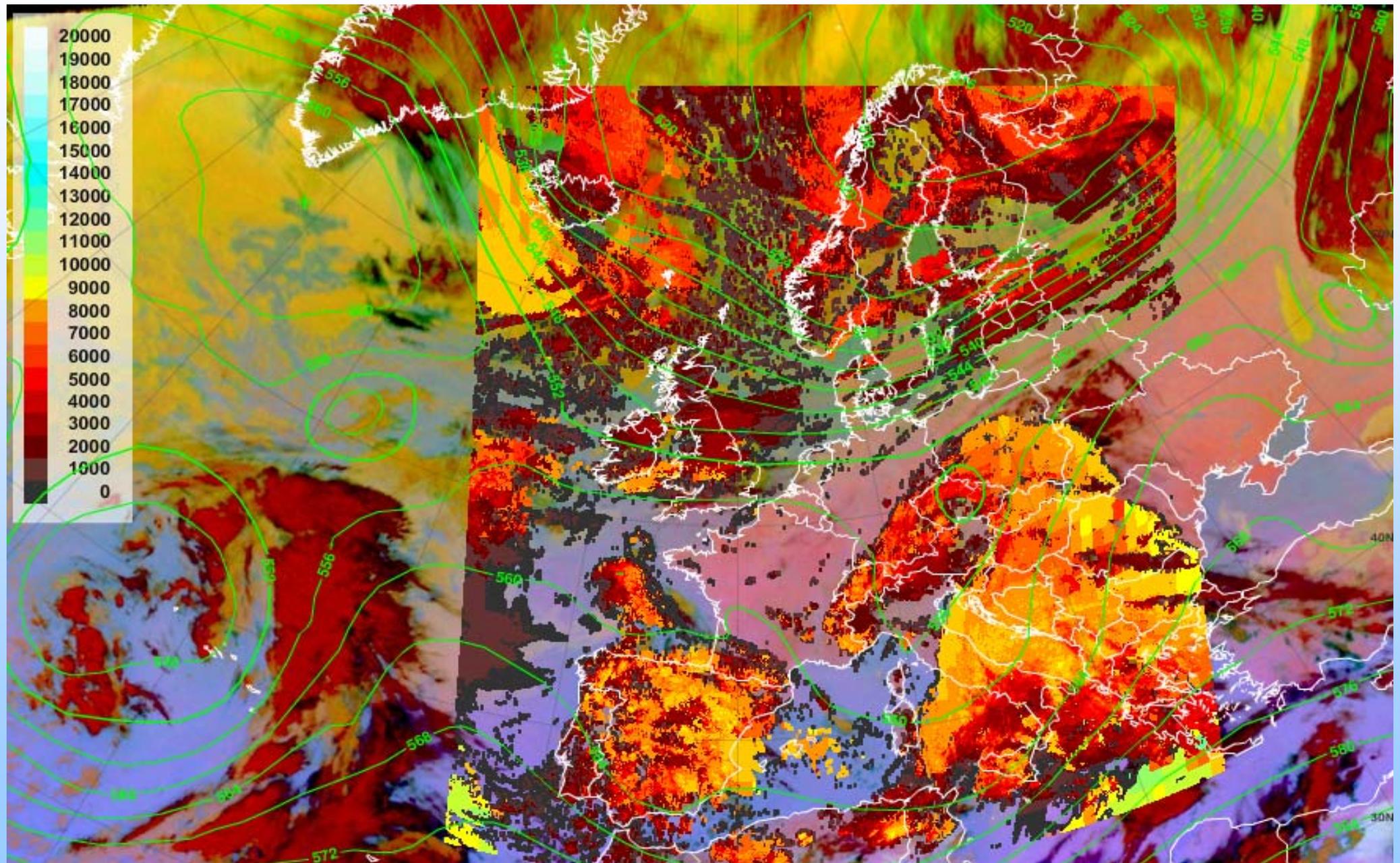
## DIPARTIMENTO DELLA PROTEZIONE CIVILE CENTRO FUNZIONALE CENTRALE

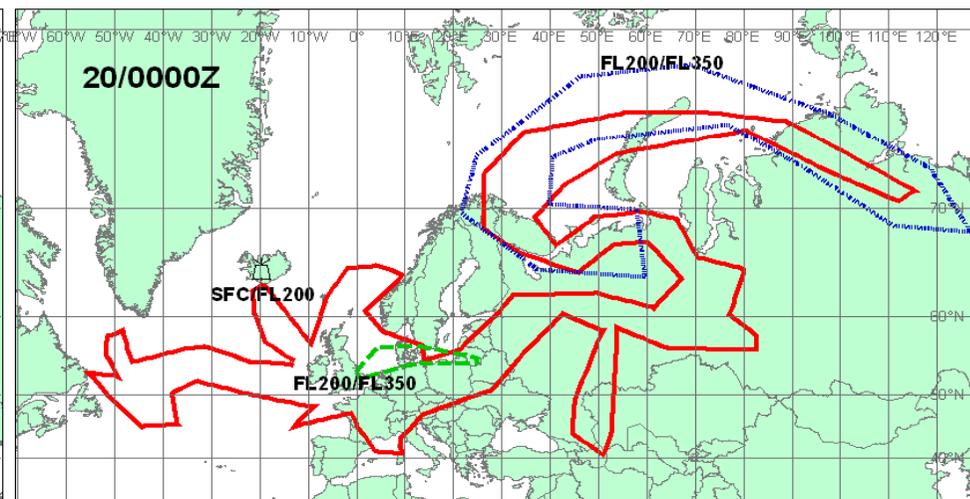
