

Information about the meteorological satellite images available on the homepage of the Hungarian Meteorological Service (OMSZ)

Two different types of meteorological satellite images can be found on the [homepage](#) of OMSZ published hourly **infrared cloud images** and **visible-infrared composite images**. At the menu item „Satellite” one can find an image about the weather fronts as well, which has the infrared image as background. All these images are derived from Meteosat satellite data.

The geostationary Meteosat meteorological satellite series are operated by [EUMETSAT](#) (European Organisation for the Exploitation of Meteorological Satellites). The new generation of these satellites make observations in 12 different spectral channels about the hemisphere containing Europe and Africa. Measurements are made in the visible and in the infrared spectral range. Spatial resolution of the images for the area of Hungary is about 4x6 km for 11 channels and 1.3x2 km in the 12th high resolution visible channel. Images taken at the **solar** spectral range show the reflectivity of the surface or clouds. Images scanned in the atmospheric windows of the **infrared** spectral range give information about the temperature of the surface and clouds. Images taken at the **water vapour** absorption band reflect the humidity of the upper troposphere.

Infrared cloud image

During the calibration procedure of the infrared images we calculate temperature values from the measured radiance then we put the temperature values of the cloudy pixels onto a topographic [map](#). (Separation of cloudy and cloud-free areas is done by a dedicated program.) During the visualisation we assign white or light gray colours to the colder values, and darker gray colours to warmer values. Therefore one can see fog and low clouds in dark colours while the high cold clouds appear in white. The spatial resolution of the image is 15 km.

