



CHART STANDARDIZATION & PAPER CHART WORKING GROUP (CSPCWG)

[A Working Group of the Committee on Hydrographic Requirements for Information Systems – CHRIS]

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To CSPCWG Members

Date 21 June 2005

Dear Colleagues,

Subject: Charting of AIS on Aids to Navigation (further to CL 04/2005)

Fifteen Working Group members responded to CL 04/2005 and we thank them for their helpful comments. A summary of the responses is at Annex A, although the various comments have not been repeated verbatim as they have already been copied to WG members through the email reply system. All respondents agreed that this issue should be added to the CSPCWG Work Plan, and dealt with as a high priority; this further letter is therefore intended to bring this issue to an early conclusion so that we can advise IHO Member States on appropriate chart symbology before the need to chart the feature becomes widespread.

In general, respondents either did not comment on the UK proposal, or commented positively. Only Australia expressed a different opinion:

“Australia believes that the UKHO proposal is directly in conflict with the IMO symbol and should NOT be adopted as an IHO symbol **unless we can explain reasons for not adopting the existing symbol**. From Australia’s point of view, if the IMO had not adopted this blue symbol, the UKHO proposal would have been consistent with other M-4 paper charts symbols...”

The bold above is mine. Also, with reference to the blue colour for the IMO symbol, AU states:

“Even if another colour could be agreed at, there is still an issue of chart clutter and the UKHO proposal is a much better solution for the paper chart.”

So, I can conclude that the UK proposal is acceptable (in general terms), if we can explain why the IMO symbol is not. Spain provided a helpful response to Australia’s concerns:

“...although it is expressly stated that the symbols for ENC’s and for paper charts must be as similar as possible, we do not think that it applies to this case. So, our position is as follows:

- For ENC, and thinking ahead to a new edition of S-57, the coding of a beacon with AIS will have to be considered. After that, it will have to be considered whether it is necessary for it to have one associated symbol. [Our point of view is that it is not necessary, as ECDIS is capable of overlaying AIS equipment information on ENC. It may suffice with supplementary text information that can be accessed by the mariner by querying (clicking) on the beacon to get its features.]

- The case of paper charts is different. They are only required to inform the mariner in a graphic format of the features of the beacon, in this case of the presence of an AIS system. There can be no interposition between one static cartographic symbol related to the features of a beacon, and a dynamic symbol created from the response (AIS) generated by that beacon. [Consequently, we still find adequate the presentation of the acronym AIS in magenta and preferably coupled with a magenta circle.]

I agree with Spain's points, which are well made. The IMO symbol (IMO Circ.243 Annex 1 page 5: a blue diamond in the case of an Aid to Navigation (AtoN), the blue triangle being for a vessel with AIS) will be generated from the AIS transmitter and displayed on an ECDIS regardless of the chart's own display. In fact, as far as a buoy is concerned, the position of the real-time IMO symbol may differ from that of the charted buoy (because of its movement), so a clear difference between the ENC symbol and the AIS display may actually be helpful.

From a paper chart point of view, the 'light sky blue' symbol is clearly unsuitable as it will not show up against the shallow water blue tint (and buoys are most often found in shallow water). Australia's mention of OEMs overcoming the problem by surrounding the symbol with a white border is impractical for paper charts. Australia suggests that it would be helpful if WG members indicate whether they are able, or would wish, to print blue symbols so please indicate your position on the response form at Annex B. Retaining the diamond-shaped symbol but altering the colour to magenta would, I believe, simply add to chart clutter, where it would be possible to have a light flare, racon circle, fog signal, radar reflector, floodlight and AIS diamond all centred on the same symbol!

I conclude that our WG position is that for paper charts the IMO symbol is inappropriate and that the simple magenta legend AIS (upright for fixed aids, sloping for floating aids) should be the IHO approved symbol for AIS-equipped AtoN. Please indicate your agreement, or otherwise, on the response form. I think we would all agree that it is disappointing that CSPCWG were not consulted before the IMO symbol was chosen.

