



**WESTPAC NEWSLETTER**

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and the Department of Science and Technology

## WESTPAC NEWSLETTER

### Editorial

WESTPAC III enters its second year in a state of good health with strong evidence of widespread support from its various member states. This is certainly apparent from responses for participation in Task Team activities and in other initiatives relevant to program interests. The Chairman is especially encouraged by the enthusiasm and energy shown by the WESTPAC Technical Coordinators and by the Task Team Chairmen. Recent advice indicates that active moves by correspondence are presently in effect to develop specific research objectives wherever necessary. Some, indeed, are already in progress and, in certain instances support has been found or other opportunities taken to hold round table discussions to accelerate progress towards stated objectives. This Newsletter outlines some of those developments. Once again, participants in WESTPAC are invited to offer any information they consider relevant for inclusion in future issues.

#### THE STATE OF THE TASK TEAMS

For completeness, the list which follows includes all nominations known to have been authorized up to the present. To achieve brevity, full addresses have been provided only for Technical Coordinators. They or the Chairman of WESTPAC would be glad to provide fuller details on request.

**An Up-date on Nominations and the Present Composition of Task Teams**

#### WESTPAC TASK TEAM ON MARINE POLLUTION RESEARCH AND MONITORING

**Technical Coordinator**  
Dr Aprilani Soegiarto  
Director  
National Institute of Oceanology  
LIPI  
Komplek Bina Samudera, Ancol  
Jakarta Utara  
PO Box 580 DAK  
JAKARTA INDONESIA

**Project Coordinator**  
Professor C Burdon-Jones  
School of Biological Sciences  
Post Office  
JAMES COOK UNIVERSITY Qld 4811  
AUSTRALIA

#### Task Team Members

##### Australia

Dr Allan J Bremner

**China: People's Republic**  
Dr Qin Derun

**France**  
Monsieur Jacques Arrignon

**Japan**  
Mr Daisaku Sugito  
Mr Masaru Shiozaki

**Korea: Democratic People's Republic**  
Mr Go Jun Bong

**Korea; Republic of,**  
Dr Kwang Woo Lee

**Malaysia**  
Associate Professor Dr Law Ah Theem  
Dr Abu Bakar Bin Jaafar  
Dr Noor Azhar Mohamed Shazili

**New Caledonia**  
Dr N L Lemasson

**New Zealand**  
Dr P Dinamani

#### Thailand

Dr Manuwadi Hungspreugs  
Captain T Charoenlaph

#### USA

Dr Ford A Cross

#### USSR

Dr E N Shumilin  
Dr N K Khristoforova  
Dr A A Kalmakov

#### WESTPAC PROGRAM GROUP IN THE STUDY OF OCEAN DYNAMICS AND CLIMATE

**Technical Coordinator**  
Dr Ron Heath  
NZ Oceanographic Institute  
DSIR  
PO Box 12-346  
WELLINGTON  
NEW ZEALAND

#### Project Coordinating Group (Task Team) on Ocean Dynamics in the Tropical Pacific

##### Chairman

Dr J Stuart Godfrey  
CSIRO Marine Laboratories  
GPO Box 1538  
HOBART Tas 7001  
AUSTRALIA

##### Task Team Members

**Japan**  
Mr Koichi Nagasaka

**USSR**  
Dr A D Nelezin

(further nominations proceeding)

#### Project Coordinating Group (Task Team) on Ocean Dynamics in the North-west Pacific

##### Chairman

Dr Warren White  
Mail Code A030  
Scripps Institution of Oceanography  
La Jolla CA 92037  
USA

##### Task Team Members

**Japan**  
Mr Hideo Nishida

**USSR**  
Dr V P Pavlychev  
Dr S N Protasov

(further nominations proceeding)

**Task Team on Coastal and Continental Shelf Oceanography**

**1. Exchange processes and circulation of coral reefs**

**Chairman**

Dr Jason Middleton  
Dept of Mathematics  
University of New South Wales  
PO Box 1  
Kensington NSW 2033  
SYDNEY AUSTRALIA

