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## 1.1 Opening Remarks and Administrative Arrangements

### 1.1.1 Memorials for Scientists Involved with SCOR

Five men who contributed to SCOR have died in the past 18 months and the following are obituaries to recognize their contributions to oceanography.

**[Ayala-Castañares was a Nominated Member to SCOR from Mexico, co-opted member of the SCOR Executive Committee, and local host of the final Joint Oceanographic Assembly in 1988. He was also the chair of IOC.]**

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In Memoriam

**Dr. Agustín Ayala-Castañares**, a leading figure in ocean sciences in Mexico, died on November 24 [2005] at age 80 following a long illness. His undergraduate and doctoral degrees (biology) from the National Autonomous University of Mexico (UNAM) bracketed his MS degree (geology) from Stanford. He became an associate investigator at Scripps in 1968, an outgrowth of his collaboration with the late F. B. Phleger on studies of Mexican coastal lagoons. Dr. Ayala became a member of the Mexican Academy of Sciences (AMC) in 1964, serving as its vice president 1974-75. He led the growth of the Institute of Marine and Limnological Sciences (ICMyL) at UNAM and was its director from 1981-87. He was president of the Intergovernmental Oceanographic Commission from 1977-1982, in which capacity he led IOC participation in the international conferences that resulted in the UN Convention on the Law of the Sea. He and I were, respectively, the Mexican and US co-chairs of a 1999 joint AMC-NRC study of opportunities and requirements for improved US-Mexico cooperation in ocean sciences.

Anyone wishing to send a message of sympathy or remembrance should do so via one of his close colleagues at ICMyL, whose name and contact information I will provide on request.

(submitted by Bob Knox)

SCAR pays tribute to Dr Sayed El-Sayed, the Antarctic marine biologist

**Sayed El-Sayed (1926 - 2005)**

With the death of Sayed El-Sayed, Antarctic oceanography has lost one of its pioneers, and most enthusiastic supporters. Sayed was born and educated in Egypt, graduating in Zoology and Geology from the University of Alexandria in 1949, where he was also awarded an MSc in Oceanography in 1951. In 1953 he moved to the Scripps Institution of Oceanography, the leading oceanographic institution in the US, as a biologist in the Marine Life Programme, USA. His work on the English Sole populations of Saratoga Passage, Holmes Harbour and Penn Cove

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gained him a PhD from the University of Washington in 1959. He joined the staff of the Oceanography Department at College Station, Texas A & M University in 1963, and remained there until his retirement in 1997, on which he was awarded Emeritus status.

Early on in his time at Scripps, Sayed became interested in the ecology of marine phytoplankton and Antarctic marine ecosystems. From 1962 to 1967 Sayed participated in nine Argentinean cruises in the Atlantic sector of the Southern Ocean, and nine American cruises in the Pacific sector. He presented a synopsis of this work at the Second SCAR Biology Symposium held in Cambridge UK in July 1968.

A significant outcome of this SCAR meeting was the recognition of our lack of knowledge of the fundamental ecology and dynamics of the entire Antarctic marine ecosystem. Coupled with the rapidly developing Antarctic fisheries for fin-fish and krill, this gave rise to great concern.

**Following a series of international meetings, in 1976 the BIOMASS (Biological Investigation Of Marine Antarctic Systems and Stocks) Programme was formulated under the aegis of the newly formed SCAR Group of Specialists on Southern Ocean Ecosystems and their Living Resources, with support from other international bodies including SCOR, IABO and ACMRR.** The main object of the BIOMASS Programme was to gain a deeper understanding of the structure and dynamic functioning of the Antarctic marine ecosystem as a basis for the future management of potential living resources. It was a highly ambitious programme requiring the co-operation of 11 nations, standardisation of methodology and techniques, and pooling of results. To be successful it would require strong and dynamic leadership. That task was given to Sayed El-Sayed, aided by the BIOMASS Executive.

Over a ten-year period there were two multiship, multinational cruises (1981 and 1984-85) leading to 32 international workshops. The research produced an impressive number of publications in scientific journals. In addition there were 68 reports in the BIOMASS Report Series, 23 BIOMASS Handbooks, 10 volumes in the BIOMASS Scientific Series and 25 BIOMASS Newsletters. This represents an enormous scientific legacy, but arguably an even more important outcome from the BIOMASS programme was the establishment of the Commission on the Conservation of Antarctic Marine Living Resources that now controls the developing fisheries in the Southern Ocean.

That BIOMASS was so very successful owes much to the unremitting hard work of Sayed El-Sayed. His leadership was exemplary. His enthusiasm never wavered and he was ever generous with his time and support, especially to the many young scientists who were just starting their careers in oceanography. His charm and cheerfulness ensured that co-operation between scientists and nations was always total. In spite of this heavy workload Sayed maintained his own research output.

Sayed was awarded the National Science Foundation Antarctic Service Medal, and the 1985 Distinguished Service Award by the American Institute of Biological Sciences. The U.S. Board on Geographic Names named El-Sayed Glacier in recognition of his work in Antarctica. He will be remembered with great warmth and affection by all who knew and worked with him.

Submitted by *Dr R B Heywood, Director BAS 1994 - 1997*

### **Some personal reminiscences**

The start of my own research career in Antarctica, working on krill from both shore stations and the RRS John Biscoe, coincided with the BIOMASS programme. Whilst the scientific shape of the programme was set by Dick Laws in the UK and Gotthilf Hempel in Germany, it was Sayed who drove the programme forward with his dynamic running of the BIOMASS Secretariat at Texas A&M University. Infectious in his enthusiasm, it was impossible to refuse him when approached for an article in the BIOMAS Newsletter, or a talk at a meeting. The enormous success of the BIOMASS programme was due in no small way to Sayed's charismatic and charming leadership. It was testament to the enormous affection in which Sayed was held that when he presented his final talk at a SCAR Antarctic Biology Symposium, the lecture hall was filled to capacity. And Sayed did not disappoint; pacing up and down energetically, waving his arms enthusiastically, and with a characteristic disregard for the passage of time, he described his most recent work on the effect of UV radiation on Antarctic phytoplankton and received a huge ovation at the end.

In the more personal surroundings of a smaller meeting in the mountain village of Ravello on the Amalfi coast of Italy, I learned more of Sayed's background and history (between his disappearances for games of tennis, a passion for all of his active life). With a typical Arab sense of hospitality and generosity, Sayed arrived with a small present for all the partners at the meeting, and presented these with style. Sayed was immensely proud of the work he had done in Antarctica, and also in the success of the BIOMASS Programme. However he also spent considerable time working in the Middle East, and he took enormous personal satisfaction in having received medals from both Egypt and Israel for his work furthering scientific cooperation across the religious divide in that troubled part of the world. I shall remember Sayed as a warm, generous character, who always had time for the younger generation of scientists, and who was one of the founder figures of Antarctic oceanography.

*Andrew Clarke  
British Antarctic Survey, Cambridge*

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## **Sergey Sergeevich Lappo**

(27.03.1938-05.01.2006)

### **[Sergey Lappo was SCOR Vice-President from 1996 to 2000.]**

The director of P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences (IO RAS), Corresponding Member of RAS, Doctor of Physical and Mathematical Sciences Sergey Sergeevich Lappo died a sudden death at 5th January 2006. This is a great and irreplaceable loss for all of us, for the Institute and Russian Academy of Sciences.

After graduating from Moscow State University in 1960 Sergey Lappo was a post-graduate student of Vasilij Vladimirovich Shuleykin and defended a Ph.D. thesis concerning the influence of atmospheric perturbations on oceanic currents and worked at MSU Physics faculty. In 1972 he left for working at newly founded Sakhalin Integrated Scientific and Research Institute (now Sea Geology and Geophysics Institute), where later worked as assistant director and alternate director.

In 1979 Sergey Lappo defended a thesis for a Doctor's degree. In 1981 he became a head of Ocean Physics Laboratory and in 1988 the director of State Oceanographic Institute of Roscomgidromet. During those years Sergey Lappo performed his pioneer works in studying oceanic climate and interactions of ocean and atmosphere. Unique researches of all the energy conversion mechanisms in the ocean-atmosphere system were performed under his direction.

