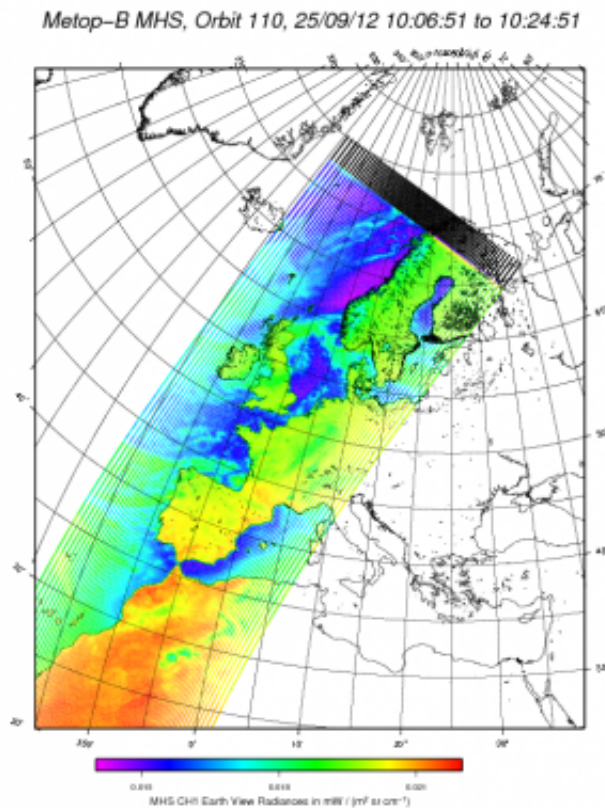


Metop-B delivers first data from polar orbit

October 1 2012



First data from Metop-B Microwave Humidity Sounder (MHS). Credit: Eumetsat

(Phys.org)—Four of the instruments on the Metop-B weather satellite (AMSU-A, ASCAT, MHS, GRAS) have been activated this week and are delivering data.

This demonstrates that Metop-B, launched on 17 September, is performing well and is on its way towards replacing the ageing Metop-A as prime operational satellite in polar orbit, after the six-month commissioning phase.

The Advanced Scatterometer (ASCAT) and Microwave Humidity Sounder (MHS) are innovative European instruments. ASCAT delivers information on near-surface wind speed and direction over the global oceans and soil moisture over land, while the MHS delivers information on atmospheric humidity in all weather conditions.

The Advanced Microwave Sounding Unit-A (AMSU-A) is an American heritage instrument already flying on the US NOAA satellites, providing temperature soundings in all weather conditions.

The Global [Navigation Satellite System](#) Receiver for Atmospheric Sounding (GRAS) instrument is delivering data which are used to provide atmospheric temperature and humidity profiles by measuring the bending of GPS signals through the atmosphere. Data from GRAS are also used for precise orbit determination of the Metop-B satellite before and after the nominal stop-drift manoeuvre, in conjunction with traditional ranging and Doppler measurements.

Temperature and humidity soundings, wind at the ocean surface, and soil moisture are essential inputs to Numerical Weather Prediction (NWP) models, the basis of modern weather forecasting. The all-weather wind measurements provided by ASCAT are used worldwide to track mid-latitude storms and tropical cyclones.

These instruments also contribute to the long-term data sets needed for climate studies and monitoring.

More information: Links to the first data can be found under

AMSU: [www.eumetsat.int/groups/cps/do ... b_first_amsu-a_1.png](http://www.eumetsat.int/groups/cps/do...b_first_amsu-a_1.png)

ASCAT: [www.eumetsat.int/groups/cps/do ... pb_first_ascat_1.png](http://www.eumetsat.int/groups/cps/do...pb_first_ascat_1.png)

MHS: [www.eumetsat.int/groups/cps/do ... topb_first_mhs_1.png](http://www.eumetsat.int/groups/cps/do...topb_first_mhs_1.png)

Provided by European Space Agency

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