**Task Team Members**

**China: People's Republic**  
Dr G E Youxin

**Indonesia**  
Mr D Arief

**Japan**  
Dr T Sugimoto

**USSR**  
Dr V B V Preobrazhensky  
Dr G I Yurasov

**2. Nearshore currents and tides**

**Chairman**

Dr Ron Heath  
NZ Oceanographic Institute  
DSIR  
PO Box 12-346  
WELLINGTON  
NEW ZEALAND

**Task Team Members**

**Australia**  
Professor G W Lennon

**China: People's Republic**  
Dr G E Youxin

**Indonesia**  
Mr R Kastoro

**Japan**  
Dr Toshiyuki Hirano

**Korea: Democratic People's Republic**  
Mr K Y Chol  
Dr S Chang  
Dr H Lee

**Philippines**  
Mr C Santos

**USSR**  
Dr V B V Preobrazhensky  
Dr G I Yurasov

**WESTPAC TASK TEAM ON OCEAN SCIENCE IN RELATION TO LIVING RESOURCES (OSLR)**

**Chairman and Technical Coordinator**

Dr D Tranter  
CSIRO  
Division of Fisheries Research  
GPO Box 1538  
HOBART Tas 7001  
AUSTRALIA

**OSLR STUDY GROUP 1: OCEAN PRODUCTIVITY**

**Chairman**

Dr T Nemoto  
Ocean Science Institute  
University of Tokyo  
1-15-1 Minamidai  
Nakano-Ku  
TOKYO 164 JAPAN

**Members**

**Australia**  
Dr G Harris

**China: People's Republic**  
Dr Dai Ruguang

**Indonesia**  
Dr Anugerah Nontji

**Korea; Republic of,**  
Dr Jong Soo Hue

**New Caledonia**  
Dr R Le Borgne

**New Zealand**  
Dr J Bradford

**Philippines**  
Dr Jose A Ordenez

**USSR**  
Dr V P Pavlychev  
Dr J A S Ovodov

**OSLR STUDY GROUP 2: CONTINENTAL SHELF PRODUCTIVITY**

**Chairman**

Dr P Rothlisberg  
CSIRO Marine Laboratories  
Division of Fisheries Research  
PO Box 120  
CLEVELAND Qld 4163  
AUSTRALIA

**Members**

**China: People's Republic**  
Dr Dai Ruguang  
Dr Nina Xiuren

**Indonesia**  
Dr Anugerah Nontji  
Dr Y Kitano

**Korea: Democratic People's Republic**  
Dr D G Kim

**Korea; Republic of,**  
Dr Hyung Tack Huh

**New Zealand**  
Dr J Bradford

**Philippines**  
Dr Miguel Fortes

**USSR**  
Dr S L Kondrashov  
Dr V E Rodin

**Members**

**Australia**  
Dr J Baker

**China: People's Republic**  
Dr Dai Ruguang  
Dr Jiang Jialun

**Indonesia**  
Dr Anugerah Nontji

**Korea: Democratic People's Republic**  
Dr J D Liyu

**Korea; Republic of,**  
Dr Joo Suck Park

**New Zealand**  
Dr F Hoe Chang

**Philippines**  
Dr Ruben A Estudillo

**Thailand**  
Dr Surophol Sudara

**OSLR STUDY GROUP 3: LAND/SEA INTERFACE**

**Members**

**Australia**  
Dr D W Kinsey

**China: People's Republic**  
Dr Dai Ruguang

**Indonesia**  
Dr Anugerah Nontji

**Japan**  
Dr Masuoki Horikoshi

**Korea: Democratic People's Republic**  
Dr B D Jon

**Korea; Republic of,**  
Dr Jae Song Hong

**USSR**  
Dr G M Gavrilov  
Dr V L Kajonov

**WESTPAC TASK TEAM ON OCEAN SCIENCE IN  
RELATION TO NON-LIVING RESOURCES (OSNLR)**

**Technical Coordinator for Marine Geology and  
Geophysics**

Professor N Nasu  
Director  
Ocean Research Institute  
University of Tokyo  
1-15-1 Minamidai  
Nakano-ku  
TOKYO 164 JAPAN