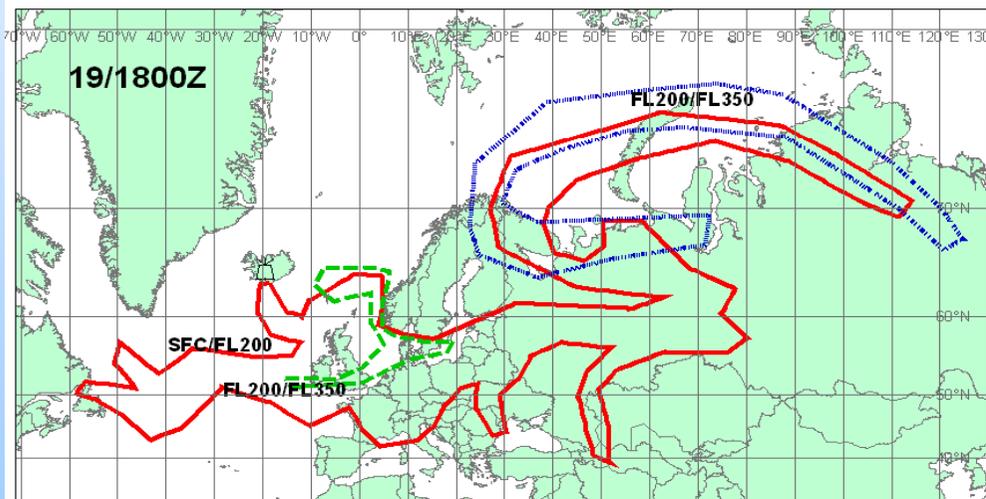
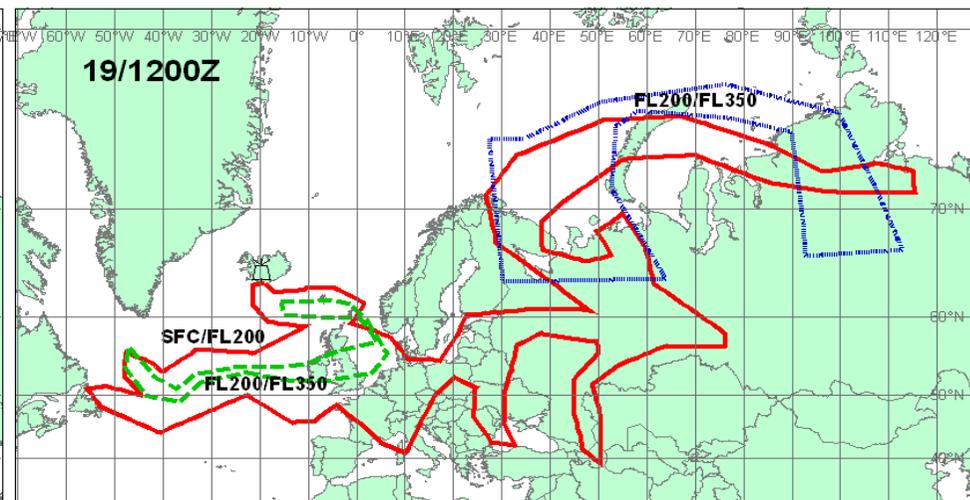
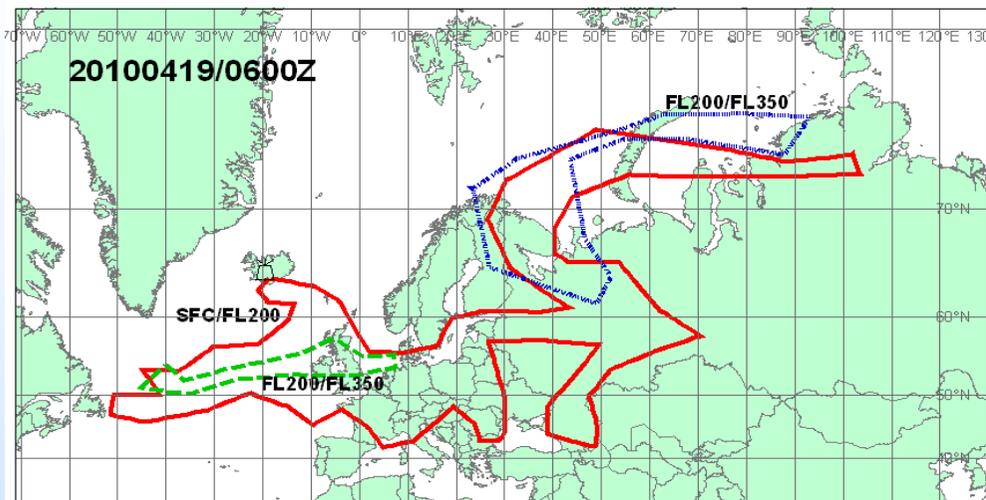
18 April 2010 – 13 UTC

