IHO Standardization of Nautical Publications Working Group (SNPWG)

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FINAL MINUTES

Standardization of Nautical Publications Working Group (SNPWG) Meeting
3 - 7 September 2007– IHB, Monaco

Chairman: Mr. David Acland (UKHO)
Former Chairman: Mr. Johannes Melles (BSH)
Deputy-Chairman: Mr. John Nyberg (NOAA)
Secretary: Steven Offenback (NGA)

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

1   Opening and Administrative Arrangements – Tony discussed the administrative arrangements to the group.

1.1   Introduction and welcome – Welcome by Robert Ward, the new Director of Technical Programs at the IHB.   As original chair of SNPWG he has watched its progress. He asked us to take stock in what we are doing, who our beneficiaries are.   Mr. Ward explained that CHIRS is a bit unsure of exactly what we are doing and how the work will be employed.   They would like to know if the work is primarily being done to help hydrographic offices manage the data or to build a complete ECDIS. On the development side we need to make sure that what we are doing is compatible with S-100. For the mariner, it is important to engage the ECDIS and manufacturing community so they will be prepared to use the data. They have had a number of difficulties with ENC and getting manufacturers to take on enhancements. During the meeting, please take stock so the new chairman can explain the group's direction to CHRIS.

Melles - The chairman discussed how the group should proceed with its work, working with industry, how the objects and attributes should be used, and product specifications. We need to define specifications for ECDIS (maybe and ENP) and how it will be used in conjunction with the ENC. This may include stand alone products, print for example. This is a difficult task because it must look at how this will be presented to the mariner. Should it be graphical or text? We will need support from Colors and Symbols.

Mr. Ward re-emphasized the importance of having industry involved because he did not want to, in the end, have a well-done construct that nobody uses. He also suggested that we consider our relationship with the new HSSC (CHRIS replacement) and Colors and Symbols. Marine Information Overlays are having similar issues, but they are not mandatory carriage requirements (SOLAS).

2. Approval of Agenda – The agenda was approved with the addition of an item to work on the CHRIS report as a justification / team charter for the SNPWG.

3. Matters Arising

The chairman chose to review the minutes from the last meeting in order to discuss action items.

Action items:
3.1 - Action Items from SNPWG 6

Action Melles/Parslow - **Make request to TSMAD for a Boolean attribute type.**
This did not happen yet because it is too early to discuss these details in TSMAD. Keep as an action item.

Action WESWG - **Provide the definition for AIS used as an aid to navigation.**
Completed and will be presented.

Action Parslow - **Will present the SNPWG's approach for Restriction to TSMAD.**
The action is complete

Action WESWG - **Write definition for reason.**
Reason was deleted

Action Pharoh - **Add IMB to IHO producer authority codes.**
Tony will have the IMB added to the code list. Tony will check to see if we need more information about the IMB.

Action Group - **Look at the list of attributes under catreg to see what needs to be added. New proposals (with definitions) should be sent to Mr. Acland.**
David did not receive proposals so nothing has to be added.

Action WESWG - **Provide a better indication definition under transportation infrastructure.**
This was completed. This will be reviewed later in this meeting.

Action WESWG - **Provide a better indication definition for litnum.**
This was completed. This will be reviewed later in this meeting.

Action SNPWG - The catnti structure list needs to be reviewed by the SNPWG and discussed at the next meeting.
Jens and John will present their findings on the subject.

Action ASWG - Venezuela and Argentina will work with the ASWG to make a proposal to symbolize a disputed area, ex. Venezuela's claim with Guyana. The results will be presented at the next SNPWG meeting.
We discussed this briefly and no report was received. The SNPWG will take no further action.

Action Tennant: Discuss the Register Manager position with UKHO.
Mr. Tennant will take the position.

Action UKHO - Will check into the possibility of their people populating the register. For the new submissions we need to get the register populated in an expeditious manor.
This item was completed. They had a trial with the existing registry and found that it is not a suitable way to import data into the registry. We need to use a bulk load technique.

