

Hydrographic Services and Standards Committee

Hydrographic Surveys Project Team

Christophe Vrignaud (Chair)

Nickolas de Andrade Roscher (Vice Chair & Secretary for HSPT3)

Jean-Guy Nistad (Secretary for HSPT3)



Reminder: HSPT

→ HSPT was created in March 2017 – Extract from the Terms Of References:

2. Objective

To maintain IHO standards which apply to hydrographic surveys: to prepare a draft 6th Edition of IHO publication S-44 - *Standards for Hydrographic Surveys* for approval by IHO Member States (MS).

When undertaking this task the Project Team (PT) should consider, as a minimum, the following matters, in support of safety of navigation data products and services:

- (i) Review the existing edition of S-44 (5th edition) and identify any deficiencies in either the standards or explanatory content;
- (ii) Following review, update the content and structure of S-44 to the extent identified during the review, with the intention of publishing revisions as a 6th edition of S-44;
- (iii) On completion of publication of a 6th edition of S-44, submit a proposal and recommendation to the Hydrographic Services and Standards Committee (HSSC) on whether the PT should continue as a standing working group and, if so, what tasks have been identified to justify transition to a standing working group.



Reminder: HSPT1 achievements

First meeting in Paris (kick-off, **June 2017**)

→ 10 limitations on the S-44 have been stressed

→ Online Questionnaire on S-44 (published from Sept. to Nov. 2017 – Result [Web-Link](#))

→ Preliminary work done on “Table1 / Matrix” alternatives



HSPT2 achievements



2nd meeting of HSSC Project Team on Standards for Hydrographic Surveys (HSPT2) in Niterói, Brazil, 3rd to 6th July 2018



Second meeting (July 2018)

- Questionnaire results discussions (500 respondents)
- Definition of a new table of content for S-44
- Dedicated subgroup for each new chapter
- First draft of each chapter during the meeting
- First **HSWG** considerations

The screenshot shows the IHO S-44 Questionnaire form. At the top is the IHO logo. Below it, the text reads: "IHO Hydrographic Services and Standards Committee (HSSC) Project Team on Standards for Hydrographic Surveys (HSPT) S-44 Questionnaire". The form includes an introduction paragraph, a closing date of Friday 17th November 2017, and a compulsory section 1 titled "About you". Question 1 asks for the respondent's involvement in hydrography or an allied industry or profession, with radio button options for 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36-40, and 41+ years. Question 2 asks for industry sectors, with a "Tick all that Apply" instruction and a grid of checkboxes for: Academia, Coastal, Construction, Dredging, Environmental, Fisheries, Geophysical, Geotechnical, Instrumentation, Military, Navigation/Charting, Oceanography, Oil & Gas, Ports & Harbours, Rehabilitation, Research & Development, Seismic, and Subsea Engineering. There is also a field for "Other (please specify)".



Intersessional work achievements



- **September 2018:** first version of Chapters released
+ HSPT Members feedbacks
- **November 2018:** Second version of Chapters released
+ HSPT members feedbacks
- **End of December 2018:** Third version of Chapters released and merged in
a full 6th Edition Draft v1.0
- **End of February 2019:** HSPT members feedbacks



Resolution 2/2007 - amended



HSPT3 achievements

Third meeting (**March 2019**)

Work on draft v1.0 - 6th Edition:

- Based on HSPT members comments
- Based on Questionnaire Results

End of HSPT3:

- **Release consolidated v1.5.0 – 6th Edition**
- **Draft ToR of the future HSWG**
- **As of today, after intersessional work, v1.6.2 is going to be released!**



3rd meeting of HSSC Project Team on Standards for Hydrographic Surveys (HSPT3) in Wollongong, Australia, 12th to 15th March 2019



HSPT3 – 6th Edition – v1.6

vs 5th Edition:

- New table of content (all chapters updated)
- Table 1 “Orders” remain the same (except “line spacing” criteria)
- All identified limitations taken into account (ex: VIM/GUM compliancy, Seafloor → Bottom (IHO S-32), Techno agnostic...)
- Questionnaire results taken into account
- Table 2 dedicated to Aids to navigation (compliant with S-101) + current consideration