In 1993 Sergey Lappo became the assistant director and in 1995 the director of RAS Institute of Oceanology and led the Institute for last 10 years. In these hard times the Institute not just survived but became one of the most successful research centers of Russia. During these years Sergey Lappo obtained unique results in the field of Northern Atlantic circulation researches, explained the role of oceanic processes at intermediate and greater depths in global climate formation, fulfilled totally new researches of World Ocean level. New lines of investigation were created in the Institute under his direction and new researches were started in the frameworks of many state and international projects. A collective of like-minded persons united by common purposes, ideas and mutual responsibility has formed in the Institute owing to Sergey Lappo.

Sergey Lappo was a member of many international leading committees within the World Climatic Program, vice-president of the Council for studying the World Ocean SCOR, he stood at the cradle of WOCE international program and at the final conference of that program he was named among 10 people that determined its success.

Since 1995 Sergey Lappo also was the Head of the Chair of Oceanology in MSU. Keeping traditions of the creator of the Chair N. N. Zubov he taught students to love and understand the ocean, and students loved and respected him much.

Sergey Lappo was the author of more than 300 scientific works, more than 10 monographs and scientific adviser of several tens of dissertation works. He was decorated with many government awards, in recent years his work was noted by leaders of the Government of Russia. He was an encyclopedically educated man deeply knowing the nature of ocean and climate. He was a man of amazing modesty and honesty, human kindness and culture. We all knew that.

The death of Sergey Lappo is the lost past recovery for all of us. It's hard to overestimate that he has done for the Institute. Sergey Sergeevich Lappo will forever remain in memory of people that knew him.

### **OBITUARY PROF. DR. HENK POSTMA 1921 –2005**

G.C. Cadée

**[Postma was Vice President of SCOR from 1970 to 1972 and President of SCOR from 1972 to 1976.]**

On the 19th of July 2005 our former director Henk Postma passed away. With him, we have not only have lost a well-known oceanographer, but also a wise, friendly and humoristic colleague. He has had a very long connection with NIOZ. Also after his retirement in 1986, he remained active in various national and international committees and a regular visitor to the Institute, interested in its progress, but also always full of anecdotes on life at the institute in the past.

Henk Postma was born in Zwolle in the province of Overijssel, where his father worked as a typesetter. Here he received his primary and secondary school education. In 1938 he started studying chemistry at Groningen University. Here he obtained his M.Sc degree in 1946, having lost some time during the war. Like many young field biologists, but unlike most chemistry students, Postma became a member of the Dutch Youth Society for Naturalists (NJN). Members had to leave this society at the age of 23, it was (and still is) completely organized by people under that age limit. For many of its members, the NJN proved to be an important meeting place where many life-time friendships were founded and a keen interest in general field biology was fostered. This has certainly helped Postma to understand the work of his biological colleagues at NIOZ at a later stage. It also helped him to fit his chemical and hydrographical studies in one of the goals of his predecessor as NIOZ director, dr. Jan Verwey: the understanding of the ecology of the Wadden Sea.

After a brief stay at the Philips laboratory in Eindhoven, Verwey selected Postma to work for a PhD study on the chemistry and hydrography of the Wadden Sea. Postma started work at the Zoological Station in Den Helder in 1947. The Zoological Station changed its name to 'Netherlands Institute for Sea Research' (NIOZ) in 1961. Postma's thesis *Hydrography of the*

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*Dutch Wadden Sea* (1954) is still a benchmark paper on the Wadden Sea. Published in the *Archives Néerlandaises de Zoologie* (10: 405-511), it first remained somewhat obscure. However, his Wadden Sea work became better known after he contributed a chapter to Lauff's well-known book *Estuaries* (1967), which was based on Postma's hydrographic studies in the Wadden Sea and in several other estuaries since. This 1967 paper became probably his most cited one (see NIOZ Annual Report 2001: 79-81). His thesis is still important, as it gives data for nutrients in the Wadden Sea before real eutrophication (*i.e.* the enrichment of nitrogen and phosphate by man's activities) started in the nineteen seventies. It also indicated why the Wadden Sea was already a rich area for bivalves (cockles, mussels), fish and birds before the years of heavy eutrophication. Postma's work showed that the Wadden Sea acts as a trap for suspended particles including phytoplankton and detritus, entering from the North Sea through the tidal inlets. He observed that, particularly during summer, much of this imported organic matter was mineralized in the Wadden Sea and that the liberated nutrients were either directly taken up by (micro)algae in the Wadden Sea or exported to the coastal North Sea. No wonder Postma and his long-time assistant Joop Rommets also carried out the first measurements on primary production activity in the Wadden Sea already in the early 1960s.

Postma continued studies in the Wadden Sea, e.g. on suspended matter, in which simple apparatus were his favourites, such as the Secchi-disc and his own water sampler. This Postma water sampler was much better adapted to collect suspended matter than those available before that time. He also went abroad studying sediments and sedimentary processes in the Gulf of Paria in front of the Orinoco river together with Tj. H. van Andel in 1952-'53. In 1954 he did research with K. Kalle in the Elbe estuary on the turbidity maximum also caused by the trapping mechanism for particles he had observed earlier in the Wadden Sea. With P. Korringa from the Netherlands Institute for Fisheries Research (RIVO) in IJmuiden, he studied the fertility of the water of the Gulf of Naples in 1954. With scientists from Delft Hydraulics Laboratory he investigated coastal erosion in British Guyana in 1960. In 1962 he spent a full year at Scripps Institution of Oceanography in La Jolla, California, an excellent place to enlarge his oceanographic knowledge and meet interesting colleagues. His studies on the uptake of CO<sub>2</sub> by the ocean were stimulated here by contacts with C.D. Keeling and resulted in a paper in 1964 in which the fundamentals for the exchange of oxygen and carbon dioxide between ocean and atmosphere were established (See NIOZ Annual Report 2004: 91-95). This was published in the *Netherlands Journal of Sea Research* (2: 258-283), of which Postma was one of the founders in 1961. He was its editor-in-chief from 1961-1969 and from 1970-1984 one of its editors. In this way he helped to develop the multidisciplinary character of marine sciences in The Netherlands. In 1986, this Journal dedicated a special volume to Postma with 22 invited papers on physical, chemical, geological and biological aspects of the marine environment; all fields in which Postma had shown his interest and published himself.

Postma became NIOZ director after the retirement of Jan Verwey in 1965. The rules of the Dutch Zoological Society (NDV) as the founding organisation of our Institute required that he should share this position with a biologist. From 1971, dr. Jenne Zijlstra became Postma's

biological counterpart. Postma and Zijlstra proved to be an excellent team, where Zijlstra added his management capacities, which had not really Postma's interest. Under their combined leadership of some 15 years, NIOZ flourished: its staff increased from 60 to 160 employees. Between 1969 and 1977, a new institute was built on Texel on the other side of the 'Marsdiep'. NIOZ expanded its scientific work from the coastal regions to all over the world's oceans, culminating in the Snellius-II expedition in Indonesian waters in 1984-'85, in which both directors were active as organisers as well as cruise leaders. Under the directorship of Postma and Zijlstra, NIOZ became a true globally active oceanographic institution. Postma was mainly interested in fundamental research, and he believed that the scientists themselves were the best to judge what was scientifically most important. This was reflected in the freedom NIOZ scientists had at that time to select their own research topics. This does not imply that NIOZ in general and Postma himself did not participate in applied research (e.g. on the already mentioned coastal erosion with Delft Hydraulics). Under Postma's directorship, the department 'Marine Pollution', with Jan C. Duinker as the head of department, started studying the fate and effects of the highly toxic PCB's and trace metals, dumping of radioactive waste in the deep sea (DORA-project) and the effects of the organic-rich potato-industry waste effluent on the ecosystem of Ems-Dollard estuary. For this project, the BOEDE group of scientists was appointed and their studies resulted in a mathematical ecosystem model that was also applied on the Western Wadden Sea and the North Sea. This group was lead by dr Piet de Wolf.

