

19th CHRIS MEETING
Rotterdam, Netherlands, 5-9 November 2007

Report of the Standardization of Nautical Publications WG (SNPWG)

Submitted by:	David ACLAND, UK
Related Documents:	Minutes of the 7 th SNPWG meeting (12 - 16 February 2007), BSH, Rostock, Germany
	Minutes of the 8 th SNPWG meeting (3 - 7 September 2007), IHB, Monaco
Related Projects:	TSMAD S-100

Chair:	David ACLAND, UK
Vice-Chair:	John NYBERG, NOAA, USA
Secretary:	Steve OFFENBACK, NGA, USA
Member States:	Argentina, Denmark, Estonia, France, Germany, Netherlands, Spain, Sweden, UK, USA, Venezuela
Expert Contributor Organisations:	CherSoft Ltd

Meetings Held During Reporting Period

12 - 16 February 2007, BSH, Rostock, Germany

3 - 7 September 2007, IHB, Monaco

Next Planned Meeting

17 – 21 April 2008, SHOM, Brest, France

Work Program

The 3 sub-Working Groups have completed a first draft of the new classes, feature attributes and draft proposals to extend current S-57 objects and attributes to enable the preparation of nautical publications, in a digital format compatible with ENCs. Further feature classes and attributes will be drafted as the need arises.

The work uses ideas developed for the S-100 transfer standard. Although by no means settled, something like 10 information object classes, 20 new geographic feature classes and just over 100 new feature attributes have been drafted and are under consideration by SNPWG; a few attributes use the proposed data types Boolean, complex and formatted text. Binding between features and feature attributes has been recommended. SNPWG will also recommend to TSMAD a number of extensions to S-57 objects and attributes when they appear in their new form as S-100 features classes and feature attributes.

The number of items approved at SNPWG level is rising steadily: information object classes 3 (33%), feature classes 6 (25%), feature attributes 57 (50%). Many others have been proposed but rejected.

While good progress continues, it is unlikely that the SNPWG will deal with all remaining items in scope at the next meeting and so a realistic target to complete this work item is end 2008 or early 2009.

The TORs state that the group should work by correspondence and should meet at least every 2 years. Regular correspondence is taking place but the group is currently meeting at intervals of 8 months in order to get through the business, to learn from each other and from technical experts. Sub-Working Groups meet between SNPWG meetings. CHRIS is requested to endorse the current work tempo.

Progress on CHRIS Action Items

Action 18/3. No action yet. This is the subject of a work item for 2008/9.

Problems Encountered

No problems.

Any Other Items of Note

Tests have been made to populate the NPUBS register of the IHO Feature Data Dictionary Registry. Comments were passed to the Registry manager. It is hoped that many more items, which have been reviewed by the SNPWG, will be loaded in the coming months.

Conclusions and Recommended Actions

CHRIS 19 is recommended to endorse the continued activity of SNPWG.

Justification and Impacts

The work is basically about defining a data dictionary to describe the information currently found in nautical publications. The beneficiaries of the work would primarily be mariners, authorities and companies who use digital navigation products but it would open up the data to much wider user by ports, geographic information systems and universities etc. The work is intended to enable nautical information to be available in electronic navigation systems and kept up to date electronically.

The benefits to mariners would be:

- Integrated nautical information would be available during the appraisal, planning, execution and monitoring stages of voyages; this includes but is not limited to regulations, restrictions, recommendations, cautions, communications, pilotage, navigational and environmental information, and descriptions to support situational awareness.
- The information would be available for calculation as well as for display.
- Search tools could be employed to find relevant data more quickly. Context sensitive data could be provided or the presence of supplementary information indicated.
- Systems could be designed so that the digital nautical information could interact with the route being planned or executed.
- Voyage monitoring could be supported.

Similar benefits would be available to other users so that the same information could be brought to bear to support the routine planning of maritime and commercial activities, emergency planning such as search and rescue, disaster relief, pollution control and defence.

