No.16 – Dec. 25, 1999 International Steering Committee for Global Mapping

GLOBAL MAPPING
NEWSLETTER 16

"Mapping the Frozen Continent"

A Brief History of the SCAR Working Group on Geodesy and Geographic Information and the Antarctic Digital Database

The Scientific Committee on Antarctic Research (SCAR) was formed at The Hague in February 1958. It evolved from the Special Committee on Antarctic Research established by the International Council for Science (ICSU) to co-ordinate the scientific research of the twelve nations active in Antarctica during the IGY, the International Geophysical Year in 1957-58. The main purpose of SCAR is to provide a forum for scientists of all countries with research activities in the Antarctic to discuss their field activities and promote cooperation and collaboration in scientific research amongst Antarctic Treaty Nations. SCAR also has an important function to provide scientific advice to the Antarctic Treaty System.

The surveying, mapping and GIS activities of SCAR are coordinated through its Working Group on Geodesy and Geographic Information - WG-GGI. WG-GGI's origins can be traced back to the first SCAR meeting in 1958 when it was known as Cartography and formed part of a Working Group with the disciplines of Geology, Glaciology and Morphology. In September 1960, a Permanent Working Group on Cartography was established and the following year it changed its name to the Working Group on Geodesy and Cartography. In 1988 the name of the group was changed to Geodesy and Geographic Information to reflect better its current activities.

From the very first SCAR meeting it was recognised that mapping (in its broadest sense) was a crucial requirement for both the operational and scientific aspects of Antarctic research.

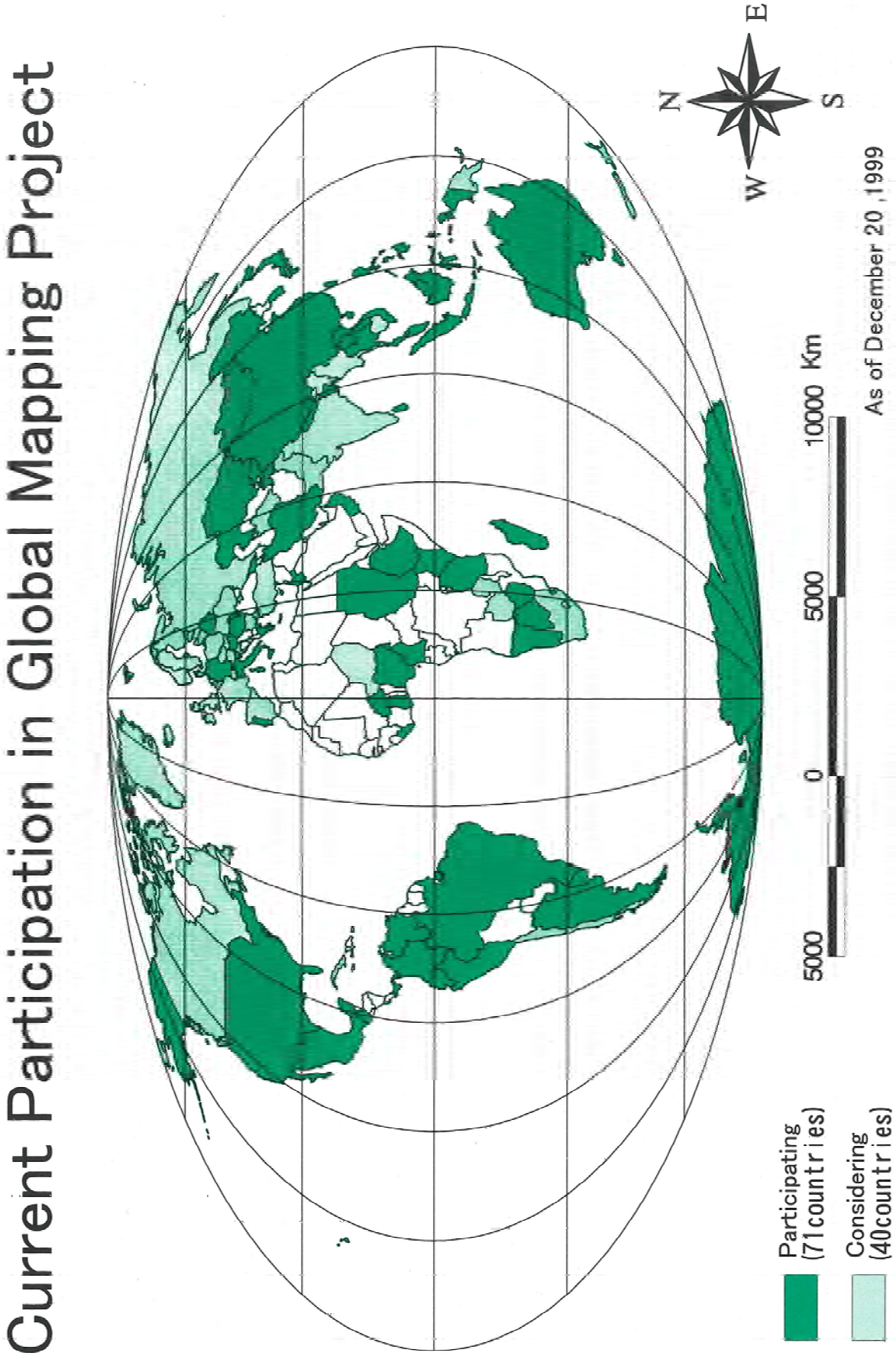
The Antarctic Digital Database (ADD) project was proposed in June 1990 by a Cambridge-based consortium comprising the British Antarctic Survey (BAS), Scott Polar Research Institute (SPRI) and the World Conservation Monitoring Centre (WCMC). The objective of this new project was to prepare a seamless digital map of the Antarctic from the most appropriate map sources available: time limitations precluded the use of any source data at scales larger than 1:200,000/1:250,000. ADD Version 1.0 (completed in 1992 and published on CD-ROM in 1993) provided the international Antarctic community with a common geographic framework for a range of research applications and logistic support activities. The CD included generalisation products at a number of scales and was accompanied by a reference manual, which gave detailed information on the content of the database and a full bibliography of the source material used in the preparation Version 1.0. The copyright of the database is held by SCAR.

