



## **Thirty-fifth Session of the Executive Council**

Paris, 4-14 June 2002

Intergovernmental Oceanographic Commission  
*Reports of Governing and Major Subsidiary Bodies*

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## 1. OPENING

1 The Chairman, Prof. Su Jilan, opened the 35<sup>th</sup> Session of the IOC Executive Council at 10.00 on Tuesday 4 June, and welcomed the delegates and representatives. He announced that, for family reasons, the IOC Executive Secretary could not attend the session before late Tuesday afternoon, and noted that this would require changes to the timetable, addressed under agenda item 2.4.

2 In his opening remarks, the Chairman drew attention to IOC's contribution to the World Summit on Sustainable Development (WSSD) that will take place in Johannesburg from 26 August to 4 September this year. He noted that IOC was playing an active role in the Preparatory Committee (PrepCom) for the WSSD. A new draft text on the goals of the WSSD had been prepared by the Chairman of the Commission for Sustainable Development (CSD), and was being discussed at PrepCom 4 in Bali, Indonesia. The IOC Declaration resulting from the extraordinary session of the IOC Executive Council in December 2001 was incorporated as one of the inputs to the WSSD preparatory process.

3 Concerning the Informal Consultative Process on the Oceans (ICP) of the UN General Assembly which had been established three years ago to assist in the analysis of issues related to Oceans and the Law of the Sea, the Chairman noted that the General Assembly had to decide this year whether or not the ICP should be continued. The ICP represents a great opportunity for IOC to obtain high-level political support for action on ocean issues. IOC's reporting to ICP has led to IOC receiving greater attention.

4 The Chairman called to the attention of the Executive Council about the discontinuance of the ACC Sub-Committee on Oceans and Coastal Areas (SOCA), an issue that requires close follow-up by IOC insofar as it has strong implications for the Commission's effort to improve coordination on ocean matters.

5 Among the new developments, the proposal to develop a global assessment of the oceans is of great interest to IOC. Finally, the Chairman informed the Executive Council that at the meeting of the World Commission of the Ethics of Scientific Knowledge and Technology (COMEST) of UNESCO, he proposed to them to set up an expert group on the Ethics of the Oceans.

6 The Chairman concluded his introduction by noting that Admiral Marcos Leal de Azevedo had resigned from his post as Vice-Chairman. The delegations of Argentina and Brazil suggested that an ad hoc meeting of Member States from the Latin American and Caribbean region (GRULAC) should be held to discuss the implications of Admiral Leal de Azevedo's resignation, as IOC's statutes and rules of procedure do not allow his replacement until the next election. The delegation of Brazil proposed that IOC invite an observer to represent the GRULAC region's interests.

7 In response to concerns raised by Member States for the GRULAC region, the Chairman expressed his assurances that the interests of the region would be fully protected during the intersessional period before the elections at the next Assembly. Details of how this could be achieved would be decided by the Chairman, in consultation with the Officers of the Commission and the Executive Secretary, immediately following the Executive Council and this information would then immediately be transmitted to the GRULAC region.

8 Mr Marcio Barbosa, Deputy Director-General of UNESCO, welcomed the participants on behalf of the Director-General of UNESCO.

9 Mr Barbosa reaffirmed the importance that UNESCO places on the IOC. The IOC was recognized by the General Conference as one of the two "flagship programmes of UNESCO". Mr Barbosa was pleased to note the increased recognition of the IOC by the UN and other organizations. (Statement in Annex III.)

10 The Chairman noted that Dr Umit Unluata would represent Dr Bernal until the Executive Secretary returned.

## 2. ORGANIZATION OF THE SESSION

### 2.1 ADOPTION OF THE AGENDA

11 In introducing the Agenda, the Chairperson drew the attention of the Executive Council to the absence of a report on the 6<sup>th</sup> session of the IOC Intergovernmental Panel on Harmful Algal Blooms, because that session had been postponed until October 2002.

12 The Agenda was adopted as presented in Doc. IOC/ECXXXV/1 prov.rev. with changes. Item 3.2 now reads: Report on Programme and Budget; Item 7. Draft Programme and Budget; Item 4.1 General Policy Issues. Item 4.2.1 was corrected in the Spanish version and a supplementary item on Global Marine Assessment was included under 4.1.8.

13 **The Executive Council adopted** the Agenda as given in Annex I.

### 2.2 DESIGNATION OF THE RAPPORTEUR

14 **The Executive Council** gratefully **accepted** the offer of Japan to act as the Rapporteur to assist the Chairperson and the Executive Secretary in the preparation of the draft summary report for the session.

### 2.3 ESTABLISHMENT OF INTRASESSIONAL COMMITTEES

15 A Technical Review Committee for Resolutions was appointed under the Chairmanship of Mr G. Holland (Canada), with membership from: Brazil, China, Colombia, France, Japan, Kenya, Morocco, Peru, Republic of Korea, and the Russian Federation.

16 **The Executive Council accepted** the proposal made by the Chairman to establish an ad hoc sessional Working Group on Programme and Budget under the Chairmanship of Vice-Chair, Dr David Pugh (U.K.). The group would be open-ended and would meet at times to be announced.

17 **The Executive Council also accepted** the proposal of the Chairman of the IOC/ABE-LOS Sub-group on the Transfer of Marine Technology that an informal open sessional meeting should be held for the purpose of exchanging views on the draft being prepared by the sub-group on that matter.

### 2.4 INTRODUCTION OF TIMETABLE AND DOCUMENTATION

18 The IOC acting Executive Secretary introduced the documentation, noting that the Action Paper (doc. IOC/EC-XXXV/2) was drafted following the model initiated for the 21<sup>st</sup> Assembly in 2001. The action Paper is a consolidated document that incorporates the information necessary to adopt decisions, includes pertinent references to ancillary documents, and contains draft texts proposed for adoption as the final report of the Assembly and some draft resolutions.

19 The Timetable included four Information Sessions for the purpose of reporting on recent progress in the implementation of the Commission's programmes, and differentiated them from agenda items requiring action from the Executive Council. The R. Revelle Memorial Lecture was scheduled within the plenary working hours of the Executive Council to benefit from interpretation.

20 Due to the Executive Secretary's delayed arrival, the timetable was changed as outlined in Doc.IOC/ECXXXV/1 Add.prov.rev.4. It was agreed that agenda item 6.1 on IOC/ABE-LOS-II be advanced to Monday 10 June.

21 **The Executive Council adopted** the Revised Provisional Timetable (Doc. IOC/ECXXXV/1 Add. prov. rev. 4). The list of working documents is given in Annex IV, the list of participants in Annex V and the List of Acronyms in Annex VII.

22 The introduction of information sessions was welcomed, but some delegations felt that these sessions should be kept together in a block either at the beginning or end of the Executive Council meeting, or be presented as late afternoon sessions and not spread over the timetable.

## 2.5 ROGER REVELLE MEMORIAL LECTURE

23 Dr Greg Withee, Assistant Administrator for Satellite and Information Services of the U.S. National Environmental Satellite, Data and Information Service at NOAA, was invited to take the floor to deliver the 2002 Roger Revelle Memorial Lecture on "The Increasing Role of Remote Sensing in Ocean Science and in Operational Oceanography, and its Potential Role in Sustainable Development". Integrated with *in situ* data for assimilation into ocean forecasting models, remote sensing becomes part of operational oceanography and plays an essential role in observing the ocean and monitoring the state of the planet. Much is to be done within all countries to increase understanding of the value of remotely sensed data and capacity to use data that are potentially free.

24 In the discussion following the lecture, **the Executive Council agreed** that there was a need for IOC to facilitate increased access by developing countries to remotely sensed data, and to facilitate training in the use of such data for the development of products useful for decision and policy makers. Dr Withee told the Executive Council that some space agencies were already providing capacity building, for example the European Commission - funded PUMA Programme led by EUMETSAT, which aims to upgrade meteorological satellite data collecting and interpreting capabilities across Africa.

25 It was pointed out that at present some space agencies charge significant fees for access to remotely sensed data, a practice that actually prevents the up take of such data particularly by developing countries. This has the effect of depressing the potential markets in ocean products that might otherwise develop. Dr Withee noted that NOAA provides its data free of charge, and encouraged freedom of access to remotely sensed data so as to encourage the widespread development and use of ocean products.

26 It was also pointed out that the greatest value would come from combining remotely sensed and *in situ* data into numerical models for now-casting and forecasting, and the question was raised of what might be done to facilitate the collection of the necessary *in situ* data by developing countries.



27        **The Executive Council agreed** that the IOC should encourage more widespread use of remotely sensed data for alerts and warnings of severe events, like hurricanes, storm surges, floods, and droughts. Dr Withee reported that CNES (Centre national d'études spatiales - France) had led the development of a Disaster Charter through which participating space agencies provided key data, free of charge, to affected areas before, during, and after major disasters.

### 3.        **DEVELOPMENTS SINCE THE 21<sup>ST</sup> SESSION OF THE IOC ASSEMBLY**

#### 3.1       **REPORT OF EXECUTIVE SECRETARY**

28        Dr P. Bernal, the IOC Executive Secretary, recalled that, as stated in Article 49 of the Rules of Procedure, "*the Executive Secretary shall submit to each session of the Assembly and the Executive Council a report on the work accomplished since the previous session*". The Executive Secretary presented his report on activities in 2001 and up to the first semester of 2002 as an Addendum on latest events, referring to document IOC/EC-XXXV/2 Annex 1 and Add.; and the document on implementation of IOC Governing Bodies Resolutions (Doc. IOC Annual Report, N° 8 Addendum).

29        With reference to latest events, the Executive Secretary emphasized IOC involvement in the preparation of the World Summit on Sustainable Development (WSSD), and the considerable interest of the Commission in the UN Informal Consultative Process on Oceans (ICP). He informed the Executive Council that many of the UN programmes and agencies participating in the coordination of oceans and coasts met informally at UN Headquarters in April 2002 on the occasion of the 3<sup>rd</sup> meeting of ICP, and conducted consultations on the future coordination mechanism they could use following the termination of the ACC Sub-Committee on Oceans and Coastal Areas. As a result of these consultations, a text was submitted to ICP by the Executive Secretary who was invited by the Co-Chairs of the ICP to share his experience about coordination on ocean issues and on the lessons to be learned from past experience.

30        In reporting on the follow-up of Resolution EC-XXXIII.14 (IOC Regional Committee for the Southern Ocean), the Executive Secretary informed the Executive Council that a meeting of experts representing different science organizations involved in scientific research in the Southern Ocean took place in Mar del Plata, Argentina in October 2001. Two main conclusions emerged from that meeting. First, that there is no immediate need to establish a permanent mechanism of coordination of research in the Southern Ocean; and second that a regular exchange of information on planned activities among international scientific programmes should be maintained.

31        **The Executive Council thanked** the Executive Secretary for the excellent work done and **commented** on some aspects of his report.

32        **The Executive Council expressed** its satisfaction with the Commission's involvement in WSSD, ICP and UNEP's initiative on the Assessment of the State of the Marine Environment, and **expressed** the hope that, given the expertise and experience gained by the IOC through the operation of Ocean Science and Services, IOC should play a significant role, along with UNEP, in the Global Marine Assessment. However, delegations also noted the necessity of having resources made available to the IOC to take on new tasks associated with the assessment, as the needs of the assessment could potentially overwhelm IOC resources, and asked the IOC Executive Secretary and Member States to find resources in this connection. The delegation of France welcomed the new initiatives, and advised that any

future engagements of the Commission should be carefully considered, especially taking into account their budgetary implications.

33 In response to a query about how all aspects of the IOC's activities, including the Global Marine Assessment would be funded, the Executive Secretary underlined the importance of extra-budgetary funds for the Commission (Article 10 of the Statutes). He also emphasized the clarity that should be brought to IOC financial reporting by the new UNESCO financial management system.

34 The delegation of Argentina requested that paragraphs 31 and 32 of document IOC/EC-XXXV/2 Annex 1 and the words "pioneer effort" in paragraph 42 be deleted because they were, in its view, incompatible with the report of the first IOC/ABE-LOS session. The delegation also noted that the conclusions of the second IOC/ABE-LOS session were missing from the report.

### 3.2 REPORT ON PROGRAMME AND BUDGET

35 The Executive Secretary referred to documents IOC/EC-XXXV/2 Annex 2 and addendum, which contained an overview of the implementation of the IOC budget during the biennium 2000-2001, as well as an outline of the IOC budget for 2002, based on the programme and budget for 2002-2003 as approved by the 31st General Conference of UNESCO. He referred to the subsequently prepared work plans for 2002. The documents also provided a general overview of the IOC staffing situation. The Executive Secretary then introduced document IOC/EC-XXXV/2 Annex 12 – Draft Programme and Budget for 2004-2005. This document was prepared in response to the recommendations of the last session of the IOC Assembly in order to put in place its approval by the IOC governing bodies and its subsequent consideration by the UNESCO Executive Board.

36 In the ensuing discussion the **Executive Council expressed** its appreciation with the clear and transparent way in which the IOC budget was presented. **It noted** a consistent improvement of these presentations over the last three years and **encouraged** the Secretariat to continue its efforts in this direction. **The Executive Council expressed** its concern with regard to the increasing budgetary constraints faced by the Commission in the implementation of its programme. Several delegations noted that the increased responsibilities arising from IOC's higher profile within the UN system and possible actions following on the WSSD accentuated the importance of exploring *"innovative approaches for the improvement of financial support for the Commission's programme of work"* as proposed in item (iv) of the letter circulated by the Executive Secretary (IOC/CL 2009) in response to Resolution XXI-5, "Further Development, Consolidation and Strengthening of IOC". **The Executive Council recommended** that alternative funding sources be sought by the Secretariat and the IOC Member States.

37 **The Executive Council welcomed** the change of procedures in presenting the Draft Programme and Budget for the biennium 2004-2005 for the approval of the IOC governing body before its submission to the UNESCO Secretariat as an input to future document 32 C/5 and subsequently to the UNESCO Executive Board. **The Executive Council instructed** the Executive Secretary to take into consideration several specific comments made, notably with regard to JCOMM, IOC/ABE-LOS and the Law of the Sea processes, the definition of the sub-regional versus regional approach and crosscutting cooperation within UNESCO and the UN system.

38           **The Executive Council encouraged** the open-ended sessional working group on Programme and Budget chaired by Vice-Chairman Dr D. Pugh (U.K.) to proceed with a more in-depth examination of all budget-related issues and to report the results of its work to the Executive Council under agenda item 7.

### 3.3      FOLLOW-UP OF KEY RECOMMENDATIONS OF THE EXTERNAL EVALUATION

39           The Executive Secretary recalled the purpose and the goals of the IOC external evaluation conducted during 1999-2000 and the three levels of issues addressed in the Evaluation Report (IOC/EC-XXXIII/2 Annex 3): (i) the strategic positioning of IOC; (ii) its current performance/efficiency as a body with functional autonomy in UNESCO; and (iii) the quality of the management. He also recalled that the Assembly requested the Secretariat to report regularly on this matter to governing bodies.

40           The Executive Secretary indicated that IOC is developing a strong partnership with SCOR through the Surface Ocean-Lower Atmosphere Study (SOLAS) and the “Ocean Futures”/IGBP Oceans programmes.

41           The Executive Secretary then referred to document IOC/EC-XXXV/2 Annex 3, *Internal Follow-Up of the IOC External Evaluation*, which provided an update of actions undertaken by the Secretariat to implement the recommendations contained in the External Evaluation Report, and of the progress achieved. Important issues arising from the document were the need for coordination with other international organizations dealing with marine affairs such as WMO, UNEP, IAEA, the replacement of ACC-SOCA, the extension and upgrading of ICSPRO, the need to reinforce the creation of National Oceanographic Committees and the approval of the guidelines for the establishment of regional and project Offices. The Executive Secretary expressed the view that IOC should be maintained as a specialized mechanism for coordination for ocean activities within UNESCO. He stressed the likely difficulty of getting consensus of an amendment of the ICSPRO Agreement. He also stressed that urgent steps needed to be taken to increase the core professional staff of IOC, in the field and at Headquarters. The latter matter related to increased demands by Member States not being met by an increase of the regular budget. He informed the Executive Council that the P5 staff to be recruited to deal with TEMA was expected to seek extra-budgetary sources of funds for supporting the effective implementation of the IOC capacity building programmes.

42           **The Executive Council noted** with satisfaction that many follow-up actions such as the restructuring of the IOC science programme, revision of the rules of procedure, strong involvement in ICP and UN General Assembly as well as development of cooperation with other international organizations, had been taken to implement the recommendations of the external evaluation team.

43           As the priority follow-up actions to be considered, **the Executive Council reached a consensus** that IOC should play a proactive leadership role in international marine affairs. In that connection, **the Executive Council agreed** that it was necessary to explore alternatives to replace ACC-SOCA. Consideration could be given, *inter alia*, to the reactivation and review of ICSPRO as an international coordination mechanism. Some delegations considered this to be a valuable alternative. **The Executive Council also agreed** that IOC should explore the possibility of accepting the secretariat of any future global assessment on the state of the marine environment, subject to the necessary resources being found.

44       **The Executive council recognized** the importance of the debate being carried out in the UN General Assembly on a new coordinating mechanism for issues relating to oceans and seas. The Executive Secretary was **instructed** to continue his involvement in this process and to keep Member States informed as necessary.

45       **The Executive Council recognized** that the potential of the IOC regional bodies and the development of national mechanisms should be fully explored for the effective implementation and follow-up of IOC activities. It also **agreed** that the IOC regular budget should be strengthened and additional extra-budgetary resources should be identified. **The Executive Council noted** the relevance of reinforcing the IOC staff, taking into account the geographic balance in the Secretariat.

46       **The Executive Council encouraged** the strengthening of the development of the partnership between IOC and SCOR through SOLAS and the “Ocean Futures”/IGBP Oceans programmes.

47       **The Executive Council decided** that the work done by the Secretariat in the implementation of the recommendations of the External Evaluation Team should continue and the follow-up actions should be prioritised. **The Executive Council also decided** that, in future sessions of the IOC governing bodies, reporting on the follow-up to the external evaluation report should be listed as an important agenda item.

