

**5th Meeting of the Hydrographic Services and Standards Committee  
5-8 November 2013, Shanghai, China**

**Report of DPSWG to HSSC5  
Data Protection and Security Working Group**

**Submitted by:** Chairman, DPSWG

**Related Documents:** IHO Circular Letter 31/2013 (5th Meeting of the HSSC)

**Related Projects:** not applicable

**Chair:** Jonathan Pritchard, UK

**Vice Chair:** Robert Sandvik, Norway

**Secretary:** Tony Pharaoh, IHB

**Member States:** Australia, France, UK, Japan, Germany

**Organisations:** Chartworld/7Cs, Furuno Finland, Transas, IC-ENC, IIC Technologies, JRC, Kelvin Hughes, PRIMAR, SAM Electronics

*See Annex A for full details of membership*

**1. Meetings**

1.1 DPSWG9, IHB Monaco, 26th-28th February 2013.

1.2 Sub Working group meeting, Gothenburg, May 24-26<sup>th</sup> 2013

**2. Election of Officers**

In accordance with its terms of reference, DPSWG appointed its chair and vice-chair at its first meeting (DPSWG) after IH Conference. Jonathan Pritchard was re-elected chair and Robert Sandvik (Norway) was elected as vice-chair. Tony Pharaoh (IHB) will act as secretary until the next DPSWG meeting after which Kevin Black (IC-ENC) will take over. This will be the first time for several years that Chair, Vice-Chair and Secretary are all filled and is a good sign for the future of the group.

**3. Work Programme**

The programme is based on the priorities assigned within the detailed Work Plan (Annex B refers). Since HSSC4, the principal activities have been:

3.1 Maintenance and Support to existing data protection scheme.:

3.1.1 The Data Protection Scheme now stands at 237 members. The surge of membership of the last few years appears to have flattened out and is now reasonably stable. New entrants to the scheme are

split evenly between navigation systems companies and other participants with interests in spatial data.

- 3.1.2 Much effort this year has been devoted to migration by scheme participants to edition 1.1 of S-63. The deadline for adoption publicised after HSSC4 of January 2014 is being worked to by both data servers and OEMs and good progress has been made to date. DPSWG continues to support IHB and scheme participants in the adoption process. Although it is a complex transition for those who distribute data and for customers to understand the benefits members are engaged and indications are good for a successful conclusion in January 2014. DPSWG9 in February 2013 provided a good opportunity to clarify some elements of the upgrade for many of the stakeholders.
- 3.1.3 DPSWG9 was held in February 2013 and made good progress towards drafting a new version of the S-63 standard for use with newer S-100 based product specifications including S-101. DPSWG has proposed to TSMAD that data authentication mechanisms are embedded within S-100 and this proposal was accepted at TSMAD in June 2013. Work will continue in drafting the exact mechanisms to be implemented and the data protection aspects of S-63 will continue in a new form within the new standard. This is currently being drafted and will be progressed in the coming year.
- 3.1.4 A request from the IEC chair was received by the DPSWG chair to consider a clarification update to S-63 during DPSWG9. The end result was a new annex clarifying how ECDIS can assert the up-to-date status of its ENC holdings and how these are reported to end users. The ECDIS status report is contained in the CDV draft of iec61174 and is under review by DPSWG members. The annex will be included within an updated S-63 at next HSSC once it is reviewed by all stakeholders. No impact on data servers or member states is necessary and ECDIS manufacturers welcome the clarification for its users of the inspection process for ENC.
- 3.1.5 The group continues to support the IHB in the maintenance of the scheme including advice to new participants and those already in the scheme who are looking for guidance in the standard's application. There is a reasonably constant stream of questions requiring support and DPSWG acknowledges the IHB staff charged with responding to these.

### 3.2 New Edition of S-63:

DPSWG9 considered a new version of S-63 in 2013. It was felt that enough feedback had been gathered from stakeholders and many key decisions were recorded during the meeting which will direct the development of a new version of the standard. Key questions such as where data authentication will lie were answered and a good direction for drafting was achieved. DPSWG members will continue to progress a new version of the standard with the results of the discussion at DPSWG9 and a new version should be tabled for review and discussion at the next DPSWG meeting in 2014.

## 4. Progress on HSSC Action Items

HSSC Action HSSC4/18: DPSWG has provided assistance in drafting of various communications in 2013 to support the transition to S-63 edition 1.1. This is ongoing up to the deadline in January 2014.