**Group of Experts**

**Australia**  
Dr D A Falvey

**Indonesia**  
Mr Sugiarta Wirasantosa

**Korea; Republic of,**  
Dr Chong Su Kim

**New Zealand**  
Nominations submitted

**USSR**  
Dr B I Vasilijev

**Task Team Members**

**China: People's Republic**  
Mr Chen Bingxin

**New Caledonia**  
Dr Jacques Daniel

**OSLR STUDY GROUP 4: TOXIC AND ANOXIC  
PHENOMENA ASSOCIATED WITH ALGAL BLOOMS**

**Chairman**

Dr T Okaichi  
Dean  
Faculty of Agriculture  
Kagawa University  
Miki-machi  
KAGAWA-KEN  
JAPAN

USA  
Dr Brian Taylor

USSR  
Dr A V Zhirmunsky

WESTPAC IGOSS TASK TEAM ON OCEAN SERVICES (IGOSS)

Task Team Convenor  
Commander Ian Bofinger  
Director  
Oceanography and Meteorology  
Department of Defence (Navy)  
Russell Offices  
CANBERRA ACT 2600  
AUSTRALIA

Task Team Members

Fiji  
Director  
Mineral Resources Department

Korea: Democratic People's Republic  
Mr Ri Zu O

Japan  
Dr Yoshiro Sekiguchi

New Caledonia  
Dr Jean Rene Donguy

New Zealand  
Mr J S Hickman

Philippines  
Dr Conrado M Santos

Thailand  
Dr Manuwadi Hungspreugs

USSR  
Dr V C H Berdin

WESTPAC III Report

It has come to the attention of the Chairman that some of those participating in the work of the Program Group do not have copies of the Report of WESTPAC III. To obtain copies, it is suggested that enquiries be directed to the Secretary of IOC, Dr M Ruivo at the address below:

Dr Mario Ruivo  
Secretary  
Intergovernmental Oceanographic Commission  
UNESCO  
7 Place de Fontenoy  
Paris 75700  
FRANCE

REPORTS OF PROGRESS

The statements which follow were kindly provided by several of the Technical Coordinators.

**Ocean Dynamics and Climate** - Within physical oceanography (variously called The Study of Ocean Dynamics and Climate and Ocean Sciences) in WESTPAC the year since WESTPAC III has been occupied by the setting up of specific Task Teams.

As evident from the Task Team titles the first two encompass mainly open ocean dynamics with ongoing active research involvement from several nations and a natural progression from the WESTPAC Task Team on Ocean Monitoring. The last two groups encompass near shore studies which although specific for each country have a common thread of specific processes - information on national programmes is now being sought which should lead to co-operative research (examples at present under discussion are logically between the neighbouring countries of Australia and New Zealand and the passages in south-east Asia bordered by Indonesia, Korea and Japan). There is of course a considerable observational and process overlap between the nearshore and offshore aspects.

Names of present Task Team members have been listed in this Newsletter. The number of scientists in the ocean dynamics Task Teams should increase rapidly in the next month as nominations of various scientists are confirmed.

The general mode of operation is by correspondence leading to identification of future research needs. Consideration is presently being given to arranging meetings in conjunction with major physical oceanographic conferences in the region. Of course especially in the ocean dynamics area such meetings and identification are already common under the auspices of projects such as the World Climate Research Project.

**Ocean Sciences and Living Resources (OSLR)** - The Task Team is now approaching full strength. It is anticipated that some U.S. scientists will soon join the team. The research theme is "Biological Production" with an emphasis on processes influencing recruitment to resource populations.

The Task Team is made up of 4 study groups. The first, lead by Professor T Nemoto, is concerned with open ocean ecosystems. In May 1985 (18-25) a workshop will be held at the Ocean Research Institute, University of Tokyo on ocean eddies, particularly those associated with the Kuroshio, East Australian Current, and Gulf Stream.

