

COPS Weather Summary

16 August 2007

Issued: Thursday 16 August 08:30 UTC

Valid: Thursday 16 August 08:30 UTC to Tuesday 21 August 00:00 UTC

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Synoptic Overview

An intense long-wave trough is still present over western Europe and move eastwards during the next few days. Several shortwave troughs rounding this larger trough will determine the evolution of the weather. A cold front that has passed the COPS area early on Thursday initially stretches from southern Sweden to south-central Germany into south-eastern Spain. One such shortwave trough should pass the COPS area Friday around noon, while another is expected to arrive late on Sunday.

Analysis and Forecast of Synoptic Controls in the COPS Region

Today, Thursday 16 August

Widespread stratiform cloudiness with some rain is expected to affect the COPS area during the morning and early afternoon, although gradually larger breaks are forecast during the day. Some shallow cumulus clouds will likely develop within the breaks.

Friday, 17 August

Mostly non-thundering showers are likely to develop over the western and central COPS region. In the east, insolation may be hindered to such an extent that surface-based convection will not develop there. Convective clouds could tend to spread out horizontally at around 4 km height. The activity should diminish during the second half of the afternoon.

Saturday, 18 August

Subsidence behind a shortwave trough will likely suppress any shower activity. However, some small convective clouds are likely to form.

Sunday, 19 August

Rather stable weather is forecast initially before another shortwave trough should approach the area resulting in an increase of cloudiness and attendant precipitation, including convective storms, towards and into the evening.

Extended Outlook

Next week, after one or two days with some isolated -partially embedded- convective development, the forecast becomes quite unclear with some model runs opting for rapid stabilisation, whereas others continue or even intensify the convective episode.

Today, Thursday 16 August

Time/location of first convective cloud development	Mainly embedded convective clouds are already present. Some stratiform precipitation with embedded convection ongoing. During the day partly clear skies coming in from the southwest, with shallow convective clouds.
Time/location of convective storm initiation	Some stratiform precipitation with embedded convection ongoing.
Mode/coverage/evolution	During the day partly clear skies coming in from the southwest, with shallow convective clouds.
Convective cloud base	Around 1000 m, rising to about 1300 m in the afternoon.
Storm motion	From the southwest at about 15 m/s.
Maximum temperature	Up to 23 °C in the Rhine Valley.
Precipitation	5-10 mm.
Severe weather threat	Low.

Tomorrow, Friday 17 August

Time/location of first convective cloud development	Cumulus clouds followed by scattered and mainly weak showers from the morning on, diminishing in the afternoon.
Time/location of convective storm initiation	
Mode/coverage/evolution	
Cloud base	Around 1200 m.
Storm motion	From the southwest at about 10 m/s.
Maximum temperature	Up to 21°C in the Rhine Valley.
Precipitation	Dry in some places, locally up to 10 mm.
Severe weather threat	-

Saturday 18 August

Time/location of first convective cloud development	Shallow convective clouds from the late morning on, but no showers are to be expected.
Time/location of convective storm initiation	
Mode/coverage/evolution	
Cloud base	Around 1500 m.
Storm motion	-
Maximum temperature	22-24 °C.
Precipitation	-
Severe weather threat	-

Sunday 19 August

Time/location of convective storm initiation, Mode/coverage, Evolution	Development of convective clouds in the course of the day; local thunderstorms possible mainly over the mountains towards the evening.
Maximum temperature	Up to 26 °C.
Precipitation	Up to 15 mm with thunderstorms.
Severe weather threat	Low.

Monday 20 August

Time/location of convective storm initiation, Mode/coverage, Evolution	Partly embedded showers and thunderstorms are likely mainly in the afternoon and into the evening.
Maximum temperature	20-23 °C.
Precipitation	Up to 20 mm locally with thunderstorms.
Severe weather threat	Low.

Suggestions for IOP's and down days

Today mainly embedded showers are still ongoing, which are likely to diminish during the afternoon. IOP was stopped at 8 UTC. For Friday showers up to around 5 km AGL are forecast. Given that the BAe aircraft will be available for operations, additional measurements could be useful. On Saturday, only shallow convective clouds are to be expected, so an IOP is not recommended. A moderately interesting evolution is expected late on Sunday with some storms forming locally and others being advected into the area. The day is already fixed to be a down-day. On Monday, another moderately interesting day is forecast with partly embedded showers and thunderstorms.