## 5. Problems Encountered

- 5.1 **Lack of Resources.** There is always an issue of a lack of resources within DPSWG. Support from HOs is very welcome and many are now actively engaged in their own local distribution services. The two main problems are finding dedicated time for drafting of a new version of the scheme (for participating HOs) and also getting access to the over-stretched resources within the manufacturer and ENC distribution community. The focus on migration this year has stimulated interest in S-63 and, although a new version of the standard is delayed, the coming months prior to DPSWG10 should provide a skeleton for the group to work on.
- 5.2 **Difficulties of migration within current regulatory regime.** The current regulatory regime for ECDIS is complex and its interface with IHO standards is not consistently interpreted. The issues, therefore, for data servers in terms of migration to the latest edition of the standard are considerable as customers and distributors do not have simple regulations to follow. This generates more confusion for end users and slows down the upgrade process. DPSWG acknowledges the work done to date, supported by IHB staff, in upgrading end users to the latest edition of the standard and looks forward to reporting a successful conclusion at the next HSSC meeting.

## 6. Any Other Items of Note

- 6.1 DPSWG has, this year, undertaken a review of the encrypted test dataset provided as S-64 to support ECDIS development and type approval. This dataset is now fairly old and various timestamps and permits have been reissued with current dates. Some existing errors have been corrected and new tests introduced where previous ambiguity exists. This is currently under review by select stakeholders before its release to the whole DPSWG group for review. This activity has been carried out in liaison with TSMAD.
- 6.2 Liaison with TSMAD continues over drafting of sections in S-100 (and S-101) to deal with data authentication protocols. This will continue in 2013.
- 6.3 During its last meeting (Monaco, 26-28 Feb 2013), DPSWG noted that the data providers could not know easily if the systems or ECDIS they served were S-63 1.0 or 1.1 compliant. In order to determine if the system is S-63 1.0 or 1.1 compliant it was decided during the meeting to create a test to determine if systems were S-63 1.0 or 1.1 compliant. In this way, a dataset with documents have been produced and must be checked. After verification of these dataset and documents, the test should be available on the IHO website, furthermore it should be sent to final users by RENCs, so that they can test their systems and to send the results of their tests to the IHB.

## 7. Conclusions and Recommended Actions

- 7.1 HSSC5 is invited to endorse the continued activity of the WG under its current Terms of Reference.
- 7.2 HSSC5 is invited to approve the Work Plan as submitted at Annex B. *This Work Plan was not formally reviewed during DPSWG9, Feb 2013 but has been updated in the version at Annex B. DPSWG Chair updated it to reflect the work items and activities noted in the meeting and the minutes of DPSWG9. Following any direction or guidance from HSSC5, this will be subject to further review and revision at DPSWG10, February 2014.*

## **8. Justification and Impacts**

- 8.1 Justification for the continued activity of the WG is to fulfil the remit of its Terms of Reference which includes:
- Support to member states and the ENC/ECDIS community.
  - Protection and authentication for member state data in the distribution chain and on ECDIS.
  - Assurance to end users that ENC data derives from an official source.
  - Development of standards to underpin future protection and distribution of ENC (and other S-100 based data) along similar lines to S-63.

8.2 The principal impact is the resource commitment of participating HOs.

## **9. Action Required of HSSC**

The HSSC is invited to:

- Note this report;
- Endorse the continued activity of the WG;
- Approve the Work Plan at Annex B.

### **Annexes:**

- A. Membership of DPSWG (at 2 September 2013)
- B. DPSWG Work Plan

**ANNEX A****MEMBERSHIP OF DPSWG**  
*(at 10 October 2013)*

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**ANNEX B**

**DPSWG Work Plan**  
October 2013  
(updated following DPSWG9 and subsequent activities)

- *Objectives, Tasks and Work Items are pursued in accordance with IHO Work Programme 2013-2017, Programme 2 (Services and Standards):*
- *The focus is*
  - *Support for existing scheme including upgrade to latest version*
  - *Development of new standard*
- *As a Plan it will and should evolve; accordingly, contributions from WG members and others are welcomed at any time.*

**DPSWG Tasks**

Task	Priority	Status	Completion date	Affected Pubs.
A Maintain and extend Publication S-63	H	Ongoing	-	S-63 S-64
B Provide S-63 technical and operational support to Data Servers and OEMs	H	Ongoing	-	-
C Develop a more detailed work plan for future standards relating to Data Protection and Security of ENC data.	M	Ongoing	Feb 2014 (DPSWG10)	S-63
D Engage stakeholders in drafting of new edition of S-63 to support S-101 development	M	Ongoing	Feb 2014 (DPSWG10)	DPSWG Workplan
E Support transition to latest edition of S-63 (1.1)	H	Ongoing	1 Jan 2014	-