

Operations Plan of the Day

Wednesday, 1 August 2007, 0900 UTC

General Remarks:

The axis of a mid-/upper-level ridge stretches from Scandinavia to the central Mediterranean Sea region and crosses the COPS area early on Wednesday afternoon. Ahead of an approaching trough over the Bay of Biscay, strong warm air advection is occurring over France and will affect the COPS region during the afternoon and evening. The air is dry and fair weather conditions will prevail in the COPS area with only few shallow cumulus clouds expected to form during the day. A surface low pressure area is expected to form over northern Spain/southern France, travelling towards the northeast into the night to Thursday.

In the night to **Thursday**, the trough, that is followed by a cold front at the surface, approaches the COPS area. As a result, the cloud cover, including embedded convective clouds, will increase with the approach of an area of rain and convective storms that affects the COPS area in the 03-09 UTC time frame. Winds in the lower troposphere are expected to increase to about 15-20 m/s, so that the passage of the showers will likely be accompanied by relatively strong gusts, especially in the hills and mountains. In the wake of the storm system, low-based cumulus clouds will probably grow into a number of showers and thunderstorms again and produce a few more showers.

On **Friday**, conditions are somewhat unstable and a few larger convective clouds are expected to grow into a few showers during the afternoon. The COPS area is located between a cut-off low over NE Germany and a ridge building up over the Benelux and France. On **Saturday**, the ridging should result in stabilization and subsidence. As a result the formation of any but small to moderate convective clouds is not expected.

On **Sunday**, stable, calm weather is expected to persist. On Monday and/or Tuesday, a new trough is expected to approach the COPS area from the northwest. Whether its approach and passage will be accompanied by thunderstorms is uncertain at this moment.

Operations summary:

- # Day X (Wednesday): IOP 13a**
- # Day X+1 (Thursday): IOP 13b planned**
- # Day X+2 (Friday): no IOP**
- # Day X+3 (Saturday): Down Day**
- # Day X+4 (Sunday): no IOP**

Mission Plans:

Day X, Wednesday, August 01: IOP 13a

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)
Deckenpfronn (S): no operations
IMK Dropupsondes: no operations

Lidar systems:

Operation period 0700 – 2000 UTC; Scan scenario ScaS1.

Doppler-on-Wheels (DOW):

no operations; relocate to DNW5 (Neuried) and DNE8 (Oberiflingen):
measurements to begin 00 UTC Thursday

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 extended leg into France if possible,
otherwise modified MAP pattern in southern COPS area

Day X+1, 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, 20* UTC (RS 92)
- # 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: 3 teams with at least 4 sondes each

Lidar systems:

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

Radar Systems:

Operations to start 00UTC and continue through the night to Friday

- # Doppler-on-Wheels: Coordinated operations with two DOWs in the western and eastern side of the COPS region; DNW5 (Neuried) and DNE8 (Oberifflingen)

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+2, Friday, August 03: no IOP

Vertical soundings and radar; no lidar or aircraft operation planned.

Specifications of vertical soundings:

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

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

Radar systems:

Radar observations should continue until precipitation ceases

(large forecast uncertainty)

Day X+3, Saturday, August 04: Down Day

Day X+4, Sunday, August 05: no IOP

Your COPS Operations Center Team

George Craig
Science Director

Reinhold Steinacker
Operations Director

Christian Barthlott
Operations Supervisor