

## AGENDA

### SIXTH ANNUAL MEETING

October 14 – 26, 1997



#### **Opening Session**

1. Address of welcome by Minister Jung-Jay Joh of the Ministry of Maritime Affairs and Fisheries, Republic of Korea.
2. Remarks by the Chairman.
3. Remarks by representatives of contracting parties.
4. Announcements.
5. Keynote lecture by Prof. Kuh Kim on “the Hydrography and Circulation in Asian Marginal Seas”.

#### **Governing Council**

1. Preliminary report on administration.
2. Relations with other international organizations and observers from such organizations.
3. Membership and observers from other countries.
4. Election of Vice-Chairman.
5. Proposed change to Rules of Procedure 16 (i).
6. Report of Finance and Administration Committee.
7. Report and recommendations of Science Board.
8. Any other business.



## REPORT OF OPENING SESSION



The meeting of October 20<sup>th</sup> was called to order by the Chairman, Dr. William G. Doubleday, who welcomed all delegates, observers and researchers to the Sixth Annual Meeting. Dr. Doubleday called on Minister Jung Jay Joh of the Ministry of Maritime Affairs and Fisheries to make a statement on behalf of the Republic of Korea.

*Mr. Chairman, Executive Secretary, distinguished delegates, ladies and gentlemen!*

*It is a great pleasure for me to have this opportunity to present my welcome speech to all of you, at this opening session of the Sixth Annual Meeting of the North Pacific Marine Science Organization. On behalf of the Korean Government and as the Minister of Maritime Affairs and Fisheries, I would like to extend my warm welcome to all the delegates from Canada, the People's Republic of China, Japan, the Russian Federation, the United States of America and the Republic of Korea to the marine city of Pusan. We are very happy and proud to host this Sixth Annual Meeting here in Pusan.*

*I would also like to congratulate you all on being able to share valuable scientific knowledge and information on the North Pacific marine sciences through this meeting. As we all know, PICES was established in March 1992 to promote and coordinate marine research in the North Pacific Ocean and adjacent seas. It is also well known that PICES has been actively involved in implementing the United Nations Convention on the Law of the Sea, particularly section 2, International Co-operation and Part 13, Marine Scientific Research. Launched with objectives of global values, PICES has been successful in its main tasks and responsibility. However, I would like to emphasize the importance of eliminating the duplication of research which may have happened individually or nationally in the past. Such duplication is an*

*unwelcome and costly waste of scientists' energy and time.*

*As you may have already heard, the Korean Government had established the Ministry of Maritime Affairs and Fisheries (MOMAF) in August 1996 by merging marine related governmental agencies and functions spread in various Ministries. This merger was affected largely as a result of the UN Convention on the Law of the Sea which came into force in 1994. It may be too early for us to comment comprehensively on the success of the new Ministry. However, with one year's experience the Ministry has already shown the possibility that marine affairs can be managed more efficiently through the mechanism of an integrated system, particularly in the field of marine environment protection.*

*For example, comprehensive regulatory process can be established and implemented by the integration of various national laws and regulations to effectively conserve the marine environment and to utilize marine resources sustainably in the Korean coastal waters. With respect to marine sciences, we are confident that the new Ministry will be able to accelerate the promotion, coordination and integration of Korea's marine science. On a similar note, as the Minister of MOMAF, I would like to take this opportunity to express the intention of the Republic of Korea to continue to participate in all the activities of PICES.*

*Having much interest in the North Pacific Ocean, member countries of PICES have the responsibility to conserve and nurture this great ocean because it is our most important common property. Therefore, I would like to urge member countries to take all necessary legal, technical and conservation measures and to share information and knowledge on the North Pacific Ocean.*

*Mr. Chairman and distinguished delegates, since you have a lot of work to do this week, I would not impose upon more of your precious time. Finally, I wish all of you to contribute to PICES Sixth Annual Meeting with fruitful work so as to make it another outstanding and successful meeting.*

Dr. Doubleday called upon Dr. John C. Davis to make a statement on behalf of the Canadian Government.

*Minister Joh, Mr. Chairman, honoured guests, colleagues, ladies and gentlemen, on behalf of the Government of Canada and the Canadian Delegation, I want to say how pleased we are to participate in the Sixth Annual PICES Meeting here in Pusan, Korea. We particularly wish to thank the Government of Korea, The Ministry of Maritime Affairs and Fisheries, the local organizing committee, and all those who have worked so hard to host this meeting and organize all the events. We are sure that all your diligent efforts will greatly help make this meeting a great success. We also wish to thank Dr. McKone and the members of the PICES Secretariat as well as you, Mr. Chairman for all your work to make this meeting a success.*

*On behalf of the Minister of Fisheries and Oceans from Canada, The Honourable David Anderson, and of the Canadian Delegation that is here with us, I wish to tell you how important the work of the PICES Organization is from a Canadian perspective. PICES fosters information exchange, collaboration among our countries and serves as an important opportunity to identify scientific issues of importance in the North Pacific Ocean. Our world is rapidly changing, population is increasing and is expected to approximately double within the next fifty years. The oceans will become increasingly important in meeting the food, transportation and natural resource requirements of the future.*

*At the same time, the ocean and its resources will become increasingly threatened by human activity and resource exploitation. It is*

*therefore essential that we address concerns regarding pollution and environmental degradation, red tides and toxic algal problems, natural resource status, impacts of resource exploitation, integrated coastal planning, applications of new science-based methods and maximization of the potential of the oceans while addressing sustainable use of natural resources.*

*Never before has there been more public awareness of how changes in the ocean can influence human activities. The current El Niño events have made the concept of "El Niño" almost a household word and I have been struck by the awareness of this phenomenon wherever I travel. Clearly, people are now starting to realize the importance of events related to the ocean and the atmospheric processes that are coupled with the ocean. For those of us here, the public will increasingly be turning to us to explain what is going on in the North Pacific Ocean and how weather, agriculture, fisheries and ocean conditions may be affected by changes in the ocean. You, as the leading scientific minds engaged in the study of the North Pacific will have a major role to play in studying and informing our nations about the implications of changes in the North Pacific and thus PICES will play an increasingly important role in the years to come.*

*Mr. Chairman, Canada is particularly pleased to be here in Pusan as we have been developing warm and increasingly close scientific relations with our Korean colleagues. In January of the year, our Prime Minister, The Honorable Jean Cretien, and the largest foreign delegation ever to visit Korea, held important meetings here in Seoul and many important agreements were signed. Amongst them were a memorandum of understanding and a letter of understanding for scientific collaboration with Pukyong National University here in Pusan which is leading to a strong scientific relationship between our respective countries. In addition, we also have a very well developed collaborative relationship with the Korea Ocean Research and Development Institute, KORDI, which is*

*producing valuable cooperative work. Through this experience and through exposure to the warmth, energy and hospitality of the Korean people, we have made many friends and colleagues and our scientific relationship is blossoming. For this reason, we know that this meeting will be highly successful through the efforts, hospitality and energies of our Korean hosts, and through the efforts of all of you from our contracting parties who will be working together this week to make this Annual Meeting a great success.*

Dr. Doubleday called upon Dr. Satsuki Matsumura to speak on behalf of the Japanese Government.

