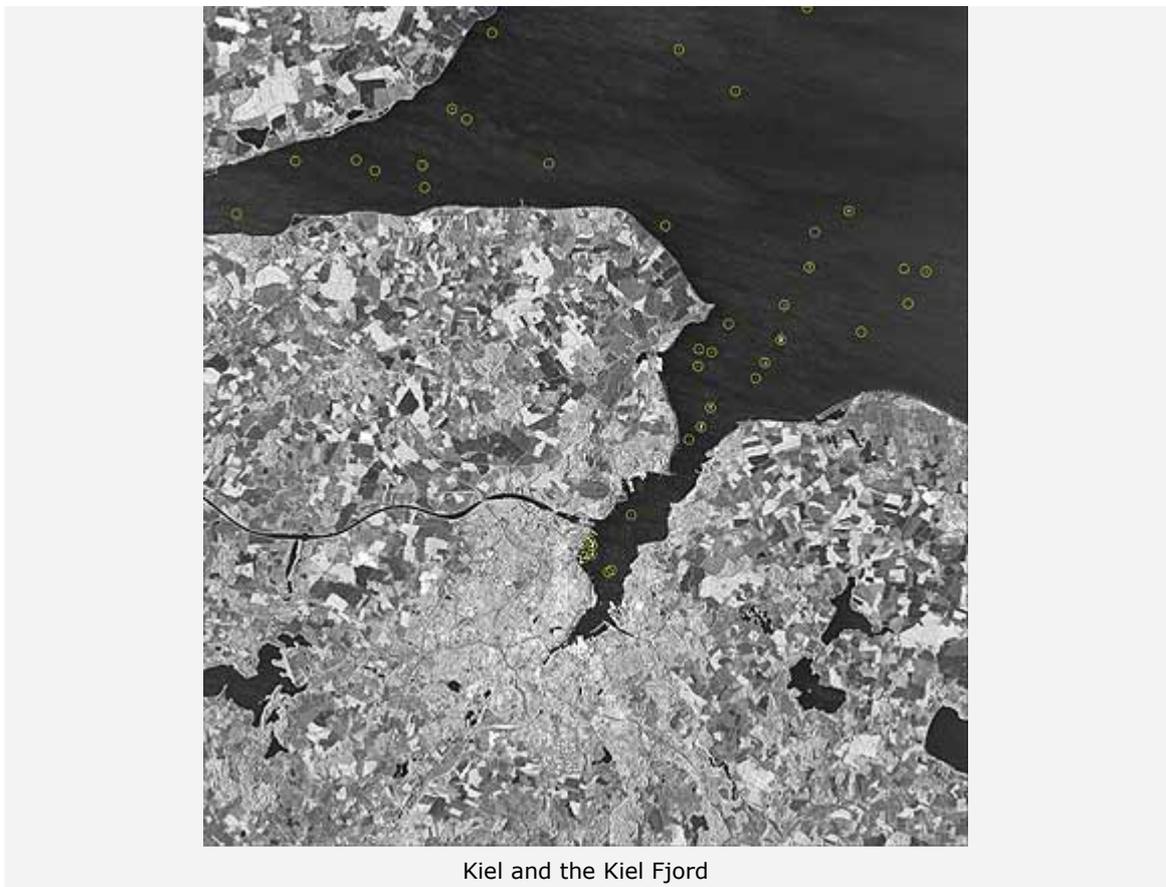


News Archive

TerraSAR-X Image of the month: Ship identification in the Kiel Fjord and the Baltic Sea

22 July 2009



Kiel and the Kiel Fjord

This image – from the German TerraSAR-X radar satellite - shows the city of Kiel and the Kiel Fjord, an approximately 17-km long fjord or firth of the Baltic Sea on the northeastern shore of Schleswig-Holstein. The ships that were in this area at the time the image was captured are each marked with a circle. The high resolution of TerraSAR-X images makes them ideally suitable for the rapid identification of ships. The image was taken on 18 June 2009. It was acquired in stripmap mode with a resolution of three metres.

Post haste – the real time service of DLR Neustrelitz

The moment that the TerraSAR-X satellite data arrives at the large X-band antenna of the DLR ground station Neustrelitz, the data exchange begins. In an instant, the bits and bytes are processed into satellite images and sent to users in near-real time. This is done by the automatic despatch of an email, including a 'quick look', in less than an hour. The processed pictures, which are subsequently offered to users for download, contain further information. In the case of ship identification, this is the position of

the ships, which are automatically searched for by the computer processing the images. This application also offers the opportunity to discover hijacked ships, off the coast of Somalia for example.

Real time ship identification is required off the German coast as well. The German federal police ('Bundespolizei'), for example, use the TerraSAR-X radar images during 'Kieler Woche', to keep an eye on the many different ships attending.

The TerraSAR-X mission

TerraSAR-X is the first German satellite that has been manufactured under a Public-Private Partnership (PPP) between the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) and Astrium GmbH in Friedrichshafen. The satellite travels around the Earth in a polar orbit and records unique, high-quality X-band radar data about the entire planet using its active antenna. TerraSAR-X works regardless of weather conditions, cloud cover or absence of daylight, and is able to provide radar data with a resolution of down to one metre.

DLR is responsible for using TerraSAR-X data for scientific purposes. It is also responsible for planning and implementing the mission as well as controlling the satellite. Astrium built the satellite and shares the costs of developing and using it. Infoterra GmbH, a subsidiary company founded specifically for this purpose by Astrium, is responsible for marketing the data commercially.

Contact

Elke Heinemann

German Aerospace Center (DLR)
Corporate Communications, Online Communication - DLR Web Portal
Tel: +49 2203 601-2867
Fax: +49 2203 601-3249
E-Mail: elke.heinemann@dlr.de

Dr. Susanne Lehner

German Aerospace Center (DLR)
Remote Sensing Technology Institute, NRT service Neustrelitz
Tel: +49 8153 28-3457
E-Mail: Susanne.Lehner@dlr.de

Holger Maass

German Aerospace Center (DLR)
German Remote Sensing Data Center (DFD)
Tel: +49 3981 480-111
E-Mail: Holger.Maass@dlr.de

Contact details for image and video enquiries as well as information regarding DLR's terms of use can be found on the DLR portal imprint.