Zentralanstalt für Meteorologie und Geodynamik

GEO/GEOSS Coordination in Austria

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Topics

• GEO and Austria: history

• Austrian space and EO activities

• Tasks of the Austrian GEO Secretariat

• Austrian interministerial coordination in the area of Earth Observations, GMES and Inspire
History

Austria participated in GEO as **observer** since the GEO-II Assembly in Geneva (December 2005)

2008: Feasibility study regarding possible Austrian membership in GEO (by ZAMG and Austrian Environmental Protection Agency): GEO considered as a useful process

April 2009: Decision to join GEO as member

August 2009: Establishment of a GEO Secretariat at ZAMG
Austria has been active in space research and EO in the last decades

• Member of the European Space Agency 1981 (1% of ESA Budget)
• Member of EUMETSAT
• Member of ECMWF
• Austro-MIR mission: manned space flight
Current involvement

First Austrian Nano-Satellite, TUGSAT-1, BRITE-Austria (BRItght Target Explorer) scheduled for launch in 2011. Astronomical research satellite.

Austrian Space Program ASAP: regular calls for proposal

Strong involvement in EU/GMES area (e.g., Snow and ice monitoring based on space data)

Capacity building, strong involvement in UN-SPIDER program
High-Alpine Research Observatory operated by ZAMG
3105 m agl
Established in and operated since 1886

- Meteorological Measurements
- Trace gas measurements
- Radioactivity Measurement
- Research

http://www.sonnblick.net
125-year anniversary of Sonnblick observatory

International conference on "Climate Change in High Mountain Regions" in Salzburg: 29. August to 1 September 2011

Climate Change in High Mountain Regions - From Understanding of the Past to Modelling of the Future

See: http://www.zamg.ac.at/veranstaltungen/125jahressonnblick
Geophysical Research Observatory operated by ZAMG
50 km south west of Vienna
2 Tunnels: 145 m and 413 m, completion 2011

- Supra-conducting gravimeter
- Seismic master station
- Geomagnetic measurements
- Infrasound test array in cooperation with CTBTO

http://www.zamg.ac.at/conrad_observatory
Beyond/besides GEOSS: Disarmament monitoring

There are interesting data out there that are not available yet.

Global monitoring established for verification of arms control treaties.

Important: Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO; HQ in Vienna)

- International Monitoring System built up (1 billion US-$)

- However, it requires efforts to make such data available!!!
The Comprehensive Nuclear-Test-Ban Treaty bans all Nuclear Explosions. An International Monitoring System (IMS) is build up.

Total: 337 Facilities
- Primary Seismic stations: 50
- Auxiliary seismic stations: 120
- Infrasound stations: 60
- Hydroacoustic stations: 11
- Radionuclide stations: 80
- Radionuclide labs: 16
CTBT verification - Stations

Primary seismic station 26, Torodi, Niger

Infrasound station 49, Tristan da Cunha, UK

Hydroacoustic station 4, Crozet Islands, France

Radionuclide Station 16, Yellowknife, Canada

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CTBTO tries to reach out to scientific community

International Conference: CTBTO Science and Technology 2011, 8-10 June 2011, Hofburg Palace, Vienna

Session: The Earth as a complex system

“…the Treaty’s verification system may provide data for new understanding of, or application to, natural events, the changing environment, hazard identification, and other scientific and civil applications…”
Information:


GEO UIC should consider to be present

Poster?

Participate in Exhibition?
• Responsible Ministry: Federal Ministry of Science and Research (BMWF)

• BMWF has appointed ZAMG to coordinate GEO in Austria

• GEO Secretariat has been established at ZAMG in August 2009
Responsibilities of GEO Secretariat

• Participation in the GEO Assembly and the meetings of the European High Level Working Group

• National Point of contact for persons and institutions interested and/or involved in GEO activities

• Coordination of the Austrian involvement in specific GEO tasks (national prioritization)

• Identification of needs for research and development related to GEO, and channeling these needs to the Federal Ministry

• Public information related to GEO
Responsibilities of GEO Secretariat (2)

• Communication with the GEO Secretariat in Geneva

• Organization of national workshops and information events

• Analysis of the GEO-relevant data in Austria, and assessment of the data needs

• Establishment of a GEO Web site, including a forum for experts

• Participation in the Austrian inter-ministerial coordination process related to space research, earth observation and GMES
Inter-ministerial coordination

Different ministries in charge of GEO, GMES and INSPIRE

Policy area
Existing Coordination

Geo-Portal of the Austrian Provinces

IMG Weltraumpolitik
(Inter-Ministerial Group Space Politics)

E-Government PG Umweltinformation
(E-Government Project Group for Environmental Data and Information)
Next steps

Short-term

• Austrian GEO-Workshop is first step to engage scientific and technical community in Austria in this process
• Enhance participation in Committees
• Enhance participation in tasks

Mid-term

• Austrian GEOSS implementation plan
• Register Austrian components