*Mr. Chairman, honorable Minister, ladies and gentlemen, it is my pleasure to be here as the part of Japanese delegation. I would like to extend thanks on behalf of Japanese government, ocean science community and on my behalf to the Korean government and the Local Organizing Committee members for providing us with this wonderful opportunity to interact with all PICES colleagues. As a matter of fact, the importance of North Pacific Ocean has created an increasing scientific interest in the recent years. In view of the role played by the ocean on the Earth environment, we have to put more effort into understanding the regional processes for local interest as well as to contribute to the general understanding of the ocean phenomena.*

*As all of us are aware, there are two important science targets in the context of understanding the role of ocean in the global environment and basin scale productivity. One is the marine ecosystems and the other is carbon circulation between atmosphere and ocean. We have a responsibility, as marine scientist, to address the growing problems of the increase in atmospheric carbon dioxide and decreased solubility of carbon dioxide due to the elevation of water temperature that could have a disastrous effect on the marine ecosystem. It should be our endeavor to see that the delicate balance of the ecosystem and ocean-atmosphere*

*systems does not break down through mindless human activities. We have to generate information on such critical processes and evolve strategies to prevent a disastrous scenario from taking place in interest of mankind.*

*The ocean has been a great life support system for human survival by providing food, natural resources, and most importantly by playing a role as a climate controller and carbon dioxide buffer. Against this background, there is an urgent need for studying the oceanographic processes, physical, chemical, biological as well as the ecosystem dynamics in the North Pacific through active cooperation of all PICES countries.*

*At the last meeting, I was very happy to inform all present of the successful launching of the earth observing satellite ADEOS that was supposed to be a vital source of remote sensed ocean color data. Unfortunately, the satellite was stopped sending data last June. It was accidental. I am very encouraged by the successful NASA launching of SeaWiFS last August. Although there may be some problems with SeaWiFS, we are receiving good quality ocean data. Undoubtedly, it would go a long way in the development of remote sensing based monitoring of the marine ecosystem in general and marine biological processes in particular. These results, I hope, will give us an idea about how important these tools are to understand the ocean processes, moreover, we are likely to realize how important it is to undertake the cooperative studies between countries to use the potential of these data.*

*PICES is entering a second generation under the new chairman. Each committee's activities are progressing by pursuing the basic goals of the organization. Someone may say the ocean is getting smaller through satellite observations, but we should be aware of the fact that ocean is too large to be studied by just one country. I sincerely hope PICES will continue to act as a link for joint efforts by countries of this region.*

*Finally, thank you once again to all Korean colleagues for providing us with such good opportunity.*

Dr. Doubleday called upon Mr. Han-Di Guo, acting for head delegate Mr. Jian-San Jia, to make a statement on behalf of the Chinese Government

*I would like to thank Dr. Doubleday for his kind introduction. I am very honored to be able to deliver a speech on behalf of the Chinese Delegation. First of all, we want to sincerely thank the Korean Government of their excellent organizing work of the PICES Sixth Annual Meeting and their kind support to the meeting.*

*The Chinese Government has always supported bilateral and multilateral exchange and cooperation in science and technology with all the countries in the world. Today, environment deterioration, energy shortage and the other problems have caused concerns for the world as they threaten human life. To solve these problems, there needs to be a wide range of international cooperation as well as mutual exchange of scientific and technical personnel, information and data.*

*The ocean and sea occupy more than 70% of the total surface area of the earth and it has a close relationship with human existence. Human beings have put a lot of time, energy and financial resources into marine scientific research. Inputs of these kinds will increase in the future, and many global marine research projects such as the global ocean system dynamics, and ocean observation system, are bilateral and multilateral cooperative projects that require participation by scientist from different countries.*

*The research is aimed at not only the ocean environment, but also the interaction of sea, land, meteorology and their effect on the global climate and climatic change, and the effect on the fauna and flora and ecology and the utilization of resources, as well as the effect of human activities on the oceans.*

*China, as a coastal nation of the North Pacific, is one of the major world marines fishing counties, which has actively participated in all related activities of the region. Under the circumstances of limited available land resources, making full use of the oceans will be an area of future development potential. Therefore, research on protection of the oceans by China and other member countries and international scientific and technical cooperation to realize the aims of this Organization will play a very important role in the future. We hope, through the active cooperation of all member nations, we will carry out more scientific research in the North Pacific region in order to collect and exchange scientific research data effectively and rationally.*

*We hope that, through this meeting, all participants can not only discuss and exchange information or research activities, but also promote cooperation and friendship. Finally, I wish this Annual Meeting a complete success.*

Dr. Doubleday called upon Mr. Kook-Jeon Ahn to make a statement on behalf of the Ministry of Maritime Affairs and Fisheries Republic of Korea.

*Mr. Chairman, distinguished delegates, ladies and gentlemen. I am very pleased and honoured to make a statement on behalf of my Government.*

*First of all, I welcome you all to Pusan, here in Korea, for this Sixth Annual Meeting of PICES. Also, I would like to extend my sincere thanks to the PICES Secretariat which has worked hard to prepare all the documents so nicely.*

*As we know, the North Pacific Ocean sustains some of the world's most productive living marine resources. It is also know that much of the potential living resources biomass has recently started to decline. Ocean scientific research and related studies have become more vital to our improved understanding of how to wisely manage the abundance of living resources in relation to changes in the*

*environment. PICES was established as an International Organization in 1992 and has been operating successfully since then. For the next decades, in order to build sustainable fisheries and clean up the marine environment, we should assess the status of marine resources, through stock assessments and population dynamics research, so that we can present a scientific basis for policy decision making. Taking advantage of this occasion, I would like to express Korea's firm support for the goals and objectives of PICES.*

*These days, climatic change is evident in many areas of the world. Although it is well known, nobody seems to know exactly what to do about this substantial phenomenon. A strong research capacity is necessary to ensure continuity and on-going improvements to existing service, and a sound observational and monitoring capability is vital to the success of PICES. Especially, integration and sharing of environmental data and scientific information are critical to the fulfillment of PICES goals. These are not easy to achieve, but we should continue our efforts and not give up. Our wish now is that this meeting of PICES will be successful in providing a favorable and satisfying forum for every participant here. Also I look forward to many productive outcomes of the meeting.*

