

## IHO Standardization of Nautical Publications Working Group (SNPWG)



Chairman:  
David Acland  
[david.acland@ukho.gov.uk](mailto:david.acland@ukho.gov.uk)  
Telephone: +44 (0) 1823-337900 x 3423  
Fax: +44 (0) 1823-284077

Deputy-Chairman:  
John Nyberg  
[john.nyberg@noaa.gov](mailto:john.nyberg@noaa.gov)  
Telephone: +1 301 713 2729 x 162  
Fax: +1 301 713 9312

Secretary:  
Pelle Aagaard  
[petar@kms.dk](mailto:petar@kms.dk)  
Telephone: +45 72 54 50 97  
Fax: +45 35 87 50 51

19 June 2009

### FINAL MINUTES

#### 10<sup>th</sup> Standardization of Nautical Publications Working Group (SNPWG) Meeting 23 - 27 February 2009 – Norfolk, Virginia, USA

**Chairman:** Mr. David Acland (UKHO)  
**Deputy-Chairman:** Mr. John Nyberg (NOAA)  
**Secretary:** Pelle Aagaard (KMS)

Annex A: Agenda  
Annex B: List of Attendees  
Annex C: SNPWG Work Plan

#### Item

### 1. Opening and administrative arrangements

#### 1.1 Opening address on behalf of NOAA

**John Nyberg, NOAA,** welcomed the working group to the meeting and to the United States.

## **1.2 Administrative Arrangements**

**Thomas Loeper, NOAA**, briefed the group on practical matters of the meeting, among these the excursion to the NOAA survey facility Thursday.

## **1.3 Introduction round**

Each member of the working group made a short presentation of their organization and professional background.

## **1.4 Chairman's Opening Remarks**

**David Acland** welcomed returning and new members. The new member state Norway, represented by Mr. Olav Haugen, attends the working group for the first time, as do a number of new representatives from other member states. David Acland emphasized that each representative is an expert in his own field. For the benefit of the national offices, but more specifically for the mariners, he urged that all this expertise be put to good use in the working group.

## **2. Approval of Agenda**

The schedule for the week was slightly revised and the agenda was approved with a few minor alterations.

## **3. Minutes of SNPWG 9**

Minutes of SNPWG 9 were approved.

### **3.1 Corrections**

No corrections to the SNPWG 9 Minutes were made.

### **3.2 Review of Action Items from SNPWG 9**

#### **Action Acland, Schröder-Fürstenberg, and Nyberg**

Work on an alternate proposal for (catnti) and the dilemma it causes.

**Action Item deleted.**

#### **Action Acland**

Present new attribute period between dredging (prddrg) to TSMAD.

**Completed.**

### **Action Americas WG**

- Recommend to TSMAD adding tundra, taiga/boreal, deciduous forest, desert, desert-scrub, rainforest, alpine and chaparral to Category of Land Region.
- Review the definitions for the Category of Land Region and show the results at a later date.
- Add Med Pine to the Category of Vegetation.

**Still ongoing.**

### **Action Parslow**

Recommend to TSMAD remove (calsgn) and (comcha) from the category of Radio Station Object RDOSTA.

**Completed.**

### **Action Parslow**

Construct a new information object named Radio communication.

**Action Item deleted.**

### **Action Tennant**

Put together and submit a report concerning the criteria for submitting entries to the register.

**Completed.**

### **Action SNPWG**

All members need to review the findings of the BSH and Jeppesen Marine pilot study and XML model available on the IHO website and send comments to Jens at BSH by the end of May 2008.

**Completed.**

### **Action Acland**

Improve definition of Information Object (restvc).

**Completed.**

### **Action Acland**

Work on problem children (ntiare), (gennti) and (catnti).

**Action Item deleted.**

### **Action Tennant**

Report to Barry Greenslade and request a row be added to include Associated Information Objects.

**Completed.** *Not going to happen. Eivind informed that it had been discussed at the last TSMAD meeting. S-100 does not support this.*

### **Action Parslow**

Investigate the use of fixed objects with changing geometries.

