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Intergovernmental Oceanographic Commission
Reports of Meetings of Experts and Equivalent Bodies

IOC/WESTPAC Co-ordinating Committee for the North-East Asian Regional - Global Ocean Observing System (NEAR- GOOS)

Ninth Session
Sendai, Japan
3-5 November 2004

Electronic Copy Only

**IOC/WESTPAC Co-ordinating Committee
for the North-East Asian Regional -
Global Ocean Observing System (NEAR-
GOOS)**

Ninth Session

Sendai, Japan

3-5 November 2004

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)**

**Ninth Session of IOC/WESTPAC Coordinating Committee for the North-East
Asian Regional-Global Ocean Observing System (NEAR-GOOS-CC-IX)**

Sendai, Japan, 3-5 November 2004

SUMMARY REPORT

1. OPENING

Prof. Victor Akulichev, CC member, Russian Federation, and Chairman of the Coordinating Committee, NEAR-GOOS, officially opened the Ninth Session of the NEAR-GOOS Coordinating Committee at 10:00 AM, 3 November 2004, Kawai Hall, Tohoku University, Sendai, Japan. He welcomed the participants and expressed his appreciation to the Government of Japan and in particular, the Tohoku University, through Dr. Hiroshi Kawamura, for hosting the meeting. In the presence of a new member from the Republic of Korea, Dr. Kwang-Soon Park, and other new observers, he further requested that all those present introduce themselves. The chairman likewise welcomed Dr. Huh, Chairman of IOC/WESTPAC, representatives of PICES and NOWPAP/CEARAC and the other Resource Persons and official observers of the meeting.

Mr. Takashi Yoshida, CC member, Japan, delivered the Welcome Address. He mentioned the progress of NEAR-GOOS in its first phase, including the establishment of the database network, and pointed out that NEAR-GOOS was now at the starting point of its second phase and the main topic of this meeting was how to implement the new activities to be carried out in the coming years. He concluded his address by wishing the participants a productive meeting and an enjoyable stay in Sendai.

2. ADMINISTRATIVE ARRANGEMENTS

2.1 ADOPTION OF AGENDA

With minor inclusions, the Provisional Agenda (Annex I) was adopted.

2.2 DESIGNATION OF A RAPPORTEUR

Dr. Vyacheslav Lobanov nominated Mr. Yoshida as the session Rapporteur. Professor Zhouwen Yu seconded the nomination. Mr. Yoshida accepted the nomination.

2.3 WORKING ARRANGEMENTS

Dr. Miguel D. Fortes, Head of the IOC/WESTPAC Secretariat, informed the body that the schedule and activities, based on mutual agreement among the members, will be made flexible to accommodate the practical needs of the session. Hence, depending upon the workload, the committee may decide changes in the schedule. As in the previous sessions, the working language of the session will be English.

The 5 working documents, earlier sent to the members and copies of which were distributed, will be guiding the sequence of discussions. These documents are: The List of Documents, The Provisional Agenda, The Annotated Provisional Agenda, The Strategic Plan and The List of Participants. Other useful materials may be distributed in the course of the session.

The meeting will have 2.5 full days to finish an approved draft of the session report. There are some interesting intervening activities and these were reported by Dr. Kawamura e.g. lunch schedule, welcome

reception, picture-taking. A one-page “Welcome to Sendai”, which was included in the session kits, will guide participants in their other needs.

3. STATUS OF NEAR-GOOS: REPORT ON THE OPERATION

Reports were made to give an overall picture of the NEAR-GOOS system, its activities and the implementation of the programme and related programmes at the national and regional levels.

3.1 REPORT BY THE CHAIRMAN

Dr. Vyacheslav Lobanov, Acting CC Chairman, presented the report on the intersessional activities since the Eight Session of the Committee. The highlights of the report include: significant progress in the operation and development of the regional databases, in situ observations and monitoring, finalization of the Strategic Plan for NEAR-GOOS Phase 2, workshop and session at the 6th WESTPAC Scientific Symposium (Hangzhou, China, April 2004), awareness raising, and interaction with GOOS, GOOS regional alliances, and with other organizations and programmes. Recommendations for further improvement of NEAR-GOOS include the preparation of an MOU that could be discussed and signed by relevant high-level authority (ministry) of each member country. This would ensure members’ commitment at the national level.

In relation to the problem of securing commitments of support, the committee suggested that an MOU be signed between ‘high’ government officials of the member countries, and presented at the appropriate forum e.g. 6th WESTPAC subcommission Session (Vietnam, April 2005), IOC Executive Council Meeting or General Assembly (Paris, June 2005).

Action Point 1: For IOC to upgrade the NEAR-GOOS webpage.

Action Point 2: WESTPAC Secretariat to draft an MOU and circulate to the members for comment and to each member state’s approval.

3.2 REPORT BY THE WESTPAC SECRETARIAT

The Head of the IOC/WESTPAC Secretariat presented a report on activities carried out by the Secretariat and on the implementation of actions contained in the action list adopted by the Eight Session of the Committee. It was noted that all 11 action points were substantially addressed. For further improvement, the committee suggested that the actions and comments be formatted in a way such that there will be correspondence between them in the table.