*Finally, I hope that all of you will enjoy this meeting and have a good time during your stay here in Pusan.*

*Dr. Doubleday called upon Dr. Lev N. Bocharov to speak on behalf of the Russian Federation.*

*Mr. Chairman, distinguished delegates, ladies and gentlemen, On behalf of my Government I would like to thank the Republic of Korea for hosting the Sixth Meeting of PICES. My further thanks go to the Local Organizing Committee and the PICES Secretariat for preparation of this meeting.*

*At this, already sixth, Meeting, with a great deal of assurance, we can talk about the influence of PICES on the advances of marine science in the*

*countries of the North Pacific. PICES has gained authority as an organization that promotes new ideas and initiatives and where scientific results can be discussed and assessed. The most distinguished feature of the PICES approach is an ecosystem study of all arising problems, as for example, the reconstruction of pelagic communities, or the decrease of the survival rate of Pacific salmon during sea life, or the decline of pollock and growth of herring stocks.*

*In his speech at the opening ceremony of the Fifth PICES Meeting one of the founder of PICES Dr Wooster said that we must remember about establishing effective links with potential user organizations as international fishery commissions. In Russia we share this opinion and hope that the effort in this direction will be continued in a greater extent.*

*Probably, the new information technology would change the way we communicate and collaborate now. Maybe, in the near future we could exchange our ideas, data and results in a "virtual" meeting in the cyberspace. TCODE is working on this. However, I think, even in that time we would need to meet each other during coffee breaks in a realistic space. Because it would help us to keep the atmosphere of mutual respect and understanding. We enjoy this atmosphere at all our Meetings and I would like to thank the Governing Body and the Secretariat of PICES for this.*

*Thank you to our Korean hosts. I look forward to a productive meeting in this beautiful country. It is my pleasure on behalf of the Russian Federation Government to confirm that Russia is ready to host the 8<sup>th</sup> Meeting of PICES in 1999.*

*Dr. Doubleday called upon Dr. Vera Alexander to provide a few words on behalf of the U.S. Government.*

*Distinguished Chairman, the Honorable Minister, distinguished delegates, I am both honored and delighted to be here, speaking on*

*behalf of the United States delegation. First, I wish to thank our Korean hosts for welcoming the Sixth Annual Meeting of PICES to Pusan, and for the excellent arrangements here.*

*PICES is now very active in developing scientific research programs, a step forward from earlier activities, which centered around reviewing and discussing scientific results and issues. This responds directly to a primary purpose of PICES - to facilitate the accomplishment of research in the northern North Pacific Ocean which requires or is best done through international cooperation. Of course, communication also is an important role for PICES. But with tangible results, our national participation will be validated.*

*The problems we are addressing are global and urgent. Their solution will provide guidance for developing policy and strategies. However, PICES is only interested in the scientific aspects, even though there will be practical benefits as well. Of greatest importance, though, is the potential for developing young scientific talent by bringing an international team of our future scientific leaders together to address the scientific problems in the north Pacific Ocean. If PICES can nurture young scientists, the long-term environmental security of the North Pacific Ocean will be advanced and, with this, the hope of sustainable use will become realistic.*

*There are many large programs either ongoing or under development for the North Pacific Ocean. The ability of PICES to provide focus can play a big role, as well as the opportunity for improved international coordination and cooperation.*

*I anticipate significant advances at this meeting. Indeed, there already have been such advances through the Climate Change and Carrying Capacity workshop and planning activities which took place over the past few days. What can be considered more important than the carrying capacity in our shared ecosystems, and responses to climatic variations?*

*Once again, thank you to our hosts for their warm welcome. I look forward to a productive meeting.*

*Dr. Doubleday thanked the Minister and all the delegates for their remarks and spoke on behalf of PICES.*

*Honourable Minister, distinguished delegates, colleagues, ladies and gentlemen, I would like to begin my remarks by thanking our hosts, the Republic of Korea for their hard work in arranging the sixth annual meeting of PICES in Pusan. The meeting site, the Grand Hotel in Pusan is well chosen. From its door we see each day the importance of the sea to Korea. The beautiful beach supports recreation and tourism, just offshore is seaweed aquaculture, and farther offshore can be seen nightly fishing for squid and the passing of the ships of international commerce.*

*Sometimes the unseen hours spent in preparation are not fully appreciated because they are not visible, but I am sure there are many in the audience who have prepared past PICES meetings or other similar meetings who understand what is involved and will join with me in expressing PICES' thanks. Many thanks to our hosts for bringing PICES to Pusan!*

*PICES is a young organization, but we have achieved much in our short history. Through its workshops and symposia, PICES has disseminated knowledge of the physical processes and modeling of the Subarctic north Pacific and its marginal seas, of exchanges between continental shelf waters and the adjacent ocean, and of structure and dynamics of its marine ecosystems.*

*We have built up a framework program, the Climate Change and Carrying Capacity Program to focus and coordinate research around the north Pacific on the effect of climate variation and change on marine ecosystems. At this meeting we are moving forward from planning to implementation.*



*Perhaps most important, we have brought together hundreds of oceanographers and biologists from around the Pacific Rim in a multidisciplinary forum for marine science. The contacts between scientists from our member states are now leading to joint research programs to advance knowledge in fields of mutual interest.*

*PICES member states share a great ocean. We must know and understand the Pacific Ocean if we are to understand why the seas around it grow warmer and colder and why some fish stocks increase while others decline.*

*PICES scientists are working together to understand how variation in the climate of the north Pacific ocean influences marine ecosystems and fishery resources. To make our work more complete, we must also work together to understand how the ocean and atmosphere of the north Pacific cause climate variations. We need to bring atmospheric scientists into the PICES community to join our oceanographers in advancing knowledge and understanding of the Pacific Ocean climate system. PICES should play an active role in climate research. PICES should also link its research with worldwide programs of climate research, because the climate system is a global system of ocean and atmosphere.*

*In marine science, we cannot control nature to implement the kind of controlled experiments that are possible in laboratories. We have to base our observations and hypothesis tests on the natural variation of natural systems. 1997 has seen the beginning of a very large El Niño event. Already there are sea surface temperature anomalies of more than 3 degrees off North America. At the same time, and probably related, there is a negative anomaly of two degrees off Northeast Asia. This strong climate signal gives us a special opportunity to observe climate effects on marine ecosystems. PICES should seize the opportunity offered by this El Niño event by observing the ocean and its ecosystems and providing a forum for scientists*

*all around the Pacific to present and debate what they learn from the 1997-98 El Niño.*

*Increasingly, PICES scientists are collaborating in joint research projects. This is commendable, but joint programs by PICES member states to study shared waters and shared ecosystems would bring still greater benefits by coordinating sampling over natural ecosystems and water masses.*

