

# REPORT OF THE TECHNICAL COMMITTEE ON DATA EXCHANGE

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The Chairman, Mr. Robin Brown, opened the meeting on October 9, 1999, and welcomed the participants (*TCODE Endnote 1*). The meeting continued on October 13, 1999. The meeting agenda was reviewed and a new business item (Global International Waters Assessment - a UNEP program) was added (*TCODE Endnote 2*).

## **Review progress on items in the 1999 Workplan (Agenda Item 3)**

### Additions and improvements to TCODE web pages

Improvements to PICES TCODE web pages were discussed. The Committee proposed to expand the representation of western Pacific data sources (including NEAR-GOOS).

### Restructure Inventory of Long Time Series for consistency with metadata standards (FDGC)

The PICES Inventory of Long-Term Time Series has been incorporated into the Bering Sea Biophysical Metadatabase and conform to the FDGC metadata standards as far as descriptor fields. All 90-95 records were transferred to the metadatabase without any problems. Many records have fields with no data, so TCODE members may be contacted in the near future to assist with this work.

### "Promotion" of the PICES TCODE web pages

Some work has been done on promoting the PICES TCODE web pages through the use of metatags. However, search results are uneven. More should be done with

reciprocal links in association with which PICES is affiliated.

The possibility of creating a "mirror" of the PICES web site was discussed. Different working hours of PICES countries sometimes can be seen in a busy web server. Having a mirror site could be of use to PICES members on the west side of the Pacific. In cooperation with TINRO, TCODE will attempt to establish a mirror site on a test basis.

Members suggested that the PICES TCODE page should link directly to the important NEAR-GOOS home pages in Japan, Russia, China and Korea.

To increase the useful content on the PICES web page, TCODE suggested that the Secretariat explore ways to allow members to add materials to the web site in a dynamic way. The Secretariat is small and this strategy distributes the work and permits a large user-base to contribute useful content.

### Assist MONITOR Task Team to assemble detailed list of ongoing monitoring activities

The MONITOR Task Teams asked for support to make the results of a survey of existing monitoring programs in the North Pacific available on the PICES web site. The MONITOR report is approaching completion. TCODE will be asked to assist in making this information available on the web. The monitoring station/transect list will be examined to see if all entries are listed in the Inventory of Long Time Series and the Inventory will be updated as required.

### Assist BASS Task Team to identify proposed research cruises

TCODE did not have any contact with the BASS Task Team on this issue. TCODE reviewed and updated information and links on research vessel schedules, but Dr. Toshio Nagai showed that research vessel cruise plans, derived from National Oceanographic Program documents submitted to IOC, had not been updated for several years. Japan was a notable exception to these observations.

Assist MODEL Task Team in identifying sources of nutrient data

No contact was made from the MODEL Task Team to TCODE regarding this activity.

**Updates on data management activities in PICES nations (Agenda Item 4)**

Canada

Mr. Brown presented an outline of the National Biogeochemical database that is under development in Canada. Further details are available at <http://www.meds-sdmm.dfo-mpo.gc.ca/snap/Default.htm>.

China

Mr. Ling Tong reported on the China GLOBEC-I project in the Yellow Sea and GLOBEC-II project in the Yellow Sea and East China Sea. A database is now being constructed for the China GLOBEC-II project. The China NEAR-GOOS database (real-time and delayed-mode) is now operational.

Japan

Dr. Nagai presented a summary of data management activities at JODC, including:

- Japan NEAR-GOOS delayed mode database (<http://near-goos.jodc.jhd.go.jp>)
- Tidal prediction and observations ([http://www.jhd.go.jp/cue/ENGAN/real\\_time\\_tide/htm/select/english/kck\\_mainEG.htm](http://www.jhd.go.jp/cue/ENGAN/real_time_tide/htm/select/english/kck_mainEG.htm))

- NOPACCS (Northwest Pacific Carbon Cycle Study) CD-ROM dataset compilation. This CD covers nine cruises from 1992-1995 and contains data on T, S, DO, phosphate, nitrate, pH, chlorophyll a and particulate organic carbon.

Korea

Dr. Kee-Soo Nam reported on data management activities for NEAR-GOOS, including software developed to gather and serve oceanographic data automatically in real-time from several countries in the NEAR-GOOS area, all in a homepage format at <http://near-goos.kordi.re.kr/>.

