Proposal for a SCOR sponsored Working Group

for

Research Vessel Cruise Information Coordination

Abstract:

The goal of this SCOR working group is to greatly improve the amount and accuracy of research vessel cruise information by assigning this specific task to an international group of data professionals who will produce timely summaries of relevant ship operations in an easy-to-use format for use by the various systems described below. We will take advantage of existing meetings and conferences to convene our group, provide regular international cruise updates, disseminate these data in a compact, machine readable format, and publish a follow-up article in EOS or a similar publication describing the improvements in this information system.

Rationale

There are several efforts currently attempting at managing ship and cruise information: JCOMMOPS, GO-SHIP, CCHDO, and POGO and numerous institutional websites. The sheer number of systems trying to coordinate this meta information reflects the international demand for global and technical coordination regarding all ship/cruise related activities across programs.

While a substantial investment has been made in systems such as the POGO cruise database, only the technical components of such data repositories have been addressed and implemented. For the most part, these meta data are not augmented by information which accurately reflects the dynamic nature of research vessel logistics. The efforts to date have provided viable databases and web tools but have not consistently provided up-to-date specific cruise information such as those being exchanged in person at meetings or in email messages, which have not been captured and ingested by the current online cruise planning systems.

These meta data are essential in order to:

- Facilitate maintenance and operations of global arrays through logistics coordination when required.
- Further develop cooperation between programs (e.g. shared cruises, berths available, ship time).
- Identify future research cruises, and CTD data essential to inter-comparisons for data quality control, in cooperation with the international initiatives, particularly to identify new regional deployment opportunities.
- Further develop Float/buoy donor programs
- Arrange retrieval of beached instruments when necessary.

Proposed Solution to lack of consolidated research vessel cruise information

The current group of systems addressed the technical barriers to providing such information, but collectively, they do not provide the manpower to collect and vet these meta data before they are disseminated by an online system. These online systems would be best served by a dedicated group of individuals from diverse regions who seek out ship cruise meta data through professional contacts during the first 12-18 months of official operation. While this group cannot provide all of the technical or logistical coordination necessary for a complete overhaul of existing databases, it can and should improve both the volume and accuracy of research vessel schedules and will provide this information in a simple but comprehensive format for inclusion in various national and international scheduling systems.

Practically such a group would:

- identify the key partners and information sources
- identify the different customers
- develop the backbone of a simple interoperable information system
- document the present and future needs

Terms of Reference

The goals of our proposed working group are to:

1. Leverage off of the activities already in progress by using and/or enhancing existing cruise planning procedures and data formats as well as identifing the key information providers by institution, country and region.
2. Facilitate effective communications and agreements between appropriate group members and these information providers to provide consistently updated, detailed and accurate cruise plans for international research groups including, but not limited to Argo, GO-SHIP, GEOSS, CLIVAR, GOOS, R2R and JCOMMOPS.
3. Meet on a regular basis in person and online in order to organize these meta data and consolidate them into a format usable by consumers of these data.
4. Construct a prototype "mailbag" system by which information providers might provide these meta data utilizing a one-way asynchronous online procedure.
5. Publish a follow-up to the original EOS cruise planning database article describing our group's improvements to that online information system.

Timeline

If selected for funding, our group will need to meet without delay since the demand for these data already exceeds the supply. Two of these meetings will be held in the same calendar year to facilitate a fast, consistent start for the project.

Our first meeting will be held in conjunction with the 7th INMARTECH Meeting 19 - 23 January 2011Wellington, New Zealand. This meeting will focus on making the international ship operators aware of our working group, as well as allowing us to conveniently invite representatives in attendance from other organizations who work with similar information such as the newly formed Rolling Deck to Repository (R2R) initative sponsored by NSF.

Our second working group meeting will be held in October 2011 during the WCRP Open Science Conference 2011 in Denver, Colorado USA. At this meeting, the group's efforts should be concentrated on finalizing a meta data exchange format, reviewing agreements between the group and ship operators, and quantifying the increase cruise information since our inception.

By our third and final meeting, perhaps the EGU 2012 or 2013 meeting, we should be well underway and should have significant progress, worthy of a poster at such a meeting followed up by an EOS-type publication describing the group's contributions to a much improved cruise planning online system that serves the global ocean research community.

Working Group Composition

1. Steve Diggs (USA / chair)
2. Mathieu Belbeoch - JCOMMOPS (International)
3. Patrick Gorringe (Australia / IMOS)
4. Tim Boyer (USA / NODC)
5. Toste Tanhua (Germany)
6. Loic Petit de la Villeon (France)
7. Norio Baba (JODC)
8. Uday Baskhar (India)
9. Lesley Rickards (UK)
10. Ursula Von St Ange (South Africa)

Associates

- Bob Keeley (Canada)
- SOOP Committee (Ann Thresher)
- Candyce Clark
- Doug White (Delaware)
- Bert Thompson
- Esmee Van Wijk (CSIRO)
- Bob Key (Princeton)
- Benjamin Pfiel (CARBO-Ocean / Norway)
- Shao Hua Lin (China)

Travel

Meetings should be held on an annual basis, with possible bi-monthly online meetings which have already proven effective with many other similar working groups.