3.3 REPORT ON REGIONAL DATA BASE MANAGEMENT

3.3.1 Regional Real Time Data Base (RRTDB)

Mr. Yukio Kurihara, who took charge of the operation of RRTDB, presented the report on the operation and activities related to RRTDB in the last intersessional period. The database has been operated without serious trouble during the period. There were 138 new users registered since December 2003, while 116 registrations expired, resulting in 128 registered users as of October 1, 2004. Two new products, such as Sea Ice coverage data around the Okhotsk Sea and the Merged satellite and in situ data Global Daily Sea Surface Temperature (MGDSST), have been made available on RRTDB in the intersessional period.

Prof. Yu appreciated JMA’s contribution to keep the RRTDB in operation and suggested that a concise introduction document on the use of RRTDB would make the DB more widely recognized as a useful source of oceanographic information. The committee agreed with Prof. Yu and asked Mr. Yoshida to prepare the introduction document.

Action Point 3: Mr. Yoshida to prepare a concise Introduction on the use of RRTDB.

3.3.2 Regional Delayed Mode Data Base (RDMDDB)

Mr. Tomotaka Itoh, RDMDDB Manager, reported on the operation of the database during the last intersessional period. The highlights of the report include: at present, there are 36 different data files now inputted in the database, the volume of which totals 14, 280.2 MB; the total volume has increased by about 14 GB in the last 11 months; the number of registered users likewise increased (by 60) during the intersessional period, now totaling 314; the total downloaded files as of September 2004 is 13,574. Interestingly, due to the recent typhoons and earthquakes that hit Japan, tide data at 30-second intervals available from the database were used by researchers in the analysis of storm surges and tsunamis.

The Committee appreciated the information and suggested that a next step is to provide quality control procedures so that NEAR-GOOS can likewise provide high-quality data for users.

Action Point 4: CC members and concerned individuals to provide the quality control procedures

Action Point 5: Mr. Itoh to prepare a concise Introduction on the use of RDMDDB.

3.4 REPORT ON NATIONAL ACTIVITIES

Under this Agenda Item, representatives from Member States were invited to brief the committee on the operation and management of NEAR-GOOS databases in their respective countries.

3.4.1 China

Professor Zhouwen Yu and Ms. Lin Shaohua reported on the progress of the Chinese national RTDB and DMDB, respectively, during the intersessional period. With regards to the RTDB not much development was made in recent years. The data types and data amount are almost the same as three years ago. The data in the database are automatically renewed everyday, and transferred to the China NEAR-GOOS Delayed Mode Database operated by the National Marine Data and Information Service in Tianjin.

The users of the Chinese RTDB are mainly marine environment forecasters. Some who are engaged in marine management and production activities at sea also sometimes access the database. Due to the insufficiency of the data in the database, the number of users is small.

Regarding the Chinese national DMDB, Ms. Lin informed the meeting that since 1996, the China NEAR-GOOS DMDB served basic data to NEAR-GOOS and GOOS. All marine real-time and delayed observational and prediction data from Chinese marine stations were added and updated. Tide prediction data from Chinese main harbors have been released on the COInet (China Ocean Information Network). The long-term tide prediction data of Chinese and Southeast Asian main harbors within the NEAR-GOOS region have been released on the website of China NEAR-GOOS DMDB.

The NMDIS of China has been processing ARGO data, including improving their quality. ARGO data have likewise been released on the COInet.

Daily database maintenance is being done. Presently, its transmission speed has increased to 10 MB/s and the number of users likewise has increased. Data was applied in marine pollution research, research and analysis on air-sea interactions and El Nino. The China NEAR-GOOS Delayed Mode Database working group is now concentrating on efforts to enrich the content of the website, and promote data exchange, data sharing and product service among member countries.

Ms. Lin suggests that all member countries ensure that the network route remains open, and that the NEAR-GOOS RTDB websites updated and improved to facilitate user access of all kinds of data.

3.4.2 Japan

Mr. Yoshida informed the meeting that the major activities undertaken in Japan in relation to NEAR-GOOS were the operation of the two regional databases (Please refer Section 3.3). Many Japanese agencies, institutes and universities contributed to NEAR-GOOS by reporting their oceanographic observations to GTS in real time and making them available on the regional databases. He further informed the meeting that the Japan Oceanographic Data Center (JODC) would hold the NEAR-GOOS data management-training course in Tokyo in autumn 2005. The duration and number of trainees would almost be the same as those of the other training course held in 2003.

3.4.3 Republic of Korea

Dr. Hee-Dong Jeong presented a report on the progress of NEAR-GOOS activities in Korea. In Korea, oceanographic observations including environmental monitoring have been carried out by several organizations, each with its own responsibility in relation to ocean affairs. The Ministry of Ocean and Maritime Affairs (MOMAF) has designated KODC (Korea Oceanographic Data Center) in charge of the NEAR-GOOS National Delayed Mode Data Base management and services, KORDI (Korea Ocean Research and Development Institute) as the “Real-Time Data Center”. MOMAF has also decided to adopt NEAR-GOOS data exchange flow for integrating and serving oceanographic data and information effectively. Korea DMDB for NEAR-GOOS has been constructed successfully and now being serviced (<http://kodis.nfrdi.re.kr/kosi3/eng/htm/serv4.htm>). KODC services and publications are accessible at <http://kodc.nfrdi.re.kr/e-index.html>.

