



SDM 28
 Agenda Item: 5.2
 Person Responsible: A Fox/
 J-Y Piriou

**XXXV SCAR Delegates Meeting
 Davos, Switzerland, 25-26 June 2018**

**Standing Committee on Antarctic Geographic
 Information (SCAGI)**

Report Authors

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Summary of activities from 2016-18 and other important matters

SCAGI continues to deliver a range of geographic information products through its various SCAR Products: Antarctic Digital Database (ADD); Air Operations Planning Maps; Composite Gazetteer of Antarctica (CGA) and SCAR Map Catalogue. Usage statistics show that these SCAR Products are used and valued by the Antarctic Community. SCAGI seeks to continue to develop and improve the existing products and develop appropriate new ones to support evolving activities in Antarctica. SCAGI held an inter-sessional meeting in June 2017 which was kindly hosted by Antonie Haas at AWI, Bremerhaven. It was attended by 11 delegates including new attendees from Bulgaria and Czech Republic. SCAGI continues to try to build engagement with countries without a delegate or a named contact. The SCAR Air Operations Planning Maps series is now completed and 16 1:1M scale maps and an overview map were available for Antarctic Operations planning in 2017-18. Emerging themes are the increasing use of UAVs for geospatial work and the impact of the forthcoming US Reference Elevation Map of Antarctica (REMA).

Recommendations

Delegates are asked to:

- ensure familiarity with the work of SCAGI and encourage their National Representatives to become involved with and contribute all new data to SCAGI,
- replace retiring national representatives and notify SCAGI co-Chairs of any changes ,and
- endorse a strategic view of web-interfaces to ensure that products work together effectively and coherently and to minimize duplication and cross-cutting between products.

Summary Budget 2017 to 2020

	2017	2018	2019	2020
	Spent	Allocated	Request	Request
(US\$)	3000	2500	4000	4000



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Progress and Plans

Almost all work in Antarctica relies on accurate and reliable geographic information. Accurate, comprehensive and reliable geographic information is needed to support science, operations, environmental management and tourism.

The main roles of SCAR SCAGI are to:

- Coordinate maintaining and developing this geospatial framework for Antarctica through national agencies, and
- Provide an arena for raising awareness of national programme activities through national reports, sharing of experience and best practice, and for highlighting opportunities for collaboration between agencies.

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Usage statistics show that these SCAR Products are used and valued by the Antarctic Community. SCAGI seeks to continue to develop and improve the existing products and develop appropriate new ones to support evolving activities in Antarctica.

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Activity Summary

Summary of progress with SCAR SCAGI products:

- **Antarctic Digital Database (ADD):** www.add.scar.org
We have continued to develop the ADD and include new data. There will be a June 2018 update. There were more than 10,000 downloads in 2016-17, statistics for 2017-18 will be available at the SCAGI meeting. Adrian Fox (SCAGI co-CO) will present a paper at Davos on 25 years of the ADD, which was first launched in 1993.
- **Air Operations Planning Maps Series**
A series of maps at 1:1M scale designed for Air Operations planning. (See below).
- **SCAR Composite Gazetteer of Antarctica (CGA):**
<https://data.aad.gov.au/aadc/gaz/scar/>
The Italian National Commission on Antarctic Research have continued to manage the content of the CGA. The gazetteer database and website are delivered by Australian Antarctic Data Centre. There are about 38,000 names for about 19,800 topographic features. It can now be directly linked by other web-based systems to encourage use in GIS.
- **SCAR map catalogue:** <https://data.aad.gov.au/aadc/mapcat/>
The MapCat had seen declining use, but after an action on members to supply map details there were 39 new entries since September 2016 to June 2017, with maps from Australia, Germany, Norway, UK and USA. Recent developments



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include, easier upload of details through a bulk metadata template, improved thematic lists facility and email notification of new maps.

- **2017 SCAGI meeting at AWI June 2017**

SCAGI held an inter-sessional meeting in June 2017 which was kindly hosted by Antonie Haas at AWI, Bremerhaven. It was attended by 11 delegates including new attendees from Bulgaria and Czech Republic. SCAGI continues to try to build engagement with countries without a delegate or a named contact. The meeting included: National reports; Product reports and plans; Launch of a Working Group to review the existing SCAGI place-names guidelines (from 1994) and a workshop on preparation of Air Operations Planning Maps series for the 2017-18 Antarctic Operations season. The place names WG held a kick-off meeting in August 2017 in association with the annual meeting of UNGEGN (the UN place-naming expert body) in New York. 2017-18 Antarctic Operations season. Emerging themes are the increasing use of UAVs for geospatial work and the impact of the forthcoming US Reference Elevation Map of Antarctica (REMA).