In 1963 Postma was appointed as professor in physical and chemical oceanology in the geology department of the University of Groningen. Between 1963 and 1991, 16 students wrote their PhD thesis under his guidance. In 1975 he became member of the Royal Netherlands Academy of Arts and Sciences (KNAW). Based on his wide expertise in many fields of oceanography, he has served in many National and International Councils. He was *i.a.* 10 year chairman of the Netherlands Committee for Sea Research and he advised the Dutch government on matters of marine pollution, Wadden Sea management and possible effects of increased CO<sub>2</sub> production and many other subjects.

Internationally, Postma has been active in SCOR (Scientific Committee on Oceanographic Research), many years he served in its Executive Council and was SCOR's president from 1973-1975. He was member of the national UNESCO -committee for oceanographic affairs and had many contacts in UNESCO and the International Oceanographic Committee (IOC). After his retirement he played a leading role in designing the worldwide IGBP-LOICZ project (Land-Ocean Interaction in the Coastal Zone), in the planning committee (1991-'92) and as member of its scientific steering committee (1993-'95). Postma facilitated support of the Dutch Government and promoted establishment of the LOICZ headquarters at NIOZ on Texel. Sadly in the same year of Postma's death, LOICZ headquarters had to leave NIOZ after ten years and moved to the GKSS Research Centre in Geesthacht, Germany.

Till the end of his life Postma remained highly interested in oceanography in general and the role of his former institute in particular. He has been a very stimulating teacher for many of us, with a keen eye for the main lines in research, able to do the most interesting observations with simple



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apparatus and to base his conclusions on back-of-the-envelope calculations. On the other hand, he stimulated growth of research at NIOZ by offering possibilities to keep its facilities up to date. With Henk Postma, our country has lost one of its most important oceanographers.

On the central pages of our 2004 annual report, Prof. Hein de Baar summarized the valuable contributions of Henk Postma to the early scientific work in his 40 years old publication (1964) on the uptake by the sea of carbon dioxide from fossil fuel burning. For this reason, the first copy of last year's annual report was handed over to Henk Postma by Hein during a coffee celebration in the NIOZ canteen. Henk Postma used this opportunity to tell his successors some humoristic anecdotes about his personal experiences in sea research, highlighting the contrasts with modern practise.

## **IN MEMORIAM**

### **ÜMIT ÜNLÜATA**

**Head, Ocean Sciences Section**

**Intergovernmental Oceanographic Commission (IOC)**

**United Nations Educational, Scientific and Cultural Organization**

It is with great sadness that I inform you of the death of our colleague and friend ÜMIT ÜNLÜATA, last Saturday 12 of August of 2006, in Paris, France. Umit had been ill the last several months, and despite of very good signs of recovery, he finally was defeated by a very aggressive liver problem.

Umit was born in Gaziantep, Turkey the 23 of June 1945. He obtained his Ph. D in Fluid Dynamics from MIT in 1973, and after an extended service at MIT he returned to Turkey where after a long career in 1987 became full Professor at the Middle East Technical Unviveristy. His professional interest covered many areas including Thermal Discharges, Mass Transport by Gravity Waves, Non-Linear Shallow Water Waves, Long Wave Excitation in Harbors, Harmonic Distortion of Long Waves Past a Narrow Opening, Weakly Non-Linear Internal Waves, Off-Shore Nuclear Power Plants.

He was an active contributor to the Mediterranean oceanographic community with works in Tsunamis in the Eastern Mediterranean, Continental Shelf Dynamics, Topographic Rossby Waves in the Cilician Basin, Resonant Tuning of Inertial Oscillations by Sea-Breeze along the Southern Turkish Coast, Mean Circulation on the Continental Shelf, Dynamics of Bosphorus-Sea of Marmara-Dardanelles, Meso-Scale Ocean Dynamics of the Levantine, Interactions of the

Bosphorus with and the Ventilation of the Black Sea, Dynamics of the Black Sea and Interactions with the Anatolian Coast, Ecohydrodynamics of the Black Sea.

In 1994 in recognition of his long career he received the "Mediterranean Prize" award of the Community of Mediterranean Universities.

Umit came to UNESCO-IOC in 1998, serving first as Head of the Marine Pollution Unit (1998-99), and then since 1999, as Head of the Ocean Sciences Section. He served in numerous national and international scientific committees, among them:

- Member, Executive Committee for "National Council For Oceanography" (1984-).
- Member, Executive Group For Environmental and Marine Sciences, Scientific and Technical Research Council of Turkey (1985-1987, 1991-1994).
- Vice President, Physical Oceanography Committee, International Commission for the Scientific Exploration of the Mediterranean (1984-1988).
- President, Physical Oceanography Committee, International Commission for the Scientific Exploration of the Mediterranean (1988-1992).
- Member, Steering and Executive Committee of the Cooperative Marine Science Program for the Black Sea (1991-1996).
- Co-Chairman, Steering and Executive Committee of the Cooperative Marine Science Program for the Black Sea (1996-).
- Director, NATO Science for Stability Program TU-Black Sea Project (1993- ).
- Member, Turkish Committee for SCOR (Scientific Committee on Oceanic Research) (1993- ).
- Editor, Journal of Marine Systems (1997- ).
- Scientific and Technical Research Council of Turkey (TUBITAK) Coordinator, National Marine Science Program (1997- ).

He was a close friend and collaborator, frank, and direct with his comments and views. He will be sadly missed.

Paris, 14 of August 2006.

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## 1.2 Approval of the Agenda (see the following)

### XXVIII<sup>th</sup> SCOR GENERAL MEETING

Hotel El Auracano  
Concepción, Chile

23-26 October 2006

#### ANNOTATED AGENDA

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#### 1.0 OPENING

- 1.1 Opening Remarks and Administrative Arrangements** *Sundby, Urban*
- 1.2 Approval of the Agenda** *Sundby*  
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** *Sundby*  
The President will briefly review activities since the SCOR Executive Committee Meeting in September 2005 in Cairns, Queensland, Australia.
- 1.4 Report of SCOR Executive Director** *Urban*
- 1.5 Appointment of an *ad hoc* Finance Committee** *Sundby*  
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 Finance Committee reviews the administration of SCOR finances during the previous fiscal year and the current year and will propose a budget for 2006 activities. The Committee will report to the meeting under agenda item **8.3**.
- 1.6 *Ad hoc* Committee to Review the Disciplinary Balance of SCOR's Activities** *Sundby*  
The Executive Committee meeting in 1999 agreed that at future SCOR meetings, after the consideration of working group proposals is complete, the current disciplinary balance of SCOR groups should be assessed. Scientific gaps should be identified and communicated to national

committees when the next request for working group proposals is sent.

**Action: Approve a Disciplinary Balance Committee**

## **1.7 Results of Elections for SCOR Officers**

*Duce*

**Action: Congratulate new officers!**

## **2.0 WORKING GROUPS**

### **2.1 Disbanded Working Groups**

#### **2.1.1 WG 78—Determination of Photosynthetic Pigments in Seawater** *Urban*

SCOR approved funds in 2005 for a meeting to scope out a Volume 2 of the book *Phytoplankton Pigments in Oceanography*. The meeting was held at the International Atomic Energy Agency (IAEA) in Monaco in April 2006. The meeting yielded an outline for Volume 2 and a budget for the activity, estimated at \$30,000 (see p. 2-2 for meeting report). The SCOR Executive Committee instructed the authors to proceed. Funding is being sought and partial funding will be provided by the IAEA and the University of Quebec. A proposal has been prepared for NASA.

**Action: Identify additional potential sources of funding.**

### **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. 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 2006 activities of working groups that request funds. The Finance Committee will take into account the recommendations of the Executive Committee as it develops the 2007 SCOR budget, which is then subject to final approval by the meeting.

#### **2.2.1 WG 111—Coupling Winds, Waves and Currents in Coastal Models** *Wainer*

The group is developing a book entitled *Coupled Coastal Wind-Wave-Current Dynamics*, which is scheduled to be sent to Cambridge University Press for printing around 1 September 2006.

