

International Council for Science

# SCAR

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September 2009

## Implementation Plan 2009-2010



**SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH**

at the

**Scott Polar Research Institute, Cambridge, United Kingdom**

## THE SCAR 'IMPLEMENTATION PLAN' JULY 2009-JULY 2010

### 1. INTRODUCTION:

SCAR's overall goals are set out in broad detail in the SCAR Strategic Plan 2004-2010, published on the SCAR web site at <http://www.scar.org/about/introduction/strategicplan/>.

SCAR works to a biennial cycle that culminates in the biennial SCAR meetings. At these meetings and at meetings of the Executive Committee in intervening years, the tasks and milestones are identified that must be met during the next biennial cycle, to meet SCAR's overall objectives. These action items form the basis for an Implementation Plan, which extends from one biennial SCAR meeting to the next. Both the Strategic Plan and the Implementation Plan guide the achievement of SCAR's mission, which is:

*“to be the leading independent organisation for facilitating and coordinating Antarctic research, and for identifying issues emerging from greater scientific understanding of the region that should be brought to the attention of policy makers”.*

To achieve that mission, SCAR aims to achieve the following objectives:

1. to initiate, develop, and co-ordinate high quality international scientific research in the Antarctic region, and on the role of the Antarctic region in the Earth system;
2. to provide objective and independent scientific advice to the Antarctic Treaty Consultative Meetings and other organizations on issues of science and conservation affecting the management of Antarctica and the Southern Ocean.
3. to facilitate free and unrestricted access to Antarctic scientific data and information;
4. to develop scientific capacity in all SCAR Members, especially with respect to younger scientists, and to promote the incorporation of Antarctic science in education at all levels;
5. to communicate scientific information about the Antarctic region to the public.
6. to improve the effectiveness, efficiency and flexibility of the structure, working mechanisms and practices of SCAR.
7. to increase funding to match requirements, and to maintain a healthy funding stream.

The Implementation Plan is organised into the same 7 sections as the Strategic Plan. Each section addresses one of the 7 objectives listed above, and includes tasks and milestones identified during various recent management meetings. The tasks are to be accomplished by specific parties including the Secretariat and the Executive Committee. This list does

**not** include specific tasks and milestones identified within specific group meetings (e.g. of the Chief Officers, or SRP leaders, or Standing Committee Officers).

***The action items from the Plan and detailed in the tables of tasks and milestones under each subsection heading below derived from these meetings:***

HOB D = actions from 2006 Delegates meeting  
2007 EC – actions from 2007 EXCOM meeting  
D = 2008 Delegates meeting  
E = 2008 EXCOM meeting  
SP = 2008 Joint SCAR COMNAP EXCOMs meeting  
N = 2008 new EXCOM meeting  
CL = 2009 Cross Linkages meeting  
EX = 2009 EXCOM meeting  
PR = 2009 Performance Review recommendations

## **2. THE SCIENCE OF SCAR**

**Objective:** to initiate, develop, and co-ordinate high quality international scientific research in the Antarctic region, and on the role of the Antarctic region in the Earth system;

### **The Strategic Approach:**

SCAR takes the following strategic approach:

- (i) generate and coordinate innovative high quality international science programmes addressing key issues of global importance;
- (ii) provide a forum for excellence in Antarctic science, and for debate on the big issues to which Antarctic science can contribute (climate change, ozone hole etc);
- (iii) promote the establishment of regional and international scientific networks;
- (iv) encourage multi-disciplinary cooperation in relevant fields;
- (v) maintain a high level of collaboration within ICSU and with other international organisations, enhancing and where appropriate developing joint programmes to address specific topics, so as to increase the involvement of the wider scientific community in SCAR's work.

SCAR concentrates its efforts on the following five Scientific Research Programmes addressing major topical issues of the day:

- Subglacial Lake Exploration (SALE)
- Antarctica and the Global Climate System (AGCS)
- Antarctic Climate Evolution (ACE)

- Evolution and Biodiversity in the Antarctic (EBA)
- Inter-hemispheric Conjugacy Effects in Solar-Terrestrial and Aeronomy Research (ICESTAR)

Most activities contributing to these programmes will be funded by national programmes. SCAR's international coordination adds value to those national efforts.

SCAR also supports a variety of other scientific activities in which value is added to national efforts through international cooperation. These activities are coordinated by Action Groups operating for short periods, and Expert Groups where more time is needed to achieve success.

The scientific effort is coordinated by the Standing Scientific Groups (SSGs) for the Physical Sciences (PS), Life Sciences (LS), and Geosciences (GS).

SCAR recognises the growing importance of working in partnership with other organisations having a global remit and including Antarctic interests, in order to place SCAR's research firmly in the global context.

