

6th CSPCWG MEETING
Monaco, 01-03 December 2009

Paper for Consideration by CSPCWG

“Suspended” Oceanographic Instrumentation Moorings

Submitted by:	Australia (Jeff Wootton)
Executive Summary:	Australia is experiencing increasing instances of the installation of “suspended” oceanographic instrumentation moorings.
Related Documents:	None
Related Projects:	None

Introduction / Background

Australia is experiencing increasing instances of the installation of “suspended” oceanographic instrumentation moorings. CSPCWG guidance is sought as to the best way to depict these features on paper charts, and discuss whether there may be a requirement for a new paper chart symbol.

Analysis / Discussion

NSW Administration, Technology and Services' Manly Hydraulics Laboratory has recently deployed two oceanographic instrumentation moorings off Coffs Harbour on behalf of the Sydney Institute of Marine Science. The moorings are part of the Integrated Marine Observing System (IMOS).

Each mooring includes an ADCP for measuring ocean currents and a series of thermistors to measure sea temperature through the water column. The moorings are supported by a large subsurface float approximately 10m below the water surface (i.e. no surface buoy). Two diagrams showing the mooring locations and configurations are attached at Annex A.

AHO has been required to show these devices on the relevant paper charts and ENC cells. It has been reported that an increasing number of these “suspended moorings” for oceanographic data collection purposes will be established in Australian waters. The decision taken was to depict these devices as an isolated obstruction of known depth (INT1 - K41) related to the top of the subsurface float (assuming the LAT depth can be determined) and appropriate blue colour infill, with the international abbreviation ODAS (Ocean Data Acquisition System) in lieu of “Obstrn”. A safe clearance depth is used if the LAT float depth cannot be determined. A similar approach has been taken for ENC (OBSTRN, with VALSOU (or VERLEN if VALSOU cannot be determined) and “oceanographic instrumentation mooring” in INFORM).

Due to the expected increase in the instances of these moorings, it may be required to include a specification for the depiction of these devices in S-4. If considered necessary, a new symbol for suspended sub-surface ocean data acquisition systems may be developed.

Recommendations

A new paragraph be inserted at the current S-4 B-422.9 describing the specification for the depiction of submerged “suspended” oceanographic instrumentation moorings as outlined above. Alternatively, a new clause may be inserted after the existing B-422.9 describing the specification.

A new symbol (isolated danger symbol of known depth with “ODAS” adjacent) be added to INT1 at K49. Alternatively, CSPCWG may wish to investigate the development of a new symbol (AU currently has no suggestions).

Justification and Impacts

The issue described above is an emerging issue that many Hydrographic Offices are going to have to deal with in coming years. There is currently no guidance in S-4 on how to depict these devices on paper charts, and the instances that Australia have been required to show on its paper charts to date may be considered to be a hazard to navigation. If approved, Australia would be prepared to compile draft wording for S-4 with the assistance of the CSPCWG Secretary. The INT1 Sub-Working Group would be required to address any approved amendments to INT1.