*We have an exciting program of joint sessions and symposia this week with many interesting papers. I hope that all scientists will take full benefit from this sixth annual meeting of PICES to renew and extend contacts and friendships with colleagues from other nations and other disciplines and to learn from the work of others presented here. Best wishes for a successful conference.*

Dr. Doubleday introduced Prof. Kuh Kim to give the keynote lecture. Prof. Kim discussed CREAMS (Circulation Research of the East Asian Marginal Seas), an international research program among Japanese, Korean and Russian scientists, conducted expeditions in the East Sea/Sea of Japan in 1993-1997. Precise CTD and chemical data were collected in the entire basin and long-term currents were measured at depth of 1000 m, 2000 m and 3000 m. Satellite drifters and ALACE were deployed for Lagrangian observations at surface, 350 db and 1000 db. New classification of water masses such as High-salinity Intermediate Water, Central Water, Deep Intermediate Water, Deep Water and Bottom Water are introduced. Strong currents in the range of 10-50 cm/s were observed, which fluctuated in the time scales of a few days to weeks. Comparisons with selected historical data show a warming for the entire water column below 200 m since 1950. During the same period dissolved oxygen concentration decreased significantly below 1500 m, but increased around 1000 m, indicating a possibility of reduction in deep and bottom water formation and new formation of central water at the same time. Hydrography and circulation in the East Sea/Sea of Japan are

similar to oceanic structures, the understanding of which is not only of regional interests but has global application. CREAMS in 1993-1997 has been exploratory in science and international cooperation. CREAMS -II is planned in 1998-

2002, centered in intensive observations in 1999-2000, to advance understanding on physical processes of water mass formation, subsequent circulation and its interaction with warm currents.

# REPORT OF GOVERNING COUNCIL MEETINGS

3

8

The Governing Council met on October 20, 23 and 26, under the Chairmanship of Dr. William G. Doubleday. Drs. W. Doug McKone and Alexander Bychkov served as rapporteurs.

All Contracting Parties were represented at the three sessions (Endnote 1). The Chairman of the Science Board, Dr. Makoto Kashiwai, and Dr. John L. McGruder, Chairman of the Finance and Administration Committee, were in attendance during part or all of each session.

At the first session, the Chairman welcomed the delegates and noted that for this meeting Mr. Han-Di Guo was representing the People's Republic of China, Mr. Kook-Jeon Ahn was representing the Republic of Korea and Mr. Kazumi Hagino was representing Japan. The Chairman reviewed the agenda and proposed the order in which to take up the various items. Dr. John Davis proposed the adoption of the agenda without change; seconded by Dr. Hyung-Tack Huh. This report summarizes the treatment of each agenda item during the course of the three sessions.

The Chairman asked Parties to confirm their members who would attend the Finance and Administration Committee meeting (see Endnote 1 of the Report of the Finance and Administration Committee).

## **Agenda Item 1. Preliminary Report on Administration**

The Executive Secretary summarized the activities of the Secretariat during the previous year (Endnote 2). Fees were received by the Secretariat from all Parties during the year. There were a number of changes in Council, Committees and Working Groups. Canada was thanked for improvements of the Secretariat facilities at the Institute of Sciences, Sidney, British Columbia.

## **Agenda Item 2. Relations with other international organizations and observers from such organizations**

Letters of invitation to attend PICES VI were sent to the agreed list of Organizations and the following sent observers:

Asian Pacific Economic Cooperation (APEC),  
Marine Resources Conservation Working  
Group – Mr. J. Roderick Forbes  
North Pacific Anadromous Fish Commission  
(NPAFC) – Dr. Richard J. Beamish  
Global Ocean Ecosystem Dynamics (GLOBEC)  
– Dr. Ian Perry  
Scientific Committee on Ocean Research  
(SCOR) – Prof. Shizuo Tsunogai

## **Agenda Item 3. Membership and observers from other countries**

No official representatives from non-member countries were present as observers at this year's meeting. No non-member countries expressed interest in joining PICES during 1997.

## **Agenda Item 4. Election of Vice-Chairman**

The Chairman Dr. William Doubleday called for nomination for Vice-Chairman of Council in accordance with the Rules of Procedure. Dr. Hyung-Tack Huh of the Republic of Korea was unamously declared re-elected for a second term. The delegates congratulated Dr. Huh on his election. Dr. Huh expressed his thanks for the support given by Council members.

## **Agenda Item 5. Proposed change to Rules of Procedure 16 (i)**

Council discussed Rule of Procedure 16 (i) that provides for a newly elected Chairman of a Scientific Committee to not take office for two months following an election. The Chairman pointed out that the current Rule creates confusion in the Secretariat immediately

following the Annual Meeting when decisions must be made on the organization of the next Annual Meeting. The departing Committee Chairman is hesitant to make decisions that might be better undertaken by the incoming Chairman and the incoming Chairman considers that he has no authority to make any decisions. Council approved the following change by replacing the phrase *on the first day of the second month following election* to allow the incoming Chairman to take his position immediately following the Annual Meeting as follows;

Rule 16 (i)

The Chairman of each of the permanent Scientific Committees shall be elected by the Committee concerned from amongst its members for a term of three years, shall assume office *at the conclusion of the Annual Meeting at which elected*; and shall not be eligible for re-election for the immediate succeeding term;

Council approved the Rules of Procedure amendment as proposed (97/A/4).

**Agenda Item 6. Report of Finance and Administration Committee**

The Finance and Administration Committee met under the Chairmanship of Dr. John L. McGruder, who presented the report to the Governing Council (see F&A Report for text). The report was approved by Council.

**Appointment of Executive Secretary**

The process for appointment of an Executive Secretary was approved by Council as amended by the Finance and Administration Committee. Similarly, the position description for advertisement of the position was accepted as proposed by the Finance and Administration Committee. Council agreed that all Parties would advertise the position in their own country. The Chairman, in consultation with the Executive Secretary, will select a short list of five candidates from among the applicants for

circulation to delegates. A Selection Committee composed of the Chairman, Dr. William G. Doubleday, Dr. John C. Davis, Dr. Satsuki Matsumura, Dr. Lev N. Bocharov, Dr. Hyung-Tack Huh, Dr. James W. Balsiger and a person to be named by the People's Republic of China, from each of the six Parties was struck to interview the short list of candidates at PICES VII. The Executive Secretary is instructed to develop a statement of qualifications, in consultation with the Chairman, for use by the Selection Committee (97/A/3).

