

Australian Centre for Remote Sensing Geoscience Australia
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Portfolio or Agency mission/charter

- To serve the Australian nation by generating and delivering geoscience information and knowledge as required by the Australian Government.

Key objective/s with respect to space-related activity

- To maximise the value that Australia derives from its investment in remote sensing infrastructure and systems.
- To provide timely access to a range of quality remote sensing data products and information for Australia and its region.

Current space-related activities/responsibilities

- Operation of the Australian Centre for Remote Sensing (ACRES), which provides a state-of-the-art facility for the reception, archiving, processing and distribution of satellite-based remote sensing data of Australia and its Territories. ACRES downlinks satellite data from a number of international remote sensing missions. Data are archived for long-term use and processed to provide information relevant to national issues and priorities.
- Participation in the Tasmanian Earth Resources Satellite System (TERSS) consortium, and the West Australian Satellite Technology Applications Consortium (WASTAC), both of which operate antennas for the reception of remote sensing data

Recent major achievements

- In April 2006, ACRES obtained direct reception of satellite image data from the Japanese Government's Advanced Land Observing Satellite (ALOS) at the Alice Springs Data Acquisition Facility. Through ACRES, ALOS data will be routinely received and distributed to non-commercial users within the Oceania region from late 2006.
- 2006 saw the development of e-commerce solutions enabling online purchase (via credit card) of satellite data from the ALOS satellite.
- During FY 2005-2006, 58,168 satellite scenes were acquired and archived, 1991 customised images, and 211503 free online data files were processed and distributed to customers for use in a variety of applications including crop yield forecasting, topographic map updating, resource exploration, land cover change analysis, environmental monitoring, land use planning, bushfire monitoring, etc.

- The archive of data held by ACRES since 1979 is continually being used to provide accurate information about environmental change in Australia. In particular, the Australian Greenhouse Office has used fourteen national coverages to date, to assess and extract information about national land cover change – one of the most important inputs into the National Carbon Accounting System.
- The operation of the online Sentinel near real time bushfire monitoring system was transferred from CSIRO to Geoscience Australia. ACRES continues to feed near real time satellite imagery (within 40 minutes of acquisition) into the system. Sentinel was developed in collaboration with CSIRO and the Department of Defence and provides location and descriptive information across the entire country for active bushfires on a daily basis.

Portfolio/Agency expenditure on space-related activity

- In 2005-6, GA received \$3.94 m for its program administration of remote sensing.
- In 2005-6, GA received \$0.975 m for the sale of remote sensing data to Government and private organisations.

Legislation administered by portfolio/agency

- Nil

International space-related agreements

- MOU with United States Geological Survey (USGS) for access to Landsat data reception in Australia. This agreement has also been amended to provide for support of downlinking of onboard data for USGS.
- Extended MOU with the European Space Agency (ESA) for reception and distribution of ERS data in Australia.
- MOU signed with Japanese Aerospace Exploration Agency (JAXA) for direct reception and non-commercial distribution of data from ALOS (launched January 2006).
- Agreement with the Japanese Earth Remote Sensing Data Analysis Centre (ERSDAC) to distribute ASTER satellite data.
- An informal agreement with RADARSAT International continues to allow ACRES to acquire and distribute RADARSAT imagery in Australia.
- Informal agreement with NASA / USGS for distribution of Hyperion and ALI data from the EO-1 satellite.

Portfolio/Agency involvement in other space-related agreement/arrangements

- Data from NASA's experimental Earth Observation satellite EO-1 is also acquired at the TERSS facility under an informal arrangement and is shipped to USGS.
- Participation in the CRC on Spatial Information - Remote Sensing component.
- Managing and operating the Tasmanian Earth Resource Satellite Station (TERSS) on behalf of the TERSS board, of which ACRES is a member; membership comprises Australian government agencies and academic institutions.
- A member of the Western Australian Satellite Technology and Applications Consortium (WASTAC).

Contact

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