METimage

High resolution radiometer

Jena-Optronik is developing a new generation of METimage cameras for weather satellites. The development order has been awarded by the German Aerospace Center (DLR). METimage will play a central role in supplying images for weather forecasting and meteorological data.

In the development an innovative approach will be chosen with support from the German Aerospace Center: the telescope rotates as it takes its readings, enabling it to capture an exceptionally large image from horizon to horizon.

Back in 2003 Jena-Optronik developed and patent registered the proposed concept. Over recent years the project has been developed further with the support of the Deutscher Wetterdienst (Germany's National Meteorological Service), the Federal Ministry for Transport, Building and Urban Affairs and the German Aerospace Center.

METimage is to be used on the next generation of low-flying weather satellites, the Post-EUMETSAT Polar System (EPS). It will be far superior to the current system in terms of resolution and image width as it can photograph a strip nearly 3000 kilometers wide with a resolution of 500 meters and better. The instrument currently in orbit offers a resolution of 1100 meters. The marked improvement in the quality of the images will provide for six-day weather forecasts in advance, significantly longer than at present.

It accomplishes the user requirements for measurements of physical parameters in the atmosphere, of the sea surface and of the land surface to assess meteorologically relevant states.