

Publication: International Science Grid This Week (ISGTW)

Date: May 27, 2009

Title: Feature – Gridding the aerosol problem

The screenshot shows a Mozilla Firefox browser window with the address bar displaying <http://www.isgtw.org/?pid=1001835>. The page content includes the ISGTW logo, navigation links (Home, ISGTW 27 May 2009, Feature - gridding the aerosol problem), and a main article titled "Feature - Gridding the aerosol problem".

The article text reads: "It can be difficult to measure the number of aerosols - tiny particles suspended in the air - that are in our planet's atmosphere. Such knowledge is important in a number of ways, as aerosols can have an effect upon everything from short-term air-quality forecasting to predicting the effects of aerosols on global warming. At least one climatologist says that on a long-term, global scale, aerosols will make India's monsoons more intense, and Australia's droughts hotter and longer. So, wet areas will be wetter, and dry areas drier. (See 7 January 2009 ISGTW, 'Opinion - UK grid researchers aid efforts to understand climate change.')"

Below the text is a satellite image of Earth showing aerosol distribution. The caption reads: "Image courtesy: BEInGRID".

The article continues: "Tracking where aerosols come from, where they tend to collect, and where they tend to 'sink' on a planetary scale is a tricky business as well. Due to wind and weather patterns, sometimes the most pristine, remote areas accumulate the most aerosols. To collect raw data, researchers rely upon information from Earth observation satellites. But how to deal with the huge stream of terabytes of data coming in - especially as some scientists want to do studies in real-time? To solve this problem, BEInGRID developed a way to produce aerosol maps using the grid to speed up processing of satellite-generated data."

The "Making maps" section states: "Called 'GlobeAerosol,' the project was led by [Caly Aerospace and Defence](#), which had a strong background in Earth observation techniques, and strong ties to organizations such as the [European Space Agency](#) and public initiatives such as the [Global Monitoring Environment and Security](#) project. [TetraDius](#) acted as technology provider, supporting distributed spatial data management and high performance computing applications, while the information management company [AIGS Origin](#) acted as business consultant and the Italian National Research Council (known as [CNR](#)) supported the evaluation of results. Because the Earth observation data is acquired from different satellites with different acquisition modes, it created a challenge for data analysis. The complexity and time execution of the algorithms made for a particular challenge. In addition, storage and

The right sidebar contains a search box, a list of links for "ISGTW 27 May 2009", an "ISGTW Blog Watch" section with a link to "Keep up with the grid computing blogosphere", and an "Announcements" section with several dates and events.

The browser's taskbar at the bottom shows several open windows, including "démarrer", "Feature - Gridding th...", "BEInGRID [T]PO3 4.1...", "Le CETIC en quelque...", "BEInGRID_Clipings...", "2008", and "BEInGrid pour corenti...". The system clock shows 10:42.