Dr Peter Rothlisberg leads the study group on biological production on continental shelves. He is currently exploring the question of developing a specific WESTPAC program on recruitment in relation to penaeid prawn resource. In some parts of the Gulf of Carpentaria, annual recruitment is determined by the magnitude of monsoonal rains.

The third study group, concerned with production at the land-sea interface, has yet to develop a coherent program. There is some interest in studies on the impact of monsoonal run-off on the resources of the continental shelf.

The fourth study group is concerned specifically with the causes and consequences of "Red Tide" and the processes involved. A seminar was held on this subject in Australia in June 1984. The group is now organizing a training workshop on "Taxonomy and Techniques for Red Tide Research". This will be held in Bangkok during the course of 1985 at a date yet to be determined.

The Task Team works mainly by correspondence. Ad hoc meetings are held on an opportunistic basis, usually in conjunction with seminars or workshops. One such meeting was held in Shimizu Japan in July in conjunction with the International Plankton Symposium.

The Task Team is linked through the technical coordinator to activities underway elsewhere in the world, coordinated by the IOC. There is particular interest in linking up activities in the WESTPAC region with similar activities in the Caribbean.

**Ocean Services (IGOSS)** - Since the WESTPAC III meeting in Townsville last year the Task Team has been formed and a number of activities commenced or actioned which will be discussed in succeeding paragraphs.

#### Sea Level Pilot Project

The IGOS Sea Level Pilot Project for the Pacific has started and for the August analysis of sea level anomalies the following WESTPAC member countries contributed : Australia, Fiji, France (Polynesia), Japan, New Zealand and the USA. A number of other nations have contributed and the product from the Specialized Oceanographic Centre at the University of Hawaii is forwarded to all participants each month.

#### Ships of Opportunity

Garry Meyers CSIRO, Matt Tomczak University of Sydney, (Australia) have joined forces with Jean-Rene Duguay, ORSTOM in Noumea, to monitor changes in the heat content of the Pacific Ocean, by collecting bathythermal data on the shipping route from Sydney to Panama via New Zealand. Three XBT systems have been installed on container ships. This route is across ocean from which observations of this type are rare.

#### IGOSS Specialized Oceanographic Centre

Japan have advised that they have established an IGOS Specialized Oceanographic Centre for the Pacific Ocean. This Centre, which will focus on the WESTPAC Region will :

- a. collect and edit the sea surface temperature, subsurface temperature and sea surface current data on a real time and operational basis,
- b. analyse the above data and disseminate the products by FAX broadcasts and publications,

- c. make non-operational data available to IGOS Responsible National Oceanographic Data Centres, and

- d. input delayed mode BATHY messages into the GTS.

Commander H L Daw, Chairman of the IGOS WESTPAC Task Team has been relieved by Commander Ian Bofinger. Commander Bofinger will take over as Chairman and will be located at the same address.

#### **WESTPAC Cruises**

On October 26, 1984, M L Lemasson of the Office la Recherche Scientifique et Technique Outre-Mer (ORSTOM) notified the wish of France to declare its cruise PROLIGO for July, 1985 by R/V Jean Charcot to be within WESTPAC. The general aims of the program are :

Study of productivity mechanisms in oligotrophic tropical pelagic marine environments and assessment of their actual primary and secondary productions is the general idea of PROLIGO. It is part of the PROCAL program (Production in the economical New Caledonian area) for the study of production around islands and/or with respect to the bottom topography and for the description of functioning characteristics of those pelagic ecosystems.

Several cruises of Japanese research vessels have already been notified as contributions to WESTPAC.

#### **Other Activities**

**1. Marine Pollution Research & Monitoring** - A meeting of this group has been convened for April 17-19, 1985 in Townsville, Australia. The Australian Government has offered some subsidy towards the meeting. An agenda proposed for the meeting follows :

1. Assessment of pollution research and monitoring capabilities within the region.
  - laboratories, equipment etc
  - personnel
2. Recent and ongoing research (especially into heavy metal pollution)
3. Training and/or training opportunities available within member states  
N.B. Participants would be expected to prepare and present country status reports for the above item.
4. Review of relevant decisions of WESTPAC III
5. Review of recent research conducted by GIPME, GESAMP and UNEP
6. Scope for interaction between WESTPAC and other bodies
  - definition of responsibilities
7. Immediate research priorities
8. Long term objectives
9. Requirements for support.