Dr. Kwang-Soon Park also reported that Korea has recently developed both RTDB and DMDB to produce prediction information. Data will be available from the KORDI webpage, to start operation end of 2005. 60 stations will be sending info to this RTDB. However, he stressed the difficulty in establishing RT data monitoring stations, as these are very expensive.

While welcoming the substantial progress made in Korea, the committee suggested the need of a format and quality control procedures.

3.4.4 Russian Federation

Dr. Vyacheslav Lobanov presented a report on the progress of NEAR-GOOS activities in Russia during the intersessional period. The highlights of the report include: the re-establishment of the Russian National Working Group on GOOS; the WG had 2 sessions, confirming the importance of NEAR-GOOS; GOOS related activity will be developed under the national program “Integrated System of Information about the World Ocean” (Russian acronym - ESIMO), (<http://www.rus.hydromet.com/~esimo/>); the RTDB is maintained by the Far Eastern Regional Hydrometeorological Institute, while the DMDB, by V.I. Il'ichev Pacific Oceanological Institute, Russian Academy of Sciences (<http://www.pacificinfo.ru>); monitoring activities are being undertaken using repeated sections, coastal moorings, PALACE drifters (Argo) and satellites. On the other hand, there are some problems, e.g. weak co-ordination on national level, restriction on international data exchange and lack of funding to develop the observing system. The future plans of Russia include: the plan of FERHRI to increase number of coastal stations providing near real-time data; POI, TINRO and SakhNIRO to continue ship CTD survey along repeated sections in the Japan Sea and the expected development of the Russian National Argo program (ROSARGO).

4. FOLLOW-UP OF THE STRATEGIC PLAN

4.1 REVIEW OF THE 2ND PHASE STRATEGIC PLAN OF NEAR-GOOS

The Committee made final comments, corrections and observations on the Strategic Plan. Substantial corrections include the decision to change the phrase ‘Technical Subcommittees, TSCs,’ where they appear in the Plan into ‘Working Groups’, the replacement of the word ‘Non-NEAR-GOOS’ (p. 12, line 18) by

‘scientific and ocean observing’, and the deletion of the sentence starting with ‘It is recommended...’ (p. 20, line 13).

In relation to its publication and promotion, the committee decided to publish it in a form more attractive to users and decision makers. A deadline (1 December 2004) was set for all final observations and comments from members, including a preface from the Chairman, a NEAR-GOOS logo, and 2 pictures representative of regional or national activities. The draft will be circulated to all concerned, and it is hoped that by January 2005, the published copies will have been distributed.

Action Point 6: All concerned to submit their contributions on time. The Secretariat to prepare and print the Strategic Plan.

4.2 REPORT AND DISCUSSIONS ON THE AD HOC WORKING GROUPS ESTABLISHED AT THE NEAR-GOOS WORKSHOP

With the exception of Dr. Dong-Kyu Lee, Leader of the ad hoc WG on Monitoring using Drifter and Buoys, (but was represented by Dr. Park), leaders of the *ad hoc* working groups briefed the Committee on the nature and immediate plans of their respective groups. The following are the respective highlights:

4.2.1 Monitoring using drifters and buoys

A proposal to establish a NEAR-GOOS Surface Drifter Group was presented by Dr. Park, on behalf of Dr. Lee. It aimed at promoting regular observational program for near-real time observation system in the NEAR-GOOS region. The group is to be composed of 1-4 representatives of NG member countries related to agencies implementing a surface drifter program. A work plan of the group would be discussed and prepared in a workshop planned for Dec. 10, 2004 in Busan, Korea, with partial support from WESTPAC. While the report was well received by the committee, it suggested that the following Action Points be considered:

Action Point 7: Dr. Lee to provide the committee a formal proposal specifying the kinds of buoys, who will do what, ToRs for the plans, budget, expected output, etc.

Action Point 8: WESTPAC Secretariat check first on the restrictions of surface drifters and buoys drifting into the EEZ of other countries.

4.2.2 Coordination of *in situ* observation

Dr. Lobanov, Leader of the ad hoc WG on the subject, presented a proposal to establish a NEAR-GOOS Working Group on Coordination of *in situ* Observations. It is aimed at developing and maintaining *in situ* component of sustained regional monitoring system for NEAR-GOOS. The group is to be composed of 1-3 representatives of NEAR-GOOS member countries related to agencies implementing *in situ* observations. The work plan should be discussed and prepared by a WG meeting in early 2005. Review of the existing monitoring systems (status, gaps, and requirements) will be the first step.

While the importance and need of coordination were well recognized, some members of the committee likewise recognized the problem of coordination because of the big number of agencies and programmes which make observations, so that the question is the capacity of NEAR-GOOS to do so. There is a need for more discussion on the subject.