**Action: None**

#### **2.2.2 WG 115—Standards for the Survey and Analysis of Plankton** *Pierrot-Bults*

The group held its final meeting in May 2006 in Plymouth, UK at the Sir Alistar Hardy Foundation for Ocean Sciences and group members plan a series of papers for a special issue of the *Journal of the Marine Biological Association of the U.K.* The deadline for papers to be submitted is the end of 2006 and publication is expected in 2007.

**Actions: Determine whether to add term of reference for WG 125 (see p. 2-27 and 2-28).**

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## **2.2.3 WG 116—Sediment Traps and <sup>234</sup>Th Methods for Carbon Export Flux Determination**

*Labeyrie*

The group held an editorial meeting in Honolulu, Hawaii, USA in February 2006, after which it submitted a major paper to the *Journal of Marine Systems* and is awaiting news of the paper's acceptance. SCOR approved the group's request in 2005 for extra funding for color figures in the publication and for reprints.

**Action: None**

## **2.2.4 SCOR/IOC WG 119—Quantitative Ecosystems Indicators for Fisheries Management**

*Taniguchi*

The SCOR Executive Committee (and IOC) approved a change in the focus of the group's final workshop, to "Comparing ecosystem dynamics in a global climatic context using meta-data analyses and ecosystem-based indicators: Increasing biological turnover rates in marine ecosystems. The workshop will be held in Sète, France or Casablanca, Morocco in November 2006

**Actions: None**

## **2.2.5 WG 120—Marine Phytoplankton and Global Climate Regulation: The *Phaeocystis* Species Cluster As Model**

*Hall*

The group convened its symposium in September 2005 as their final meeting. The papers from the meeting will be published in a special issue of the journal *Biogeochemistry*.

**Action: None.**

## **2.2.6 SCOR/IAPSO WG 121—Ocean Mixing**

*Akulichev*

The group's special issue of *Deep-Sea Research II* was published in early 2006 and distributed to all symposium participants. The final meeting of the group will be held in conjunction with the 2007 IUGG General Assembly, where there will also be a special session on this topic. The purpose of the final WG meeting is to focus on how well the group has met its goals, revisit the recommendations published in the *Deep-Sea Research* special issue, discuss plans for a series of Gordon Research Conferences on ocean mixing, and address any other issues that might be seen as bearing on the group's goals or legacy. A primary goal of this final meeting will be to discuss and outline a brief final report to be submitted for publication in a suitable journal such as *EOS*, *Oceanography* magazine, or the *Bulletin of the American Meteorological Society*.

**Action: Consider funding for 2007 meeting.**

## **2.2.7 SCOR/LOICZ/IAPSO WG 122—Estuarine Sediment Dynamics**

*Labeyrie*

This group is planning a meeting in 2007. More details will be available in their annual report to SCOR, when received.

**Action: Decide whether to approve request for funding for 2006 meeting.**

### 2.2.8 SCOR/IMAGES WG 123—Reconstruction of Past Ocean Circulation (PACE)

*Labeyrie*

The group held a conference on their topic in Atlanta, Georgia, USA in March 2005, bringing together physical oceanographers and paleoceanographers. They held their final meeting in Paris in April 2006 to prepare their summary document. A special issue on Past Ocean Circulation for the AGU publication, *Geochemistry, Geophysics, Geosystems (G-cubed)* will publish the papers that were presented at the 2005 workshop as well as related papers on the subject. Working group members Jean Lynch-Stieglitz, Olivier Marchal and Catherine Kissell are serving as guest editors for the publication, which is now closed for new submissions, and most of the papers are in the review process and should appear in 2006.

**Action: Consider request for one co-chair to travel to other co-chair's location to work on the special issue.**

### 2.2.9 SCOR/IMAGES WG 124— Analyzing the Links Between Present Oceanic Processes and Paleo-records (LINKS)

*Wainer*

The group is planning an international workshop on 20–24 November 2006, in Delmenhorst, Germany, as its final meeting. The group is preparing a series of 5 manuscripts that mainly target understanding the changes in ocean productivity and the connection to the recorded signal at the seafloor. The papers are designed to review the present state of the art in modern ocean process studies and in paleoceanography as well as to give recommendations for future studies. The main goal of the international workshop is the discussion of these manuscripts to finalize them for publication in a peer-reviewed journal (potentially *Global Biogeochemical Cycles*). It is planned to submit the papers in January 2007.

**Action: None.**

### 2.2.10 WG 125—Global Comparisons of Zooplankton Time Series

*Pierrot-Bults*

The group held its first meeting in Silver Spring, Maryland, USA in November 2005. Their next meeting is planned for Lima, Peru in association with the International Conference on the Humboldt Current System: Climate, ocean dynamics, ecosystem processes, and fisheries (Nov. 27-Dec. 1 2006). (The group had planned to hold a meeting in April 2006, but needed more time between meetings to advance their work.) The group is making good progress in bringing together zooplankton data from around the world. The NOAA National Marine Fisheries Service will commit funds to bring more participants (and data) into the process, such as Aljona Arashkevich (Russia), a new Associate Member approved this year.

**Action: Consider funding for 2007 meeting.**

### 2.2.11 WG 126—Role of Viruses in Marine Ecosystems

*Hall*

The second meeting of the group was held in Victoria, B.C., Canada in conjunction with the ASLO summer meeting in June 2006, and in conjunction with a Workshop on Methods in Virus

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Ecology in Marine Systems. They are still deciding on the location and timing for their 2007 meeting.

**Action: Consider funding for 2007 meeting.**

## **2.2.12 SCOR/IAPSO WG 127 on Thermodynamics and Equation of State of Seawater**

*Imawaki*

This group met for the first time in Warnemunde, Germany in May 2006. It plans its next meeting for Italy during the week of 7-11 May 2007. At its first meeting, the group spent four days working through the 21 specific issues listed in its Terms of Reference. A set of position papers had been prepared previously by several members of the working group. Progress was made on each item, with milestones constructed for work to be completed by a series of dates leading up to their 2007 meeting.

**Action: Consider funding for 2007 meeting.**

## **2.2.13 WG 128 on Natural and Human-Induced Hypoxia and Consequences for Coastal Areas**

*Duce*

This group met for the first time in Vienna, Austria in conjunction with the European Geophysical Union meeting in April 2006. At this meeting, the group discussed how to fulfil its terms of reference and developed a list of potential review papers and original research papers. The group plans to publish a subset of these papers in an EGU Open access journal such as *Biogeosciences* or *Advances in Geosciences*, so that papers can be published as they are accepted, and later collated into a special issue. The group plans to meet next in Shanghai, China, in conjunction with a workshop on continental margins science being planned by IMBER and LOICZ for September 2007. LOICZ will provide a password-protected section of their Web site to allow working group members to share draft documents.

**Action: Consider funding for 2007 meeting.**

## **2.3 New Working Group Proposals**

Seven working group proposals were received by the SCOR Secretariat. SCOR can fund two new working groups to begin in 2007.

### **2.3.1 Working Group on Deep Ocean Exchanges with the Shelf**

*Wainer*

**Action: Determine whether to approve as new SCOR working group.**

### **2.3.2 Working Group on Automatic Plankton Visual Identification**

*Hall*

**Action: Determine whether to approve as new SCOR working group.**

- 2.3.3 Working Group to coordinate the availability of a world register of marine species (WoRMS)** *Pierrot-Bults*  
**Action: Determine whether to approve as new SCOR working group.**
- 2.3.4 Working Group on The Legacy of in situ Iron Enrichments: Data Compilation and Modelling** *Duce*  
**Action: Determine whether to approve as new SCOR working group.**
- 2.3.5 Working Group on Ocean Time Series: Coordination and Integration of Science Objectives, Methods, Databases and Capacity-Building Efforts** *Imawaki*  
**Action: Determine whether to approve as new SCOR working group.**
- 2.3.6 Working Group on Tsunamis: Examination, Modeling and Risk Estimation (2007-2010)** *Labeyrie*  
**Action: Determine whether to approve as new SCOR working group.**
- 2.3.7 Working Group on the Role of Lanternfish in the Ocean** *Taniguchi*  
**Action: Determine whether to approve as new SCOR working group.**

