GMES Sentinel-2 Satellite

The European Space Agency and Astrium (Germany) today signed a â‚¬195 million contract to provide the first Sentinel-2 earth observation satellite, devoted to monitoring the land environment, as part of the European GMES programme. As prime contractor, Astrium is responsible for the design, development and integration of the satellite, which will perform a high-end multi-spectral optical imaging mission.

Global Monitoring for Environment and Security (GMES) aims to deliver environment and security services and is being led by the European Commission. It is the European response to the ever-increasing demands of effective environmental policies. At the same time, it is the European contribution to the Global Earth Observation System of Systems (GEOSS). ESA is responsible for implementation of the GMES Space Component, a set of earth observation missions involving ESA, EU/ESA Member States and other partners. Central elements of the Space Component are the five families of Sentinel missions.

Sentinel-2 will deliver crucial data for information services to the EU and its Member States under GMES. The services fed by it cover areas such as climate change, sustainable development, environmental policies, European civil protection, common agricultural policy, development aid, humanitarian aid and the Common Foreign & Security Policy. Sentinel-2 will support the operational generation of products such as the mapping of land cover, land use, change detection and geophysical variables. The mission objective is systematic coverage of the earth's land surface (from -56° to +83° latitude) to produce cloud-free imagery typically every 15 to 30 days over Europe.

Sentinel-2 features a 290 km-wide coverage, 10-20 m spatial resolution, 13 optical channel instrument (operating from visible-near infrared to shortwave infrared) and will ensure enhanced-quality continuity with existing missions Spot and Landsat. It will provide improved revisit time, swath width, coverage area, spectral bands, calibration and image quality. These features will enable it to contribute effectively to GMES needs for operational land and emergency services.

The launch of the first Sentinel-2 satellite is planned for 2012.

http://www.astrium.eads.net/