Action Point 9: For CC members to discuss further the subject intersessionally.

4.2.3 New Generation SST Project

Dr. Hiroshi Kawamura, Leader of the ad hoc WG on New Generation SST Project, presented a brief background on the topic, mentioning its ongoing implementation and proposed to establish a NEAR-GOOS WG on NGSST to implement NGSST activities for NEAR-GOOS with proposed terms of reference. The Committee showed its appreciation to Dr. Kawamura for his contribution and decided to establish the WG on NGSST with the proposed terms of references (Annex III).

Action Point 10: Dr. Kawamura to form the WG through consultation with the CC members and start its activities

4.2.4 Data Management

Mr. Yoshida presented his proposal to establish a Technical Sub-Committee (now WG) on NEAR-GOOS data management. He pointed out that the primary mission of the proposed WG would be to keep operating the existing database network and to implement other data management issues suggested by the Coordinating Committee. Collaboration with other NEAR-GOOS WGs and other international data management initiatives would also be priorities.

The committee presented a general comment on the WGs. Due to the rapid evolution of technology, data management becomes a continuous process. On the other hand, NGSST may be shorter in duration. There is thus a need to organize a financial mechanism to phase support for the WGs. The committee finally agreed to establish the WG with the proposed terms of reference (Annex IV).

Action Point 11: Mr. Yoshida to ask each CC member to nominate the working group members and start the working group activity.

4.3 FURTHER COMMITMENTS AND FUTURE WORKPLAN TO MEET THE GOAL OF THE STRATEGIC PLAN

In order to address this issue, the Committee proposed means to secure funds and commitments in order to implement the activities stipulated in the Strategic Plan. In part, it deliberated on the future work plan (e.g. with specific activities, funding source, responsible agencies, timeframe) to meet the goal of the Plan. The Committee, however, did not reach any specific conclusion. Further discussion on these matters is required.

5. RELEVANT DEVELOPMENTS IN RELATED PROGRAMMES

5.1 REPORT ON THE 6TH IOC/WESTPAC INTERNATIONAL SCIENTIFIC SYMPOSIUM

5.1.1 Report on the Symposium

The committee decided that instead of reporting on the highlights of the symposium, and in the interest of time, only those aspects of the symposium directly relevant to NEAR-GOOS would be presented. Hence, these items are given below:

5.1.2 Report of the Workshop on the “Development of Data Products in Operational Oceanography (NEAR-GOOS Workshop)”

Mr. Takashi Yoshida, Chair of the Workshop Steering Committee gave a report on the major outcomes of the workshop. The highlights of the report include:

- There were 27 presentations relating to NEAR-GOOS;
- Activities and possible pilot projects which will be carried out in the next phase of NEAR-GOOS were discussed by more than 50 participants;
- The workshop agreed to establish ad hoc working groups on:
 - Monitoring using drifters and buoys (led by Dong-Kyu Lee);
 - Coordination of in situ observation (V. Lobanov);

- New Generation SST project (H. Kawamura); and
- Data management (T. Yoshida);
- Three activities were considered for future implementation:
 - Coastal NEAR-GOOS;
 - Sub-regional projects (Marine forecasting for the Yellow Sea and the East China Sea and Marine monitoring in the Yellow Sea).
- Suggestions for additional support including increased funding from IOC/WESTPAC.
- Three of the presentations have been chosen for publications in a scientific journal of the symposium.

5.2 REPORT OF THE WORKSHOP ON THE “DEVELOPMENT OF NEW GENERATION SEA SURFACE TEMPERATURE PROJECT” (NGSST, SENDAI, 1-2 NOVEMBER 2004)

Dr. Hiroshi Kawamura, Leader of the project and Chair of the Workshop Organizing Committee, briefed the Committee on the outcome of the conjunctive workshop. The highlights of the workshop include:

- There were 28 participants from 9 countries;
- Information on the present status of NGSST activities in the region was shared;
- Validation was made of satellite SSTs using regional in situ data;
- Presentations and discussion on NGSST development and related science were made;
- The importance of NGSST vis-à-vis SEAGOOS was discussed;
- Cal/Val and algorithm tuning working group was established

5.3 RECENT DEVELOPMENTS IN THE GLOBAL GOOS PROGRAMMES

Under this Agenda Item, persons directly associated with GOOS who participated in the activities below updated the Committee on developments of the regional/global programmes. The updates focused primarily on activities, which relate to NEAR-GOOS.

5.3.1 Report of the 2nd Regional GOOS Forum (Development of GOOS Regional Alliance (GRA), Fiji, 7-9 February)

Dr. Lobanov gave a presentation on the Forum. He emphasized the following points relating to NEAR-GOOS: the current status of the 13 GOOS Regional alliances (GRAs), and the establishment of the GOOS Regional council (GRC), capacity building. He also emphasized that participation in such activity is important for the successful implementation of NEAR-GOOS Phase 2.