Action Melles - Mr. Melles will contact Barrie Greenslade concerning the availability of the register.
The action was complete. The registry was officially launched and is now available to the working groups who wish to start a register. We must complete the requirements stated S-100 FDD component document.

Action Nyberg - Mr. Nyberg will enter SNPWG proposals into the hydro register.
This action will be on-going.

Action Pharoh - Mr. Pharoh will request information from Steve Shippman regarding the status of E-nav.
Tony received the information from Mr. Shippman and sent the report out in an email. Tony will ask Mr. Shippman to come to the meeting. The group should read the report beforehand.

4. National Reports

Denmark - Denmark continues an extensive effort to modernize and re-rewrite their Greenland publications and charts.

Germany - The first volume of SDs published with a CD Rom has been published. They have started discussions with Jeppesen to publish a test dataset.

Spain - Spain has continued their regular publication cycle with 1 of 5 sailing directions published yearly.

UKHO - No changes.

France - Underwent a big organizational change and is now under Interdepartmental governorship under Department of Defense supervision.

USA (NOAA) - Skip Stembel has been replaced by Thomas Loeper. NOAA is continuing its work to modernize the Coast Pilot production system.

USA (NGA) - Moving to an all digital product with regular publication patches which can be received by email.

5. **Report - Americas SNPWG-SubWG –** They have continued with their work, and have received frequent help from both Jens and David. They will discuss their findings later in the meeting.

6. **Report - Western European SNPWG-SubWG –** They have had one three day meeting to address their items on the agenda. They developed new definitions and spent time entering new objects and attributes into the registry. They discovered some problems but had them fixed. They think that bulk loading the data might be a possibility by using Excel. They made suggestions for the Americas working group.

7. **Report - Northern European SNPWG-SubWG -** They did not have a meeting because they are nearly finished with their submission. They did some work on the address object and helped the Americas working group with their submission.

8. **Topics for Discussion**

    8.1 - Contact Details - The group decided that contact details (address, telex, etc) should be an information object. It was agreed that the attributes would remain split up, not a string.

The attributes were then discussed.

Zipcod was changed to *poscod*.

Delivery point (*delpnt*) was discussed and the definition was edited to read, "Details of where post can be delivered such as the apartment, name and/or number of a street, building or PO Box." To replace adadin.

Contry definition was changed, state was removed.

The SNPWG agreed that contact details is complete.

    8.2 - Coding of Phone Numbers - Christian (SHOM) gave a presentation on telecommunications standardization from the ITU. Appendix

The group agreed to use the international notation that Christian presented. Brackets will not be used.

8.3 - General Nautical Information Area (*catnti*) – Jens gave a presentation on catnti to explain its dilemma with duplicating data. The group had an in-depth discussion about the pros and cons of catnti, and David presented the positive side of including catnti in the attribute list.

ACTION David, Jens, and John will work on an alternate proposal for the meeting in Brest.

8.4 - Language Issues
A demonstration, using UML, on how multiple languages will be handled in an ECDIS was given by Peter. He explained that the default language will be English attached to an information object and other information objects, such as a National Object, will be attached to the main Information Object.

9. Discussion and review of the results of the Americas SubWG

9.1 - Preparation of pages for "Geo-Object Classes"
Clearance formalities (*clrnce*), Jens recommended that we delete Clearance documents (*cledoc*) attribute due to the fact that the list could be endless. Quantity documents are directly related to the number of clearance documents so it was agreed by the group that it should be deleted. It was then discussed that Clearance formalities itself should be deleted over all because it is covered in other object classes.

Jens recommended that Narrow Passages should be deleted and the attributes split up and added to other geo-object classes, such as Bridges. It was also recommended that dam should be removed from the Narrow passage object. The group agreed on the changes.

The definition to Gate was redefined to be more specific.

