

Operations Plan of the Day

Tuesday, 31 July 2007, 1000 UTC

General Remarks:

Between a mid-/upper-level long wave trough that initially stretches from Scandinavia over the eastern parts of central Europe into the central Mediterranean Sea region and a high pressure ridge located over western Europe a north-westerly flow is present over central Europe advecting rather cool air of polar origin. As the ridge moves slowly towards the east, mid-level subsidence leads to an inversion at about 700 hPa. Therefore dry and fair weather conditions will prevail in the COPS area with only few shallow cumulus clouds that are likely to form in the course of the **today**.

On **Wednesday**, the ridge progresses further eastwards over Germany and reaches the Polish border in the evening hours. Only few and shallow Cu are likely to develop mainly over mountains. Ahead of a mid/upper-level long wave trough at the western edge of Europe, a south-westerly flow will establish over central Europe bringing significantly warmer air to the COPS region. A surface low pressure area is expected to form over northern Spain/southern France, travelling towards the northeast into the night to Thursday.

On **Thursday**, as the surface low travels to northern Germany, the southwesterly flow increases, advecting even warmer and moister air into the COPS area. In the vicinity of that low, many clouds are expected throughout the day including some rain drops or even a brief shower or two before noon already. However, mainly short sunny intervals are also possible. Thunderstorms are most likely with the passing cold front that is expected to cross COPS area in the late evening/night to Friday.

On **Friday**, the surface low as well as the associated long-wave trough progress eastwards. Models are not quite consistent yet about how fast COPS area gets under the influence of an approaching high-pressure ridge from the west. Most likely scenario from the current point of view is that remnants of the cold front are present with stratiform cloudiness possibly releasing last rain drops mainly in the southeastern parts of COPS area in the morning hours. In the course of the day, sun should get greater portions of the sky, however a shower or two cannot be excluded.

On **Saturday**, the strengthening high-pressure ridge extends to the northeast leading to dry, sunny and quite warm weather conditions.

Operations summary:

Day X (Tuesday): no IOP, Debriefing discussing IOPs 9, 10, and 11 will take place on Tuesday, 31 July, 12:00 LT in meeting room Venezia, afterwards a picnic is planned, please bring your own food and drinks

Day X+1 (Wednesday): IOP 13a planned

Day X+2 (Thursday): IOP 13b planned

Day X+3 (Friday): IOP possible

Day X+4 (Saturday): IOP possible

Mission Plans:

Day X, Tuesday, July 31: no IOP

Aircraft:

SAFIRE Falcon 1900 – 2200 UTC reduced MAP pattern for Lidar intercomparison

Extra radiosondes shall be launched during the time of the aircraft operation from supersites H, R, and V. Any supporting measurements from ground-based systems will be coordinated by Paolo Di Girolamo

The 6th Science Debriefing will take place at the conference room Venezia at 12:00 LT (1000 UTC). Please provide brief presentations on the highlights of IOP 9, 10, and 11.

Afterwards a picnic in the backyard of the conference room is planned; please bring your own food and drinks.

Day X+1, Wednesday, August 01: IOP 13a planned

Specifications of vertical soundings:

IMK-FZK: 08, 11, 14, 17, 20 UTC
IMK-Burnhaupt: 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): 08, 11, 14, 17, 20 UTC (RS 92)
Achern (R): 08, 11, 14, 17, 20 UTC (RS 92)
Meistratzheim (V): 2315 (day X-1), 0515, 0815, 1115, 1415, 1715 UTC)
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 0700 – 2000 UTC; Scan scenario ScaS1.

Doppler-on-Wheels (DOW):

Coordinated operations with two DOWs in the western and eastern side of the

COPS region; locations to be discussed

Aircraft:

- # SAFIRE Falcon 0800 – 1200 UTC MAP pattern including dropsonde release
1330 – 1730 UTC MAP pattern including dropsonde release
- # DLR Falcon 0415 – 1200 UTC one targeted upstream mission to Spain;
1500 – 1800 UTC modified MAP pattern in COPS area
(details to be announced tomorrow)

Day X+2, Thursday, August 02: IOP 13b planned

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, 08, 11, 14, 17 UTC (RS 92)
- # Achern (R): 05, 08, 11, 14, 17 UTC (RS 92)
- # Meistratzheim (V): 2315 (day X-1), 0515, 0815, 1115, 1415, 1715 UTC)
- # 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: to be discussed

Lidar systems:

- # Operation period 0500 – 1800 UTC; Scan scenario ScaS1.

Doppler-on-Wheels (DOW):

- # Coordinated operations with two DOWs in the western and eastern side of the COPS region; locations to be discussed

Aircraft:

- # SAFIRE Falcon 0700 – 1100 UTC MAP pattern including dropsonde release
1230 – 1630 UTC MAP pattern including dropsonde release
- # DLR Falcon one morning flight in COPS area, MAP pattern
if evening flight of the previous day could not be made

Day X+3, Friday, August 03: IOP possible

If IOP will be confirmed:

Radar observations and vertical soundings, no lidar or aircraft operation planned.

Day X+4, Saturday, August 04: IOP possible

Your COPS Operations Center Team

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