#### **4.       PROGRAMME MATTERS REQUIRING DECISIONS BY THE EXECUTIVE COUNCIL**

##### **4.1       GENERAL POLICY ISSUES**

##### **4.1.1   Report on the balanced use of the working languages of the Commission**

48       In conformity with Resolution XXI-1, the Executive Secretary reported on his efforts to ensure the balanced use of IOC's working languages in the IOC documents in the context of austerity measures in UNESCO. He referred to document IOC/EC-XXXV/2 Annex 4, which presented, *inter alia*, an overview of the current status by main document series over the past two years and a half. He pointed out that the issue was also addressed through the revision of the IOC editorial and publishing policy called for by the external evaluation team (Recommendation 4.6).

49       **The Executive Council noted** with satisfaction the report presented by the Executive Secretary and the efforts made to provide the documentation for this session in a timely manner and in the four working languages of the Commission.

50       **The Executive Council welcomed** the new publishing policy implemented by the Secretariat since 1 March 2002, to publish all documentation of the Commission electronically, to establish a CD-based archival system for all documents, and only to publish in paper the reports and working documents from governing and subsidiary bodies and major programmes (Implementation Plans, Science Plans, Operational Manuals). This policy was intended to print fewer administrative reports and to apply the resources liberated onto more substantial publications to improve the IOC visibility.

51       A point was raised that streamlining of IOC publications require discernment. In this connection, it was suggested that other reports, in particular the Workshop Report series,

might be worth keeping in printed form, since these reports prove to be important in increasing the visibility of the IOC through reaching out to a wider community.

52 With regard to the documentation for sessions of the IOC governing bodies, **the Executive Council reiterated** the pivotal importance of the Action Paper; it **decided** that documents would be drafted in a concise form and that all those requiring action and/or decision would be translated as provided for in the Statutes. **The Executive Council urged** the Executive Secretary to prepare and send the summary report of this session to IOC focal points as soon as possible using the electronic means of communication. In that respect, the Executive Secretary was also **urged** to put into place a reliable and efficient electronic network of communication with IOC focal points in the Member States.

53 **The Executive Council objected** to invite national stakeholders in Member States to suggest alternative suppliers of translations, but **agreed** that Member States should be as active as the Secretariat in raising extra-budgetary funds for publishing matters.

54 **The Executive Council**, aware of the increasing financial implication of this issue, **instructed** the Executive Secretary to present a progress report on the implementation and results of the new publishing policy to the 22<sup>nd</sup> session of the Assembly in 2003.

#### 4.1.2 Rules of Procedure: revision of Article 42

55 The Executive Secretary recalled that the Assembly requested the Secretariat to examine Article 42 in view of a possible modification of the Rules of Procedure. He invited the Executive Council not to introduce changes in the Rules of Procedure at this early stage of application of the new Rules. The Executive Secretary further informed the Executive Council of the comments received on this article by the Member States and by the Chairman of the Technical Review Committee.

56 **The Executive Council agreed** at this stage to retain the wording of Article 42 as it appears in the published Rules of Procedure (IOC/INF-1166).

#### 4.1.3 Report on the Consultation of Member States on Resolution XXI-5

57 The Executive Secretary recalled that, in the last two decades, the IOC has maintained a continuous and dedicated series of initiatives to improve its function, structure and financing, consistent with the Commission's functional autonomy status within UNESCO. The evolving goals of these efforts were specified in the terms of reference of FURES, DOSS and DOSS-2, and the recommendations made by these three study groups aiming at an improved and more efficient internal organization of the IOC. As a result of these efforts, the new Statutes of IOC were elaborated and finally adopted by the 31<sup>st</sup> session of the General Conference of UNESCO as well as the new Rules of Procedure, adopted by the 21<sup>st</sup> session of the IOC Assembly. As instructed by the Assembly, the Executive Secretary sought, by means of Circular Letter 2009, the views of Member States on how to further address the development, consolidation and strengthening of the Commission.

58 The Executive Secretary referred to documents IOC/EC-XXXV/2 Annex 6 and Addendum, *Results of the Consultation of Member States on Resolution XXI-5*, which summarized the views expressed by Member States which had replied so far. The Executive Secretary reviewed the main issues highlighted in the documents. The tentative conclusions that emerged were as follows:

- (i) there was no support for the creation of a special intersessional intergovernmental group to address the issues highlighted, implying that these could be addressed by existing rules and instruments;
- (ii) despite the fact that IOC had been adopting important decisions to improve its efficiency, there was room for further improvements. Two initiatives, not yet developed, were suggested:
  - a) a meeting of the Chairpersons of IOC main subsidiary bodies (committees and panels) held in conjunction with meetings of IOC governing bodies,
  - b) linking the IOC regional presence and the execution of regional programmes, to the direct participation of Member States by means of secondment of personnel;
- (iii) it was not necessary to modify the current legal status of IOC in UNESCO. On the contrary, it was proposed to use and reinforce the status of “IOC as a competent international organization on marine research and technology transfer”, as recognized by UNCLOS.

59 In light of the small number of responses received by the opening of the session, the **Executive Council decided** that the process of inviting the views of Member States on this issue should be continued until the end of October 2002 and appropriate follow-up should be organized by the Secretariat. **The Executive Council asked** the Executive Secretary to report on the matter to the IOC Assembly at its 22nd session, fully bearing in mind the observations made by several delegates with regard to documents IOC/EC/XXXV/2 Annex 6 and Addendum during the debate on the item.

#### 4.1.4 Guidelines for the establishment of Regional and Project Offices

60 The Executive Secretary referred to document IOC/EC-XXXV/2 Annex 7 and recalled that the 21st session of the Assembly requested that *Draft Guidelines for the Establishment of Regional and Project Offices* be presented at the 35th Session of the Executive Council (IOC-XXI/3, Item 5.4, para. 267).

61 The Executive Secretary drew the attention of the Executive Council to an included fact sheet on IOC's regional and project offices, and substantial background information both on IOC and UNESCO policy on regional offices and decentralization. He emphasized that some significant differences existed between the overall UNESCO procedures and those adopted by IOC, especially with respect to decentralization of budget lines.

62 In the ensuing discussion, **the Executive Council stressed** the need for guidelines for the regional subsidiary bodies on several matters, including cost sharing with the host country, staffing requirements and the modes of reporting. The importance of integration and consolidation of regional activities through close cooperation with other UN agencies and NGOs was also **emphasized**. The need for a bottom-up approach emanating from the Member States of the various regions was **stressed**.

63 **The Executive Council established** an open-ended sessional working group chaired by the IOC Vice-Chairman, Dr T. Ajayi (Nigeria), to discuss matters related to the establishment of regional and project offices in the light of the information and suggestions provided in the document and preliminary discussions of the Executive Council.

64 The Chairman of the sessional group reported that it had not been possible to finalize the guidelines during the short time available. The group therefore recommended the establishment of an intersessional working group.

65 **The Executive Council decided** to establish an open-ended intersessional working group on "Guidelines for the Establishment of IOC Decentralized Offices". The group will be chaired by Dr T. Ajayi and work by correspondence and electronic mail. It will:

- (i) establish definitions of 'regional office', 'programme office' and 'project office' and their appropriate terms of reference;
- (ii) recommend issues to be taken into consideration in assessing the need for the establishment of regional, programme and project offices (taking into consideration costs, objectives, existing UNESCO and other structures, benefits, other specific concerns);
- (iii) recommend minimum criteria for the hosting of regional, programme and project offices including policies for resource commitments;
- (iv) recommend approval requirements for the establishment of regional, programme and project offices;
- (v) recommend appropriate hierarchies of responsibility and reporting for regional, programme and project offices;
- (vi) prepare framework Memoranda of Understanding for regional, programme and project offices;
- (vii) recommend elements to be used for the performance evaluation of regional, programme and project offices.

66 The Group will, *inter alia*, take into consideration: (i) the terms of reference of existing regional, programme and project offices; (ii) the existing review reports (and their recommendations) of existing regional, programme and project offices; and (iii) the concerns of national governments relating to the establishment of such offices.

67 The Group will be open-ended and carry out its work in close consultation with existing IOC regional, programme and project offices as well as with relevant UNESCO field offices.

68 The Group will submit its proposed guidelines to the 22<sup>nd</sup> session of the IOC Assembly in 2003. The Executive Secretary was **instructed** to circulate a draft document, not later than 1 November 2002, by email to IOC Member States who will be invited to provide comments by 1 January 2003. The final draft guidelines will be submitted to the IOC Secretariat by 1 February 2003 so as to enable timely translation and distribution to Member States in preparation for the Assembly.

69 Notwithstanding the work of the group, **the Executive Council requested** the Executive Secretary to ensure a closer follow-up of activities of the Commission's regional, sub-regional and other subsidiary bodies in order to improve their coordination and effective accomplishment of their mandates and terms of references avoiding overlap.

#### **4.1.5 The Oceans and the World Summit on Sustainable Development (WSSD) of Johannesburg**

- 70 The Executive Secretary recalled that following Resolution XXI-3, an extraordinary session of the Executive Council had been convened in Paris from 10-11 December 2001, immediately after the "Global Conference on Oceans and Coasts at Rio+10". He reported on the actions taken by IOC in relation to preparations for the World Summit on Sustainable Development, scheduled from 26 August to 4 September 2002, in Johannesburg, South Africa.
- 71 The Executive Council at its extraordinary session had adopted Resolution EC-Ext.1.1 and its annex, the '*Declaration by the IOC of UNESCO to WSSD*', that together with the Co-chairs' report of the Global Conference on Oceans and Coasts at Rio +10 were made part of the documentation of the second preparatory session of the Commission on Sustainable Development acting as the Preparatory Committee for WSSD (PrepCom). The declaration and its supporting document emphasize the importance of the ocean in the global environment and specifically stress the unique role of the IOC for ocean sciences and services within the UN system; the measures by which IOC has already implemented Agenda 21 of UNCED; and its strategy for continuing to address the sustainable development agenda in the next ten years. Following the instruction from the extraordinary Executive Council, the complementary document had been circulated to Member States for comments. The comments received were included and the document was finalized, published in the IOC website and submitted to the WSSD process (IOC/INF-1172).
- 72 The Executive Secretary also reported on the results of the Global Conference on Oceans and Coasts at Rio+10. The Conference was jointly organized by a consortium of public and private institutions from governmental, intergovernmental, and non-governmental sectors and was co-chaired by Dr Biliana Cicin-Sain, Director of the Centre for the Study of Marine Policy (CSMP), University of Delaware, USA and the IOC Executive Secretary. The Conference involved 424 participants from 59 countries - 164 ocean experts from governments, 162 members of non-governmental organizations and academic institutions, and 98 members of intergovernmental, international, and regional organizations. The Co-chairs' Report stresses that the goals of the WSSD will not be met if rapid and effective action is not taken to protect ocean and coastal areas, and calls for a focus at the WSSD on sustainable development of oceans. It highlights the need for: (i) development of healthy coastal communities and increased access to sustainable economic livelihoods and wealth derived from the ocean to reduce poverty; (ii) full implementation and effective compliance with international agreements; (iii) capacity building for good governance of oceans and coasts; (iv) linking management of freshwater flows to ocean and coastal management; (v) an ecosystem approach to protecting biodiversity of coastal and marine areas; (vi) strengthening science-based monitoring and assessment of the oceans; (vii) linking social welfare and resource conservation to sustainable development; and (viii) attention to the special case of Small Island Developing States (SIDS).
- 73 The IOC Chairman and Executive Secretary attended the Second Preparatory Committee for WSSD held in New York, from 28 January to 8 February 2002 (PrepCom 2), and presented the IOC Declaration and the results of the Global Conference on Oceans and Coasts at Rio+10. During the PrepCom 2 session, IOC together with the Center for the Study of Marine Policy (CSMP), UN-DOALOS, and the U.S. National Oceanic and Atmospheric Administration (NOAA), organized a roundtable discussion entitled "Advancing the Sustainable Development of Oceans and Coasts in Johannesburg and beyond", which was attended by 70 delegates.



- 74 The PrepCom 2 Chairperson Paper, under item *IV. protecting and managing the natural resource base of economic and social development* identified several actions that are relevant to the work of IOC. These include fisheries, implementation of UNCLOS, impact of land-based activities on the marine environment, marine safety and shipping-based pollution, marine protected areas, regional mechanisms for effective ocean and coastal management, marine science and technology transfer, UN coordination for ocean affairs, and SIDS.
- 75 The Executive Secretary provided information on the outcome of the PrepCom 3 meeting. He advised that the CSD Member States had difficulties with the negotiated text and that at the end of the meeting the Chair of CSD was invited to draft a new statement to be used for the negotiations that were taking place in an extended PrepCom 4 in Bali, Indonesia while the IOC Executive Council was in session. The preliminary outcome of the fourth PrepCom in Bali was submitted to the Executive Council in the form of the Draft Plan of Implementation for WSSD. The Executive Secretary noted that the final text for the Draft Plan would be made available to the Session on Friday 7 June and that the draft text with respect to ocean and coastal issues, as it stood, was a reasonable follow-up to the second and third PrepCom meetings.
- 76 The Executive Secretary recalled that Agenda 21 demanded that an integrated and comprehensive global ocean observing and information system be created to provide the information needed for oceanic and atmospheric forecasting, for ocean and coastal zone management and for global environmental change research. In response, IOC, together with WMO, UNEP and ICSU, has been planning, implementing and coordinating an operational Global Ocean Observing System (GOOS). The mandate of GOOS made in Agenda 21 was an open-ended invitation to build such a system in support of sustainable development. Accordingly, its mandate did not depend on the objectives being re-stated in WSSD.
- 77 However, the progress achieved in establishing GOOS, the current plans for demonstration projects and the improvement in identifying GOOS products, are benchmarks that need to be communicated to WSSD. For this purpose, GOOS is preparing a type II presentation to WSSD by defining the goals of GOOS for the next ten years and presenting them in the context of the partnership that will implement them. GOOS and the other UN-sponsored observing systems, together with the space agencies affiliated under CEOS, will also present the Integrated Global Observing Strategy (IGOS) Partnership to WSSD as a Type II partnership.
- 78 The Executive Secretary pointed out that IOC would co-sponsor several side events at WSSD. Launching of the Ocean Alliance will be organized jointly with UNEP, OCEANA and a coalition of NGOs, with the support of the South African Ministry of Environmental Affairs and Tourism. A donor conference for the African Process on the Coastal Environment will present the Programme of Interventions to be approved in Abuja (Nigeria) in June 2002 as another side event organized by IOC, ACOPS UNEP, and a coalition of African States with the support of AMCEN and the South African Ministry of Environmental Affairs and Tourism. The launching of the book "*Oceans 2020*", co-sponsored by IOC, SCOPE and SCOR of ICSU, and representing the outcome of the 1999 workshop in Potsdam, will take place within the Science Forum organized by ICSU and UNESCO.
- 79 Many delegations reaffirmed the need for adopting at WSSD a broad intersectoral view on environmental issues, with emphasis on the development aspects of sustainable development.

80       **The Executive Council commended** the Executive Secretary for the role played by IOC in the preparations for the WSSD so as to highlight the importance of oceans at the summit, and **noted** with satisfaction his efforts related to the follow-up to Resolution EC-Ext.1.1 adopted by the Executive Council at its extraordinary session in December 2001.

81       **The Executive Council decided** that the outcomes of the WSSD be taken into account in developing the medium-term strategy for IOC.

82       **The Executive Council requested** the Executive Secretary to send out, as soon as possible, a circular letter and a brochure to provide Member States with the final text of the Plan of Implementation for WSSD adopted at PrepCom 4. **The Executive Council further requested** that the Executive Secretary highlight the appropriate paragraphs dealing with the importance of oceans.

#### **4.1.6 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Resolution on Integrated Data Management Strategy**

83       Peter Pissierssens, Head of the Ocean Services Section of IOC, reported that the first session of the JCOMM Management Committee had been held in Geneva between 6 and 9 February 2002. During discussions related to the 'Data Management Programme Area' the Management Committee decided that stronger emphasis should be placed in the JCOMM Data Management Coordination Group's work programme on the development of a JCOMM data management strategy. The Management Committee noted that data management activities under different IOC programme areas were not yet fully integrated.

84       The Head of Section recalled that the IODE Committee, during its 16th session in 2000, had made important decisions and recommendations towards enhancing the data management activities to better include biological, chemical and coastal oceanography data, and had recognized the increasingly vague boundaries between delayed mode and real-time data. These decisions and recommendations however, often still needed to be translated into concrete actions at the national as well as international level. At the international level reference was made to the establishment of the IODE Group of Experts on Biological and Chemical Data Management and Exchange Practices (GE-BCDMEP). This new group would meet for its first session between 25 and 27 June 2002 in Silver Spring, USA hosted by the US-NODC. The meeting would be attended by experts sourced from the IODE community as well as by experts from the science community.

85       In order to bring the data management activities of the different IOC programmes together, the JCOMM Management Committee had recommended that a draft resolution be prepared for the 35<sup>th</sup> session of the IOC Executive Council calling for the development of an IOC integrated data management strategy, encompassing all IOC programmes. In order to assist with this task, the Management Committee had further requested IODE to carry out an assessment of data and data product requirements of existing oceanography and marine meteorology programmes/projects, and evaluate whether these were currently met by the various groups of data centres. It had been recommended also to use the experience gathered in the preparation of the GOOS Data Management Plan (1998-1999) and possibly the GCOS Data Management Plan as examples.

86       The Head of Section informed the Executive Council that a draft resolution entitled 'IOC Strategic Plan for Oceanographic Data and Information Management' had been prepared.

87           Whilst appreciating that the policy aspects of data exchange were already being addressed separately, several delegations expressed strong support for the proposed development of an IOC Strategic Plan for the Technical Aspects of Oceanographic Data and Information Management, calling it an extremely timely and appropriate initiative.