9.2 - Preparation of pages for "Information-Object Classes"
Notice (*notice*) was discussed by David whether or not it's needed. After a group discussion it was decided that Notice should be deleted as an Information-Object Class and replaced by the attribute Notice Time (*ntctim*) (see Feature-Object Attributes for further changes)

Category of Authority (*cataut*) and Text (*frmtxt*) attribute was added to Recommendations, Regulations and Restrictions Information-Object Classes.

Text (*frmtxt*) was added to Recommendations, Regulations and Restrictions Information-Object Classes.

9.3 - Preparation of pages for "Feature Object Attributes"
Holding Quality (*holqua*), Jens recommended an improvement to the attribute definitions. Mal, along with the group, added "*Average quality of* and *in reasonable conditions*" to the definition to attribute **Moderate** and enhanced the definition for the attribute **Poor.** The group agreed on the new definitions.

 It was decided by the group that *Grade of Slope* was not needed due to no set values for the attributes given.

 For attribute *category of slope* (catslo), it was recommended that mountain, escarpment, terrace be added to the definition, while cuesta and ridge were removed. The group agreed on the changes and the recommendations will be presented to TSMAD.

ACTION Parslow - Present new attribute category of slope (*catslo*) to TSMAD

For the attribute period between dredging, it was discussed whether the dredging operations are scheduled or do they occur on an as needed basis. It was decided and approved by the group with the word *scheduled* added to the definition.

By a recommendation from Peter, the definition for the attribute project depth (prjdep) was altered. Originally, the definition was defining federal project depth, the term and definition was moved to the Remarks section and the project depth definition was re-worded. The group agreed on the new attribute and changes. Recommendations will be presented to TSMAD.

ACTION Parslow - Present new attribute period between dredging to TSMAD.

By a recommendation of Peter's the name of attribute *siltation* was change to *siltation rate* (siltat) and the definition was reworded. The group agreed on the changes and it was approved.

A long discussion lead by Peter, Jens and John on whether or not having Categories such as Category of Mountain and Glacial Landforms (*catmgl*) would be useful or is it just a more detailed duplication of information already provided in Land Regions? Should Land Regions be updated? It was decided that it would be more beneficial to have these detailed attributes and Land Regions will be changed. It was also recommended by the group that dirt cone, kame, kame delta kettle, and glacier were to be removed from the definitions list and minor edits were made to other definitions. After making the edits to the category, the group decided not to approve the category and will return to the topic later this week.

It was a consensus that the attribute Purpose (*purpos*) needed to be more specific with the name, the recommendation by Peter was to rename it Purpose of Mooring Facility (*purmor*) and a definition needed to be created.
- SPM was removed from loading.
- Storm was added to the definitions list while discharge, commercial, small craft and visitor was removed from the list.

ACTION ITEMS - *CSPC needs to be contacted with the recommendation that buoy IMB definition needs improvement. It needs to be reported to TSMAD that deviation dolphin in *catmor* needs to be removed.

The definition to weather risk was re-worded to increase flexibility then approved by the group.

It was decided after a group discussion that categories such as Categories of Coastal Landforms would be better suited if they were deleted and many of their definitions added to Category of Land Region.

Categories of Coastal Landform edits
- Beach was removed
- Coast was removed
- Dune was changed to dunes and the definition was reworded
- Estuary was removed
- Cape was removed because Headland has a similar meaning.
- Fresh-water marsh was added
- Spit definition was altered

- Tombolo was removed
- Fjord was removed

Category of Mountains and Glaciers
- Outwash was removed
- Pingo was removed, but will remain in Land Areas

Category of Volcanic Landforms
- Ocean ridge was removed
- Oceanic trench was removed
- Caldera was removed and recommended to be added to Category of Sea Area
- Cinder cone was removed
- Definition of lava plain and lava dome was reworded
- Definition of vent was reworded
- Butte was changed to plateau and the definition was reworded

Category of Fluvial Landforms
- Basin was removed
- Beach was removed
- Levee's definition was reworded
- Oxbow lake was removed (covered by lake)
- Spring was removed
- Stream's definition was expanded but then decided to be removed and will be used in the new *catriv*
- Creek was removed (will be used in the new *catriv*)
- Steam terrace was removed
- Swamp was redefined with greater detail
- Definition to delta was reworded

ACTION ITEMS -
- Recommend to TSMAD Fjord, Estuary, Bar, and Caldera be added to Category of Sea Area.
- A new category referring to river named Category of River (*catriv*) which will include stream, creek and other inland water bodies, needs to be created.

