# SCAR Standing Committee on Antarctic Geographic Information (SCAGI)

Report to <u>11<sup>th</sup> Meeting of the IHO Hydrographic</u> <u>Commission on Antarctica (HCA)</u>

## **SCAGI and Antarctic Geographic Information**

All work in Antarctica relies on a consistent geographic framework, and the main function of the <u>SCAR Standing Committee on Antarctic Geographic Information (SCAGI)</u> is to manage and improve the geographic framework not only for Antarctic scientific research but also for other activities including operations, environmental management and tourism. SCAGI continues to deliver a range of Geographic Information products through its various projects. These products include the SCAR Composite Gazetteer of Antarctica, the SCAR Antarctic Digital Database, the SCAR King George Island GIS Database, the SCAR Map Catalogue and SCAR Feature Catalogue. SCAGI integrates topographic and names information received from national Antarctic programs into the SCAR ADD and SCAR Composite Gazetteer of Antarctica. SCAR / SCAGI in keeping with Article III.1.c of the Treaty that Scientific observations and results from Antarctica shall be exchanged and made freely available promotes an open standards approach to support free and unrestricted data access and develops the respective specifications.

SCAGI met in Palma de Mallorca on 6<sup>th</sup> and 7<sup>th</sup> September

A recurrent theme within SCAR is that only small numbers of people are actively participating in the activities of the committees. It was agreed that less energy be spent on trying to find representatives for each country and encouraging others to contribute and that a "coalition of the willing" approach be taken.

It was agreed that SCAGI would concentrate its efforts on the core SCAR SCAGI products, that is the SCAR Antarctic Digital Database (SCAR ADD), SCAR Composite Gazetteer Antarctica, SCAR Map Catalogue and SCAR Feature Catalogue.

## SCAR Antarctic Digital Database

The Antarctic Digital database (ADD) is a compilation of medium scale topographic data for the continent of Antarctica. It is derived from a wide variety of sources, and aims to provide the best currently available data in all areas. However, users should note that the resolution of the data varies widely. The most detailed information is taken from maps compiled at a scale of 1:10,000 (i.e. a resolution of approximately 5 m); the least detailed from sources with a resolution of at best 5 km. The lowest resolution data are, however, from the great ice sheets where the relief is very low, and where higher resolution data would not be useful.

## SCAR Composite Gazetteer Antarctica

The SCAR Composite Gazetteer of Antarctica (CGA) has been compiled over a period of 19 years (commenced 1992) and consists of 36,722 names that correspond to 18,715 features. The place names information has been submitted by the national names committees from 23 countries and compiled by Roberto Cervellati and Chiara Ramorino from the Italian Antarctic names committee and is hosted on the Australian Antarctic Data Centre web site.

The SCAR CGA is now a relational database - related to the SCAR Map catalogue, SCAR Feature Catalogue and the <u>SCAR Flora and Fauna databases</u> (all developed by the Australian Antarctic Data Centre.) This allows the search for Antarctic names, maps and flora and fauna information to be addressed via the gazetteer or map catalogue with results showing links to national names committees, map publishers, map retailers and small scale maps showing the distribution of flora and fauna.

The SCAR CGA pages include a glossary of all feature types with a reference to the names of feature types in other languages other than English and the ability to search for feature types in other language and their English equivalent.

## SCAR Map Catalogue

This is a database of those maps submitted for distribution by SCAR SCAGI members. It includes those aeronautical and nautical charts that SCAR SCAGI is aware of and distributed by members countries.

This is compiled and maintained by the Australian Antarctic Division Data Centre. It contains entries for **5155** hard copy maps from **26** countries and **947** digital maps from five countries; up from 3640 hard copy maps and 698 digital maps on 1 June 2009. Downloads of maps since 1 June 2009 are **9,856**.

## SCAR Feature Catalogue

This is a catalogue of all feature types and their definitions associated with feature types in the SCAR Composite Gazetteer Antarctica and those used by the Australian Antarctic Data Centre in the mapping of Antarctica.

The SCAR Feature catalogue has not been adopted by all SCAGI members for their topographic mapping activities, due, for example, to working within established protocols of their National Mapping Authorities. It is used by Australian Antarctic Division and they have attached feature type to all place-names in the SCAR CGA. SCAR ADD also added a field to the SCAR CGA that allows referencing of non-English feature types to the English equivalent.

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