

REPORT OF TECHNICAL COMMITTEE ON DATA EXCHANGE

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The meeting of the Technical Committee on Data Exchange was held from 13:30-17:30 hours on October 10, 2001. The Chairman, Mr. Robin Brown, called the meeting to order and welcomed the participants (*TCODE Endnote 1*). The Committee reviewed the draft agenda and it was adopted (*TCODE Endnote 2*) after revision (items added under Agenda Item 7 – New business).

Progress on items in the 2001 Workplan

Little activity was undertaken on the creation of an inventory of GLOBEC data collected by PICES nations. The TCODE Chairman serves as a PICES representative on the International GLOBEC Data Management Task Team, but there has been little activity in the last year (Agenda Item 3.1).

The Chairman reported on the activities of the joint TCODE/WG 13/NPTT Workshops on *CO₂ data integration* held in Sidney, Canada, in January 2001, and in Tokyo, Japan, in August 2001. These activities resulted in a web-based inventory of North Pacific CO₂ measurements (www.mirc.jha.or.jp/PICNIC/). This inventory (as of October 2001) contains records of bottle data for 170 cruises and underway carbon data for 194 cruises in the Pacific Ocean (Agenda Item 3.2).

The status of the TCODE web pages was discussed (Agenda Item 3.3). The Chairman noted that the revised PICES web site no longer contains data “links”. Entries for the inventory of long time-series have been integrated into the Bering Sea Ecosystem Biophysical Metadatabase (www.pmel.noaa.gov/bering/mdb/new/). This database and web application are maintained by staff at NOAA/PMEL, but assistance of TCODE members is required to review and update the entries in this database, in particular, contact information and web site addresses. In addition, the PICES web site must

be modified to include a link to this resource. Other TCODE contributions (real-time data sources, internet utilities, etc.) require updating and linking to the new PICES web site. The Committee agreed to pursue some mechanism to allow TCODE to maintain web pages that are linked to the main PICES web site.

The TCODE Electronic Poster Session on *National and regional data centres* at PICES X was successful: 13 “e-posters” with good national representation (Agenda Item 3.4). The session was integrated with the main Poster Session and attendance was good. Mr. Brown agreed to solicit feedback from the presenters so that any improvements can be incorporated into subsequent “e-poster” sessions.

The TCODE Workshop on *Data management methods and issues for the 21st century* was cancelled due to travel problems for some of the organizers and participants (Agenda Item 3.5). Some of the presentations were re-scheduled in other sessions. The Committee felt that a presentation on this topic by Dr. Neville Smith (Australia) would be a useful contribution to the Science Board Symposium at PICES XI.

Sessions at future Annual Meetings

TCODE Electronic Poster Session at PICES XI
(in conjunction with the main Poster Session):

Data systems to support technological advances in observation systems.

Convenors: Vicky Lingwood (U.S.A.), Igor Shevchenko (Russia) and Ling Tong (China).

This session presents computer-based demonstrations of data systems that support observing systems for marine scientific research. Electronic poster displays will focus on innovative data acquisition systems, web pages, databases and tools for data analysis and

visualization. The goal of this session is to improve awareness of new data sources and systems that work with new technologies to advance scientific activities conducted by PICES researchers.

Inter-sessional Workshops

TCODE recommends convening a 1-day PICES/GLOBEC Workshop on *Exchange, inventory and archival of GLOBEC data* immediately prior to PICES XI in Qingdao (following the GLOBEC Open Science Meeting). Mr. Brown and Dr. Igor Shevchenko agreed to coordinate activity with the GLOBEC International Project Office (Agenda Item 7.5)

Requests for travel funding

Support is requested for the TCODE Chairman (or designate) to attend a workshop on *Data management for a future Global Ocean Observing System* as a PICES representative. Details on this workshop were not available at PICES X.

Projects requiring support

TCODE recommends that PICES provide support for an electronic *Oceanographic Atlas of the Bering Sea, Okhotsk Sea and Japan/East Sea*. This electronic atlas has been prepared by Dr. Igor Rostov (Pacific Oceanological Institute, Russia) and co-workers. The financial support (\$ 3000) is requested for translation of the text material into English, and production of CD-ROM disks. The support provided by PICES should be acknowledged in the labeling of the CD-ROMs and in the included documentation.

Best Presentation Award

Ms. Sonia Hamilton (U.S.A.) was awarded the Best Poster Award for her electronic poster presentation entitled "The Bering Sea and North Pacific Ocean Theme Page: A web-based ocean information system".

New business

TCODE reviewed the request for a standardized list of metadata keywords for use in PICES and other data inventories (Agenda Items 6.2 and 7.1). This request arose from discussions during the PICES/CoML/IPRC Workshop in Honolulu. TCODE recognized the value of such a list, but noted that the active participation of other Committees and CCCC Task Teams would be required in order to assemble a list that is appropriate for the full range of PICES activities and interests. Dr. Bernard A. Megrey and Mr. Allen Macklin offered to provide a provisional list of metadata keywords for comment by other PICES groups.

The TCODE Chairman reported on an International GLOBEC activity to assemble an inventory of long ocean time-series that are relevant to the GLOBEC program (Agenda Item 7.4). He agreed to contact the GLOBEC International Project Office for further information and to provide the TCODE inventory on long-term datasets for this activity.