SCAR's activities will make significant contributions to achieving the goals of the International Polar Year (IPY) (2007-2009). SCAR will work with partner organisations to influence the development of the IPY.

### MAIN SCIENCE TASKS AND MILESTONES

No.	Action	Whom	By When
	<b>LIFE SCIENCES</b>		
D-14	An Action Group be formed with members from SALE and representatives from the 3 SSGs to develop a code of conduct for the exploration of subglacial hydrological systems. The recommendations from the US National Research Council report on environmental stewardship provides an excellent starting point. A preliminary draft of the code to be presented to the SCAR EXCOM in 2009.	C Kennicutt & K Conlan	XXX SCAR
D-25	Y. Le Maho to provide some appropriate report language regarding fundamental biological advice on responses of organisms to change and limits of responses (for CEP, ACCE and SCAR Cross-Linkages).	Y Le Maho	2010 ATCM
EX-20	Write to AAD to thank them for Dave Watts' efforts towards managing the SCAR terrestrial database.	President	ASAP
EX-43	Appoint someone from BAMB to attend annual main ACAP meeting	SSG-LS in consultation BAMB-EG	By year end
	<b>PHYSICAL SCIENCES</b>		
D-4	Ask Kees Ven Der Veen to provide new Terms of References for ISMASS (the Ice Sheet Mass Balance and Sea Level Expert	M Candidi & K vdVeen	ASAP

	Group) in line with the new focus of the group on ice sheet modeling, for consideration at the EXCOM meeting in 2009, to include possible co-sponsorship by IASC.		
EX-9	Ensure that there is an appropriate mix of earth and atmospheric scientists in the meeting of the Action Group on GPS for weather and space forecasting in Rome in September 2009	SSG-GS and SSG-PS COs	For Sept 09
EX-10	Talk to ECA group about (i) possible future research on POPs to address gaps identified in their POPs report, and (ii) the connection between ECA and PACT [Polar Atmospheric Chemistry at the Tropopause].	Chief Officer	By year end
EX-21	Provide a draft item for the SCAR Newsletter on the ICESTAR Nature paper.	ditto	ASAP
	<b>GEOSCIENCES</b>		
D-12	Plans for SERCE as an SRP should be presented to XXXI SCAR.	A Capra	XXXI SCAR
EX-9	See above	A Capra	For Sept 09
	<b>SSG GENERAL REQUIREMENTS</b>		
EX-16	Implement the recommendations for the management of SSG meetings set out in Working Paper 10	Secretariat and COs	XXXI SCAR
PR-23 (i)	Task SSGs to operate strategically by specifically aiming on an overview of current, emerging and potentially exciting future science.	EXCOM	ASAP
EX-14	SSG COs to merge their 3 statements of purpose, highlighting (i) generic elements, and (ii) SSG-specific statements	SSG COs	ASAP
EX-18	Feed back to Secretariat suggestions for improvements to the proposed template for SSG reports.	COs	ASAP
HOB D-6	prepare an annotated agenda for SSG meetings, in advance, as the basis for the SSG report to Delegates.	Chief Officers with Secretariat	Ongoing
HOB D-7	provide more scientific content (outcomes) in the reports of the meetings and workshops held by SCAR science groups.	Chief Officers	Ongoing
EX-45	A proportion of unused SSG and SRP funds should be spent on funding early career scientists to attend the Open Science Conference in Buenos Aires in 2010. [repeats under SRPs]	SSG COs and	XXXI SCAR
EX-13	Recommend to EXCOM a mechanism for how to obtain information about the range of scientific observing systems in the Antarctic, and the geographic gaps and gaps in variables that may need filling, so as to provide Delegates with recommendations about how Antarctic observing systems may be improved for the benefit of scientific understanding.	Capra, Campbell, Summerhays, Sparrow, Marensi	By year end
D-8	(b) the SCAR KGI Action Group continue to compile information to complete the inventory of KGI science by XXXI SCAR;	(b) KGI AG;	(b) ongoing
CL-1	Follow up on unfulfilled recommendations:	Secretariat	