Although several nations provided digital data to the project, the bulk of the data capture and data management was undertaken in Cambridge. Work on Version 1.0 in the UK was funded initially by BAS and, for a further 18-month period, by The British Petroleum Company p.l.c. (BP). Other contributing nations sponsored their own data capture through either their national mapping agencies or their Antarctic research organisations.

The widespread change from PC to Workstation environment for the majority of GIS applications performed at BAS and elsewhere influenced the evolving plans for a new version of the ADD. Thus, the major difference between the new and old versions is that ADD Version 2.0 is maintained and developed in Workstation ARC/INFO. ADD Version 2.0 was funded entirely by BAS on behalf of SCAR and released (in a down-loadable format) on the web in 1998. To access the data on the web you must first register your name and organisation with BAS – there are no charges for non-commercial access to the data.

The URL is
<http://www.nbs.ac.uk/public/magic/add_main.html>

Work, funded by SCAR, is in progress at BAS on ADD Version 3.0. New data such as improved contours over the Antarctic ice sheet (primarily derived from a DEM generated by Byrd Polar Research Center, Ohio, from ERS-1 satellite altimetry and ADD Version 1.0), and revised positions of major ice fronts are included in Version 3.0. New generalization products are also being prepared. In particular, a 1:1 million scale product is being generated for the Global Mapping project.