Notice Time (*ntctim*) attribute was added in place of Notice (*notice*) where all Notice Information-Objects appeared.

ACTION ITEMS - UML diagram for Service Hours has to be changed and Notice (*notice*) Information-Object will be replaced by attribute Notice Time (*ntctim*).

Category of regulations attribute was removed.

Category of Authority
- Added environmental and defined it.
- Added fishery and defined it.
- The definition of military was given more detail.
- The definition of maritime police was given more detail.

ACTION SNPWG - More work on the attributes is needed, all members need to find out more information about their country's various authorities and at a later time we will review Category of Authority again and make changes where needed.

After a discussion led by Peter & Jens and approved by the group, a new attribute was created and defined which allows the user to use a formatted text string called just Text (*frmtxt*) this new attribute can be use at any location where we want to have formatted text.

Text (*frmtxt*) was added to Recommendations, Regulations and Restrictions Information-Object Classes.

Category of Vegetation

- Tundra was redefined and moved to Category of Land Region.
- Taiga/boreal moved to Category of Land Region.
- Deciduous moved to Category of Land Region.
- Desert moved to Category of Land Region.
- Desert-scrub moved to Category of Land Region.
- Alpine moved to Category of Land Region.
- Chaparral moved to Category of Land Region.
- Deleted grassland but kept the definition and replaced it with the definition of grassland/savanna in the Category of Land Region.
- Add Med Pine and define it.

ACTION Americas WG -
- Recommend to TSMAD adding tundra, taiga/boreal, deciduous forest, desert, desert-scrub, rainforest, alpine and chaparral to Category of Land Region.
- John will review the definitions for the Category of Land Region and will show the results at a later date.
- John will add Med Pine to the Category of Vegetation.

9.4 – Remaining work from other SubWGs

Northern European Group:

Jens introduced a new object class named a GMDSS Area (*gmdssa*). He explained that this was needed due to there being multiple (4) GMDSS Sea Areas. Peter questioned whether or not this new object was needed or should be absorbed into the Service Area object, and after a group discussion, it was decide that the new object was necessary as a separate object. The group reviewed the definitions to the new attribute named Category of GMDSS Area (*catgmd*) in which some edits were made to the attribute definitions. Final edits were made and the group approved the new object and feature attribute class.

Jens introduced a new object class named SafetyNET.

Jens introduced a new object class named NAVTEX (*navtex*) and it was discussed whether or not this object class should be just a feature attribute of object class Service Area or was it unique enough, it was decided that it is.
Methods of receiving NAVTEX was next discussed.

ACTION The Northern European Group - The Northern European Group develop a method of distribution for NAV\MET area.

ACTION The Northern European Group - The Northern European Group will develop a new NAVAREA and METAREA Object class and define it.

Jens introduced a new object class named Weather forecast area (*wetfca*). A discussion was brought by Jens concerning the problem of overlapping forecast areas that refer to the same area utilizing different names. Peter and John searched the NOAA, WMO, and other websites and found information pertaining to WFA, but further research needs to be done.

A definition for *wetfca* was created.

A question was posed to the group to which no one had a definite answer. Are there Internationally recognized Weather forecast areas with official boundaries or are there only national weather forecast areas?

ACTION Svante - Svante will speak with a rep from the WMO about the boundaries of WFA.

ACTION The Northern European Group - The Northern European Group – needs to consider the inconsistencies of data.

Jens introduced new objects referring to radio transmission, but through his recommendation they were changed to expected inputs in the Category of radio station. Jen also showed a couple images demonstrating AIS and how it's represented in the ECDIS.

