

NSDI-CAP Interim Report

05 October 2007

Title: North Pacific Ecosystem Metadata Federation: China Component
Award Number: 07HQPG0034

This report contains mainly information from our first NMDIS-NPEM Metadata Federation organizational and planning meeting which took place August 30-31, 2007. It was held at the National Marine Data and Information Service lab of the Chinese State Oceanic Administration (SOA) in Tianjin, China.

Participants: Dr. Ruguan Yin, (NMDIS), Dr. Bernard A. Megrey, (NOAA/AFSC), Ms. Kimberly Bahl, (UW/JISAO), Dr. Jixiang Chen (NMDIS), Fangfang Wan (NMDIS), Dongmei Qi (NMDIS), Dr. Li Qin (NMDIS), Lei Zhang (NMDIS), Shuangjian Li (NMDIS), and Prof. Shaohua Lin (NMDIS). Unable to participate: S. Allen Macklin (NOAA/PMEL).

1. Introductions: Overview of NPEM and Isite. The meeting was opened with all participants introducing themselves. Then Professor Shaohua Lin, Director General of the NMDIS laboratory, gave an extensive overview of the organization, activities, and responsibilities of NMDIS. Dr. Megrey then presented a history and overview of the NPEM and PICES federation project. The overview was based on a presentation given at the previous annual PICES meetings. Two elements are needed for federation: metadata in a standard format and a common communication protocol. The PICES federation uses FGDC metadata standard and Z39.50 protocol.
2. Dr. Yin and Chen then discussed the nature of NMDIS data holdings available through NMDIS and SOA.
3. There was a brief walking tour of NMDIS. Dr. Lin and Yin introduced Megrey and Bahl to leadership at NMDIS and showed them essential laboratory spaces.
4. FGDC and NPEM Websites: Overview and Search Demo. Kimberly Bahl introduced FDGC and NPEM websites and provided a live metadata search demonstration. Presently the NSDI Clearinghouse legacy search gateway fails to connect with the NPEM Clearinghouse node. The legacy search gateway is built with propriety software that is no longer maintained and supported by the vendor, Blue Angel Software. The legacy interface will eventually be replaced with GeoNetwork, a user-maintained and open-source solution with similar and enhanced capabilities compared to the legacy interface. The GeoNetwork gateway (beta version of the new search gateway that is in development) will be implemented in 6 months to a year. A demonstration of GeoNetwork (via a demonstration sever) provided successful search results. NPEM will work with NSDI to determine the cause of the legacy search gateway failure.
5. FGDC Metadata Content Standard. Kimberly Bahl, who received training from FGDC two years ago conducted her second international training session. She introduced the FGDC metadata content standard and its sections and elements. This gave the NMDIS team the metadata rules to write FGDC-compliant metadata records from NMDIS information.

6. Metadata Creation and Validation Tools. Kimberly Bahl demonstrated several open-source metadata creation and validation tools, Metavist 2005 and Metadata Parser (MP). These tools allow easy creation of individual metadata records in XML file format (required for any clearinghouse node) and validation that they are FGDC compliant. Participants used Metavist and MP to create and validate an XML metadata record from English NMDIS metadata records. This completes the first requirement for federation: FGDC compliant metadata.

7. Isite Implementation. The second requirement for PICES federation is to supply a common communication protocol: Z39.50. Kimberly Bahl provided specific instructions of how to install and configure the Isite application that allows the use of Z39.50 protocol. The Isite software suite is a free, open-source application available from the FGDC website. The server hardware at NMDIS is all Windows-based so we had to install a Windows version on Isite. This presented some installation difficulties as the on-line documentation was not clear and seemed to contain contradictory information. Since the meeting, our team has acquired the software and, in consultation with Isite technical support, successfully installed the system on a Seattle server. We logged our steps and have prepared an amended set of installation instructions for our Chinese colleagues. This was emailed to them on 03 October 2007.

8. NMDIS Metadata and Node Development Strategy. NMDIS has numerous metadata records already in English. We spent considerable time demonstrating MetaVist so that NMDIS can begin to migrate their metadata into the XML file format.