5.3.2 Report on the First GOOS Regional Alliances Network Development (GRAND) meeting in London, 6-10 Sept 2004.

Dr. Lobanov made a presentation on the GRAND meeting in London. The report was basically information on the nature of GRAND since the formal report is not yet available. But its highlights in relation to NEAR-GOOS activities are spelled out in its objectives, which are:

- Establish an effective dialogue among all GRAs and international programmes, for a coherent implementation of GOOS.
- Work towards an effective two-way interface between regional/national scale efforts, GMES and the global activity of GOOS, by using the GRAND-Network of GRAs and bodies responsible for the global planning of GOOS.
- Disseminate and propagate European expertise & technology on ocean monitoring and forecasting
- Support the participation of developing countries in GOOS.
- Survey and evaluate the present capabilities and activities, for systematic observations of the marine environment and ecosystem in all GRAs and participating countries.
- Identify needs of GRAs and assets to address them.
- Transfer technology, know-how and operational experience through advanced training workshops implementing operational oceanography and developing science and technology for GOOS.
- Provide, at the end of the project, a regional strategy for advancing the implementation of the regional monitoring and forecasting systems coherent with the global planning.

Dr. Lobanov further emphasized that participation in such activity is important for the successful implementation of NEAR-GOOS Phase 2.

5.3.3 Report on developments in the Southeast Asian Global Ocean Observing System (SEAGOOS).

Dr. Fortes briefly presented the progress in the development of SEAGOOS since the last CC meeting in December 2003. Below are some important developments since then:

The SEAGOOS Consultation meeting in Hangzhou resulted in the following:

- SEAGOOS to be developed as a subsidiary body of WESTPAC;
- an ad hoc committee was formed to finalize the ToR;
- There was a change in the Coordinatorship and the corresponding Coordinator's Office, i.e., SEAGOOS will be hosted by The Government of Thailand, with Dr. Somkiat Khokiattiwong, as the Coordinator, and the Department of Marine and Coastal Resources of the new Ministry of Natural Resources and Environment as the host institution;
- a meeting of the focal persons in Thailand will be held sometime before the end of 2004 to discuss the immediate activities and the budget, among others, in preparation for the General Meeting being planned early next year in Bangkok.
- SEAGOOS concerns were presented at the 2nd GOOS Regional Forum in Fiji (Feb 2004), at the 13th Annual Session of PICES in Honolulu (20 Oct 2004), and in part, at the ORSP/NGSST workshop here in Sendai (2 Nov 2004).

5.3.4 Report of the COOP VII final meeting in ORI, Tokyo, 7-11 June 2004-11-04

Dr. Kawamura presented the results of the COOP Final Meeting in ORI, Tokyo, in June 2004. Some aspects of the meeting relevant to NEAR-GOOS are indicated in the design and implementation of coastal GOOS. The COOP Strategic Design Plan was published 2003 (GOOS Publication No.125) and the COOP Implementation Plan will be published in 2005.

5.4 RECENT DEVELOPMENTS IN OTHER ORGANIZATIONS AND THEIR PROGRAMMES

The Acting Chairman invited the committee to give updates on developments on activities of other organizations and programmes associated with NEAR-GOOS. This is primarily to suggest ways of enhancing existing relations and exploring possibilities for future partnerships in matters of mutual interest. The following reported on their respective concerns:

5.4.1 Recent monitoring activities of the North Pacific Marine Science Organization (PICES)

Dr. Sei-Ichi Saitoh, vice-chairman of PICES MONITOR Technical Committee, gave a presentation on 'Recent Monitoring Activities in PICES'. In relation to NEAR-GOOS, he emphasized the following:

- The mission of PICES is to promote and coordinate marine scientific research in the North Pacific Ocean in order to advance scientific knowledge of the area concerned of its living resources;
- The key tasks of the Monitoring Technical Committee are to
 1. review and suggest improvements to monitoring by PICES Nations,
 2. consult on designing a PICES monitoring system (calibrations, standardization, etc.),
 3. assist with development of a coordinated monitoring program to detect and describe events that strongly affect the subarctic North Pacific and
 4. identify the monitoring needs in the subarctic North Pacific to be implemented in GOOS (Global Ocean Observing System)

There is thus a big opportunity for NEAR-GOOS and PICES to collaborate in matters of mutual concern. It is to be noted that PICES now includes in its concerns the entire Pacific due to their concerns on ENSO, other global concerns, e.g. global warming and sea level rise, fish migration in the Pacific.

Action Point 12: For NEAR-GOOS to continue contact with PICES on development of monitoring activities in the North Pacific and its marginal seas.

5.4.2 The Second NOWPAP/ CEARAC Focal Points Meeting (Toyama, Japan, 15-17 March 2004)

Dr. Fortes briefed the Committee on the result of the meeting in Toyama. Aspects of relevance to NEAR-GOOS include:

1. The meeting was attended by 22 participants: PR China (2), Japan (3), Korea (2), Russian Federation (2), IOC/WESTPAC (1), RAC Representatives (3), Observers (4), CEARAC (5).
2. CEARAC implements activities related to WG 3 (HAB including red tide) and WG 4 (Remote Sensing of Marine and Coastal Environment). POMRAC on the other hand, is responsible for pollution monitoring in the coasts of the region.
3. IOC/WESTPAC, invited as a special guest, presented its recent activities, focusing on NEAR-GOOS achievements and plans for Phase 2, in the context of an IOC/WESTPAC-CEARAC partnership in ocean sciences and operational oceanography.
4. UNEP Regional Seas Programme has established a Regional Coordinating Unit based in Toyama, Japan, primarily for monitoring and assessment of coastal environment of the region.
5. With the largely similar membership, working on very related mandates, NEAR-GOOS in particular and WESTPAC in general have a great number of options for collaboration with their programme.
6. The report has been published and is available both in hard copy and in the CEARAC website.