**Completed.**

**Action Tennant**

Work with NOAA on the list for Distance Tables within the M3.

**Completed.**

**Action Acland**

Report the outcome of the work on the list for Distance Tables within the M3 to IHB.

**Completed.**

**Action Acland**

Speak to Chairman TSMAD to try to arrange back-to-back meetings.

**Completed.** *Not going to happen. According to Tony Pharaoh the TSMAD meeting is scheduled for October 2009.*

**3.3 Work Plan for the SNPWG**

The SNPWG work plan was discussed. David Acland pointed out that several product specifications may be needed - we must perhaps attempt to move away from the 'block' S-57.

During the discussion a number of items were touched on:

*B2 Model the data where required:* this task will always be open due to the flexibility of the S-100 (alterations can be readily made).

*B6 Populate the NPUBS Register:* a lot of work must be put into this.

*C1 Produce sample data sets:* this task was made the subject for break out discussion groups. Craig Winn raised the point of requirements concerning the Geographic Object Class (mpaare), Marine Protected Area.

Developing from the SNPWG 9 work groups David Acland suggested three break out groups form to discuss:

<b>Product Specification</b>	<b>Test Data Sets</b>	<b>Marine Protected Area</b>
Eivind Mong (Chair)	Thomas Loeper (Chair)	David Acland (Chair)
Christopher Janus	Olav Haugen	Jens Schröder-Fürstenberg
Tony Pharaoh	John Parrott	Craig Winn
Ernest Sebright	Teruo Kanazawa	Arwen Edsall
Pelle Aagaard	John Smart	John Nyberg
Michael Kushla	Holly Johnson	Michael Bergmann
Alain Rouault	Ricardo Freire	

*Feedback from the break out discussion groups, see 14.2.*

Craig Winn proposed a three-way meeting between the TSMAD, the DIPWG and the SNPWG. Tony Pharaoh and David Acland concluded that now may not be the appropriate time.

#### **Action Item Acland**

Arrange meeting with the TSMAD and the DIPWG in 2010.

The group also considered the issues of the gradual introduction of mandatory ECDIS between 2012 and around 2020 and the implications this will have on the standards we set for presenting nautical information on these systems. Virtual AIS-buoyage was loosely debated.

## **4. Chairman's Report from CHRIS 20 and ENC/ECDIS Seminar**

David Acland reported on his address on the impact for the national hydrographic offices at the CHRIS 20 and ENC/ECDIS Seminar in November 2008 in Niterói, Brazil.

### **4.1 Work Plan for the SNPWG**

Item 4.1 was covered in 3.3.

### **4.2 Demise of CHRIS and stand up of Hydrographic Services and Standards Committee**

The Chairman informed the group that the CHRIS (Committee on Hydrographic Requirements for Information Systems) is now officially replaced by the HSSC (Hydrographic Services and Standards Committee). He noted that we must present them with our work in Singapore in October.

Equally, the CSMWG (Colours and Symbols Maintenance Working Group) changed to DIPWG (Digital Information Portrayal), and David Acland put forward that digital information includes nautical publications.

### **4.3 Revised Terms of Reference for SNPWG**

The IHB is looking to adopt SNPWGs revised ToR.

### **4.4 Review of M3 - Technical Resolutions**

M3 review - 2/3 must agree to the amendments. Comments from national members are included in the circular letter.

## **5. S-100 Update**

Tony Pharaoh briefed the group on the S-100 update. A draft version was put out for review in February, though not to all member states. At the TSMAD meeting in Seattle in September some 300 comments were made, mostly on the technical content. A technical writer will by end May go through the document to improve language and harmonize. The portrayal section is missing; revisions must be made in the near future.

Craig Winn pointed out that it is crucial that member states respond because 2/3 of all member states must vote and say "Yes" to achieve agreement.