One matter remains to be resolved. Three respondents (Australia, Spain and France) suggested we should consider including a magenta circle at AIS-equipped AtoN. This was originally rejected by UK because of concerns that large numbers of AtoN may possibly be equipped with AIS. (For similar reasons, the radar reflector symbol is usually no longer added to buoys). However, it does have much to commend it:

- It is the usual method of representing non-visible, non-audible transmissions from AtoNs.
- Many AtoNs will already have a Racon circle which could cover both Racon and AIS.
- In the event that Racons are removed when AIS is proved as a system, it would reduce chart correction to retain the circle.
- It would provide a method of highlighting a 'virtual' AIS AtoN, if it ever becomes necessary to chart them (ie a magenta circle + position circle + AIS legend, but without a buoy symbol).

Please consider these points and provide your answer on the response form at Annex B.

The response form also suggests where the future symbol and specification might be located in INT 1 and M-4. If you do not agree with the suggestions, please suggest alternatives.

In accordance with our usual time scales for follow-up correspondence, please respond by 19 July 2005.

Yours sincerely,



Peter G.B. Jones,
Chairman

Annex A: Summary of responses to CL 04/2005

Annex B: Response form

Summary of Responses to CL 04/2005

Responses were received from AU, BR, DE, DK, ES (x2), FI, FR, GR, IT, JP, NL, NO, US(NOAA), UK, ZA

No	Question	Yes	No	Comments by
1	Have you received any requests to chart AIS on AtoN?	4	11	AU, DE, ES, UK
2	Have you received any requests to develop chart symbols for AIS on AtoN?	1	14	AU, ES(2)
3	Do you have any observations on the policy developed by UK?	6	9	AU, DE, ES, FR, NO, US
4	Do you agree to add this as a work item for CSPCWG?	15		
5	Any further comments?			AU, DK, ES(2), US

For detailed comments, see original emails. The following is a very brief summary:

1. AU aware of AIS being installed and expect to be required to chart them in due course. DE are going to install. ES are aware of AIS to be installed on a buoy in Valencia Hr. UK have been notified of installation on a buoy in Dundee.

(Additional note: China have issued NM17/332/05 which inserts legend 'AIS' at a Light Vessel).

2. AU suggested that CSPCWG cannot adopt the UK proposal because it conflicts with IMO's symbol. ES provided an opposite point of view.

3. UK's proposals generally endorsed (but reservations expressed by AU). AU, ES, FR wish for the addition of a magenta circle to be considered.

4. Unanimous agreement to add to Work Plan. No objections to high (H) priority; also specifically supported by DK as a 'further comment'.

5. AU advises getting HOs to declare the 'blue' solution unacceptable for paper charts. ES's comments include rejecting the idea of a chart note. US question the effectiveness of IMO/CHRIS groups' interactions.

RESPONSE FORM

(Please return to CSPCWG Secretary by 19 July 2005)

andrew.coleman@ukho.gov.uk

1. Please use the table below to record your response

No.		Yes	No
1	Could your office print blue symbols on paper charts?		
2	Do you consider blue symbols on paper charts are a good idea?		
3	Do you consider that the IMO blue diamond symbol for AIS-equipped AtoN is appropriate for use on paper charts?		
4	Do you agree that the magenta legend AIS (upright for fixed aids, sloping for floating aids) should be the principle method of showing that an Aid to Navigation is equipped with an AIS transmitter?		
5	Do you consider that an Aid to Navigation which is equipped with an AIS transmitter should be further highlighted with a magenta circle (same as a Racon circle)?		
6	Do you agree that, when approved, INT 1 S17.1 & 17.2 is the appropriate place for the new symbols (17.1 for fixed AtoN, 17.2 for floating AtoN, similar to S3.1 and 3.6)		
7	Do you agree that, when approved, B-489 is the appropriate place in M4 for the associated specification		

2. Any further comments:

Name.....

Member State.....