	<p>(a) A link between SSG-Life Sciences and the ECA group (Environmental Contamination in Antarctica) – e.g. for analysing penguin droppings for chemical contaminants;</p> <p>(b) A link between permafrost and climate and permafrost and biology;</p> <p>(c) Creating an aerosols group and linking it to environmental contamination activities;</p> <p>(d) Creating an Aerosol READER database.</p> <p>(e) Making PAntOS a fully cross-SSG activity.</p> <p>(f) Making all SCAR data fields available via the SCAR web site</p> <p>(g) Creating a focus on the SCAR web site for chemistry.</p> <p>(h) Considering ocean chemistry past, present and future in relation to ocean acidification; - the topic is addressed briefly in the draft ACCE report and in the draft SOOS report.</p> <p>(j) linking the Continuous Plankton Recorder Expert Group (SSG-LA) to AGCS;</p> <p>(k) linking to John Shanklin’s ozone web site</p>		
CL-14	Check with SSG-LS and SOOS communities to see what position SCAR needs to take, if any, on ocean acidification, and in what time frame – e.g. possibly a paper for consideration at XXXI SCAR	Secretariat	ASAP
EX-22	Consult with COMNAP, EXCOM, SSG COs and SC-ATS on the code of conduct for sub-glacial exploration	Secretariat & president	By year end
	<b>SRP GENERAL REQUIREMENTS</b>		
EX-15	Reports on progress and plans of SRPs should go to EXCOM and Delegates through the SSGs,	SRP Leaders	ongoing
CL-8	Consider using funds to pay for extraction of old data out of South American data collections from the peninsula and islands	AGCS	ASAP
D-10	The Secretariat will (i) notify the Leaders of each SRP of the Delegates decisions regarding that SRP; (ii) send appointment letters to all new SRP members, noting their terms of appointment and (iii) send a letters of thanks to those SRP members rotating off each SRP.	Exec Dir	Ongoing
EX-11	Develop a proposal for EXCOM as to how SCAR should handle its climate initiatives in the future (e.g. for climate change science and climate science status reports).	AGCS with Executive Director	By year end
EX-17	Revise Working Paper 11a (Authority and Responsibility of COs) to incorporate text relevant to SRP Leaders (especially to modify point xiv)	Secretariat	ASAP
EX-19	Check with John Turner about the proposal to submit an article to Nature to disseminate the ACCE document.	Exec Dir	ASAP
EX-23	AAA SRP to link to SCADM to ensure that AAA data is available for exchange.	AAA Leader	By year end
EX-45	A proportion of unused SSG and SRP funds should be spent on funding early career scientists to attend the Open Science	SRP leaders	XXXI SCAR

	Conference in Buenos Aires in 2010. [repeats under SSGs]		
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### 3. ADVICE TO THE ANTARCTIC TREATY SYSTEM

**Objective:** to provide objective and independent scientific advice to the Antarctic Treaty Consultative Meetings and other organizations on issues of science and conservation affecting the management of Antarctica and the Southern Ocean.

**Strategic Approach:**

SCAR's Standing Committee on the Antarctic Treaty System (SC-ATS) will work closely with the Standing Scientific Groups and the Executive Committee to bring key scientific issues to the attention of the Antarctic Treaty Consultative Meeting (ATCM) and other intergovernmental bodies, including the Committee on Environmental protection (CEP), the Commission for the Conservation of Antarctic Living Marine resources (CCAMLR) and the Advisory Committee on Albatrosses and Petrels (ACAP).

#### MAIN TREATY LINK TASKS AND MILESTONES:

No.	Action	Whom	By When
	<b>SC-ATS</b>		
D-23	(e) Consider providing an annual Antarctic report card (especially on climate change and its effects); (f) Re-engage with evaluating the scientific aspects of management plans; (g) Urge national committees to connect with ATS national committees regarding SCAR contributions.	(e) AGCS (f) SC-ATS (g) Exec Dir and Nat Comms	(e) pre ATCM/ CEP (f) ASAP
SP-3	Secretariats and SC-ATS to consider the desirability and effectiveness of producing for ATCM/CEP a joint paper with COMNAP on Aliens in Antarctica.	Exec Dir & SC-ATS	for 2010
2007 EC 12	When presenting papers to ATCM/CEP SCAR should take a conservative approach by relying only on-peer reviewed material.	All SCAR	Ongoing
EX-40	(i) form an Expert Group on Protected Area Management Plans (EG-PAMP) within the SSG for Life Sciences; (ii) include the EG-PAMP plan as an annex to the EXCOM report	(i) SC_ATS and SSG COs; (ii) Secretariat	ASAP

#### 4. DATA AND INFORMATION MANAGEMENT

**Objective:** to facilitate free and unrestricted access to Antarctic scientific data and information;

**Strategic Approach:**

In order to improve for the benefit of scientists the way in which data and information are managed and made available, SCAR has a Standing Committee on Antarctic Data Management (SCADM) and a Standing Committee on Antarctic Geographical Information (SCAGI). SCAR has recently developed a strategy for data and information management.