IHO STANDARDS FOR HYDROGRAPHIC SURVEYS (S-44)
6th Edition draft 1.6 May 2019

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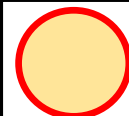
HSPT3 – 6th Edition – v1.6 - MATRIX

The Matrix approach:

- maintains the core philosophy of S-44 concept
- A wish to open the S-44 to all the Hydrographic community (not only for “safety of navigation”)
 - see Target 2.2 of the “Strategic Plan Review Working Group”
- allows expansion and future growth (list of criteria or specification)
- backward compatibility (cells dedicated for S-44 5th Edition)
- many realizations possible from the Matrix (CATZOC, LINZ, Exclusive Order...)



Parameter / Data Type		1	2	3	4	5	6	7	8	9	10	11	12
B	BATHYMETRY												
a	Depth THU (constant) [m]	>50	50	20	15	10	5	2	1	0.5	0.4	0.1	
b	Depth THU (variable) [% of depth]	>20	20	10	5	2	1						
c	Depth TVU (constant, "a") [m]	>2	2	1	0.5	0.3	0.25	0.2	0.15	0.1	0.05		
d	Depth TVU (variable, "b") [% of Depth]	>20	20	10	5	2.3	2	1.3	1	0.75	0.4		
e	Bottom Search Depths may not be produced / derived (e.g. SSS, MBES) [%]	<3	4	5	10	20	30	50	100	120	150	200	300
f	Bathymetric Coverage Depths produced / derived (e.g. MBES, SBES) [%]	<2	2	4	5	10	15	20	25	50	75	80	100
g	Feature Detection Capability of system (constant) [m]	>5	5	2	1	0.5	0.25	0.1					
h	Feature Detection Capability of system (variable) [% of Depth]	>25	25	20	10								
P	OTHER POSITIONING												
a	Fixed Aids, Features Significant to Navigation THU [m]	>10	10	5	2	1	0.5	0.2	0.1	0.05	0.01		
b	Fixed Aids, Features Significant to Navigation TVU [m]	>2	2	1	0.5	0.2	0.1	0.05	0.01				
c	Floating Aids to Navigation THU [m, unless other indicated]	10% of sway	>50	50	20	10	5	2					

 = Special Order



Future Hydrographic Surveys Working Group (Proposal)

Once S-44 6th Edition is published, the Project Team support the idea to continue as a standing Working Group, with the following tasks:

- Maintenance of S-44
- Updating and maintaining C-13 “Manual on Hydrography” (→ see Target 3.1 of the “Strategic Plan Review Working Group”)
- Maintain close liaison with other related WG
- Lead the Translation task of S-44 into more languages (only English, French, Spanish and Portuguese currently available)
- Increase education on use of S-44 and generate a supporting document to articulate best practice guidance (→ see Target 2.2 of the “Strategic Plan Review Working Group”)
- Identifying new systems, technologies and methodologies and exchanging experiences, best practice and challenges
- Act as focal point for industry engagement with the IHO



Problems or outstanding issues

No IHO secretariat representative at HSPT3:

Despite the high priority given by the HSSC and the IHO Council to the work of the HSPT, the PT strongly regretted the absence of the representative of the IHO Secretariat (despite Art 4.a / HSPT ToRs) whose role as the secretary of the PT is crucial, especially within a few months of the submission of the final report.

Should this situation persist, there is a risk that the PT will need to reconsider its schedule



