CSPCWG10-9.4A

10th CSPWG MEETING
Wellington, New Zealand, 21-24 January, 2014

Paper for Consideration by CSPCWG

AIS transmitters: problems caused by proliferation

Submitted by:	UK
Executive Summary:	AIS transmitters (whether physical or synthetic) are proliferating in some nations waters. This is causing problems for keeping charts up to date.
Related Documents:	S-4 B-489, B-620.3c. INT1 Section S.
Related Projects:	None

Introduction / Background.

S-4 B-489 explains how to chart AIS transmitters (using S17.1 or S17.2 as appropriate). S-4 B-320.3 lists Information considered navigationally significant for NM actions and includes (at the last bullet in sub-paragraph c): Changes in radio aids to navigation, eg …new or changed AIS transmitters…). Is this guidance still fit for purpose?

Analysis / Discussion.

In some countries, AIS transmitters have been fitted to (or are transmitted synthetically from) hundreds of buoys or other aids to navigation. These have been promulgated by long lists in NMs, which does not take consideration of how a mariner can actually practically update his charts.

In UK, we have discussed the best way to help the mariner, as follows:

Initially, when it became obvious that promulgating hundreds of AIS transmitters at the same time would overload the NM system, we decided that we would:

- First list them in Admiralty List of Radio Signals (ALRS) via Section VI of UK's Weekly NM.
- For AIS transmitters **where a physical structure exists** (which will paint on the mariner's radar and should already be charted) an identification string will now also show next to the object. Lack of this information on the chart was not considered to be navigationally significant so it would normally be appropriate to include this change on the chart at next new edition; no chart –updating NM would normally be required to insert these, although deletion of AIS from an object would be by NM.
- For permanently established 'virtual AIS' we would issue an NM for at least the largest scale charts.
- We would also issue a 'P'NM in lieu of many text NMs if another HO publishes a long list of new AIS. A plan would be put into place to cancel the 'P'NM as quickly as possible by chart-updating NMs, NM blocks and possibly limited new editions as appropriate.

However, UK has recently revised its policy, to ensure its charts are consistent with its nautical publications (in this case ALRS).

- An NM would be issued for all insertions, deletions and moves for AIS (as with Racons or Ramarks). For moves, an NM would only be issued if the position has changed by more than 3mm at the scale of the largest scale chart (ie the size of the magenta radio circle).

- The option to issue a (P)NM first and follow with chart updating activity in lieu of a long list of AIS updates, for the mariner to apply by hand, remains a pragmatic solution.

Another issue arising is that in those nations where almost every buoy and other aid to navigation seems to be fitted with AIS, the radio circles are so close together that they frequently overlap. Is this useful? Should we consider a solution similar to radar reflectors, ie they are not charted in areas where they are fitted to most buoys (S-4 B-465.1 refers).

Note: from HSSC5-07.2A:

> The portrayal of AIS AtoN associated with the draft policy has been developed by the [IMO Correspondence Group on AIS] in coordination with IHO. It is considered by the IHO to be sufficiently different from IHO chart symbols and other navigation related symbols to differentiate charted AtoN objects from AIS AtoN. However, taking into account that there is still potential for conflict between the static charted AtoN display and AIS AtoN display, especially if the data are in conflict, the draft policy acknowledges that close coordination between the AtoN authority and the relevant charting authorities is essential. **It is recommended that national HOs liaise closely with their national AtoN authority to minimize the risk of confusion for the mariners.**

IHO member States should therefore maintain close liaison with their national authority responsible for establishing AIS transmitters, so that they take into consideration the problems of charting them.

Conclusions.

Issuing long lists of new AIS transmitters for mariners to update their charts by hand is not helpful. CSPCWG should reconsider whether it is necessary to issue chart-updating NMs for AIS transmitters and if so, how this should be done in practice.

In some areas, the proliferation seems to be such that a different policy (similar to radar reflectors) should be considered.

Recommendations.

AIS transmitters should only be inserted by NM in waters where they are the exception rather than the rule.

In areas where the local authority has decided to establish AIS transmitters (whether physical or synthetic) at most aids to navigation, the relevant HO should issue a statement to this effect and insert a note on charts (or in an associated publication) stating that AIS transmitters (except virtual AIS aids to navigation) will not be shown on charts.

S-4 to be updated to reflect this policy.

Justification and Impacts.

The proposed policy is pragmatic, avoids overloading the NM system and avoids overloading charts with magenta circles.

Action required of CSPCWG.

The CSPCWG is invited to discuss the issue, consider the recommendations and agree a policy.

Note: It is understood that UK's General Lighthouse Authorities (and possibly IALA) are avoiding the term 'synthetic' as there is no practical difference between physical and synthetic from a user's perspective. This accords with the decision by CSPCWG to make no distinction on charts.