Talking Points - 2009 Review Group Recommendations

The following is intended to begin strategic planning discussions by developing a response to the 2009 Review Group Recommendations. The external Review was solicited 9-years after the report by the 2000 Ad Hoc Group on SCAR Strategy and Structure. These discussions will inform the development of a SCAR Strategic Plan for 2011-2016.

It is proposed to schedule a special Ex Com (extended) meeting in the spring of 2010 as a retreat to be held at the SCAR Secretariat in Cambridge, England to advance strategic planning. Objectives would be to agree on a planning process that will engage all stakeholders, create a detailed annotated table of contents for the Strategic Plan, assign responsibilities and establish a timeline for completion and adoption by 2011. Preparation for the retreat could be done via a series of on-line conference calls or discussions before the main meeting to look at particular aspects of the plan. It will be important that attendees arrive at the retreat well prepared. This will be discussed at the Ex Com Meeting in August 2009.

The starting point will be the SCAR Strategic Plan 2006-2010 and will incorporate various planning documents including the Standing Committee on the Antarctic Treaty System pans for interaction with the ATS with a special emphasis on 21st Conservation and Protection; the Data and Information Management Strategy (DIMS); updated versions of the plan for Capacity Building, Education and Training (CBET)and the Communications Plan; transformation and transition of SCAR's scientific portfolio with emphasis on evolution of the Scientific Research Programs; special attention to integrating the full range of climate activities and engaging all communities especially other ATS partners and the biology/ecology communities; and plans for SCAR administration procedures to fully engage the Delegates and the Antarctic science communities in member nations. Additional items will be added and documents consulted as necessary.

As a guide the 2009 Review Group focused on the following themes:

- Science planning and facilitation;
- Nurturing capacity and early career polar scientists;
- Internal and external communications;
- Relations with ICSU and other organizations;
- SCAR and the Antarctic Treaty;
- Facilitating data management and archiving;
- Delegate-level, Standing Scientific and other groups;
- The SCAR Secretariat; and,
- Maintaining SCAR's momentum.

The 2009 Review Group's closing statement provides a beginning framework for strategic planning:

"Antarctica and the Southern Ocean, always important scientifically and diplomatically will be evermore so in the decades ahead. Understanding Antarctic climate change and objectively interpreting this information for policy makers and the public, is perhaps the greatest immediate challenge. SCAR must continue to play a central role in this process. There are other daunting challenges, e.g. the over-exploitation of living resources. While exploitation of natural resources has receded from view in recent years, it is possible to imagine scenarios that will bring this issue to the fore once again. Environmental protection, including sound environmental practice in research, will grow in importance. There will also be emerging areas of scientific inquiry that should receive priority. In some instances the inclusion of new science initiatives will require that other programs receive less financial or logistic support. In all of these and other emerging challenges sound scientific advice must be at the core of policy making so that it is well informed on a continuous basis as scientific understanding continues to grow. SCAR has prepared itself well to address emerging challenges through the reforms undertaken during 2000-2009. By building on these developments through the recommendations presented here, SCAR can continue to play a central role in facilitating and coordinating science and advising governments working together in the Antarctic Treaty System."

RECOMMENDATIONS:

RENEWAL OF MISSION: SCIENCE PLANNING AND FACILITATION

#1 - ***The Review Group suggests that 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.***

Findings: *The Delegates Committee on Scientific Affairs, which is chaired by the Vice President for Science Affairs, plays a crucial role in setting strategic scientific research directions, reviewing performance against stated program objectives and goals, and adjusting the portfolio of SCAR's major research efforts to reflect changing themes and issues. The challenge is for the Delegates Committee to keep abreast of emerging science issues in Antarctica and the Southern Ocean and to provide leadership in relation to important emerging science.*

Talking Points:

- Would this not be more effective as a presentation in plenary to all Delegates than in just the DCSA?
- The Review Group believes the DCSA is working more effectively than it is in reality – how do we change this to make the DCSA a deliberative body and not a passive receptor?
- This keynote should flow from the SSGs and SRPs that will be tasked with being more strategically oriented and provide input to this keynote (see below).
- This could also form the basis of an update of COMNAP on future directions in Antarctic Science every two years at the COMNAP meeting in the year

immediately following the Delegates meeting (odd-numbered years and the time of joint SCAR /COMNAP Ex Com meetings).

