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## MEMORANDUM

TO: Attendees, 2011 SCOR Executive Committee Meeting

FROM: Ed Urban, SCOR Executive Director

RE: Background Book for Meeting

DATE: 16 August 2011

I am pleased to enclose the background book for the upcoming SCOR Executive Committee Meeting in Helsinki. I hope that you have a chance to read it before the meeting, although I know that the time is limited and the background materials are extensive. Please be sure to review the annotated agenda following. I have tried to identify the actions that we need to consider at the meeting and have cross-referenced the issues to the pages where relevant background information can be found, so we can make the best use of our time together. Please skim the remainder of the book and focus on those sections that are most closely related to your interests and responsibilities. I hope that the book also will be a useful reference to you between SCOR meetings. The background book is also available on the Web, at <http://www.scor-int.org/2011EC/2011EC.htm>.

We will not be able to bring many extra background books to the meeting, so please bring your copy. Please let me know if you think other items should be made available to participants at the meeting.

I look forward to seeing each of you in Helsinki next month.

### **Credits for Cover Photos on Background Book:**

Upper Left: Finnish national museum (Herman Gesellius, Armas Lindgren and Eliel Saarinen, 1905-1910) | Source: Comma Image Oy (from Helsinki City Official Tourism Web site: [http://www.visithelsinki.fi/In\\_English/Visitor.iw3](http://www.visithelsinki.fi/In_English/Visitor.iw3))

Upper Right: Cathedral in Senate Square, Helsinki (c) Damon Hart-Davis

Lower Left: Suomenlinna Maritime Fortress seen from the south | Source: Governing Body of Suomenlinna, [www.suomenlinna.fi](http://www.suomenlinna.fi) ((from Helsinki City Official Tourism Web site: [http://www.visithelsinki.fi/In\\_English/Visitor.iw3](http://www.visithelsinki.fi/In_English/Visitor.iw3)))

# 40<sup>th</sup> SCOR EXECUTIVE COMMITTEE MEETING

Helsinki, Finland  
12-15 September 2011

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**NM = Nominated Member from a  
national SCOR committee**

## Agenda for 2011 SCOR Executive Committee Meeting

Agenda for 2011 SCOR Executive Committee Meeting																			
	Sun., Sept. 11	Mon., Sept. 12	Tues., Sept. 13	Wed., Sept. 14	Thurs., Sept. 15														
9:00	SCOR Committee on Capacity Building Meets	Welcome, Logistics, and Introductions	WG Proposals (cont.)	Baltic Sea, Our Sea (Finnish SCOR Committee Session)	IABO, IAMAS, IAPSO														
9:15					President's Report Approval of Agenda Exec. Director's Report	WG Proposals (cont.)	Baltic Sea, Our Sea (Finnish SCOR Committee Session)	IGBP											
9:30								First Discussion of 2012 SCOR Officer Elections	WG Proposals (cont.)	Baltic Sea, Our Sea (Finnish SCOR Committee Session)	WCRP								
9:45											<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>					
10:00								SCOR Capacity Building Activities	WG Proposals (cont.)	Baltic Sea, Our Sea	SCAR (Southern Ocean Observing System) AOSB								
10:15		Current WGs	WG Proposals (cont.)	Baltic Sea, Our Sea	IOC														
10:30					WG Proposals (cont.)	Baltic Sea, Our Sea	ICES												
10:45							WG Proposals (cont.)				Baltic Sea, Our Sea	PICES							
11:00												<b>LUNCH</b>	<b>LUNCH</b>	<b>LUNCH</b>	<b>LUNCH</b>				
11:15		WG Proposals	WG Proposals (cont.)	WG Proposals (cont.)	GEOTRACES	Finances Report of Ad Hoc Finance Committee													
11:30							WG Proposals (cont.)				WG Proposals (cont.)	WG Proposals (cont.)	IMBER						
11:45					WG Proposals (cont.)									WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)			
12:00													WG Proposals (cont.)				WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)
12:15																			
12:30					<b>BREAK</b>			<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>									
12:45					SCOR Executive Committee Meets in Closed Session		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	SCOR Executive Committee Meets in Closed Session									
13:00		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)		WG Proposals (cont.)													
13:15											WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)					
13:30															WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	
13:45		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)		WG Proposals (cont.)													
14:00	WG Proposals (cont.)										WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)						
14:15		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)		WG Proposals (cont.)													
14:30	WG Proposals (cont.)										WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)						
14:45		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)		WG Proposals (cont.)													
15:00	WG Proposals (cont.)										WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)						
15:15		WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)														
15:30	<b>BREAK</b>					<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>											
15:45	SCOR Executive Committee Meets in Closed Session	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	SCOR Executive Committee Meets in Closed Session														
16:00						WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)										
16:15										WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)						
16:30														WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)		
16:45						WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)										
17:00										WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)						
17:15						WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)										
17:30	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)															
17:45					WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)	WG Proposals (cont.)											
18:00	Reception at Old Town Hall	Group dinner on Suomenlinna island	Excursion to Vuosaari and group dinner																

**40<sup>th</sup> SCOR EXECUTIVE COMMITTEE MEETING**  
Helsinki, Finland

12-15 September 2011

**ANNOTATED AGENDA**

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**1.0 OPENING**

**1.1 Opening Remarks and Administrative Arrangements, p 1-1**

*Kuparinen, Fennel, Urban*

**1.2 Approval of the Agenda, p. 1-5**

*Fennel*

Additions or modifications to the agenda as distributed may be suggested prior to approval of the final version.

**1.3 Report of the President of SCOR, p. 1-5**

*Fennel*

The President will briefly review his activities for SCOR since the SCOR General Meeting in September 2010 in Toulouse.

**1.4 Report of SCOR Executive Director, p. 1-5**

*Urban*

The Executive Director will report on his activities for SCOR since the 2010 SCOR meeting, and on the current condition of SCOR.

**1.5 Appointment of an *ad hoc* Finance Committee, p. 1-10**

*Fennel*

The SCOR Constitution requires that a Finance Committee be appointed at every SCOR meeting. It must consist of three members of SCOR who are not members of the Executive Committee. The Executive Committee approved Corina Brussaard (Netherlands), Marta Estrada (Spain), and Johan Rodhe (Sweden) as the three members. The Finance Committee reviews the administration of SCOR finances during the previous fiscal year and the current year, and will propose a budget for 2012 activities. The Committee will report to the meeting under agenda item **8.3**.