5.4.3 Status of CEARAC and its future plans

Mr. Genki Terauchi, Observer from NOWPAP/CEARAC, on behalf of CEARAC Director Mr. Masanobu MIYAZAKI, presented the “Present Status of NOWPAP/CEARAC”. In relation to NEAR-GOOS activities, he pointed out the following: The objective of NOWPAP which is “...to establish Action Plan for the Protection, Management of the Marine and Coastal Environment of the Northwest Pacific Region among four countries, China, Japan, Korea and Russia.” The practically similar geographic scope of NEAR-GOOS and NOWPAP opens a window of opportunity for the two organizations (IOC and UNEP) to collaborate further in undertaking activities for mutual benefit in the NEAR-GOOS seas. Activities of the WG 3 (HAB including red tide) and WG 4 (Remote Sensing of Marine and Coastal Environment) of NOWPAP/CEARAC are good starting points for the collaboration in the area.

Action Point 13: NEAR-GOOS to continue interaction with NOWPAP in monitoring and data management in the region.

5.4.4 International collaboration researches of the ocean sciences in the East Asia based on Program of the East Asian Cooperative Experiments (PEACE)

Professor Takeshi Matsuno, Observer, Kyushu University, was requested to give his presentation on the topic. The committee expressed much interest in the PEACE program because of the research activities, where NEAR-GOOS can benefit from, the monitoring activities where the latter can help, and the involvement of universities. However, coordination is required with NEAR-GOOS WG on coordination of *in situ* observations in the seas of NEAR-GOOS once this is formed. It was noted that PEACE generates R & D data, so there is no compulsion for them to share data with NEAR-GOOS. The latter, however, may find means to monitor their sites and support them for mutual benefit.

Action Point 14: For NEAR-GOOS CC members to establish contact with the PEACE Program.

6. ELECTION

The Acting Chairman introduced this item with a note on the rules and practical arrangements for the election of the next Chairman of the Coordinating Committee. Dr. Lobanov nominated Mr. Yoshida, CC member from Japan, as the next Chairman of the Committee. Professor Yu seconded the nomination. Mr.

Yoshida accepted the nomination.

7. OTHER MATTERS

The Acting Chairman introduced this item, inviting further comments on the following and on other matters not discussed thus far:

7.1 THE SECOND WORKSHOP FOR GODAR-WESTPAC (GLOBAL OCEANOGRAPHIC DATA ARCHAEOLOGY AND RESCUE PROJECT IN THE WESTERN PACIFIC REGION), TOKYO, JAPAN, 10-12 NOVEMBER 2004.

Mr. Itoh provided information on the workshop. The members of the council expressed their view that NEAR-GOOS could benefit immensely from the activity, in as much as the workshop involves data and areas of concern to NEAR-GOOS.

7.2 OTHERS

7.2.1 DPRK participation in NEAR-GOOS: Lessons learned and future directions

The participation of the Democratic People's Republic of Korea (DPRK) in NEAR-GOOS activities was discussed by NEAR-GOOS CC members. It was agreed upon with the consent at the CC8 that DPRK should first send a Letter of Intent, addressed to either WESTPAC or IOC, before any further action on their participation could be made on the part of WESTPAC and NEAR-GOOS.

Action Point 15: IOC/WESTPAC to investigate the intention of DPRK to participate in NEAR-GOOS.

7.2.2 Acknowledgement of K. Hashimoto's past services

The members of the committee wholeheartedly acknowledge the effort of Mr. Kazuya Hashimoto in furthering the goals of NEAR-GOOS. In this respect, it was decided that the Chairman write a formal letter, expressing the council's gratitude for his support and friendship.

8. DATE AND PLACE OF THE NEXT SESSION

The Committee decided that the date and place of its Tenth Session will be last part of October - early November 2005, in Korea.

9. ADOPTION OF THE SUMMARY REPORT

The Committee agreed that the Summary Report to be adopted immediately after the session in e-mail correspondence.

10. CLOSURE

The Chairman closed the Session at 18:20 on Friday, 5 November 2004.

