

**4th CSPCWG MEETING
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Paper for Consideration by CSPCWG

Proposed adoption of the M-4 symbols as the IHO paper chart symbol library

Submitted by:	AU
Executive Summary:	As the CSPCWG adopts new symbols, it is imperative that an official IHO symbol be released to IHO member states for adoption onto their own charts, and to chart production software manufacturers.
Related Documents:	Chart Specifications of the IHO (M-4), Official INT1s
Related Projects:	CSPCWG task E – maintenance of M-4 supplementary publications INT1, INT2 and INT3. Proposed principles of CSPCWG (paper CSPCWG4-07B)

Introduction / Background

Following the CSPCWG Report to CHRIS18, there was some discussion about the authority of the Chart Specifications of the IHO (M-4) and it is Australia's understanding that M-4 is the specification and that INT1 is supplementary to M-4. Following CSPCWG Letter 06-2007 it would appear that the CSPCWG Chairman and Secretary do not regard M-4 as the 'symbol library' for paper charts. Accordingly, if this is the case, the official INT1s cannot be regarded as the 'symbol library' for paper charts either, as they all have differences. As the DE INT1 is the official English INT1, AU has up until this time, adopted the German symbols for use on INT and Aus paper charts and RNCs. We knew there were significantly (in some cases) different symbols in M-4, but as the original publication was so old, we disregarded the symbols shown in it and adopted the DE INT1, being far more recent. Now that M-4 is undergoing a complete review, including the adoption of UKHO symbols, AU believes it needs to be made clear to all IHO member states which set of symbols should be adopted and used for paper charts. This is very important when new symbols such as the sea plane landing area is adopted, as those member states with these charted features will need to add this new symbol and hopefully chart production software houses will also adopt these for their own systems. AU has raised the matter before that it is a huge duplication of work if every MS has to design and implement new symbols. This was one of the reasons for specifying the dimensions of all new symbols in M-4 as we carry out the review.

Analysis / Discussion

We know that historically many MS have slightly different paper chart symbols. But as more and more MS move towards producing paper charts by digital methods and software, we have an opportunity to standardise our symbols into digital symbol libraries. This is precisely what the IHO CSMWG has done over the last couple of years for ECDIS. They have produced a symbol library showing the exact dimensions and colours for every ECDIS symbol (see S-52 Presentation Library Addendum (Edition 3.3), which is freely downloadable from the IHO website. The CSMWG is now moving towards producing a symbol library in compliance with the ISO 19100 series of standards which will eventually go into the proposed IHO registry as a new symbol register.

When the CSPCWG introduce a new symbol for the paper chart, we promulgate it as an update to M-4 via an IHO Circular Letter. This usually has the proposed new or revised wording as well as any new symbol included. As MS adopt the new specifications, often the new symbol will be added to national and official INT1s and the IHO is now promulgating Notice to mariners Corrections for the official INT1s. However there has never been any specific advice as to which symbol is the official one. As CHRIS has now agreed that M-4 is the specification, surely the symbols included within it must be considered as the official paper chart symbols until such time as a separate (or inclusive) paper chart symbol library is actually produced.

As the new editions of M-4 are now adopting the UKHO symbols, the CSPCWG members need to agree that these are suitable for adoption as the official IHO paper chart symbols. These could be reviewed as part of the on-going review of the whole of M-4 Part B. This in turn must lead to the official INT1s also adopting these symbols leading to improved consistency in paper charts. The implications for such a decision are huge for many MS but if a staged approach was adopted, starting off with all new or revised symbols, the process can be looked at as a long term solution. More and more MS are adopting commonly used chart production tools which are now including symbol libraries. Gradually paper chart symbols will become more consistent.

If adopted there is also an additional benefit to those MS who still rely on 'one-off' software solutions and who contract out such work. Once there is IHO advice as to what is the official paper chart symbol set, there can be no argument on what is or isn't an 'official' IHO chart symbol.

Conclusions

The world is moving towards digital symbol libraries. The IHO is moving towards a registry and various registers to hold, maintain and develop its hydrographic features and symbols. It is likely that once the IHO registry is operational, many of the CHRIS WGs may be tasked to produce a digital symbol library for their products. This will lead to more consistent portrayal of hydrographically related products.

The IHO is about supporting one another and consistency in navigational products. We have produced charts for more than 200 years with many of the original symbols still being used today. It's time to use our authority in these matters and declare what the official IHO paper chart symbol set is.

Recommendations

1. That the CSPCWG issue an IHO Circular Letter to all MS advising that M-4 is to be used to construct new or revised paper chart symbols.
2. That full dimensions be provided for all new and revised symbols introduced to M-4.
3. That the official INT1s adopt the M-4 symbols over the next 2 years.
4. That the CSPCWG consider as a long term goal, to produce an official digital symbol library.

Justification and Impacts

Our priority must be to maintain and review the IHO chart specifications and we mustn't detract from this important task. However in the longer term we should encourage the use of our symbols for any hydrographic features and any product, not just for the traditional paper chart.

Action required of CSPCWG

The CSPCWG is invited to agree to the above recommendations.