88           The Executive Council was reminded about the third meeting of the United Nations Open-ended Informal Consultative Process (ICP) from 8-15 April 2002 that had proposed that the General Assembly should emphasize the need to improve systems for collecting and reporting data and information relevant to the marine environment. To this end, ICP proposed that the General Assembly should invite, at the global level, all relevant United Nations agencies to *"individually review their arrangements for collecting information and data relevant to the marine environment"*. This meant that the proposed IOC Strategic Plan would be complementary to the ICP proposal to be presented to the UN General Assembly for adoption in December 2002. **The Executive Council agreed** that the Executive Secretary should draw this fact to the attention of all IOC Member States, by means of a circular letter, in order that their delegations to the UN General Assembly be aware of the developing position of IOC on the issue.

89           Several delegations regretted that the draft resolution had not been distributed to the Member States in advance to allow for national consultation. The Secretariat apologized for this and explained that the finalization of the draft resolution had required extensive discussions between the members of the drafting group, which had made it impossible to circulate the document in a timely fashion to the Member States prior to the session of the Executive Council.

90           **The Executive Council** noted the importance of retaining the two principles: "free and open" and "acknowledgement to data producers" in data management activity continuously in the new strategy.

91           The Representative of WMO expressed his Organization's strong support for the development of an IOC Strategic Plan for Oceanographic Data and Information Management, as this would contribute substantially to the work of JCOMM.

92           **The Executive Council noted** that the issue of a strategic plan for oceanographic data and information management is also closely related to the work of the Intergovernmental Working Group on IOC's Oceanographic Data Exchange Policy and **recommended** that Dr Angus McEwan, Chairman of that group, should become a member of the task team established by the resolution.

93           **The Executive Council further asked** that efforts be made to ensure that all required expertise should be available in the task team, and **requested** IODE and GOOS to identify additional experts as necessary taking into account the need for multidisciplinary expertise.

94           **The Executive Council adopted** Resolution EC-XXXV.2 and **requested** that progress be reported to the Assembly in 2003.

#### **4.1.7 Medium Term Strategy for IOC (2002-2007)**

95           The Executive Secretary referred to document IOC/EC-XXXV/2 Annex 8, *Medium Term Strategy for IOC (2002-2007)*. He recalled that the IOC Assembly at its 21st session decided that the Officers and the Executive Secretary of the IOC should develop a medium-

term strategy to help the Commission meet new challenges in an effective way (IOC-XXI/3, Section 4.4, para. 92).

96 The Executive Secretary pointed out that the draft strategy presented to the Executive Council attempted to look beyond what is contained for IOC in the medium-term strategy of UNESCO (31 C/4). The purpose of its presentation to the Executive Council was to have an exchange of views so as to allow the Member States to participate in the development of the strategy. What was expected from the Executive Council was therefore not a final decision but comments and guidance on how to proceed further with the development of the strategy.

97 **The Executive Council expressed** its appreciation for the preparation of the draft medium-term strategy and **reiterated** the need for timely submission of documents of this nature for necessary consultations at national level.

98 **The Executive Council endorsed** the concept of an IOC specific medium-term strategy that is consistent with the medium-term strategy of UNESCO and that takes into account the needs and inputs of the Member States of the IOC Assembly and subsidiary bodies.

99 **The Executive Council stressed** the importance of presenting in the IOC medium-term strategy the expected outcomes, the financial and human resource requirements, the need of mobilization of funds, cooperation with other organizations, including NGOs such as SCOR, ICSU, IGBP, IUCN, and, as a preamble, a clear statement about IOC's unique role in the UN system.

100 **The Executive Council further stressed** the importance of having a "rolling" medium-term strategy for which the main lines of action can be amended on a time-scale shorter than that of the strategy itself so as to accommodate emerging issues in its work (such as those concerning the deep sea resources and processes).

101 **The Executive Council emphasized** the crucial importance of taking into account the salient outcomes of WSSD, the third meeting of ICP, the resolutions of the 57<sup>th</sup> session of UN General Assembly on Oceans and the Law of the Sea, and the developments concerning the establishment of regular process for the global assessment on the state of the marine environment.

102 **The Executive Council decided** that, by utilizing the comments made by the Executive Council, the Executive Secretary, in consultation with the Officers, shall prepare an improved text of the draft medium-term strategy for IOC and circulate it to the Member States, requesting from them a timely response in order to submit the final draft text to the 22<sup>nd</sup> session of the Assembly.

#### **4.1.8 Global Marine Assessment (GMA)**

103 The Executive Secretary referred to the report of the IOC Executive Secretary (IOC/EC-XXXV/2 Annex 1), and by drawing the attention of the Executive Council to paragraphs 80 through 100.

104 The Executive Secretary recalled that the Governing Council (GC) of the United Nations Environment Programme (UNEP) at its 21<sup>st</sup> session in February 2001 adopted Decision 21/13 on the global assessment of the state of the marine environment. Decision GC.21/13 requested "*the Executive Director of UNEP, in cooperation with IOC/UNESCO and other UN agencies, the CBD Secretariat, and the Regional Seas programmes to explore*

*the feasibility of establishing a regular process for the assessment of the state of the marine environment*". UNEP emphasized also the need to build on existing assessment processes and to involve governments, and requested a progress report to be submitted to the 22<sup>nd</sup> session of its GC in February 2003.

105 The UNEP decision reflected the sense of those participating governments that they needed to have ownership of the assessment process on the state of the marine environment, and that they should be involved on a continuous basis in the ongoing assessment and monitoring processes. During discussions reference was made in UNEP to the success of the Intergovernmental Panel on Climate Change (IPCC), where governments were involved both in the formulation of policy relevant questions and in the review of the conclusions.

106 The first meeting on the "Feasibility Study for Establishing a Regular Process for the Assessment of the State of the Marine Environment" was held in Reykjavik, 12-14 September 2001, with the sponsorship of the Government of Iceland. This meeting was followed by a three-day technical workshop held in Bremen, on 18-20 March 2002, and sponsored by the Government of Germany. Both meetings were attended by representatives of international bodies, regional organizations, national governments, and other concerned organizations. IOC played a leading role. Through these efforts a consensus was emerging about a regular process and its components for the assessment of the state of the marine environment. The Bremen workshop endorsed the idea of reporting to the General Assembly's Informal Consultative Process on Oceans, and invited UNEP and national delegations present at the meeting to do so. The participants in Bremen also agreed to inform the WSSD preparatory process, about the progress of this initiative.

107 The IOC was singled out in UNEP Decision 21/13 as a competent organization capable of contributing to the GMA process. The Executive Secretary stressed that the GMA initiative was of great importance to the IOC and invited the Executive Council to explore possibilities for IOC to play a key role in its implementation.

108 The Executive Secretary drew attention to the fact that the implementation of a GMA mechanism would require the establishment of an effective secretariat. This secretariat could be placed in Paris at IOC's Headquarters, benefiting from a close interaction with the GOOS Project Office and the Secretariat of all other IOC programmes. A significant potential would exist for secondment of technical personnel to such a Secretariat if it were affiliated with IOC. This potential would reflect a firm recognition of IOC's capacity to deliver as an intergovernmental organization.

109 The Executive Secretary added that IOC could not be expected to divert significant resources from the current budget to this new initiative, beyond those resources being used for inter-agency coordination under the policy line of action.

110 IOC cannot be expected to divert resources from the current budget to this new initiative. The mechanism needed for the GMA should be self-contained with its own separate financial and human resources. It will also require the establishment of a strong interaction between UN organizations and other international organizations capable of contributing to the assessments. Some delegations made the point that without sufficient new resources attached to any role proposed for the IOC in the GMA, the IOC would be unable to significantly contribute to the GMA.

111 **The Executive Council welcomed** the UNEP initiative to examine the feasibility of establishing a regular process for a global assessment of the marine environment. It

**recognized** the pivotal role that the IOC could play in the definition and implementation of that process, which must form part of the Commission's medium-term plan.

112           **The Executive Council decided** to respond favourably to UNEP's request and **adopted** Resolution EC-XXXV.3 to that effect.

## 4.2 OCEAN SCIENCE SECTION

### 4.2.1 Role of IOC in the Development of Standards for Ocean Research and Operational Oceanography

113           Dr Umit Unluata, Head of the Ocean Science Section of IOC, recalled that the IOC Assembly at its 21<sup>st</sup> session (IOC-XXI/3, Item 4.7, para. 126) emphasized that IOC should play an important role in the coordination of activities for the development of standards and reference materials for marine science. He noted that, as in the past, these activities should be carried out in collaboration with relevant programmes and agencies such as IODE, JCOMM, WMO, UNEP, ICES, ICSU, SCOR, IAEA and IAPSO, and should include training programmes. The Assembly had endorsed the participation of the IOC in international initiatives for the development of standards and reference materials for marine science and had recommended that the IOC Secretariat develop terms of reference and a work plan outlining financial and human resource needs to be presented to this session of the Executive Council.

114           The Head of Section drew the attention of the Executive Council to document IOC/EC-XXXV/2 Annex 9 that had been prepared in response to the request of the 21<sup>st</sup> IOC Assembly. He noted that the document summarized a work plan and terms of reference for the development of a coordination group to address issues of standards and reference materials in marine science and to coordinate activities and projects at the international level.

115           The members of the coordination group, drawn from relevant programmes and agencies including IODE, JCOMM, WMO, UNEP, ICES, ICSU, SCOR, IAEA and IAPSO, would be expected to finance their participation and that of their experts to attend group meetings. The combined programme costs for meetings, production of guidelines and technical documents, development of training materials and courses, and development of the web-based catalogue and information clearinghouse were estimated to be approximately US\$100,000 / year.

116           **The Executive Council acknowledged** that the development of internationally approved standards for marine research and operational oceanography was an important issue. A number of delegations, however, expressed reservations about the IOC taking on this role, and also questioned the availability of resources to the IOC to take on a potentially expansive activity.

117           **The Executive Council took note** and **reviewed** the proposed terms of reference for the role of IOC in standards development for ocean research and operational oceanography.

118           **The Executive Council further acknowledged** that several initiatives on standards development existed or were being planned by IOC sponsored programmes, notably in JCOMM.

119           **The Executive Council noted** that the work plan presented by the Secretariat (in document IOC/EC-XXXV/2 Annex 9) was too broad to adequately assess the best way forward for the IOC.

- 120        **The Executive Council instructed** the Executive Secretary, through consultation with JCOMM on existing and planned initiatives for standards development, to refine the terms of reference and work plan and present them to the next session of the IOC Assembly.

#### 4.2.2 Terms of Reference of the Programme Elements in Ocean Science

- 121        Dr Unluata, Head of the Ocean Science Section of IOC, referred to document IOC/EC-XXXV/2 Annex 10. He recalled that the IOC Assembly at its 21<sup>st</sup> session instructed the IOC Executive Secretary (IOC-XXI/3, Items 6 and 5.1.5, para. 178 and through Resolution XXI-6) to restructure the programmes of the Ocean Science Section into three interactive lines of work consisting of *Oceans and Climate*, *Ocean Ecosystems and Marine Environmental Protection*, and *Marine Science for Integrated Coastal Area Management*. The rationale for such a restructuring was given in information document IOC/INF-1155, *IOC Ocean Science Section: A Basis for Restructuring*. Resolution XXI-6 also instructed the Executive Secretary to provide to the session of the Executive Council the terms of reference for the programme elements in the new structure.

- 122        The Head of Section noted that the document provided the terms of reference for the Ocean Science Section and the programme elements in the new structure of the section. The summary descriptions of the Oceans and Climate, Ocean Ecosystems and Marine Environmental Protection, and Marine Science for Integrated Coastal Area Management programmes and the results expected from these three lines of work, at end of the biennium 2002-2003, were also provided.

- 123        **The Executive Council welcomed** the clarification of the tasks encompassed by the three programme elements but **noted** that new issues may arise in the future, which are not covered by the detailed present listings, but which would nevertheless require action. Several delegations pointed out editorial, factual and procedural errors, which would need to be corrected. **The Executive Council** accordingly **instructed** the Executive Secretary to arrange for a revised version of the document to be prepared and circulated for further comments and implementation.

### 4.3 OCEAN SERVICES SECTION

#### 4.3.1 The Tsunami Programme and the International Strategy For Disaster Reduction (ISDR)

- 124        Mr François Schindelé, Chairman of the International Coordination Group for the Tsunami Warning System in the Pacific (ITSU) presented the Executive Council with the summary report of the eighteenth session of ITSU and a progress report of the tsunami Programme.

- 125        Mr Schindelé reported that the eighteenth session of the International Coordination Group for the Tsunami Warning System (TWS) in the Pacific (IOC/ITSU-XVIII) took place in Cartagena, Colombia, from 8 to 11 October 2001. The session focused on the improvement of the networks of IOC sea-level gauges to be used by the TWS for detecting and evaluating tsunami waves in order to issue, continue and cancel tsunami warnings and watches. Member States were requested to review their existing sea-level gauges, to upgrade them and to add new gauges as necessary. The use of existing gauges for multiple purposes, such as for national tidal networks and for research on long-term sea-level change, in the context of GOOS, must be encouraged in order to secure the necessary resources for their long-term maintenance. In this context however, Mr Schindelé drew attention to the fact that

replacement of analogue instruments by new digital ones for such multipurpose tasks have led to a downgrading of the value of the readings for tsunami warning purposes. This is because the digital instruments are set to give readings at less frequent intervals, making it difficult to distinguish a developing tsunami from a heavy swell.

126 Among the main outputs of the ITSU session, the group recommended modifying the Warning Criteria, the reference magnitude is the moment magnitude (M<sub>w</sub>), and upgrading the threshold of the information bulletin and the warning/watch. A revised version of the Intra-Americas Sea Tsunami Warning System proposal (IAS-TWS) had been prepared and presented. The IAS-TWS project proposal was subsequently endorsed by IOCARIBE-VII. ITSU-XVIII also focused on the development of a CD-ROM and Web version of the Historical Tsunami Data Base in the Pacific (HTDB/PAC); on new seismological methods to estimate which part of the Pacific ocean will be threatened by a tsunami; and on-training and education activities. The Tsunami Glossary was ready for publication and a press kit was in development. ICG ITSU-XVIII also decided to undertake an evaluation of the tsunami warning programme during the intersessional period.

127 ITSU-XVIII strongly stressed the need to modernize and improve the sea-level network in order to ensure the best possible early detection of tsunami waves. Mr Schindelé therefore called for closer collaboration between the tsunami Programme and other IOC programmes, such as GLOSS, that deal with sea-level and wave measurements.

128 In presenting the progress report of the tsunami Programme, the Chairman of the ICG emphasized that the lack of adequate funding and staff to meet the needs of the programme was affecting the tsunami warning network in the Pacific, as well as those in other areas of the world.

129 Several delegations reported on their national activities related to ITSU, stressing the importance of ITSU as the only IOC programme that was specifically aimed at preserving human life. They particularly described the success of public awareness, civil defence and early warning mechanisms established at the national and regional level.

130 **The Executive Council expressed** its appreciation for the support provided by several Member States including Chile, France, the Republic of Korea and the United States of America, and **expressed** the hope that this support would be continued and possibly expanded.

131 **The Executive Council paid tribute** to Dr Richard Hagemeyer who passed away in 2001. **The Executive Council recalled** that Dr Hagemeyer had been Chairman of ITSU between 1987 and 1992, had contributed substantially to the modernization of the Pacific Tsunami Warning Centre and had established close links with all Member States concerned with tsunamis.

132 **The Executive Council noted** with appreciation the kind offer of New Zealand to host the next session of the International Coordination Group for the Tsunami Warning System in the Pacific (ITSU-XIX), planned to take place in September-October 2003.

133 **The Executive Council noted** with concern the lack of staff and financial resources available to the IOC Secretariat for the implementation of the tsunami Programme, and **requested** the Executive Secretary to investigate the possibility of restoring the part-time professional post of ITSU coordinator at the IOC Secretariat.



134        **The Executive Council stressed** the need for Member States affected by the risk of tsunamis to increase their investment in national tsunami warning and mitigation facilities, as the IOC could not be expected to fully support these. **The Executive Council called on** Member States to continue and expand financial support to IOC, earmarked for ITSU, to enable IOC to maintain and further develop the international coordination, information dissemination and training components of the programme.

135        **The Executive Council thanked** Mr Schindel  for his report. It **reviewed** the progress of the ITSU Programme implementation, and **endorsed** the report of ITSU-XVIII and the recommendations it contained.

136        **The Executive Council adopted** Resolution EC-XXXV.1.

#### 4.4      OPERATIONAL OBSERVING SYSTEM SECTION

##### **4.4.1    Review of the Structure of the Global Ocean Observing System (GOOS): Interim Report**

137        Dr Colin Summerhayes, Head of the Operational Observing System Section of IOC, recalled that the Assembly at its 21st session (IOC-XXI/3, para. 189) reviewed the structure, mandate and *modus operandi* of GOOS and agreed with the proposal that it should be revised and form part of an overall review of GOOS structure as described in Resolution XXI-7. In accordance with the procedures set out in Resolution XXI-7, and after extensive consultation, the Chairman of IOC appointed a four-person team to undertake the review. The team, which was finalised on 3 April 2002, is comprised of I. Asanuma (Japan), J. Field (S. Africa), K. Radhakrishnan (India), and P. Mason (U.K.), who replaced the initial Chairman, Geoff Love (Australia), who had contributed significantly to the work of the team before having to resign. As a first step, the team had drafted a questionnaire, which was being sent to appropriate organizations, Member States and the GPO staff. Dr Summerhayes reviewed the main points of the questionnaire and presented the proposed steps and the time frame for the review process.

138        **The Executive Council took note** of the progress and **endorsed** the outlined review process.

139        Then, the Chairman invited Vice-Admiral Conrad C. Lautenbacher, Jr., Under Secretary of Commerce for Oceans and Atmosphere, Administrator of the NOAA, and Head of the U.S. delegation, to address the Executive Council.

140        Vice-Admiral Lautenbacher focused on the importance of establishing global observing systems and strengthening intergovernmental collaboration. He emphasized: "*the global observation effort for climate is far too enormous for one organization, or even one country, to undertake alone [and that] we must work together*".

