

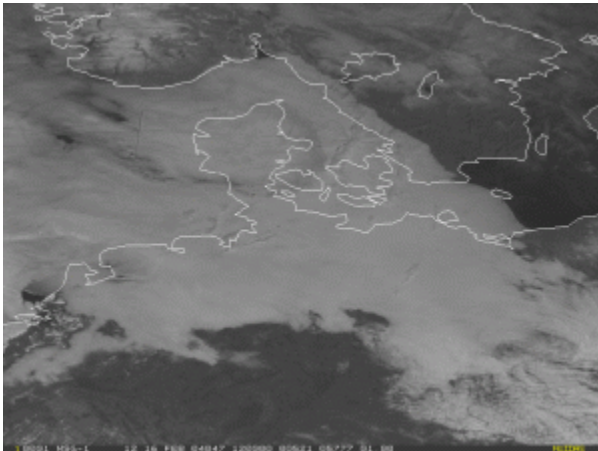
Fog and contrails over Denmark (16 February 2004)

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In the early morning hours of Monday the 16th of February 2004 most of Denmark was shrouded in fog. Only the island of Bornholm (east-southeast of Copenhagen), still had a clear sky, but the fog was already heading towards Bornholm. Since the Meteosat-8 satellite had only been operational for about fourteen days, this was the first opportunity for the Danish Meteorological Institute (DMI) to exploit imagery with a higher frequency and quality when compared to earlier Meteosat image data. Making use of this new imagery, the forecasters were able to predict a very precise arrival time for the fog at the island. At 07:33 local time, the chief meteorologist forecasted the fog to arrive to Bornholm/Ronne Airport (EKRN) around lunchtime and then cover the island within an hour and a half. The time of arrival of the fog was very well predicted as by 13.07 the reported visibility at Ronne Airport fell to 300 meters, and in less than one hour the whole island was covered in fog.

Not visible to those people experiencing the fog, but extremely visible in Meteosat-8 HRV images, was a sky full of contrails from aircraft at high levels. In the HRV images it is often only the shadow of the contrails on the clouds below that indicates its presence. However, in the IR10.8 - IR12.0 difference image (shown below right) they are clearly identifiable day and night. The reason for this is that the high, thin ice clouds have a higher emissivity in the IR10.8 channel than in the IR12.0 channel, and it is this difference that helps identification.

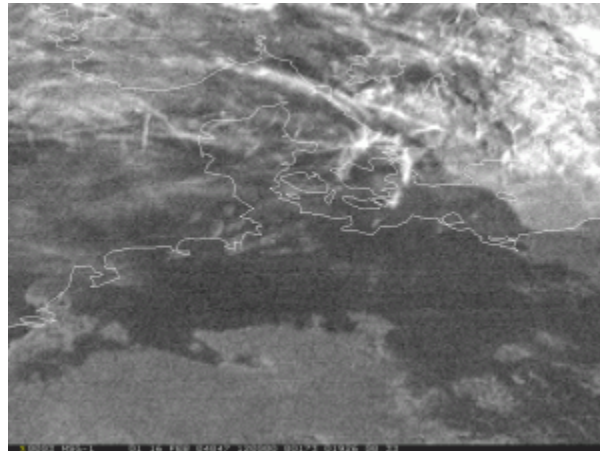
Meteosat-8 Images



Met-8, 16 February 2004, 12:00 UTC
Channel 12 (HRV)

[Full Resolution](#) (208 KB)

[Animation](#) (08:00-13:45 UTC, GIF, 3808 KB)



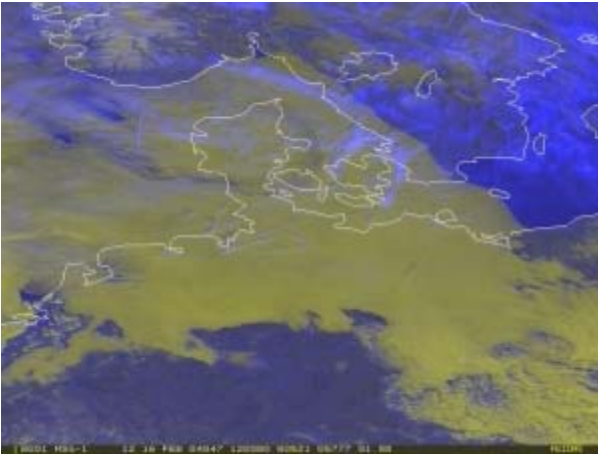
Met-8, 16 February 2004, 12:00 UTC
Difference Image IR10.8 - IR12.0