Russia

Dr. Igor D. Rostov provided a summary of data management activities at POI (Pacific Oceanological Institute) and discussed three presentations that will be made at the Data Visualization Workshop on Oct. 12 and 14. In addition, Dr. Rostov reported on the new POI homepage and the data sources available there.

NEAR-GOOS activities involved IOC/WESTPAC training on data management, and development of POI NEAR-GOOS delayed mode database. There is also a web site at <http://www.pacific.marine.su/cdsdb/ngpdb/>.

POI data sets are regularly passed to NODC and WDC-B for international exchange. Software to access this information has been made available.

Dr. Nikolay A. Rykov reported that FERHRI (Far Eastern Regional Hydrometeorological Institute) has a website <http://www.hydromet.com> where information can be found on various datasets managed by the institute.

FERHRI is involved in several international projects using PALACE floats. A Regional Oceanographic Data Center (RODC) was created to collect, store, access and distribute data on the Russian Far East oceans. RODC is involved in the GODAR project. Data (~90,000 ocean stations) will be available on the open ocean (no marginal seas) through the World Data Center.

A new Russian Federal Program (1999-2007) "An Integrated System of Information about the World Ocean" was introduced.

Dr. Igor I. Shevchenko said that the Fisheries Committee of the Russian Federation will establish the infrastructure necessary to make biological information available. A monitoring system will be put into place that will track fishing vessels using satellite systems.

#### U.S.A

No report.

#### **TCODE Workshop on Data Visualization (Agenda Item 5)**

The agenda and opening session of the Workshop on the application of scientific visualization to marine ecosystem analysis were reviewed. The session was well attended and talks were very interesting. The Committee felt that this was a valuable topic area and this workshop should be repeated periodically, perhaps every two years, at PICES Annual Meetings.

#### **Other activities relevant to TCODE (Agenda Item 6)**

##### WG 13 CO<sub>2</sub> in the North Pacific - proposed CO<sub>2</sub> Data Workshop

A joint meeting of WG 13 with TCODE and JGOFS North Pacific Task Team is planned prior to the next PICES Annual Meeting to

deal with exchange of CO<sub>2</sub> data and metadata, and to design and organize a CO<sub>2</sub> Data Synthesis Workshop in 2001. TCODE strongly supported this activity and has included this as a high priority item in the TCODE work plan for 1999/2000.

#### PICES and GOOS

The importance of various GOOS components (NEAR-GOOS, GOOS-LMR, GOOS-HOTO, GOOS Coastal Module, GOOS Climate module) was discussed. TCODE feels that these are very important activities for PICES and recommends that PICES play an active role in planning and implementation of GOOS. The Committee noted that the NEAR-GOOS project has provided an excellent example of data management and data exchange, amongst four nations with different languages and very different communication and computing infrastructure.

#### JGOFS - Data inventory

The International JGOFS project has decided to use the Global Change Master Directory (<http://gcmd.nasa.gov/>) as a repository of JGOFS metadata records.

#### GLOBEC Project Office - Data management activities

Very little progress is apparent at the GLOBEC International Project Office (IPO) on this issue. They are still in the process of staffing the IPO who will coordinate this activity. TCODE will continue to correspond with the IPO on this issue.

#### Proposal for new structure for PICES Annual Meeting

The Committee approved the suggestion to move the Science Board Symposium to the first day.

If there is a decision to emphasize the communication of science more through posters, then the status of posters within PICES has to be raised. Posters should be placed in an enclosed area that is used for collective coffee breaks, luncheons or socials. At the same time, PICES should explore the opportunity for "electronic posters", software demonstrations, etc. PICES should institute an award for best poster, software demo, home page demo etc. to encourage scientists to participate.

The consensus among members seems to be that international travel opportunities for students are limited, if not non-existent, and that a young scientist travel fund is a good idea.

### **New Business (Agenda Item 7)**

#### Organizations and programs relevant to PICES

The Committee reviewed the Standing List of International Organizations and Programs and made some suggestions for additions and rankings. This issue will be discussed at the Science Board meeting.

#### Proposed changes to the PICES Handbook

The Committee agreed with the Science Board proposal regarding changes that should be made to the Handbook for Chairmen and Convenors (definition of Advisory Panel, improving Best Presentation Award advice, number of approved keynote speakers, etc.).