141        He further added: "*the full and open sharing of data between nations is an essential part of this effort – including making the data available within sufficient time to be of operational use*".

142        The Chairman thanked Vice-Admiral Lautenbacher, on behalf of the Executive Council, for his very stimulating presentation. Vice-Admiral Lautenbacher's statement is given in Annex III.

143 The Executive Secretary presented a Certificate of Appreciation to Dr Neville Smith, on the occasion of his stepping down as Chairman of the Ocean Observations Panel for Climate, for his many contributions over the years to the development of the climate module of GOOS. Neville Smith's vision lies behind the development of the key pilot project of GOOS – the Global Ocean Data Assimilation Experiment, an experiment crucial to the success of GOOS. He was also the moving force behind the OceanObs99 Conference in St. Raphael in October 1999, which served to integrate observation requirements and to achieve the consensus that was critical for adopting the strategy for global ocean observations in the 21<sup>st</sup> century that we have today. In the publication of the conference proceedings by the GODAE Bureau, in the form of the book *Observing the Oceans in the 21<sup>st</sup> Century*, which Neville co-edited, the community has a landmark document that will guide the development of GOOS, GCOS and JCOMM for years to come.

144 The Executive Secretary also presented a Certificate of Appreciation to Mr Nic Flemming, on the occasion of his stepping down as Director of EuroGOOS, for his many contributions over the years to IODE and to the development of GOOS. Nic Flemming, one of the world's experts on the costs and benefits of GOOS, contributed a landmark paper on that topic at the OceanObs99 Conference in St. Raphael. He was currently the IOC's representative on the GOOS Steering Committee and was instrumental in taking forward the development of the coastal GOOS component. Nic Flemming has been one of the leaders in taking forward the development of EuroGOOS, the European regional component of GOOS, becoming the first Director of the EuroGOOS Office, a position which he held until his retirement in December last year. His efforts have greatly helped to raise the profile of operational oceanography across Europe.

#### 4.4.2 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Report of the First Session, June 2001

145 Dr Savi Narayanan, co-president of JCOMM, reminded the Executive Council that a summary of the main results of the first session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (Akureyri, Iceland, 19-29 June 2001) had been presented to the Assembly at its 21<sup>st</sup> session. Dr Narayanan then presented a progress report on JCOMM and its main achievements since its first session, including the vision and structure of JCOMM, and the works undertaken within its Management Committee and its four Programme Areas. She concluded by requesting the full support for JCOMM development.

146 **The Executive Council expressed** its appreciation to Dr Narayanan for her interesting presentation and to JCOMM for its achievements to date. **It recognized** that the establishment of JCOMM had led, within a number of countries, to the development of a new form of dialogue between oceanographers and meteorologists, and had highlighted discrepancies between the national institutional frameworks within which those two communities operate. JCOMM offered an opportunity to justify requests for resources, by demonstrating the potential economic benefits that could be derived from it. At the international level, JCOMM might be regarded as a kind of "pilot project", aimed at assessing the capacity of various communities to work together towards common goals. For the time being, and as seen from the oceanographic point of view, the first JCOMM priority involved the theme "Oceans and Climate". It was important to assess to what extent and exactly how non-physical observations might be dealt with under JCOMM.

147 **The Executive Council recalled** that the Assembly at its last session noted that "*because the first session of JCOMM took place in late June 2001 there had not been time to*

*circulate the report in the four working languages of the Commission for the consideration of Member States before the Assembly met.*" (IOC-XXI/3, para. 196). **The Executive Council noted** that the report, together with a draft resolution, had been circulated to all Member States in the four languages, under IOC Circular Letter 2018, in advance of the present session of the Executive Council. **It noted further** that no response had been received by the Secretariat on the draft resolution.

148 During the debate on the outcomes of JCOMM-I, the **Executive Council noted** more specifically the following comments:

- (i) with regard to Recommendation 3 (JCOMM-I), taking into account the special nature of the non-physical oceanographic data collected through the SeaKeepers, and its reference to GOOS as a whole, specially to its coastal module, it was suggested that the matter be included in the agenda of the forthcoming session of I-GOOS for policy guidance, future arrangements and cooperation, and related action by the IOC Executive Secretary;
- (ii) with regard to Recommendation 4 (JCOMM-I), whereby Member States were instructed to take legal steps to limit acts of vandalism within territorial seas and exclusive economic zones, some delegations noted that actions taken should be in conformance with the UN Convention on the Law of the Sea; other delegations considered that UNCLOS, in particular in its Part XIII, offered an adequate legal framework for the implication of Recommendation 4 (JCOMM-I).

149 **The Executive Council adopted** Resolution EC-XXXV.4.

#### **4.4.3 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Memorandum of Understanding IOC-WMO**

150 The Secretariat reminded the Executive Council that the IOC Assembly and the World Meteorological Congress had requested the IOC and WMO Secretariats to develop some common rules and procedures that would apply to all future JCOMM sessions. In this context, the IOC Assembly at its 21<sup>st</sup> session *"recommended that an agreement be reached through a Memorandum of Understanding (MoU) rather than through modifications of existing rules of either organization. A draft of this MoU would be available for review by the IOC and WMO Executive Councils in 2002, before its submission for a final approval by the IOC Assembly and WMO Congress in 2003"* (IOC-XXI/3, para. 197).

151 **The Executive Council reviewed** the draft "Memorandum of Understanding between WMO and IOC regarding regulatory and procedural aspects of the conduct of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)". It **noted** that the draft would also need to be reviewed by the WMO Executive Council, at its session to be held immediately after this session of the IOC Executive Council. **The Executive Council expressed** overall agreement with the concept and content of the draft and **requested** that any comments and/or proposed amendments be submitted in writing to the Secretariat as soon as possible, and in any case before the end of July 2002. It **further instructed** the Executive Secretary, in close collaboration with the WMO Secretariat, to incorporate those comments and/or amendments into a new draft that would also take into account possible comments and/or amendments requested by the WMO Executive Council, and to submit the revised draft to the next session of the Assembly for final approval.

#### 4.5 REGIONAL ACTIVITIES

##### 4.5.1 IOC Regional Sub-Commission for the Caribbean (IOCARIBE): IOCARIBE VII Report

- 152 Dr C. Toro, Head of the IOCARIBE Secretariat, referred to the executive summary report of the seventh session of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE) that took place in Veracruz, Mexico from 25 to 28 February 2002 (SC-IOCARIBE-VII/3s), and to the report of the fourth session of the ad hoc Advisory Group for IOCARIBE-GOOS that preceded it on 21-23 February 2002 (IOCARIBE-GOOS-IV/3).
- 153 Among issues discussed at the IOCARIBE-VII, special attention was given to the World Summit on Sustainable Development (WSSD) and the Caribbean Region; IOCARIBE-GOOS and *The Case for IOCARIBE-GOOS, version 2.0* (draft IOC/INF-1170) which would become the strategic plan for regional GOOS development; Large Marine Ecosystem (LME) Projects; an Intra-Americas Sea Tsunami Warning System; and the implementation of the Ocean Data and Information Network for the Caribbean and South America (ODINCARSA). TEMA was highlighted as an integral component of all IOCARIBE programmes.
- 154 Following the thrust of the discussions held at the UN General Assembly second Informal Consultative Process on Oceans - to explore the mechanisms of coordination between the work of the Sub-Commission with that of the regional bodies of FAO and UNEP in the region - a Memorandum of Cooperation was signed between the Caribbean Regional Coordinating Unit of the United Nations Environment Programme (UNEP-CAR/RCU) and IOCARIBE.
- 155 **The Executive Council thanked** Dr Toro for his report. Further thanks were **expressed** to the Government of Mexico for hosting the seventh session of the Sub-Commission, and the Government of Colombia for continuing to host the regional secretariat. **The Executive Council commented** on the IOCARIBE activities and progress, **provided** advice on priorities, **stressed** the importance of identifying resources for the implementation of regional programmes and projects, and **expressed** its appreciation for the Memorandum of Cooperation that was concluded with the UNEP Regional Seas Programme. The Executive Secretary thanked the delegation of Colombia for the information provided with respect to the temporary nature of the relocation of the IOCARIBE Secretariat.
- 156 Expressing their satisfaction with the progress made by ODINCARSA, some delegations stressed that, before the network began operating, the States involved had to be provided with the training necessary for that purpose, first identifying the appropriate contact points.
- 157 Several delegations questioned the proposed initiative to establish an IOCARIBE working group for exploring means of facilitating marine scientific research cruises. They considered that the question had been adequately addressed in Part XIII of UNCLOS and that, in any event, IOC/ABE-LOS was working on the compilation of regulations which, in reality, would be the subject of the IOCARIBE initiative.
- 158 Other delegations noted that the terms of the suggested topic of work could be construed broadly enough simply to support the region, and not be in conflict with any other activity.

159           **The Executive Council endorsed** the executive summary report of IOCARIBE-VII and **adopted** Resolution EC-XXXV.5.

160           With regard to ocean Data and Information Network for the Caribbean and South America (ODINCARSA), **the Executive Council adopted** Resolution EC-XXXV.6.

#### **4.5.2 PrepCom on Partnership Conference and the African Process**

161           The Secretariat referred to information document IOC/INF-1169 and informed the Executive Council about the latest development of the African Process.

162           The Programme of Interventions to alleviate critical coastal conditions in Sub-Saharan Africa was the result of project proposals developed in the framework of medium-size projects of the Global Environmental Facility (GEF-MSP) through the work of five regional working groups as well as submissions from countries outside of the GEF-MSP. To this effect, in February 2002, the Secretariat of the Partnership Conference, hosted by South Africa, sent letters to all Sub-Saharan countries inviting them to submit their priority proposals for intervention.

163           The Programme of Interventions, including a portfolio of projects, would be endorsed at a final session of the Preparatory Committee "Super PrepCom" for the Partnership Conference, to be held in Abuja, Nigeria, 17-19 June 2002, hosted by His Excellency President Olusegun Obasanjo.

164           The Super PrepCom meeting would be attended by Ministers of the Environment of the eleven GEF-MSP countries as well as ministers from other Sub-Saharan countries, and by donors (bilateral, multilateral), partners, and private sector representatives who have expressed an interest in funding or implementing jointly specific project proposals.

165           The Executive Council was informed that the Partnership Conference of the African Process shall be held at the level of Heads of State during the World Summit on Sustainable Development (WSSD, Johannesburg, 26 August - 4 September 2002), at which the Programme of Interventions will be presented. In 2003, a second generation of the African Process could be launched to enable other African countries to participate and address additional priority issues.

166           The Executive Secretary in his response to comments made by delegations, stressed that the African Process was an African-led initiative, which had now been endorsed by the Organization of African Unity and had been integrated as a component of the New Partnership for Africa's Development (NEPAD). IOC's role had been to facilitate the technical components in support of the African Process, making use of IOC's extensive network of marine scientists in Africa, and providing coordination and expertise through its programmes.

167           **The Executive Council expressed** its satisfaction with the role of IOC in the implementation of the GEF-MSP, and in the African Process as a whole, as follow-up of the Pan-African Conference on Sustainable Integrated Coastal Management (PACSIOM, Maputo, Mozambique, July 1998), and the Cape Town Conference, November/December 1998. **The Executive Council asked** the Secretariat to show greater visibility in the process now and in the future.

168           **The Executive Council urged** Member States to support the endorsement of the Programme of Interventions at the national level, and to mobilise participation and support of potential partners.

169        **The Executive Council expressed** the need to ensure that institutional and technical capacity building be provided to participating countries and that the African Process remain open to cooperation with other on-going African initiatives.

## **5. CAPACITY BUILDING IN MARINE SCIENCES, SERVICES AND OBSERVATIONS: TEMA**

170        Mr Christian Patermann, Director RTD actions environment, DG-XII, European Commission presented information on opportunities in the European Commission research Framework Programme VI on capacity building in marine science, services and observations. Mr Patermann stated that over the last two decades, a strong European marine research community had been built through three successive marine science and technology programmes. For marine science and technology, the new framework programme focused on programmes organized into six clusters of progressively coordinated research programmes, with capacity building integrated into each. Mr Patermann announced that the new framework programme included 350 million euros for international cooperation between European partners and scientists from Russia, Newly Independent States, Mediterranean countries, and developing countries. Mr Patermann noted that this unprecedented openness represented opportunities for all IOC Member States in cooperation with European partners, and was an effective instrument to support truly global endeavours.

171        **The Executive Council acknowledged** with appreciation the report by Mr Patermann and **expressed** its interest and enthusiasm in the recent developments that would result in mutually beneficial cooperation between the IOC and the European Union.

### **5.1 RECRUITMENT OF A P5 POST FOR TEMA**

172        The Executive Secretary informed the Executive Council that the process of recruiting a P5 level professional to lead the IOC capacity building programme was ready to start. He invited Member States to disseminate the advance copy of the post announcement to national institutions and potential candidates.

173        **The Executive Council noted** the report and the advance copy of the post announcement presented by the Executive Secretary.

## **6. IMPLEMENTATION OF ACTIONS RELATED TO UNITED NATIONS (UN) CONVENTIONS**

### **6.1 IOC/ABE-LOS II: REPORT OF THE MEETING AND ENDORSEMENTS OF RESOLUTIONS**

174        Mr Elie Jarmache, Chairman of the IOC Advisory Body of Experts on the Law of the Sea (IOC/ABE-LOS) recalled that IOC/ABE-LOS was established by Resolution XIX-19 of the IOC Assembly in July 1997. He informed the Executive Council that, in accordance with Resolution XXI-2, adopted by the last IOC Assembly, the second meeting of IOC/ABE-LOS (IOC/ABE-LOS II) was convened at El Jadida, in Morocco, from 6 to 9 May 2002 under the auspices of H.M. King Mohammed VI. In this regard, he thanked the Government of Morocco for the warm hospitality offered to the IOC/ABE-LOS Group, as well as for the logistics provided for the success of the IOC/ABE-LOS II meeting. He also thanked Professor Mohammed Moncef, IOC/ABE-LOS Representative for Morocco and Chairman of the Local Organizing Committee, for his warm reception.

175 Mr Jarmache informed the Executive Council that 38 experts from developing and developed countries covering all regions attended the IOC/ABE-LOS II meeting. Financial support from one Member State allowed the increased participation of experts from developing countries. The Director of the Legal Affairs of UNESCO also attended IOC/ABE-LOS II. IOC/ABE-LOS worked in close cooperation with UN/OLA/DOALOS, which was represented at the meeting.

176 IOC/ABE-LOS II dealt with the following main items:

- (i) The redrafting of the document IOC/INF-1054 (*draft IOC Principles on the Transfer of Marine Technology*).

Mr Jarmache noted that Mr A. Gonzalez (IOC/ABE-LOS expert from Argentina) chaired the Sub-Group on the Transfer on Marine Technology (TMT). In his presentation of the redrafted document, called the "Draft IOC Criteria and Guidelines for the TMT", Mr Gonzalez was mainly guided by four principles: (a) consistency with regard to UNCLOS – in particular, Part XIV; (b) flexibility arising from the non-binding nature that the document should have; (c) effectiveness in devising a mechanism whereby all States would benefit, on an equitable and reasonable basis, from TMT; and (d) imagination in promoting TMT – in particular, through partnerships. IOC/ABE-LOS II expressed views on the need for IOC to assume an active role in the overall TMT process, and to act as a clearinghouse mechanism facilitating the match between demand and supply. IOC/ABE-LOS II expressed general satisfaction with the contents of the work performed by the Chairman of the Sub-Group on TMT, and was informed that the redrafted document was expected to be finalized and presented to the 22<sup>nd</sup> session of the IOC Assembly.

- (ii) The elaboration of an IOC internal procedure related to an effective and appropriate use of Article 247 of UNCLOS on marine scientific research projects undertaken by or under the auspices of international organizations.

Mr Jarmache informed the Executive Council that he had designated Prof. A. Soons (IOC/ABE-LOS expert from the Netherlands) to chair the Sub-Group established on this issue. The purpose of this work was to develop appropriate procedures for marine scientific research projects undertaken under the auspices of IOC. The major elements discussed at the meeting were: (a) identifying the IOC Assembly as the competent body to take the decisions to conduct such projects, instead of delegating this authority to IOC regional subsidiary bodies; (b) clarifying of the words "under the auspices" of international organizations; (c) the requirement to have a bilateral agreement with a State which is not member of IOC; (d) the linkage of Article 247 to UNCLOS Articles 248, 249 and 253; and (e) the time-limits for Member States to analyse and evaluate research proposals. IOC/ABE-LOS II agreed that the contents of the document presented by Prof. Soons needed to be redrafted, taking into account the debate on this item.

- (iii) The collection and analysis of information through the IOC second questionnaire on the practice of States in the field of marine scientific research (MSR) and transfer of marine technology (TMT).

Mr Jarmache informed the Executive Council that Mr Roland Rogers (IOC/ABE-LOS expert from U.K.) had assisted the Secretariat in the analysis of the results of the questionnaire to which 37 States had responded. Two main observations were made during the IOC/ABE-LOS meeting: (a) the result of the questionnaire constituted a first step which should continue and be finalised, (b) IOC/ABE-LOS identified the

need for reformulation of the questionnaire to improve the return rate and to get better focus on TMT.

177 The IOC/ABE-LOS Chairman expressed concerns about the report of the I-GOOS ad hoc Group of Experts meetings on GOOS-UNCLOS (IOC/ABE-LOSII/Inf.3). He pointed out that, in his view: (a) the I-GOOS ad hoc Group had been established as a unilateral initiative, not consistent with Resolution XIX-19 that mandated the IOC/ABE-LOS Group; and (b) the membership of this ad hoc group was not representative.

178 Finally, Mr Jarmache thanked the IOC/ABE-LOS group for its strong cooperation, which contributed to the success of the IOC/ABE-LOS II meeting.

