The 19th Session of the IOC Assembly

The 19th Session of the IOC Assembly was held in Paris between 2 and 18 July 1997 with the participation of 76 IOC Member States and 11 organizations.

At the session for WESTPAC (Agenda Item 8.2) held in the morning of Saturday, 5 July, the WESTPAC activities and plan were presented by Prof. Keisuke Taira, Chairman of WESTPAC.

First he introduced to the delegations two new staff at the IOC Regional Secretariat for WESTPAC, Dr. Shigeki Mitsumoto and Mr. Maarten Kuiper. Then he reported on the Third Session of the WESTPAC Sub-Commission held in Tokyo, 26 February - 1 March 1996, which reviewed the WESTPAC programme implementation, the regional components of the global IOC programmes, the cooperation with global and regional organizations, the situation of the IOC Regional Secretariat for WESTPAC in Bangkok, and the formulated Sub-Commission programme for 1996-1998.

Subsequently, he reported on the 2nd Session of the NEAR-GOOS Co-ordinating Committee held in the IOC/WESTPAC Secretariat in May 1997, on the new regional 'Gulf of Thailand' project, the HOTO regional pilot project in the WESTPAC region, which is closely linked to the newly adopted UNEP project in the NOWPAP region, on the IOC Editorial Board for the International Bathymetric Chart in the Western Pacific (IBCWP) held in Bangkok in December 1996, and on the publication of the WESTPAC Paleogeographic Map of the Last Glacial Maximum.

He also mentioned cooperation with other organizations at the regional level as follows:

- NOWPAP projects 1 and 3 jointly implemented with UNEP
- two expert meetings jointly organized by WMO and IOC to prepare a project proposal for SEACAMP
- the Workshop on the Paleogeographic Map jointly organized with CCOP
- the co-operative study in the Gulf of Thailand with the IGCP START Regional Center
- MOU between IOC and SOPAC signed on 4 July 1997, so that joint activities can be planned, in particular the GOOS component in the Pacific Island countries.
- WESTPAC was invited by APEC Marine Resources Conservation Working Group to develop a project proposal on the Inventory of Ocean Monitoring Programmes in the Pacific Region. Joint activities in the field of Harmful Algal Bloom training are under negotiation.

Finally he drew the attention of the delegations to the Fourth IOC/WESTPAC Scientific Symposium to be held in Okinawa, Japan, 2-7 February 1998, as one of the major activities for the Year of the Ocean, requesting them to encourage all marine scientists and experts, in particular young scientists, to participate in the Symposium. (cont. p.8)
NEW WESTPAC STAFF

Welcome Message by the Chairman of WESTPAC

It was my great pleasure to announce at the 19th General Assembly of IOC the arrival of two new staff members of the WESTPAC Secretariat in Bangkok. We had requested UNESCO to hire a UNESCO Staff for WESTPAC for many years, and Dr. Mitsumoto was appointed. We had also encouraged IOC Member States to dispatch Associate Experts to the Bangkok Office, and Mr. Kuijper was nominated by the Government of the Netherlands.

The Pacific Ocean is the largest ocean on the globe, and thus WESTPAC covers a significant part of the world ocean. It is important to co-operate with many organizations, especially within the region. Mr. Yihang Jiang has greatly contributed to this. One example is the Memorandum Of Understanding between the Intergovernmental Oceanographic Commission and the South Pacific Applied Geoscience Commission (SOPAC), which was signed on 4 July 1997 in Paris.

WESTPAC adopted many scientific programmes and projects at its Third Session in 1996. They extend over many fields of oceanography, i.e. physical, chemical, biological, geophysical, and fisheries.

Dr. Mitsumoto obtained his D.Sc. degree in geophysics, Mr. Jiang is an expert of physical oceanography, and Mr. Kuijper is an expert in marine biology and coastal management. Now all major fields of oceanography are represented by the WESTPAC Secretariat. I sincerely hope that a significant progress can be made to scientific programmes and projects.

We are now preparing for the International Year of the Ocean-1998. The Member States are planning many events for the promotion of ocean science and services, including the regional projects of the Global Ocean Observing System (GOOS). The Fourth International WESTPAC Scientific Symposium will be held on 2-7 February, in Okinawa, Japan. I look forward to see many colleagues from many countries there.

With gratitude to UNESCO, the Governments of the Netherlands and Japan and Thailand for their continuing support to WESTPAC.