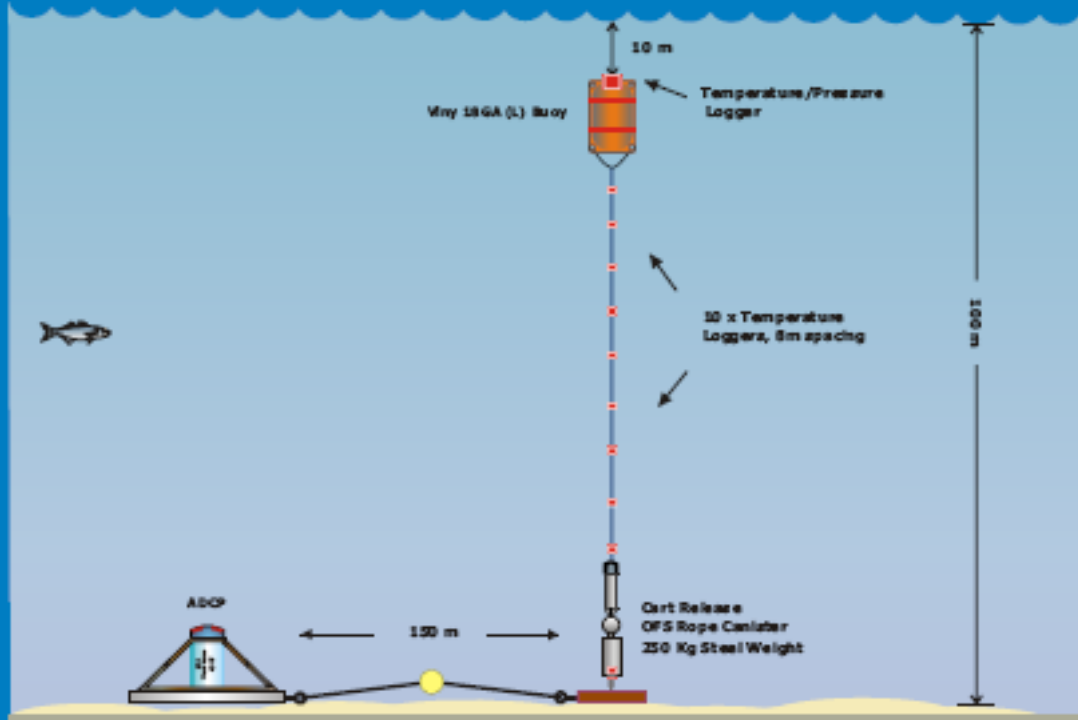
Action required of CSPCWG

The CSPCWG is invited to:

- a. Consider this submission
- b. Determine, on the merit of the Recommendations above, appropriate action



Manly Hydraulics Laboratory



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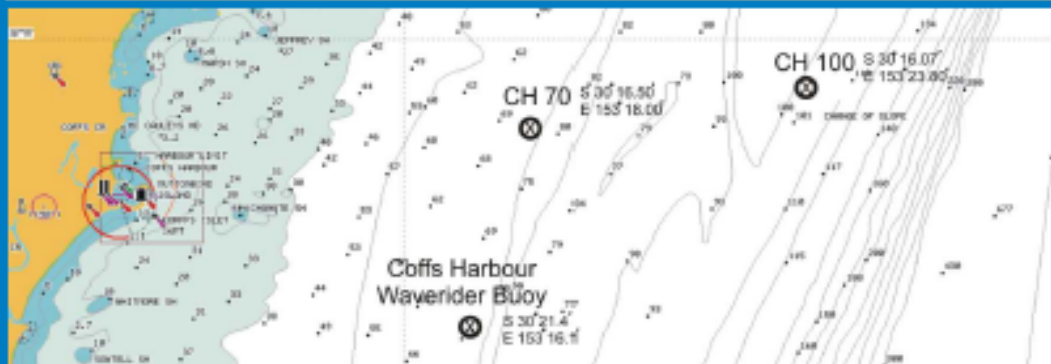
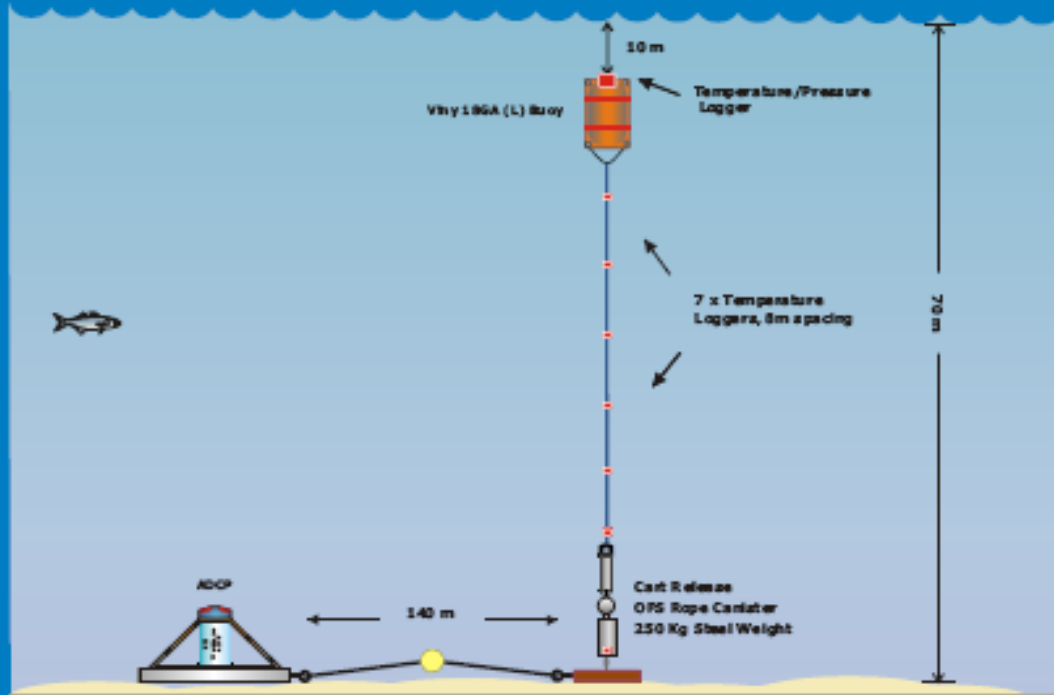
NSW IMOS

**COFFS HARBOUR
OCEANOGRAPHIC MOORING
(CH 100)**

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**COFFS HARBOUR
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(CH 70)**