## **6. SNPWG Feature Data Dictionary**

David Acland gave a short introduction on how we got to where we are now, beginning with the modelling of all the information in the nautical publications and putting together a scope document.

### ***6.1 Presentation of the SNPWG Wikipedia***

David Acland then presented Jens Schröder-Fürstenberg's SNPWG FDD discussion tool using Wikipedia, [http://www.fuerstenberg.dhg.de/mediawiki/index.php/Main\\_Page](http://www.fuerstenberg.dhg.de/mediawiki/index.php/Main_Page), and explained how Information Objects equal S-100 Information Type. He stressed that the wiki is open for discussion for all.

Jens Schröder-Fürstenberg then gave a tutorial on the wiki after which it was discussed whether the wiki-solution was adequate, or whether it should perhaps be placed on another server.

Based on a theoretical discussion on product specifications Eivind presented the S-100 schema.

David Acland proposed that items from SNPWG 9 will be approved by the end of March unless members raise objections. The working group consented and agreed on 30 days for comments after which the FDD-group look over comments. Any amendments made will then add another 30 days before final approval.

## **7. State of the NPUBS Register in the IHO Geospatial Information Register**

David Acland provided a short introduction to the IHO Hydrographic Registry and the S-100 supporting Geospatial Information Infrastructure (GII). The sub-working group Chairman reported on progress. The SNPWG Wiki is now very nearly complete and contains the structure and detail that needs to be loaded into the NPUBS register of the IHO Feature Concept Dictionary.

## **8. NPUBS Product Specification Guidance**

The Sub-group Chairman gave a brief report of progress. Work continued in a second period of break out groups. See 14.2 below.

## **9. NPUBS Display or Portrayal**

The sub-group chairman reported that little progress has been made. However it was likely that portrayal of NPUBS information would be in many forms including text, diagrams, tables, graphs, pie charts, histograms. It was impossible to imagine that all data will be portrayed in cartographic with simple icons to indicate the position of information. It is to be expected that NPUBS data would be provided for use in calculation by computers including ECDIS. It was noted that, as TSMAD have left portrayal in S-100 until later, it was too soon to discuss portrayal of NPUBS information in detail. The subject would have to be developed in coordination with the DIPWG and OEMs when product specifications and test data is available.

## **10. Test Beds - Liaison with OEMs**

Item 10 was covered by the break out discussion groups.

## **11. Engagement with Universities and Training Establishments**

### ***11.1 Presentation by Interschalt - System Training and simulation***

Michael Neumann, Instructor at Maritime Training on ECDIS at Interschalt Maritime Systems AG, gave his presentation on System training and simulation. This can be found at the SNPWG10 page on the IHO website. Michael Neumann had no specific ideas on how to implement data from nautical publications into ECDIS, but he stressed that nautical publications are used in the training in operating the ECDIS-systems.

Jens Schröder-Fürstenberg informed the working group that Interschalt has kindly offered to make use of their training facilities in Germany to try out some of SNPWGs ideas.

### ***11.2 Presentation by UNH - GeoCoastPilot***

Kurt Schwehr, University of New Hampshire, gave his presentation of the work on the GeoCoastPilot. This can be found at the SNPWG10 page on the IHO website. Coast Pilots are widely used by large and small vessels alike, but there is a need for more visually aided products with a higher updating rate. The NOAA Coast Pilot for example is a supplement to the charts containing static info. The GeoCoastPilot project has experimented with transforming printed text to an interactive 3D environment, the enabling technology being XML.

## **12. Visit to NOAA Survey facility**

John Nyberg and Tom Loeper very kindly arranged for Bay Hydrographer II to call at Nauticus so the SNPWG could visit. Bay Hydrographer II is a very recent addition to the NOAA survey fleet and is based in Norfolk. She will be tasked with local surveys, testing new survey equipment and representational duties in Chesapeake Bay area.

## **13. Recent IMO papers**

### ***13.1 E-Navigation - NAV 54 Items 13 and 25***

Item 13.1 was covered in 3.3.

