

**SCAR WG-GGI
PROGRAM / PROJECT COORDINATORS MEETING
26-27 JULY 1999
Heppenheim, Germany**

Provisional Program:

Location: Haus am Maiberg
Ernst-Ludwig-Str. 19
D - 64 646 Heppenheim.

Arrive: Sunday 25 July 1999
Meeting starts: 9am on Monday 26th July 1999
Meeting concludes: Approximately 3pm on Tuesday 27th July 1999

AGENDA

GEODESY (GIANT) PROGRAM

1. Permanent Geodetic Observatories (Project Leaders: John Manning, Australia, Hans Werner Schenke, Germany)

Key activities:

- Collaborate with other SCAR scientists to identify requirements for space geodetic sites
- In conjunction with SCAR working groups design an extended network of continuous geodetic observatories;
 - for manned stations
 - for remote locations
- Support continuation of O'Higgins VLBI for scientific purposes and as an important contribution to the global reference frame
- Establish priorities for on-line satellite data retrieval from ground stations
- Deliver regular space geodesy solutions to IGS and IERS
- Post details of all permanent sites on web site
- Develop and publish GPS base station specifications
- Evaluate accurate local ties between collocated techniques
- Facilitate tide gauge data to Southern Ocean Sea Level Centre

2. GPS Epoch Campaigns (Reinhard Dietrich, Germany, Andres Zakrajsek, Argentina, Kevin Dixon, UK, Michel Le Pape France, E Dongchen, China, Hector Rovera, Uruguay, Alessandro Capra)

Key activities:

- Establish guidelines for ground mark monuments
- Co-ordinate annual epoch campaigns
- Arrange orderly data archive and data access from these campaigns
- Undertake GPS connections to Tide gauge bench marks
- Deliver results to ITRF in conjunction with results from permanent observatories
- Notify results of each campaigns occupations

3. Physical Geodesy (Alessandro Capra, Italy, Lars Sjöberg, Sweden, Andres Zakrajsek Argentina, Hans Werner Schenke, Germany, John Manning, Australia)

Key activities:

- The collation of extensive data holdings related to topography, bathymetry and gravity as essential inputs to Geoid computation, includes:
- Data collection and analysis of gravity related data ground/airborne/satellite data.
- Collect relevant data from satellite altimetry
- Collaboration with International Geoid Service (IGES) and International association of Geodesy (IAG)
- Collaboration with SCAR WGs Solid Earth Geophysics, Geology, Glaciology
- Collaboration with BEDMAP, ADGRAV, RAMP as data for Geoid computation
- Participate in the ADMAP meeting and Earth Science in Antarctic, NZ, in 1999
- Preparing data base of information from collated information prior to computation
- Evaluation of EGM96 improvement over OSU91 in Antarctica
- Facilitate computation of improved tidal models
- Prepare for computation of high resolution Geoid model

4. GLONASS Evaluation (John Manning, Australia, Larry Hothem, USA)

Key activities:

- Participate in the International GLONASS Experiment (IGES) pilot project with dual frequency GLONASS instruments at IGS collocated sites
- Retrieve data by satellite for analysis
- Analyse GLONASS orbits, reference frame differences and ground positions for geodesy and navigation applications in Antarctica
- Participate in presentation of IGEX results 1999
- Report on use of GLONASS for Antarctic Geodesy and navigation

5. Differential GPS Base Stations (Larry Hothem, USA, Hans Werner Schenke, Germany, IHO, Kevin Dixon, UK, Jan Cisak, Poland, Alessandro Capra, Italy)

Key activities:

- Identify global standards for use in marine DGPS transmission using Geodetic base stations
- Develop options for base station sites for shipping navigation coverage of Antarctic Peninsula.
- Examine DGPS for real time kinematics and aviation applications in Antarctica and combination with geodetic accuracy base stations
- Liaison with COMNAP regarding transmission of GPS corrections at base stations.

6. Remote Geodetic Observatories (Larry Hothem, USA, Alessandro Capra, Italy, John Manning, Australia)

Key activities:

- Monitor and report on use of solar, wind and other methods of power generation for data logging information at remote GPS sites
- Monitor developments for remote retrieval of GPS data from remote sites by satellite communication techniques
- Collaboration with non-SCAR researchers

7. Information Access (John Manning, Australia, All members of GIANT program)

Key activities:

- Prepare general paper on GIANT activities for publication in Antarctic Science in 1998
- Ensure ready access to data from permanent observatories from host databases
- Establish cross links from WG-GGI web site to individual geodetic sites
- Develop DIFs for geodetic data in conjunction with JCADM
- Establish newsletter/newsgroup communication for information distribution on Web
- Monitor web posting of photo idents on web sites
- Continue interaction with representatives on SCAR working Groups
- Develop IAG Commission X sub Commission on Antarctic Geodetic networks
- Publish WGS84-ITRF information paper and circulate within SCAR (SCAR Bulletin)
- Arrange an Antarctic Geodesy Symposium (AGS99) in Warsaw Poland in July 1999

GEOGRAPHIC INFORMATION PROGRAM

1. STANDARDS

(Project Leader: UK)

- Map and Data: (UK, Australia)
 - finalise map and data standards model;
 - develop draft map and data standards (data standard to be ISO TC211 compliant);
 - circulate for review by all members;
 - publish "SCAR Map and Data Standards" (hardcopy and web).
- Metadata: (Australia)
 - liaise with JCADM to develop guidelines and examples for preparation of DIFs (metadata records) for maps, digital data and aerial photography;
 - distribute guidelines and examples to members;
 - members to submit metadata to their National Antarctic Data Centres (or directly to the Antarctic Master Directory).

2. PLACE NAMES

(Project Leader: Italy / Germany)

- Composite Gazetteer of Antarctica: (Italy)
 - prepare and distribute guidelines for supply of names approval dates and descriptions;
 - members to provide corrections, additions, dates and descriptions;
 - discuss with SCAR inclusion of station and special area names, with SCAR as source;
 - process all updates and corrections;
 - maintain CGA web site with monthly updates;
 - add approval dates and descriptions as they become available;
 - publish addendum to first edition, and distribute at SCAR XXVI.
- Publications: (Australia, Italy, UK, Germany)
 - draft a paper on history and application of the CGA and circulate for review;
 - submit final paper to "Polar Record";
 - produce and distribute CGA brochure and publicise CGA web site.

- Regional Names: *(Germany, UK, Australia)*
 - compile draft reference map defining boundaries of Antarctic regions;
 - circulate to members for review and comment;
 - publish a final version for SCAR XXVI, and include a digital version in the ADD

3. TOPOGRAPHIC DATABASE (Project Leader: UK)

- Antarctic Digital Database (ADD): *(UK)*
 - members to provide new digital topographic data (from 1:250K to 1:5M);
 - complete ADD updating process;
 - produce new generalised map data;
 - publish Version 3 on World Wide Web.
- Global Map: *(Australia, UK)*
 - produce SCAR contribution to the International Global Mapping project

4. KING GEORGE ISLAND GIS (Project Leader: Poland)

- Scoping Study: *(Poland)*
 - members to advise Poland of currently available KGI geodetic and map data;
 - compile listing of all KGI geodetic and control points (UK);
 - compile index of all KGI maps, charts and digital datasets (Poland);
 - prepare proposal for development of KGIS, for consideration at SCAR XXVI.

5. GEOGRAPHIC DATA INTEGRATION (Project Leader: Australia)

- Project Plan: *(Australia)*
 - small information paper and associated graphics to explain the project.
- Specifications: *(Australia)*
 - finalise data product requirements, in consultation with GLOCHANT;
 - develop data product standards, based on ISO TC211 and Global Mapping.
- Projects: *(Australia)*
 - promote specifications to key agencies and projects;
 - support integration of fundamental datasets, as appropriate.

6. MAPS AND CHARTS CATALOGUE (Project Leader: USA)

- Revision: *(Australia, USA)*
 - review metadata model, incorporating ISOTC211, Geoscience catalogue (UK), and 5th edition of the SCAR Map and Chart Catalogue;
 - validate existing data entries, by circulation to members.
- Publication: *(USA, Australia)*
 - establish on-line catalogue and routine maintenance procedures (Aus).
 - publish 6th edition of SCAR Catalogue, for SCAR XXVI (USA).

OTHER

SCAR Review	Clarke
Antarctic Remote Sensing session at ISPRS XIX Amsterdam 14-26 July 2000	Manning
Policy decision on distribution of CGA and SCOUT software	Clarke
Web site harmonisation with SCAR and other Working Groups + WG-GGI web site in general (inc. statistics on site)	Johnstone
Digital data distribution (see separate paper)	Johnstone
ISO standard on Data Dictionaries (see separate paper)	Johnstone
On-line aerial photography index	Brolsma
Outcomes from XXIII ATCM, Lima, Peru, 24 May – 4 June (see separate paper)	Johnstone
On-line survey control database (see separate paper)	Brolsma
Protocol for accessing SCAR funds	Clarke/Johnstone
Outcomes from 6 th ISCGM meeting, Cambridge, 24 July	Clarke