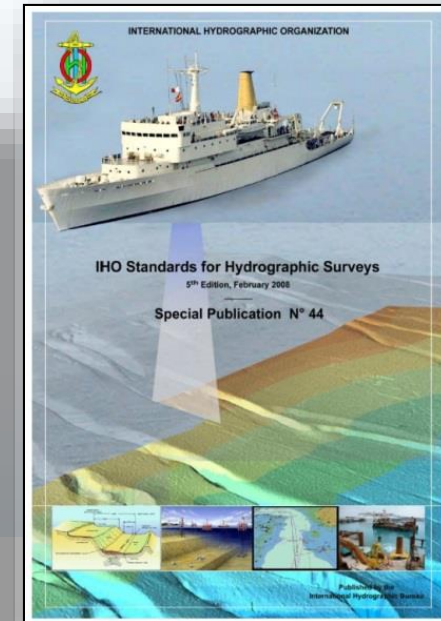
Future work programme

- **May/June 2019 - HSPT:** consolidated draft of the 6th Edition available (v1.7.0)
- **June 2019 - HSSC Chair:** Circulate v1.7.0 to all stakeholder for review and comments
- **Dec. 2019 - HSPT4 (Silver Springs US or Monaco):** based on stakeholder feedbacks and HSPT last comments, release the final draft 6th Ed. Version (v1.X.X) to circulate to HSPT members
- **March 2020 (before HSSC12):** HSPT deliver the S-44 6th Edition (v2.0.0) to HSSC for endorsement
- **Mid 2020:** circular letter from HSSC for member states approval
- **End 2020 - Approval of the S-44 6th Edition**



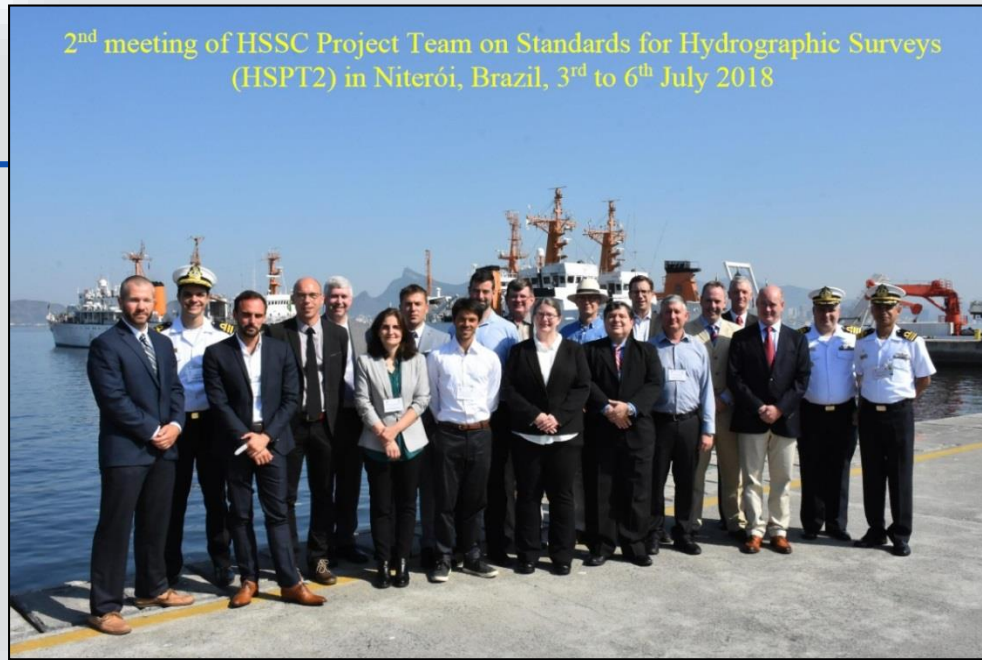
Action requested of HSSC

- Support from IHO secretariat during the life of the project – including HSPT4
- HSSC agreement to circulate final draft version of the 6th Edition to all stakeholders for review and comments (June 2019 to October 2019)
- Note the proposal about the **HSWG** ToR draft
- Note the HSPT contest for the S-44 6th Edition Front Page:
 - allowed?
 - with any IHO regulations?





1st meeting of HSSC Project Team on Standards for Hydrographic Surveys (HSPT1) at Palais de la Porte Dorée, Paris, France, 20th to 22th June 2017



2nd meeting of HSSC Project Team on Standards for Hydrographic Surveys (HSPT2) in Niterói, Brazil, 3rd to 6th July 2018

Thanks you



3rd meeting of HSSC Project Team on Standards for Hydrographic Surveys (HSPT3) in Wollongong, Australia, 12th to 15th March 2019

