

Full details

All details held on the selected case study are shown below.

Went live on	Title	Reference
8 Oct 2008	The GERB satellite instrument improves the Met Office's global forecast model	SID0061

Synopsis

New observations of the Earth's energy balance, made by the GERB satellite instrument, are reducing errors in climate models.

Description

A satellite instrument funded by NERC is now helping the Met Office's global forecast model. It's also greatly benefiting researchers investigating clouds and dust in the climate system.

The Geostationary Earth Radiation Budget instrument (GERB) measures the Earth's energy balance from its orbit 36,000 km above Africa. In 2007 it helped reduce several errors in climate models. Scientists now have better estimates of the greenhouse effect of small dust particles over the western Sahara. They also know more about the brightness of marine stratocumulus clouds, and the daytime variation of African deep convective clouds. The new knowledge is improving climate forecasts.

The instrument flies onboard satellites MSG-1 and MSG-2. It was developed by Imperial College, Rutherford Appleton Laboratory and Leicester University with contributions from Belgium and Italy.

This was supported by NERC's GERB (Geostationary Earth Radiation Budget) programme.

References and links

Hyperlinks

1. [NERC - Press releases GERB](#)
2. [NERC - Research Programmes - GERB](#)
3. [Rutherford Appleton Laboratory - GERB](#)

Impacts

Actual impacts	Practice
Impact evidence	Information gathered by GERB is improving climate forecasts

Research and funding

Funding type	Research Programme
---------------------	--------------------

Classification

Science themes	Climate system, Technologies
Science areas	Earth observation
Policy areas	Climate/environmental change and impacts, Environmental technology