E-mail Message from Maureen Conte:

Hi Mike

I'd like to ask that a discussion of mooring hazards and consideration of implementation of a centralized UNOLS mooring directory and broadcast system be put on the agenda. I talked with Peter Wiebe about this earlier.

The problem:

While most research is conducted using ships, an increasing amount is conducted using moorings, many of which are subsurface. There are many hazards to science, equipment and people when research ships conduct operations around moorings that no one knows are there. Accidental encounters between ship operations and moorings are becoming an increasing risk in places where there are many different kinds of research groups attracted to a fixed location (e.g. the JGOFS time series sites, Georges Bank, Gulf of Maine, etc). The numbers of accidents will only rise as mooring platforms become a larger part of research operations, and scientists (mooring and ship based) are increasingly attracted to well-characterized (ie operationally crowded) sites to locate their studies.

At the Bermuda time-series site, there have been several incidents over the last few years when various ships have conducted operations right over moorings located there or close enough to risk these moorings¹ data. For example, scientists believing that they were at the BATS site have scheduled deep CTDs, taken sediment cores, released deep drogues and trawled right over the OFP sediment trap time-series mooring. Each close encounter puts the mooring at risk and potentially contaminates the samples being collected. These instances have occur despite concerted attempts over many years to inform the community and ship operators that there are moorings in the vicinity. Other people tell stories of ships inadvertently recovering unknown moorings that had been deployed right in the middle of established work areas. These encounters are hazardous, extremely costly in terms of gear, and interrupt science.

Right now there is no effective way for scientists who have moorings to communicate where their moorings are, and there is no effective way to make sure ship operators know where moorings have been deployed so that they can establish work exclusion areas. People who have moorings have tried lots of different methods to spread the word- with mixed results. And then other people deploy a mooring in an area and never even consider that other ship operations are co-located there, or that there may be other moorings in the area that share the same release codes!

A proposed solution:

A UNOLS cruise report is filed at the end of every cruise. I would like to suggest that this cruise report includes a section on mooring activity: the mooring name and location of deployment or recovery and a contact name. As cruise reports are now all WEB based, it should be a simple matter for this information to be electronically collated and distributed

to ship operators so that they can mark mooring locations on their charts (maybe even distributed in chart overlay format).

A second advantage of having a centralized UNOLS directory is that the mooring information would also be easily available to foreign ship operators and any other parties with a need to know. (I would discourage open WEB access as this information could be quite dangerous in the wrong hands.)

Maureen Conte

BBSR PI Oceanic Flux Program (OFP) time-series program