- Would it be effective to hold "town hall" meetings/focus groups to explore future directions a part of the OSC or the preceding Science Days? Managed by SSGs?
- The keynote to be a responsibility of the SCAR VP for Science.

#2: *The Review Group, noting the Ad Hoc Group's recommendation that SCAR should be a more pro-active leader in science and policy, applauds SCAR's active role as a policy adviser and urges that it maintain momentum to continue as a pro-active leader in this role.*

Findings: *SCAR has made significant headway in its provision of important policy advice to the ATCM. The numbers of policy papers submitted to the ATCM, including CEP, have risen dramatically since 2000. SCAR's revamped and modernized administrative practices have enabled timely submittals, which is a critical aspect of policy making. Antarctica has entered an era of change, in terms of climate, the greater frequency of visitation by scientists, tourists, eco-adventurers and sports people. The over exploitation of species in the Southern Ocean has become a growing international issue where the ATCM with SCAR's advice, must engage in broad international discussions if the declines are to be reversed. Climate change is the highest immediate priority for SCAR and SCAR should continue to play a pro-active role in the matter.*

Talking Points:

- SCATS strategy on 21st Century Conservation and Protection Practices in partnership with IUCN.
- Introduce the concept of sub-committees to Standing Committees or utilize Action and Expert Groups at the SC level that cross cut SSGs? In particular we need a cross-SSG group of experts on climate change to focus SCAR efforts in this arena, might it report to SCATS as our policy interface? It also must be provided adequate funds to operate. There is already a group shared between PS and LS and working on – "Prediction of Changes in the Physical and Biological Environment of the Antarctic" that is doing some of the tasks already. Perhaps its ToRs could be broadened since the objective is to have one focus (group) for all climate activities within SCAR.
    - Possible TOR for Climate Expert Group
        - Coordinate and/or consolidate SCAR Climate science programs
        - Manage external advice on climate change in Antarctica – IPCC, UNFCCC, and ATS
        - Organize ACCE regular updates and advice to ATCMs, create a climate report card such as in the Arctic?
        - Nurture plans for future SRPs on Climate - consolidate into a single transdisciplinary program combining paleo-, recent, and future climate change efforts – especially enhance and improve biological/ecological aspects

        - Engage and possibly co-author climate efforts with other ATS bodies, CCAMLR, CEP, ACAP, etc.
        - Plan for an ACCE – II and how this process might work to ensure wide participation and inclusion.
    - ToR for Existing "Prediction of Change …." Group:
        - Assess our current ability to predict how the physical and biological environments of the Antarctic will evolve over the next century;
        - Identify the extent to which the physical and biological approaches to prediction can be integrated;
        - Determine the parameters needed from climate models to predict changes in the biosphere;
        - Consider the issues involved in downscaling from the resolution of climate models to those required for prediction of biological systems;
        - Investigate the means of improving prediction of selected physical parameters and their impacts on aspects of marine and terrestrial biota;
        - Identify areas where future research is needed.

#3: ***SCAR, through its Vice President tasked with science and the Delegates Committee for Scientific Affairs, should carefully monitor the Open Science Conferences and report to SCAR on whether the present schedule should be maintained or whether SCAR might be well advised to move to a four-year cycle for these international scientific meetings.***

#4: ***SCAR with the advice of the Delegates Committee on Science and the SCAR Secretariat should study the programs, logistics and costs of the Open Science Conferences 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.***

Findings: *Three SCAR Open Science Conferences have been held. They have been unexpectedly well attended and importantly, they have drawn together an interdisciplinary community, including many early career researchers. For some early career researchers this may have been their first large polar science symposia.*

Talking Points:

- DCSA should monitor OSCs and recommend to Delegates desirability of a 2- or 4-year cycle. Attendance is not the only or even the best metric of success. Attendance will vary depending on where meetings are held and in some years competition with other meetings may lower attendance (especially IPY Conferences in 2010 and 2012) – **a standing agenda item**

- Secretariat to continue to develop strategies for increasing co-management of OSC and in-house administration of items such as abstracts, etc.
- Develop model for surpluses to be realized from the OSC and used to fund travel grants for students, early career researchers, and smaller Antarctic programs.
- Develop model for surpluses to be realized from the OSC and used to fund modest financial rewards for recognition activities such as medals, best oral and poster presentations, fund travel for named lecturers, etc.
- Capitalize on changing venue to serve as a regional focus for research in local SCAR nations.