179 The Executive Secretary thanked the Government of France for its financial contribution that enabled experts from developing countries to participate in the IOC/ABE-LOS II meeting. He recalled that IOC/ABE-LOS was established to advise the IOC governing bodies and the Executive Secretary of the IOC on UNCLOS-related matters.

180 The Vice-Chairperson of I-GOOS, Ms Janice Trotte, on behalf of the I-GOOS Board, suggested that an exchange of information take place between IOC/ABE-LOS and I-GOOS. She proposed that the I-GOOS Board be asked to prepare documentation on the scientific and technical requirements of GOOS, to be presented to the next IOC/ABE-LOS meeting.

181 The delegation of the Russian Federation pointed out that besides Articles 248, 249 and 253, other articles of Part XIII, for instance Articles 252, 255 and 256 should be considered by the IOC/ABE-LOS group in the future. In response to this statement, some delegations indicated that they did not favour expanding the work of the IOC/ABE-LOS group at this time.

182 Some delegations referring to UN Resolution A/RES/56/12 recalled that IOC/ABE-LOS was gaining recognition in the United Nations.

183 With regard to the establishment by I-GOOS of an ad hoc group on GOOS and UNCLOS, two positions emerged from the Executive Council: (a) many delegations expressed the view that IOC/ABE-LOS was the sole competent body having mandates to work on IOC UNCLOS-related matters in accordance with Resolutions XIX-19 and XX-6 of the Assembly, while (b) some delegations recognized that the IOC had other intergovernmental subsidiary bodies such as IPHAB and I-GOOS within which resided a considerable body of scientific and technical expertise on specific issues affected by the provisions of the Law of the Sea. It was agreed that scientific and technical expertise should be made available to IOC/ABE-LOS. Some delegations considered that IOC subsidiary bodies should communicate on technical issues concerning their responsibilities only through the governing bodies of IOC. Other delegations felt that for efficiency, I-GOOS in particular should be sanctioned to communicate directly with IOC/ABE-LOS on matters concerning the legal requirements for the implementation of marine scientific research associated with GOOS.

184 The delegation of Portugal stated that Portugal would be happy to consider hosting the third meeting of the IOC/ABE-LOS.

185 The delegations of Germany and Finland noted that because the draft resolution for IOC/ABE-LOS had not been available before the beginning of the Executive Council, their



delegations had not had time to give due consideration at the national level to this important matter.

186 The Chairman of the IOC/ABE-LOS Sub-group on the Transfer of Marine Technology reported on the meeting of the sessional and open-ended informal group, which had deliberated on the fourth version of the draft criteria and guidelines in that area.

187 **The Executive Council congratulated** the IOC/ABE-LOS Chairman for his excellent reports, as well as for the progress made by the group.

188 **The Executive Council thanked** the Government of Morocco and Prof. Moncef for the warm hospitality provided during the IOC/ABE-LOS II meeting.

189 **The Executive Council reconfirmed** that IOC/ABE-LOS was the group of experts that had been mandated to provide advice to the IOC, upon consultation, on UNCLOS related matters.

190 **The Executive Council requested** that better communication be established between the IOC subsidiary bodies.

191 The Executive Secretary suggested that, in addition, the guidelines governing the creation of primary and secondary subsidiary bodies be re-examined.

192 **The Executive Council adopted** Resolution EC-XXXV.7.

## 7. DRAFT PROGRAMME AND BUDGET

193 Dr David Pugh (U.K.), Vice-Chair of IOC and Chairman of the sessional Working Group on Programme and Budget, reported that the Group had first scrutinized the 2000-2001 account, and the outline of 2002-2003 budget. For 2002-2003, the UNESCO regular budget contribution was as planned at the 2001 Assembly. The Group had then considered the draft proposal for the IOC Programme and Budget for 2004-2005 (IOC/EC XXXV/2 Annex 12), taking into account comments made during the Executive Council debate. Several textual amendments were noted. In particular, changes were made to emphasize that the proposal and the level of Regular Budget anticipated, in no way committed Member States in the wider process of negotiating the total UNESCO budget for the 2004-2005 biennium. It was also emphasized that any IOC involvement in a proposed Ocean Assessment was not included in the 2004-2005 Programme and Budget as presented, and that any such involvement would certainly require very substantial additional resources.

194 The Group had noted the emphasis placed on the role of IOC as a focal point for developing appropriate interactions in the field of marine science, as expressed in Resolution 56/12 'Oceans and the Law of the Sea' adopted at the 56<sup>th</sup> session of the United Nations General Assembly.

195 Dr Pugh called the attention of the Executive Council to the possibility that 'oceans' could be selected as the UNESCO Science Sector priority programme for 2004-2005. Member States should consider whether they could support this priority in UNESCO negotiations. Finally, the Group had emphasized the importance of the on-going consultations with Member States, in response to Resolution XXI-5, especially the financial aspects. All Member States were urged to take account of this in their responses, which collectively could form the basis for a more detailed discussion at the IOC Assembly in 2003.

196 The Executive Secretary gave a brief overview of the extra-budgetary resources situation, in particular with regard to a slight decrease (from US\$ 6,5 million to US\$ 6,0 million) in the expected contributions for the 2002-2003 biennium which could have an effect on certain specific bilateral projects.

197 **The Executive Council expressed** its high appreciation for the work undertaken by the sessional Working Group on Programme and Budget and for the quality presentation on the budgetary issues provided by the Secretariat. **The Executive Council specifically thanked** the Vice-Chairman of IOC, Dr David Pugh, for excellent leadership in his role as Chairman of the working group.

198 **The Executive Council accepted** the importance of responding fully to Resolution XXI-5 by providing Member States' inputs to the consultation process initiated by the IOC Circular Letter 2009. It was **decided** that the Executive Secretary would send a reminder to all Member States requesting responses by the end of October 2002.

199 **The Executive Council adopted** Resolution EC-XXXV.8.

## 8. ARRANGEMENTS FOR THE THIRTY SIXTH SESSION OF THE EXECUTIVE COUNCIL AND THE TWENTY SECOND SESSION OF THE ASSEMBLY

200 The Executive Secretary reported on arrangements for the sessions. He recalled the dates proposed during the last Assembly for its next session, i.e., the two-week period from 24 June to 4 July 2003, preceded on Monday 23 June by the one-day 36<sup>th</sup> session of the Executive Council acting as the Steering Committee for the 22<sup>nd</sup> Assembly.

201 Some delegations invited the Secretariat to shorten as much as possible the length of the 22<sup>nd</sup> Assembly to seven working days and the 37<sup>th</sup> session of the Executive Council to five working days. The length of the session of the Executive Council, when acting as steering committee of the Assembly, should be shortened to a half day. Other Member States stressed the need to give flexibility to the Secretariat to ensure timely translation and delivery of the report.

202 **The Executive Council tentatively agreed** on the dates proposed for the 22<sup>nd</sup> Assembly, i.e., from 24 June to 4 July 2003, with the request that the length of the Assembly be shortened as much as possible.

203 **The Executive Council proposed** that the 37<sup>th</sup> session of the Executive Council should take place from Monday 21<sup>st</sup> June to Saturday 26<sup>th</sup> June 2004, in order to take into account the request to shorten the proceedings as much as possible. **The Executive Council agreed** that, in order to incorporate some "buffering" time to help in the preparation of the report in all languages, the Executive Secretary could schedule the session to include a weekend.

## 9. ADOPTION OF RESOLUTIONS AND SUMMARY REPORT

204 **The Executive Council reviewed** the draft resolutions (DRs) and the draft report. **The Executive Council adopted** the resolutions and the report as herein presented.

**10. CLOSURE**

205           The Chairman closed the thirty-fifth session of the IOC Executive Council at 13.20 on  
14 June 2002.

206           He thanked all delegations, the Secretariat and those behind the scene who contributed  
to the success of the session.

## ANNEX I

### AGENDA

- 1. OPENING**
- 2. ORGANIZATION OF THE SESSION**
  - 2.1 ADOPTION OF THE AGENDA
  - 2.2 DESIGNATION OF THE RAPPORTEUR
  - 2.3 ESTABLISHMENT OF INTRASESSIONAL COMMITTEES
  - 2.4 INTRODUCTION OF TIMETABLE AND DOCUMENTATION
  - 2.5 ROGER REVELLE MEMORIAL LECTURE
- 3. DEVELOPMENTS SINCE THE 21<sup>st</sup> SESSION OF THE IOC ASSEMBLY**
  - 3.1 REPORT OF EXECUTIVE SECRETARY  
[Rule of Procedure No.49]
  - 3.2 REPORT ON PROGRAMME AND BUDGET EXECUTION  
[Res. XXI-13 and Rec. XXI Item 6.1 para. 418]
  - 3.3 FOLLOW UP OF KEY RECOMMENDATIONS OF THE EXTERNAL EVALUATION  
[Rec. XXI Item 4.4 para. 94]
- 4. PROGRAMME MATTERS REQUIRING DECISIONS BY THE EXECUTIVE COUNCIL**
  - 4.1 GENERAL POLICY ISSUES**
    - 4.1.1 Report on the balanced use of the working languages of the Commission  
[Res. XXI-1]
    - 4.1.2 Rules of Procedure: revision of Article 42  
[Rec. XXI Item 4.5 para. 108]
    - 4.1.3 Report of the Consultation of Member States on Resolution XXI-5  
[Res. XXI-5]
    - 4.1.4 Guidelines for the establishment of Regional and Project Offices  
[Rec. XXI Item 5.4 para. 267]
    - 4.1.5 The Oceans and the World Summit on Sustainable Development (WSSD) of Johannesburg  
[Res. XXI-3]
    - 4.1.6 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Resolution on Integrated Data Management Strategy  
[Proposed by the JCOMM Management Committee]
    - 4.1.7 Medium Term Strategy for IOC (2002-2007)  
[Rec. XXI Item 4.4 para. 92]
    - 4.1.8 Global Marine Assessment
  - 4.2 OCEAN SCIENCES SECTION**
    - 4.2.1 Role of IOC in the development of Standards for Ocean Research and Operational Oceanography  
[Rec. XXI Item 4.7 para. 126]

- 4.2.2 Terms of Reference of the programme elements in Ocean Science  
[Rec. XXI-6 and Rec. XXI Item 5.1.5 para. 178]
- 4.3 OCEAN SERVICES SECTION
  - 4.3.1 The Tsunami Programme and the International Strategy For Disaster Reduction (ISDR)  
[Rec. XXI Item 5.3.3 para. 250]
- 4.4 OPERATIONAL OBSERVING SYSTEM SECTION
  - 4.4.1 Review of the Structure of the Global Ocean Observing System (GOOS): Interim Report  
[Res. XXI-7]
  - 4.4.2 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Report of the First Session, June 2001  
[Rec. XXI Item 5.2.2 para. 196]
  - 4.4.3 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM): Memorandum of Understanding IOC-WMO  
[Rec. XXI Item 5.2.2 para. 197]
- 4.5 REGIONAL ACTIVITIES
  - 4.5.1 IOC Regional Sub-Commission for the Caribbean (IOCARIBE):  
IOCARIBE VII Report  
[IOC/IOCARIBE-VII/3s; Rec. XXI Item 5.3.3 para. 250 (Intra-Americas Sea Project Proposal)]
  - 4.5.2 PrepCom on Partnership Conference and the African Process  
[Rec. XXI Item 5.4.12 para. 363; Res. XX-20; Res. XX-21 and Res. EC-XXXIII.13]
- 5. CAPACITY BUILDING IN MARINE SCIENCES, SERVICES AND OBSERVATIONS: TEMA**
  - 5.1 RECRUITMENT OF A P5 POST FOR TEMA
- 6. IMPLEMENTATION OF ACTIONS RELATED TO UNITED NATIONS (UN) CONVENTIONS**
  - 6.1 IOC/ABE-LOS II: REPORT OF THE MEETING AND ENDORSEMENT OF RESOLUTIONS  
[Res. XXI-2]
- 7. PROGRAMME AND BUDGET**  
[Res. XXI-13 and Rec. XXI Item 6.1 para. 418]
- 8. ARRANGEMENTS FOR THE THIRTY SIXTH SESSION OF THE EXECUTIVE COUNCIL AND THE TWENTY SECOND SESSION OF THE ASSEMBLY**
- 9. ADOPTION OF RESOLUTIONS AND SUMMARY REPORT**
- 10. CLOSURE**

## **INFORMATION SESSIONS**

Information Sessions are designed to provide information on work in progress in the different elements of the IOC Programme. Formally they are not part of the Executive Council session itself. However, they have been scheduled to maximize the possibility of participation of delegates and other representatives attending the session.

### **1. Ocean Sciences Section**

- 1.1 Oceans and Climate
- 1.2 Ocean Ecosystems and Marine Environmental Protection
- 1.3 Marine Science Inputs to Integrated Coastal Area Management

### **2. Ocean Services Section**

- 2.1 ODINCARSA Workshop Report
- 2.2 ODINAFRICA: Progress Report
- 2.3 Ocean Portal
- 2.4 Ocean Mapping: Progress Report

### **3. Operational Observing Systems Section**

- 3.1 Global Ocean Observing System (GOOS)
- 3.2 Global Sea-level Observing System (GLOSS)
- 3.3 Global Climate Observing System (GCOS)

### **4. Regions**

- 4.1 IOC Regional Committee for the Central Indian Ocean (IOCINDIO)
- 4.2 IOC Regional Committee for the Central Eastern Atlantic (IOCEA)
- 4.3 IOC Regional Committee for the Cooperative Investigation in the North and Central Western Indian Ocean (IOCINCWIO)
- 4.4 Caspian Sea
- 4.5 Other Regions

ANNEX II  
**RESOLUTIONS**

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**Resolution EC-XXXV.1**

**THE INTERNATIONAL CO-ORDINATION GROUP FOR THE TSUNAMI  
WARNING SYSTEM IN THE PACIFIC**

The Executive Council,

**Recalling** that the IOC Tsunami Programme was identified by the IOC Governing Bodies as a high priority and flagship programme of the Commission, being a unique programme within the IOC fully dedicated to the co-ordination of an operational natural hazard warning system with the goal of reducing the tsunami danger and its impact on coastal communities,

**Noting** the decision of IOCARIBE-VII on the establishment of the Tsunami Warning System in the Intra-Americas Sea (IAS) region,

**Considering** the Summary Report and Recommendations of the 18<sup>th</sup> Session of the International Coordination Group for the Tsunami Warning System in the Pacific (ITSU-XVIII) held in Cartagena, Colombia, from 8 to 11 October 2001, and the progress achieved by the Group in the implementation of the ITSU Programme,

**Appreciating highly** the support of Chile, France, the Republic of Korea and the USA provided to the IOC Tsunami Programme in 2001-2002 through Trust Fund and in-kind contributions,

**Endorses** the Summary report;

**Approves** the recommendations of ITSU-XVIII;

**Stresses** the importance of the International Tsunami Information Centre (ITIC) in implementing the Tsunami Programme in the Pacific, and

- (i) **thanks** the USA for its continued support to this facility and Chile for providing support to the ITIC Associate Director,
- (ii) **invites** these Member States to continue their support, **and requests** other Member States to assist with the further development of the ITIC;

**Encourages** Member States, particularly those affected by the threat of tsunamis, to actively contribute towards the further development and maintenance of the Tsunami Programme, either through financial contributions to the IOC Trust Fund, staff support or in-kind contributions;

**Invites** ICG/ITSU to provide knowledge and expertise to participating Member States in the implementation of the IAS project;

**Urges** Member States undertaking civil defence measures with regard to the threat of tsunamis to contribute their data to the international warning system and to fully support the ITSU Programme;



**Instructs** the IOC Executive Secretary to urgently take action to strengthen the staff situation in support of the ITSU Programme at the IOC Secretariat.

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Financial implications:      US\$ 117,200 from Regular Budget (2002-2003)  
   US\$ 42,200 from Extra-budgetary Resources (2002-2003)  
   (to be identified)  
   Total amount: US\$ 159,400 for 2002-2003

### **Resolution EC-XXXV.2**

## **IOC STRATEGIC PLAN FOR OCEANOGRAPHIC DATA AND INFORMATION MANAGEMENT**

The Executive Council,

### **Recalling:**

- (i) Resolution XX-4 requesting IODE to work in concert with JCOMM and GOOS to develop a comprehensive ocean data management system,
- (ii) Recommendation IODE-XVI.3 on the establishment, maintenance, and strengthening of co-operation between IODE and research and monitoring programmes,
- (iii) Recommendation IODE-XVI.4 on the establishment of a Group of Experts on Biological and Chemical Data Management and Exchange Practices,
- (iv) Resolution 4 of JCOMM-I that, *inter alia*, invites IODE to participate in the work of the JCOMM Data Management Programme Area,

### **Considering:**

- (i) the existence of several data management plans, such as those of GOOS and IODE, all providing potential elements of a strategy and implementation plan for oceanographic data management,
- (ii) that IODE has developed national, regional and global infrastructures, expertise, experience and programmes for the management of oceanographic data and information, mostly for delayed-mode data,
- (iii) that IODE and JCOMM have each created data management structures to deliver the products and services required by their own programmes and activities which, although linked and coordinated, are not presently implemented and managed according to a common strategy,
- (iv) that the WMO Commission for Basic Systems has developed data management systems that satisfy part of the identified requirements of JCOMM for real-time data management,
- (v) that the data management systems of many Member States are abandoning strict distinctions between real-time and delayed-mode data management in favour of end-to-end data management,

- (vi) that both IODE and JCOMM are considering broader remits into non-physical ocean data management,

**Recognizing** the need for IOC to develop a Strategic Plan for oceanographic data and information management, embracing the requirements, capabilities and infrastructures of Member States, as well as the needs of their user communities,

**Decides** to establish a Task Team on the development of an unified, comprehensive IOC Strategic Plan for Oceanographic Data and Information Management with terms of reference as detailed in the Annex to this Resolution;

**Urges** Member States of IOC to provide in-kind support and/or financial contributions to the IOC Trust Fund to cover the costs of the meetings of the Task Team.