Major Outcomes

- International engagement in SCAGI is improving, with 15 delegates from 12 countries at the 2016 meeting and 11 attendees at the 2017 inter-sessional meeting, including new attendees from Bulgaria and Czech Republic. SCAGI continues to try to build engagement with countries without a delegate or a named contact.
- The SCAR Air Operations Planning Maps series is now completed and 16 1:1M scale maps and an overview map were available for Antarctic Operations planning in 2017-18. The maps are specially designed for use by the Air Operations community and the specification was reviewed and finalized at the AWI workshop following feedback from the Air Operations community. The maps are available for free download as PDF for printing and digital versions are optimized for use in tablet devices commonly now used in aircraft.
- A working group to review the existing SCAGI guidelines on place naming (Jorn Sievers, 1994) was formed at the AWI meeting and had a kick-off meeting in August 2017 in association with the annual meeting of UNGEGN (the UN place-naming expert body) in New York.

Major Products

See Activity Summary above –delivery of the SCAGI products is the main area of activity.

Major Impacts

We have received very positive feedback from the Antarctic Air Operations Community for the Air Operations Planning Maps Series. They will be updated for 2018-19.

Usage statistics show that the SCAR products continue to be used and valued by the Antarctic Community. The ADD is being used to underpin other products such as Quantarctica.



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Future Plans

- **SCAR products:**
 We will continue to maintain and develop the SCAR Products. The ADD is 25 years old (launched 1993). We are reviewing the status of the ADD and how maintain its future value and relevance.
- **UAVs for rigorous mapping applications:**
 An emerging theme from National programme reports is increasing use of UAVs for detailed, rigorous mapping of small, high-value targets such as stations, and long term records of glacier change. Whilst there is much activity in this area across all geo- and environmental sciences, SCAGI member agencies have a particular focus on rigorous geospatial applications, rather than more interpretative uses. Delegates have been asked to include details of any mapping activity with UAV platforms in their National Reports to promote sharing of experience of methods, platforms, software and results achieved in the Antarctic setting.
- **Update on Reference Elevation Mosaic of Antarctica (REMA):**
<https://www.pgc.umn.edu/data/elevation/>
 This is a not a SCAR product, but is included here because it will have significant impact on Antarctic science. REMA is a US NSF-funded activity by US Polar Geospatial Center, Byrd Polar and Climate Research Center and other US organisations to develop a continent-wide Digital Elevation Model at 8 m resolution with better than 2 m elevation accuracy. This is being generated from sub-metre resolution stereo-satellite imagery. The project is close to completion. REMA will be a step-change in the elevation information available for Antarctica, and looks set to have far- reaching impacts on science, mapping and operational support. SCAGI and its member organizations will have to consider how to best use this new dataset to improve their products.

Budget

Planned use of funds for 2018 to 2020

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
08 - 18	Liaison with UNGEGN (UN place-naming expert group)	2000	Jean-Yves Piriolot	jean-yves.piriolot@ign.be
06-18	SCAGI meeting	500	Adrian Fox	a.fox@bas.ac.uk
06-19	SCAGI meeting – organise meeting and travel support for key delegates. Venue tbc	4000	Adrian Fox	a.fox@bas.ac.uk



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Percentage of the budget to be used for support of early career researchers

2018: 0
 2019: 0
 2020: 0

Percentage of the budget to be used for support of scientists from countries with developing Antarctic programmes

2018: 0
 2019: 50
 2020: TBD

Membership

Leadership

Role	First Name	Last Name	Affiliation	Country	Email	Date Started	Date Term is to End
co-CO	Adrian	Fox	BAS	UK	a.fox@bas.ac.uk	August 2012	August 2020 (2 nd term)
co-CO	Jean-Yves	Piriou	IGN	Belgium	jyp@ign.be	August 2012	August 2020 (2 nd term)

Other members

First Name	Last Name	Affiliation	Country	Email
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Requests to the Secretariat - none