#### Topic list of future Science Board Sessions

The Committee reviewed the list of possible topics for future Science Board Symposia. No additional topics were received from TCODE members.

#### PICES X - Anniversary Science Symposium - nominee for organizing committee

Dr. Thomas C. Royer volunteered to act as TCODE representative for this Committee.

#### Proposed Symposium - Utilization of fishing vessel monitoring, tracking, and data collection systems to advance marine ecosystem research

TCODE strongly supported this proposal by Drs. Bernard A. Megrey and Vidar G. Wespestad. Canada is pursuing various "ships of opportunity" programs with Japan and China. Russia has strong interests in this topic as well.

#### Global International Waters Assessment Project

Dr. Megrey reported on his meeting with officials from the Global International Waters Assessment (GIWA) Project. They are looking for "super-regional" partners in this activity and one of the "super-regions" is a very good match for PICES. The Committee recommends that Science Board explore this in more detail and ask the Secretariat to assemble additional information and look for possibilities and implications of establishing links with GIWA.

### **TCODE Workplan for 2000 (Agenda Item 8)**

#### Joint WG 13 / JGOFS NPTT / TCODE Workshop on CO<sub>2</sub> data

TCODE strongly supports this workshop (see Agenda Item 6) to be held immediately prior to PICES IX in Tsukuba, Japan). There will be a requirement to assemble inventories of CO<sub>2</sub> data holdings prior to this meeting. The inventory project will be led by Dr. Alex Kozyr of CDIAC, but TCODE members may be asked to assist in this phase.

Maintenance and improvements to TCODE web pages

The Committee will revise the content of the TCODE web pages, with a goal to improving the links to information sources on the western side of the Pacific.

MONITOR Task Team - web pages

The Committee will assist the MONITOR Task Team/CCCC-IP to assemble web pages describing the existing monitoring programs in the North Pacific.

"Electronic Poster Session" at PICES IX

The Committee would like to sponsor an "electronic poster session" to demonstrate software, databases and web pages at the next PICES Annual Meeting. Two options were discussed:

- Shorten the TCODE business meeting (prior to opening ceremony) to one-half day and allocate the remaining time to these demonstrations; or
- Include an "electronic poster session" component to an improved PICES poster session at PICES IX. This is the preferred option.

The Committee recognized that the scale and success of such a session is strongly dependent on the facilities that would be available at Hakodate, but preliminary information suggests that the venue will have highly advanced network and multimedia facilities.

The "electronic poster session" could also include demonstrations by software vendors, if there was sufficient interest.

**TCODE Endnote 1**

**Participation List**

Canada

Robin M. Brown (Chairman)\*

China

Ling Tong\*

Japan

Tatsu Kishida\*

Toshio Nagai\*

Yutaka Nagata

Korea

Hae-Seok Kang

Kee-Soo Nam\*

Russia

Igor D. Rostov\*

Nikolay A. Rykov

Igor I. Shevchenko\*

U.S.A.

Bernard A. Megrey\*

Thomas C. Royer\*

\* TCODE Committee member

**TCODE Endnote 2**

**Agenda**

1. Introduction of members.
2. Adoption of agenda.
3. Review progress on items in the 1999 Workplan:

- Additions and improvements to TCODE web pages;
  - Restructure Inventory of Long Time Series to make this inventory consistent with metadata standards (FDGC);
  - Promotion" of the PICES TCODE web pages;
  - Assist MONITOR Task Team to assemble detailed list of ongoing monitoring activities;
  - Assist BASS Task Team to identify proposed research cruises;
  - Assist MODEL Task Team in identifying sources of nutrient data that are not yet in international databases.
4. Updates on data management activities in PICES nations (to provide an opportunity for TCODE members to exchange information on any new data management activities in their countries that might be relevant for PICES or other activities).
  5. TCODE Workshop on Data Visualization (short report from co-convenors).
  6. Other activities relevant to TCODE:
    - WG 13 CO<sub>2</sub> in the North Pacific - proposed Data Workshop
    - PICES and GOOS
    - JGOFS - Data Inventory
    - GLOBEC Project Office - Data management activities
    - Proposal for new structure for PICES Annual Meetings (for discussion and recommendations to Science Board)
  7. New business (new agenda items added at the time of the meeting)
  8. TCODE Workplan for 2000
  9. Summary of TCODE recommendations for Science Board