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Financial implications: US\$ 30,000 from Extra-budgetary Resources (2002-2003)

## **Annex to Resolution EC-XXXV.2**

### **Terms of Reference for the Task Team on the Development of an IOC Strategic Plan for Oceanographic Data and Information Management**

#### **1. Purpose**

To develop an IOC Strategic Plan with clearly defined roles for each of its observational and data management elements, for oceanographic data and information management, embracing the requirements, capabilities and infrastructures of its Member States, as well as the needs of their user communities.

#### **2. Tasks**

In pursuit of its task the Task Team shall:

- (a) carry out an assessment of data and data product requirements of existing oceanography and marine meteorology programmes/projects, and evaluate whether these are currently met by the various groups of IODE data centres;
- (b) take into consideration existing data management plans such as the GOOS data management plan and relevant WMO data management plans;
- (c) draft an IOC Strategic Plan for oceanographic data and information management, taking into consideration the requirements for such a plan within the framework of JCOMM;
- (d) submit a report on progress to the IOC Assembly in 2003.

#### **3. Composition**

The Task Team shall be composed of:

- (a) the chairperson or vice-chairperson of IODE;
- (b) the chairperson of the GOOS Steering Committee;
- (c) the coordinator of the JCOMM Data Management Programme Area;
- (d) a representative of the WMO Commission for Basic Systems;
- (e) one co-president of JCOMM;

- (f) the chairperson of the IOC Working Group on Data Policy;
- (g) two additional experts nominated respectively by IODE and I-GOOS, taking into account the need for multi-disciplinary expertise.

#### **4. Schedule**

At least two meetings of the Task Team will need to take place during the period 2002-2003.

### **Resolution EC-XXXV.3**

#### **FEASIBILITY OF ESTABLISHING A REGULAR PROCESS FOR THE ASSESSMENT OF THE STATE OF THE MARINE ENVIRONMENT**

The Executive Council,

**Having considered** Decision 21/13 of the Governing Council of the United Nations Environment Programme (UNEP) adopted at its 21st Session in February 2001 which requests the Executive Director of UNEP, in cooperation with the Intergovernmental Oceanographic Commission of UNESCO and other appropriate United Nations agencies, the Secretariat of the Convention of Biological Diversity and in consultation with the regional seas programmes, to explore the feasibility of establishing a regular process for the assessment of the state of the marine environment, with active involvement by governments and regional agreements, building on ongoing assessment programmes,

**Recalling** the obligations devolved upon the IOC of UNESCO in conformity with its statutes,

**Recalling also** that, in particular, the operation of its ocean science and ocean services programmes provides IOC with the appropriate expertise and experience to participate in such global marine assessments,

**Acknowledging** the views expressed within the United Nations open-ended informal consultative process that consideration should be given to undertaking a global assessment of the state of the marine environment,

**Emphasizing** that a regular process for the assessment of the state of the marine environment requires a sound scientific framework, a well-defined work plan and an appropriate budget to be implemented,

**Accepts** the request from UNEP to the IOC contained in decision 21/13 of the governing council of the United Nations environment programme;

Expresses the willingness of IOC to participate in the feasibility study, in consultation with other relevant international bodies/programmes, and in coordinating the process for the assessment of the state of the marine environment;

**Instructs** the IOC executive secretary to:

- (i) explore with UNEP and other relevant partners the feasibility of IOC leading the assessment programme, including the mobilization of necessary funds through governments, international agencies and donor organizations, as well as co-operation with other global assessment programmes;

- (ii) report to the next ordinary session of the Assembly, on the development of this matter, including the financial and human resources implications of IOC leading the assessment programme.
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Financial implications: none

#### **Resolution EC-XXXV.4**

### **FIRST SESSION OF THE JOINT WMO-IOC TECHNICAL COMMISSION FOR OCEANOGRAPHY AND MARINE METEOROLOGY (JCOMM-I)**

The Executive Council,

**Having considered** the Abridged Final Report with Resolutions and Recommendations of the First session of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology,

#### **Endorses:**

- (i) the report;
- (ii) the resolutions 1 to 6 (JCOMM-I);

**Decides** to take actions on the following recommendations with respect to:

#### **Recommendation 1 (JCOMM-I) - Ocean Data Acquisition System (ODAS) Metadata Format**

- (i) **Approves** the recommendation;
- (ii) **Instructs** the IOC Executive Secretary, with the assistance of the co-presidents of JCOMM and the chairman of the Data Buoy Cooperation Panel (DBCP), (a) to consult with Member States, with a view to establishing the metadata archival centre(s); and (b) to otherwise assist Member States as necessary in the submission of metadata to these centre(s);

#### **Recommendation 2 (JCOMM-I) - Resources for Ship-based Observations**

- (i) **Approves** the recommendation;
- (ii) **Instructs** the IOC Executive Secretary, with assistance of the co-presidents of JCOMM, to consult with Member States, with a view to increasing the resources committed to ship-based observation programmes;

#### **Recommendation 3 (JCOMM-I) – International SeaKeepers Society**

- (i) **Approves** the recommendation;
- (ii) **Requests** GOOS, through its Coastal Ocean Observations Panel, to review and assess the quality and value of non-physical oceanographic data collected through the SeaKeepers module and, as appropriate, recommend on the said data inclusion as part of an integrated operational ocean monitoring system;

- (iii) **Instructs** the IOC Executive Secretary to bring the work of the International SeaKeepers Society to the attention of Member States and to assist in the implementation of the above actions;

Recommendation 4 (JCOMM-I) – Vandalism of Ocean Data Buoys

- (i) **Approves** the recommendation;
- (ii) **Invites** Member States to take actions as detailed in the recommendation;
- (iii) **Instructs** the IOC Executive Secretary to provide assistance as requested to Member States in the implementation of the above actions;

Recommendation 5 (JCOMM-I) – The Global Sea Level Observing System (GLOSS)

- (i) **Approves** the recommendation;
- (ii) **Invites** Member States and national agencies to:
  - (a) continue and strengthen the support for GLOSS: (1) at the national level through maintenance of GLOSS-designated tide gauges; and (2) at the international level through support to the IOC Trust Fund or through bilateral and/or multilateral assistance for GLOSS activities by, for example, collaborative support for maintaining/upgrading GLOSS gauges in accordance with the GLOSS Implementation Plan;
  - (b) provide *in situ* sea level data from GLOSS stations to the international data centres without delay in accordance with the provisions of the Implementation Plan;
  - (c) consider local and regional observation platform sharing for data acquisition of other important parameters at GLOSS sites, especially by providing the necessary upgrades for real time data acquisition;
- (iii) **Instructs** the IOC Executive Secretary to provide assistance to Member States, as requested and within the available budgetary resources, in the implementation of the above actions;

Recommendation 6 (JCOMM-I) – Establishment of a JCOMM *in situ* Observing Platform Support Centre (JCOMMOPS)

- (i) **Approves** the recommendation;
- (ii) **Invites** Member States, where possible, to commit the resources required to support JCOMMOPS;

Recommendation 13 (JCOMM-I) – Revision of Resolutions of the WMO and IOC Governing Bodies Based on Previous Recommendations of the Commission for Marine Meteorology and of the Joint IOC/WMO Committee for IGOS

- (i) **Decides** to postpone action on the recommendation until IOC is actually engaged in reviewing the state of implementation of previous IOC resolutions.

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Financial implications: US\$ 60,000 per year from Regular Budget

**Resolution EC-XXXV.5**

**SEVENTH INTERGOVERNMENTAL SESSION OF THE IOC SUB-COMMISSION  
FOR THE CARIBBEAN AND ADJACENT REGIONS (IOCARIBE-VII)**

The Executive Council,

**Noting** with satisfaction the improvement and progress of the IOCARIBE Secretariat, and in particular its efforts in organizing IOCARIBE-VII (Veracruz, Mexico, 25-28 February 2002),

**Expressing** its appreciation to the Government of Mexico for hosting the above Session,

**Takes** notes of the Executive Summary Report of IOCARIBE-VII and its recommendations,

**Decides** to take the following actions with respect to:

**Recommendation SC-IOCARIBE-VII.1 - Work of the IOCARIBE-GOOS ad hoc Advisory Group and the strategic plan for the development of an Ocean Observing System for the IOCARIBE Region**

- (i) **Instructs** the IOC Executive Secretary to:
  - (a) assist in seeking ways and means to support the work of the Steering Committee for IOCARIBE-GOOS and to convene its first meeting not later than December 2002;
  - (b) once editorial changes have been made and approval is obtained from IOCARIBE Member States in accordance with established deadlines, publish "*The Case for IOCARIBE-GOOS*", which will become the strategic plan for IOCARIBE regional GOOS development;
- (ii) **Invites** the Member States to support the implementation of such measures as contained in the recommendation;

**Recommendation SC-IOCARIBE-VII.2 - Tsunami Warning System For The Caribbean**

- (i) **Invites** the Member States to support the implementation of such measures contained in the recommendation;

**Recommendation SC-IOCARIBE-VII.4 - Pacific Central American Large Marine Ecosystem project**

- (i) **Instructs** the IOC Executive Secretary to explore, in cooperation with UNEP/CAR/RCU the possibility to consider this project proposal as a contribution of IOC to the implementation of the Action Plan for the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific;
- (ii) **Invites** the Member States to support the implementation of such measures as contained in the recommendation;

**Recommendation SC-IOCARIBE-VII.5 - Regional project co-ordinators and steering groups of experts**

- (i) **Instructs** the IOC Executive Secretary to ensure that every regional project has a specially designated Regional Project Co-ordinator (RPC) and Steering Group of Experts (SGE);

Recommendation SC-IOCARIBE-VII.6 - Caribbean Process

- (i) **Urges** Member States of the Commission to provide the necessary support to develop an initiative for a “Caribbean Process” similar to the intent of the “African Process”;
- (ii) **Instructs** the IOC Executive Secretary to establish effective liaisons with other organizations in the region, in particular with UNEP/CAR/RCU, IOCARIBE, CARICOM, WECAFC, ECLAC, ACS, OECS and appropriate NGOs, for promoting this initiative;

Recommendation SC-IOCARIBE-VII.7 - World Summit on Sustainable Development (WSSD)

- (i) **Urges** Member States of the Commission to support the Wide Caribbean projects that have been adopted by IOCARIBE, in particular the Large Marine Ecosystems (LME) and the Caribbean Global Ocean Observing System (IOCARIBE-GOOS), as WSSD type II;
- (ii) **Instructs** the IOC Executive Secretary to promote the wider Caribbean Sea Initiative at WSSD;

Recommendation SC-IOCARIBE-VII.8 - Integrated inventory for capacity building activities in the IOCARIBE Region

- (i) **Instructs** the IOC Executive Secretary to seek ways and means to promote the establishment of an integrated inventory of capacity building activities in the region;

**Urges** Member States of the IOC, and of IOCARIBE in particular, to provide financial support, through the IOC Trust Fund, and use other modalities of support for the implementation of the Sub-Commission's programme.

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Financial implications:	US\$ 140,000 from Regular Budget (2002-2003)
	US\$ 306,000 from Extra-budgetary Resources (2002-2003)
	(to be identified)
	Total Amount: US\$ 446,000 for 2002-2003

**Resolution EC-XXXV.6**

**OCEAN DATA AND INFORMATION NETWORK FOR THE CARIBBEAN AND  
SOUTH AMERICAN REGIONS (ODINCARSA)**

The Executive Council,

**Recalling:**

- (i) that Resolution XXI-8, through adopting, *inter alia*, Recommendation IODE-XVI.9, calls upon IOC to foster the establishment of a regional network for marine data and information exchange in the Latin America and Caribbean region,
- (ii) the recommendations and objectives established during the first ODINCARSA Planning Workshop held in Guayaquil, Ecuador, from 24 to 26 October 2001,

**Expresses** its gratitude to the Government of Ecuador for hosting the ODINCARSA Planning Workshop;

**Considering:**

- (i) that a number of countries of the region have expressed interest in the ODINCARSA project, the objectives and proposed activities of which were outlined by the above-mentioned planning workshop,
- (ii) the benefits that are likely to derive from the establishment of a solid mechanism for integrating regional components of IOC programmes such as GOOS, TEMA, ICAM, ITSU among others, and also of JCOMM, with ODINCARSA,

**Decides:**

- (i) to ensure the execution of the operational plan of ODINCARSA for 2002-2003, which implies infrastructure support, capacity building, as well as the development of regional products and services;
- (ii) to provide assistance in the development and operation of National Oceanographic Data Centres (NODCs) or Designated National Agencies (DNAs) in each country and consolidate the ODINCARSA network;

**Urges** IOC Member States in the Caribbean and South American region to:

- (i) identify substantial contributions and secure governmental and technical commitments in order to ensure the sustainability of national and regional data and information management systems developed within the framework of ODINCARSA;
- (ii) ensure that ocean data and information management (infrastructure, services and products) serves both national and regional priorities;

**Encourages** IOC Member States, donors and other international and regional organizations to support the implementation of the ODINCARSA project, through complementary activities that strengthen ODINCARSA's development of services and products, as well as through financial contributions to the IOC Trust Fund;

**Instructs** the IOC Executive Secretary to:

- (i) identify resources for the ODINCARSA Pilot Project (2002-2003);
- (ii) transmit the ODINCARSA project to the international donor community;



- (iii) assist with the implementation of ODINCARSA project activities by identifying suitable donors.

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Financial implications: US\$ 60,000 from UNESCO/IOC Regular Budget (2002-2003)  
US\$ 500,000 from Extra-budgetary Resources (2002-2003)  
(to be identified)  
Total amount: US\$ 560,000 for 2002-2003

### **Resolution EC-XXXV.7**

## **SECOND MEETING OF THE IOC ADVISORY BODY OF EXPERTS ON THE LAW OF THE SEA (IOC/ABE-LOS II)**

The Executive Council,

**Bearing in mind** Resolution XXI-2 adopted by the 21st Session of the IOC Assembly,

**Expressing** its appreciation to the Government of Morocco for hosting the IOC/ABE-LOS-II meeting,

**Noting:**

- (i) the report on the Second Meeting of IOC/ABE-LOS (IOC/ABE-LOS II) made by its Chairman,
- (iii) the results of the three sessions of the United Nations Open-ended Informal Consultative Process on Ocean Affairs (ICP),
- (iii) UN General Assembly Resolution A/RES/56/12,

**Expresses** satisfaction with the progress made by IOC/ABE-LOS;

**Adopts** the recommendations of the Second Meeting of the Advisory Body of Experts on the Law of the Sea (IOC/ABE-LOS II), as given in the Annex to this resolution;

**Requests** the IOC/ABE-LOS Group to take necessary action, as appropriate, and in line with the Terms of Reference of the IOC/ABE-LOS Group, to continue responding to UN General Assembly Resolution A/RES/56/12;

**Instructs** the IOC Executive Secretary to take necessary action for the full implementation of the IOC/ABE-LOS II recommendations.

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Financial implications: US\$ 12,000 from Regular Budget (2003)

## **Annex to Resolution EC-XXXV.7**

### **RECOMMENDATIONS**

The IOC Advisory Body of Experts on the Law of the Sea at its Second Meeting (IOC/ABE-LOS II), recommended the following:

1. That the Open-Ended Sub-Group on Transfer of Marine Technology should continue to work, in close co-operation with UN/OLA/DOALOS, on the elaboration of Draft Criteria and Guidelines on the Transfer of Marine Technology, with a view to their possible adoption by the 22<sup>nd</sup> Session of the IOC Assembly. To this end, the Sub-Group should continue its work by electronic correspondence, on the basis of Document IOC/ABE-LOS II/7, and the debate at the second meeting of IOC/ABE-LOS (IOC/ABE-LOS II).
2. That the Open-Ended Sub-Group on the IOC Internal Procedures related to an effective and appropriate use of Article 247 of UNCLOS on marine scientific research projects undertaken by or under the auspices of international organizations should continue its work, in close co-operation with UN/OLA/DOALOS, by electronic correspondence on the basis of the debate on Document IOC/ABE-LOS II/8 at the second meeting of IOC/ABE-LOS (IOC/ABE-LOS II).
3. That the Secretariat, with regard to Article 251 of UNCLOS, should continue its preparatory work through the collection and analysis of information from Member States on their practices in the fields of marine scientific research and transfer of related marine technology, in close co-operation with UN/OLA/DOALOS. To this end, and in close collaboration with the members of IOC/ABE-LOS operating through electronic correspondence, the IOC Questionnaire N°2 should be reformulated to take specific account of UNCLOS provisions on (i) Marine Scientific Research (Part XIII), (ii) Development and Transfer of Marine Technology (Part XIV) and the debate on Document IOC/ABE-LOS II/9 at the second meeting of IOC/ABE-LOS (IOC/ABE-LOS II).

