

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.

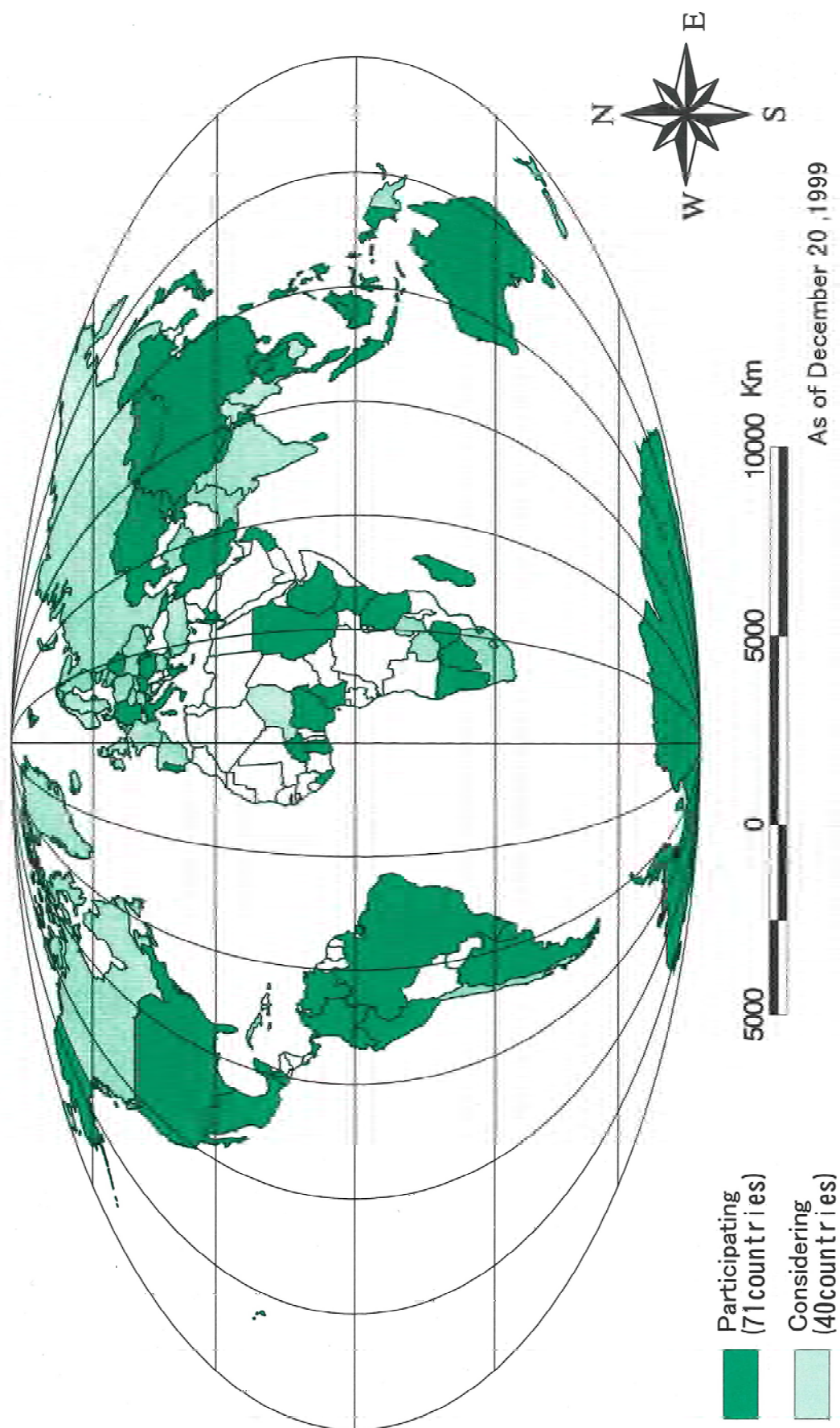
The widespread change from PC to Workstation environment for the majority of GIS applications performed at BAS and elsewhere influenced the evolving plans for a new version of the ADD. Thus, the major difference between the new and old versions is that ADD Version 2.0 is maintained and developed in Workstation 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>](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