One major unanticipated problem was that the firewall hardware at NMDIS is old and cannot allow the secure opening of a port to the internet, a critical necessary step for registering the clearinghouse node. Thus we were not able to register a NMDIS node while in China. Mr. Yin stated that new firewall hardware is expensive and he did not know when an upgrade would be possible. After coming back to the United States, our team is investigating the possibility of contracting a 3rd party web servicing concern to lease or rent the necessary hardware for a short interim period until the time that NMDIS can acquire more modern firewall hardware. With this strategy we can register an active NMDIS node before the end of this project.

In addition we discussed the strategies for long-term funding and progress reports on this project and overall PICES federation. These are given in the table below.

Table 1. Action Items identified at the NMDIS-NPEM Federation Meeting, August 30-31, 2007, Tianjin, China

Action items

Priority	Task	NPEM	NMDIS
1	Contact NSDI for proper Isite installation instructions. Test, update instructions and send to Dr. Chen	X	
1	Install and configure Isite software on NMDIS node		X
1	Upgrade Firewall hardware to allow open internet port for NMDIS Node		X
1	Register NMDIS node with NSDI clearinghouse		X

1	Prepare several English XML metadata records for NMDIS Isite node		X
2	Prepare project meeting minutes	X	X
2	Why can't AFSC send email to NMDIS? Check into it.	X	
3	Prepare project report for PICES TCODE-Victoria	X	X
3			
3	Prepare article for PICES Press	X	X

X – primary lead

9. Preparation for October Meeting. Participants developed the following draft agenda for the next meeting to bring NMDIS into the PICES federation. The meeting will be held on October Tuesday 30th and Wednesday 31st, in Victoria British Columbia., respectively. The status of the project will be reported at the PICES Technical Committee on Data Exchange (TCODE) meeting on Wednesday, October 31st.

Proposed Draft Agenda for Victoria Meeting

Tuesday, October 30, 2007

<u>Start</u>	<u>End</u>	<u>Event</u>	<u>Participants</u>
09:00	09:30	Introductions and Overview	NMDIS-NPEM
09:30	10:00	Review of Tianjin Meeting	NMDIS-NPEM
10:00	11:00	Review status of action items	NMDIS-NPEM
11:00	12:00	Isite installation tutorial-update	NMDIS-NPEM
12:00	13:30	LUNCH	NMDIS-NPEM
13:30	14:30	Proposal for contracting Isite computer services	NMDIS-NPEM
14:30	15:30	NMDIS Metadata preparation-status	NMDIS-NPEM
15:30	16:30	Discussion of the NMDIS-NPEM federation, including metadata mapping, node registration, etc.	NMDIS-NPEM
16:30	17:00	Next steps, new action items and preparation for TCODE meeting	NMDIS-NPEM
17:00	18:00	Comment and discussion	NMDIS-NPEM

Wednesday, October 31, 2007

<u>Start</u>	<u>End</u>	<u>Event</u>	<u>Participants</u>
16:00	19:30	PICES TCODE Meeting	NMDIS-NPEM

Locating ongoing funding for NPEM and the PICES federation is a challenge. PICES has been very supportive but has limited resources. At present, NOAA funding is unlikely. We have been unsuccessful in attracting money from international funding organizations and encourage NDSI-CAP to consider the opportunity for modest but multi-year support to help educate and engage international partners into the clearinghouse.

<u>Expenditures through 10/05/2007:Item</u>	<u>Amount</u>
<i>1. Temporary Personnel Salaries</i>	
Kimberly Bahl (1.5 months @ \$4170/month)	\$6,255.00
<i>2. Temporary Personnel Benefits</i>	
Kimberly Bahl (26%)	\$1,626.30
<i>3. Travel</i>	
CAP Orientation Meeting (Bahl) Denver	\$562.31
Technical Meeting, China (Bahl)	\$1,838.98
Technical Meeting, China (Megrey)	\$2,869.35
<i>5. Supplies</i>	
<i>7. Indirect Costs</i>	
Kimberly Bahl (26% of salary and benefits for UW)	\$2,049.14
Kimberly Bahl (26% of travel costs)	\$624.33
Total Project Expenditures	\$15,825.41

All funds granted to this project under the USGS-NMFS MOU were set up as an expensible account with AFSC which allows the project monies to carry over into FY 08. Funds will be completely used by the end of the project in April 2008. Ms. Bahl's salary cannot be delivered to the University of Washington until January 2008. Ms Bahl's Denver and China travel expenses (and associated overhead) are given as monies obligated to UW for costs incurred during the reporting period.

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