

# Capacity Building: why get involved?

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# Meteor Cruise # 1

## International Indian Ocean Expedition

29/10/1964 – 18/05/1965

### Chief Scientists:

Prof. Dr. G. Dietrich (Coordinator), IfM, Kiel

Prof. Dr. E. Seibold, GPI, Kiel

Prof. Dr. H. Closs, BfB, Hannover

*“At her first great cruise, METEOR took part in the International Indian Ocean Expedition (IIDE), the most intensive oceanographical research operation which had ever taken place at that time. The ship worked in the Red Sea, the Straits of Bab-el-Mandeb off the East African coast, along a section from Zanzibar to India, off the Indian coast, and in the Persian Gulf” - DHI/DFG Publication, 1978, 50 Fahrten des Forschungsschiffs “Meteor”*

# International Indian Ocean Expedition

- Conceived by **SCOR** (*Scientific Committee on Oceanic Research*) at its 1960 meeting at Charlottenlund Castle, Copenhagen, Denmark
- Anton Bruun (Denmark), George Deacon (UK), Roger Revelle (USA)
- Implemented jointly by SCOR and **UNESCO-IOC** (*Intergovernmental Oceanographic Commission*)
- With the participation of many nations including those in the region

# IIOE : the planners` vision

- “.....this program can be so designed as to aid directly the development of one or more oceanographic centers in the countries bordering the Indian Ocean” - **Prof. Raymond Montgomery**
- “...to spread the gospel and attain any lasting results, the work has to be carried on partly by the scientists of the Indian Ocean area.... Most Asian students will be enthusiastic..... This opportunity and encouragement should be the primary goal of the expedition” - **Prof. Eugene LaFond**

# Indian Ocean Biological Center, Ernakulam (Cochin), India - Consultative Committee Meeting Reports

methods was imparted to scientific staff under the guidance of UNECSO Curator. The sorting of the present collection is likely to be completed by the end of 1967; then the Centre may take up a vigorous research programme on the taxonomic, ecological and biogeographical aspects.

After the IOBC Consultative Committee meeting, staff of the centre bade farewell to the retiring Chairman of the Committee Mr. R.S. Glover and to the members Dr. McGowan and Dr. Vinogradov whose term as members of the Committee have expired.

The following is the list of participants in this meeting:-

- |                                      |                                 |
|--------------------------------------|---------------------------------|
| 1. Mr. R. S. Glover (UK)             | Chairman                        |
| 2. Prof. J. Krey (W. Germany)        | Member                          |
| 3. Prof. McGowan (USA)               | Member                          |
| 4. Dr. M. E. Vinogradov (USSR)       | Member                          |
| 5. Mr. D. Tranter (Australia)        | Member                          |
| 6. Dr. E. Brinton (USA)              | Representing IOBC               |
| 7. Dr. N. K. Panikkar (India)        |                                 |
| 8. Dr. R. Prasad (India)             |                                 |
| 9. Dr. K. K. Tiwari (India)          |                                 |
| 10. Dr. G. Hempel (Paris)            |                                 |
| 11. Dr. Allan Be' (USA)              |                                 |
| 12. Dr. R. Serene (Singapore)        | Marine Science Expert, Observer |
| 13. Shri R. Jayaraman (India)        | Representing NIO                |
| 14. Dr. S. N. Dwivedi (India)        | Representing NIO                |
| 15. Shri L. R. Kasturirangan (India) | Representing NIO                |

Prof. Dr. Johannes Krey (West Germany)

## Progress of Plankton Sorting in the first quarter of 1966

During January - March, 1966 a total number of 223 samples have been received at the centre. This includes 194 samples from R/V *Africana* of the South African Division of Fisheries and 29 from R/V *Vityaz* of USSR. Out of the sixty-nine samples processed during this period 40 samples are from INS *Kistna* and 29 from R/V *Vityaz*. Re-sorting and rechecking work of 51 samples from INS *Kistna* has also been completed within this period. Tabulation of station data including coding of position and time and classification of the material is completed and initiated at the Centre.

Dr. R. Fenaux of the Station Zoologique, Villefrance, France, who was attached to the centre on Appendicularia during January 1966. He has now started studies on Copellata collection.

Dr. G. Hempel (UNESCO, Paris)

## 2.2.2 PHYSICAL OCEANOGRAPHY DIVISION, ERNAKULAM

This division is handling scientific problems relating to the physics of the seas around India. It is also engaged in the study of the bottom topography, geology, beach erosion, accretion, sand movement, coastal currents, storm surges and sea level variation, wave refraction and statistical studies on the chemical and physical characteristics of the sea water.