**1.6 2012 Elections for SCOR Officers, p. 1-10**

*Sundby*

The SCOR President and all three Vice-President positions are open for nominations for the 2012 elections. All three Vice Presidents are eligible for re-election, if nominated. The nominations will open by 22 April 2012. Bjørn Sundby, as Past President, is responsible to chair the Nominating Committee.

**Action: Agree to Nominating Committee composition by end of meeting.**

## 2.0 WORKING GROUPS

### 2.1 Disbanded Working Groups

#### 2.1.1 SCOR/IAPSO WG 129—Deep Ocean Exchanges with the Shelf, p. 2-1

WG 129 has completed its work with publication of a special issue of *Ocean Science*.<sup>1</sup> Working group members have been thanked for their work. The 2010 SCOR meeting agreed to disband the group when its work was completed.

**Actions: None**

### 2.2 Current Working Groups

The Executive Committee Reporter for each working group will present an update on working group activities and progress, and will make recommendations on actions to be taken. Any working group chairs present will be given time to make comments about their group. The Executive Committee should make preliminary decisions, based on the progress of working groups and the merits of the requests, about whether funding should be provided for 2012 activities of working groups that request funds. The Finance Committee will take into account the recommendations of the Executive Committee as it develops the 2012 SCOR budget, which is then subject to final approval by the meeting.

#### 2.2.1 WG 125—Global Comparisons of Zooplankton Time Series, p. 2-4 Costello

The group held its final meeting in May 2008 in Gijon, Spain, before the symposium on “Effects of Climate Change on the World’s Oceans”. The final papers, including the introductory ones, are being completed and the special issue of the journal *Progress in Oceanography* is expected to be published in late 2011. The 2009 SCOR meeting approved disbanding the group when the special issue is completed.

**Action: None.**

#### 2.2.2 SCOR/IAPSO WG 127 on Thermodynamics and Equation of State of Seawater, p. 2-6 Morozov

The TEOS-10 Manual was published (in English) as

IOC, SCOR and IAPSO, 2010: *The international thermodynamic equation of seawater – 2010: Calculation and use of thermodynamic properties.*

Intergovernmental Oceanographic Commission, Manuals and Guides No. 56, UNESCO (English), 196 pp.

It is available in hard copy from IOC and SCOR, and electronically from <http://www.TEOS-10.org>. A user guide has been created. The efforts of WG127 have since centered on providing the oceanographic community with computer software and appropriate documentation to implement the new thermodynamic relationships to the properties of seawater, ice and of humid air. The next version of the Ocean Data View (ODV) software will include TEOS-10 variables.

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<sup>1</sup> Johnson, J., and P. Chapman (eds.). 2011. Deep ocean exchange with the shelf. *Ocean Science* [http://www.ocean-sci.net/special\\_issue18.html](http://www.ocean-sci.net/special_issue18.html).



The 2010 SCOR meeting approved the continuation of the group until the end of 2011. The group has created links with the International Association for the Properties of Water and Steam (IAPWS) and presents in its report (see Tab 2) draft terms of reference in for a SCOR/IAPSO/IAPWS Joint Seawater Committee to continue the work of WG 127. There is no funding implication for the present time.

**Action: Consider approval of formation of a SCOR/IAPSO/IAPWS Joint Seawater Committee to continue the work of WG 127.**

### **2.2.3 SCOR WG 130 on Automatic Plankton Visual Identification, p. 2-10** *Costello*

The group held its final meeting funded by SCOR in May 2010 in Villefranche-sur-Mer, France. They sponsored a special session at the 4<sup>th</sup> Zooplankton Production Symposium in Pucon, Chile in March 2011. The workshop on Automated Plankton Identification was very well attended by a diverse range of users of *in situ* and laboratory systems and by people who are interested in adopting these new technologies. The group's achievements in relation to their terms of reference are given in its report in Tab 2.

**Action: Consider disbanding the group.**

### **2.2.4 SCOR WG 131 on The Legacy of in situ Iron Enrichment: Data Compilation and Modeling, p. 2-19** *MacCracken*

The group is still represented by two co-chairs, Philip Boyd (New Zealand) and Dorothee Bakker (UK). Data and metadata have been assembled for 9 in situ iron enrichment experiments in open access databases at the Biological and Chemical Oceanography Data Management Office (BCO-DMO, <http://bco-dmo.org>) and PANGAEA (<http://wdc-mare.org/>). The database will be publicized through three articles, two shorter ones for *Eos* and *Earth System Science Data*, and a longer article being prepared for *Oceanography* magazine.

**Action: Consider whether to disband the group after completion of its publications.**

### **2.2.5 SCOR/LOICZ WG 132 on Land-based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems, p. 2-23** *Taguchi*

The group held its final meeting in Crete, Greece, in conjunction with the 14<sup>th</sup> International Conference on Harmful Algae in October 2010. They have published several papers related to their activities.<sup>2</sup>

**Action: Consider disbanding the group.**

### **2.2.6 SCOR/IAPSO WG 133: OceanScope, p. 2-28** *Feeley*

The group has been working on its report and the SCOR and IAPSO reporters have reviewed two drafts. The Reporters and SCOR Executive Director are considering potential reviewers. The major chapters of the report present the scientific and societal needs for increased oceanographic observations from commercial ships, how the commercial shipping industry can participate, and how the OceanScope concept could be implemented. Appendixes present more technical detail of vessel types and their potential as OceanScope platforms, instrumentation, communications and data management, legal issues, organization, and a Draft Charter for OceanScope.

**Action: Suggest reviewers to the Reporter.**

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<sup>2</sup> e.g., Glibert, P.M., J.I. Allen, A.F. Bouwman, C.W. Brown, K.J. Flynn, A.J. Lewitus, and C.J. Madden. 2010. Modeling of HABs and eutrophication: Status, advances, challenges. *Journal of Marine Systems* 83:262-275.