**Audited accounts for financial year 1996**

At the recommendation of the Finance and Administration Committee, the Governing Council accepted the audited accounts for 1996 and agreed to continue with Flader and Greene Chartered Accountants as auditors for one more year (Decision 97/A/1). China proposed that the Auditor should be changed periodically to ensure that the audit is done with vigour. Council instructed the Executive Secretary to obtain bids from other auditing firms for review by the Finance and Administration Committee in 1998 in order to allow Council to consider replacing the auditor at next year's Annual Meeting.

**Estimated accounts for financial year 1997**

The estimated accounts from October 1 to December 31 were reviewed by the Finance and Administration Committee and adopted by Council (97/A/2).

Council noted that Science Board recommendations were not available until F&A had completed its meetings, which means that recommendations could not be taken into account in consideration of the budget for the following year. Council agreed that the Finance and Administration Committee should review all financial matters before they are put before Council. Next year's schedule should be modified to allow all other financial matters except those arisen from Science Board to be considered at a meeting before the final Science

Board Meeting. The schedule should allow the Finance and Administration Committee to review those financial matters proposed by Science Board after its last meeting and present any revised budgetary recommendation resulting from Science Board's recommendations at the last meeting of Council.

### **Budget for financial year 1998**

The total budget increased to CDN \$521,000. Council approved the transfer of CDN \$12,000 from the 1996 Working Capital surplus to keep the total contributions from Parties at the 1997 level of CDN \$509,000. Upon the recommendation of the Finance and Administration Committee, Council approved fees for Parties of CDN \$84,800, the same level as 1997 (Decision 97/A/2(1)).

The United States proposed that the Governing Council of PICES approve a one-time requirement for the United States to contribute up to 115% of the amount of its national contribution to PICES in 1998. This is possible under section 5(1) of the PICES Financial Regulations. The excess is to be used to defray costs associated with PICES VII, which is to be held in the United States. This is allowable under United States government regulations, and will allow the United States to provide necessary support for the Annual Meeting. The additional contribution will be set by the Chairman and the Executive Secretary in consultation with the United States, prior to the start of the 1998 fiscal year.

Council approved the proposal for the United States to contribute up to 115% of the amount of national contributions on a one-time basis to provide financial support for PICES VII in Alaska.

### **Forecast budget for financial year 1999**

Council received the forecast budget for 1999 as an information item for Parties (Decision 97/A/2(2)).

### **Trust Fund**

At the recommendation of the Finance and Administration Committee, Council did not approve the proposed Financial Regulation 6 change which would have established a procedure to provide annual contributions to the Trust Fund (Decision 97/A/). The Trust Fund is estimated to be CDN \$99,296 at the end of 1997.

### **Working Capital Fund**

The Working Capital Fund is estimated to be CDN \$53,624 at the end of 1997. Council approved a transfer of CDN \$12,000 to the General Fund to maintain the 1998 fees at the same level as in 1997. Thus, the Working Capital Fund will have an estimated residual surplus of CDN \$41,624 at the end of 1997. The Executive Secretary is instructed to hold the remaining surplus in a separate account for review at next year's Annual Meeting of the Finance and Administration Committee (Decision 97/A/2(3)).

### **Home Leave Relocation Fund**

The status of the Home Leave Relocation Fund was reviewed. No action was taken by Council on this matter. Guidelines for relocation are to be presented by Executive Secretary at the next meeting.

### **Future Meetings of the Organization and subsidiary bodies, including time and place for the Sixth and Seventh Annual Meetings**

Council approved the recommendation that PICES VII be held from October 14-25, 1998, in Fairbanks, Alaska. Council also accepted the invitation of the Russian Federation to hold PICES VIII.

## **Agenda Item 7. Report and recommendations of Science Board**

Council approved the Science Board Report. Details are given in the Appendix.

### **1. Planned and proposed future meetings in 1998-1999**

Council approved inter-sessional meetings (Decision 97/S/1) and proposed Workshops and Working Group meetings to be held at PICES VII.

### **2. Reports and recommendations on relations with other organizations and programs**

a. Council reviewed the proposed Memorandum of Understanding with ICES, and wish to address this document by correspondence during the next year. (Decision 97/S/2a)

b. Council requested the Secretariat to explore the possibility of developing an MOU with the International Pacific Halibut Commission (IPHC). (Decision 97/S/2b)

c. Council reviewed the proposal by the Chairman of the Committee on Scientific Research and Statistics (CSRS) of the North Pacific Anadromous Fish Commission (NPAFC), received through e-mail by the FIS Chairman, for PICES to provide catch statistics for member countries for non-anadromous species and agreed that the Chairman respond positively to the proposal at the NPAFC meeting in Victoria. Council agreed that an MOU with NPAFC should be completed before developing an agreed procedure and requirement for obtaining and providing the catch statistics. (Decision 97/S/2c)

d. Council approved the additions to the Standing List of Organizations as proposed by Science Board and added United Nations Environment Program (UNEP) to the list. (Decision 97/S/2d)

e. Council approved that the Chairman send a letter to CREAMS accepting their proposal to hold a workshop in conjunction with PICES VII. The letter will request that an observer from PICES participate in their February 1998 Planning Meeting. (Decision 97/S/2e)

### **3. Proposed PICES publications: 1997-1998**

Council accepted the list of publications proposed and noted that should the cost of the BASS Symposium Proceedings exceed the funds available, publication will be delayed. (Decision 97/S/3)

### **4. Proposed new Technical Committees and Working Groups**

a. Council approved the SB recommendation to disband WG 9. (Decision 97/S/4a)

b. Council reviewed the terms of reference for WG 12 and agreed to revise terms of reference as appended. (Decision 97/S/4b)

c. Council approved a new POC Working Group 13 on "CO<sub>2</sub> in the North Pacific". (Decision 97/S/5a)

d. Council approved a new BIO Working Group 14 on "Effective Sampling of Micronekton to Estimate Ecosystem Carrying Capacity". (Decision 97/S/5b)

### **5. PICES-GLOBEC CCCC Program Implementation Panel**

a. Council approved the new statement of purpose for the CCCC Program. Council approved the proposed terms of reference as amended. Council approved the proposed structure of the Implementation Panel. (Decision 97/S/6a)

b. Council approved a new MONITOR Task Team under the CCCC/IP. (Decision 97/S/6b)

6. PICES supported travel

- a. Council agreed to cover financial support costs for travel of Dr. Chang-Ik Zhang (FIS Chairman) to attend the SCOR 105 Working Group meeting in Hobart, Australia, and Ms. Patricia Livingston (CCCC IP Co-Chairman) to attend the First GLOBEC Open Science Meeting in Paris France. (Decision 97/S/7a)
- b. Council agreed in principle to Science Board's proposals to support travel by speakers and experts in 1998. Council noted that funds may not be sufficient to support all the requested travel, and agreed that the Science Board Chairman would prioritize the list, and the Chairman and the Executive Secretary would support as many priority participants as funding would permit. (Decision 97/S/7b)

7. Council agreed to co-sponsor a Pandalid Shrimp Symposium in 1999 with the North Atlantic Fisheries Organization (NAFO) and the International Council for the Exploration of the Seas (ICES). Funding support was not requested as part of the proposal. (Decision 97/S/8).

