



UK Hydrographic  
Office

# S-100 Implementation and Validation HSSC16 5.5c

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## Current Situation

- › We are now approaching the publication of the operational versions of the Phase 1 Product Specifications; this is a significant milestone on the S-100 journey and the stability that these versions should achieve will enable a period of implementation and testing of S-100 ECDIS
- › The HSSC has already through the ISO 9001 cell adopted a risk-based approach to this work, the UK sees a need to extend this
- › With addition S-100 products and the need for them to function in an integrated way there is significantly greater complexity than the S-57 ECDIS which has itself faced challenges



## User Centred Approach

- › In addition to continuing the work of the ISO 9001 cell the UK proposes that a more user centred approach to testing is adopted
- › Although the Test Strategy meeting originally formed around this goal it has arguably become a sub-group of the S-100 WG to resolve complex technical changes to S-100
- › Although various standards contain requirements and tests (IEC 61174, S-98 and S-164) there remains potential gaps between the very high-level IMO performance standard and these system requirements, the UK feels that user stories or a similar approach could help fill this gap and provide clarity



## User Story example

- › As a... [who is the user?]
- › I need/want/expect to... [what does the user want to do?]
- › So that... [why does the user want to do this?]
- › Example 'as a UK resident, I want to get my details on the electoral register so that I can vote'
  
- › The following Acceptance Criteria could then be defined to support testing of this user story
  - 'it's done when the user knows how to register online'
  - 'it's done when the user knows how to download a form to register by post'
  - 'it's done when the user knows where to send the form'



## Summary

- › As we move into implementation and testing the effective and robust testing is vital to the success of S-100 for navigation, we have the opportunity to apply learnings from experience with S-57 ECDIS
- › The ISO 9001 cell report seeks to propose the continuation of that work so this proposal is in line with that submission, the CIRM report also emphasises the importance of an effective testing program
- › We see the creation and collation of clearly defined user needs as a key enabler to effective testing, but is just one part of the overall process
- › This approach can also support any required changes to mariner training material, which is a topic that is under discussion at IMO level



# Recommendations

1. Consider the need for a continued risk-based approach building on the work of the ISO 9001 cell as S-100 Phase 1 specifications are implemented
2. Consider the need to develop and document user requirements so that testing results can be captured in a consistent way in order to support successful implementation and validation of S-100 ECDIS





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Thank you