### **2.2.7 SCOR WG 134 on The Microbial Carbon Pump in the Ocean, p. 2-31** *Sundby*

This working group met for the second time in San Juan, Puerto Rico, in February 2011, in conjunction with the 2011 ASLO meeting. The group organized a well-attended ASLO “emerging issue” workshop and a special session on the group’s topic. So far, the group published a paper in *Nature Reviews Microbiology*<sup>3</sup> in 2010 and a special supplement to *Science* in 2011.<sup>4</sup> The next WG134 workshop, addressing microbial transformation of DOC, will be held at the Hansa institute for advanced studies, Bremen, Germany in conjunction with the International Society for Microbial Ecology conference in Copenhagen in 2012.

**Action: Consider funding for 2012 meeting.**

### **2.2.8 SCOR/InterRidge WG 135 on Hydrothermal energy transfer and its impact on the ocean carbon cycles, p. 2-36** *Feeley*

This group met for the first time in Woods Hole (USA) on 23-24 November 2009 and plans to meet next in Hangzhou, China in October 2011. (This meeting was postponed from April.) The meeting will be dedicated to draft two synthesis papers and set the plans for the group’s planned international workshop in 2012. Synthesis will built on existing publications and on-going studies, particularly from working group members, which have been developed in the last 24 months. The community-wide workshop will be held in May/June 2012 in Europe, to help fulfill the group’s terms of reference. The two review papers will capture key concepts and present them in an accessible form for the broad ocean science community, in advance of, and to set the scene for, the workshop. The first paper will focus on seafloor hydrothermal systems themselves and the second review paper will consider the interaction of hydrothermal systems with the water column and with the sub-seafloor. Sylvia Sander (New Zealand) was added as an Associate Member of the group this year.

**Action: Consider funding for 2012 meeting.**

### **2.2.9 SCOR/WCRP/IAPSO Working Group 136 On the Climatic Importance of the Greater Agulhas System, p. 2-43** *Compton*

SCOR/WCRP/IAPSO Working Group 136 held its second meeting in May 2011. The meeting was held in combination with the “In-Region Capacity Building Workshop of the WMO/IOC Data Buoy Cooperation Panel (DBCP)” in Mauritius (May 2-6, 2011). The group announced itself in *EOS* following its first meeting and published a major paper in *Nature* earlier this year.<sup>5</sup> The group is planning an AGU Chapman Conference on its topic, to be held in South Africa in September/October 2012, for which they would like to obtain the remainder of their funding (less than for a full WG meeting). Mike Roberts (Oceans and Coasts, Department of Environment Affairs, Cape Town) was added as an Associate Member. David Obura was replaced by Francis Marsac (IRD/UCT) as the tenth Full Member of the working group.

**Action: Consider funding for 2012 meeting.**

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<sup>3</sup>Jiao, N., G.J. Herndl, D.A. Hansell, R. Benner, G. Kattner, S.W. Wilhelm, D.L. Kirchman, M.G. Weinbauer, T. Luo, F. Chen, and F. Azam. 2010. Microbial production of recalcitrant dissolved organic matter: long-term carbon storage in the global ocean. *Nature Reviews Microbiology* 8:593-599 (August 2010), doi:10.1038/nrmicro2386.

<sup>4</sup>Jiao, N., F. Azam, and S. Sanders (eds.). 2011. *Microbial Carbon Pump in the Ocean*. Supplement to *Science*. See <http://science.imirus.com/Mpowered/book/vscim11/i2/p1>.

<sup>5</sup>Beal, L.M., W.P.M. De Ruijter, A. Biastoch, R. Zahn, and SCOR/WCRP/IAPSO Working Group 136. 2011. On the role of the Agulhas system in ocean circulation and climate. *Nature* 472:429-436, doi:10.1038/nature09983.

**2.2.10 WG 137: Patterns of Phytoplankton Dynamics in Coastal Ecosystems: Comparative Analysis of Time Series Observation, p. 2-60** *Volkman*

The group met for the first time in Hangzhou, China in October 2010. The group's meeting was documented in an article in *EOS*.<sup>6</sup> In the first meeting, participants discussed data policy, including data contribution, authorships, acknowledgements, and data availability, and have achieved an agreement on the policy. The second WG meeting will be held in Villa Angelina in Massa Lubrense, Napoli, Italy, during 27-30 September 2011, with partial funding from the Stazione Zoologica A. Dohrn, Villa Comunale, Italy. The Web site for data sets has been set up and will be available soon. Richard Gowen was added as an Associate Member this year.

**Action: Consider funding for 2012 meeting.**

**2.2.11 WG 138: Modern Planktic Foraminifera and Ocean Changes, p. 2-79** *Fennel*

The first task of the working group has been to organize a kick-off meeting where the schedule for individual deliverables will be agreed and where teams will be assigned to individual tasks. The group will meet for the first time in Amsterdam, Netherlands on 29 August-2 September 2011. Additional funding for the kick-off meeting has been secured from the EuroProx project of the University of Amsterdam. The group decided to consistently pursue the objective of engaging with young researchers from the very beginning of its existence. Therefore, one day of the kick-off meeting will be devoted to a mini-symposium, which will bring young researchers in contact with international experts in the field.

**Action: Consider funding for 2012 meeting.**

**2.3 New Working Group Proposals**

Eight working group proposals were received by the SCOR Secretariat. SCOR can probably fund two new working groups to begin in 2012, pending recommendations from the Finance Committee.

**2.3.1 Proposal for a SCOR Working Group to Investigate Physical and Biological Determinants of Population Connectivity: Are Perceived Temperate-Tropical Differences Real?, p. 2-87** *Fennel*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.2 Proposal for a SCOR Working Group: Organic Ligands – A Key Control on Trace Metal Biogeochemistry in the Ocean, p. 2-95** *Compton*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.3 Proposal for a SCOR Working Group on Deep-sea biodiversity Patterns of the South Atlantic Ocean, p. 2-106** *Costello*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

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<sup>6</sup> Paerl, H., K. Yin, and J. Cloern. 2011. Global patterns of phytoplankton dynamics in coastal ecosystems. *EOS* 92(10):85.