**Agenda Item 8. Any Other Business**

Council instructed the Executive Secretary to extend the Assistant Executive Secretary's contract for one year to April 30, 2000. (Decision 97/A/5)

**Appendix**

**A. Decisions**

**97/A/1: Auditor**

Council accepted the audited accounts for 1996 and agreed to continue with Flader and Greene as auditor for one more year.

**97/A/2: General Account**

Council accepted the financial statements for the audited accounts of 1996 and the estimated accounts of 1997 and agreed to the following actions:

1. *1998 Budget.* The budget of \$521,000 was approved. \$12,000 was transferred from the Working Capital Fund to reduce the total contribution to \$509,000, keeping the 1998 fees at \$84,800, the same level as in 1997.
2. *Forecast 1999 Budget.* The forecast budget for 1999 was reviewed and will be further considered during PICES VII.
3. *Working Capital Fund.* The estimated surplus in the fund is \$53,624. Council approved a transfer of \$12,000 to the General Fund for 1998 to keep the fees at the same level as in 1997. Council instructed the Executive Secretary to retain the residual surplus of \$41,624 in a separate account.

**97/A/3: Executive Secretary**

Council approved the procedure for appointing the Executive Secretary and the job description for advertisement by Contracting Parties. Candidates will be interviewed at PICES VII. The successful candidate will be invited to stay for the Annual Meeting at the expense of PICES and the desirable starting date is December 1, 1998.

**97/A/4: Rules of Procedure**

Council approved a change to Rule 16 (i) as follows:

The Chairman of each of the permanent Scientific Committees shall be elected by the Committee concerned from amongst its members for a term of three years, shall assume office *at the conclusion of the Annual Meeting at which elected*; and shall not be eligible for re-election for the immediate succeeding term.

**97/A/5:** Assistant Executive Secretary

Council agreed to extend the Assistant Executive Secretary's contract for one year to April 30, 2000.

**97/A/6:** Future Annual Meetings

Council accepted the proposal of the United States to host the Seventh Annual Meeting in Fairbanks, Alaska, October 14-25, 1998. The Russian Federation will host the 1999 meeting. The date and place of the meeting in Russia is to be determined at next year's Annual Meeting.

**97/S/1:** Inter-sessional Workshops and Working Group meetings

The following inter-sessional meetings are to be convened:

- a. POC Second Okhotsk Workshop in Nemuro in November 1998.
- b. MODEL Workshop in California in March 1998.
- c. WG 8 Jiazhou Bay Workshop in Spring 1998, if host country approval is not received by January 31, 1998, the workshop will be held in Masan/Chinhae Bay, Republic of Korea, in September 1998.
- d. WG 12 meeting on the western side of the Pacific. Place to be determined in consultation with the Secretariat.

**97/S/2:** Relations with other Organizations and Programs

- a. Review Memorandum of Understanding (MOU) with International Council for the Exploration of the Sea (ICES) by correspondence during 1998.
- b. Explore developing MOU with International Pacific Halibut Commission (IPHC) in 1998.
- c. The MOU with the North Pacific Anadromous Fish Commission should be approved by both Parties before developing any agreed procedure and requirement for providing catch statistics.
- d. Revise the Standing List of Organizations (Appendix D).

- e. Chairman send letter to Circulation Research of the East Asian Marginal Seas (CREAMS) accepting their proposal to hold a Workshop in conjunction with PICES VII.

**97/S/3:** The following reports are to be published:

- a. Bering Sea: Physical, Chemical and Biological Dynamics review volume to be published by Alaska Sea Grant
- b. Progress reports of WGs 8-12 and the Report of the Study Group on PICES Communications in Annual Report
- c. Proceedings of the BASS Symposium in a peer-reviewed journal if funds permit, otherwise to be delayed to next fiscal year.
- d. CCCC Task Team Reports, REX 97 Workshop and MODEL 98 Workshop; WG 10 Report in PICES Scientific Report Series
- e. Revised PICES Handbook
- f. Multilingual Nomenclature of Place and Oceanographic Names in the Region of the Okhotsk Sea (publication costs borne by Marine Information Research Center, Japanese Hydrographic Association)

**97/S/4:** Future of Working Groups

- a. WG 9 "Subarctic Pacific Monitoring" will be disbanded.
- b. Revised terms of reference for WG 12 were approved (Appendix B (i)).

**97/S/5:** The following new Working Groups were established:

- a. WG 13 on "CO<sub>2</sub> in the North Pacific" (see terms of reference Appendix B (ii))
- b. WG 14 on "Effective Sampling of Micronecton to Estimate Ecosystem Carrying Capacity" (see terms of reference Appendix B (iii))

**97/S/6:** CCCC Program and CCCC Task Teams

- a. A revised statement of purpose and terms of reference and structure were approved (Appendix C (i, ii and iii)).
- b. A new MONITOR Task Team reporting to the CCCC/IP was established (Appendix C (iv)).



**97/S/7: Travel Support**

- a. PICES will cover the cost of Dr. Chang-Ik Zhang to attend the SCOR 105 Working Group meeting and Ms. Patricia Livingston to attend the First GLOBEC Open Science meeting.
- b. Science Board Chairman should prioritize the proposed list of requested travel support. The Executive Secretary should provide as much support as funds permit.

**97/S/8:** PICES co-sponsor the Pandalid Shrimp Symposium in 1999 with NAFO and ICES.

**B. Working Group Terms of Reference**

**i) Working Group 12: Crabs and Shrimps (revised)**

1. Consider those crabs, shrimps and lobsters that are utilized in a commercial, subsistence or recreational fisheries. This may include introduced species if they are directly important or impact human utilization of any other marine species;
2. Identify organizations and key contacts from each that are performing scientific work on the distribution, recruitment, larval transport, migration, population dynamics, and influences of environmental conditions for crabs and shrimp;
3. Identify data that are available that would assist in the analyses of factors affecting abundance trends;
4. Review and exchange current knowledge and data concerning factors affecting abundance and survival of crabs, shrimps and spiny lobsters and identify key scientific questions regarding reasons for abundance fluctuations.