- Lidar measurements over Maisach, Germany (close to Munich) performed since 15 April 2010.
- The volcanic ash plume arrived in Munich on 16.04.10 at about 17 UTC in 6 to 7 km above ground. If there was something before we didn't see it because of low clouds.
- Until midnight the now only about 100 m thick ash layer descended to about 3.5 km a.g. .
- In the early morning of 17.04. the ash layer is further descending to about 2.5 km a.g. but becoming thicker (about 500 m) and stronger.
- I estimated the lidar ratio at 532 nm to be about 50 sr and the extinction coefficient up to 0.7 / km in the peak.
- The linear particle depolarization ratio at 532 nm is homogeneously about 0.38 at 532 nm and about 0.36 at 355 nm.
- There seems to be almost no wavelength dependence in the morning plume.
- However, yesterday the signal at 1064 nm was weaker than at 355 and 532 nm, similar to what Arnoud (Cabauw) showed.
- In the optically thick "boundary layer" we measure very low particle depolarization ratios around 0.02, which indicates that it is not volcanic ash but rather something humid - maybe from the east as Anatoli mentioned.
- For the temporal development please have a look to our quicklooks on

[http://www.meteo.physik.uni-muenchen.de/~stlidar/quicklooks/mim\\_quicklooks.html](http://www.meteo.physik.uni-muenchen.de/~stlidar/quicklooks/mim_quicklooks.html)