**2. Second Workshop on Warm Core Rings - Details of the first circular are :**

The first 'Warm Core Rings' workshop held in Wellington in 1982 under the auspices of the US/Australia and US/New Zealand co-operative science programmes and sponsored by DSIR (New Zealand) and CSIRO (Australia) dealt with disciplinary and interdisciplinary problems associated with rings and their dynamics, and indicated future directions of research. A recommendation of the first workshop was that the next meeting on warm core ocean eddies be held in Japan to exchange information on Gulf Stream, East Australian Current, and Kuroshio systems.

The second workshop on warm core rings will be held at the Ocean Research Institute, University of Tokyo in May 1985. The aim of this workshop will be to review recent studies on warm core rings and make an interdisciplinary analyses of their dynamics.

Scientists working on Kuroshio rings in the western North Pacific will be invited. About 30 participants half of which are Japanese, are expected to attend.

**Organization -**

The 2nd workshop is being planned under the chairmanship (convenor) of Prof Takahisa Nemoto of the Ocean Research Institute, University of Tokyo. Dr P Wiebe of USA and Dr D Tranter of Australia are advisers. The local secretarial work will be done by Dr Takashige Sugimoto, Associate Professor of the Ocean Research Institute, University of Tokyo. These four persons constitute the planning group.

**Date -**

Monday 20 to 24 May 1985 (Tentative)

**Locality -**

The 2nd workshop on warm core rings will be held at the Ocean Research Institute, University of Tokyo. The hotel accommodation will be arranged in the Shinjuku area, not far from the Ocean Research Institute.

**Weather -**

Middle May in Tokyo is mild and pleasant.

**Information -**

All correspondence relating to the workshop should be addressed to :

Dr T Sugimoto  
Ocean Research Institute  
University of Tokyo  
1-15-1, Minamidai, Nakano, Tokyo  
164 JAPAN

Telephone : 03 (Tokyo) - 376-1251  
3 (Tokyo from overseas)

Telex : J - 25607 (ORIUT)

**3. Meeting of Technical Coordinators -** The Australian Government has invited all WESTPAC Technical Coordinators to meet with the Chairman in Townsville at the Australian Institute of Marine Science for several days toward the end of January 1985. The purpose of the meeting is to assure coordination of activity within WESTPAC wherever possible, to review progress, consider outstanding needs and assist in the development of the Chairman's report for the meeting of the IOC Executive Council, scheduled for March 1985.

**JECSS (Japan & East China Sea) Newsletter**

Dr T Ichye wishes to draw attention to the above Newsletter. New Series No. 1 was issued in October 1984. Copies may be obtained by writing to Dr Ichye at the address below :

Dr Takashi Ichye  
Texas A & M University  
College of Geosciences  
Department of Oceanography  
College Station  
TEXAS 77843 USA



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## MESSAGE FROM THE CHAIRMAN

### IOC ASSEMBLY

As Member States will be aware the IOC Assembly will be holding its thirteenth session in Paris from 12-28 March 1985. The Assembly will be immediately preceded by the 18th Executive Council Meeting.

Documentation for the Assembly has not yet been distributed but I have no doubt that major items for discussion will include :

- IOC Budget 1986/87
- Regional implementation of IOC global programs
- Structure and functions of regional subsidiary bodies
- Major elements of the IOC program eg OSLR, Marine Pollution, OSNLR, TEMA etc
- Cooperation with other bodies

In short, the discussion at and decisions of the Assembly will have both immediate and long term implications for the structure and development of the WESTPAC group.

I will be attending the Assembly meeting and endeavouring as far as possible to generate further support for WESTPAC initiatives. In this regard, and with the assistance of Task Team Co-ordinators, I have passed to the IOC Secretariat my views on the draft IOC budget for 1986/87 as it relates to WESTPAC, for incorporation into the submission for consideration by the Assembly.