### 3.0 LARGE-SCALE SCIENTIFIC PROGRAMS

- 3.1 SCOR/IGBP/IOC Global Ocean Ecosystems Dynamics (GLOBEC) Project** *Field, Sundby*  
 GLOBEC held its 2006 SSC meeting in Honolulu, Hawaii, USA, in conjunction with a PICES/GLOBEC Symposium on “Climate variability and ecosystem impacts on the North Pacific: a basin-scale synthesis.” The next GLOBEC SSC meeting will be held in May 2007 in Hiroshima, Japan, in conjunction with the 4th International Zooplankton Symposium. GLOBEC continues its integration and synthesis activities to work toward its completion at the end of 2009. GLOBEC and IMBER are working together on an activity on end-to-end food webs and will be developing a transition team in 2007 to identify aspects of GLOBEC that IMBER might take on after GLOBEC ends.  
**Action: None.**
- 3.2 SCOR/IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Program** *Hall*  
 GEOHAB has completed its series of focused open science meetings to create research plans for its four Core Research Project, on (1) HABs in Upwelling Systems (in Lisbon, Portugal), (2) HABs in Fjords and Coastal Embayments (in Viña del Mar, Chile), (3) HABs and Eutrophication (Baltimore, Maryland, USA) and (4) HABs and Stratification (Paris, France). The research plans for the first and third of these Core Research Projects have been completed



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and subcommittees have been formed to advance the Core Research Projects. NOAA will be providing funding for the Core Research Project on Eutrophied Systems. The next SSC meeting will be held in Tokyo, Japan in March 2007, in conjunction with a meeting of Asian HAB scientists designed to encourage their participation in GEOHAB. GEOHAB still needs an International Program Office.

**Action: Consider SSC members.**

### 3.3 SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project

*Hall, Duce*

The IMBER SSC met in May 2006 in Brest, France to discuss implementation activities. The IMBER IPO in Brest is fully functional (with three staff members) and has established a newsletter, redesigned the IMBER Web site, and has worked with other IPOs on cooperative activities. IMBER and GLOBEC are working together on the end-to-end food webs topic and IMBER and SOLAS are working together on ocean carbon research. IMBER and LOICZ are planning a joint open science meeting on coastal margin science and have requested funding for scientists from developing countries and countries with economies in transition to attend.

**Action: Consider new SSC members.**

### 3.4 GEOTRACES Planning Committee

*Duce*

The revised *GEOTRACES Science Plan* was approved by SCOR and was published in September 2006. The GEOTRACES SSC have been approved by the Executive Committee. The SSC tentatively plans to hold its first meeting in December 2006 after the American Geophysical Union meeting in San Francisco.

**Action: None.**

### 3.5 SCOR/IGBP/WCRP/CACGP Surface Ocean-Lower Atmosphere Study

*Labeyrie*

SOLAS has now completed detailed research plans for each of its focus areas. It plans its second open science meeting in Xiamen, China in March 2007 and also is planning its third summer school for 2007 (see <http://www.solas-int.org/>). SOLAS and IMBER have created a cooperative research activity related to ocean carbon and have formed a working group to guide the activity and to interact with IOCCP.

**Action: Consider new SSC members.**

### 3.6 Land Interactions in the Coastal Zone (LOICZ) Project

*Hall*

The 2002 SCOR General Meeting agreed to co-sponsor the elements of LOICZ related to coastal ocean science, pending development of financial support for LOICZ. SCOR has not yet been able to develop funds to assist LOICZ, but has provided travel grants for two LOICZ meetings, and may provide extra funds for the IMBER/LOICZ continental margin research conference.

**Actions: Discuss potential cooperative joint activities and funding sources.**

## 4.0 OCEAN CARBON AND OTHER ACTIVITIES

### 4.1 IOC/SCOR International Ocean Carbon Coordination Project (IOCCP) *Urban*

IOCCP has been very active and has convened three workshops since the 2005 SCOR meeting, the International Repeat Hydrography and Carbon Meeting (November 2005), the North Atlantic Synthesis workshop (June 2006), and the Friends of Oxygen on Argo and workshop (June 2006). IOCCP is also assisting SOLAS and IMBER in putting together workshops related to their ocean carbon activities. NSF is funding 1+ positions at IOC for IOCCP and is providing activity funding through SCOR.

**Action: None**

### 4.2 SCOR-IOC International Symposium on “The Ocean in a High-CO<sub>2</sub> World” *Duce*

A special section of the *Journal of Geophysical Research—Oceans* was published with the papers from this symposium in early 2006. SCOR, IOC, and IGBP have agreed to convene a second symposium, probably in 2008, and a planning committee is being formed. The planning committee will meet later in 2006 or early 2007.

**Action: Identify potential new sources of funding.**

### 4.3 Other Activities

#### 4.3.1 SCOR Summit of International Marine Research Projects *Burkill, Sundby, Urban*

SCOR obtained funding from the Alfred P. Sloan Foundation to convene a second meeting of representatives of the major large-scale ocean research projects, both SCOR-sponsored and others. The meeting will be held in London, England on Dec. 7-9, 2006 and will be co-chaired by Peter Burkill (UK) and Bjørn Sundby (Canada). The meeting will be preceded by a one-half day session convened by CLIVAR as a planning session for a workshop focused on getting climate data (and scientists) from CLIVAR into other projects.

**Actions: None**

#### 4.3.2 Panel on New Technologies for Observing Marine Life

*Pierrot-Bults*

The second meeting of the panel was held in Frankfurt, Germany in November 2006, in conjunction with the Census of Marine Life's All Project meeting (see report on p. 4-29). The panel has established a Web site ([www.scoml.org](http://www.scoml.org)) and is working on improving interactions with Census of Marine Life (CoML) projects. It will meet next in Kobe, Japan in conjunction with Techno-Ocean 2006 and an international conference of the CoML program's Natural Geography in Shore Areas (NaGISA) project. The Panel will convene a special session at the Techno-Ocean meeting to attract technology companies to work on CoML-related issues. The special session will focus on applications of electronic tags and autonomous undersea vehicles to CoML projects. In 2006, the SCOR Executive Committee approved Alex Rogers (UK) to be the panel's vice-chair.

**Action: None**

#### 4.3.3 SOLAS/INI Workshop on Anthropogenic Nitrogen Impacts on the Open Ocean

*Duce*

The International Nitrogen Initiative (INI) is an activity designed to develop a coordinated plan to understand nitrogen cycling for the world's continental regions and their coastal margins. SCOR approved funding at its 2005 meeting for a joint INI-SOLAS workshop (17-20 November 2006 in Norwich, UK) on the current understanding of the potential for changes in open ocean health due to human alteration of the marine nitrogen cycle, either directly or indirectly. The goal of this workshop is to bring together a group of international experts to evaluate the effects of atmospheric inputs of anthropogenic nitrogen on the open ocean environment and to produce a major synthesis paper for *Science* or *Nature* and additional papers for more specialized journals. Robert Duce (USA) and Julie la Roche (Germany) are co-chairing this activity. SCOR, SOLAS, and NOAA are providing financial support for this meeting.

**Action: None**

## 5.0 CAPACITY-BUILDING ACTIVITIES

### 5.1 SCOR Committee on Capacity Building

*Urban*

The SCOR Executive Committee has considered how to advance all of its capacity-building activities and whether to form a committee on capacity building. The proposed terms of reference and membership of this committee will be discussed at the SCOR meeting in Chile. SCOR will hold a planning meeting with POGO and IOC representatives in September 2006 to discuss a large proposal that would cover activities of interest to all three organizations.

**Actions: (1) Approve terms of reference of committee and (2) discuss and approve membership of committee.**

## 5.2 Regional Graduate Schools of Oceanography and Marine Environmental Sciences

*Urban*

This activity is still unfunded. The SCOR Secretariat will propose funding for a regional meeting in Southeast Asia to advance plans for that region. SCOR will cooperate with Canadian scientists to plan a similar meeting for South Asia, in Sri Lanka, funded by the Canadian International Development Agency (CIDA). Plans are being made for this meeting, pending stabilization of the security situation there.

**Action: Discuss funding for a regional meeting in Southeast Asia.**

## 5.3 POGO-SCOR Visiting Fellowships for Oceanographic Observations

*Urban*

A record number of applications (42) was received for this program in 2006. POGO and SCOR awarded 9 fellowships.