Prof. Kelsuke Taira, Chairman of WESTPAC

Dr. Shigeki Mitsumoto

Dr. Shigeki Mitsumoto was born in Hiroshima-Ken, Japan in 1951. He graduated from the Department of Physics at Tokyo University, and finished his M.Sc. at the Ocean Research Institute, Tokyo University in 1976. He started to work at the National Institute for Environmental Studies (NIES), and worked there for 21 years as a meteorologist and climatologist. First he carried out a research on the local wind system including the 'land- and sea-breeze' typical for coastal regions, and was given a D.Sc. degree from Tokyo University. From 1989 till 1991 he was a visiting scientist at the Geophysical Fluid Dynamics Laboratory (GFDL) at Princeton University, where he joined the Climate Modeling Group.

After returning to NIES, he established a joint project with the Center for Climate System Research, Tokyo University, for making a long-term climate model. He has been also a lecturer at National Chiba University, where he taught 'the history of the earth'.

He was seconded by the Government of Japan to the IOC/WESTPAC Secretariat in Bangkok as a 'programme specialist for marine sciences and coastal areas'. Since he arrived at Bangkok in April 1997, he has been engaged in supervising and assisting several on-going projects such as WESTPAC-HAB Training Course held in August in Tokyo, and the preparation for the 4th WESTPAC International Scientific Symposium held in Okinawa, Japan, February '98. One of his most important roles is to be a 'bridge' between UNESCO/Jakarta and IOC/WESTPAC through coordinating the many projects already going on in several regions as well as creating new projects.

Mr. Maarten Kuijper

Mr. Maarten Kuijper was born in 1967 in Maastricht, the Netherlands. At the State University of Groningen he specialized in marine biology. His thesis work was on reef ecology in the Caribbean. After graduating, he continued in Newcastle upon Tyne, UK for a M.Sc. degree in Tropical Coastal Management. Here he really got interested in the application of marine science in coastal management and related issues.

In the following three years he worked with Delft Hydraulics, an internationally renown consultancy in water resources management and hydraulic engineering. He was involved in environmental impact assessments, pollution inventory studies, flood alleviation studies and integrated coastal zone management studies. He spent six months in Indonesia working on the ADB funded Segara Anakan Rehabilitation Study.

He applied next for the position of Associate Expert in a bilaterally funded development project in Costa Rica. Here he was responsible for fisheries development projects and the integrated management of mangrove and estuarine areas at the

(continues on p.6)
The IOC/WESTPAC Training Course on 'Species Identification of Harmful Microalgae' was held in Tokyo on 22-30 August under the leadership of Professor Yasuwo Fukuyo, Asian Natural Environmental Science Center, University of Tokyo. This was the 3rd Training Course in a series starting in 1995. This was the first one after the coordination was transferred from the IOC/HQ in Paris to the IOC/WESTPAC Secretariat in Bangkok.

Out of 31 applicants from 12 countries within and outside of the WESTPAC region, 15 participants were finally selected from eight countries: China, Fiji, Indonesia, Korea, Malaysia, Philippines, Thailand, and Vietnam, by Prof. Fukuyo and Dr. S. Mitsumoto, IOC Regional Secretariat Office in consultation with the HAB Secretariat office at IOC/HQ and HAB Training Center at Copenhagen.

The lecturers were Prof. Fukuyo, Dr. A.N. Marasigan of the University of the Philippines, Mr. Tumpak of the Research & Development Center for Oceanology, Indonesia and Dr. Masaaki Kodama of Kitasato University, Japan.

The objectives of the Training Course were:
(1) Improvement of the participants identification skills on harmful microalgae in order to enable them to detect their occurrence and mitigate their harmful effects, and
(2) The experience obtained will be used in designing and implementing a monitoring programme. The training activity will focus on improving related human resources as well as technology and knowledge transfer in order to develop capability in WESTPAC countries for management of HAB events.

Accordingly, the final purpose of the Training Course is to upgrade leading scientists in each country so that they could establish focal points for the HAB research center back in their home countries. Professor Ann Anton of the University of Malaysia at Sabah, one of the participants, plans to have a local HAB Training Course in Malaysia next year with the assistance of an expert mission organized in the framework of WESTPAC-HAB project. Dr. Pornsilp Pholpunthin at Prince of Songkla University of Thailand, another participant, has also a plan for a local seminar utilizing materials distributed during the Training Course.