[Full Resolution](#) (151 KB)

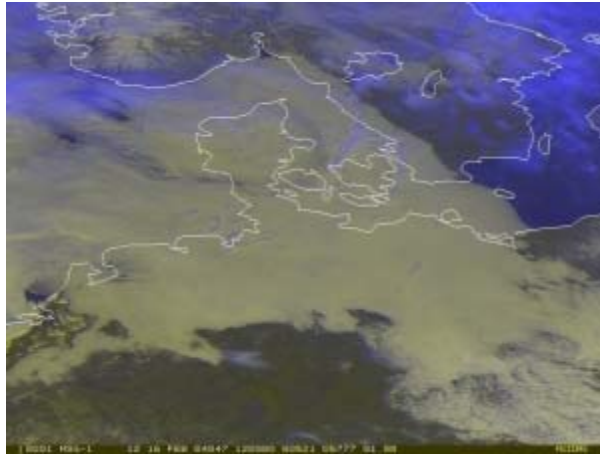
[Animation](#) (08:00-13:45 UTC, GIF, 3540 KB)

See also:

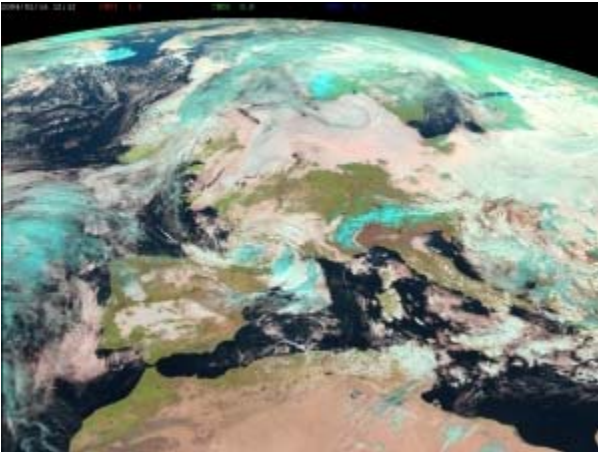
- [Low-level stratus cloud fields over the Western Mediterranean Sea \(5 February 2004\)](#)
- [Fog in the Po Valley and in the valleys of the Southern Alps \(20 November 2003\)](#)
- [Night-time fog/low stratus over Central and Northern Europe \(09 November 2003\)](#)
- [River valley fog in Southern Germany and Switzerland \(05 November 2003\)](#)



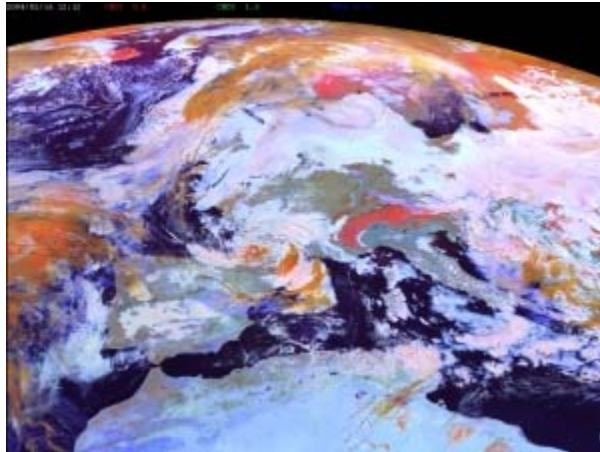
Met-8, 16 February 2004, 12:00 UTC
 RGB Composite HRV, HRV, IR10.8-IR12.0
[Full Resolution](#) (386 KB)
[Animation](#) (09:00-13:00 UTC, AVI, 7386 KB)



Met-8, 16 February 2004, 12:00 UTC
 RGB Composite HRV, HRV, IR10.8
[Full Resolution](#) (353 KB)



Met-8, 16 February 2004, 12:00 UTC
 RGB Composite NIR1.6, VIS0.8, VIS0.6
[Full Resolution](#) (640 KB)



Met-8, 16 February 2004, 12:00 UTC
 RGB Composite VIS0.8, NIR1.6, IR3.9r
[Full Resolution](#) (682 KB)

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