**Action: Consider whether to provide funding in 2007.**

## 5.4 NSF Travel Support for Developing Country Scientists

*Urban*

SCOR is at the beginning of the second year of a three-year grant received from the U.S. National Science Foundation 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, including the

- GLOBEC/SPACC workshop on "Image analysis to count and identify zooplankton"
- Third International Conference on the Oceanography of the Ross Sea
- Sessions at the PICES XIV and XV annual meetings
- POGO-SCOR Fellowships
- PICES/GLOBEC symposium on "Climate variability and ecosystem impacts on the North Pacific: A basin-scale synthesis"
- 4th International Symposium on Biological & Environmental Chemistry of DMS(P) and Related Compounds
- 36th COSPAR Scientific Assembly
- Atlantic Meridional Transect: Atlantic Ocean Biogeochemistry and Biodiversity
- Satellite Oceanography 2006
- 12th International Conference on Harmful Algae
- First IGBP-SCOR FTI Workshop on "Ocean Acidification - modern observations and past experiences"
- Workshop on Sustained Indian Ocean Biogeochemical and Ecological Research (SIBER)

**Action: Consider new requests.**

**5.5 SCOR Reports to Developing Country Libraries***Urban*

The SCOR Secretariat distributed four reports to developing country libraries since the 2005 SCOR meeting: (1) reprint of *Phytoplankton Pigments in Oceanography*, (2) the *IMBER Science Plan and Implementation Strategy*, (3) the GEOHAB Core Research Project on Harmful Algal Blooms in Upwelling Systems, and (4) the special section of *Journal of Geophysical Research—Oceans* on The Ocean in a High-CO<sub>2</sub> World.

**Action: None****5.6 ICSU Priority Area Assessment on Capacity Building***Urban*

The committee conducting the ICSU Priority Area Assessment on Capacity Building issued a final report in 2006. Copies of this report will be available at the meeting. It also is available at [http://www.icsu.org/Gestion/img/ICSU\\_DOC\\_DOWNLOAD/928\\_DD\\_FILE\\_ICSU\\_PAA\\_Cap\\_Building.pdf](http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/928_DD_FILE_ICSU_PAA_Cap_Building.pdf).

**Action: None****6.0 RELATIONS WITH INTERGOVERNMENTAL ORGANIZATIONS****6.1 Intergovernmental Oceanographic Commission***Bernal, Sundby*

Bjørn Sundby and Ed Urban attended the IOC Executive Council in June 2006 to represent SCOR. SCOR and IOC cooperate on several different activities, as listed on **p. 6-1**.

**Action: None****6.1.1 Global Ocean Observing System (GOOS)***Field, Sundby, Hall*

Bjørn Sundby attended the GOOS Scientific Steering Committee in 2006 and discussed the role of SCOR in GOOS management with ICSU representatives. The project summit discussed under agenda **item 4.3.1** will include a discussion of the interactions between GOOS and the major international ocean research projects.

**Action: Discuss potential SCOR actions in relation to GOOS.****6.2 Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)***Duce, Huber*

Significant steps were made in the last year toward implementing the recently developed strategic vision for the “New GESAMP”. GESAMP’s sponsoring organizations (UN, UNEP, FAO, UNESCO-IOC, WMO, IMO, and IAEA) have not yet signed a revised Memorandum of Understanding (MOU) to implement the strategic vision, but have agreed that many elements of the New GESAMP can be implemented under the existing MOU.

**Action: Discuss potential new SCOR interactions with GESAMP**

**6.3 North Pacific Marine Science Organization (PICES)***Akulichev*

PICES conducts several activities that are relevant to SCOR interests and that implement SCOR activities in the North Pacific region. Julie Hall will represent SCOR at the October 2006 PICES meeting in Japan.

**Action: Consider requests for developing country scientist travel support.**

**7.0 RELATIONS WITH NON-GOVERNMENTAL ORGANIZATIONS****7.1 International Council for Science***Sundby, Urban*

ICSU has continued its development of regional offices, in Africa, Southeast Asia, and South America so far. SCOR sent a representative (John Compton) to the Second Regional Consultative Forum of the African region, in September 2006. SCOR also was invited to send representatives to other regional meetings, but did not do so. The SCOR Executive Committee is discussing what level of involvement to pursue in relation to the regional centers.

**Action: None**

**7.1.1 International Geosphere-Biosphere Program (IGBP)***Balino*

Ed Urban attended the IGBP Science Committee meeting in Pune, India in March 2006 to represent SCOR. Julie Hall also attended at IGBP's expense as the IMBER SSC chair and Bob Duce attended as the IGBP Treasurer. SCOR and IGBP staff members have ongoing discussions in relation to co-sponsored projects. The PAGES project of IGBP is leading an IGBP/SCOR Fast-Track Initiative on "Atmospheric CO<sub>2</sub> and ocean biogeochemistry: modern observations and past experiences", which will hold its first meeting in Palisades, New York, USA on Sept. 28-30, 2006.

**Action: Determine which SCOR decisions need to be transmitted to IGBP for comment and joint action, particularly in relation to approvals of SSC members for joint projects.**

**7.1.2 World Climate Research Programme (WCRP)***MacCracken*

WCRP is co-sponsoring the SOLAS project and SCOR projects are working well with CLIVAR, the part of WCRP most relevant to SCOR. Mike MacCracken attended the WCRP meeting in Goa, India in March 2006 (see his report starting on **p. 7-16**). CLIVAR is one of the projects invited to the SCOR Project Summit in December 2006, and CLIVAR will take advantage of this meeting to hold a planning meeting on Applications of Climate Information to Marine Research Projects (the title is still being discussed).

**Action: Discuss any new interactions that SCOR should initiate with WCRP.**

**7.1.3 Scientific Committee on Antarctic Research (SCAR)***Hall*

SCAR and SCOR are co-sponsoring a joint Expert Group on Oceanography, which met in conjunction with the 2006 SCAR Annual Meeting in Hobart, Tasmania, Australia in July 2006. The report from SCAR on **p. 30** and following details many other existing SCOR-SCAR

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cooperative activities.

**Actions: (1) Consider 2007 funding for the Expert Group on Oceanography and (2) consider recommendations of the Expert Group.**

## **7.1.4 Scientific Committee on Problems of the Environment (SCOPE)**

*Sundby, Pierrot-Bults*

Bjørn Sundby and Annelies Pierrot-Bults will represent SCOR at the October 2006 SCOPE Executive Committee meeting. (Pierrot-Bults is an officer of SCOPE, so SCOR does not pay her travel expenses to the meeting.) SCOR will participate with SCOPE and IAPSO in the PACKMEDS activity.

**Action: Discuss any new interactions that SCOR should initiate with SCOPE.**

## **7.2 Affiliated Organizations**

### **7.2.1 International Association for Biological Oceanography (IABO)**

*Pierrot-Bults*

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

### **7.2.2 International Association for Meteorology and Atmospheric Sciences (IAMAS)**

*MacCracken*

IAMAS, as an association of IUGG, will meet next at the IUGG General Assembly in Perugia, Italy.

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

### **7.2.3 International Association for the Physical Sciences of the Oceans (IAPSO) *Imawaki***

SCOR and IAPSO are currently co-sponsoring WG 121 on Ocean Mixing, WG 122 on Estuarine Sediment Dynamics (with LOICZ), and WG 127 on Thermodynamics and Equation of State of Seawater.

**Action: Discuss other potential areas of interaction with IAPSO.**

## **7.3 Affiliated Programs**

The benefit of continued affiliation to SCOR is evaluated at each General Meeting. All of these programs have been invited to send representatives to the project summit sponsored by SCOR in December 2006. SCOR is using the project summits to help (among other benefits) the affiliated projects interact with other large-scale ocean research projects; there is no other forum for this interaction to take place.

**7.3.1 Applications for New Affiliated Programs: InterMARGINS***Labeyrie*

InterMARGINS applied for affiliation to SCOR in 2005. The application was discussed and approved, pending clarification of the membership fee structure, to make it more feasible for developing countries to participate.

