

COPS Weather Summary

31 July 2007

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Valid: Wednesday 1 August 09:30 UTC to Thursday 5 August 00:00 UTC

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Synoptic overview

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.

Analysis and forecast of synoptic controls in the COPS region

Today (Wednesday) 1 August, and Tomorrow, Thursday 2 August

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 on 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, cumulus and stratocumulus clouds will likely linger on and produce a few more light showers. This is especially the case during the late evening as a second trough approaches the COPS area from the west.

Friday 3 August

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.

Saturday 4 August

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.

Sunday 5 August and Monday 6 August

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.

Extended outlook

Models are somewhat uncertain concerning the movement of the aforementioned high pressure ridge to the east. However, it is supposed to remain over central Europe at least until Sunday.

Today, Wednesday 1 August

Time/location of first convective cloud development	Shallow cumulus clouds preferentially over the hills and mountains from the late morning onwards.
Time/location of convective storm initiation	-
Mode/coverage/evolution	-
Convective cloud base	Around 1800 m rising to 2000 m.
Storm motion	-
Maximum temperature	Up to 27 °C in the Rhine Valley.
Precipitation	-
Severe weather threat	-

Tomorrow, Thursday 2 August

Time/location of first convective cloud development	Cloudiness -convective and stratiform- from the first hours of Thursday onwards.
Time/location of convective storm initiation	Advection of convective activity into the COPS area from the west at around 03 UTC. Widespread low and mid-level clouds with embedded deep convective clouds. Renewed surface-based convective cloud development in larger clearings during the afternoon growing into a few showers and thunderstorms.
Mode/coverage/evolution	A poorly-organized large cluster moving out of the COPS area followed by isolated storms and small clusters, likely organized into small lines.
Convective cloud base	800 – 1000 m
Storm motion	About 15-20 m/s from the southwest.
Maximum temperature	Up to 23 °C in the Rhine Valley.
Precipitation	10-20 mm from the morning system, about 5 mm more possible in places with the isolated storms later in the day.
Severe weather threat	Strong gusts around 20 m/s possible, and higher across the mountains.

Friday 3 August

Time/location of first convective cloud development	Mainly embedded Cu already before noon.
Time/location of convective storm initiation	A few showers likely forming during the morning.
Mode/coverage/evolution	Low coverage.
Convective cloud base	Around 1200 m.
Storm motion	About 15-20 m/s from the southwest.
Maximum temperature	Up to 23 °C in the Rhine Valley.
Precipitation	Locally 10 mm from showers.
Severe weather threat	Low.

Saturday 4 August

Time/location of convective storm initiation, Mode/coverage, Evolution	No convective storms.
Convective cloud base	Rising to about 1400 m.
Storm motion	At about 10-15 m/s from the northwest.
Maximum temperature	Up to 27 °C in the Rhine Valley.
Precipitation	Dry.
Severe weather threat	Low.

Suggestions for IOP's and down days

Today dry convection can be studied. Convective activity and the potential for thunderstorms increase tomorrow, so that another IOP could take place. Also on Friday there are chances for some showers developing in the course of the day, whereas Saturday and Sunday look to be dry days.