**2.3.4 Proposal for a SCOR Working Group on Common Challenges in Establishing Ocean Observatories, p. 2-112** *Feeley/Wainer*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.5 Proposal for a SCOR Working Group on Subterranean Estuaries, p. 2-124** *Sundby*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.6 Proposal for a SCOR Working Group on Patterns of rocky shore dynamics in coastal ecosystems: comparative analysis, p. 2-133** *Taguchi*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.7 Proposal for a SCOR Working Group on Biogeochemical Exchange Processes at the Sea-Ice Interfaces (BEPSII), p. 2-143** *Volkman*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

**2.3.8 Proposal for a SCOR working group on Understanding the global impacts and implications of range-shifting species in marine systems, p. 2-155** *Costello*

**Action: Determine whether to approve as new SCOR working group, and what feedback should be given to the proponents.**

### **3.0 LARGE-SCALE SCIENTIFIC PROGRAMS**

SCOR currently sponsors four large-scale research programs; three of them are co-sponsored by other organizations. Each project has its own scientific steering committee (SSC) to manage the project on a day-to-day basis. SCOR and other co-sponsors are still responsible to oversee the projects, which they do primarily through responsibility for the project SSC memberships and terms of reference, although sponsors also oversee the results of the projects' activities. Any proposed changes in membership or terms of reference are considered by the SCOR Executive Committee, in partnership with other co-sponsors, throughout the year. SCOR does not use discretionary funds (funds from SCOR member nation dues) for the research projects it sponsors, instead writing grant proposals to fund meetings and other activities of the research projects. The SCOR Secretariat oversees the use of grant funds provided to the projects.

#### **3.1 SCOR/IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Program, p. 3-1**

*Taguchi*

A special issue of the *Chinese Journal of Oceanology and Limnology* was published recently, based on the second open science meeting for the Core Research Project (CRP) on HABs and Eutrophication. A writing group for the CRP on Benthic HABs is working on the Science Plan from its June 2010 Open Science Meeting. The GEOHAB Modeling Report was recently completed and is being printed, and a special issue of the *Journal of Marine Systems* was produced from the GEOHAB modeling workshop. The Science Plan for GEOHAB research and

cooperation in Asia was published in May 2011. SCOR and IOC have asked the GEOHAB SSC to present a plan for synthesis of GEOHAB results in 2012 and 2013, leading up to the completion of the research phase of GEOHAB at the end of 2013. Potential products could include a summary for policymakers, a video, and/or a special issue of a journal. There will be a final open science meeting in 2013. The co-sponsors approved the extension of four SSC members for a second 3-year term and approved a new appointment of Patricia Tester (USA) to the SSC.

**Action: None.**

### **3.2 SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research**

#### **(IMBER) Project, p. 3-9**

*Sundby*

The second IMBER Imbizo open science meeting was held in October 2010 in Crete, Greece and the IMBER SSC met most recently in April 2011 in Marseille, France. Special journal issues have appeared from the first Imbizo.<sup>7</sup> IMBER supports five working groups. The newest one, on human dimensions, was formed and met in mid-2011. The others are (1) a joint group with SOLAS on ocean carbon, (2) a joint group with the Land-Ocean Interactions in the Coastal Zone project on continental margins, (3) a group on capacity building, and (4) a data management task team. IMBER has four regional programmes: (1) Integrating Climate and Ecosystem Dynamics (ICED), (2) Climate Impact on Oceanic Top Predators (CLIOTOP), (3) Ecological Studies of Sub-Arctic Seas (ESSAS), and (4) the Sustained Indian Ocean Biogeochemistry and Ecosystem Research (SIBER) program. Plans are under way for the third IMBER Summer School, which will be held at the Ankara University in August 2012. The theme will be the feedbacks between ecosystems, biogeochemistry, and the Earth System in a warming world. IMBER has held workshops to increase awareness of the importance and benefits of establishing and following data management procedures, and to provide hands-on training on data management and data preservation. IMBER currently has 26 endorsed projects from 14 countries (Argentina, Brazil, Canada, Chile, China, Denmark, France, Germany, Italy, Japan, New Zealand, Spain, UK and USA). Support for the IMBER International Project Office will be cut by French sources at the end of this year, after 6 years of funding. Therefore, the IPO is looking for a new home; a proposal has been submitted for funding of an office in a new location.

**Action: Consider request for funding of Third IMBER Summer School.**

### **3.3 GEOTRACES Project, p. 3-30**

*Sundby*

The GEOTRACES Scientific Steering Committee held its fifth meeting in Toulouse, France in September 2010, the week after the SCOR meeting there. The next SSC and Data Management Committee meetings will be held in Xiamen, China, the week before the SCOR annual meeting in Helsinki. The annual meetings of the GEOTRACES SSC discuss progress on data management and intercalibration, as well as national reports on completed and planned cruises,

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<sup>7</sup> Special Issue of *Deep-Sea Research II*, Volume 57, Issue 16, Pages 1429-1592 (15 August 2010), Ecological and Biogeochemical Interactions in the Dark Ocean, edited by Deborah K. Steinberg and Dennis A. Hansell and special issue of *Progress in Oceanography*, Volume 84, Issues 1-2, Pages 1-138 (January-February 2010), Parameterisation of Trophic Interactions in Ecosystem Modelling, Edited by Michael A. St. John, Ivo Grigorov, Javier Ruiz and Patrick Monfray.

forthcoming workshops and conferences, capacity building, international partnership issues, program budget, and SSC rotations. The GEOTRACES “Sampling and Sample-handling Protocols for GEOTRACES Cruises” cookbook has been completed (see <http://www.obs-lyon.fr/GEOTRACES/libraries/documents/Intercalibration/Cookbook.pdf>). The International GEOTRACES Standards and Intercalibration Committee will maintain and update these protocols and are coordinating publication of the results from the intercalibration in a special issue of *Limnology and Oceanography: Methods*. GEOTRACES cruises have been completed by Australia, Canada, Germany, India, Japan, Netherlands, New Zealand, UK, and USA. The past two years have been a busy time for GEOTRACES, especially in the Atlantic Ocean; 10 full GEOTRACES cruises have taken place, with another 3 cruises planned for 2011. Regional planning meetings were held for the Asia and Mediterranean Sea regions since the previous SCOR meeting, and plans are developing for a South American regional meeting. The next GEOTRACES Data-Model Synergy Workshop will be held at the “Universitat Autònoma de Barcelona”, Spain, in November 14-17, 2011 (see <http://www.obs-lyon.fr/GEOTRACES/index.php/meetings/geotraces-workshops-and-meetings/icalrepeat.detail/2011/11/14/58/40/3rd-geotraces-data-model-synergy-workshop>). GEOTRACES has used travel support from SCOR to make it possible for two developing country scientists to participate in GEOTRACES cruises.