#### MAIN DATA TASKS AND MILESTONES:

No.	Action	Whom	By When
	<b>DATA AND INFORMATION MGMT (SCADM &amp; SCAGI)</b>		
D-5	(ii) Once a revised strategy is agreed, the intersessional Action Group on SCAR Data and Information Management Strategy (AG-SDIMS) should prepare a phased implementation plan explicitly outlining resource implications. The context should include developments on data sharing within WMO, and considerations of the IPY Legacy discussions. (iii) To keep costs down the group should preferably meet in association with the Cross-SG Workshop.	(ii)(iii) AG;	(ii)(iii) post EXCOM 2009;
CL-15	Work with John Yurner and Kim Finney on the development of a data atlas page for the scar web site, aiming to have it substantially populated before XXXI SCAR	Secretariat, John Turner and Kim Finney	ASAP
P-19 (i)	Continue to facilitate the effective operations of SCADM and SCAGI	EXCOM	ongoing
D-35	Secretariat to work with Members to ensure that they nominate representatives from their countries to SC-AGI, in order for SC-AGI to continue to make progress.	Exec Officer	ongoing
CL-9,10	Ask all national committees if any is prepared to host the SCAGI web site, or see if it can be managed by the Secretariat	Secretariat	ASAP
EX-29	(i) Find volunteer institutions to take on the KGI GIS and the SCAGI web site, possibly via a Circular Letter; (ii) SCAR to thank AAD for hosting the Gazetteer and Italy for its development work on the Gazetteer	Secretariat, President and SCAGI	ASAP
CL-11	Find an operator to manage the KGI-GIS on KGI for the benefit of all KGI operators	Secretariat	ASAP
CL-	Liaise with Google regarding their request to use the SCAR	Henk	ASAP

12	Composite Gazetteer and to report back to the Executive on any issues arising	Brolsma	
PR-21	Promote through SCADM and SGAGI and the SSGs, the availability of some Antarctic data sets as “products” to further increase the use of Antarctic data	SCADM. SCAGI and SSG COs	ASAP
EX-24	Prepare a data and information management paper for the 2010 Antarctic Treaty Consultative Meeting, to promote widespread adoption of the new strategy	SCADM with SC-ATS consultation	For ATCM
EX-25	Present the Data Policy (the current annex to the Strategy document) to Delegates, as a paper, for approval	CO SCADM	XXXI SCAR
EX-26	Reactivate the secondment policy for work on implementation of the DIM strategy – this person will likely be from one of the 10 active National Antarctic Data Centres (NADCs), so the request should be focused on them, with a job description provided by SCADM	Exec Director	ASAP
EX-27	Use SOOS as an example of how the data and information strategy can produce benefits	Executive Officer & SCADM	XXXI SCAR
EX - 30	(i) SCADM to arrange to incorporate the SCAR Products into the data and information management strategy, and to work with managers of Products to assess their viability. (ii) Secretariat to list the Products on SSG pages and Antarctic Information pages on the web site and to profile each of them on the web site from time to time as an advertisement for the benefit of the wider community.	(i) SCADM (ii) Executive Officer	ongoing
EX-31	Ask the PI of each SCAR Product to produce a short description paragraph for inclusion and highlighting on the SCAR website	Secretariat	ASAP
EX-32	Consider if a review of SCAR products is required and if so how this should be done.	SCADM	ASAP
CL-16	All SCAR’s database and product titles should be changed to include the word Antarctic(a) in their titles, to enable easy recognition on Google searches	Secretariat and JCADM	ASAP

## 5. CAPACITY BUILDING AND EDUCATION

**Objective:** to develop scientific capacity in all SCAR Members, especially with respect to younger scientists, and to promote the incorporation of Antarctic science in education at all levels.

### **Strategic Approach:**

SCAR has published a strategy setting out how it proposes to meet the requirement to develop scientific capacity in all SCAR Members, especially with respect to younger

scientists, and to promote the incorporation of Antarctic science in education at all levels. One key element of this strategy is the continued development of the Fellowship Programme. Another is co-sponsorship of the Association of Polar Early Career Scientists (APECS) jointly with the International Arctic Science Committee (IASC).

#### **MAIN CAPACITY BUILDING AND EDUCATION TASKS AND MILESTONES:**

<b>No.</b>	<b>Action</b>	<b>Whom</b>	<b>By When</b>
	<b>CAPACITY BUILDING, EDUCATION AND TRAINING</b>		
D-31	(ii) Secretariat to solicit external funds to support SCAR education programmes.	Exec Officer	(ii) ongoing
PR-9	(i) invest funds in a visiting professorship program, and (ii) get SSGs and SRPs to arrange scientific workshops to be held in all member countries to help the development of local polar scientific communities	Secretariat and COs	XXXI SCAR
EX-46	Initiate a Visiting Scholar Programme, starting with US\$4k seed money, seeking matching funds, and looking to find an external donor(s).	Secretariat & CBET Ctte	Spring 2010
PR-7	Development of a mentor system should be arranged by, but remain independent of, the SCAR Secretariat. It is recommended that individuals with experience in successful proposal writing in English should be identified to serve as mentors for each SSG. Contact details of mentors should be publicized alongside information about the Fellowships.	Secretariat	XXXI SCAR
EX-5	Discuss with APECS the possibility of holding a workshop on preparing papers for publication	Secretariat	By year end
EX-47	Review the membership of the CBET Committee and suggest revisions for EXCOM approval	R. Ravindra and Secretariat	Spring 2010
EX-44	(i) contact the successful fellowship applicants regarding the extent to which they can tolerate cuts in the fellowship budget, and (ii) obtain a detailed budget from Uruguay.	Exec Officer	ASAP
SP-10	at the appropriate time, SCAR and COMNAP to exchange information on education and training.	Exec Officer	ongoing