### **Resolution EC-XXXV.8**

#### **IOC PROGRAMME AND BUDGET FOR 2004-2005**

The Executive Council,

**Recalling** Article 1 (2) and Article 10 (1) of the IOC Statutes,

**Welcoming** the designation of the IOC as a flagship programme of UNESCO in the 31 C/4 – Medium-Term Strategy,

**Recalling** the emphasis placed on the role of the IOC as a focal point for developing appropriate interactions in the field of marine science in Resolution A/RES/56/12 'Oceans and the Law of the Sea' adopted at the 56<sup>th</sup> session of the United Nations General Assembly,

**Recalling also** the unique role of the IOC as the competent intergovernmental body dealing with ocean science and as the ocean arm of UNESCO, operating through the concerted action of IOC Member States,

**Recalling further** IOC Resolution XXI-5 which instructs the IOC Executive Secretary to seek views of IOC Member States including *‘proposals regarding innovative approaches for the improvement of the financial support for the Commission’s programme of work (...)’*,

**Having considered** the report of the IOC Executive Secretary on the above,

**Expressing concern** that, as a result of the increasing IOC responsibilities in global ocean issues, the resources available are likely to fall below the level needed to sustain the work of the Commission,

**Noting** that the stable funding provided by the incompressible budget allocated to the IOC by UNESCO and the increasing interest in IOC activities have attracted substantial supplementary support from Member States, notably through contributions to the IOC Trust Fund,

**Stressing** the importance of extra-budgetary contributions from Member States for the long-term plans of the IOC, and that the anticipated level for these funds in the 2004-2005 biennium is US\$ 6.0 million,

**Emphasizing** that collective participation in Ocean Science and Ocean Services programmes, and the associated observing systems:

- (i) can enhance scientific, technical and human capabilities,
- (ii) contributes to the protection and sustainable development of the ocean and coastal areas,
- (iii) can improve human security, support economic development and help alleviate poverty,

**Emphasizing further** the importance of IOC subsidiary bodies and the related role of TEMA in capacity building,

**Identifies** the following Main Lines of Action for the IOC Programme and Budget for the 2004-2005 biennium:

- (i) Main Line of Action 1: Addressing scientific uncertainties for the management of the marine environment and climate change,
- (ii) Main Line of Action 2: To further develop, within the Global Ocean and Global Climate Observing Systems (GOOS and GCOS), the monitoring and forecasting capabilities needed for the management and sustainable development of the open and coastal ocean,
- (iii) Main Line of Action 3: Development and strengthening of a global mechanism to ensure full and open access to ocean data and information for all,
- (iv) Main Line of Action 4: Increase the effectiveness of the governing bodies of the Commission and further develop the oceans governance issues,
- (v) Main Line of Action 5: To further develop the capacity of Member States in marine scientific research for the management and sustainable development of the open and coastal ocean;

**Urges** UNESCO Member States to actively support, through their national representatives, the IOC programme and budget proposals when the Draft 32 C/5 is being considered by the UNESCO Executive Board and the General Conference;

**Also urges** IOC Member States to continue and increase their support to the IOC through direct and in-kind contributions, and to take this into account in their responses to IOC Resolution XXI-5.

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Financial implications: none

ANNEX III

**ADDRESSES & STATEMENTS**

**- A -**

**Opening Address by Mr Marcio Barbosa  
Deputy Director-General of the United Nations Educational, Scientific and Cultural  
Organization(UNESCO)**

Distinguished Members of the Executive Council of IOC,  
Ladies and Gentlemen,

It is a great pleasure to be with you today at the opening of this thirty-fifth session of the Executive Council of IOC. The Director-General has asked me to convey his apologies for being unable to be here this morning. I am pleased to have this opportunity to speak directly with you about IOC's work and, in particular, on the challenges that we face in implementing the programme approved by the General Conference of UNESCO for this biennium (2002-2003).

From the outset, I would like to reaffirm the importance that UNESCO places on the role of its Intergovernmental Oceanographic Commission. In our Medium-Term Strategy (2002-2007), IOC was recognized by the General Conference as one of the two "flagship programmes" of the Organization. This well-deserved recognition not only serves to enhance the visibility of IOC but also brings an increased responsibility on the part of the Member States of IOC.

The implementation of our Programme and Budget for 2002-2003 is a challenging task. We have embarked upon a major plan of reform aimed at streamlining and modernizing the administrative infrastructure of the Organization, increasing the decentralized nature of programme implementation, and focusing UNESCO's action on a few priority areas. Our reform depends heavily on the introduction of a new culture of management, backed up by modern systems. All these actions require investment in the most valuable resource that the Organization has: people. The training of our personnel on the new systems costs money and takes time. We still operate, however, with a budget defined under a zero nominal growth policy. This imposes severe restrictions and limitations on the global operation of UNESCO. As a result, all of us are called upon to exercise the maximum of prudence when setting today's priorities and when beginning to plan tomorrow's new tasks. These conditions and circumstances place a premium on the effective cultivation of partnership and cooperation.

I am pleased to say that the Director-General has received very positive feedback from outside UNESCO about the role and activities of IOC in different international fora. IOC receives widespread recognition for its close cooperation with the International Scientific Programmes coordinated by the ICSU. IOC has developed new coordination mechanisms with the WMO in order to operate the Global Ocean Observing System. I believe that the Joint Technical Commission for Oceanography and Marine Meteorology, operating simultaneously as a Constituent Body of the WMO and as a Technical Commission of IOC, is quite unique as a joint intergovernmental body under the simultaneous authority of two different UN organizations.

Another example of IOC's cooperative action is its long-standing collaboration with UNEP in the Regional Seas Programme and more recently with the Coordinating Office of the Global Plan of Action in The Hague.

Tomorrow is World Environment Day, whose theme this year is "Give Earth a Chance". It is a most timely date for the launch by the Director-General, together with the representative of Dr Jacques Diop, Director General of FAO, of the *UN Atlas of the Oceans*. This initiative has been led by FAO and has involved the participation of several UN organizations, including IOC. The *UN Atlas of the Oceans* is a remarkable Internet portal that makes available a huge amount of information concerning the sustainable development of the oceans.

Clearly, 'oceans' is an area that calls for close coordination within the UN system and beyond. Indeed, this is a preoccupation at the highest level in the UN system - it has been the subject of discussion at the three meetings of the informal Consultative Process created by the UN General Assembly to discuss ocean matters. IOC has represented UNESCO in this process. As the focal point for Ocean Sciences and Ocean Services in the system, IOC has played a significant role in promoting coordination. In this role, IOC supported for over eight years the Secretariat of the ACC Subcommittee for Oceans and Coastal Areas (SOCA) and, during the last three years, also served as Chair of this Subcommittee.

As part of the streamlining of the UN Secretariat, the ACC has undergone a significant change designed to increase its executive nature. To reflect this, the rather neutral name of 'Administrative Committee on Coordination' was changed to "UN System Chief Executive Board for Coordination" (CEB). This positive change, however, has led to the formal disappearance of the ACC Subcommittee for Oceans and Coastal Areas. Nevertheless, the need for coordination persists, and I am informed that the agencies involved in SOCA are willing to continue with this function through a network of high-level experts. The important issue here is that the UN moves away from maintaining structures, open-ended in time, without periodic review of their mandate and outcomes. With these changes, the emphasis will be on using a style of management that defines mutually agreed tasks, to be discharged through time-bound initiatives.

From 26 August to 4 September 2002, the World Summit on Sustainable Development will take place in Johannesburg, South Africa. UNESCO has been involved for the last ten years in various aspects of the implementation of Agenda 21. IOC answered the call made in Rio for the development of the Global Ocean Observing System, now one of the major programmes of the Commission, as well as for the promotion of the principles of integrated coastal management.

We have followed with close attention the activities that IOC has planned and implemented in order to contribute to the World Summit in Johannesburg. The IOC Declaration, approved last December in a special session of your Executive Council, was part of the official documentation of the second meeting of the Preparatory Committee held in New York in January 2002.

In addition, of course, we followed with great interest the *Global Conference on Oceans and Coasts at Rio+10: Toward the 2002 World Summit on Sustainable Development*, held at UNESCO in Paris on 3-7 December 2001. The Conference involved 424 participants from 59 countries - 164 ocean experts from governments, 162 members of non-governmental organizations and academic institutions, and 98 members of

intergovernmental, international, and regional organizations. This was, without doubt, one of the most important preparatory meetings for the World Summit in the area of oceans and coasts.

IOC is to be commended for undertaking all these tasks, and for doing so in such a cooperative manner. IOC has not only endeavoured to promote its own programme but, at the same time, it has offered an open platform to other partners, within and outside the UN system, to become involved in the World Summit process. I trust that you will persevere in pursuing this most fruitful approach.

As a key flagship programme, IOC brings credit and visibility to the entire Organization. My message to you today is simply this: keep up the good work! It remains for me to wish you every success in your deliberations.

Thank you.

**- B -**

**Opening Address by Prof. Su Jilan  
Chairman of the Intergovernmental Oceanographic Commission of UNESCO**

Mr Marcio Barbosa, Deputy Director-General of UNESCO,  
Officers of the IOC,  
Dr Umit Unluata, acting Executive Secretary,  
Distinguished Members of the Executive Council of IOC,  
Distinguished Delegates,  
Ladies and gentlemen,

It is my great pleasure to welcome you to the opening of the 35<sup>th</sup> session of the Executive Council of the Intergovernmental Oceanographic Commission of UNESCO. Our session is taking place slightly less than three months ahead of the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. As a matter of fact, we held an extraordinary session of this Council in December, just to complete the IOC contribution to the Summit.

The declaration of IOC resulting from that extraordinary session was important in two aspects. First, it was transmitted in a timely fashion to the Secretariat of the Summit to be a part of the official contributions of the Specialized Agencies. It supported the discussions of the preparatory process, especially the Second Meeting of the Preparatory Committee, PreCom 2, held in January this year in New York. But I would assign even more importance to another aspect. In addressing the WSSD we have agreed to a series of strategic, long-term commitments that we, as representatives of our member states, shall strive for in the next ten years. It is useful to recall those commitments in this occasion. In the Declaration of IOC to the WSSD we said:

*“The Intergovernmental Oceanographic Commission affirms its will to:*

- act as a focal point to encourage interactions in marine science and observations across relevant bodies of the UN system and other organizations;*

- *further develop partnership in capacity building in marine science and services at regional and national levels, particularly with developing countries and taking also into account the African Process;*
- *develop GOOS as an operational system;*
- *promote the development and implementation of programmes on Integrated Coastal Area Management;*
- *participate fully in the necessary assessment of the global ocean environment, and periodic reporting on the state of the oceans;*
- *promote the use of scientific knowledge for management decisions and policy making and facilitate access to this knowledge;*
- *work to increase public awareness of the importance of the oceans and coasts for sustainable development and the future of humanity.”*

Regardless of the final impact of our declaration on WSSD, I take it to be a “binding” commitment on our part. It shall be our responsibility to find the means to implement these goals.

At both PrepCom 2 and 3, IOC was very active in trying to promote these goals. However, we must confess that we cannot be totally satisfied with the results of the process leading to Johannesburg. In spite of the continuous hard negotiation until late hours during the early sessions at the PrepCom, the member states decided unanimously at the last session of PrepCom 3 to relinquish, in view of the lack of progress, the negotiated text. Instead, the Chair of CSD was invited to re-write a new draft for negotiations that are taking place right now in an extended PrepCom 4 in Bali, Indonesia. I find this unusual and disturbing. There are views expressed with force about ocean priorities that do not find their way into the document shaping the political commitment for Johannesburg. Of course, many groups try to promote their own particular interests. Such pressure makes the process difficult and it is easy for the document to be transformed into a collection of wishes with little strategic or practical value.

I wish to report on another connected issue here: the Informal Consultative Process on Oceans of the General Assembly of the UN (ICP). Every year the UN General Assembly adopts an Ocean and Law of the Sea Resolution, the so-called omnibus resolution. The ICP process was established experimentally for three years to assist the Assembly in its analysis of issues related to the Ocean and Law of the Sea. This is the last year of the ICP and the General Assembly must decide what it wants to do with the process: to eliminate it, to continue for another three years; or to give it a new mandate and structure. The situation is still very open and fluid.

Two observations on ICP may be said. Firstly, the creation of ICP reflects a real and difficult situation with respect to the coordination, or lack of it, on ocean issues in the UN system. Secondly, the ICP, being a higher-level forum totally devoted to Oceans affairs, represents a great opportunity to obtain the high level political support for ocean issues. Our Executive Secretary has spent significant time and energy reporting on coordination of ocean issues to the ICP. As a result of this the IOC has gained a better recognition and we are receiving better attention to and support for our goals and activities. We work closely with a long list of partners: UNEP, IAEA, WMO, IMO, FAO, and, outside the UN system, the ICSU family. But, on the other hand, the previous coordination mechanism that existed in the UN system, the Subcommittee on Oceans and Coastal Areas, ACC-SOCA, has now been abolished. This development shall increase the pressure to find other means to achieve coordination on ocean issues. That is becoming an important issue in its own merit and it may be addressed when



the General Assembly discusses the continuation of the ICP. I am afraid that there is no consensus at the moment about a new mechanism for coordination and nobody is really working to build one.

Many member states would like to see a more gradual approach, where significant progress on ocean coordination can be attached to concrete measures and goals. In this context I assign a very high importance to the follow-up and final resolution of the proposal to develop a Global Assessment of the Ocean. Here again IOC has been contributing significantly to the development of this initiative and our Executive Secretary informed us that many of our partner organizations are expecting the IOC to play a leading role in coordinating that global assessment.

In our endeavours at both the PreCom and ICP so much of our thinking has been influenced by Dr Elizabeth Mann-Borgese. We are sad that Elizabeth is no longer with us.

In December 2001, on behalf of IOC, I attended a meeting of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) of UNESCO. On that occasion I made a proposal of setting up an Expert Group on the Ethics of the Oceans. The idea was well received. As you know, ethics is important for governance. In addition, through such a work of COMEST, the importance of the oceans will reach a wide audience around the world.

Admiral Marcos Leal de Azevedo, our Vice-Chairman from the Latin America Region, has resigned from his IOC position because of his increased responsibility at home in Brazil. While our protocol does not allow a replacement for his departure, we shall find ways to communicate with the Latin America Region on matters dealt with by the IOC Officers.

Finally, I wish to extend our sympathy to our Executive Secretary who is not in this opening session because of family reasons. Dr Patricio Bernal is scheduled to join us later in the afternoon. The 3<sup>rd</sup> revision of the provisional timetable has been drafted with this in mind.

Thank you

- C -

**Statement by Vice Admiral Conrad C. Lautenbacher, Jr.  
U.S. Navy (Ret.)**

**Under Secretary of Commerce for Oceans and Atmosphere Administrator of the  
National Oceanic and Atmospheric Administration**

on 10 June 2002

Chairman Su,  
Executive Secretary Bernal,  
Delegates,  
Ladies and gentlemen,

It is a pleasure for me to be here today to address the 35<sup>th</sup> Session of the Executive Council of the IOC.

All of us here today know that ocean issues inherently transcend national boundaries. Consequently, we also know that we must collaborate in our efforts—if we are to succeed in observing, understanding, assessing, and ultimately forecasting oceanic conditions. As Administrator of NOAA, and from my previous positions as President of the Consortium for Oceanographic Research and Education, and in the Navy, I am keenly aware of the importance of working collaboratively with partners from around the world to address ocean issues. The Intergovernmental Oceanographic Commission is an essential partner in facilitating and coordinating those efforts.

In February, President Bush came to NOAA to announce the Clear Skies and Global Climate Change Initiatives. He directed the Secretary of Commerce, working with other U.S. agencies, to review current investments in climate change research, to prepare a comprehensive plan for the future—including the setting of priorities, and to improve coordination among the federal agencies. The United States will also provide matching resources to build climate observing systems in developing countries, and encourage other developed nations to match our commitment.

The President's budget proposal for our next fiscal year includes \$18 million in new climate research funding for NOAA, out of a total of \$40 million across the federal agencies. An essential element—about \$8 million, half atmospheric and half oceanic—is for NOAA to improve the global observing system. This Presidential Initiative for better science, with improved observations as a first step, will provide the information necessary to formulate sound policy decisions.

I strongly believe that NOAA is the right agency to take a leadership role within the United States, but we know full well that we cannot do this alone. The global observation effort for climate is far too enormous for one organization, or even one country, to undertake alone. We must work together.

Perhaps the greatest challenge is to develop one integrated observation plan for the ocean, atmosphere, and land which everyone can support. The Global Climate Observing System (GCOS) and Global Ocean Observing System (GOOS), working with the Integrated Global Observing Strategy (IGOS) Partners and others, have developed international consensus on overall needs. There is, however, much work still to be done.

This challenge lies in our ability to provide one coherent plan which integrates space and *in-situ* observations across those three elements. The IGOS Partners, of which the IOC is a member, is one body trying to meet this challenge. Focusing on the ocean, we need one plan which all organizations can support; this plan would set priorities, so that we can work together to secure the necessary funds and proceed with implementation. International organizations, such as the IOC and WMO, are the logical places to help facilitate this process, and their new Joint Technical Commission for Oceanography and Marine Meteorology represents a giant step forward in our potential ability to integrate plans for implementation.

A fully implemented global observing system for climate will give us the tools we need to take “the pulse of the planet.” And, the full and open sharing of data between nations is an essential part of this effort—including making the data available within sufficient time to be of operational use.

Last month, the United States released a forecast of the coming El Niño event. The fact that we can make such forecasts is a tribute to international cooperation in improving our

collective understanding of the ocean and its contribution to weather and climate. Our ability to make this forecast is dependent on data from an array of moored buoys spanning the Tropical Pacific, combined with those collected by satellite. These forecasts can have significant economic benefits, and we will hear about that from subsequent speakers in this session.

We are already collaborating with partners within the IOC, actively deploying the Argo buoy array globally. Argo, together with satellite altimetry, will extend our operational coverage beyond the tropical Pacific to include other El Niño-like phenomena, thus laying the basis for further improvements in forecasting.

Half of the Initiative's \$8 million for NOAA to improve the global observing system, which I mentioned earlier, will be for ocean observations. Most of this will be invested to raise the U.S. contribution to the Argo float array from one-third to one-half. This will support the Global Ocean Data Assimilation Experiment-GODAE, which in turn will support operational oceanography, seasonal to decadal climate forecasts and analyses, and real-time marine weather and ocean forecasting.

Although I have focused on climate, I must emphasize that the operational Global Ocean Observing System will be multi-purpose, serving many needs beyond climate. It is the first step toward implementation of an oceanographic analogue to the meteorologist's operational observing system—the World Weather Watch. Our system will contribute to our understanding of physical/chemical/ biological cycles on a basin-wide scale, and their link to sustainable fisheries and ecosystem management. It will also contribute to our understanding and predictive capability for the coastal ocean.

As the world's population is increasingly clustered along our coasts, we must pay even more attention to the coastal environment. It is clear that sustainable development and poverty alleviation globally will depend to a large degree on how we pursue our stewardship of the world's oceans, coasts, and fisheries, and how we invest in improving our understanding of them—an understanding which critically depends on good atmospheric, oceanic, and terrestrial observations.

New ecosystem forecasting tools that can be derived from the coastal components of an ocean observing system will support management strategies to help ensure we balance economic growth with environmental protection.