**Action: None.**

### **3.4 SCOR/IGBP/WCRP/CACGP Surface Ocean-Lower Atmosphere Study, p. 3-88**

*Wainer*

SOLAS is planning its fourth open science meeting for a site in Washington State in 2012 and is holding its fifth summer school from 29 August to 10 September 2011 in Cargèse, Corsica, France. The SOLAS Scientific Steering Committee (SSC) met in Keil, Germany in May 2011 for its 10<sup>th</sup> meeting, after the meeting in Tsukuba, Japan was cancelled due to the earthquake and tsunami. The SOLAS SSC continues development of its 7 mid-term strategy topics. Each theme is at a different stage in its implementation, but there is much scientific activity ongoing and planned. SOLAS resources (e.g., travel funds, meeting support, newsletters, Web page, outreach activities) are being used to highlight/advertise/define/refine the topics and their associated scientific questions and develop white papers (see [www.solas-int.org/mts](http://www.solas-int.org/mts)); identify groups of investigators worldwide that are capable of tackling the topics; motivate these groups to coordinate their proposal writing and link their experimental/modelling activities at the international level; and plan and conduct the research with a view to facilitating data and idea exchange that will permit an international, comprehensive synthesis. Diego Gaiero (Argentina), Christophe Garbe (Germany), Lisa Miller (Canada), and Brian Ward (Ireland) were approved by the SOLAS co-sponsors for their first three-year terms on the SOLAS SSC. Eric Saltzman (USA) has assumed the role of SSC chair from July 2011. Twenty-eight nations are part of the SOLAS network. SOLAS is involved in two IGBP Fast-Track Initiatives to which SCOR is also contributing: (1) Upper Ocean Nutrient Limitation: processes, patterns and potential for change and (2) Megacities and the Coastal Zone: air-sea interactions. The IPO is currently located in Kiel, Germany. Funding of the IPO ends in January 2013. Renewal options are being investigated.

**Action: None**

## 4.0 OCEAN CARBON AND OTHER ACTIVITIES

### 4.1 IOC/SCOR International Ocean Carbon Coordination Project (IOCCP), p. 4-1

*Fennel*

IOCCP has continued to be very productive in the past year. NSF is funding 1+ positions at IOC for IOCCP and is providing activity funding through SCOR. The Surface Ocean CO<sub>2</sub> Atlas (SOCAT) is a global compilation of underway surface water fCO<sub>2</sub> (fugacity of CO<sub>2</sub>) data with 6.3 million measurements from 1,767 cruises run between 1968 and 2008 by more than 10 countries. The first public release of SOCAT (version 1.4) will be on 14 September 2011. Two SOCAT products will be made publicly available: (1) a global surface ocean fCO<sub>2</sub> data set with second-level quality control; and (2) a global gridded product of monthly surface water fCO<sub>2</sub> means, with no temporal or spatial interpolation (i.e. bin averages). IOCCP will be hosting two meetings in September 2011: (1) The IOCCP Surface Ocean CO<sub>2</sub> Data-to-Flux Workshop and (2) The Ocean Carbon Cycle at a Time of Change Science Meeting. The IOCCP Scientific Steering Group is currently updating the 2007 list of time-series stations where carbon variables are being measured or are expected to be measured in the near future, including contact information for the principle investigator or time-series administrator, as well as current and future operational concerns.

**Action: None**

### 4.2 Symposia on The Ocean in a High-CO<sub>2</sub> World, p. 4-7

*Volkman*

The special issue of *Biogeosciences* that resulted from the second symposium on The Ocean in a High-CO<sub>2</sub> World was published in the past year.<sup>8</sup> SCOR, IOC, and IGBP have begun planning for the third symposium, which will be held in Monterey, California, USA, in September 2012. The symposium planning committee met in December 2010 in Monterey. The meeting developed the structure for the symposium, identified topics and speakers, and set up a subcommittee for capacity building and another for outreach and communication. Registration for the meeting will be opened in Sept. 2011.

**Action: None.**

### 4.3 Other Activities

#### 4.3.1 Phytoplankton Pigments in Oceanography, p. 4-10

*Urban*

This is an activity to update a successful book published from WG 78 on Determination of Photosynthetic Pigments in Seawater in 1997 and reprinted in 2005. The book is at Cambridge University Press and is expected to be published in September 2011. SCOR is purchasing 100 copies of the book for distribution to the editors (who raised funding for production of the book) and to libraries in developing countries.

**Actions: None**

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<sup>8</sup> Gattuso, J.-P., J. Orr, S. Pantoja, H.-O. Pörtner, U. Riebesell, and T. Trull (eds.). Special issue of *Biogeosciences* on The ocean in the high-CO<sub>2</sub> world II. [http://www.biogeosciences.net/special\\_issue44.html](http://www.biogeosciences.net/special_issue44.html)

#### **4.3.2 Data Publication Activity, p. 4-10**

*Costello*

SCOR, IOC's International Oceanographic Data and Information Exchange (IODE), and the MBLWHOI Library have been working together for the past several years on a project to promote getting data associated with research papers, as well as stand-alone data sets, into national and international data management systems. The group has issued a challenge to data centers and libraries to establish data publication activities and the results of these pilot projects have been reported at meetings of ocean scientists, data managers, and ocean librarians. The principals will meet next in Liverpool, UK in early November 2011 to assess progress on the pilot projects.