**ii) Working Group 13: CO<sub>2</sub> in the North Pacific**

1. Review the present level of knowledge on the processes controlling CO<sub>2</sub> in the North Pacific, and identify the gaps and problems;
2. Review the existing methodology of the CO<sub>2</sub> measurements including the preparation of standards and reference materials, and advise on the intercalibration and quality control procedures;
3. Identify and encourage ongoing and planned national and international CO<sub>2</sub>-related scientific programmes in the North Pacific region, including long-term time-series observations;
4. In coordination with TCODE, identify available and suitable data sets on the oceanic CO<sub>2</sub> system, and recommend the mechanisms of data and information exchange;
5. Develop a symposium, workshop or an annual meeting session on the CO<sub>2</sub> study in the North Pacific.

**iii) Working Group 14: Effective Sampling of Micronekton to Estimate Ecosystem Carrying Capacity**

1. Evaluate current sampling methods and identify problems, especially for the simultaneous determination of micro-nekton and their prey;
2. Propose and evaluate solutions to the micronekton sampling problem, in general and as relevant for CCCC Program;
3. Recommend collaborative field efforts among PICES member countries to intercalibrate/compare present and future micronekton sampling methods;
4. Obtain and tabulate available data on the consumption and biomass of micronekton from the North Pacific for use in energy flux calculations. Stratify the data by region and functional groups/taxa, and provide a

qualitative estimate of the level of confidence in each of these estimates to identify areas where future research is necessary;

5. Review the proposal and make recommendations concerning the proposed joint BIO/FIS workshop to follow-up on selected aspects of micronekton studies discussed at topic session on micronekton at PICES VI.

### C. PICES-GLOBEC CCCC Program

#### i) Statement of Purpose (revised)

The CCCC Program addresses how climate change affects ecosystem structure and the productivity of key biological species at all trophic levels in the open ocean and coastal North Pacific ecosystems. There is a strong emphasis on the coupling between atmospheric and oceanic processes, their impacts on the production of major living marine resources, and how they respond to climate change on time scales of seasons to centuries.

The new set of Terms of Reference reflects the present activities and goals of CCCC Program and execution of out the Implementation plan.

#### ii) Terms of Reference (revised)

1. Integrate and stimulate national activities on the effects of climate variations on the marine ecosystems of the Subarctic North Pacific through a coordinated implementation plan and oversight of the plan;
2. Determine how the work of PICES Scientific Committees and WGs can most effectively support the CCCC Program, and recommend the establishment of subsidiary groups to provide expert advice as necessary;
3. Identify existing or foreseen national and international research programs with which

the CCCC Program could be coordinated, and determine how this can most effectively be achieved;

4. Provide scientific direction for liaison with other regional and global organizations in pursuit of the goals similar to the CCCC.

#### iii) Structure for Implementation Panel (revised)

1. Co-chairmen of Implementation Panel (two);
2. Task Teams (four, each with co-chairmen): BASS, MODEL, REX, MONITOR;
3. Executive Committee: IP co-chairmen, co-chairmen from each Task Team plus one each from non-represented countries or national GLOBEC programs and selected international organizations such as NPAFC. International organizations to be represented shall be selected in consultation with the Chairman of PICES;
4. National members – representatives of national GLOBEC programs otherwise not represented plus others to make up a total of three (including co-chairs, Task team co-chairs, and Executive Committee) from each country;
5. Representatives – Chairmen of Science Committees, TCODE, selected WGs, and representatives of selected international groups such as JGOFS;
6. Task Teams – membership to the extent possible from the above categories, plus others as necessary to provide necessary expertise.

To the extent possible, members in these categories should be proposed by the Executive Committee in consultation with Science Board, with countries being asked to approve and support.

**iv) MONITOR Task Team Terms of Reference**

1. Review existing activities of PICES member nations and to suggest improvements in the monitoring of the Subarctic Pacific to further the goals of the CCCC Program;
2. Consult with REX, BASS and MODEL Task Teams and TCODE on the scientific basis for designing the PICES monitoring system. Questions of standardization and intercalibration of measurements, particularly in the area of biological collections, should be addressed;
3. Assist in the development of a coordinated monitoring program to detect and describe events, such as El Nino, that strongly affect the Subarctic;
4. Report to CCCC IP/EC on the monitoring in the Subarctic to be implemented in the international Global Ocean Observing System (GOOS) or other related activities.

**D. Revised Standing List of International Organizations and Programs**

IOC	Intergovernmental Oceanographic Commission
ICES	International Council for the Exploration of the Sea
IPHC	International Pacific Halibut Commission
APEC	Marine Resources Conservation Working Group (MRC), Asia Pacific Economic Cooperation
NASCO	North Atlantic Salmon Conservation Organization
NAFO	North Atlantic Fisheries Organization
NPAFC	North Pacific Anadromous Fish Commission
PSC	Pacific Salmon Commission

SPREP	South Pacific Regional Environmental Program
FAO	Food and Agriculture Organization
WMO	World Meteorological Organization
ICSU	International Council of Scientific Unions
ECOR	Engineering Committee on Oceanic Resources
IASC	International Arctic Science Committee
SCOR	Scientific Committee on Oceanic Research
SCOPE	Scientific Committee on Problems of the Environment
START	South Asian Regional Committee for the System for Analysis, Research and Training

Additions to list

IATTC	Inter-American Tropical Tuna Commission
APFIC	Asia-Pacific Fisheries Commission
SPC	South Pacific Commission
ISCTNP	Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
IGOSS	Integrated Global Ocean Services System
IODE	International Oceanographic Data and Information Exchange
GOOS	Global Ocean Observing System
GOOS-LMR	GOOS Living Marine Resources
NEAR-GOOS	North East Asian Regional GOOS
WESTPAC	Cooperative Study of the Western Pacific, IOC Sub Committee for the Western Pacific
GIPME	Global Investigation of Pollution in the Marine Environment
NOWPAP	Northwest Pacific Action Plan
GESAMP	Group of Experts on Scientific Aspects of Marine Pollution
UNEP	United Nations Environment Program
CLIVAR	Climate Variability and Predictability
WCRP	World Climate Research Program

IGBP International Geosphere-Biosphere Program  
 JGOFS Joint Global Ocean Flux Study  
 GLOBEC Global Ocean Ecosystem Dynamics

WOCE World Ocean Circulation Experiment

## Endnote 1

### Participants

#### Canada

John C. Davis (delegate)

#### China

Mr. Han-Di Guo (alternate delegate)  
 Mr. Qian-Fei Liu (advisor)  
 Mr. Yong Li (advisor)

#### Japan

Satsuki Matsumura (delegate)  
 Kazumi Hagino (alternate delegate)

#### Republic of Korea

Kook-Jeon Ahn (alternate delegate)  
 Hyung-Tack Huh (delegate)  
 Seong-Ho Song (advisor) (Oct. 25)

#### Russian Federation

Lev N. Bocharov (delegate)  
 Igor Shevchenko (advisor)