All the participants learned the techniques very diligently and they enjoyed the friendship-building among the participants including the lecturers.

Dr. Mitsumoto at WESTPAC Secretariat, who was coincidentally in Tokyo at that time, gave a welcome speech at the reception party, and Prof. Taira, Chairman of WESTPAC, gave closing remarks.

We regret that one of the participants from the Philippines could not attend due to the heavy typhoon hazard in Manila.
Marine research in Vietnam has already begun since 1920's, with the establishment of the Institute of Oceanography in Nha Trang in 1922, one of the first marine research institutions in the Indochina region at that time.

During the first period - from that time to the end of the 1930's, scientific research activities of the I.O. Nhatrang aimed at supporting the marine fisheries development in this region. For that reason, the research objectives were oriented to the investigation on the relief of the sea bottom of fishing areas in the continental shelf, the inventory of the biological resources and a study on its dynamics in Vietnam sea and adjacent waters. Due to the war in the Indochina region, from 1945-1954, marine research in Vietnam was almost stopped and then continued only after 1954, when the war had finished in North Vietnam.

In the northern part of Vietnam sea, many marine research programmes were carried out in the period from 1954-1975: Programme of complex investigations in Tonkin Gulf (1959-1962), Programme of investigation and evaluation of the demersal fish resources (1959-1962), with the cooperation of Vietnamese and estimation of the fish resources (pelagic and demersal fishes) (1960-1961) with the participation of the TINRO and Institute of Marine Fisheries of Vietnam. At the same time, other research projects were carried out in coastal zone of North Vietnam.

In the southern part of Vietnam at that time, there was the NAGA Expedition (1959-1961) with the participation of USA, Vietnam and Thailand scientists, Programme of investigation on offshore fisheries resources (1968-1969) sponsored by FAO and other foreign organizations. At the same time, many projects of geophysical investigations for exploration of gas and oil resources in the southern Vietnam continental shelf were carried out by different foreign companies.

Marine research activities in this second period aimed at the general survey and evaluation of the natural condition characteristics and resources potential of the Vietnam sea. It gave a description of most important natural conditions, an inventory of biological resources and a preliminary estimation of gas and oil capacity in some points of the continental shelf of Vietnam.

The present period of marine research activities of Vietnam may be considered from 1975, after the end of the long war and the reunification of the country. Vietnam has a 3,200 km long coastline and a large sea area. From that time, corresponding to each state five-year plan of socio-economic development, a National Marine Research Programme has been organized with the participation of different marine scientific institutions of the country. It has been carried out now on the whole sea area, with the state financial support. At the same time, many projects of marine research mainly in the fields of hydro-meteorology, geology, geophysics, marine biology and ecology, have been carried out by different Ministries.

Marine research activities in this period are characterized by promoting study on the most important marine processes of small and medium scale in the Vietnam sea area and in the Bien Dong Sea (South China Sea) aimed at finding the characteristic features and the dynamics of these processes, related to marine resources and environment of the Vietnam sea in a regional context. Utilization of modern methods and techniques such as remote sensing, informative techniques, mathematical modelling has been encouraged in marine research in this period as well.

The results of marine research in Vietnam over a period of more than 60 years, have given a general knowledge on the most important problems of natural conditions and resources of the Vietnam sea and extensive data on characteristics of hydro-meteorological conditions, tidal processes, currents, surface waves. We have also now data on geomorphological features, upper sediment distribution, Kainozo marine geological structure and geological characteristics of the continental shelf, some preliminary notions on the deep structure. In the coastal zone, important problems have been studied, such as structure and productivity of coastal ecosystems (mangroves, lagoons, coral reefs), its utilization and management, hydro-lithodynamics processes in estuarine zones, phenomena of oil pollution, sea level rise in storms, problems of erosion and sedimentation in coastal zone, and others. Evaluation of marine biological resources (fish, shrimp), gas and oil, mineral resources (mainly sedimentary mineral) have been completed, although incompletely and not yet over the whole sea area. However, to give an effective support to the socio-economic development of the country, to the rational exploitation and protection of marine resources and environment at present time and in the future, larger and more thorough studies are needed on the most important problems of the Vietnam sea, a list of which is presented below:


2. Elaborate detailed bathymetric, geomorphologic charts for the whole sea area, including new data on relief dynamics particularly in coastal estuarine zones.