#5: *It is recommended that the SSGs be tasked to operate strategically by aiming specifically to take an overview of current, emerging and potentially exciting future science. This reinforces a recommendation below that national delegates need to be scientifically active, engaged, and aware of the range of scientific issues and emerging science across the remit of their specific SSG to be able to provide the required leadership.*

Findings: A key role of the SSGs is to recommend new SRPs to the SCAR Executive Committee and to SCAR. The current SRPs represent important science areas, and they are widely perceived to be a real strength of the current SCAR structure. There is a need for SRPs to have a finite lifetime so that other research areas can receive support. Ensure that the SRP's continue to represent important emerging and current Antarctic science areas. There is a need for strategic balance of priorities for establishing future SRP's. The current "bottom-up" approach of nominating new SRPs is effective because it ensures that advocacy for new SRPs is being driven by scientifically active and engaged individuals. However, this process also has the potential to be driven by vocal special interest groups or by other *ad hoc* suggestions if strategic and balanced oversight is not exercised by the SSGs.

Talking Points:

- Mission statements already requested from SSGs and should be couched in a charge to think more strategically avoiding performance assessment solely based on activities but rather outcomes.
- Future directions and emerging issues should be a **standing SSG agenda item** at biennial business meetings, this feeds into the Delegate level Keynote on Future Directions and Emerging issues (Rec #1) (**Item for discussion at SSG plenary)**
- SSGs also recommend new cross SSG initiatives, some of which might end up as SRPs.

#6: *SCAR should proactively encourage Antarctic journals that are not ISI listed to seek to meet the criteria to enable them to be listed. This will immediately increase the visibility and recognition of the work published in such journals. Nevertheless, publication in non-Antarctic journals is also crucial for widening the influence and impact of Antarctic science. This practice should be deliberately and pro-actively encouraged to drive up the quality (where necessary), but also the visibility, and impact of Antarctic science.*

Findings: *The highest quality publications being produced by members of the Antarctic research community are outstanding. Routine publication of special issues in Antarctic journals, books and non-ISI journal special volumes diminishes the impact of Antarctic science. Antarctic scientists will be disadvantaged in their careers, especially those who work in university environments, if they are not publishing consistently in high quality ISI-listed journals. The issues at stake relate to visibility in the wider scientific community, career advancement, and recognition through citation indices.*

Talking Points:

- Should be coordinated with DIMS discussion on Data Citation system (possibly in partnership with SCOR)
- Non- ISI journal commonly used should be indentified and the President will send a letter expressing benefits/concerns.
- Presidential letter to NCs, Delegates, SSG/SRP COs and members - an open letter to the community – work with Secretariat
- Focus for a future Presidential note
- **Agenda item for SSGs, DCSA, and Delegates meetings**

RENEWAL OF MISSION: NURTURING NATIONAL CAPACITY AND EARLY CAREER POLAR SCIENTISTS:

#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.

#8 The SCAR Secretariat should 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. Such efforts could provide added value to the wider Antarctic and scientific community.

#9: While national capacity building, education and training must remain primarily the responsibility of national committees, there is much to be said for SCAR investing funds in a visiting professorship program, and for SSGs and SRPs to arrange scientific workshops to be held in all member countries to help the development of local polar scientific communities to develop further. Such efforts would require development of new funding streams, e.g. from philanthropic foundations.

Findings: *SCAR has worked consistently in recent years to fulfill this recommendation. SCAR has encouraged national committees to strengthen their efforts in capacity building through emphasis on fostering the efforts of early career polar scientists and by working with countries that have smaller Antarctic communities. The SCAR biennial Open Science Conferences, with their interdisciplinary agenda of scientific discussion have been attractive to early career polar researchers; some early career scientists have*

been empowered to attend Open Science Conferences through modest but important travel grants provided by SCAR from funds raised from philanthropic foundations in several nations. The SCAR Fellowship Program specifically targets early career researchers (PhD and Post-doc). The revamped communication strategies effectively reach early career scientists through the worldwide web. SCAR has made much progress in reaching out to, and encouraging early career polar scientists. Less headway has been made on national and regional capacity building, which SCAR's strategy for education and training recognizes as more the responsibility of members than the organization centrally. Capacity building – in the nations with smaller Antarctic communities and among early career polar researchers in all SCAR member research communities – must remain central SCAR initiatives. Experience gained with the SCAR Fellowships indicates that early career scientists from countries with emerging Antarctic research capabilities are disadvantaged. They are often less accustomed to applying for research grants. It is desirable in building Antarctic research capacity in these nations to provide assistance to such early career scientists. SCAR should focus attention on assisting individuals from these nations to write proposals to an appropriate peer review standard.