#### U.S.A.

Vera Alexander (delegate)  
 James W. Balsiger (delegate)  
 Dorothy Bergamaschi (advisor) (Oct. 22)  
 Mark Wildman (advisor)

#### Others

William G. Doubleday (Chairman, PICES)  
 Warren S. Wooster (Former Chairman, PICES)  
 W. Douglas McKone (Executive Secretary) (Rapporteur)  
 Alexander Bychkov (Assistant Executive Secretary) (Rapporteur)  
 John L. McGruder (Chairman, Finance and Administration Committee) (Oct. 22)  
 Makoto Kashiwai (Chairman, Science Board)  
 Chang-Ik Zhang (Chairman, FIS Committee) (Oct. 25)

## Endnote 2

### Report on Administration for 1996-97

#### Council, Committees and Working Groups

##### 1. Payment of national contributions

All annual dues are payable by January 1 each year. Dues were paid as follows:

Canada	December 1996
United States	January 1997
People's Rep. of China	March 1997
Japan	April 1997
Republic of Korea	May 1997
Russian Federation	October 1997

#### 2. National Delegations

##### Japan

Mr. Akio Suda replaced Mr. Teruyoshi Inagawa as delegate to Council.

##### People's Republic of China

Mr. Jian-San Jia replaced Mr. Cong-Meng Liu as delegate to Council.

#### 3. Committees and Working Groups

##### Canada

Dr. Howard J. Freeland replaced Dr. John F. Garrett on POC

Dr. Mike Henderson replaced Dr. Jake Rice on FIS

Dr. Doug Hay was named to FIS

Dr. Paul J. Harrison replaced Dr. Tim R. Parsons on BIO

Dr. John Pringle replaced Mr. R.C.H. Wilson on MEQ

#### Japan

Mr. Akira Mizutani replaced Mr. Hiroshi Karube on F&A

Dr. Nobuo Suginozawa replaced Prof. Yutaka Nagata on POC

Dr. Akihiro Hara replaced Dr. Kiyotaka Ohtani on FIS

Dr. Ichiro Yasuda replaced Dr. Kimio Hanawa on WG 9

Dr. Ichiro Hara replaced Dr. Tokimasa Kobayashi on TCODE

Dr. Toshio Nagai replaced Dr. Tadao Tatsuno on TCODE

b. Dr. Doug McKone and Ms. Christina Chiu attended the Pension Society Meeting in Victoria in May.

c. Dr. Alexander Bychkov attended the International Pacific Halibut Commission Meeting in Victoria in April.

d. Dr. Doug McKone travelled to the Republic of Korea to discuss the PICES Annual Meeting in April.

e. This year the Secretariat is providing funds to bring 11 Russian and 11 Chinese scientists to the Annual Meeting using funds from the Trust Fund and funds allotted to help the Republic of Korea meet their Annual Meeting expenses that were not needed as they found funds internally. This is the first time that PICES has used Trust Funds to, mainly, support appointed members of Committees and Working Groups to attend PICES meetings.

#### 4. Observers

Invitation letters were sent to inter-Governmental and non-Governmental organizations on the agreed standard list. Organizations that accepted our invitation are:

- Asia Pacific Economic Cooperation (APEC), Marine Resources Conservation Working Group: Dr. J. Roderick Forbes
- Scientific Committee on Oceanic Research (SCOR): Prof. Shizuo Tsunogai
- North Pacific Anadromous Fish Commission (NPAFC): Dr. Irina Shestakova
- Global Ocean Ecosystem Dynamics (GLOBEC): Dr. Ian Perry

#### 5. Travel and representation at other organization meetings

a. Dr. Makoto Kashiwai, Ms. Pat Livingston and Dr. Doug McKone attended the North Pacific Anadromous Fish Commission Meeting in Vancouver in March.

#### Communication

##### 1. Publications

List of publications produced this year:

- a. The Annual Report was published and circulated in January.
- b. A poster for PICES VI was printed and distributed in January.
- c. PICES Press newsletters was circulated in January and July.
- d. The First Announcement for the Sixth Annual Meeting was circulated in January.
- e. The 1997 Directory was updated and circulated in January.
- f. Scientific Report No. 7 (Summary of Workshop on Conceptual/Theoretical Studies and Model Development and the 1996 MODEL, BASS and REX Task Team Reports) was published in April.
- g. The Final Announcement for the Sixth Annual Meeting was distributed at the end of May.
- h. A program and abstracts for scientific sessions was prepared for circulation at the Annual Meeting.

- i. A brochure "PICES The First Five Years (1992-1997)" was published in September.

## **2. Electronics Communication**

- a. PICES Home Page was completely redesigned during the year and the "framed" version was installed in August. Ideas and contributions are being solicited from Science Board, other Scientific and Technical Committees, the CCCC Program and Working Groups to improve the contents of the Home Page.
- b. On-line registration and abstract submission for PICES Annual Meetings through the PICES Home Page has been implemented for the first time this year starting in January. As of September, 56% of registrations and 21% of abstracts were submitted this way for PICES VI.
- c. Ordering of PICES publications has been available through the Home Page since January. As of September, 40 requests have been received, 33 from scientists from PICES countries and 7 from scientists from non-PICES countries.
- d. Based on a request of WG 10, an ftp area has been set up on the server to allow members of this Working Group to exchange binary documents in order to prepare their final report for POC. This facility can be made available to other Groups upon request to the Secretariat.
- e. The Secretariat continues to distribute a list of future meetings, information on new books and initiatives in marine science to more than 900 scientists.

## **Secretariat Matters**

### **1. Administration/Financial**

- a. The Secretariat contracted help to improve communications and help reduce costs on the long term (see Electronic Communications above).
- b. The Secretariat developed a Handbook on guidelines to help Chairmen of the various Committees, Working Groups and Convenors of scientific sessions fulfill their tasks.
- c. Improved methods for handling registration and abstract submission for the Annual Meeting are still being developed by the Secretariat. The aim is to simplify the system while trying to reduce costs.
- d. The Secretariat develop a data base of information from a questionnaire on Communication that was circulated by the Communication Study Group set up by Science Board.
- e. The PICES Press newsletter was completely redesigned and the content was improved this year.

### **2. Space, Facilities and Equipment**

- a. The Government of Canada finished making the changes to the PICES facilities to provide more space that meet office standards. The facilities should be adequate to meet the needs over the next few years.
- b. The Secretariat started to replace obsolete computer equipment this year. Unexpectedly, a laserjet printer had to be replaced as well. The Secretariat explored the possibility of renting laptop computers but was unable to find a supplier at a reasonable cost. A new laptop was purchased to replace one that was damaged beyond repair during last year's meeting.