

**3rd IHO-HSSC Meeting
Monaco, 08-10 November 2011**

Paper for Consideration by HSSC

Maintenance of S-100

Submitted by:	TSMAD
Executive Summary:	This paper recommends that S-100 is maintained according to the proposed procedures.
Related Documents:	<ol style="list-style-type: none"> 1. IHO Resolution - 2/2007 Principles And Procedures For Making Changes To IHO Technical Standards. 2. S-100 Part 12 – Maintenance Procedures
Related Projects:	

1 Introduction / Background

Many discussions have taken place over the last 5 years to define the content of IHO Resolution 2/2007. Throughout this period S-100 was presented by TSMAD as a special case which should not be constrained to the rigorous processes defined in 2/2007 as S-100 was designed to be flexible and easily extended. Although 2/2007 does not define which of the IHO technical publications are standards, there is no question that S-100 is a standard and any product specification that is developed against S-100 must adhere to it. This paper will outline the needs for S-100 to contain its own maintenance procedures and demonstrate how IHO Member States will remain involved with the maintenance of S-100.

2 Analysis/Discussion

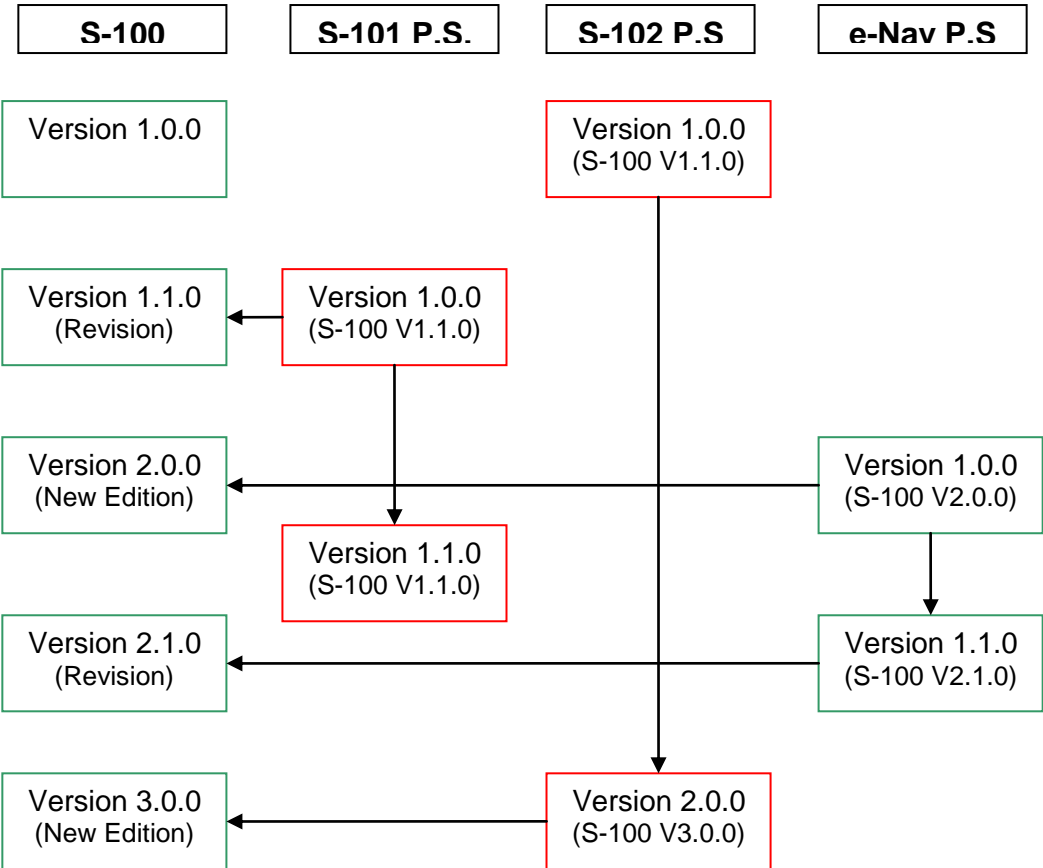
2.1 Life cycle of S-100

In many respects the proposed maintenance regime for S-100 is very similar to that of the S-100 GI Registry. A version of S-100 continues to be valid even after a new version is published. Product specifications reference the version of S-100 on which they are based on and only need to be changed if the new version of S-100 contains information required for that product. In effect any version of S-100 is inactive until used to create a product specification, similar to items in the S-100 GI Registry, where versions of the features reside until it is used in specific feature or portrayal catalogues for a product specification.