Lunedì 19/04/2010 ore 00.00 UTC



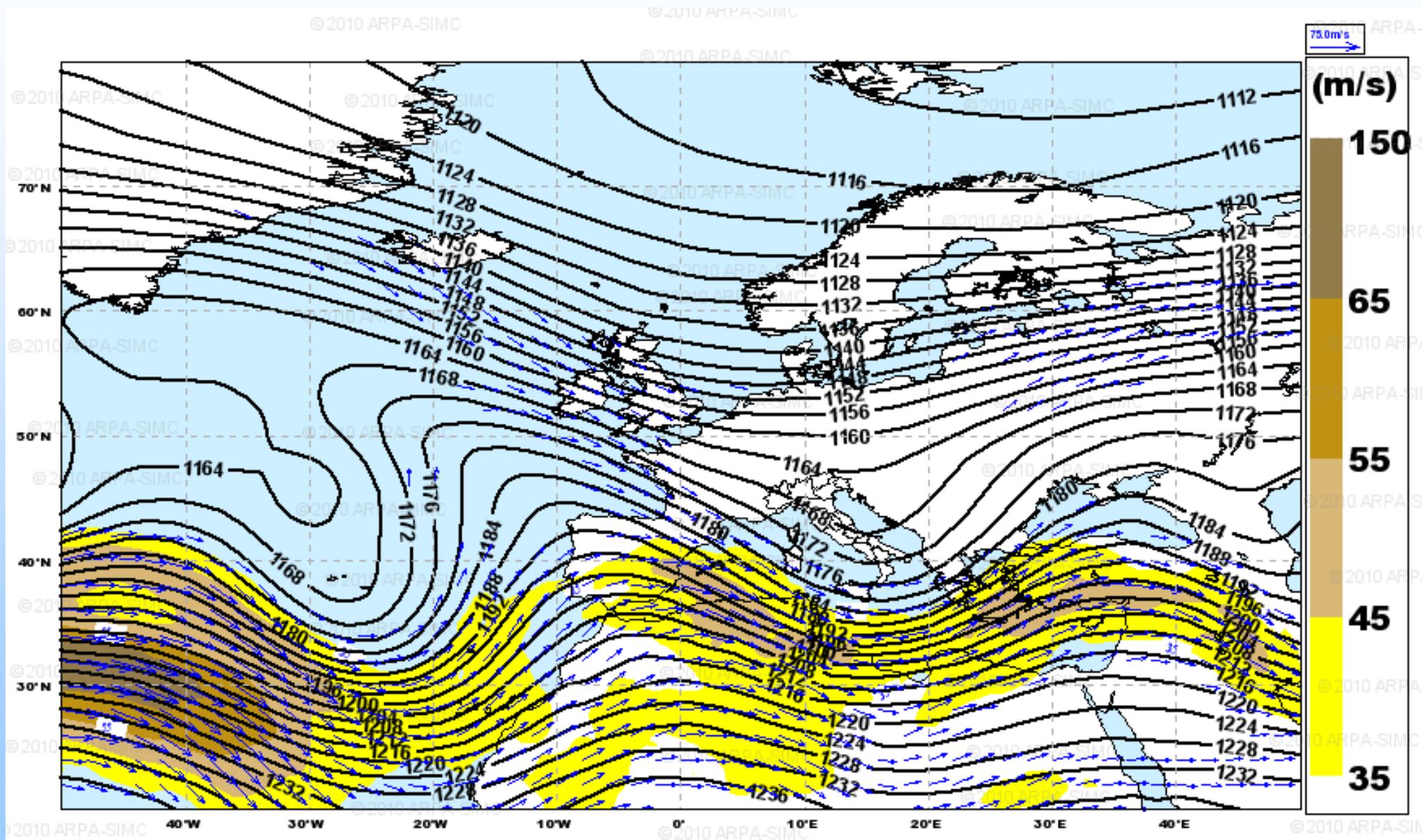


VA ADVISORY  
DTG: 20100419/0600Z  
VAAC: LONDON  
VOLCANO:  
EYJAFJALLAJOKULL  
PSN: N6338 W01937  
AREA: ICELAND

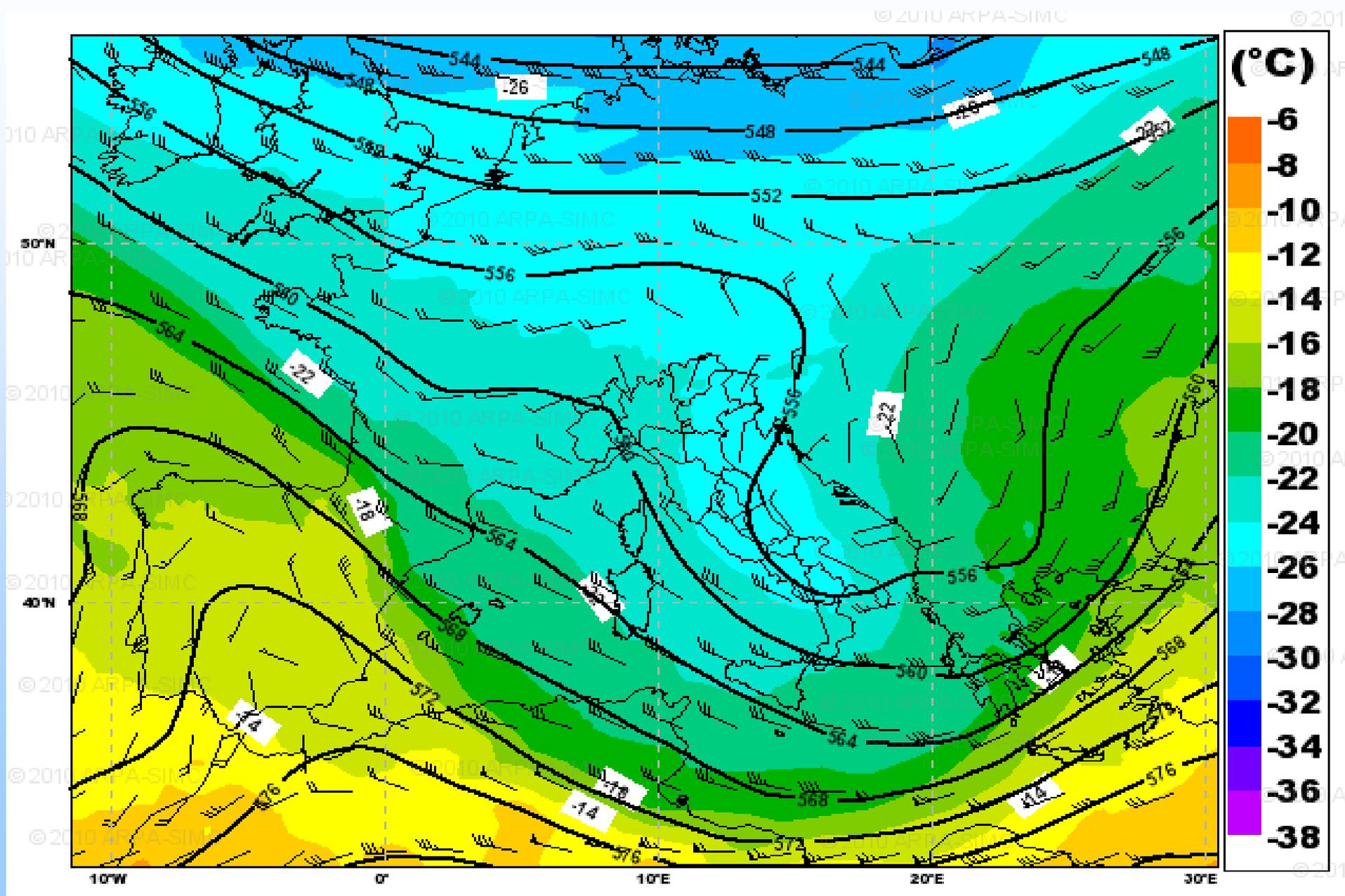
SUMMIT ELEV: 1666M  
ADVISORY NR: 2010/021  
INFO SOURCE: ICELAND MET OFFICE  
AVIATION COLOUR CODE: RED  
ERUPTION DETAILS: ERUPTION IS  
CONTINUING CONFIRMED BY RECENT  
SATELLITE PICTURES. HEIGHT OF PLUME  
CURRENTLY AROUND 5000M.

