

# Operations Plan of the Day

**Wednesday, 22 August 2007, 0930 UTC**

## General Remarks:

### Synoptic Situation

A large mid-tropospheric cut-off low is located over western continental Europe. It has multiple cores, one of which is located over the Belgian-German border region, east of which a strong south-westerly jet is located. A weakening back-bent occlusion stretches from the Rhineland over Lorraine to western France. Moist near-neutral profiles are expected over the COPS region on Wednesday and Thursday. On Friday, the cut-off low is forecasted to evolve into a weak elongated trough stretching from Portugal to southern Scandinavia: the COPS area will likely be located right under its axis late on Friday and on Saturday morning, which may well keep some shower activity ongoing.

On **Wednesday**, an upper-tropospheric trough over the western Mediterranean Sea -just off the Spanish east coast- is expected to move rapidly north-eastward. The upward vertical motion associated with it should affect the COPS area during the second half of the evening. Moist near-neutrally stratified air will remain over the eastern COPS area on Wednesday and Thursday, whereas the western part will deal with weakening stratiform precipitation. Competing low-level cold air advection and weak insolation will determine whether sufficient destabilization for isolated convective shower development will occur. Biggest chances are expected for the southern Black Forest and the Swabian Jura, but a few weak showers cannot be ruled out elsewhere, either.

On **Thursday**, some scattered mid-level cloudiness is expected over the COPS area. The near-neutral environment forecasted by the models and weakening low-level cold air advection indicate that isolated showers should be possible where the sun breaks through for a longer time. Though not very likely, even a thunderstorm cannot be ruled out.

Both the surface and the upper low weaken on **Friday** leading to a quite friendly day with lots of sun. Mostly shallow cumulus clouds will develop during the morning. However, a few isolated showers and possibly thunderstorms will likely develop over the mountains during the day.

Under high pressure influence, **Saturday** will be mostly sunny. There still is a chance that an isolated shower manages to form over the mountains.

**Sunday** will be a mostly dry and sunny day. A cold front is expected to pass in the evening, which should bring some clouds and perhaps a drop of rain.

### Operations summary:

<b># Day X (Wednesday)</b>	<b>IOP 17b</b>
<b># Day X+1 (Thursday)</b>	<b>No IOP</b>
<b># Day X+2 (Friday)</b>	<b>IOP planned</b>
<b># Day X+3 (Saturday)</b>	<b>IOP possible</b>
<b># Day X+4 (Sunday)</b>	<b>IOP possible</b>

## Mission Plans:

### Day X, Wednesday, August 22: IOP 17b

#### Specifications of vertical soundings:

- # EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)
- # EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)
- # Achern (R): 8, 11, 14, 17 UTC (RS92)
- # Hornisgrinde (H): 8, 11, 14, 17 UTC (RS92)
- # 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 Dropup-sondes 2 Dropup-sondes launches with FLYP'S at Seibelseckle or Hornisgrinde between 10-18 UTC

#### Lidar systems:

- # 07 - 18 UTC, Scan scenario ScaS1, weather permitting.

#### Radar Systems:

- # Poldirad: standard daytime measurements

#### BAe mission:

# Take off in Cranfield at 10:30 UTC. No stopover at Baden Airpark before mission. Operations performed from 12:00 – 17:00 UTC in COPS area. Overpasses of Supersites R, H, and M at different levels are envisioned combined with aerosol lags in Rhine valley and over Black Forest ridge. Study of convective clouds in Boxes A and B planned during 12:00-17:00 UTC. Afterwards, the aircraft will be refueled at Baden Airpark and return to Cranfield.

**Day X+1, Thursday, August 23: No IOP**

**Day X+2, Friday, August 24: IOP planned**

Before the convection, which is expected in the late afternoon, new scan scenarios shall be tested at Supersite H. Furthermore, another mission of the BAe is planned.

**Day X+3, Saturday, August 25: IOP possible**

New scan experiments shall be continued as long as the weather is favourable.

**Day X+4, Sunday, August 26: IOP possible**

**Your COPS Operations Center Team**

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