### ***13.2 Improving the provision and quality of nautical port information - FAL 35 Item 16***

David Acland briefly mentioned the IHMA (International Harbour Master's Association) initiative being lead by Port of Rotterdam to improve the provision of port nautical information.

Parallels to the BLAST project were outlined by John Parrott. BLAST, Bringing Land and Sea Together, is a North Sea Interreg IV B project.

## **14. Work Plan for the SNPWG**

### ***14.1 SNPWG Recap***

Jens Schröder-Fürstenberg agreed to do a short run through of the history of the SNPWG for the benefit of (especially) newer members of the working group. As a response Tony Pharaoh emphasized the need for a more close-knit cooperation with the TSMAD. Tony is putting together a paper to put to the TSMAD in May.

#### **Action Item SNPWG**

Members will need to revise the paper in April.

### ***14.2 Feedback from break out discussion groups***

#### Product Specification Group

Eivind Mong presented the group's work on the trial version of the product specification of Pilot Service.

In the ensuing discussion on how best to work cooperatively, Michael Bergmann said he had made a fairly recent study of possible candidates. In summary Michael felt that Google Groups was the preferred option and agreed to share his study with SNPWG. This can be found at the SNPWG10 page on the IHO website.



## Test Data Sets Group

Thomas Loeper presented the work of the group:

### Method of research

Approach from a Waypoint to an 'easy' port, e.g. Key West, by 6 steps:

1. Select Waypoint from which to plan
2. Markup the text
3. Load it into an ECDIS or ECS
4. Force a modification by means of a NtM
5. Transmit/transfer the file
6. Reload it into the ECDIS or ECS

Tidal information - predictions and real time - were also discussed.

## Marine Protected Area Details

The group completed the work to integrate the NOAA initiative into the SNPWG data model. Draft details inserted into the SNPWG Wiki were agreed, and the Wiki amended.

### Break out group summary.

David Acland summed up the substantive work done during the week using a PowerPoint presentation Vision from SNPWG10. This can be found at the SNPWG10 page on the IHO website.

This prepares the ground for work groups to build sample product specifications. These sample items are intended to give the SNPWG Members working experience of the next steps. Product specifications will contain a feature catalogue and an application schema.

Once these product specifications have been developed, consideration can then be given to creating sample test data sets. Key West was chosen as a suitable area because it fits the general criteria of a medium sized port; it has at least one pilot boarding place; there are waterways leading to and from the pilot boarding place; and it is surrounded by a Marine Protected Area. Test data sets will need to use the NPUBS register; priority will therefore be placed on loading the NPUBS register with the features and attributes used in these samples. With these samples, the SNPWG can explore the creation of product specifications and data sets associated with point, line and area features.

### Work Item Leads:

#### Product Specifications

- Pilotage Eivind Mong / Ernest Sebright
- Waterway Jens Schröder-Fürstenberg / Olav Haugen
- Marine Protected Area Craig Winn / David Acland

#### Test Data Sets

- Pilotage David Acland / Alain Rouault
- Waterway Thomas Loeper / Christopher Janus
- Marine Protected Area Craig Winn / Arwen Edsall

## **15. Any Other Business**

Deputy-Chairman John Nyberg has announced that he will be leaving the working group. He has moved on to a more central role within the NOAA, and no longer feels he can provide the effort and attention the SNPWG Deputy-Chair deserves.

John Nyberg thanked Tony Pharaoh and the IHB, David Acland, Pelle Aagaard and all the members of the SNPWG. He then proposed Jens Schröder-Fürstenberg to be his successor.

The Chairman expressed his understanding for John Nyberg's decision and thanked him for his great effort in the working group over the years.

David Acland seconded the nomination of Jens Schröder-Fürstenberg and with the unanimous approval of the working group he was voted new Deputy-Chairman of the SNPWG.

## **16. Date and place of next meeting**

SNPWG 11 will be held 7-11 September 2009 at IHB in Monaco.