S-100 must be allowed to change without restriction in order to fulfil one of its prime mandates – that it is a flexible standard. The lack of flexibility is one the major issues with S-57 where product specifications are part of the main standard. It was decided by the IHO membership at an early stage in the S-100 development process that product specifications are to remain separate from S-100 so that S-100 may change as needed by the user community, yet products will remain fixed to a specific version of S-100. It should be noted that all S-100 based product specifications developed for IHO purposes must follow the maintenance regime prescribed in resolution 2/2007. ,

The following diagram demonstrates the relationship between S-100 and various product specifications that were developed against S-100. The product specifications only change if there is a need to do so. For example, S-102 requires a new edition because a new encoding format was developed and added to S-100 Version 3.0.0 specifically for use in S-102. Note that S-101 has a new version (development version) 1.1.0, but does not update its reference to a newer version of S-100. This is because changes were made to the S-101 feature and portrayal catalogues which are derived from the registry and not S-100.

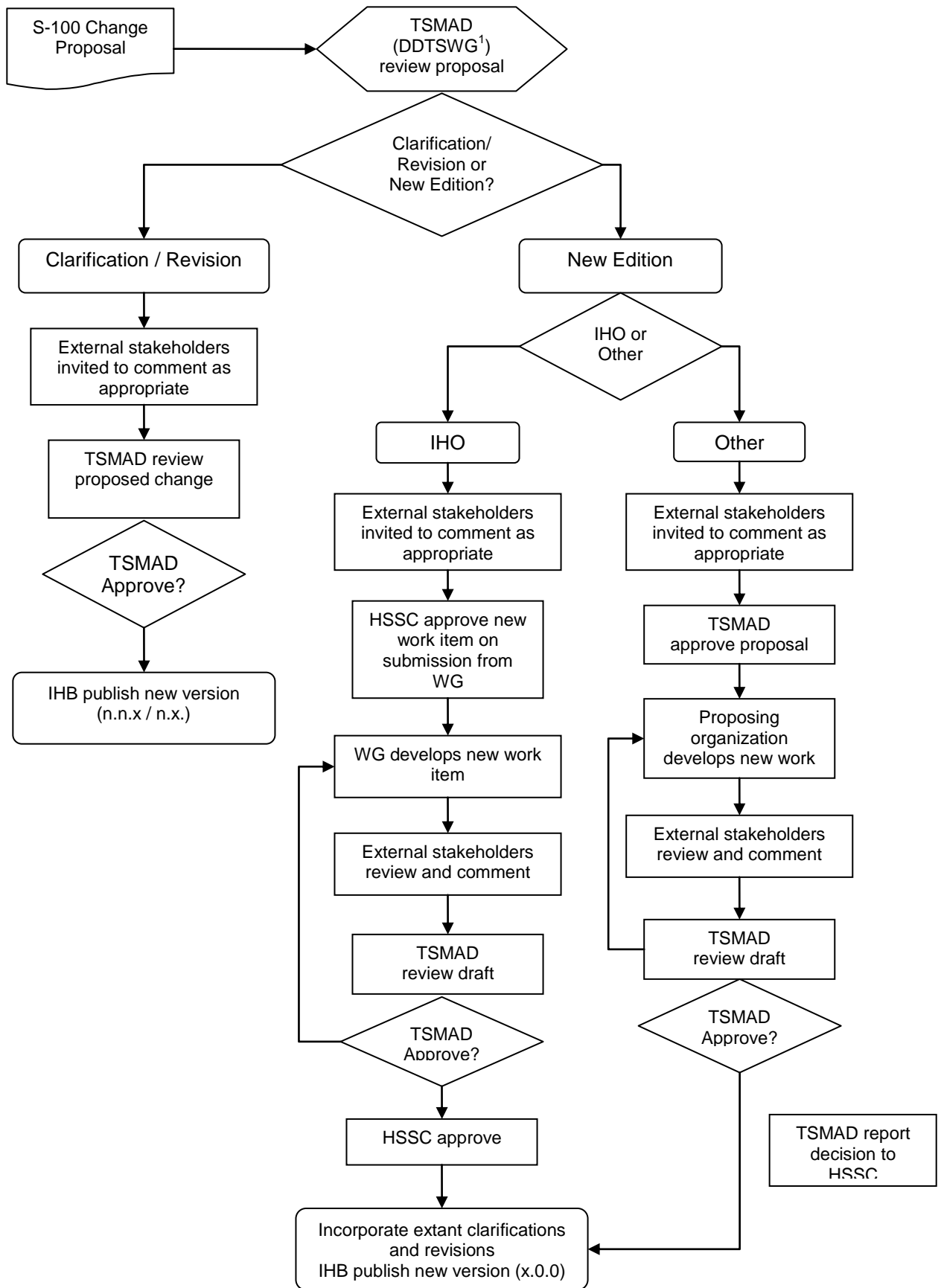
In addition, each version of S-100 will contain a record of changes made in the new version.