## **6. COMMUNICATION**

**Objective:** to communicate scientific information about the Antarctic region to the public.

**Strategic Approach:**

SCAR has published a Communications Plan to provide guidance on communicating scientific information about the Antarctic region to a variety of audiences including the public. Steps have already been taken in this direction with renewal of the SCAR web site, production of a SCAR poster and brochure, and posting SCAR Power-Point presentations on the web site (including the SCAR lecture for the Antarctic Treaty Parties).

**MAIN COMMUNICATION TASKS AND MILESTONES:**

No.	Action	Whom	By When
	<b>COMMUNICATIONS</b>		
PR-11	Develop the web site for use by SCAR members and its committees as a collaborative work-space for the scientific community working in Antarctic, and for the public interested in Antarctica.	Secretariat	ASAP
D-42	Secretariat and EXCOM to review web site to emphasize achievements and the contributions of science to the solution of major issues.	Exec Dir & EXCOM	Ongoing
EX-49	Develop a plan and budget for upgrading the web site, to solicit advice from the SCAR community as to content, and to consider how this may link to the concept of in-house management of OSCs and other meetings.	Exec Officer	ASAP
D-26	David Walton and Peter Clarkson to seek input and feedback from national committees and delegates on each of the chapters of the proposed SCAR Anniversary book, and to consult with the Antarctic History group. Feedback to be provided by September 1.	D Walton & P Clarkson	ongoing
2007 EC 59	The Secretariat will resolve details of the publication of the 50 <sup>th</sup> anniversary book with editors and publishers.	Exec Officer, Finance Committee	Ongoing
SP-12	Secretariats to explore with COMNAP possibility of developing a photo file of “big kit” items to use on both web sites as an educational tool.	Exec Officer & COMNAP	ongoing
PR-6	Encourage Antarctic journals that are not ISI listed to seek to meet the criteria to enable them to be listed.	Secretariat	ongoing
EX-4	(i) Inform SSGs about which are the high impact ISI journals, and SSG COs to encourage publication in them, and identify commonly utilized journals that are not ISI registered and encourage them to do so when appropriate (i.e., not appropriate for regional journal which may be non-English).	Secretariat	ASAP
PR-10	Extend open access approach to all information handled by SCAR including all aspects of its budget and financing. [Papers made available for Delegates and Executive Committee meetings should continue to be posted on a Members Only page	Secretariat	XXXI SCAR

	until after their approval.]		
D-3	(i) provide more focus on chemistry, including on the SCAR web site;	Exec Director	ongoing
EX-50	Improve the education portal and call again for Members to submit URLs for educational Antarctic science pages in different languages.	Exec Officer	Spring 2010

## 7. ORGANISATION AND MANAGEMENT

**Objective:** to improve the effectiveness, efficiency and flexibility of the structure, working mechanisms and practices of SCAR.

### Strategic Approach:

To ensure that progress is made in these different areas, the members of SCAR's Executive Committee will each carry a responsibility for a specific activity from a list including: the Antarctic Treaty System; Scientific Affairs; Administration; Data and Information Management; Finance; Communication; and Capacity Building and Education. In addition, SCAR's performance will be reviewed in depth at intervals of 8 years, and subsidiary groups at intervals of 4 years. SCAR was reviewed in 2009. The progress of all groups and the Secretariat against stated action plans will be monitored annually. SCAR's legal status has now changed to that of Company Limited by Guarantee, and a UK Charity.