Given the importance of this session to the direction of WESTPAC, I encourage all WESTPAC National Coordinators to ensure that their delegates to the Assembly are fully briefed on WESTPAC activities and aspirations. Delegates should also be encouraged to support the proposals which will assist in program development of relevance to the region or which will direct additional resources towards WESTPAC.

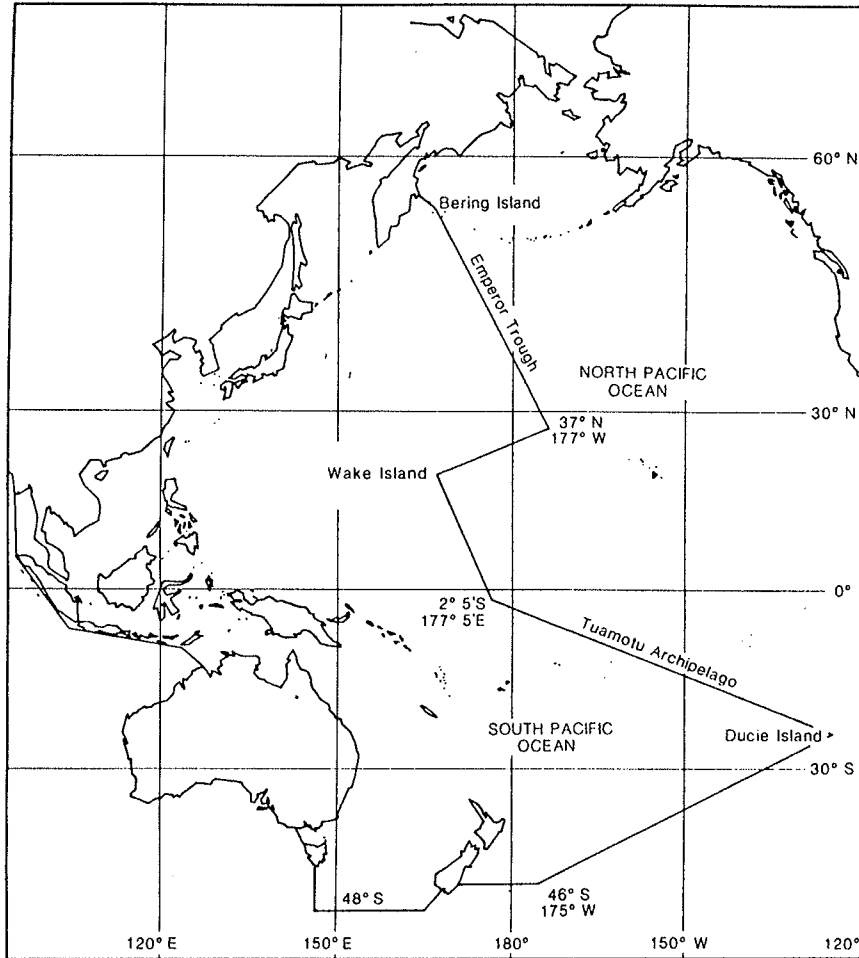
In a similar vein, elections to the Executive Council will be held during the course of the assembly meeting. I am aware of two nominations to date from within WESTPAC. Professor Inocencio Ronquillo of the Philippines is seeking re-election as IOC Chairman and Mr Doug Keeley of Australia is seeking re-election to the Executive Council. I believe it is important that the views of WESTPAC members be heard in the Executive Council and, as such, encourage Member States to give serious consideration to these and other regional candidates who present themselves for election.

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## CONTRIBUTIONS

Those who can offer information about WESTPAC are invited and encouraged to make contributions at any time through the Chairman to the address given below:

Dr John S Bunt  
Chairman  
WESTPAC PROGRAMME GROUP  
Australian Institute of Marine Science  
PMB No 3  
TOWNSVILLE MC Qld 4810  
AUSTRALIA



The WESTPAC region