

# Operations Plan of the Day

**Sunday, 12 August 2007, 0930 UTC**

## General Remarks:

### Synoptic Situation

Today's scenario begins as "high-pressure convection" evolving into weakly forced convection during the evening. By Monday morning, the upper trough over the British Isles will merge with a cut-off low now located over Iceland, resulting in a large and intense upper low, centered over the northern British Isles. Several short waves orbiting around the main upper low will affect western Europe during the next days. One quite vigorous short-wave trough will induce strong cyclogenesis west of the British Isles on Tuesday. As this low tracks northeastwards, strong southwesterly low-level flow/warm advection will establish over western Europe. Eventually, the entire longwave trough and the cold front attendant to it will leap eastwards towards the middle of the week. After the passage of the cold front over the COPS area early on Thursday, little convective activity is expected on the days to follow.

On **Sunday, 12 August**, the fog should have disappeared around midday, sufficient surface heating should take place to allow for convective initiation in the early afternoon. As large-scale ascent overspreads the COPS area in the evening hours, thunderstorm coverage should undergo some increase, though the effect of the loss of diurnal heating may eventually dominate so that storms should gradually diminish in the late evening. However, a small chance exists that storms will last well into the night.

On **Monday** morning, some fog along with remnants of overnight's convection may be in place, which should give way to new convective development around midday.

On **Tuesday** there is little chance of deep convection because of weak mid/upper-level ridging, though an isolated thunderstorm or two cannot be ruled out over the mountains late in the afternoon.

The forecast for **Wednesday** remains challenging. Strength of large-scale ascent as well as cloudiness/precipitation in the warm sector are not agreed upon by the various models. The possible scenarios range from mainly stratiform rain to a well-organized squall line capable of widespread severe wind gusts. However, later model runs have to be awaited.

On **Thursday**, rain associated with the cold front will initially be present. Thereafter, convective clouds should quickly form in the polar air, but currently it does not seem likely that convective mixing will be deep enough for glaciation of the clouds.

## Operations summary:

- # Day X (Sunday): IOP 15a (high-pressure convection)**
- # Day X+1 (Monday): IOP 15b**
- # Day X+2 (Tuesday) no IOP**
- # Day X+3 (Wednesday) IOP possible**
- # Day X+4 (Thursday) IOP possible**

## **Mission Plans:**

### **Day X, Sunday, August 12: IOP 15a**

#### **Specifications of vertical soundings:**

- # EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)
- # EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)
- # Hornisgrinde (H): 05, 11, 17 UTC (RS 80G), 08, 14, 20 UTC (RS 80H)
- # Achern (R): 05, 11, 17 UTC (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:** 04 - 21 UTC, Scan scenario ScaS1, weather permitting

#### **Radar Systems:**

- # Poldirad: Standard daytime operations, extension to early night until convective precipitation ceases as staff permits
- # Doppler-on-Wheels: Operation at DNW3 (Hohbühn) and DNE6 (Hallwangen) starting at 07 UTC until convection ceases

### **Day X+1, Monday, August 13: IOP 15b**

#### **Specifications of vertical soundings:**

- # EUCOS-MeteoSwiss: 05, 17 UTC (Payerne; launching time)
- # EUCOS-DWD: 05, 17 UTC (Meiningen, M, S; launching time)
- # Hornisgrinde (H): 05, 11, 17 UTC (RS80G), 08, 14, 20 UTC (RS 80H)
- # Achern (R): 05, 11, 17 UTC (RS80G), 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: 4 teams with 6 sondes each available

**Lidar systems:** 04 - 21 UTC, Scan scenario ScaS1, weather permitting

**Radar Systems:**

# Poldirad: Standard daytime operations

# Doppler-on-Wheels: Operation at DNW3 (Hohbühn) and DNE6 (Hallwangen)  
starting at 07 UTC

**Day X+2, Tuesday, August 14: no IOP**

**Day X+3, Wednesday, August 15: IOP possible**

**Day X+4, Thursday, August 16: IOP possible**

**Your COPS Operations Center Team**

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