

Operations Plan of the Day

Tuesday, 7 August 2007, 0900 UTC

General Remarks:

An elongated trough extending from the British Isles to the Bay of Biscay is expected to evolve into a cut-off low over north-western France. Ahead of this system, a strong southerly mid- and upper-tropospheric flow is located over eastern France and the Benelux countries. The COPS area lies within the associated baroclinic zone in the lower troposphere. Today, **Tuesday 7 August**, during the morning hours a mesoscale convective system moves towards the northeast over the COPS area. In the east of the area, new surface-based convective storms may develop during the afternoon. Behind the MCS, a dry period will start that should last overnight and into Wednesday morning.

As the cut-off low moves towards northern Italy, upward vertical motion should increase over and north of the Alps in a regime of westward warm air advection. As a result, widespread rain that is in part convective and in part stratiform is expected to develop over the Alps early on **Wednesday**. During the afternoon or early evening this intense precipitation is expected to set in from the south and remain over the COPS region for quite some time. Slow movement of the cut-off low suggests that the precipitation will affect the COPS area for a longer period, possibly into the weekend. As a result, flooding problems are a possibility.

Until **Thursday 12 UTC** rain amounts of 40-80 mm in the Valleys and possibly over 100 mm locally in the mountains are predicted. The area of rain will likely stay over or near the COPS region thereafter with slightly reduced intensity.

On **Friday**, the stratiform and elevated convective rains in the range of the mid/upper-low will likely remain near the COPS area. Exact details about the focal point of the rain activity differ among model runs. It may be as far northwest as Belgium or as far southeast as Bavaria. Most likely, the COPS area will still be affected by relatively strong rainfall.

On **Saturday** the likelihood increases that most rain will have moved off to the north and east, but model predictions still vary in this respect.

Operations summary:

Day X (Tuesday): IOP 14a

Day X+1 (Wednesday): IOP 14b

Day X+2 (Thursday): IOP possible

If no IOP is performed, a debriefing discussing IOPs 12 and 13 will take place in the meeting room Venezia.

Day X+3 (Friday): IOP possible

Day X+4 (Saturday) IOP possible

Mission Plans:

Day X, Tuesday, August 07: IOP 14a

Specifications of vertical soundings:

- # IMK-FZK: no operations
- # IMK-Burnhaupt: no operations
- # EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)
- # EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)
- # Hornisgrinde (H): 05, 11, 17 (RS 80G)
- # Achern (R): 05, 11, 17 (RS 80H)
- # Deckenpfronn (S): 2 soundings: morning (one time of 05, 08* or 11 UTC) and afternoon (one time of 14, 17*, 20 UTC)

***Operations Center recommendation**

- # IMK Dropupsondes: no operations

Research Lidar systems: no operations

Radar Systems: Operations from 03 UTC until 15 UTC
(rain is expected to cease until then)

- # Doppler-on-Wheels: Coordinated operations with two DOWs in the southern side of the COPS region; DSW4 (Fessenheim) and DSW2 (Ohnenheim)

Day X+1, Wednesday, August 08: IOP 14b

Specifications of vertical soundings:

- # IMK-FZK: 05, 08, 11, 14, 17, 20 UTC
- # IMK-Burnhaupt: 05, 08, 11, 14, 17, 20 UTC
- # EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)
- # EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)
- # Hornisgrinde (H): 05, 11, 17 (RS 80G), 08, 14, 20 UTC (RS 80H)
- # Achern (R): 05, 11, 17 (RS 80G), 08, 14, 20 UTC (RS 80H)
- # Deckenpfronn (S): 2 soundings: morning (one time of 05, 08* or 11 UTC) and afternoon (one time of 14, 17*, 20 UTC)

***Operations Center recommendation**

- # IMK Dropupsondes: no operations

Lidar systems:

Operation period 0500 – 1600 UTC if weather conditions permit
Scan scenario ScaS2.

Radar Systems: Operation period starting at 0900 UTC, possibly throughout the night (to be confirmed)

Doppler-on-Wheels: Coordinated operations with two DOWs in the southern side of the COPS region; DSW4 (Fessenheim) and DSW2 (Ohnenheim)

Day X+2, Thursday, August 09: IOP possible

Specifications of vertical soundings:

EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)

EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)

Hornisgrinde (H): to be determined

Achern (R): to be determined

Deckenpfronn (S): to be determined

IMK Dropupsondes: no operations

Radar Systems: Operation period 05 till 17 UTC (to be confirmed)

Doppler-on-Wheels: Coordinated operations with two DOWs in the southern side of the COPS region; DSW4 (Fessenheim) and DSW2 (Ohnenheim)

If no IOP is performed, a debriefing discussing IOPs 12 and 13 will take place in the meeting room Venezia.

Day X+3, Friday, August 10: IOP possible

Day X+4, Saturday, August 11: IOP possible

Your COPS Operations Center Team

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