RMK: NO SIG ASH ABOVE FL350. AS BEFORE ISSUED CHARTS SHOW  
TWO SEPARATE AREAS BOTH AT FL200 TO FL350 BUT IN DIFFERENT  
COLOURS.  
NXT ADVISORY: 20100419/1200Z

Martedì 20/04/2010 ore 00.00 UTC – Geopotenziale e vento 250 hPa

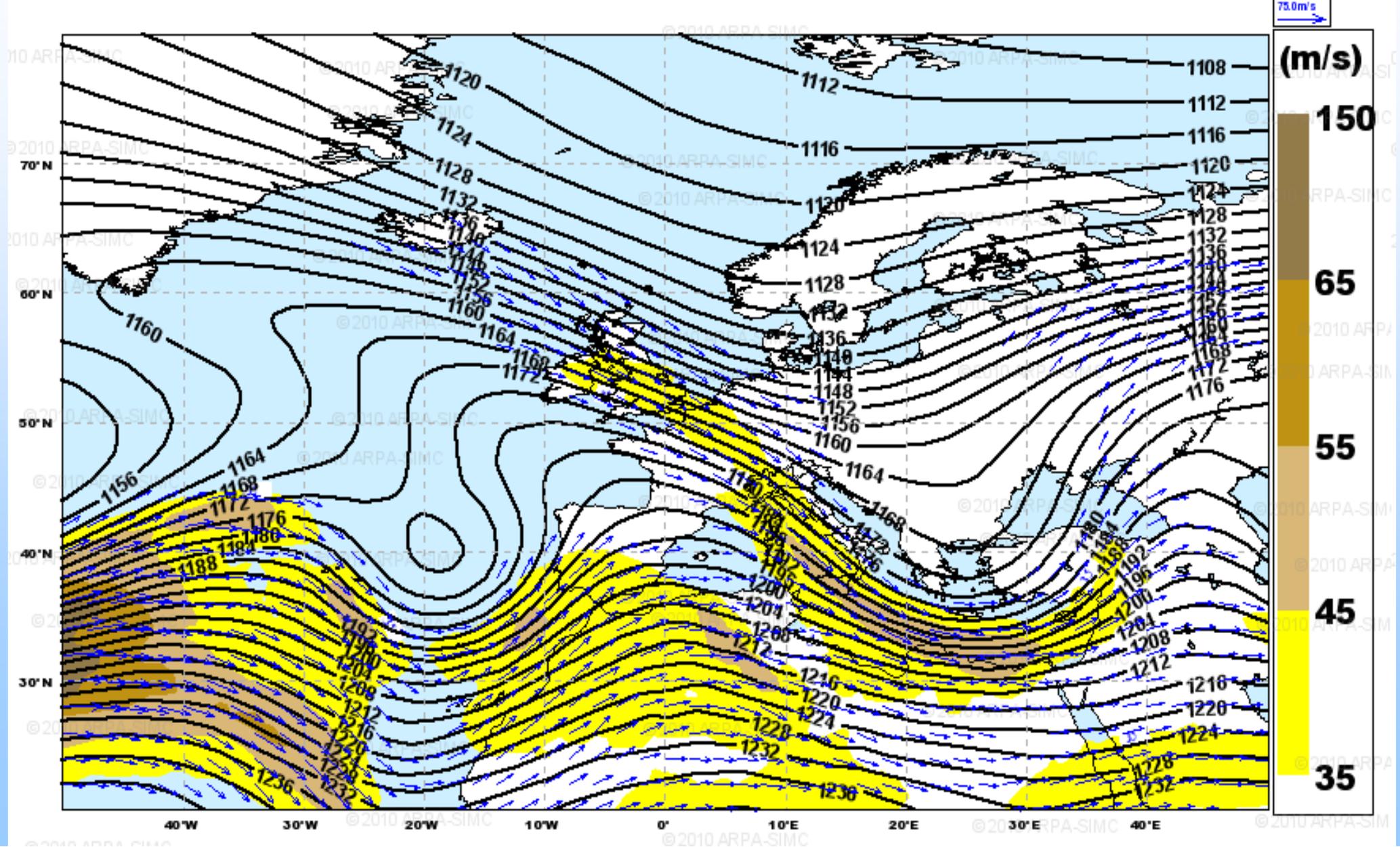