3. Study more completely on the hydro-meteorological processes, problems of sea-atmosphere interactions, elaborate methods of forecasting important hydro-meteorological factors.
4. Complete evaluation of biological resources, including fishes and non-fishes, local and migrating stocks in coastal and offshore zones.

5. Study more completely on the geological structure and geodynamics of the sea bottom, to obtain exact estimation of the gas and oil and mineral resources potential of the whole sea area.

6. Marine environment forecasting and its control, mainly problems of erosion and sedimentation, pollution in the coastal zone, degradation of coastal ecosystems.

7. Establish scientific and technical basis and develop official regulations for offshore engineering.

8. Investigation and estimation of the strategic significance of nearshore and offshore islands in socio-economical development of the country.

The above mentioned problems are included in the National Marine Research Programme and Projects of Marine Research of different institutions in the period of 1996-2000 and further, to establish necessary scientific and technical basis for the great development of the marine economy of Vietnam, at the beginning of the 21st century.

To implement these tasks requires the participation of different marine research institutions belonging to NCST Vietnam, General Department of Hydro-Meteorology, Vietnam Gas and Oil Corporation, Department of Geology Universities of HaNoi and Ho Chi Minh City. At the same time, in the regional context, Vietnam as a member of IOC-WESTPAC has actively participated in marine research activities of IOC-WESTPAC, SEAFDEC, ASEAN such as regional cooperative marine research projects: on red tides, on river/inputs in E. Asian seas, on coral reefs and Marine Protected Areas, on International Bathymetric Chart in western pacific region... and at the present time, project on cooperative research on the Gulf of Thailand. In these cooperation activities, we hope that besides our contribution to the development of marine sciences of the region for the benefit of all regional countries, we could receive important experience and assistance for the development of the marine sciences of Vietnam itself.

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4th IOC/WESTPAC International Scientific Symposium, 2-7 February 1998 in Okinawa

As was previously announced in the WESTPAC Newsletter No.5, the aforementioned Symposium will be held as one of the major events of the International Year of the Ocean (IYO). By the end of August about 45 scientists from ten countries (except Japan) within and outside of WESTPAC region have sent in applications. With the dispatch of the Second Circular completed at the end of August, more applications are anticipated. Please note that the deadline for abstracts is extended from 30 September (First Circular) to 31 October. The participation of more scientists from more countries, especially young scientists, is encouraged. The Budget and Finance Committee is now making a major effort in fundraising to obtain as much financial support as possible.

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*Scenery of the sea of Vietnam (from 'Vietnam Attractive Landscape and Vestiges')*
HOTO Mission to the WESTPAC Countries

Drs. Neil R. Andersen and J. Michael Bewers, respectively Chairman and Vice-Chairman of the IOC/UNEP/IMO Global Investigations of Pollution in the Marine Environment (GIPME) Programme, recently undertook a mission to the WESTPAC Region to discuss regional issues and activities in the context of the GIPME Programme and the Health of the Oceans (HOTO) and Coastal Modules of the Global Ocean Observing System (GOOS). Drs Andersen and Bewers have been officers within various levels of the GIPME Programme since the early 1970s and more recently have been involved in the activities of the Joint Scientific and Technical Committee for GOOS, particularly the development of strategic plans for both the Health of the Oceans and Coastal Modules of GOOS.

Between March 14 and April 7, 1997, Drs. Andersen and Bewers visited the WESTPAC Secretariat in Bangkok, Singapore, China, Korea and Japan to meet with agencies and individuals involved in marine environmental surveillance and monitoring activities in the region. At each meeting they informed the participants of the background and the state of development of GIPME and relevant GOOS activities in the International sphere and also highlighted specific regional activities, such as the NOWPAP Programme and the International Mussel Watch Project, that might be of interest to countries in the region. In turn, Drs. Andersen and Bewers were briefed on local, national and regional perspectives and problems bearing on the topics of marine environmental surveillance and protection. They were accompanied on their visits to Bangkok, Beijing Seoul and Tokyo by Mr. Y. Jian, Deputy Director of the IOC WESTPAC Secretariat who was able to provide his knowledge, experience and insights on the region to bear on the discussion.

Not only were meetings held with IOC contacts in the countries visited, but efforts were made to make other contacts in the marine environmental field among agencies and individuals having keen interests in marine monitoring and protection activities. For example, in Singapore, meetings were held with individuals involved in the Tropical Marine Science Initiative and the Law Department of the National University of Singapore.