A sustained, integrated ocean observing system is important to maintaining and improving the management of living marine resources, such as our world's fisheries. The connection between ocean observing systems and the economy is probably most obvious and immediate as it relates to fisheries. Understanding and predicting changes in ocean circulation will allow managers to respond to associated shifts in populations or stock abundance. The accuracy and timeliness of predictions of annual fluctuations in spawning stock size, distribution, recruitment and sustainable yield for exploitable fish stocks is critical to appropriately managing living marine resources.

In April, I represented the United States at the APEC Oceans Ministerial Meeting in Seoul. The Ministers discussed a wide range of oceans issues, and importantly, committed to improve ocean observing systems in the region and globally.

During this trip to Europe, I am meeting with representatives of numerous agencies and organizations to discuss opportunities for cooperation and meeting shared objectives. Tomorrow I will have the pleasure of speaking at the opening session of the WMO Executive Council.

The WMO and the IOC represent two of the major players in global observing systems, leading the establishment of atmospheric and oceanic elements of a comprehensive global system. While it is most critical that we all agree on one plan for that observing system, there are a number of scientifically defensible oceanic elements which we could agree on now. As examples of what I am talking about, and in no order of priority, these could include:

- Sustained funding for 3,000 Argo floats; much of present funding is via research proposals
- A system of long-term, fixed climate observatories to complement Argo
- 1250 surface drifters; we only have ~700 now
- 35,000 XBTs per year; we only deploy ~24,000 now
- Sustained funding for the PIRATA moored array; present funding is via research proposals
- An initial moored array for the Indian Ocean
- The full GLOSS core network of 270 sea level stations; we only have ~180 operating today
- A continuing series of TOPEX/Poseidon & Jason-class satellite altimeters
- A continuing two-satellite series with a capability to observe surface wind vectors; we only have one now

Working together, we can establish within this decade critical elements of the Global Climate Observing System which are of special importance to the IOC.

I urge the representatives here to work together to pursue partnerships in establishing observing systems, to assist countries to build the capacity to participate, and to use this opportunity to move the world closer toward the goal of implementing a global observing system.

The United States is committed to working through the relevant international organizations, including the IOC, to achieve this goal.

Thank you very much for your attention.

ANNEX IV

**LIST OF DOCUMENTS**

<b>Document Code</b>	<b>Title</b>	<b>Agenda Items</b>	<b>Languages Available</b>
<b>WORKING DOCUMENTS</b>			
IOC/EC-XXXV/1.	Agenda	2.1	E F S R
IOC/EC-XXXV/1 Add..	Timetable	2.4	E only
IOC/EC-XXXV/2	Action Paper	--	E F S R
IOC/EC-XXXV/2 Annex 1 + Add	Report of the IOC Executive Secretary + Addendum	3.1	E F
IOC/EC-XXXV/2 Annex 2	Progress Report on Budget Execution (2000-2001)	3.2	E F S R
IOC/EC-XXXV/2 Annex 3	Internal Follow up of the IOC External Evaluation	3.3	E F S R
IOC/EC-XXXV/2 Annex 4	The Use of the Working Languages of the Commission in IOC Documentation and the Revision of its Publishing Policy	4.1.1	E F S R
IOC/EC-XXXV/2 Annex 5	Revision of Article 42 of the Rules of procedure	4.1.2	E F S R
IOC/EC-XXXV/2 Annex 6	Results of Consultation of Member States on Resolution XXI-5	4.1.3	E F S R
IOC/EC-XXXV/2 Annex 7	Draft Guidelines for the Establishment of Regional and Project Offices	4.1.4	E F S R
IOC/EC-XXXV/2 Annex 8	Medium Term Strategy for IOC (2002-2007)	4.1.7	E
IOC/EC-XXXV/2 Annex 9	Role of IOC in Standards Development for Ocean Research and Operational Oceanography	4.2.1	E F S R
IOC/EC-XXXV/2 Annex 10	Terms of Reference for the programme elements in the structure of the Ocean Science Section	4.2.2	E F S R
IOC/EC-XXXV/2 Annex 11	Memorandum of Understanding between WMO and IOC Regarding Regulatory and Procedural Aspects of the Conduct of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)	4.4.3	E F S R
IOC/EC-XXXV/2 Annex 12	Proposal on the UNESCO Draft Programme and Budget 2004-2005 (32C/5)	7.	E F
IOC/EC-XXXV/3 Prov.	Draft Summary Report (to be issued during the Session)	9.	E F S R
IOC/EC-XXXV/4 Prov. rev.2	Second Revised Provisional List of Documents (this document)	2.4	E F S R
IOC/EC-XXXV/5 Prov.	Provisional List of Participants (to be issued during the Session)	--	E/F/S

Document Code	Title	Agenda Items	Languages Available
<b>REPORTS OF IOC AND COOPERATIVE BODIES REQUIRING ACTION</b>			
JCOMM-1**	Report of the 1 <sup>st</sup> Session of JCOMM, Akureyri, Iceland, 19-29 June 2001	4.4.2	E F S R
IOCARIBE -VII/3s	Executive Summary Report of the 7 <sup>th</sup> Session of IOCARIBE, 25-28 Feb. 2002, Veracruz, Mexico	4.5.1	E S
IOCARIBE-GOOS-IV/3	Final Report of the 4 <sup>th</sup> Session of the Ad Hoc Advisory Group for IOCARIBE-GOOS	4.5.1	E only
IOC/ABE-LOS II/3s	Executive Summary Report of the 2 <sup>nd</sup> Session of IOC/ABE-LOS, 6-9 May 2002, El Jadida, Morocco	6.	Oral report
<b>INFORMATION DOCUMENTS</b>			
IOC Annual Report No.8 Addendum	Implementation of IOC Governing Bodies Resolutions	3.	E F S R
IOC/EC-Ext.1/3	Summary Report of the Extraordinary Session of the Executive Council, Paris, 10-11 December 2001	3. & 4.1.5	E F S R
IOC-XXI/3	Summary Report of the Twenty-first Session of the Assembly, Paris, 3-13 July 2001	--	E F S R
IOC/EC-XXXIV/3	Summary Report of the Thirty-fourth Session of the Executive Council, Paris, 2 July 2001	--	E F S R
IOC/EC-XXXIII/3	Summary Report of the Thirty-third Session of the Executive Council, Paris, 20-30 June 2000	--	E F S R
IOC/INF-1166	IOC Rules of Procedure, 2001	4.1.2	E/F/S/R
--*	Co-Chairs' Report from the Global conference on Oceans and Coasts at Rio+10 (UNESCO, Paris, 3-7 December 2001)	4.1.5	E only
E/CN17/2002/PC.2 Misc. 1	Declaration IOC PrepCom 2	4.1.5	E F S R
IOC/INF-1172	IOC Brochure for WSSD	4.1.5	E F S
UNEP Regional Seas Report Studies No. 175	UNEP Ecosystem Based Management of Fisheries	4.1.5	E only
IUCN, 2001**	International Ocean Governance – Using International Law and Organizations to Manage Marine Resources Sustainability	4.1.5	E only
UNEP GC 21/13 Decision	UNEP Governing Council Decision 21/13 Proceedings of the Technical Workshop for Establishing a Regular Process for the Global Assessment of the Marine Environment, Bremen (Germany) 18-20 March 2002	4.1.8	E
ITSU-XVIII/3*	Summary Report of the Eighteen Session of the International Coordination Group for the Tsunami Warning System in Pacific, Cartagena (Colombia) 8-11 October 2001	4.3.1	E only

Document Code	Title	Agenda Items	Languages Available
IOC/INF-1170	The case for IOCARIBE-GOOS (v. 2.0 Draft)	4.5.1	E only
IOC/INF-1169	<i>The African Process</i>	4.5.3	E F
IOC/EC-XXXV/Inf. 1	Ocean Sciences Section: (HAB): Information Document	Information session 1	E only
IOC/EC-XXXV/Inf. 2	The IOC OceanPortal	Information session 2	E only
IOC/INF-1171	ODINAFRICA Progress Report, 2002	Information session 2	E only
IOC/EC-XXXV/Inf. 3	Operational Observing Systems Section: Information Document	Information session 3	E only
--	Report to the Sponsors, on the Review of the Performance of the IOC Regional Programme Office in Perth, Western Australia	Information session 3	E only
IOC/INF-1174	An Intra-Americas Sea Tsunami Warning System Project Proposal	Information session 4	E only
--	An Ocean Data and Information Network for the Caribbean and South America Region (ODINCARSA)	Information sessions 2 and 4	E S
IOC/EC-XXXV/Inf. 4	Information and Guidelines for Participants	--	E only

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\* 1 copy per delegation

\*\* On request

ANNEX V

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ANNEX VI

**ROGER REVELLE MEMORIAL LECTURE, 2002**

5 June 2002

*The Increasing Role of Remote Sensing in Ocean Science and Operational Oceanography;  
and Its Potential Role in Sustainable Development*

by



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Mr Withee was first employed in the private sector with Lockheed. After serving for some years as the chief oceanographer for the NOAA Data Buoy Office, he served as a senior specialist for the United Nations World Meteorological Organization stationed at the Intergovernmental Oceanographic Commission in Paris, France. Upon his return to the United States, he joined the Applied Physics Laboratory of John Hopkins University and worked as a senior oceanographer for an applications group. In 1981, Mr Withee rejoined NOAA and led an ocean products effort for the National Weather Service. In 1983, he was appointed Special Assistant to the Administrator of NOAA for Ocean Service Centers. From 1986 to 1991, Mr Withee was Director of the National Oceanographic Data Center. For the next 6 years, he served as Deputy Assistant Administrator for NOAA's Satellite and Information Service. Since 1999, he has been the Assistant Administrator for Satellite and Information Services.

Mr Withee has received numerous awards and has been cited for special recognition both in Government and industry. In 1994, he received the Presidential Distinguished Rank Award for extraordinary performance in the Senior Executive Service. Mr Withee has authored more than 100 publications and reports and has lectured at a wide variety of conferences and symposiums. Mr Withee received his undergraduate degree in Physics from Pomona College and a Master of Science in Oceanography from the Scripps Institution of Oceanography.

*The Increasing Role of Remote Sensing in Ocean Science and Operational Oceanography; and Its Potential Role in Sustainable Development*

## **SUMMARY**

At the beginning of the satellite era, the role of remote sensing was limited to weather and hazards applications. Today satellite information is essential for climate and oceans applications, in addition to weather and hazards. In the United States, the use of remote sensing in oceanography began with infrared views from NIMBUS 2 in the mid 1960s. However, the roots of operational satellite oceanography began in October 1978 with the higher-quality multi-channel Advanced Very High Resolution Radiometer (AVHRR) instrument aboard TIROS N. AVHRR enabled routine production of global observations of sea surface temperatures. In the mid-1980s, altimetry emerged as another tool, followed by advances in satellite observation of ocean color, and the beginnings of ocean wind speed. By the end of the 1980s, remote sensing offered a fledgling capability for operational oceanography, but the bulk of the capability in satellite-based oceanographic observations was still research-based.

Operational observing capabilities in the field of ocean dynamics have continued to evolve. By the end of the 1990s, using a variety of sensors, real advances in biological and ecosystem applications have enabled scientists and decision-makers worldwide to assess the health of coral reefs, initiate forecasting of harmful algal blooms, and characterize wetlands. New remote sensing data has continued to lead to progress with regard to: waves and winds, using altimetry and scatterometry data; ice extent and coverage using AVHRR and synthetic aperture radar (SAR); and tracking extent of oil spills using SAR. The value of in situ observations must be highlighted, with special attention going to Argo. Along with satellites, the Argo array of profiling floats will initiate the oceanic equivalent of today's operational observing system for the global atmosphere. By 2002, remote sensing has demonstrated its promise to supported operational oceanography in many facets, but there remains much to be done to better exploit and expand these capabilities. These observational capabilities all stop more or less at the Earth's surface, recalling the need for an in situ program to maximize the utility of these operational products.

Global oceanography is a partnership, with many countries making contributions. The Integrated Global Observing System Partnership (IGOS-P) – of which the IOC is a member – is the international mechanism for coordinating oceanographic observing. Through the IGOS-P framework, we hope to continue to integrate satellite data with in situ data to further the opportunities available in operational oceanography.

By 2010, we can look forward to further advances, with operational capability guaranteed for ocean color, sea surface topography, sea surface temperature, ocean vector winds, and synthetic aperture radar. Whether observing the physics, chemistry, or biology of the ocean, remote sensing will continue to provide services across all parts of operational oceanography. In coastal regions, better ocean color observations will be possible, with applications in early warning displays for hypoxia and with regard to marine waste disposal. Improved coastal wind information from SAR will be available. In conjunction with in situ measurements, altimetry will be used to produce an operational capability for surface currents. Satellites may be also used to derive ocean bathymetry, with greater coverage and less cost than shipboard measurements. New applications are being developed with regard to fisheries, and high resolution commercial products will give us a closer view of features such as atolls. Future remote sensing applications will play a role in sustainable development, whether these activities are of coastal, global or regional concern.

## ANNEX VII

### ACRONYMS

ABE-LOS	IOC Advisory Body of Experts on the Law of the Sea
ACOPS	Advisory Committee on Protection of the Sea (UNEP)
AMCEN	African Ministerial Conference on the Environment
APEC	Asia-Pacific Economic Cooperation
CD	Compact Disc
CEB	Chief Executive Board for Coordination (UN)
CEOS	Committee on Earth Observation Satellites
CNES	Centre national d'études spatiales, France
COMEST	World Commission on the Ethics of Scientific Knowledge and Technology
CSD	Commission on Sustainable Development (UN)
CSMP	Centre for the Study of Marine Policy, University of Delaware, USA
DNAs	Designated National Agencies
DOALOS	Division for Ocean Affairs and the Law of the Sea (UN)
DOSS	Ad hoc Study Group on IOC Development, Operations, Structure and Statutes
EUMETSAT	European Organization for the Exploitation of Meteorological Satellites
EuroGOOS	European Regional GOOS
FAO	Food and Agriculture Organization (UN)
FURES	Ad hoc Study Group on Measures to Ensure Adequate and Dependable Resources for the Commission's Programme of Work (IOC)
GC	Governing Council
GCOS	Global Climate Observing System
GE-BCDMEP	Group of Experts on Biological and Chemical Data Management and Exchange Practices (IODE)
GEF-MSP	Medium-size projects of the Global Environmental Facility
GLOSS	Global Sea-level Observing System (IOC)
GMA	Global Assessment of the Marine Environment
GODAE	Global Ocean Data Assimilation Experiment
GOOS	Global Ocean Observing System (IOC, UNEP, WMO, ICSU)
GPO	GOOS Project Office
GRULAC	Latin American and Caribbean region
HAB	Harmful Algal Blooms
HTDB/PAC	Historical Tsunami Data Base in the Pacific
IAEA	International Atomic Energy Agency
IAPSO	International Association for the Physical Sciences of the Ocean (IUGG)
IAS	Intra-Americas Sea
ICAM	Integrated Coastal Area Management Programme /IOC/
ICES	International Council for the Exploration of the Sea
ICP	Informal Consultative Process on the Oceans (UN)
ICSPRO	Inter-secretariat Committee on Scientific Programmes Relating to Oceanography U(N-FAO-UNESCO-WMO-IMO)
ICSU	International Council for Science
IGBP	International Geosphere-Biosphere Programme A Study of Global Change (ICSU); also known as: Global Change Programme



I-GOOS	IOC-WMO-UNEP Committee for the Global Ocean Observing System; short name: GOOS Committee
IGOS	Integrated Global Observing Strategy
IGOSS	Integrated Global Ocean Services System
IMO	International Meteorological Organization
IOC`	Intergovernmental Oceanographic Commission (IOC)
IOCARIBE	IOC Regional Sub-Commission for the Caribbean
IOCEA	IOC Regional Committee for the Central Eastern Atlantic
IOCINCWIO	IOC Regional Committee for the Cooperative Investigation in the North and Central Western Indian Ocean
IOCINDIO	IOC Regional Committee for the Central Indian Ocean
IODE	IOC oceanographic data and information management
IPCC	Intergovernmental Panel on Climate Change
IPHAB	Intergovernmental Panel on Harmful Algal Blooms /IOC/; short name: HAB Panel
ISDR	International Strategy For Disaster Reduction
ITIC	International Tsunami Information Centre
ITSU	International Coordination Group for the Tsunami Warning System in the Pacific (IOC)
IUCN	World Conservation Union
IUGG	International Union of Geodesy and Geophysics
JCOMM	Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology
JCOMMOPS	JCOMM Observing Platform Support Centre
MoU	Memorandum of Understanding
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NOAA	National Oceanic and Atmospheric Administration, USA
NODCs	National Oceanographic Data Centres
ODINAFRICA	Ocean Data and Information Network for Africa (IODE)
ODINCARSA	Ocean Data and Information Network for the Caribbean and South American Regions (IODE)
PACSICOM	Pan-African Conference on Sustainable Integrated Coastal Management, Maputo, Mozambique, July 1998
PIRATA	Pilot Research Moored Array in the Tropical Atlantic
PreCom	Meeting of the Preparatory Committee, WSSD
PUMA	Preparation for Use of Meteosat Second Generation (MSG) in Africa
RTD	Research, Technology & Development
SCOPE	Scientific Committee on Problems of the Environment (ICSU)
SCOR	Scientific Committee on Oceanic Research (ICSU)
SIDS	Small Island Developing States
SOCA	ACC Subcommittee for Oceans and Coastal Areas
SOLAS	Surface Ocean-Lower Atmosphere Study
TEMA	Capacity Building in Marine Sciences, Services and Observations (IOC)
TMT	Transfer of Marine Technology
TWS	Tsunami Warning System
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme

UNEP-CAR/RCU	Caribbean Regional Coordinating Unit of the United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
NODC	National Oceanographic Data Centre (IODE)
WMO	World Meteorology Organization
WSSD	World Summit on Sustainable Development, Johannesburg, 2002
XBT	Expandable Bathythermograph