**Action: Consider budgeting funds for 2012.**

#### **4.3.3 SCOR/POGO Workshop on International Quiet Ocean Experiment, p. 4-12**

*Urban*

The Alfred P. Sloan Foundation requested that SCOR and POGO convene a workshop to explore the idea of an International Quiet Ocean Experiment, which would involve a global or regional quieting of the ocean by stopping noise from human activities for a limited period. The workshop was held at the University of Rhode Island on 27-29 October 2010 and involved ocean acousticians, marine biologists, and representatives from navies and industry. The outcome of the meeting is documented in an article in *Oceanography* magazine.<sup>9</sup> An open science meeting will be held at UNESCO Headquarters in Paris, France on 30 August-1 Sept. 2011 to develop a science plan for the project (see [www.iqoe-2011.org](http://www.iqoe-2011.org)). The Science Plan will be reviewed by SCOR and POGO after it is completed. The Sloan Foundation is encouraging a proposal for planning activities in 2012 and 2013.

**Action: None**

## **5.0 CAPACITY-BUILDING ACTIVITIES**

### **5.1 SCOR Committee on Capacity Building, p. 5-1**

*Ittekkot*

The committee sponsored a meeting in Izmir, Turkey in April 2011 to explore possible capacity building initiatives in the Middle East/North Africa region. The membership of the committee was modified in mid-2011 to create a tighter linkage between the committee and the SCOR Executive Committee; thus, a subgroup of the committee will meet on Sept. 11 in Helsinki to prepare for the SCOR meeting discussions.

**Actions: Consider any requests from the Committee's meeting.**

### **5.2 SCOR Visiting Scholars, p. 5-2**

*Ittekkot*

SCOR started a program of SCOR Visiting Scholars in 2009 and has now funded 6 different Visiting Scholars. The program provides airfare and some funding for subsistence for ocean scientists to teach and mentor students for several weeks to months. Local hosts are expected to provide some support for local expenses. One Visiting Scholar, Kurt Hanselmann, will be sent

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<sup>9</sup> Boyd, I.L., G. Frisk, E. Urban, P. Tyack, J. Ausubel, S. Seeyave, D. Cato, B. Southall, M. Weise, R. Andrew, T. Akamatsu, R. Dekeling, C. Erbe, D. Farmer, R. Gentry, T. Gross, A. Hawkins, F. Li, K. Metcalf, J.H. Miller, D. Moretti, C. Rodrigo, and T. Shinke. 2011. An International Quiet Ocean Experiment. *Oceanography* 24(2):174-181, doi:10.5670/oceanog.2011.37.



on a second assignment to Namibia this year, to build on the work he started in 2010.

**Action: None**

**5.3 Regional Graduate Networks of Oceanography and Marine Environmental Sciences, p. 5-3**

*Ittekkot*

This activity is still unfunded, but was a topic of discussion at the meeting in Izmir, Turkey. There was consensus among regional participants that a regional network should be explored for the Middle East/North Africa region.

**Action: None.**

**5.4 POGO-SCOR Visiting Fellowships for Oceanographic Observations, p. 5-4**

*Urban*

POGO and SCOR have co-funded this program since 2001 and have supported about 100 participants so far. Both recipients and hosts have expressed that this has been a worthwhile program.

**Action: Consider whether to provide funding in 2012.**

**5.5 NSF Travel Support for Developing Country Scientists, p. 5-5**

*Urban*

The grant to SCOR from the U.S. National Science Foundation was renewed for three years at a level of \$75,000 per year. The grants have been an important source of support for several SCOR-related meetings in the past year.

**Action: Consider recommendations of the SCOR Committee on Capacity Building.**

**5.6 SCOR Reports to Developing Country Libraries, p. 5-10**

*Urban*

*The Birth and First Years of the Scientific Committee on Oceanic Research (SCOR), Harmful Algal Blooms in Asia: A Regional Comparative Program, and GEOHAB Core Research Project: HABs in Fjords and Coastal Embayments* were distributed to libraries in developing countries and countries with economies in transition this year.

**Action: None**

## **6.0 RELATIONS WITH INTERGOVERNMENTAL ORGANIZATIONS**

**6.1 Intergovernmental Oceanographic Commission, p. 6-1**

*Enevoldsen, Fennel*

Wolfgang Fennel and Ed Urban attended the IOC General Assembly in June 2011 to represent SCOR and ICSU. SCOR and IOC cooperate on several different activities, as discussed in other sections: Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Program, International Ocean Carbon Coordination Project, and Symposium on the Ocean in a High-CO<sub>2</sub> World. IOC also partners with SCOR on capacity building activities. In April 2011, IOC organized and hosted an international expert meeting entitled “Understanding deep-water biodiversity in the South Atlantic: Options for conservation and sustainable use of resources in the high-seas”, to follow up on the working group proposed to SCOR in 2010; the proposal has been re-submitted this year. Responsibility for the Ocean Biogeographic Information System (OBIS) was assumed by IOC after the completion of the Census of Marine Life.

**Action: Identify new areas of cooperation with IOC?**

## **6.2 International Council for Exploration of the Seas, p. 6-3**

*Fennel*

Much ICES work focuses on climate change and impacts on ecosystems and fisheries. ICES has been involved in various SCOR activities in the past few years, including co-sponsoring a regional program of GLOBEC. ICES cooperates with several intergovernmental organizations with common interests. New Strategic Initiatives are on Biodiversity Science and Advice, Spatial Planning and Area-based Management, and Stock Assessment Methods.

**Action: Identify new areas of cooperation with ICES?**

## **6.3 Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), p. 6-3**

*Urban*

SCOR provided support for one meeting of GESAMP Working Group 38 on The Atmospheric Input of Chemicals to the Ocean, which has published two papers, in which SCOR support was credited. A third paper is in progress.

**Action: None.**

## **6.4 North Pacific Marine Science Organization (PICES), p. 6-4**

*Taguchi, Bychkov*

PICES' goals are to (1) advance scientific knowledge and capacity available for the member countries, including information on human activities affecting, and affected by marine ecosystems, and (2) provide a mechanism for collaboration among scientists in addressing timely and critical scientific questions. In less than 20 years since its establishment, PICES has become a major forum for marine science in the North Pacific. PICES conducts several activities that are relevant to SCOR interests and that implement SCOR activities in the North Pacific region and often supports members of SCOR working groups related to PICES activities. A PICES representative is a member of the SCOR Committee on Capacity Building.