### MAIN MANAGEMENT TASKS AND MILESTONES

No.	Action	Whom	By When
	<b>LEGAL</b>		
EX-55	(i) Revise Rules of Procedure for Subsidiary Bodies by including revised conditions for SC-ATS, and for election (rather than appointment) of officers of both SCAGI and SCADM; (ii) Submit the revised Rules of Procedure for Subsidiary Bodies for the final approval of the Delegates in 2010; (iii) Post these revised rules on the Constitution web page	Exec Dir	ASAP
EX-56	A paper addressing concerns about the process of SCAR becoming a company and charity will be brought to the Delegates at XXXI SCAR	President	XXXI SCAR
	<b>MEDALS/AWARDS</b>		
EX-51	Examine the Muse Award process to see how the SCAR award process can be made more rigorous, and attract more candidates.	Exec Officer	By year end
D-28	national committees to be more diligent in nominating candidates for SCAR medals.	Nat Comms	March 2010
EX-	Notify David Walton of the approval for an Antarctic Science	Exec Dir	ASAP

52	Journal lecture at the 2010 OSC and devise a selection process.		
EX-53	(i) Consider awarding certificates to individuals coming to the ends of their official terms as officers within SCAR, where exceptional service has been involved, and (ii) Ask their groups to think of suitable nominees for the SCAR medals.	COs	Year end
EX-54	Vet all nominations for awards (aside from best paper/poster, nominations for which come from the OSC process).	Awards Committee	ongoing
	<b>OSC and XXXI SCAR</b>		
EX-61	Investigate in more detail the costs of setting up an in-house system for business and conference management	Secretariat	ASAP
PR-4	Study the programs, logistics and costs of the OSCs so far held with the objective of increasing their cost effectiveness through greater participation of the SCAR Secretariat as a co-host. A detailed study should be made of ways to improve planning efficiency to reduce costs and perhaps to create a revenue stream that would help to sustain the science conference activity.	Secretariat and Delegates	XXXI SCAR
D-37	(i) prepare more detailed plans for possible in-house management of OSCs, for (ii) EXCOM to examine in 2009 and Delegates to review in 2010; (iii) examine the major meetings structure to see if some alternative model might replace the pattern of OSCs interspersed with biology and earth science symposia.	(i) Exec Dir; (ii) EXCOM (iii) EXCOM	(i) XXXI SCAR (iii) ditto
PR-3	Monitor the OSCs and report to SCAR on whether the present schedule should be maintained.	EXCOM	ongoing
SP-6	Review the results of the experiment of organising the COMNAP and SCAR meetings back to back in the same place, outline options for the future and report back to both Executives	Exec Dir and COMNAP	ongoing
PR-1	At each biennial meeting the Delegates Committee should receive a keynote paper on polar scientific frontiers and emerging issues as an additional guide to its deliberations	Secretariat	XXXI SCAR
PR-5	Operate strategically by aiming specifically to take an overview of current, emerging and potentially exciting future science.	Delegates	XXXI SCAR
PR-23 (ii)	SCAR Delegate Committee on Scientific Affairs begin discussing the evolution of SCAR strategic science programs	Delegates	XXXI SCAR
EX-2	(i) Arrange a keynote paper on scientific frontiers and emerging issues for delegates meeting (not just for Delegates Committee for Scientific Affairs); (ii) Consult widely to find a speaker for 2010.	EXCOM and Secretariat	XXXI SCAR
EX-58	Ask Delegates to approve changes to the usual practices for Delegates meetings so as to improve efficiency and effectiveness (EXCOM Working Paper 21)	Secretariat & President	XXXI SCAR
EX-57	(i) work with Scientific Organising Committee to devise a process for selecting best papers/posters; (ii) solicit suggestions for the Weyprecht Lecture from EXCOM, Chief Officers, and the Scientific Organising Committee; (iii) work with the	Exec Dir	XXXI SCAR

	Scientific Organising Committee to ensure that there is a well-organised and well-attended poster session at XXXI SCAR		
EX-59	(i) Circulate a room and time plan to Chief Officers (COs) as the basis for planning SSG and subsidiary group meetings for XXXI SCAR; (ii) Decide how much time they is needed for each SSG; (iii) in planning business meetings no overlaps will be allowed by any Action Group, Expert Group or Scientific Research Project group with the time set aside for its related SSG meetings.	(i) Exec Officer; (ii) SSG COs;	XXXI SCAR
EX-60	Work with committee members, President, EXCOM and COs on the issue of integration across disciplines.	OSC scientific organising committee	ASAP
D-3	(ii) address acidification of the Southern Ocean as a key topic at the next OSC	Exec Dir	XXXI SCAR
	<b>MANAGEMENT RECOMMENDATIONS</b>		
EX-67	Draft letter for President addressed to the academies in 7 selected countries regarding the possibility of them joining SCAR	Exec Dir	ASAP
EX-72	Schedule an EXCOM/COs strategic planning meeting in the Dec-Jan time frame between academic terms	Secretariat	ASAP
EX-1	Draft a Note to Delegates from the President setting out the strategic planning process, which can then be circulated to the whole SCAR community.	President and Secretariat	ASAP
EX-3	develop a 10-year strategic plan for meetings and outreach activities, taking into consideration the work-load on the Secretariat and the SCAR budget.	EXCOM	XXXI SCAR
EX-42	Explore the possibility of moving to Cambridge the EXCOM meetings between SCAR biennial meetings, or using them to strategically meet with other partner organizations.	Exec Dir and EXCOM	By year end
EX-71	Produce a paper on SCAR's Carbon Footprint, for the Delegates meeting.	Exec Officer & EXCOM	XXXI SCAR
HOB D-19	(i) ensure that SCAR Recommendations are distributed, with appropriate requests, to agencies that have the ability to take action on them;	(i) Delegates & Exec. Dir.	Ongoing
D-2	Bring the internal and external Recommendations of the SSGs to the attention of the appropriate bodies	Exec Dir	Ongoing
D-9	Report to EXCOM in 2009 on the status of recommendations	Exec Dir	XXXI SCAR
Rec XXX-2	Urge researchers to give careful consideration as to whether flipper bands should be used, and under what circumstances.	Nat Comms	ASAP
Rec XXX-3	Urge national funding agencies to support continued operation of geospace observatories and for archiving the data	Nat Comms	ASAP

