

**Report from International Steering Committee for Global Mapping (ISCGM)
for
SCAR
Working Group on Geodesy and Geographic Information
Tokyo, Japan
10-14 July 2000**

Prepared by

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In order to address global environmental problems, globally consistent scientific information on the status and the change of environment is inevitable. The Agenda 21 stresses the importance of such information for decision making. In this context, Ministry of Construction of Japan proposed Global Mapping concept in 1992. Global Mapping Project has been promoted through International Steering Committee for Global Mapping (ISCGM) which was established in 1996. GSI of Japan takes secretarial role of the Committee.

The need of the Global Map has been well confirmed at the United Nations. The report of Special Session of the United Nations General Assembly on the Implementation of Agenda 21, held in June 1997, includes a section on the development of an information infrastructure accessible to anybody, using technology of geographic information systems including the Global Map. In November 1998, the UN sent a letter of Prof. Estes, Chairperson of ISCGM, inviting National Mapping Organizations (NMOs) to Global Mapping Project and recommendatory letter of Mr. Habermann, Director of the UN Statistics Division, to heads of NMOs. There has been remarkable increase of participation in the Project. As of 28 June 2000, seventy-eight countries and regions, including SCAR WG-GGI, have participated in the project, and more than thirty-seven countries and regions are waiting approval from their governments.

The Global Map is the map data in digital format covering the whole land area of the earth at 1 km ground resolution, or resolution equivalent to conventional maps at the scale of 1:1,000,000, and is to be revised every five years. The Global Map contains vector data (transportation, boundaries, drainage and population centers) and raster data (elevation, vegetation, land cover and land use). And the Global Map is produced using existing materials such as paper map and digital data set. Satellite images are also considered for revising the existing materials.

Global Map Specifications version 1.0 which was adopted at the Fifth ISCGM Meeting in 1998 are in the most part consistent with ISO/TC211 recommendations for geographic data standards. In Seventh ISCGM Meeting, some minor amendments were adopted, to designate Global Map Specifications version 1.1, which is found at <http://www.auslig.gov.au/mapping/global_m/specv1_1.htm>. In the specifications, for example, geodetic datum and ellipsoid, data format and data management are described.

Global Mapping Project is promoted by ISCGM whose secretariat is located at GSI, Japan. ISCGM is composed of 18 members of 15 countries and international activities including Mr. Drew Clarke who represents SCAR WG-GGI, and seven advisors from UN Statistic Division, UNEP, UNU, ICA, National Geographic Society etc. Besides, ISCGM keeps close relationship with GSDI, CEOS, ISO/TC211 and other related international organizations. Seventh Meeting of ISCGM was held in Cape Town, South Africa on 16 March 2000. Next meeting is planned to be held in May 2001 in Cartagena, Colombia.

Production of Global Map Data of some countries (e.g. Japan, Philippines, Thailand) has been already completed. ISCGM distributes such completed Global Map Data free of charge to researchers for their study. All the results of their study will be presented at "Global Mapping Forum 2000" scheduled 28-30 November in Hiroshima, Japan. Furthermore, ISCGM discusses the possibility that ISCGM will distribute the Global Map to public in the world through CD-R and Internet after the Forum 2000.

SCAR WG-GGI participated in the Global Mapping Project on March 9, 1999, and Mr. Drew Clarke, Chairman of SCAR WG-GGI is one of ISCGM members. To produce the Global Map of the Antarctic, British Antarctic Survey (BAS) is simplifying the revised Antarctic Digital Database (ADD) to a 1:1,000,000 scale version. On 10 November 1999, ISCGM has received following progress report from SCAR WG-GGI. In April 2000, ISCGM Secretariat received the Antarctic Data produced by BAS, and are checking the data contained in it. It will be returned to BAS, and revised until 2001.:

Country	Antarctica
Name of Organization	British Antarctic Survey [for Scientific Committee on Antarctic Research Working Group on Geodesy and Geographic Information (SCAR WG-GGI)]
Address	High Cross, Madingley Road, Cambridge CB3 0ET, UK
Contact person	Mrs Janet W. Thomson
E-mail, phone, fax	E-mail jwth@pcmail.nerc-bas.ac.uk Phone +44 1223 221424 Fax +44 1223 362616
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<p>General description of progress:</p> <p>The main source of data is the Antarctic Digital Database (ADD) Version 3.0. On behalf of the Scientific Committee on Antarctic Research (SCAR), revision of the ADD Version 2.0 (1998) began in January 1999 at the British Antarctic Survey. New elevation data for the Antarctic ice sheet have been derived from satellite altimetry, and the accuracy of the coastline and ice front positions have been improved using satellite imagery. Basic revision was completed by the end of November 1999.</p> <p>Simplification of the data from the original source material (at scales ranging from 1:200 000 to 1:5 000 000) to 1:1 000 000 scale for the coastline, contours and rock outcrop layers was completed by mid-December 1999. Work on the remaining layers should be finished by mid-March 2000.</p>	
Layers	Progress and/or plan and materials to be used
Transportation	Minimal data: Sites of landing facilities for aircraft and ships only to be taken from ADD and Antarctic Flight Information Manual (AFIM).
Drainage	Glacier margins, glacier flow lines, rivers and lakes from 1:1 000 000 scale ADD dataset
Boundaries	Coastline and ice fronts from 1:1 000 000 scale ADD dataset
Population Centers	Permanent scientific stations, derived from SCAR list of stations, published October 1999
Elevation	100 m contour interval (200 m interval in mountainous areas) from 1:1 000 000 scale ADD dataset
Vegetation	Not applicable
Land use	Possibly Specially Protected Areas and Sites of Special Scientific Interest
Land cover	Rock/permanent ice cover boundaries and moraine coverage, from 1:1 000 000 scale ADD dataset
<p>Questions, comments and/or issues to be solved on Global Mapping of your country/region:</p> <ol style="list-style-type: none"> 1. Place names do not form part of the ADD and there will be difficulty in placing them on the map because of the international nature of the different naming authorities. Point data might be possible to incorporate, given time. 2. Should transportation include seaports as well as airports? 3. For Antarctica, drainage should include glaciers as well as rivers, canals and lakes. 4. Is there an agreed contour interval for the elevation layer? 	