There are many additional avenues for SCAR's financial support in its efforts beyond the ones exploited to date. The SCAR Secretariat should investigate additional sources of independent funds that can be directed to fostering early career scientists.

Develop a visiting professor scheme to provide training and mentoring to develop collaboration and enhance the networking of scientists with peers in advanced institutes.

There is opportunity for SSGs and SRPs and their various subgroups to decide to host workshops in developing countries to expand their science and science communities.

Talking Points:

- Secretariat to widely solicit mentors and add this service to the Fellowship program page. List those willing to serve as mentors, short description of expertise and contact information. Also the Secretariat offers to be a matchmaker but interactions are one-on-one but mentors are not expected to be co-authors of proposals.
- Proposal development workshops may be difficult due to language barriers and differences in national funding agency procedures. Might be overcome by in-country or regional focus of these efforts. Might be a function of mentoring. Alternatively support the APECS workshops on proposal writing. Work with APECS to ensure these sessions are included in their workshops and such workshops are held in non-English speaking countries.
- **Presidential letter** to SSG/SRP COs exhorting the use of meeting locations to build local capacity and request that all meetings include invitations to students and early career researchers locally (little cost).
- **Focus of future Presidential note**

- Secretariat to continue to create Visiting Professor Program and solicit external funding for the program.

INTERNAL AND EXTERNAL COMMUNICATIONS

#10: ***The review group recommends that an open access approach should be extended to all information handled by SCAR including all aspects of its budget and financing. In making this recommendation the Review Group accepts that the papers made available for Delegates and Executive Committee meetings should continue to be posted on a Members-only page until after their approval at the relevant meeting because meeting discussions may lead to their modification.***

#11: ***The Review Group urges SCAR to continue to develop its 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.***

Findings: *SCAR has made enormous progress in the total revamping of all aspects of its internal and external communication systems. SCAR has transformed itself from a paper-driven institution into one that conducts virtually all of its administrative work, communications and outreach electronically. The shift to 21st Century information technologies has made SCAR much more relevant to the practicing polar scientist and to the interested public. SCAR had made substantial progress in "opening up" its internal organization and administration by placing much information about these matters on its website thus making it easily accessible to national committees adhering to SCAR, scientists working in Antarctica, and the interested public. There are some aspects of SCAR administration, especially the finances, which although posted on the web site are not easily accessible. Now that SCAR is registered as a company, complete openness and transparency in declaring annual expenditure will be necessary.*

A Google search of the site's ranking showed that it is not the top ranked site for matters on "Antarctica" or the "Antarctic", although it is in the top 20 for the latter term. Exploiting techniques used for marking-up the content and fostering cross-linking between the SCAR site and others could elevate its search engine ranking. The site is currently focused internally and is aimed mainly at a SCAR audience. The site could be modernized by including dynamic features within, or as an adjunct to, the static web pages (e.g. use of drop-down menus, RSS feeds, inclusion of multimedia material). The front page could also be made more alluring to attract visitor attention. Web sites are no longer simply vehicles for disseminating information but are also collaborative work-spaces. Given the large number of SCAR business and task groups that meet virtually, the SCAR Secretariat might consider including Wiki-based technology in the SCAR web site. This would negate each group having to establish their own electronic work-spaces. Material that needs to be archived in the longer-term and that is ultimately of interest to a broader audience could then be migrated from the Members-only Wikis into the main web site.