2.2 S-100 Maintenance approval process

S-100 was developed and subsequently advertised as an open standard available for use by any organization in the maritime domain. Since its publication in January 2010, there has been an increased interest in its use as a baseline standard by various organizations outside of the IHO domain, including IALA and IMO. Although this interest is welcome, TSMAD believes that use by organizations outside of the IHO’s domain might cause issues, if the maintenance of S-100 is tightly bound by Resolution 2/2007 and the lengthy approval process required for new versions of standards.

The normal constraints and throughput of work in the IHO work program may in fact discourage the use of S-100 by these organizations. For example a non-IHO organization may wish to propose an extension of S-100 to include a new encoding format for use in their product, but if it takes two years to go through the approval process, then that outside organization or even working groups within the IHO may not want to be confined by the entire approval process that is needed by resolution 02/2007 and move in a different direction.. This potentially negates another of the primary goals of S-100, the promotion of interoperability between different products and the supposed flexibility of S-100 to meet the needs of the maritime domain. The following diagram describes the process recommended by TSMAD for maintaining S-100. The definitions for Clarification, Revision and New Edition follow those prescribed in Resolution 2/2007.



¹ If the proposal to combine HSSC WGs is approved then the DDTSWG would replace references to TSMAD in the above diagram

2.3 Conclusion

The proposed process provides a much more efficient method of maintaining S-100 while still ensuring that larger packages of work (extensions) required for use in IHO controlled product specifications remain subject to the constraints of the HSSC work program. TSMAD does not consider it a risk to not include the IHO Member States in the process, as their main role should be reviewing and approving IHO product specifications based on S-100 and which must follow the process prescribed in Resolution 2/2007. In addition, all MS are welcome to participate in TSMAD. In supporting this conclusion, during the final review of the first edition of S-100, TSMAD received a very small number of comments from member states all of which were minor changes or typographical errors. This indicated to TSMAD that either the version nearly was faultless or was too technical in nature and that the capabilities of the IHO working group should be trusted.

2.4 Recommendations

It is recommended that the HSSC further define the standards to be maintained using the process defined by IHO Resolution 02/2007 and which standards shall utilize a different process. This should include a note explaining that S-100 is to be considered a standard, but includes its own maintenance process. This will ensure that S-100 has the utmost flexibility while still developed in a controlled environment and will be able to provide “Just in Time” updates for those that are utilizing it.

2.5 Actions Required of HSSC

HSSC is requested to endorse

- the recommendations above
- endorse the proposed maintenance procedures for S-100 and inform IHO Member States of their decision