The key driver for the work comes from the aspiration of customers to have up-to-date, assured, information without a large manual updating overhead. Shipping companies are keen to ensure that the operations of their vessels remain compliant and that they can demonstrate compliance to regulatory authorities. The implication of this is that data is provided in a digital form and updates can be applied reliably, conveniently and with an audit trail.

Nautical publications have in the past provided information for a wide spectrum of mariners and this would continue. However once available in a digital format it becomes a valuable resource for many other academic and commercial activities – multipurpose data.

While monitoring the development of S-100 by the TSMAD, SNPWG provides domain expertise to CHRIS for navigation, which is not available in TSMAD. Almost all members have maritime backgrounds and currently produce nautical products in paper, as first or second generation standalone digital products and or distribute them via the internet.

The principal impact on OEMs will be to harmonise nautical information at display, when necessary. Techniques and solutions required to portray Additional Military Layers (AMLs) may also apply to those required to integrate nautical information with digital chart information. It will not always be necessary to display all nautical data at the same time as displaying chart data; for instance climatic or near real time current data could be integrated with the world vector shoreline; it could also be used to provide improved estimated times of arrival but without displaying it. Some information could be displayed; some may not; some may be displayed or used in calculation or monitoring if requested. The implication of this is that it should be very easy to search for information, to it for display, and then to turn it off again.

It will be for HOs and others to produce the data. Information providers and OEMs could provide innovative services to meet the demands of the market.

Action Required of CHRIS

CHRIS is invited to note this report and endorse the continuance of the Work Plan at the current tempo.

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Task	Work Item	Priority H-high M-medium L-low	Start Date	End Date	Status P-planned O-ongoing C-Completed	Contact Person	Affected Pubs /Standard	Remarks
A1	Decide on the Data Structure of NPs-Data intended for use in ECDIS (NP3)	H	2003	2004	C	Chair/Sec SNPWG		NP3 Data should be encoded as S-57-objects which were modeled in UML where required.
A2	Look at existing systems on the market	H	2003	2004	C	Chair/Sec SNPWG		
A3	Evaluate the pros and cons	H	2003	2004	C	Chair/Sec SNPWG		
B1	Examine the content of traditional NPs	M	2004	2006	C	Chair/Sec SNPWG		Which NPs and NP data type should be included in NP3
B2	Model the data where required.	H	2004	2008	O	Chair/Sec SNPWG	S-100	To be included in NPUBS register
B3	Review of objects and attributes	H	2004	2008	O	Chair/Sec SNPWG	S-100	Review of objects and attributes
B4	Propose amendments for Hydro register to TSMAD	H	2005	2008	O	Chair/Sec SNPWG	S-100	To be included in S-100 registry
B5	Create the NPUBS Register	H	2006	2007	O	Chair/Sec SNPWG	S-100	
B6	Populate the NPUBS Register	H	2006	Open	O	Chair/Sec SNPWG	S-100	

B7	Draft Product Specification	H	2008	2009	P	Chair/Sec SNPWG	S-10X	
C1	Produce test data set	H	2008	2009	P	Chair/Sec SNPWG		
C2	Set up a test bed ECDIS	M	2009	2009	P	Chair/Sec SNPWG		
D1	Develop basic display rules for NP data intended for use in ECDIS (NP3)	M	2008	2009	P	Chair/Sec SNPWG	S52	Close Co-operation with CSMWG required
E1	Data Capture Guidance	H	2008	2009	P	Chair/Sec SNPWG		Document for NPs similar to Use of the Object Catalog
F1	Revise technical resolutions	L	2010	2011	P	Chair/Sec SNPWG	M3	
G1	Liaise with the CSMWG for the development of the display rules	H	2005	Open	O	Chair/Sec SNPWG		
G2	Liaise with the TSMADWG	H	2004	Open	O	Chair/Sec SNPWG		
G3	Liaise with other groups	H	2004	Open	O	Chair/Sec SNPWG		Tides, MIO's, AML, ICE, Inland ECDIS