Talking Points:

- Review again the Members only section and move all non-sensitive material to the open section. Budget materials must be approved and finalized before made public.
- Recent updates of SCAR financial reporting will facilitate its posting for ease of understanding and transparency. SCAR spending has been classified based on the aspects of its mission to allow easy analysis. Use of graphics to present financial information will improve communications. The VP for Finance and the EO have improved financial statements and developed a process for full disclosure allowing for more effective strategic alignment of resource expenditures with missions.
- Insert a budget page on the web site and fully disclose all non-sensitive and approved financial statements. Soon after (within 1 month) the Delegates meeting move all preparatory documents, appropriately revised, to the open section of the web site. Budget materials must be approved and finalized before made public.
- Develop web services within SCAR to support a collaborative work space.
- Secretariat to revise, update and provide a strategic plan for the web site as a component of the Communications plan. Incorporate the latest technologies as financially feasible. The current SCAR web space does not allow for much of the interactive content and as already stated is rather internally focused. Explore a redesign and hosting of the website by an external company.
- Exploiting techniques used for marking-up the content and fostering cross-linking between the SCAR site and others could elevate its search engine ranking.
- Explore wiki-based technology for Strategic Plan development.
- There has been a suggestion that ACCE would benefit for wiki-based technology as a form of updating and inclusion.

RELATIONS WITH ICSU AND OTHER ORGANIZATIONS

#12: ***SCAR should continue to strengthen its excellent working relations with ICSU.***

#13: ***SCAR should 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.***

#14: ***SCAR should 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.***

#15: ***Recognizing the differences in organization structure and diplomatic relationships SCAR should 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.***

#16: *Building on the collaboration that now exists, SCAR should work vigorously to continue developing its mutual working relationships with COMNAP.*

Findings: *The revitalization of SCAR has also reinvigorated SCAR's relations with the International Council for Science (ICSU), science organizations, and other organizations concerned with the polar regions or the coordination of research and its conduct in Antarctica. Throughout its history SCAR has been a leader and coordinator of Antarctic research. Such coordination has been a priority because of the continent's remoteness, the difficulty of access for research, and the costs of mounting expeditions to the continent or the Southern Ocean. As global climate research has elucidated the inter-connectedness of natural systems, coordinating of research with organizations facilitating research elsewhere on Earth has become a larger imperative. SCAR's communication and coordination with other scientific organizations, always important, has grown in the first years of the 21st Century.*

The International Council for Science is the primary international body for facilitating and coordinating science. There is no space at the ICSU General Assembly or in meetings of its Executive Board for timely reporting on SCAR programs and initiatives. Polar science should be on the agenda at ISCU General Assembly and/or Executive Board meetings.

SCAR has not been directly involved in providing advice on Antarctic climate change to the Intergovernmental Panel on Climate Change (IPCC). SCAR has attempted to find out how best to bring its advice to the IPCC, with or without assistance from ICSU and had experienced difficulties in so doing. SCAR has been proactive in the synthesis of Antarctic climate assessments and changes that are occurring and will likely occur. SCAR should work to make the ATCM a full partner in the climate assessments updates. The IPY legacies and the ongoing advance of interdisciplinary research illustrating the interconnectedness and divergences of systems in the Polar Regions present SCAR and IASC many future opportunities for cooperation.

Relations between SCAR and COMNAP have not always been felicitous. SCAR-COMNAP relations have improved considerably. SCAR and COMNAP have greatly increased their partnership.

Talking Points:

- Review the effectiveness of MOUs/LOAs and explore how these can be energized or in some cases enacted. Are all of the MOUs/lOAs needed and are they producing explicit outcomes? Why does SCAR do this? If there are defunct partnerships bring them to an end and concentrate efforts on those that have been shown to be productive.
- On ICSU, do we need to formalize our strategy for communication with ICSU? Do they receive our newsletters and is SCAR sufficiently represented on the ICSU web site? Do we need to send regular messages to ICSU on developments and emerging issues?

- On ICSU Unions, how can SCAR Union members be more actively engaged in SCAR activities. Is it useful that they are voting members yet unengaged? Are the associated Unions relevant to SCAR's missions? Do we need to revise policies and privileges associated with Union members?
- On IPCC, a temporary arrangement has been agreed with ISCU regarding IPCC and UNFCCC, is this sufficient? See recommendation above about a SCAR climate subcommittee possible under SCATS that could be tasked with developing a plan for these interactions. Publications are important for IPCC so this relates to upgrading publications and timely release/peer reviewed publication of information.
- On ATCM Climate update – again a specific subcommittee to manage and integrate these activities and interactions with other ATS partners – CCAMLR in particular. The ACCE editorial board might be part of this committee (representatives from AGCS, EBA and ACE). Yearly updates are probably not warranted unless there are significant developments, should set a regular schedule for updates – every 2 years or as specific questions are asked by ATPs?
- On IASC, are there additional mechanisms beyond those in place - BiPAG – co-sponsoring science activities, etc? Regular attendance at ASSW.
- On COMNAP, build on Future Directions and KGI efforts, as above a biennial update on future directions based on SSG/SRP, DCSA, and Delegates deliberations. **Standing agenda item for COMNAP?**
- Need to work to be on actual agenda **items on CCAMLR agenda** not just meeting reports. Are there joint efforts we should pursue – climate impact assessments, monitoring science, etc.