Rec XXX-4	(i) countries doing upper air observations along the Antarctic Peninsula coordinate operations to secure continuous daily sounding; (ii) countries that have done ionospheric sounding over the Antarctic Peninsula restart observations, and those that are currently doing them upgrade their installations.	Nat Comms	ASAP
Rec XXX-5	Ask COMNAP to urge national programmes to contribute sea ice observations made from their icebreaking research and supply vessels, and to train ship officers to make such observations.	COMNAP & Nat Comms	ASAP
Rec XXX-6	Members commit funding for one or more data buoys to be deployed through the logistic activities coordinated by the International Programme for Antarctic Buoys.	Nat Comms	ASAP
Rec XXX-7	(a) All research and supply ships and traverse parties should contribute real-time meteorological observations to the WMO GTS; (b) Climatic data from land stations should be submitted to GCOS via the WMO GTS shortly after the end of each month; (c) COMNAP construct a web page listing intended ship movements; (d) Aircraft operating on long distance flights in Antarctica should report to AIREPS	Nat Comms	ASAP
	<b>LINKS WITH NATIONAL COMMITTEES</b>		
PR-17	Continue to communicate with national committees and national program operators on SCAR science policy inputs to the ATS so that they are fully and continually informed about SCAR's advisory activities.	Secretariat	Ongoing
PR-19 (ii)	Encourage national committees to assist SCADM & SCAGI as possible with modest financial assistance or with occasionally posted seconded staff	EXCOM & Secretariat	XXXI SCAR
PR-24	Provide secondments to the SCAR Secretariat for periods of several months to a year to facilitate implementation of SCAR data and information, policy advice, and other activities.	National Committees	Ongoing
EX-28	Encourage national members to adopt and use the data and information management strategy	Note from the President	ASAP
PR-22	Remind delegates that all participants nominated by national committees for roles in SCAR should be qualified, engaged scientists and science managers who will commit themselves to active engagement in SCAR issues during their terms of office.	President/ Secretariat	Prior to XXXI SCAR
	<b>LINKSWITH OTHER BODIES</b>		
D-18	EXCOM and the Secretariat, coordinating with other appropriate bodies, should pursue the question of how SCAR (with IASC) may take on responsibility for elements of the IPY Legacy in the post-IPY era, including defining the financial ramifications and obligations, and advise Delegates in 2010 how to proceed.	Exec Dir and EXCOM	Ongoing via BipAG
PR-15	Continue to vigorously develop collaboration with IASC where mutual interests exist, including stewardship of data and observing networks that are the legacies of IPY 2007/2009	Secretariat	XXXI SCAR