The main research activities undertaken during the year are as follows:

- Processing and analysis of physical oceanographic data collected under the Indian Programme of IOOE.
- Study of shelf sediments for (a) phosphate (b) calcium carbonate (c) organic matter and (d) grain size.
- Coastal and nearshore oceanographic studies including storm surges and sea-level variations.

# Ingredients of IIOE

Exciting science - exploring an oceanic region influenced by the monsoons,

developed by an international group of scientists with a passion for excellence,

Champions and lobbyists in countries in need of CB, who recognize participation in international projects to be opportunities and instruments for development,

Long-term commitments of support from governments.

Since IIOE, SCOR and IOC have continued  
to promote the enhancement of scientific  
capacity for ocean scientific research in  
developing countries  
both individually and in partnerships

SCOR Catalog of Continuing Professional Development Activities in International Marine Agencies & Programs - Mozilla Firefox

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## Capacity Building and Development for Ocean Sciences, Observations, and Data/Information Management

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This Web site is offered as a service to the community of scientists who are concerned with building capacity for ocean sciences, observations, and data/information management. Developed countries have well established educational systems, but many countries in developing regions of the world are still setting up sustainable educational systems. Several international organizations carry out a range of complementary capacity building and development activities and have been begun to coordinate their efforts. Direct links to organizations with capacity development pages are given at the left; for those with activities in capacity development, but no specific pages, we offer information in a standard format.

Resources for Students and Early-Career Scientists:

- [Summer Schools Portal](#)
- [POGO/SCOR Visiting Fellowships for Ocean Observations](#)
- [Nippon Foundation-POGO Centre of Excellence in Observational Oceanography](#)
- [Special POGO visiting fellowships for on-board training on an Atlantic Meridional Transect cruises](#)
- [POGO Bursaries at the University of Cape Town](#)

Resources for Scientists and Institutions:

- [SCOR Visiting Scholars](#)

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# Current SCOR CB Instruments

(funded by U.S. NSF, SCOR, hosting institutions, and co-sponsors)

- **Participation of developing country scientists in activities of the SCOR Working Groups** (<http://www.scor-int.org/wkgroups.htm>)
- **SCOR-sponsored Projects and other related activities** (<http://www.scor-int.org/sciacts.htm>)
- **Travel Grants to provide travel support to scientists from developing countries to attend scientific meetings** (<http://www.scor-int.org/TravelGrants.PDF>)
- **Visiting fellowships for oceanographic observations in cooperation with Partnership for Observation of the Global Oceans (POGO)** (<http://ocean-partners.org/training-and-education/pogo-scor-fellowship>)
- **SCOR Visiting Scholars Program** ([http://www.scor-int.org/SCOR\\_Visiting\\_Scholars.pdf](http://www.scor-int.org/SCOR_Visiting_Scholars.pdf))
- **SCOR “Regional Graduate School Networks”** ([http://www.scor-int.org/RGSO\\_Design\\_Principles.pdf](http://www.scor-int.org/RGSO_Design_Principles.pdf))

# POGO-SCOR Visiting Fellowships for Oceanographic Observations

recipients of the fellowships, from Bangladesh, Cape Verde, Chile, China, Kenya, Mexico, Poland, Russia, and South Africa.

Host institutions in Australia, Belgium, Denmark, France, Germany, Italy, Norway, UK, and USA.

Source: <http://www.ocean-partners.org/training-and-education/pogo-scor-fellowship/fellowships-2012>

# Topics of Fellowships

1. Observations at the Cape Verde Ocean Observatory
2. Coastal observation and modelling
3. Observation of air-sea interactions during MJO events
4. Use and calibration of the PUV2500 profiler radiometer
5. Modelling of Ecosystem responses to the shifting sub-Antarctic Front (SAF)
6. Regional Ocean Modelling System (BlueLink/ROMs), HYCOM and Wave Watch-III Models for Operational Marine Forecasting
7. Deep Ocean Buoy Observations.
8. Regional marine biodiversity database portals.
9. Automated detection of chlorophyll and thermal fronts from satellite imagery
10. Verification and intercomparison of two HYCOM models
11. Laser-Optical Plankton Counter in the Arctic
12. Detection of red tide events using satellite sensors

Source: <http://www.ocean-partners.org/training-and-education/pogo-scor-fellowship/fellowships-2012>

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### Austral Summer Institute XII (ASI XII)

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**Last Date:** 2011-09-30  
**Requirements:** Advanced pre graduate and graduate students, faculty and professionals are invited to apply.  
**Organizing Institution:** University of Concepcion, Chile

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# UNESCO- IOC: Role within the UN System for Capacity Building

- Responsible UN organisation for marine sciences and technology transfer
- Growing mandate: Role in UNCLOS, Rio+20, Early Warning Systems
- Network of scientists in all regions

[IOC Approach: Self-driven capacity building](http://www.ioc-cd.org) (<http://www.ioc-cd.org>) -  
to let the institutes drive the collaboration with IOC:  
Empowering developing countries to the sustainable use of their  
coastal and marine resources.