Current Participation in Global Mapping Project
E
N
S
W
As of December 20 ,1999
5000
0
5000
10000 Km
Participating (71countries)
Considering (40countries)

Participating (as of December 20, 1999)

Country, Region	Organization
American Samoa	Survey and Land Information Division
Antarctica	SCAR Working Group on Geodesy and Geographic Information
Argentina	Secretaria de Recursos Naturales y Desarrollo Sustentable - Direccion de Recursos Forestales Nativos
Australia	Australian Surveying & Land Information Group
Bahrain	Survey Directorate, Ministry of Housing, Municipalities & Environment
Bangladesh	Survey of Bangladesh
Belarus	State Committee for Land Resources, Geodesy and Cartography
Botswana	Department of Survey and Mapping
Bermuda	Ministry of Works & Engineering, Bermuda Government
Brazil	Instituto Brasileiro de Geografia e Estatistica (IBGE)
Brunei	Survey Department
Burkina Faso	Institut Geographique du Burkina
Cameroon	Institut National de Cartographie
Cayman Islands	Lands & Survey Department
China	State Bureau of Surveying and Mapping
Colombia	Instituto Geographico Agustin Codazzi
Cyprus	Department of Lands and Surveys
Ecuador	Instituto Geografico Militar
Ethiopia	Ethiopian Mapping Authority, Ministry of Planning and Economic Department
Fiji	Ministry of Lands & Mineral Resources
Georgia	The State Department of Geodesy and Cartography
Germany	Bundesamt fur Kartographie und Geodasie
Ghana	Survey Department Ghana
Greece	Hellenic Mapping and Cadastral Organization
Guatemala	Instituto Geografico Nacional "Ingeniero Alfred Obiols Gomez"
Hong Kong, China	Lands Department, the Government of the Hong Kong Special Administrative Region of China
Hungary	Department of Lands and Mapping, Ministry of Agriculture and Regional Development
Indonesia	National Atlas Centre, BAKOSURTANAL
Iran	National Cartographic Center (NCC)
Israel	Survey of Israel
Italy	Italian Geographic Military Institute
Japan	Geographical Survey Institute
Jordan	Royal Jordan Geographic Center
Kazakhstan	Scientific Technical Enterprise of Digital Cartography and GIS, The Committee for Management of Land Resources, Ministry of Agriculture STE "Kartinform"
Kenya	Survey of Kenya
Kiribati	Land Management Division
Kyrgyz	State Service of Cartography and Geodesy of Kyrgyz Republic
Lao P.D.R.	National Geographic Department
Liberia	Liberian Cartographic Service, Ministry of Lands, Mines and Energy
Macau, China	Direccao dos Servicos de Cartografia e Cadastro of China
Madagascar	Institut Geographique et Hydrographique
Malaysia	Department of Survey and Mapping Malaysia
Maldives	Ministry of Construction and Public Works
Malta	Mapping Unit Planning Authority
Mexico	Instituto Nacional de Estadistica Geografia e Informatica
Moldova	National Agency of Cadastre, Land Resources and Geodesy
Mongolia	State Administration of Geodesy and Cartography Mongolia
Namibia	Directorate of Survey and Mapping, Ministry of Lands, Resettlement and Rehabilitation
Nepal	Survey Department
Netherlands Antilles	Cadastral Service
Nigeria	Federal Ministry of Works & Housing, Federal Surveys Department Headquarters
Oman	National Survey Authority
Panama	National Geographical Institute
Peru	National Geographic Institute
Philippines	National Mapping and Resource Information Authority
Portugal	Direccao-General do Ambiente Ministerio do Ambiente / Instituto Portugues de Cartografia e Cadastro
Romania	The National Office of Cadastre, Geodesy and Cartography / Institute of Geography, Romania Academy
Republic of Korea	National Geography Institute
Singapore	Mapping Unit, Ministry of Defence
Slovenia	Geodetska Uprava Republike Slovenije
Sri Lanka	Survey Department of Sri Lanka
Sudan	Sudan Survey Department
Swaziland	Surveyor General's Department
Tajikistan	Tajikglavgeodesija
Tanzania	Survey and Mapping Division
Thailand	Royal Thai Survey Department
Uruguay	Servicio Geografico Militar
USA	U.S Geological Survey
Venezuela	Servicio Autonomo de Geografia y Cartografia Nacional
Vietnam	General Department of Land Administration
Zimbabwe	Department of the Surveyor General

Considering (as of December 20, 1999)

