

Outline

2011 Workshop Outline

The NEPTUNE Canada (NC) workshop is a forum for existing and new researchers to discuss the present status of the undersea network, communicate research results, and define future directions.

This workshop has three main foci:

Infrastructure successes and challenges

NC now has data flowing from its 5 nodes from the coast to the mid-ocean ridge, with data flow launched on December 8, 2009 and over 10TB archived. However, we have also faced a number of challenges in installing all the planned instruments across the observatory network sites and with the completion of the deployment of the initial suite of instruments planned for 2011-12, depending on the resolution of some engineering and installation challenges. The issues, possible solutions, consequences, and ideas for modifications will be discussed.

Facilitating Research Results

It is important that we 1) document evidence of significant early results facilitated by NC in order to clearly demonstrate the potential of the cabled observatory network and 2) identify what areas will require further effort in facilitating the transformation from data to knowledge.

Specifically this will involve:

1. Reporting and discussion of progress on feedback received during April 2010 workshop
2. Reporting and discussion of progress in data analysis, particularly by (but not limited to) initial NC research teams
3. Demonstration and discussion of current approaches to:
 - a. Data and metadata access
 - b. Data analysis facilitation and tool development
4. Provide working sessions including all participants to troubleshoot identified hurdles

Future Planning

The NC regional network, part of the Ocean Networks Canada (ONC) Observatory that also includes the VENUS coastal network and ONCCEE, is now in its early operational phase, supported during 2010-2012 by operating funds from the Canada Foundation for Innovation (CFI). The new CFI Major Science Initiatives (MSI) program will allow for 5-year operating grants and the renewed CFI Leading Edge Fund (LEF) provides the opportunity for infrastructure expansion of the NC network through CFI and other funding sources. This also marks a period of management succession (new NC Director in mid-2011 and new ONC President in mid-2012) with some reshaping of the management structure, enhanced science community engagement, and advisory process.

The research community was centrally involved in the initial planning and building of the cabled observatory network, and is vital for the next phase of planning and expansion. There will therefore be this third component of the workshop to allow participants to discuss and develop future plans for the NC network in terms of:

1. Sustenance and growth of the science community engaged in data analysis (research support)
2. Earlier unfunded but highly ranked proposals
3. Additional infrastructure and sensors
4. Estimated costs, challenges, innovations, relevance and impact
5. Organization and communication needed to develop [major CFI MSI and CFI LEF proposals](#)

This would include strategies to facilitate both NC-led and scientist-led funding initiatives (both big and small), international participation, and the initial planning of proposals. This is an opportunity for both current and new participants to champion both short and longer term plans for NC.

All sections of the Workshop will be carried out in a combination of plenaries and small working groups. The results captured and accessible through our web environment would include:

1. A summary of infrastructure developments and potential schedules for instrument deployments
2. An electronic volume of current research activity with examples of significant early results
3. A series of proposal drafts for smaller instrument and research support grants, mapped sections and teams for larger proposals such as CFI/LEF and NSERC Strategic Network Grants, and input of key operating information for the CFI MSI application by ONC
4. A review and prioritization of researchers' needs for the next year, within available budget and staffing capabilities
5. Enhanced engagement of the existing and new research communities, including active participation in new Science Planning and Science User committees guided by the outcomes of the workshop and other consultations

Virtual Participation

Capacity for virtual participation will be provided to the extent possible; the website will allow remote participants to contribute to the materials being generated during the workshop.