**Action: Consider request for developing country scientist travel support and identify new areas of cooperation with PICES.**

## **7.0 RELATIONS WITH NON-GOVERNMENTAL ORGANIZATIONS**

### **7.1 International Council for Science**

*Fennel*

ICSU has designated SCOR its representative at IOC annual meetings. SCOR was invited to send a representative to the ICSU General Assembly in Rome at the end of September, but the timing made it difficult for SCOR Executive Committee members or staff to participate.

**Action: None**

#### **7.1.1 International Geosphere-Biosphere Program (IGBP), p. 7-1**

*Fennel, Broadgate*

Ed Urban attended the 2011 IGBP Science Committee meeting in Bethesda, Maryland to represent SCOR. SCOR and IGBP staff members have ongoing discussions in relation to co-sponsored projects. SCOR and IGBP are co-sponsoring WG 138 on Modern Planktic Foraminifera and Ocean Changes, and SCOR is contributing support for travel of developing country scientists to two IGBP Fast-Track Initiatives. James Syvitski was appointed as the next chairperson of IGBP. He will assume his responsibilities on 1 January 2012. Syvitski was co-chair of SCOR/LOICZ WG 122 on Mechanisms of Sediment Retention in Estuaries. The 2012

international Planet Under Pressure conference will provide a comprehensive update of the pressure planet Earth is now under and will discuss solutions at all scales to move societies on to a sustainable pathway. The conference is co-sponsored by ICSU's four global change programmes, IGBP, IHDP, DIVERSITAS and WCRP and their Earth System Science Partnership (see [www.planetunderpressure2012.net](http://www.planetunderpressure2012.net)).

**Action: Determine which SCOR decisions need to be transmitted to IGBP for comment and joint action.**

### **7.1.2 World Climate Research Programme (WCRP), p. 7-5**

*MacCracken*

WCRP is co-sponsoring the SOLAS project, SCOR/WCRP/IAPSO WG 136 on Climatic Importance of the Greater Agulhas System, and development of the Southern Ocean Observing System. SCOR projects (including IOCCP) are working well with CLIVAR, the part of WCRP most relevant to SCOR. WCRP is organizing an Open Science Conference (OSC) to be held on 24-28 October 2011, in Denver, Colorado, USA (<http://conference2011.wcrp-climate.org/>).

**Action: None.**

### **7.1.3 Scientific Committee on Antarctic Research (SCAR), p. 7-16**

*Wainer*

SCAR and SCOR are co-sponsoring a joint Expert Group on Oceanography. The major focus for this group in the past several years has been work on a plan for a Southern Ocean Observing System, which is now being prepared for publication (see <http://www.scar.org/soos/>). Ed Urban and Lora Carter worked on obtaining permissions to reprint graphics, getting some figures redrawn, and having the report formatted and printed at the University of Delaware. An office to promote implementation of the SOOS plan is being funded by Australia, and Louise Newman, formally of the PAGES office, was hired this summer to staff the office. The Expert Group will focus its activities on implementation of SOOS for the new few years. The group is planning to meet in February 2012 in conjunction with the Ocean Sciences meeting in Salt Lake City, Utah, USA.

**Action: Consider 2012 funding for the Expert Group on Oceanography/SOOS Implementation Committee.**

## **7.2 Affiliated Organizations**

### **7.2.1 International Association for Biological Oceanography (IABO), p. 7-17**

*Costello*

**Action: Discuss potential areas of interaction with IABO.**

### **7.2.2 International Association for Meteorology and Atmospheric Sciences (IAMAS), p. 7-17**

*MacCracken*

**Action: Discuss potential areas of interaction with IAMAS.**

**7.2.3 International Association for the Physical Sciences of the Oceans (IAPSO), p. 7-17**

*Morozov*

SCOR and IAPSO are currently co-sponsoring WG 127 on Thermodynamics and Equation of State of Seawater, OceanScope WG 133, and WG 136 on Climatic Importance of the Greater Agulhas System (with WCRP). The next IAPSO Assembly will be held in 2013 in Gothenberg, Sweden.

**Action: None.**

**7.3 Affiliated Programs, p. 7-19**

The benefit of continued affiliation to SCOR is evaluated at each General Meeting, but annual reports are requested from the programs for information.

**7.3.1 International Marine Global Changes Study (IMAGES), p. 7-21**

*Compton*

SCOR WG 100 on Sediment Coring for International Global Change Research developed the original science plan for IMAGES. IMAGES Phase II is being planned, starting with a meeting in Brussels in January 2011 to develop a new science plan. IMAGES II will not fund research but will serve as a focal point for the pooling of global expertise, funding, and resources that maximizes individual contributions by assimilating them into an internationally integrated and thematically coherent science entity whose mission is to understand the role of marine processes in climate change. The program has an interim office hosted at the University of Kiel in Germany.

**Action: None.**

**7.3.2 InterRidge - International, Interdisciplinary Ridge Studies, p. 7-25**

*Compton*

InterRidge has an active program of working groups and scientific meetings, as well as significant education and outreach activities. Working Groups are the principal mechanism for implementing the InterRidge program, their main function being to identify new areas of high priority scientific research. There are currently five active InterRidge Working Groups: (1) Mantle Imaging, (2) Seafloor Mineralisation, (3) Long-Range Exploration, (4) Vent Ecology and (5) SCOR and InterRidge are co-sponsoring WG 135 on Hydrothermal Energy Transfer and its Impact on the Ocean Carbon Cycles. The InterRidge program office is now in its second year at the National Oceanography Centre, Southampton, UK. It is led by Bramley Murton (IR Chair) and Jon Copley (IR Co-Chair). The Office Coordinator is Debbie Milton. InterRidge has also launched its new Cruise Travel Bursary scheme.