This mission is judged of special importance in an international context because of the rapid economic development of many countries in the region and the heavy, and increasing, reliance and exploitation of marine resources. As in other areas of the world, such activities result in conflicts among stakeholders interested in the development and protection of marine resources and amenities that, ideally, require to be resolved in the interest of sustainable development and the maintenance of biological diversity. Thus, the region represents an extremely fertile area for expanding GIPME monitoring activities including associated training and intercomparison exercises and implementing GOOS pilot projects particularly with regard to the HOTO and Coastal Modules.

The programmes represented by Drs. Andersen and Bewers are all directed at measuring the attainment of sustainable management objectives and the detection and quantification of environmental change that is of considerable economic and social interest to countries in this region.

Both IOC experts enjoyed their visit to the region and expressed their appreciation to the WESTPAC Secretariat, represented by Mr. Jiang, for its assistance in planning and executing the mission. An abundance of information was provided to Drs. Andersen and Bewers and this will be synthesized and used to provide information to the IOC Assembly in July, 1997, and to develop proposals for future activities within the GIPME and GOOS Programme envelopes that would be tailored to WESTPAC Regional aspirations and requirements. Drs. Andersen and Bewers have personally expressed their thanks to those with whom they met during their visit to the region for the time and effort made to ensure the success of their mission.

(cont'd from p.2)

...grass-roots level. On return to the Netherlands, he applied for the job of Associate Expert in Ocean Sciences in relation to Living Resources with IOC/WESTPAC, where he arrived in July 1997. He is very much interested in the development of integrated coastal area management, the conservation and sustainable use of living resources, and the translation of science into management in general. He is currently involved in the Global Coral Reef Monitoring Network and the International Co-operative Study on the Gulf of Thailand. He would like to focus on multidisciplinary issues. He not only hopes that the next two years will be a valuable personal experience for him, but that at the same time he will be able to contribute to WESTPAC's activities in the most productive way.
Perspectives on ICAM: Where Does IOC Go from Here?

During the 19th Session of the IOC General Assembly in Paris, the majority of countries in the WESTPAC region were represented. Their presence was invaluable in the many discussions which took place. The following excerpt of the intervention by Dr. M. Fortes of the Philippine delegation most adequately describes the importance of taking a regional perspective on the many programme activities of IOC. In this intervention he reflects on the role of IOC in the field of Integrated Coastal Area Management (ICAM) in the WESTPAC region.

Taking a realistic view on the region, he noted the advancement on knowledge and technological sophistication in marine science and oceanography, the significant amount of expertise and funding used and committed till now in the area of ICAM and the continued degradation and destruction of the coastal environment in Southeast Asia. This led him to rightfully question the effective use of sound marine scientific knowledge in addressing ICAM issues in the developing countries of WESTPAC, the slow pace or even absence of institutionalizing marine scientific research and its incorporation in legislation or management practices, and the apparent ‘paper’ and ‘word-of-mouth’ success of many marine science initiatives, which reflects the problem of getting the real message across to the policy makers.

While appreciating the current effort of IOC to address ICAM issues, the Philippine delegation would like to propose the following measures in view of the above. These measures are in keeping with the evolving role of IOC, not merely as a facilitator and promoter of marine science, but as a regulator and policy advocate:

1. That the IOC make extra effort to support simple and pragmatic initiatives which directly provide for the optimization of the use of sound marine scientific knowledge in addressing ICAM issues;

2. That IOC support the institutional practice of obtaining, disseminating, and using high quality, accurate data for decision making in ICAM;

3. That IOC adhere to the paradigm that the coastal marine environment, together with all the other aquatic and terrestrial environments, should be developed and managed as a unit rather than along sectoral lines since they are all interconnected by biophysical processes and human impacts;

4. That to distinguish ICAM in IOC from other similar programmes, IOC play a more aggressive role in facilitating a concerted shift from too much emphasis on ‘curative’ or restoration/mitigation programmes, to actual ‘preventive’ ones. In fisheries for example, the most important future action bear on the supply side of the fisheries equation. Therefore, improving, enhancing, and rehabilitating fishery areas and fish habitats should be at the top of the agenda. Increasing fishing power and capability are inappropriate measures since fish stocks became overexploited in the early 1980's;

5. That IOC promote and facilitate the use of indigenous management structures, experiences, and socio-cultural values with specific attention to gender issues, in order to arrive at a sound understanding of the potential of local communities, their true demand, and to ensure their full commitment;