Country, Region	Organization
Ascension Island South Atlantic	Office of Administrator
Austria	Bundesamt fur Eich und Vermessungswesen
Belgium	Institut Geographique National
Bulgaria	Ministry of Regional Development and Construction
Cambodia	Geography Department
Canada	GeoAccess Division Canada Center for Remote Sensing
Chile	Instituto Geografico
Croatia	Drzavna Geodetska Uprava
Cuba	Oficina Nacional de Hidrografia y Geodesia
Czech Republic	Cesky urad zememericky a katastralni
Denmark	Kort & Matrikelstyrelsen
Estonia	Estonian National Land Board
Finland	Maanmittauslaitos
France	Institut Geographique National
Iceland	Landmaelingar Islands
India	Survey of India
Ireland	Oifig na Suirbheireachta Ordnais
Latvia	State Land Service of the Republic of Latvia
Lithuania	Valstybine geodezijos ir Kartografijas tarnyba
Luxembourg	Administration du Cadastre et de la Topographie
Myanmar	Survey Department
New Zealand	Land Information New Zealand
Niger	Institut Geographique National du Niger
Northern Ireland	Ordnance Suevey of Northern Ireland
Norway	Statens Kartverk
Pakistan	Survey of Pakistan
Papua New Guinea	National Mapping Bureau
Poland	Glowny Urzad Geodezji i Kartografii
Russia	Federal Service of Geodesy & Cartography of Russia
Slovakia	Urad geodezie, kartografie a katastra Slovenskej republiky
South Africa	Survey and Mapping
Spain	Centro Nacional de Informacion Geografica
Sweden	Lantmaterivarket
Switzerland	Budesamt fur Landestopographie
The Netherlands	Topografische Dienst Nederland
Turkmenistan	Turkmenistan State Committee on Geodesy, Cartography and Cadaster
Turky	Milli Savunma Bakanligi, Harita Genel Komutanligi
Ukraine	Main Administration of Geodesy, Cartography and Cadastre
United Kingdom	Ordnance Survey
Zambia	Survey Department

Some Words about the JICA Training Course on Global Mapping

1999 Global Mapping Group Training Course, comprising the individuals from different parts of the world, is approaching on the completion of the training. It would be appropriate to say that it is not the completion rather initiation i. e., we are going to start and initiate the preparation of the Global Map after acquiring the knowledge and technology from Geographical Survey Institute (GSI) for the effective use in the burning topic of these days, GLOBAL ENVIRONMENT. We are at the doorstep of the new millennium and this latest technology and conception, Global Mapping will certainly help the global community to take the countermeasures to save our beloved earth from the ongrowing environmental problems.

The training has become very meaningful through various lectures and practical sessions conducted by GSI's staff with their active participation. To make it more realistic to the environment, the participants were taken to outdoor study tour at various parts of Japan.

Finally, it will remain incomplete unless we thank Japan International Cooperation Agency for its kind offer to us for this course which helped us to learn this new concept, Global Mapping and to see one of the beautiful countries of the world and to get to know her people, their lifestyle and culture.

Tsukuba, 1999/12/10
Shyamadas CHAUDHURI
Joint Director
Project Management Organization
India

Global Map and Related Meetings

Followings are Global Map and related meetings. Information on related meetings will be highly appreciated. Meetings with "*" mark are to be confirmed.

2000

- **9-10 March, Cape Town, South Africa**
  10th Plenary Meeting of ISO/TC211
- **13-15 March, Cape Town, South Africa**
  4th GSDI Meeting
- **16 March, Cape Town, South Africa**
  7th Meeting of ISCGM
- **27-31 March, Cape Town, South Africa**
  28th International Symposium on Remote Sensing of Environment
- **11-14 April, Kuala Lumpur, Malaysia**
  15th UNRCCAP
- **14-26 July, Amsterdam, Netherlands**
  19th ISPRS Congress
- **7-8 September, Reston, USA**
  11th Plenary Meeting of ISO/TC211

2001

- **March - April, Portugal***
  12th Plenary Meeting of ISO/TC211
- **April, Colombia**
  5th GSDI Meeting
- **April, Colombia**
  8th Meeting of ISCGM*

Published by: ***The Secretariat of the International Steering Committee for Global Mapping (ISCGM)***
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