**Action: Review response of InterMARGINS to SCOR request.**

**7.3.2 Census of Marine Life (CoML)***Taniguchi*

The Census of Marine Life is progressing rapidly and now has 14 field projects underway. SCOR's Panel on New Measurement Technologies for Observing Marine Life is a scientific advisor to the CoML projects.

**Action: None**

**7.3.3 International Antarctic Zone (iAnZone) Program***Wainer*

iAnZone was requested to make a presentation at the SCOR General Meeting in Chile, but their limited funding made this impossible. iAnZone will, however, meet in conjunction with the meeting in Bergen in August 2007 with which SCOR will also meet, so iAnZone will be able to make a presentation to SCOR next year.

**Action: None**

**7.3.4 International Marine Global Changes Study (IMAGES)***Schneider, Labeyrie*

SCOR and IMAGES are co-sponsoring WG 123 on Reconstruction of Past Ocean Circulation and WG 124 on Analyzing the Links Between Present Oceanic Processes and Paleo-Records.

**Action: None**

**7.3.5 InterRidge - International, Interdisciplinary Ridge Studies***Devey, Labeyrie*

Ed Urban published an article about SCOR in InterRidge News (see following **p. 7- 86**), which is only on-line now, but will be published in hard copy later.

**Action: None**

**7.3.6 International Ocean Colour Coordinating Group (IOCCG)***Sundby*

IOCCG appointed a new chair, James Yoder (USA), at the end of 2005. Over the past year, two IOCCG scientific working groups have completed their deliberations, and submitted monographs for publication by IOCCG.

**Action: None**

**7.4 Other Organizations****7.4.1 Partnership for Observation of the Global Ocean (POGO)***Hall, Urban*

The next POGO meeting will be held in Qingdao, China on January 17-19, 2007. POGO and SCOR are participating together on the POGO-SCOR Visiting Fellowships for Oceanographic



Observations, in creating a new database of research cruises, and on developing new capacity-building activities. SCOR, POGO, and IOC staff will meet in Paris on Sept. 25 to discuss cooperative capacity-building activities. POGO has put out a request for proposals for a research cruise database and Ed Urban is assisting in reviewing the proposals received.

**Action: Decide whether to send a SCOR Executive Committee member to the upcoming POGO meeting.**

## 8.0 ORGANIZATION AND FINANCE

### 8.1 2006 Election of SCOR Officers

*Duce*

### 8.2 Membership

#### 8.2.1 National Committees

*Duce, Urban*

Bjørn Sundby and Ed Urban met with the French SCOR Committee in June 2006, in conjunction with the IOC Executive Council. The changes in Nominated Members since the 2005 Executive Committee Meeting are given on **p. 8-4**.

The Executive Committee approved a procedure in 2003 to change the status of members not paying their dues, to “Suspended Member” status, with less benefits. At the end of 2004, Bangladesh was moved to suspended status. At the end of 2005, Egypt was moved to suspended status. There was activity in the Philippines to pay their dues at the time of the 2005 SCOR meeting, so they were given another year, but no payment has been received, and so they are subject to transfer to suspended status. No other countries are more than one year in arrears. The suspended countries are listed on the SCOR Web site as “Observer Nations”, to avoid stigmatizing these nations.

**Action: Discuss suspension of the Philippines, and potential new SCOR members**

### 8.3 Publications Arising from SCOR Activities

*Urban*

Publications from Working Groups and Major Projects—Three major publications from SCOR activities were produced since the 2005 SCOR meeting: (1) the special section of the *Journal of Geophysical Research—Oceans* that resulted from the SCOR/IOC Symposium on The Ocean in a High-CO<sub>2</sub> World (published as a stand-alone document), (2) the final publication from the SCOR/IUPAC WG 109 on The Biogeochemistry of Iron in Seawater, and (3) a special issue of *Deep-Sea Research* from IAPSO/SCOR WG 121 on Ocean Mixing.

2005 SCOR Proceedings—The *Proceedings* was printed and distributed in July 2006.

SCOR Brochure—The SCOR brochure is updated occasionally and given to potential sponsors, potential member nations, and others. The brochure is available in English, Spanish, and French.

SCOR Web site—The SCOR Web site is updated and checked for dead links regularly.

SCOR Newsletter—The SCOR Electronic Newsletter was started late in 2004, to provide more frequent updates about SCOR activities between annual meetings. Six issues have been distributed so far. (All are available on the SCOR Web site.) The SCOR Secretariat will issue three newsletters each year. In 2006, Issue #5 was produced in time for the IGBP-SC meeting and distributed in hard copy there and Issue #6 was produced in time for the IOC Executive Council and distributed there. The SCOR Secretariat will work on improving the layout and design of the Newsletter in 2007 and will continue to have it printed in hard copy for limited distribution.

SCOR Poster—The SCOR poster is still available in A0 and A3 size.

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

#### **8.4 Finances**

*Finance Committee, Urban, Gross*

The annual audit was completed in mid-July. Elizabeth Gross worked to prepare information for the auditors. The financial records and financial controls were found to follow accepted standards (see p. 8-12).

SCOR's science grant from the National Science Foundation was renewed for three years. Other new funds were obtained for other SCOR activities.

**Actions: (1) Approve revised 2006 SCOR budget, (2) approve 2007 SCOR budget, and (3) approve dues increases for 2008.**

#### **8.5 The Disciplinary Balance among SCOR Working Groups**

*Disciplinary Balance Committee*

**Actions: Discuss instructions needed for 2007 working group proposals.**

### **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.

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## **9.1.1 2006 General Meeting – Concepción, Chile** *Sundby*

The University of Concepción (Chile) is hosting the 2006 General Meeting in Chile.

**Action: Thank Chilean hosts**

## **9.1.2 2007 Executive Committee Meeting – Bergen, Norway** *Sundby*

A tentative invitation has been received from the Norwegian SCOR Committee to hold the 2007 Executive Committee Meeting in Bergen, Norway.

**Action: Discuss offer from Norway for 2007 Executive Committee meeting and arrangements for meeting.**

## **9.1.3 2008 General Meeting -- SCOR 50<sup>th</sup> Anniversary— Woods Hole, USA** *Duce*

SCOR will hold its 2008 meeting in Woods Hole to celebrate SCOR's 50<sup>th</sup> Anniversary, since Woods Hole was the site of the first SCOR annual meeting, in 1957. The planning committee (chaired by Robert Duce, USA) will report in Chile on plans for the 2008 meeting.

**Action: Discuss SCOR travel support for speakers and developing country scientists.**

## **9.1.4 2009 Executive Committee Meeting** *Sundby*

Tentative expressions of interest for locations of the 2009 SCOR meeting have been made by the International Atomic Energy Agency in Monaco and by the China-Beijing SCOR Committee. Other locations are also possible, depending on interests of National SCOR Committees.

**Action: Consider meeting location for 2009.**

## **9.2 Other meetings of interest to SCOR** *Urban*

Other SCOR-related meetings are listed on **p. 9-3**.

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## **1.3 Report of the SCOR President**

The SCOR President will present a report at the meeting that describes his activities on behalf of SCOR since the Cairns meeting.

## **1.4 Report of SCOR Executive Director**

This report will describe the status of SCOR in a number of general areas. The annotated agenda (**pp. 1-10 to 1-26**) gives a summary of the various projects, which are amplified by the written reports of each group and some verbal reports at the General Meeting.

**Finances**—The finances for SCOR are divided into two basic categories: (1) discretionary funding and (2) flow-through funding. For financial management and auditing reasons, and to give proper credit to SCOR's sponsors, SCOR does not mingle these funds, but keeps them very distinct.

Discretionary funding primarily derives from dues to international SCOR from national SCOR committees. Dues are used to pay for operation of the SCOR Secretariat; the annual SCOR meeting; travel of the SCOR President, other Executive Committee members, and the Executive Director to represent SCOR at meetings of our partner organizations; sending SCOR reports to developing countries; and for some working group and other scientific activities. Flow-through funding derives from grants received by SCOR from national funding agencies, international organizations, and private foundations. These funds are devoted to specific activities.