Annex I

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)**

**Ninth Session of IOC/WESTPAC Co-ordinating Committee for the North-East
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Sendai, Japan, 3-5 November 2004

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 - 4.2 REPORT AND DISCUSSIONS ON THE AD HOC WORKING GROUPS ESTABLISHED AT THE NEAR-GOOS WORKSHOP
 - 4.3 FURTHER COMMITMENTS AND FUTURE WORKPLAN TO MEET THE GOAL OF THE STRATEGIC PLAN
5. RELEVANT DEVELOPMENTS IN RELATED PROGRAMMES
 - 5.1 REPORT ON THE 6TH IOC/WESTPAC INTERNATIONAL SCIENTIFIC SYMPOSIUM
 - 5.1.1 Report on the Symposium
 - 5.1.2 Report of the Workshop on the “Development of Data Products in Operational Oceanography (NEAR-GOOS Workshop)”
 - 5.2 REPORT OF THE WORKSHOP ON THE “DEVELOPMENT OF NEW GENERATION SEA SURFACE TEMPERATURE PROJECT” (NGSST, SENDAI, 1-2 NOVEMBER 2004)
 - 5.3 RECENT DEVELOPMENTS IN THE GLOBAL GOOS PROGRAMMES
 - 5.3.1 Report of the 2nd Regional GOOS Forum (Development of GOOS Regional Alliance (GRA), Fiji, 7-9 February)
 - 5.3.2 Report on the First GOOS Regional Alliance Network Development (GRAND) meeting in London, 6-10 Sept 2004

5.3.3 Report on developments in the Southeast Asian Global Ocean Observing System (SEAGOOS)

5.4 RECENT DEVELOPMENTS IN OTHER ORGANIZATIONS AND THEIR PROGRAMMES

5.4.1 Recent monitoring activities of the North Pacific Marine Science Organization (PICES)

5.4.2 The Second NOWPAP/CEARAC Focal Points Meeting

5.4.3 International collaboration researches of the ocean sciences in the East Asia based on Program of the East Asian Cooperative Experiments (PEACE)

5.4.4 Present status of CEARAC and their future plans

6. ELECTION

7. OTHER MATTERS

7.1 THE SECOND WORKSHOP FOR GODAR-WESTPAC (GLOBAL OCEANOGRAPHIC DATA ARCHAEOLOGY AND RESCUE PROJECT IN THE WESTERN PACIFIC REGION), TOKYO, JAPAN, 10-12 NOVEMBER 2004

7.2 OTHERS

7.2.1 DPRK participation in NEAR-GOOS

7.2.2 Acknowledgement of K. Hashimoto's past services

8. DATE AND PLACE OF THE NEXT SESSION

9. ADOPTION OF THE SUMMARY REPORT

10. CLOSURE

Annex II

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)**

**Ninth Session of IOC/WESTPAC Co-ordinating Committee for the North-East
Asian Regional-Global Ocean Observing System (NEAR-GOOS-CC-IX)**

Sendai, Japan, 3-5 November 2004

LIST OF PARTICIPANTS

CC-Members:

Russian Federation

Prof. Victor AKULICHEV (Chairman)
Director
V.I.Il'ichev Pacific Oceanological Institute (POI)
Far Eastern Branch, Russian Academy of
Sciences
43 Baltyskaya Street
Vladivostok 690041
RUSSIAN FEDERATION
Tel : +7 4232 311 400
Fax : +7 4232 312 573, 312 600
Email : akulich@marine.febras.ru

Dr Vyacheslav LOBANOV (Acting CC Chair)
Deputy Director
V.I.Il'ichev Pacific Oceanological Institute (POI)
Far Eastern Branch, Russian Academy of
Sciences
43 Baltyskaya Street, 690041 Vladivostok
RUSSIAN FEDERATION
Tel : +7 4232 312 377
Fax : +7 4232 312 573
Email : lobanov@poi.dvo.ru

Japan

Mr. Takashi YOSHIDA
Forecaster, Office of Marine Prediction
Marine Division
Climate and Marine Department
Japan Meteorological Agency
1-3-4 Otemachi, Chiyodaku
Tokyo 100-8122
JAPAN
Tel : +81 3 3212 8341 ext 5128
Fax : +81 3 3211 3047
Email : tyoshida@met.kishou.go.jp

Mr Tomotaka ITOH
Deputy Director
Environmental and Oceanographic Research
Division
Hydrographic and Oceanographic Department
Japan Coast Guard
5-3-1, Tsukiji, Chuo-ku, Tokyo, 1040045
JAPAN
Tel : +81 3 3541 3814
Fax : +81 3 3541 3762
Email : tomotaka-itou@kaiho.mlit.go.jp

People's Republic of China

Prof. Zhouwen YU
Honorary Director-General
National Marine Environment
Forecasting Centre
State Oceanic Administration
8 Dahuisi, Haidian District
Beijing 100081
CHINA
Tel : +86-10 6217 3625
Fax : +86-10 6217 3620
Email : yuzw@nmefc.gov.cn,
yuzw@sun.ihep.ac.cn

Dr. Shaohua LIN
Director-General
National Marine Data and Information Services
(NMDIS)
State Oceanic Administration
93 Liuwei Rd., Hedong District, Tianjin 300171
CHINA
Tel : +86 22-2401 0801
Fax : +86 22 2430 4408
Email : shlin@mail.nmdis.gov.cn

Republic of Korea

Dr. Kwang-Soon PARK
Korea Ocean Research & Development Institute
(KORDI)
P.O. Box Ansan 29, Seoul 425-600
REPUBLIC OF KOREA
Tel : +82 31 400-6343
Fax : +82 31 408-5827
Email : kspark@kordi.re.kr