Martedì 20/04/2010 ore 00.00 UTC – Geopotenziale e vento 500 hPa

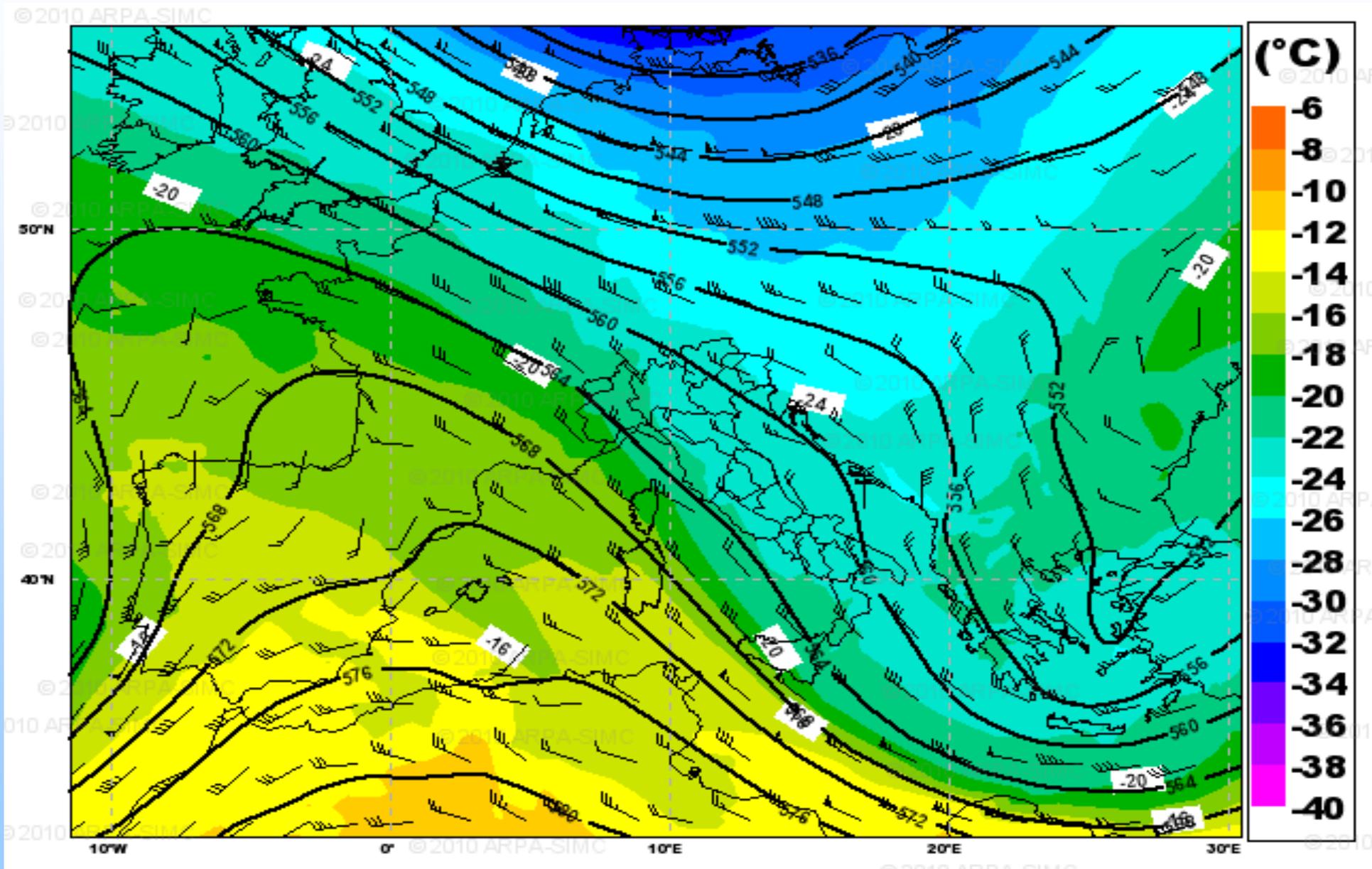


Mercoledì 21/04/2010 ore 00.00 UTC - Geopotenziale e vento 250 hPa

2010 ARPA-SIMC



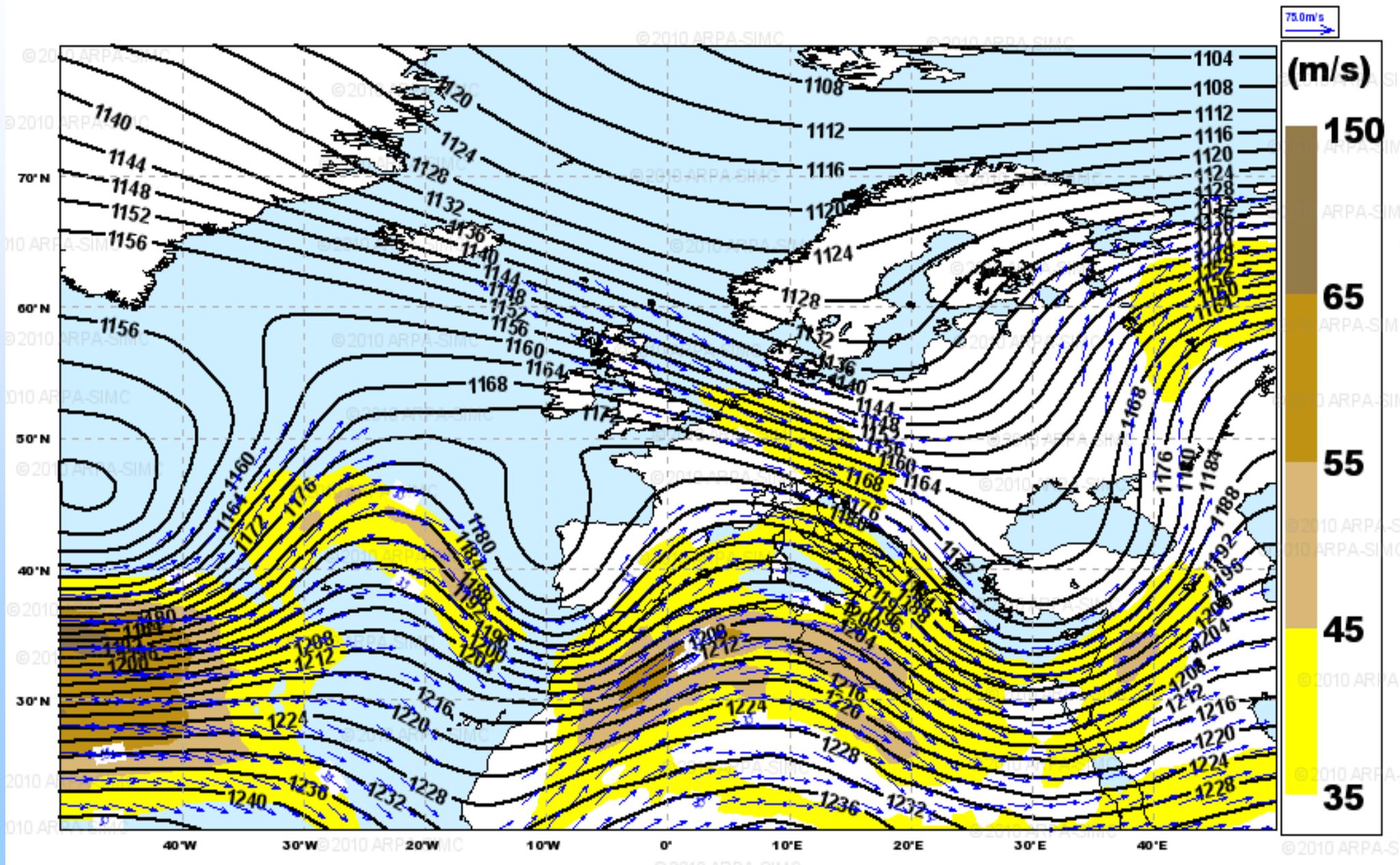
Mercoledì 21/04/2010 ore 00.00 UTC - Geopotenziale e vento 500 hPa





# DIPARTIMENTO DELLA PROTEZIONE CIVILE CENTRO FUNZIONALE CENTRALE

Giovedì 22/04/2010 ore 00.00 UTC - Geopotenziale e vento 250 hPa



Giovedì 22/04/2010 ore 00.00 UTC - Geopotenziale e vento 500 hPa