6. That in identifying the required resources for ICAM, IOC strengthen and build upon existing capacity rather than create new institutions. The creation of completely new institutions carries the risk that efforts will be duplicated and that the expertise will be spread too thinly;

7. That IOC make extra effort and highlight our concerted response to these issues and concerns in our celebration of 1998 as the International Year of the Ocean; the Philippines, through its delegation and coincident with the centennial celebration of its independence in this same year, has been successfully doing that;

8. That IOC encourage member states and affiliated world bodies who have the means and expertise to address directly these issues; the results of this endeavour should be published, used as a basis of policies and decisions and disseminated to all concerned without delay; and

9. That IOC be more aggressive in persuading member states, especially in developing regions, to commit more resources to ICAM and effect a change in attitude and perception towards international participation in related activities of IOC. Care should be taken so that such an aggressive stance will not be construed as political interference, but as a simple scientific persuasion towards a greater and common good.

After more than three and a half decades of its existence, IOC has to make an honest introspection. It has to do so in relation to its goals and objectives. It should realize that no matter what decision we make on ICAM vis-à-vis IOC programmes, it is here to stay as a focal point in its efforts to be more useful to the world, especially to member states in coastal Asia.
Summary of the discussions

With regard to the regional components of GOOS, many delegations expressed their satisfaction on the development and operation of the NEAR-GOOS, as a good example of the development of the regional components of GOOS. In particular, the full and open data exchange policy should be maintained.

Several delegations suggested that similar actions should be taken to develop the South East Asian-GOOS (SEA-GOOS) and the South Pacific GOOS, and urged that, in an early stage, experience should be drawn from the development of NEAR-GOOS.

The Assembly indicated that linkage between the NEAR-GOOS and the HOTO regional pilot project should be set-up to include more biological and chemical parameters in the system.

With regard to the established NOWPAP projects, in particular NOWPAP/3 on the establishment of a regional marine environmental monitoring system, appropriate co-ordination should be ensured. For the further development and operation of the system, the global component of the Coastal Module of GOOS should be taken into consideration.

The Assembly noted with great interest the development and implementation of the project on the Gulf of Thailand, which will serve as a pilot study on integrated coastal area management. It was urged that more attention should be given to an interdisciplinary approach to provide scientific knowledge and information for integrated coastal area management. Co-operation and co-ordination with other organizations in the region, e.g., SEAFDEC and SEAPOL, should be ensured.

Following a presentation by Dr. A Simpson, the Representative of SOPAC, the Assembly recognized that active participation of the Pacific Island countries in WESTPAC activities should be encouraged, in particular in terms of capacity building. The Assembly welcomed the co-operation between IOC and SOPAC, and decided that joint activities should be carried out with the Pacific Island countries. The Assembly was informed of the MOU on co-operation between SOPAC and IOC signed during the Assembly.

The Delegate of France informed the Assembly that his government will provide financial contribution of 10,000 US$ to support the participation of the scientists of the Southern Pacific Island countries in the capacity building workshop for the regional component of GOOS.

The Assembly noted with satisfaction the functioning of the IOC Regional Secretariat in planning, co-ordination, and implementation of the WESTPAC programmes, and welcomed the new staff member from Japan at the Secretariat. In addition, the Assembly thanked the Government of the Netherlands for providing an associate expert to the WESTPAC Secretariat. The Assembly instructed the Executive Secretary IOC, to take advantage of this so as to ensure the increased and effective operation of the Secretariat.

New Publications

"Phytoplankton Pigments in Oceanography, Guidelines to Modern Methods" published in 1997 by UNESCO, edited by S.W. Jeffrey, R.F.C. Mantoura, and S.W. Wright Contact: Mr. Gary Wright, Coastal & Marine Publications fax., (33-1) 4568-5806, e-mail : g.wright@unesco.org

Meetings

The 34th CCOP Annual Session, Taej on, Korea, 7-10 October 1997

Fourth Session of the HOTO Panel Meeting, Singapore, 13-15 October 1997 Contact: Yihang Jiang. fax (66-2) 561-5119, e-mail : westpac@samart.co.th

Fourth IOC/WESTPAC International Scientific Symposium, Okinawa, Japan, 2-7 February 1998 Contact: Shigeki Mitumoto, fax : (66-2)561-5119, e-mail : mitumoto@loxinfo.co.th

WESTPAC Information

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