SCOR received a three-year renewal of its science grant and second-year funding of its grant for travel for developing country scientists from the U.S. National Science Foundation. We also received commitments of funding this year from IAEA and a Canadian source for Volume 2 of the *Phytoplankton Pigments in Oceanography* book. **SCOR needs the assistance of national SCOR committees to develop more flow-through funding from national funding agencies for specific activities, so that SCOR will be less dependent on U.S. funding sources for these activities.** Particularly important in the coming two years will be efforts by national committees to help support the SCOR 50<sup>th</sup> Anniversary meeting in 2008.

SCOR's finances are still in good condition. Our annual surpluses in recent years have made it possible for SCOR to fund a variety of one-time meetings, which advance new areas for SCOR and provide us the opportunity to co-fund meetings with other organizations. SCOR's good financial condition contrasts with difficult financial situations being faced by many of our international partners. However, we are in the process of decreasing our surplus to more suitable levels and I expect that we will institute by 2010 a policy that better matches annual dues increases to increases in the cost of the SCOR Secretariat from inflation in the United States (2-3% per year).

**Membership**—We hear occasionally that various countries are thinking of joining SCOR, but there are no serious inquiries at this time. China (Beijing) is planning to move from Category II to Category III in 2007, which we greatly appreciate. We encourage other SCOR members to increase their membership levels.

**Publications**—The SCOR Web site is the major vehicle for providing up-to-date information about SCOR to the international ocean science community and I make changes to the site several times each week, as I receive new information. The site is checked for “dead links” monthly. SCOR activities yielded a number of publications in the primary literature and other venues this year, including several special issues of peer-reviewed journals. Two issues of the SCOR Newsletter were printed in limited numbers in 2006 (so far) to use at meetings of IGBP and IOC, to provide the latest information about SCOR. This seemed to be appreciated and I will adjust our schedule for production of the Newsletter in the future to have it ready for at least these two meetings, in February/March and June. The other issue each year will be produced after the SCOR annual meeting, to let national committees and others know relatively quickly of decisions made at the meeting.

**Meetings**—Between the 2005 and 2006 SCOR annual meetings, 6 SCOR working groups met

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(WGs 115, 124, 125, 126, 127 and 128). The SSCs of GLOBEC, SOLAS, IMBER, and GEOHAB also met.

I met with the French SCOR Committee (with Bjørn Sundby) in June 2006. Although SCOR has only limited funding for its Executive Director and/or President to meet with national SCOR committees, we welcome opportunities to do so when we are traveling for other purposes in countries with national SCOR committees. I will be in the UK in Dec. 2006, Bjorn Sundby will be in Brazil in March, and I will be in China and Japan in March, France in June, and New Zealand in November. We could arrange to meet with the UK, Brazilian, Japanese, French, and/or New Zealand national SCOR committees, if desired. A SCOR PowerPoint presentation is available upon request.

**Outreach to Scientists From Developing Nations and Capacity-Building Activities**—SCOR promotes the improvement of scientific capacity in developing countries and countries with economies in transition by ensuring that every SCOR working group and other activity includes scientists from such countries. In my opinion, this is SCOR's most significant approach to capacity building. I contributed input to a committee of the U.S. National Research Council on the subject of capacity building and I have posted this document on the SCOR Web site ([http://www.jhu.edu/scor/SCOR\\_Capacity-building\\_Activities.pdf](http://www.jhu.edu/scor/SCOR_Capacity-building_Activities.pdf)). We will discuss at the Chile meeting creating a SCOR Committee on Capacity Building, which would draw together the set of individual capacity-building activities of SCOR into a coherent program. SCOR will work with POGO and IOC to develop new funding for joint capacity-building activities.

**Service to International Ocean Research Projects**— SCOR helps individual projects in many different ways, including providing funds from the National Science Foundation and other sources, providing travel support for developing country scientists and scientists from countries with economies in transition to special events of the projects, providing IPO-type support at the beginning of projects, and providing access to the Conference Manager software for management of open science meetings. SCOR also is in a unique position to help individual projects work together, through the project summits funded by the Sloan Foundation.

**Partnerships With Other Organizations**—Maintaining existing partnerships and developing new ones depends on SCOR having the ability to commit funding to joint activities and to send representatives to partners' meetings. We have made progress in new partnerships with SCAR, SCOPE, IAPSO, and PICES, and have also strengthened our relationships with IGBP, IOC, and POGO. As mentioned earlier, SCOR is developing its role as a catalyst of interactions among large-scale ocean research projects, through regular meetings of the projects and other mechanisms.

**Staffing**—Elizabeth Gross continues to handle many different financial aspects of SCOR, including the audit and reimbursements from sponsoring agencies and organizations. Liz also works on the logistics of large meetings for us, using project funds, and helping projects use the

Conference Manager software that SCOR leases. I continue to manage all SCOR Secretariat activities and oversee the finances of SCOR activities, work on new project development/serve as a part-time Executive Officer for new projects (GEOHAB, GEOTRACES), pursue new funding for SCOR activities, represent SCOR at various meetings, and work on the SCOR Web site and publications. Havelly Taylor replaced Phyllis Steiner as SCOR's half-time administrative assistant in April 2006, handling reimbursements, maintaining the SCOR contact database, ordering supplies, helping with mailings, etc.

### **1.5 Appointment of an *ad hoc* Finance Committee**

The Executive Committee approved Colin Devey (Germany), Birger Larsen (Denmark) and Temel Oguz (Turkey) to serve on the 2006 Ad Hoc SCOR Finance Committee. The committee was approved in advance so they could receive and review SCOR financial information before the meeting.

### **1.6 Committee to Review the Disciplinary Balance of SCOR's Activities**

The disciplinary balance of SCOR activities will be analyzed after new working groups have been approved, to determine whether any specific instructions need to be given in the request for working group proposals in 2007.

### **1.7 Results of Elections for SCOR Officers**

Dear Ed:

The Nominations Committee has received the following nominations for the vacancies of Secretary and 3 Vice Presidents that arise from normal rotations in 2006:

**Secretary (4-year term)**: No nominations.

**Vice-Presidents (2-year terms)**: 4 nominations for 3 positions:

**Jorma Kuparinen**, male, marine biologist (Finland) nominated by Finland

**Peter Burkill**, male, marine biogeochemist (United Kingdom) nominated by the United Kingdom

**Victor Akulich**, male, physical oceanographer (Russia) nominated by Russia

**Huasheng Hong**, female, marine chemist, (China-Beijing) nominated by China-Beijing

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**In addition, the Executive Committee in 2006-2008 would consist of:**

**President (4-year term): Bjorn Sundby**, male benthic sediment-water chemist, Canada

**Past President (4-year term): Robert Duce**, male, atmospheric-marine chemist, USA

**Ex-officio:**

IABO President (Annalies Pierrot-Bults, female, biologist, Netherlands)

IAMAS President (Michael MacCracken, male, meteorologist, USA)

IAPSO President (Shiro Imawaki, male, physical oceanographer, Japan)

The Nominations Committee has considered these nominations (with cv's) by e-mail, and after contacting Dr. Kuparinen, recommends the following:

**Secretary (4-year term):**

**Jorma Kuparinen** (Finland)

**Vice Presidents (2-year terms):**

**Peter Burkill** (United Kingdom)

**Victor Akulichev** (Russia)

**Huasheng Hong** (China-Beijing)

The Executive Committee may want to consider adding one or more individuals as co-opted members of the Executive Committee for balance.

Sincerely yours,

John COMPTON, Robert DUCE (Chair), Paola RIZZOLI, Mingyuan ZHU

Date: Thu, 10 Aug 2006 11:09:19 -0400

To: SCOR Nominated Members

From: Ed Urban <Ed.Urban@jhu.edu>

Subject: 2006 SCOR Elections

I have attached a letter from the SCOR Nominations Committee regarding their proposal for SCOR Officers for the period 2006-2008. These individuals will automatically be elected on **October 9**, three weeks before the beginning of the SCOR meeting, unless three or more national committees call for an election to be held at the SCOR General Meeting in Chile. Please see the attached description of the SCOR Election Procedures if you need any additional information.

Best regards,  
Ed