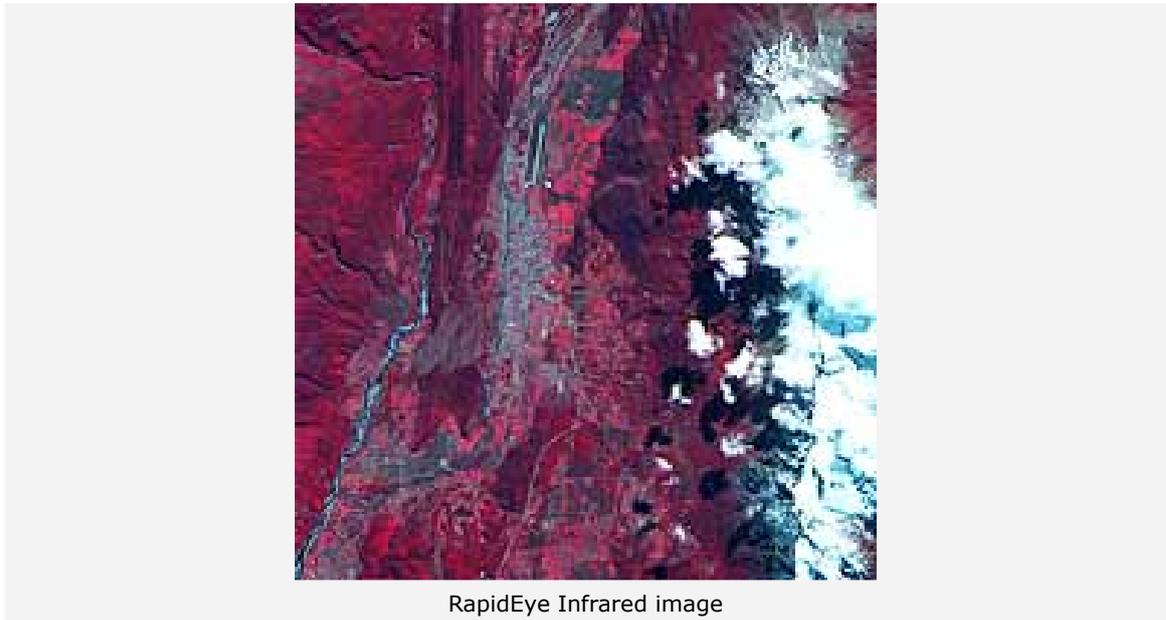

News Archive Space 2008

RapidEye satellite constellation transmits first images

22 October 2008



On 21 October 2008, the first image from the RapidEye satellite constellation, which was launched in late August, was presented in Brandenburg by RapidEye AG, the satellite operator. The image shows the Argentine town of El Bolsón near the Argentine-Chilean border in the Patagonia region. The five identical Earth observation satellites, which are currently undergoing a three-month commissioning phase, are circling the Earth in a 600-kilometre orbit. They are expected to provide high-quality optical datasets in the blue, green, red and near-infrared spectral ranges for many civilian uses from December 2008. The RapidEye project is a "public-private partnership", supported by the Space Agency (Raumfahrt-Agentur) of the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) on behalf of the German Federal Ministry of Economics and Technology (Bundesministerium für Wirtschaft und Technologie).

Staff at DLR are delighted with the first accomplishment of this mission. "We compliment our partner on this successful kick-off. We are fully confident that the next stages will be equally successful", said Dr Ludwig Baumgarten, the DLR Executive Board member responsible for the Space Agency. "Last year, we put into operation the TerraSAR-X, our first satellite to be realised in a public-private partnership. Today, Germany has yet again demonstrated its extensive know-how in the field of Earth observation", Baumgarten added. The image presented today is the first one to have been recorded by the high-performance camera, manufactured by Jena-Optronik, on board the RapidEye satellite "Choros". The scene covers an area of more than 155 square kilometres at a resolution of five metres per pixel. The data were downloaded to a ground station on Spitsbergen (Norway). From there, the image was transmitted directly to RapidEye AG's headquarters in Brandenburg.



The first RapidEye image, true colour version

In the coming weeks, RapidEye AG plans to take the next step on the road to routine delivery of satellite images by offering the first processed datasets on its website for demonstration purposes. The calibration phase is expected to be completed by the end of the year, by which time the system will be able to meet scientific and commercial demand. Interested parties will then be provided with data, products and services with a special focus on questions of land use and land cover. In addition to this, potential customers have indicated a need for data about the condition of the North Sea mudflats or the concentration of suspended matter in the shallow water of coastal lakes, rivers or inland waters. The RapidEye company is especially geared to commercial applications for the agriculture, insurance and food industries, as well as for disaster relief organisations.

Scientists can obtain data and products for research purposes in the context of regular application and evaluation procedures. An internet-based communication portal is currently being set up under the aegis of the DLR Space Agency. In 2007, the DLR Space Agency already announced a call for proposals for research into synergetic use of TerraSAR-X and RapidEye data. The German TerraSAR-X radar Earth observation satellite has been in orbit since mid-2007.

RapidEye overview	Technical data
Number of satellites:	5
Satellite mission life:	7 years
Orbit height:	630 kilometres
Orbital planes:	1 (equally distributed)
Inclination:	97.8 degrees (synchronous to the Sun)
Equator passage:	11:00am local time (from north to south)
Pixel size (orthorectified):	5 metres
Width of image strip:	77 kilometres
Maximum length of image strip:	1500 kilometres
Capacity per day:	4 million square kilometres

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