SCAR AND THE ANTARCTIC TREATY

#17: *The SCAR Officers should 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.*

Findings: *SCAR is not mentioned in the Treaty but from 1959 SCAR has been recognized by the ATCM as its principal scientific adviser. SCAR has participated in meetings of the ATCM and provided advisory papers on scientific policy matters. SCAR Delegates and officers need a more focused approach to these important scientific-diplomatic policy relations. A SCAR vice president be tasked with oversight of Treaty relations and that the SCAR Delegates, in plenary session, focus additional deliberation on SCAR's ATS role. A residual perception in some quarters that SCAR is less responsive and less timely in its ATS input than the present record indicates. SCAR officers should be aware of this lingering "image" of SCAR in some parts of the larger Antarctic community*.

Talking Points:

- **Presidential note on this theme, Secretariat note to NCs.**
- Mechanisms to improve Delegate and NC interactions with their ATCM delegations?

- Put the "S" back in SCATS, increase membership and budget; implement subcommittees on specific themes such as climate. SCATS be the focus for liaison with other ATS partners. Find a new common ground with CCAMLR, sponsor joint activities, and contribute to CCAMLR agenda items. Include COs of SCADM and SCAGI as SCATS members.
- Process begun to set realistic expectations with IP on the role of SCAR in the ATS.
- Review and implement AG on SCATS committee recommendations.
- Improve intersessional communication with CEP.
- SCATS conservation/protection strategic plan described above, re-enter ASPA and ASMA scientific review.

FACILATING DATA MANAGEMENT AND ARCHIVING

#18: ***SCAR should continue to facilitate the effective operations of SCADM and SCAGI and encourage national committees to assist these groups as possible with modest financial assistance or with occasionally posted seconded staff because these two resources – financial and human – can positively impact the committees' effort.***

#19: ***SCAR should reopen discussions with COMNAP about jointly managing Antarctic scientific data. SCAR can be the leading partner in the relationship, but the role of national research funders in encouraging timely entry of research data into the archive system is crucial and thus SCAR should re-open a dialog with COMNAP in this area.***

#20: ***SCAR, through SCADM and SGAGI and the SSGs, should pro-actively promote the availability of some Antarctic data sets as "products" to further increase the use of Antarctic data.***

Findings: *The SCAR community is one of very few that can claim to subscribe to a unified, multi-disciplinary metadata system, which is to be roundly applauded. However, current approaches to developing a SCAR data system have to date focused mainly on one aspect of the data management life-cycle (i.e. data documentation and discovery). It is "access" to various forms of data that scientists value the most in a system. SCAR scientists and data management practitioners must now agree upon a strategy to build a data system that provides on-line access to qualified, discipline-based data that are re-usable into the future. It is crucial that SCAR science programs actively engage with data management experts in defining the future directions for SCAR data management, particularly through input into the SCAR Data and Information Strategy and its implementation plan. SCAR must recognize these shortcomings and actively seek mechanisms to supplement the resources that are available to achieve its stated data management goals.*

Improved up-front planning for data management by scientists, at the respective national project planning/proposal stages and also when individual and national research plans become SCAR projects would highlight early on what skills and resources will be

required to add project data to the evolving SCAR data management system. An education program covering good data management practices aimed at national institutes and large granting bodies could also prove beneficial in unlocking more funds for these fundamental scientific activities.

Within the SCAR community there are many useful data-centric products and applications, some of which have been purposefully designed for use by SCAR. The SCAR community is unaware of their existence, or indeed of their utility. It is important that they are used, and where appropriate improved and updated through greater collaboration with an active user-community. Products that have no discernable SCAR-based user community should not draw continuing investment of resources from SCAR. SCAR through the Secretariat, SCADM and SGAGI, and, building on progress in organizing metadata pathways to the vast data resources on Antarctica, should study the feasibility of moving some data into a product or commodity mode to increase utilization.