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	Sociedad de Recursos Naturales y Desarrollo Sustentable - Dirección 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
Belgium	Department of Survey and Mapping
Bermuda	Ministry of Works & Engineering, Bermuda Government
Brazil	Instituto Brasileiro de Geografia e Estatística - IBGE
Brunei	Survey Department
Burkina Faso	Institut Géographique du Burkina
Cameroon	Institut National de Cartographie
Cayman Islands	Land & Survey Department
China	State Bureau of Surveying and Mapping
Colombia	Instituto Geográfico Agustín Codazzi
Cyprus	Department of Lands and Surveys
Ecuador	Instituto Geográfico Militar
Ethiopia	Ethiopian Mapping Authority, Ministry of Planning and Economic Development
Fiji	Ministry of Lands & Mineral Resources
Georgia	The State Department of Geodesy and Cartography
Germany	Bundesamt für Kartographie und Geodäsie
Ghana	Survey Department Ghana
Greece	Hellenic Mapping and Cadastre Organization
Guatemala	Instituto Geográfico Nacional "Ingeniero Alfredo Obledo Gómez"
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 (NCCC)
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 "Kazinform"
Kenya	Survey of Kenya
Kiribati	Land Management Division
Kyrgyz	State Service of Cartography and Geodesy of Kyrgyz Republic
Laos P.D.R.	National Geographic Department
Liberia	Libecan Cartographic Service, Ministry of Lands, Mines and Energy
Macau, China	Direcção dos Serviços de Cartografia e Cadastro of China
Madagascar	Institut Géographique 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 Estadística Geografía e Informática
Moldova	National Agency of Cadastre, Land Resources and Geodesy
Monrovia	State Administration of Geodesy and Cartography Mongolia
Namibia	Directorate of Survey and Mapping, Ministry of Lands, Settlement and Rehabilitation
Nepal	Survey Department
Netherlands	Cadastre Service
Nigeria	Federal Ministry of Works & Housing, Federal Survey Department Headquarters
Oman	National Survey Authority
Panama	National Geographical Institute
Peru	National Geographic Institute
Philippines	National Mapping and Resource Information Authority
Portugal	Direcção-Geral do Ambiente Ministério do Ambiente / Instituto Português de Cartografia e Cadastro

Country, Region	Organization
Ramania	The National Office of Cadastre, Geodesy and Cartography / Institute of Geodesy, Ramania Academy
Republic of Korea	National Geographic 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
Taiwan	Taiwan Geodesy
Tanzania	Survey and Mapping Division
Thailand	Royal Thai Survey Department
Uruguay	Servicio Geográfico Militar
U.S.A.	U.S. Geological Survey
Venezuela	Servicio Autónomo de Geografía y Cartografía Nacional
Vietnam	General Department of Land Administration
Zimbabwe	Department of the Survey General

Considering (as of December 20, 1999)

Country, Region	Organization
Ascension Island	Office of Administrator
South Atlantic	Bundesamt für Eich und Vermessungswesen
Austria	Institut Geographisches National
Belgium	Ministry of Regional Development and Construction
Bulgaria	Geography Department
Cameroon	Geodetic Division Canada Center for Remote Sensing
Chile	Instituto Geográfico
Croatia	Doprava Geodetska Uprava
Cuba	Oficina Nacional de Hidrografía y Geodesia
Czech Republics	Český úřad zeměměřický a katastrální
Denmark	Kort & Matrikelselskabet
Estonia	Estonian National Land Board
Finland	Maanmittauslaitos
France	Institut Géographique National
Iceland	Landmælingar Islands
India	Survey of India
Ireland	Ordnance Survey
Latvia	State Land Service of the Republic of Latvia
Lithuania	Valstybinis geodėzijos ir kartografijos tarnyba
Luxembourg	Administration du Cadastre et de la Topographie
Myanmar	Survey Department
New Zealand	Land Information New Zealand
Niger	Institut Géographique National du Niger
Northern Ireland	Ordnance Survey of Northern Ireland
Norway	Status Kartverk
Pakistan	Survey of Pakistan
Papua New Guinea	National Mapping Bureau
Poland	Główny Urząd Geodezji i Kartografii
Russia	Federal Service of Geodesy & Cartography of Russia
Slovakia	Úrad geodézie, kartografie a katastra Slovenskej republiky
South Africa	Survey and Mapping
Spain	Centro Nacional de Información Geográfica
Sweden	Landmateriet
Switzerland	Bundesamt für Landestopographie
The Netherlands	Topografische Dienst Nederland
Turkmenistan	Türkmenistan State Committee on Geodesy, Cartography and Cadastre
Turkey	Milli Harita Genel Komutanlığı, Harita Genel Komutanlığı
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 on-growing 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*

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*Geographical Survey Institute (GSI), Ministry of Construction of Japan
 1 Kitasato, Tsukuba-shi, 305-0811 Japan
 Phone : +81-298-64-6910 Fax : +81-298-64-1804
 Homepage: <http://www1.gsi-mc.go.jp/iscgm-sec>
 E-mail: iscgmsec@graph.gsi-mc.go.jp*