- (*mmsico*) was added to the Radio station
- Public communication was added
- VHF/MF/HF station was added
- Commercial radio stations and public service added
- AIS created as an independent feature object
- Telcon was added to Contact details

The attributes for telcon were added to the attributes of Information object Contact Detail Telecommunication info object was deleted from the list

Calsgn was deleted from object class Radio station.

ACTION Parslow - Recommend to TSMAD remove *calsgn* and *comcha* from the category of Radio Stations.

A detail discussion, initiated by Jens, about frequency and whether it should be broken down into fequency ranges.

ACTION The Northern European Group - Contact a radio specialist to give the group more insight on whether a mariner uses frequency for radio communication or just channel.

calnm, CALSGN, chauhf; COMCHA; were removed from Contact Details and Peter will add them to the new Radio information object that Peter will construct.

ACTION Parslow - Construct a new information object named Radio communication.

ACTION The Northern European Group - Recommend to TSMAD to remove the following attributes from Category of Radio signals (*CATROS*): consol beacon, decca, toran, omega

Add associated geographic object *svcare* to *RDOSTA*

Add associated information object: *condet* to *RDOSTA*

ACTION The Northern European Group - The definitions for Category of rescue station are subject to revisions; a native English speaker will review all the definitions and make the necessary changes and will review it in Brest. Rescue aircraft needs to include (or make reference to) rescue helicopter.

Pilot boarding place *PILBOT* the notice time (*ntctim*) attribute was added in place of Notice (*notice*)

ACTION The Northern European Group - The NEG will change attribute to Category of registration data to boolean object.

rgdata – Needs more work to see how the data will be structured. Jens will continue to work on it.

IOC Ship Report – Change attribute *txtdsc* to *frmtxt.*

Ntctim was added to Berthing assistance and improved the definition.

Catbas was approved.

Catrgd and *rgdata* was not approved, Peter felt it should be part of the ship report information object.

Ntctim was added to Marine Service Object.

ACTION Acland - David will add Category of notice time to the register.

ACTION The Northern European Group - Recommend to TSMAD Category of registration data (catrgd) be removed from the Pilot Service Info Object.

The group concluded the week by reviewing the Geo-information objects and corresponding attributes to see if they are ready for approval and if so they will be entered in to the register, if not we will discuss them further in Brest.

ACTION Schroeder-Fuerstenberg - Create an ice class restriction object.

ACTION Offenback - Put together a couple paragraphs highlighting the progress of SNPWG.

10. IHO Feature Data Dictionary Registry

ACTION Tennant - Mal will put together and submit, by October, a report concerning the criteria for submitting entries to the register

ACTION ITEM - We need to sort out where the comma's and the leading zero's go in attribute Volume of traffic (*traffc*).

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10.1 – SNPWG Register Manager

SNPWG is the registry owner and will oversee what information gets approved for entry.

10.2 – How to fill the SNPWG Register

David will try to load attributes into the register in bulk to simplify the process.

10.3 – Submitting Organizations

11. Work Plan for the SNPWG

The work plan was reviewed and updated in preparation for CHRIS 19.

12. Any other business

Lt Cdr Steve Shipman (IHB PAH) presented a summary of what the eNavigation discussion going on in the International Maritime Organization.

12.1 – Election of a new chairman

SNPWG chairman Johannes Melles announced his position at the BSH in Germany has changed and the new position would hinder his ability to lead the working group. As a result, an election for a new chairman took place. The election was overseen by Capt. Robert Ward with the candidates being David Acland (UKHO) and John Nyberg (NOAA) with each attending countries or hydrographic office allowed one vote. The result of the election was David Acland was elected Chairman. John Nyberg was confirmed as Deputy Chairman by email in the weeks which followed SNPWG8. Steven Offenback (USA – NGA) agreed to become the new secretary.