Talking Points:

- Much of this is being addressed through the draft DIMS and associated discussions.
- Secondments should once again be advertised and effort made to understand why the previous efforts were unproductive. Better define what a secondment would involve, both financially and in terms of the responsibilities and management control of any person being seconded. Revisit the text of the Circular letter on this topic (765 in 2006). SCDM has requested this as one mechanism to help implement the DIM strategy. ATS has examples of how they attract secondments to their Secretariat.
- To possible re-engage COMNAP in data issues present the DIMS strategy at a future joint Ex Com meeting. Explore why COMNAP withdrew support and why previous efforts did not address COMNAP needs.
- **Charge SCADM and SCAGI** with advertising products and increasing visibility and utilization. Explore ways to increase the visibility of SCAR Products. Review all products and make sure they are relevant and useful, discontinue those that are not. Customer surveys and satisfaction assessments?

SCAR DELEGATE LEVEL, STANDING SCIENCE AND OTHER GROUPS

#21: ***SCAR is to be applauded for the harmonization of its inter-session schedule. The concurrent sessions of the Executive Committee and COMNAP are effective; costs suggests that SCAR's increasing move to "real time" transmission of documents for decisions is working effectively. SCAR should continue to develop the present arrangements that are now serving SCAR and other organizations well.***

#22: ***Appointment of high-quality, scientifically active and engaged national delegates to SSGs is crucial to the ongoing success of SCAR. The SCAR President should place this issue on the agenda at the next SCAR plenary session to again 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.

#23: ***It is recommended that the SSGs be tasked to operate strategically by specifically aiming on an overview of current, emerging and potentially exciting future science. This reinforces the above recommendation that national delegates need to be scientifically active, engaged, and aware of the range of scientific issues and emerging science across the remit of their specific SSG to be able to provide the required leadership. The Review Group further recommends that the SCAR Delegate Committee on Scientific Affairs begin discussing the evolution of SCAR strategic science programs and that it develop recommendations for SCAR to review at its plenary sessions over the next two biennial cycles.***

Findings: *SCAR officers and Secretariat have continued to create an improved understanding of the responsibilities of Delegates and national representatives to SSGs, SRPs, and Action Groups, it has worked to codify clear guidelines on the responsibilities of those involved in SCAR at various levels. Revitalization of SCAR has been tangible and pervasive through all components of the SCAR structure. There is a real sense in the SCAR science community that the SRPs work well, but that the national delegates on the SSGs are not always as highly engaged as would be desirable. Delegates should be given terms of reference that make it clear that they are taking on real obligations to serve the science community and that scientific engagement and active involvement are crucial to the successful discharge of their duties.*

A key role of the SSGs is to recommend new SRPs to the SCAR Executive Committee. There will always be a small number of SRPs because of budgetary limitations and the high value of strategic focus on priority science issues in Antarctic research. There is a need for SRPs to have a finite lifetime so that other emerging science problems of high priority can be designated for strategic SCAR-wide research support. It may be the case that not all areas of Antarctic science require a special focus because some are well organized and benefit from other priority planning processes. Some disciplines felt that they had been overlooked in the SCAR strategic science planning process. It is important to ensure that the SRPs continue to represent important emerging and current Antarctic science areas. There is a need to strategically balance priorities for future SRPs. The current "bottom-up" approach of nominating new SRPs is effective because it ensures that advocacy for new SRPs is being driven by scientifically active and engaged individuals. However, this process has the potential to be driven by vocal special interest groups or by other ad hoc suggestions if strategic and balanced oversight is not exercised by the SSGs and by SCAR at the Delegate level.

Talking Points:

- Much of this discussed above.
- Construct a 5- and 10-year time table by quarters of all commitments – Delegates meetings, ATCMs, COMNAP meetings, CCAMLR meetings, ExCom meetings, workshops, symposia, etc. to lay out a long term plan. Even though some dates

move, quarterly planning is feasible. This will give a broad picture of commitments and allow for an orderly scheduling of work.
- Update web site and create a working space.
- **President to remind delegates about qualifications for national representatives in plenary**
- **Presidential future note topic.**
- Job descriptions and mission statements underway to communicate responsibilities to SSGs. Create standing agenda items for SSGs to consider strategic planning, future directions and emerging issues. **Reinforce these remits in SSG plenary at biennial meetings.**
- **DCSA to be instructed in a similar way with standing agenda items on strategic planning, future directions and emerging issues**. Should be part of report to Delegates. Keynote as recommended in #1 on future directions.
- Use SSGs, SRPs, and DCSA future directions discussions for biennial update of COMNAP. Responsibility of VP Science.
- Evolution and transition of SRPS already being discussed.