Mr. Teruo Kanazawa, JHA, has informed the Chairman that JHOD has graciously offered to host the SNPWG 12 meeting in Tokyo in June or July 2010.

## **17. Meeting Closure**

The Chairman was very pleased with the SNPWG 10 and the prospects for the future of our work. He thanked NOAA for their hospitality; Nautilus for their brilliant facility; Penny Levine-Knepper for her kindness and cakes; and Thomas Loeper for a well planned meeting throughout the week. He wished everyone a safe trip home.

**ANNEX A TO SNPWG 10 MINUTES**

**10<sup>th</sup> Meeting of the Standardisation of Nautical Publications Working Group (SNPWG)  
23– 27 February 2009, NOAA, Norfolk, Virginia**

**AGENDA DRAFT 3**

<b>No.</b>	<b>Agenda Item</b>	<b>Related Documents</b>
1.	Opening and Administrative Arrangements	
2.	Approval of Agenda	SNPWG10-001
3.	Minutes of SNPWG 9	SNPWG10-003
3.1	Corrections	
3.2	Review of Action Items from SNPWG 9	
3.3	Work Plan for the SNPWG	
4.	Chairman's Report from CHRIS 20 and ENC/ECDIS Seminar	SNPWG10-004
4.1.	Work Plan for the SNPWG	
4.2	Demise of CHRIS and stand up of Hydrographic Services and Standards Committee	
4.3	Revised Terms of reference for SNPWG	
4.4	Review of M3 – Technical Resolutions	
5.	S-100 update	
6.	SNPWG Feature Data Dictionary	
7.	State of the NavPubs Register in the IHO Geospatial Information Register	
8.	NavPubs Product Specification Guidance	
9.	NavPubs Display or Portrayal - Annex A: SNPWG TOR - Annex B: DIPWG TOR	SNPWG10-009 SNPWG10-009A SNPWG10-009B
10.	Test beds - Liaison with OEMs	
11.	Engagement with Universities and Training Establishments	
11.1	Presentation by Interschalt - System Training and simulation	
11.2	Presentation by UNH - GeoCoastPilot	
12.	Visit to NOAA Survey facility	
13.	Recent IMO papers	
13.1	E-Navigation - NAV 54 Items 13 and 25	SNPWG10-013.1
13.2	Improving the provision and quality of nautical port information - FAL 35 Item 16	SNPWG10-013.2
14.	Work Plan for the SNPWG	
15.	Any Other Business	
16.	Date and place of next meeting	

## ANNEX B TO SNPWG 10 MINUTES

**10<sup>th</sup> Meeting of the Standardisation of Nautical Publications Working Group (SNPWG)  
23 – 27 February 2009, NOAA, Norfolk, Virginia, USA**