Dr. Hee-Dong JEONG
Director
Korea Oceanographic Data Centre
National Fisheries Research and
Development Institute
Shirang-ri, Kijang-up, Kijang-gun
Pusan 619-900,
REPUBLIC OF KOREA
Tel : +82 51 720-2210
Fax : +82 51 720-2225
Email : hdjeong@nfrdi.re.kr

Resource Persons:

Dr. Hiroshi KAWAMURA
Professor
Centre for Atmospheric and Oceanic Studies
Graduated School of Science, Tohoku University
Aramaki-Aza-Aoba, Aoba-ku,
Sendai, Miyagi 9808578
JAPAN
Tel : +81 22 217 6745
Fax : +81 22 217 6748
Email : kamu@ocean.caos.tohoku.ac.jp

Dr Hyung-Tack HUH (Chairman, WESTPAC)
Senior Research Fellow
Korea Ocean Research & Development Institute
(KORDI)
Ansan P.O.Box 29, Seoul 425-600
REPUBLIC OF KOREA
Tel : +82 31 400 6201
Fax : +82 31 408 5934
Email : hthuh@kordi.re.kr

Dr. Miguel D. FORTES
IOC/WESTPAC
196 Phaholyothin Rd., Chatujak
Bangkok 10900
THAILAND
Tel : +66 2 5615118,9
Fax : +66 2 5615119
Email : m.fortes@unesco-bkk.org

Observers:

Dr. Sei-ichi SAITOH (Representative of PICES)
Professor
Laboratory of Marine Environment and Resource
Sensing
Graduate School of Fisheries Sciences
Hokkaido University
3-1-1, Minato-cho
Hakodate, Hokkaido 041-8611
JAPAN
Tel : +81-138-40-8843
Fax : +81-138-43-5015 / +81-138-40-8844
Email : ssaitoh@salmon.fish.hokudai.ac.jp

Mr. Genki TERAUCHI
(On behalf of Mr. Masanobu MIYAZAKI)
Director
NOWPAP CEARAC
5-5 Ushijimashin-machi, Toyama City
930-0856
JAPAN
Tel : +81-76-445-1571
Fax : +81-76-445-1581
Email : miyazaki@npec.or.jp

Dr. Takeshi MATSUNO
Professor
Research Institute for Applied Mechanics
Kyushu University
Kasuga-kohen, Kasuga 816-8580
JAPAN
Tel : +81-92-583-7731
Fax : +81-92-583-7735
Email : matsuno@riam.kyushu-u.ac.jp

Mr. Yukio KURIHARA
Office of Marine Prediction
Marine Division,
Climate and Marine Department
Japan Meteorological Agency (JMA)
1-3-4 Otemachi, Chiyoda-ku
Tokyo 100 8122 JAPAN
Phone: +81 3 3212 8341 ext 5157
Fax: +81 3 3211 3047
Email: yukio.kurihara-a@met.kishou.go.jp

Annex III

Terms of Reference for the NEAR-GOOS Working Group on New Generation Sea Surface Temperature

Composition: The membership will include satellite oceanography experts from regional academia and regional operational/research institutions.

Chairperson: The working group shall elect a Chairperson among the working group members for a term mutually agreed. The Chairperson will be responsible for representing the working group and reporting to the NEAR-GOOS Coordinating Committee at its regular sessions.

Operation of the group: The working group will be operated through close collaboration with the WESTPAC/ORSP/NGSST project. The members will meet where possible.

Terms of reference:

- To develop New Generation space-based SST (NGSST) products for the NEAR-GOOS region using remote sensing and regional in situ observational resources
- To demonstrate utilities of the NGSST products and encourage development of their applications
- To design and implement research activities for new generation SST development
- To coordinate data exchanges and cooperative works with the other NEAR-GOOS groups for promotion of the NGSST activities
- To recommend possible improvements of the regional SST products to the NEAR-GOOS member countries

Annex IV

Terms of Reference for the Working Group on NEAR-GOOS data management

Composition: The membership will include initially representatives of all agencies and/or institutes that operate national and regional NEAR-GOOS databases. Membership can be expanded to include participants from agencies and/or institutes who are willingly to participate in and whose contribution is necessary to the NEAR-GOOS data management.

Chairperson: The working group shall elect a Chairperson among the working group members for a term mutually agreed. The Chairperson will be responsible for representing the working group and reporting to the NEAR-GOOS Coordinating Committee at its regular sessions.

Operation of the working group: The working group will conduct its business largely by correspondence and will meet where possible.

Terms of reference:

- To maintain and develop the database network established in the first phase of NEAR-GOOS
- To review the present database network and develop a plan to improve it
- To prioritize the tasks on NEAR-GOOS data management identified in the past and future CC meetings and develop implementation plans
- To work together with other NEAR-GOOS groups in order to maximize the outcome of the groups' activities through appropriate links between the database network and the activities
- To keep contact with other data management initiatives with a view to introducing new data management method to NEAR-GOOS data management in order to develop and maintain the regional data management capacity to meet the national, regional and international requirements