THE SCAR SECRETARIAT

#24: ***National Committees are urged to 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.***

#25: ***The President of SCAR should 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.***

Findings: *The SCAR Secretariat is working extremely well at this time. Reallocated space provides the SCAR Secretariat with an organized, coherent office suite. National committees have not yet shown themselves willing to participate in the secondments plan despite the offer of $5000 in assistance to any individual seconded. The experience of working in an international setting and perhaps in another nation can be an intensely enriching career experience for the individuals involved.*

SPRI through its administrative arrangements with Cambridge University has been able to provide SCAR with crucial and excellent expert information technology assistance and support. Because of the vast polar resources at SPRI it remains a highly suitable location for the SCAR Secretariat. The redeveloped administrative relationship between SPRI and SCAR has worked well and has been beneficial to SCAR.

Talking Points:

- Secretariat to revisit secondment offers and assess why response is low. NCs may not have people to second but National Antarctic Programs do. See notes above on the issue of secondments. Focus on national secondment to work on data and information management as requested in DIM Strategic Plan. Develop a list of

possible things that could be worked on, e.g. our relationship with policy makers, or Education and Outreach than data and information management. Produce an on-line brochure that could be sent around.

- **President to send letter to SPRI Director as indicated.**

MAINTAINING SCAR'S MOMENTUM

#26: *Priority should be placed on forming an advisory group to help identify fund-raising opportunities and develop a plan to deploy SCAR leadership and volunteers to assist with fund-raising development.*

#27: *Succession planning within the Secretariat needs to be managed and planned, with full awareness of the constraining factors, by the SCAR Executive Committee.*

Findings: *SCAR has made enormous progress since 2000 in executing the reforms that were recommended by the Ad Hoc Group. Focus on sustaining SCAR as a vigorous and key scientific advisory and science planning organization in the decade ahead. The next decade will be critical for SCAR for several reasons but particularly because Antarctica now has world attention in relation to its central role in understanding global response to climate change. Voluntary enterprises and organizations, such as SCAR, are likely to face significant cost pressures in the next decade. SCAR's momentum is quite tied to its leadership, both those elected to offices by SCAR and by the leadership of its Secretariat.*

SCAR serves a crucial coordinating role in Antarctic science, but it must carefully operate within priority areas because of its small budget. Further valuable activity could be carried out, but more funding is needed to enable this. Engagement in philanthropic fund-raising will be needed to assist with SCAR activities. Fund raising activity should continue but must remain focused because of limited human and financial resources. Form a donors group to support worthy causes such as conference travel support for early career Antarctic scientists or for development of scientists from countries that have emerging Antarctic research capabilities. Exploit SCAR's status as a registered charity to seek tax relief on donations.

The recent and current Presidents of SCAR and the Executive Director should be congratulated for their effective leadership that has been crucial for delivering the transformation of SCAR as recommended by the Ad Hoc Group. The excellent recent progress must be sustained for SCAR to continue to fulfill its mission and to continue to overcome any remaining skepticism of SCAR based on its performance prior to its recent revitalization. It would be undesirable for SCAR if there were to be simultaneous turnover of these key leaders. A succession plans must avoid an undesirable outcome, namely a void in SCAR's momentum while a search is underway for a dynamic new Executive Director.

Talking Points:

- Plans are underway to develop a Donors Committee to focus external fund raising efforts. A high priority for SCAR, in particular once management fee from CAML ends. This type of fee for work does have an effect on Secretariat, particularly EO, workload.
- A regular process is being established to replace the ED and other Secretariat positions. The ED search is underway and a plan for overlap between the current and future ED is part of the plan. Currently the President is in the first year of a 4-year term so there will be continuity. The Past President serves on Ex Com for 2 years. The current EO and AA are expected to continue in place.
- Secretariat compensation and evaluation are being regularized to provide clear feedback to employees, appropriately compensate them, and allow for advancement within the constraints of such a small organization.
- Many of the actions above will provide stability and continuity as leadership changes.