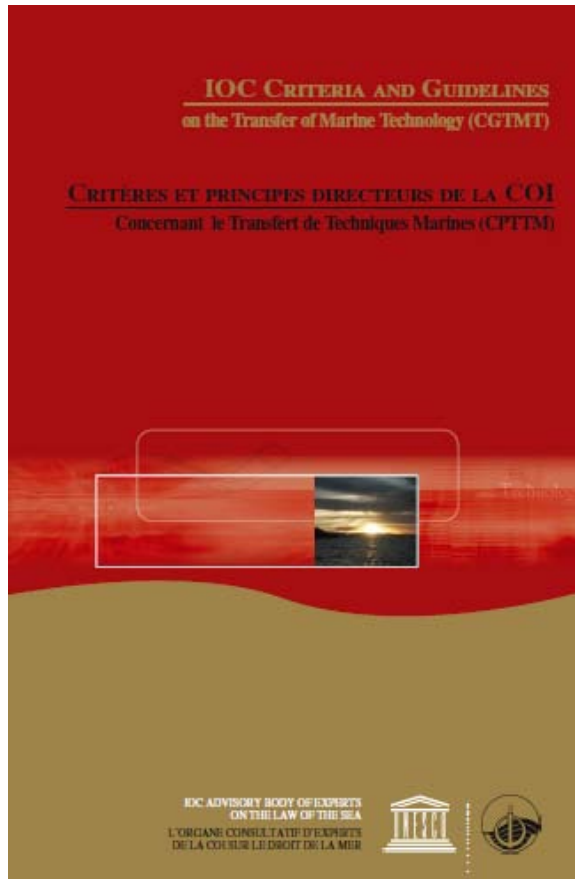


recognizes

“the importance of building capacity of developing countries to benefit from the conservation and sustainable use of oceans and seas and their resources...”

&

“the need for transfer of technology” taking into account the Intergovernmental Oceanographic Commission’s Criteria and Guidelines on the Transfer of Marine Technology (CGMT)



CGTMT offers Member States Guidance for the implementation and the effective use of Part XIV of UNCLOS by its Member States.  
([http://www.un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf))

Marine Technology in CGTMT refers to instruments, equipment, vessels, processes and methodologies required to produce and use knowledge to improve the study and understanding of the nature and resources of the ocean and coastal areas.

**IOC has been implementing Transfer of Marine Technology through its targeted capacity development activities within its Global and Regional Programs and Actions**

# IOC CB Activities

[COAST-MAP-IO](#) - Improving emergency response to ocean-based extreme events through coastal mapping capacity building in the Indian Ocean.

[At-sea training](#) - Programs providing opportunities for at-sea training for students and young scientists

[IOC Grants](#) - Travel and research grants for scientists in developing countries

[Decision support tools](#) - Coastal modelling, remote-sensing, geographical information systems and other operational tools provide institutes in the developing world with exciting opportunities for growth.

*Source: <http://www.ioc-cd.org/index.php/activities>*



# IOC CB Activities

[Leadership development workshops](#) - leadership skills of directors and senior scientists are key to the growth of research organisations in a challenging environment

[Bid-writing workshops](#) - increasing competitiveness of nationally-conceived projects in international calls for proposals for scientists in the South

[Team Building workshops](#)- advance participants' management and inter-personal skills. This supports effective networking and collaboration of key institutes needed to address national and transboundary coastal and marine management issues.

*Source: <http://www.ioc-cd.org/index.php/activities>*

# IOC CB Activities

- [Evaluating capacity development](#) - IOC and its partners efforts in monitoring and evaluating capacity development activities
- [Coastal modelling and Decision support tools](#) - have been used in training and project activities by a number of institutes in Africa
- [UNESCO/IOC Chairs](#) - utilising the IOC links to academia to further capacity development objectives

Further CB activities through IODE (International Ocean Data Exchange) and GOOS (Global Ocean Observing System) Programs

*Source: <http://www.ioc-cd.org/index.php/activities>*

# Concluding Remarks

- Capability to practice ocean research inadequate or just beginning in many developing countries; the inadequacy is for both human capacity and infrastructure,
- National efforts to develop strategies for the conservation and sustainable use of Oceans and Coasts; willingness to invest in human resources and infrastructure,
- Potential to better align international scientific cooperation and related capacity building with national development priorities; shift from “Assistance” to “Partnerships”
- Bilateral programs offer opportunities to contribute to CD (Options for „Future Ocean“ scientists?):
  - Access to higher education
  - Training on ships of opportunity
  - Contribution to curriculum development and implementation