ACTION SNPWG - Reply to Captain Robert Ward's questions concerning the justification of the SNPWG

Question #1 - Who are expected to be the beneficiaries of the work of this group:

Answer
- The mariner – The mariner will have a structured consistent view of nautical information that can be used in association with electronic charts.
- It is expected that the information will also be used by maritime authorities, wider commercial interests and academia.

Question #2 - Who do we see as supporters of this working group?

Answer
- Commercial shipping, shore side planners and seagoing bridge staff, maritime leisure interests – super yachts to day runners, Ports, Hydrographic Offices, CHRIS, TSMAD.
- There was an attempt to retire SNPWG a few years ago. MS did not agree and refocused the Terms of Reference on technical aspect of integration with ECDIS.

Question #3 - Why should we continue with this working group?

Answer
-   Most CHRIS WGs concentrate on charts, paper and electronic; and in the latter case their portrayal and security. Leaving tidal information aside, SNPWG provides expertise in assessment and supply of nautical information which traditionally has been provided in books. This is: procedure, reporting and therefore communications, pilotage, regulation – security, health, environmental and wildlife protection, customs and excise.
-   ECDIS is becoming more relevant in the maritime community. Mandatory carriage is becoming more likely in some sectors. There has been a greater need to incorporate nautical publication information or just supporting nautical information into an ECDIS.
-   The work is not yet completed.
-   The principal drivers are SOLAS and MARPOL.
-   Svanta previously circulated a letter referring to the IHMA initiative to produce accurate complete and timely information for distribution to shipping industry.

ACTION Acland – Pull together a report on these lines, including comments and ideas for the CHRIS 19.

13. Date and place of next meeting
The next meeting will be hosted by SHOM at Brest France in the week 21 – 25 April 2008. The first meeting will start at 9am.

NOAA has kindly agreed to host the meeting after that in Washington DC. Provisional dates are 26 – 30 January 2009.

8th Meeting of the Standardisation of Nautical Publications Working Group (SNPWG)
3 – 7 September 2007, IHB, Monaco

DRAFT AGENDA

No.	Agenda Item	Related Documents
1.	Opening and Administrative Arrangements	
2.	Approval of Agenda	8/001
3.	Matters arising	
3.1	Action Items from SNPWG 6	8/004
4.	Brief National Reports	
5.	Report - Americas SNPWG-SubWG	
6.	Report - Western European SNPWG-SubWG	
7.	Report - Northern European SNPWG-SubWG	
8.	Topics for discussion	
8.1	Contact Details	8/008, 8/009
8.2	Coding of phone numbers	
8.3	General nautical information area	
8.4	Language issues	
8.5	Questions, comments, proposals	
9.	Discussion and review of the results of the Americas SubWG	
9.1	Preparation of pages for "Geo-Object Classes"	8/005
9.2	Preparation of pages for "Information-Object Classes"	8/006
9.3	Preparation of pages for "Attributes"	8/007
9.4	Remaining work from other SubWGs	
10.	IHO Feature Data Dictionary Registry	
10.1	SNPWG Register Manager	
10.2	How to fill the SNPWG Register	8/011
10.3	Submitting organisations	
11.	Work Plan for the SNPWG	8/010
12.	Any Other Business	
12.1	Election of a new chairman	
	Consider what we would like in the CHRIS Report	
13.	Date and place of next meeting	

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LIST OF ATTENDEES

Country	Organization	Name	Institution E-Mail / FAX
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	IHB	Tony PHARAOH	pad@ihb.mc
1.2 Industry			

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 CHRIS WG's and other IHO and international bodies

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 modelled in UML where required.
A2	Look at existing systems on the market	H	2003	2004	C	Chair/Sec SNPWG		
A3	Evaluate the pros and	H	2003	2004	C	Chair/Sec		

	cons					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 Catalogue
F1	Revise technical resolutions	L	2010	2011	P	Chair/Sec SNPWG	M3	
G1	Liaise with the CSMWG for the	H	2005	Open	O	Chair/Sec SNPWG		

	development of the display rules							
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