### LIST OF ATTENDEES

Country	Organization	Name	Email
Brazil	DHN	Ricardo Ramos FREIRE	<a href="mailto:freire@chm.mar.mil.br">freire@chm.mar.mil.br</a>
Denmark	KMS	Pelle AAGAARD	<a href="mailto:petar@kms.dk">petar@kms.dk</a>
France	SHOM	Alain ROUAULT	<a href="mailto:alain.rouault@shom.fr">alain.rouault@shom.fr</a>
Germany	BSH	Jens SCHRÖDER-FÜRSTENBERG	<a href="mailto:jens.schroeder-fuerstenberg@bsh.de">jens.schroeder-fuerstenberg@bsh.de</a>
Japan	JHA	Teruo KANAZAWA	<a href="mailto:kanazawa@jha.jp">kanazawa@jha.jp</a>
Norway	STATKART	Olav HAUGEN	<a href="mailto:olav.haugen@statkart.no">olav.haugen@statkart.no</a>
UK	UKHO	David ACLAND	<a href="mailto:david.acland@ukho.gov.uk">david.acland@ukho.gov.uk</a>
UK	UKHO	Ernest SEBRIGHT	<a href="mailto:ernest.sebright@ukho.gov.uk">ernest.sebright@ukho.gov.uk</a>
USA	NOAA	John NYBERG	<a href="mailto:john.nyberg@noaa.gov">john.nyberg@noaa.gov</a>
USA	NOAA	Thomas LOEPER	<a href="mailto:thomas.loeper@noaa.gov">thomas.loeper@noaa.gov</a>
USA	NOAA	Craig WINN	<a href="mailto:craig.winn@noaa.gov">craig.winn@noaa.gov</a>
USA	NOAA	Holly JOHNSON	<a href="mailto:holly.johnson@noaa.gov">holly.johnson@noaa.gov</a>
USA	NOAA	Arwen EDSALL	<a href="mailto:arwen.edsall@noaa.gov">arwen.edsall@noaa.gov</a>
USA	NGA	Christopher JANUS	<a href="mailto:christopher.g.janus1@nga.mil">christopher.g.janus1@nga.mil</a>
USA	NGA	Michael KUSHLA	<a href="mailto:michael.s.kushla@nga.mil">michael.s.kushla@nga.mil</a>
	IHB	Tony PHARAOH	<a href="mailto:pad@ihb.mc">pad@ihb.mc</a>
<b>Technical Experts</b>			
	Caris	John SMART	<a href="mailto:john.smart@caris.com">john.smart@caris.com</a>
	Jeppesen	Michael BERGMANN	<a href="mailto:michael.bergmann@jeppesen.com">michael.bergmann@jeppesen.com</a>
	Jeppesen	Eivind Eik MONG	<a href="mailto:eivind.mong@jeppesen.com">eivind.mong@jeppesen.com</a>
	Jeppesen	John PARROTT	<a href="mailto:john.parrott@jeppesen.com">john.parrott@jeppesen.com</a>
	Interschalt	Michael NEUMANN	<a href="mailto:michael.neumann@interschalt.de">michael.neumann@interschalt.de</a>
	UNH	Kurt Schwehr	<a href="mailto:kurt@ccom.unh.edu">kurt@ccom.unh.edu</a>

## ANNEX C TO SNPWG 10 MINUTES

### SNPWG Proposed Work Plan

#### SNPWG Tasks

- A. Decide on the Data Structure of NPs-Data intended for use in ECDIS (NP3)
- B. Define the content requirements of NP data intended for use in ECDIS (NP3)
- C. Test data
- D. Develop basic display rules for NP data intended for use in ECDIS (NP3)
- E. Draft guidance documents
- F. Revise technical resolutions as required
- G. Liaise with other HSSC WG's and other IHO and international bodies

#### SNPWG Workplan

Task	Work Item	Priority H-high M-medium L-low	Start Date	End Date	Status P-Planned O-Ongoing C-Completed	Contact Person	Affect ed Pubs /Standard	Remarks
B2	Model the data where required.	H	2004	Open	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	
B4	Propose amendments for	H	2005	Open	O	Chair/Sec	S-100	To be included in S-100

	Hydro register to TSMAD					SNPWG		registry
B6	Populate the NPUBS Register	H	2006	Open	O	Chair/Sec SNPWG	S-100	
C1	Produce test data set	H	2009	2010	P	Chair/Sec SNPWG		
C2	Set up a test bed ECDIS	M	2009	2010	P	Chair/Sec SNPWG		
D1	Develop basic display rules for NP data intended for use in ECDIS (NP3)	M	2008	2010	O	Chair/Sec SNPWG	S-52	Close co-operation with DIPWG required
E1	Data Capture Guidance	H	2008	Open	O	Chair/Sec SNPWG		Document for NPs similar to Use of the Object Catalog
E2	Draft Product Specification Guidance and Sample	H	2008	2009	O	Chair/Sec SNPWG	S-10X	
F1	Revise technical resolutions	H	2007	2008	C	Chair/Sec SNPWG	M3	
G1	Liaise with the DIPWG for the development of the display rules	H	2005	Open	O	Chair/Sec SNPWG		
G2	Liaise with the TSMAD	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