N-4	(i) Investigate the cost implications of taking on aspects of the IPY legacy, (ii) Chris Rapley to be the EXCOM representative on the BipAG.	(i) Exec Dir; C (ii) C Rapley	ditto
EX-34	Review the effectiveness of BipAG and to suggest to Delegates in 2010 a plan for proceeding in the future	Executive Director and IASC Executive Secretary	By year end
PR-12	Continue to strengthen excellent working relations with ICSU.	Secretariat	ongoing
EX-33	Write to ICSU proposing that SCAR and IASC regularly update ICSU on IPY legacy and other polar issues.	Executive Director and President with IASC counterparts	By year end
D-19	Consider how SCAR might be involved with the International Polar Decade (IPD) as proposed by the WMO, depending on how the IPD develops	EXCOM	Ongoing
D-20	(i) establish links between SAON and PAntOS to ensure that they develop in a compatible way and learn from the best practice of each other; (ii) SCAR and IASC to consider applying for observer status with the IPCC;	(i) Exec Dir and IASC; (ii) Exec Dir and IASC;	(i) ASAP (ii) ongoing
PR-13	Continue to seek independent Observer status with IPCC to ensure that the best possible advice on Antarctic climate change and its effects are brought to the IPCC; failing that SCAR should press its case to provide input to IPCC through ICSU.	Secretariat	XXXI SCAR
EX-48	Consider the need to produce a SCAR climate poster for display at the UNFCCC COP-15 climate conference in Copenhagen in December	Secretariat	ASAP
PR-14	Continue to periodically assess what is known and what is projected concerning climate change in Antarctica. SCAR is encouraged to develop future assessments as a cooperative activity between SCAR, ATCM, CCAMLR, and encourage governments to provide necessary financial resources for assessment activities.	Secretariat	XXXI SCAR
PR-16	Work vigorously to continue developing mutual working relationships with COMNAP.	Secretariat and EXCOM	XXXI SCAR
EX-41	Work with COMNAP on a plan for the joint Action Group on SCAR/COMNAP strategic directions	Exec Dir	Spring 2010
PR-20	Reopen discussions with COMNAP about jointly managing Antarctic scientific data.	Secretariat	ASAP
EX-12	Make sure COMNAP is aware of the SCAR Antarctic Weather Forecasting Handbook, and explore if this is an opportunity for a joint SCAR/COMNAP activity.	Secretariat	ASAP

EX-36	Propose to CCAMLR that we have a joint action group to consider a discussion on how interrelations between the two groups can be improved (as was done with the CEP), once the new SCAR and CCAMLR Executive Directors are in place	Exec Director	After Denzil Miller retires
EX-37	(i) formally invite Mark Hindell, Viviana Alder and M Goebel to represent SCAR at the XXVIII CCAMLR meeting. (ii) write to formally thank G Hosie for all his efforts as CCAMLR representative.	Executive Director	ASAP
EX-38	Inform CCAMLR that we no longer have an Antarctic Pack Ice Seals (APIS) group	Secretariat	ASAP
EX-39	Attend a future CCAMLR meeting (possibly in 2010).	President	Oct 2010
PR-25	Advise the Director of SPRI of the Review Group's findings concerning SCAR-SPRI relations and its commendation of SPRI for its support, as host organization, of SCAR.	President	ASAP
EX-6	Draft letter for President to thank SPRI for hosting SCAR Secretariat.	Secretariat	ASAP
EX-35	Invite Christoph Scheidegger (Secretary of IBU) to attend Delegates meeting as replacement for George Knox	Exec Director	XXXI SCAR

## 8. RESOURCES

**Objective:** to increase funding to match requirements, and to maintain a healthy funding stream.

### Strategic Approach:

Financial strategies have been developed and approved by the Delegates meeting in both 2004 and 2006. The 2004 strategy focused on cutting costs and raising Membership contributions, and was effected in January 2006. The 2006 strategy focuses on becoming a Charity, making more money from investments (in the endowment fund), and raising additional external income (e.g. from Foundations and/or Corporations).

### MAIN RESOURCES TASKS AND MILESTONES

No.	Action	Whom	By When
2007 EC 71	Develop a strategy for attracting external sources of funding.	Executive Director, Executive Officer	Ongoing
PR-26	Form an advisory group to help identify fundraising opportunities and develop a plan to deploy SCAR leadership and volunteers to assist with fundraising development.	Secretariat & EXCOM	ASAP
EX-	Establish a Development Council (as an aid to external fund-	EXCOM &	ASAP

69	raising).	Secretariat	
PR-8	Initiate and encourage external fund raising for fostering early career scientists through, for example, exploratory meetings of interested parties to prepare proposals to relevant funding agencies.	Secretariat	XXXI SCAR
EX-62	Transfer the contingency fund of 2008/9 to 2010 to balance the budget	Exec Officer	ASAP
EX-63	Review budget request for 2010.	SCADM	ASAP
EX-64	Defer social science Action Group request until the 2010 budget position is clear	EXCOM	Year end
EX-65	Manage budgets in such a way as to reallocate unspent funds; they should review allocations every 6 months as the basis for this reallocation.	COs and SRP leaders	ongoing
EX-66	Unspent SSG funds will not be carried forward beyond 2 years, with out specific and compelling justifications	Exec Officer	Year end 2010
EX-68	Review future financial projections as the basis for EXCOM deciding whether or not to request in January 2010 an increase in subscriptions for 2011, or to request in January 2011 an increase in subscriptions for 2012	Exec Officer & EXCOM	Year end
2007 EC 70	Work with D. Walton and the publishers to ensure that the costs of the anniversary book are recouped through sales within a 2 years period.	Exec Officer, D. Walton	Over next 2 years
EX-70	Review the procedures for accepting donations, including a risk assessment procedure, and seek Delegates approval.	ditto	XXXI SCAR