

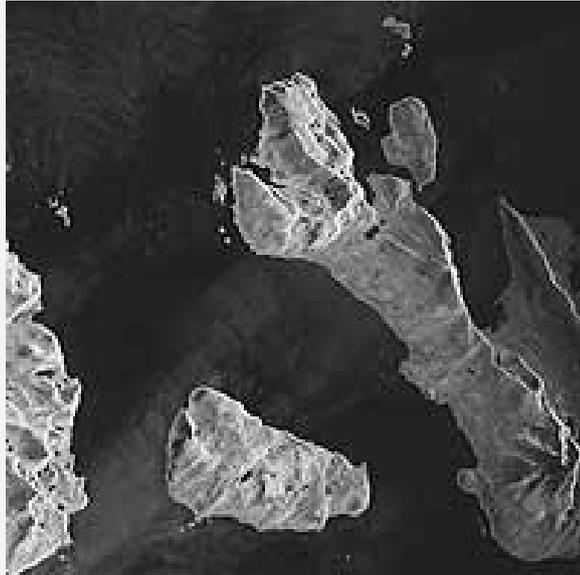
News Archive

TerraSAR-X exceeds all expectations: German radar satellite sends first data in record time

21 June 2007



Scientists and commercial users are flabbergasted and only the most optimistic of engineers could have expected it, but just four days after the launch of the German radar satellite TerraSAR-X from Baikonur, brilliant first satellite images have been received.



Norwegian islands

To loud applause on Tuesday evening from the TerraSAR-X teams of the German Aerospace Center (DLR), Astrium and Infoterra, the first pictures appeared on the monitors of the DLR Space Operations Center in Oberpfaffenhofen, near Munich. This occurred just 30 minutes after the receipt of the data by the Neustrelitz ground station.

Although the satellite will only achieve its final orbit after ten days in space, the first data, actually sent simply for testing purposes, is already of a surprisingly high quality and sharp detail.

"I am so excited and inspired! This mission confirms the prominent international position of Germany in the field of radar remote sensing. Our data will be an important source for geoscientific research on one hand and for commercial applications on the other. TerraSAR-X will play, in addition, a prominent role in the European Earth observation programme, GMES", said Professor Johann-Dietrich Wörner, chairman of the board of DLR.



Mediterranean - south of Calabria

"These data show not only the comprehensive technical know-how and the experience of many years of radar satellite and instrument development by Astrium, but confirm also our successful partnership with DLR", added Uwe Minne, Director of Earth Observation and Science at Astrium GmbH.

"The efficiency of the satellite system is proven with these first impressive images - the outlook for our commercial business could not be better", commented a pleased Jörg Herrmann, managing director of Infoterra GmbH, which can now start the commercial marketing of the TerraSAR-X data.

The TerraSAR-X team at DLR will work quickly in the next few months to finally calibrate the radar instrument and optimise the data processing system.

TerraSAR-X is the first German Public-Private Partnership (PPP) satellite - jointly realised by DLR and EADS Astrium. EADS Astrium has taken on the costs of development, building and employment of the satellite. Infoterra GmbH, a subsidiary of the EADS Astrium, is responsible for the commercial marketing.

Operating the mission involves four institutes alongside the space agency of DLR. DLR covers the entire range of necessary technologies from the setting up of TerraSAR-X's mission control to the processing and the use of the data for scientific purposes.

TerraSAR-X at a glance:	
Height:	4,88 m
Width:	2.4 m
Launch mass:	1.230 kg (including payload mass 400 kg)
Radar Frequency:	9.65 GHz
Power consumption:	800W average
Resolution:	1 m, 3 m, 16 m
Launcher:	Dnepr 1 (ehemals SS-18)
Launch:	15 June 2007, 4:14 h (CEST) from Baikonur, Kazakhstan
Orbit:	514 km
Inclination:	97.4°, Sun-synchronous
Life time:	5 years

TerraSAR-X is the first German satellite to be realised within the scope of a public-private partnership (PPP) between DLR and Astrium: Europe's leading satellite specialist, Astrium, is sharing the costs of the development, construction and deployment of the satellite. The scientific use of the TerraSAR-X data is the responsibility of DLR, as is the mission planning and operation of the satellite, whilst Infoterra GmbH, a subsidiary of Astrium specifically established for this purpose, will be responsible for the commercial exploitation of the satellite data.

With its active antenna, the satellite will record new high-quality X-band radar images of the entire planet whilst circling Earth in a polar orbit at an altitude of 514 kilometres. TerraSAR-X will carry out its task for five years, independently of weather conditions, cloud cover or daylight, and will be able to provide radar images with a resolution as high as one metre.

Contact

Dr. Niklas Reinke

Deutsches Zentrum für Luft- und Raumfahrt (DLR) - German Aerospace Center
Corporate Communications
Tel: +49 228 447-394
Fax: +49 228 447-386
E-Mail: Niklas.Reinke@dlr.de

Mathias Pikelj

EADS SPACE
Tel: +49 7545 8 9123
Fax: +49 7545 8 5589
E-Mail: mathias.pikelj@astrium.eads.net

Mareike Doepke

Infoterra GmbH
Tel: +49 7545 8 3924
Fax: +49 75454 8 1337
E-Mail: mareike.doepke@infoterra-global.com

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.