**Action: None.**

**7.3.3 International Ocean Colour Coordinating Group (IOCCG), p. 7-28**

*Volkman*

IOCCG scientific activities are carried out by specialized scientific working groups which investigate various aspects of ocean-color technology and its applications, and produce a report on the topic, published in the growing IOCCG Report Series (10 reports published to date). IOCCG Working Groups that are currently active include Bio-Optical Sensors on Argo Floats, Ocean Colour from a Geostationary Platform, Level-1 Requirements, and the Joint GEOHAB/IOCCG WG on Harmful Algal Blooms. Groups that have been approved, but have not yet met, include the Working Group on Polar Seas, Working group on Uncertainties in Ocean-Colour Remote Sensing, and Round-Robin Inter-Comparison of Retrieval Algorithms for

Coastal Waters. The Joint GEOHAB/IOCCG WG on HABs began its work this year and is notable as the first joint activity of IOCCG and a SCOR project. Over the past decade, IOCCG has played an important role in training and capacity building on a global scale. Most of the training has been devoted to capacity building in developing countries, and to ocean color applications intended to give participants practical skills rather than fundamental knowledge.  
**Action: None.**

## **7.4 Other Organizations**

### **7.4.1 Arctic Ocean Sciences Board (AOSB), p. 7-36** *Fennel*

The Arctic Ocean Sciences Board (AOSB):Marine Working Group of the International Arctic Science Committee (IASC) is a non-governmental body that includes members and participants from research and governmental institutions in all 19 IASC countries. It was established in May 1984 to fill a recognized need to coordinate the priorities and programs of countries and institutions engaged in research in the Arctic Ocean. In 2009, AOSB merged with IASC as part of IASC's restructuring. The merger was designed to build synergy between the two organizations and to ensure seamless integration of the terrestrial, cryospheric, social, oceanic and atmospheric sciences in the Arctic. The ASOB:MWG has identified the following priority themes for 2011-2015: Arctic Ocean System: predicting and understanding rapid changes in the Arctic; sea ice structure dynamics and the Arctic system; ecosystem responses to changing physical parameters in the Arctic; understanding geochemical process in the Arctic Ocean and Sub-Arctic Seas; and improving access to the paleo-record of the Arctic Ocean.

**Action: None.**

### **7.4.2 Partnership for Observation of the Global Oceans (POGO)** *Fennel*

POGO is a non-profit consortium of oceanographic institutions from around the world. POGO promotes global oceanography, particularly the implementation of international and integrated global ocean observing systems. POGO has focused much of its attention in recent years on interactions with the Group on Earth Observations (GEO) to represent ocean observation issues. A new Task on "Oceans and Society: the Blue Planet" is included in the draft GEO Workplan, and this task draws together POGO and many of the other organizations and projects involved in ocean observations. POGO and SCOR are cooperating on development of the International Quiet Ocean Experiment and co-fund the POGO-SCOR Visiting Fellowships for Oceanographic Observations.

**Action: None.**

## **8.0 ORGANIZATION AND FINANCE**

### **8.1 Membership**

#### **8.1.1 National Committees, p. 8-1** *Urban*

The changes in Nominated Members since the 2010 General Meeting are given on **p. 8-1.**

**Action: None.**

## **8.2 Publications Arising from SCOR Activities, p. 8-5**

*Urban*

SCOR groups have been active in publishing this year, including publications in high-profile journals such as *Science* and *Nature*.

*2010 SCOR Proceedings*—The *Proceedings* was distributed in electronic form only.

SCOR Web site—The SCOR Web site is updated and checked for dead links regularly. Many historical documents from the SCOR files have been scanned and are available on the SCOR History page (<http://www.scor-int.org/history.htm>). The papers of Robert Snider (first coordinator of the International Indian Ocean Expedition) were scanned and are available on a specific page for the IIOE ([http://www.scor-int.org/IIOE\\_History.htm](http://www.scor-int.org/IIOE_History.htm)).

*SCOR Newsletter*—The SCOR Newsletter was started late in 2004, to provide more frequent updates about SCOR activities between annual meetings. Nineteen issues have been distributed so far. (All are available on the SCOR Web site.) The Newsletter is printed in hard copy occasionally for limited distribution.

**Action: Are additional changes needed to the Web site and/or the SCOR Newsletter?**

## **8.3 Finances, p. 8-6**

*Finance Committee, Urban*

The annual audit was completed in March. Elizabeth Gross worked to prepare information for the auditors. The financial records and financial controls were found to follow accepted standards. New U.S. government requirements resulted in a more expensive audit and more work for SCOR staff.

SCOR received the following new or renewal grants since the 2010 SCOR meeting:

- Three-year renewal of NSF grant to SCOR for travel of scientists from developing countries to ocean science meetings
- Second year of the three-year science grant from NSF.

**Actions: (1) Approve revised 2011 SCOR budget, (2) approve 2012 SCOR budget, and (3) approve any dues increases for 2013, as recommended by the Finance Committee.**

## **9.0 SCOR-RELATED MEETINGS**

### **9.1 SCOR Annual Meetings**

Meeting participants will consider potential locations in which to hold future meetings, particularly in nations that have not recently hosted annual meetings.

#### **9.1.1 2011 Executive Committee Meeting – Helsinki, Finland, p. 9-1**

*Fennel*

**Action: Thank hosts.**

**9.1.3 2012 General Meeting – Halifax, Canada, p. 9-1**

*Sundby*

The SCOR Executive Committee has accepted an invitation to hold the 2012 SCOR General Meeting in Halifax, Canada, during the week of 22-26 October 2012. Parts of the meeting will be held both at Dalhousie University and at the Bedford Institute of Oceanography (BIO), to help meeting participants interact with scientists from both institutions. The meeting will be held in conjunction with a 50<sup>th</sup> Anniversary symposium at BIO.

**Action: None.**

**9.1.4 2013 Executive Committee Meeting, p. 9-1**

*Fennel*

The location of the 2013 Executive Committee meeting has not yet been decided although the Executive Committee is looking for a Southern Hemisphere venue where SCOR has not met in recent years, potentially in a developing country. Discussions are underway with one nation and back-up offers have been received.

**Action: None.**

**9.1.5 2014 General Meeting – Bremen, Germany, p. 9-1**

*Fennel*

The SCOR Executive Committee has accepted an invitation to hold the 2014 SCOR General Meeting in Bremen, Germany.

**Action: None**

**9.2 Locations of Past SCOR Annual Meetings, p. 9-2**

**9.3 SCOR-Related Meetings Since the 2010 SCOR General Meeting and Planned for the Future, p. 9-3**