The schedules for PICES XI and the GLOBEC Open Science Meeting were reviewed (Agenda Item 7.5). TCODE consented that this is a good opportunity to explore data management issues with the International GLOBEC by organizing a joint data management workshop on *Exchange, inventory and archival of GLOBEC data*.

TCODE reviewed the proposed terms of reference (*GC Appendix C*) for, and supports the formation of, a *North Pacific Data Buoy Advisory Panel* (sponsored collaboratively by the Physical Oceanography and Climate Committee and the Data Buoy Co-operation Panel) to coordinate deployments of buoys, sharing of data and development of new buoy-based observations systems (Agenda Item 7.6).

TCODE noted the formation of the IODE Group of Experts on Biological and Chemical Data Management and Exchange Practices

(GE-BCDMEP). Further details are available at the IODE web site - (<http://ioc.unesco.org/iode/>) (Agenda Item 7.7).

TCODE reviewed the proposal for a North Pacific Ecosystem Status Report (Agenda Item 7.8) and supports this ambitious plan. TCODE observed that the preparation of such a report would likely highlight some deficiencies in current data exchange practices and capabilities.

TCODE strongly supports the formation of a POC Working Group on *Biogeochemical data integration and synthesis* (see *GC Appendix C* for terms of reference) (Agenda Item 7.9). TCODE noted the progress made on method inter-comparisons, metadata requirements and carbon data inventories by the WG 13/TCODE team (and various supporting agencies) and was strongly supportive of activities to go to the next step in data integration. This is an area in which PICES is showing real leadership in the international arena. Mr. Brown was nominated to serve as the TCODE liaison with this new Working Group.

Participants were informed that a new Chairman, Dr. Igor I. Shevchenko (Russia), has been appointed by the Science Board to take over the Technical Committee on Data Exchange. This change is effective following the PICES Tenth Annual Meeting and completion of the annual

report by the outgoing Chairman. The Committee expressed its gratitude to Mr. Brown for his leadership and valuable contribution to TCODE activities over the years.

TCODE Workplan for 2001/2002

1. Revise/update PICES TCODE web pages (Action: Igor Shevchenko)
2. Organize joint PICES/GLOBEC data management workshop on *Exchange, inventory and archival of GLOBEC data* (Action: Igor Shevchenko & Robin Brown)
3. Produce and distribute a provisional list of metadata keywords for comment by other PICES groups (Action: Bernard Megrey & Allen Macklin)
4. Assist new POC Working Group on *Biogeochemical data integration and synthesis* (Action: Robin Brown)
5. Organize TCODE Electronic Poster Session at PICES XI on *Data systems to support technological advances in observation systems* (Action: Igor Shevchenko)
6. Produce a review of TCODE activities since formation and develop a Strategic Plan for discussion at PICES XI (Action: Igor Shevchenko)
7. Assemble feedback and develop recommendations for future electronic poster sessions (Action: Robin Brown).

TCODE Endnote 1

Participation List

Members:

Robin M. Brown (Canada, Chairman)
Bernard A. Megrey (U.S.A.)
Igor D. Rostov (Russia)
Thomas C. Royer (U.S.A.)
Satoshi Sato (Japan)
Igor I. Shevchenko (Russia)
Greg Steer (Canada)
Muneharu Tokimura (Japan)

Observers:

Andrey Andreev (Japan - JAMSTEC)
Norio Baba (Japan - JODC)
Hee-Dong Jeong (Korea - KODC)
Robert Keeley (Canada - MEDS)
Sung-Dae Kim (Korea - KORDI)
Taiyo Kobayashi (Japan - JAMSTEC)
Sachiko Oguma (Japan - MIRC)
Nikolai Rykov (Russia - FERHRI)
Toru Suzuki (Japan - MIRC)
Liz Tirpak (U.S.A. - State Department)
Michelle Tomlinson (U.S.A. - NODC)

TCODE Endnote 2

TCODE Meeting Agenda

1. Introduction of members
2. Adoption of agenda
3. Review progress on items in the 2001 Workplan
 - 3.1. GLOBEC data management
 - 3.2. TCODE/WG 13 CO₂ data integration
 - 3.3. PICES web pages
 - 3.4. PICES X - TCODE Electronic Poster Session on *National and Regional Data Centers*
 - 3.5. PICES X – Workshop on *Data management methods and issues for the 21st century*
4. Updates on data management activities in PICES nations
5. Business items from Science Board
 - 5.1 Proposed theme for PICES XII
 - 5.2 PICES XI theme and sessions
 - 5.3 Projects needing financial support
6. TCODE activities for 2001
 - 6.1. Inventory of long time-series
 - 6.2. Standardized metadata keywords
7. New business (additional items added at the meeting)
 - 7.1. Keywords for metadata
 - 7.2. Co-sponsorship of IRI/IPRC/PICES *Pacific climate/fisheries* Workshop
 - 7.3. Updates to data inventory – ARGO
 - 7.4. Inventory of Long Time-Series – International GLOBEC program
 - 7.5. PICES XI – PICES/GLOBEC Data Management Workshop
 - 7.6. *North Pacific Data Buoy* Advisory Panel
 - 7.7. IODE Group of Experts
 - 7.8. North Pacific Ecosystem Status Report
 - 7.9. Working Group on *Biogeochemical data integration and synthesis*
8. TCODE Workplan for 2002