

Hydrographic Services and Standards Committee

Report of the
Hydrographic Surveys Project Team (HSPT)

Christophe Vrignaud (Chair)
Nickolas Roscher (Vice Chair) – David Wyatt (Secretary)

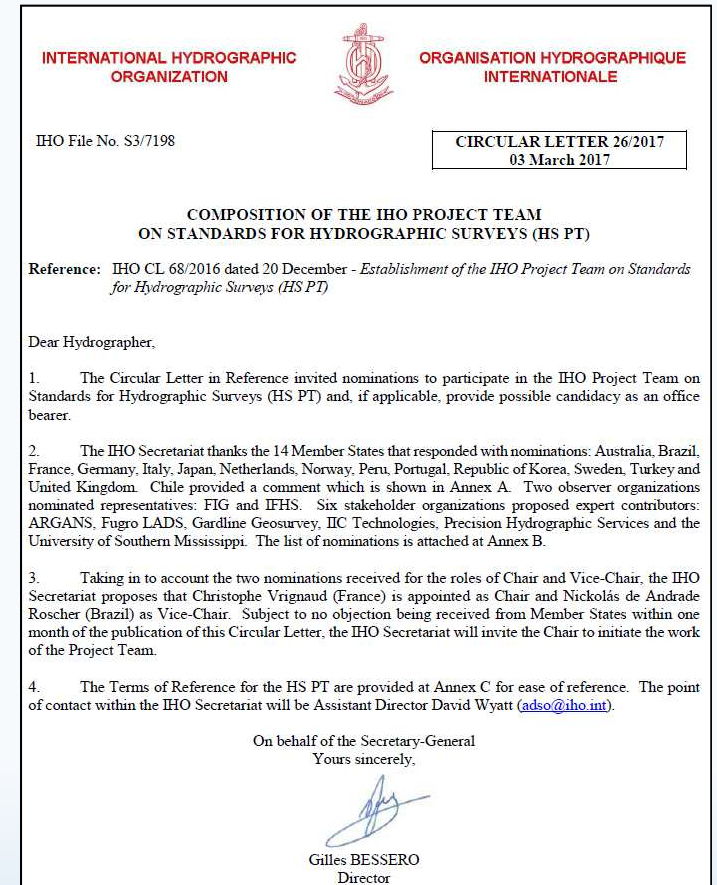


Reminder (PT Objectives)

- Circular Letter 26/2017 March 2017:

The HSPT is tasked by the IHO HSSC “...review the existing edition (5th) of the IHO publication S-44 Standards for Hydrographic Surveys, identify deficiencies...” and “...when undertaking this task, to consider, as a minimum,...” the need to prepare a draft for the 6th Edition “...in support of safety of navigation data products and services...” (HSPT TORs refer)

44 members (16 States + Observers + Expert Contributors + IHO)

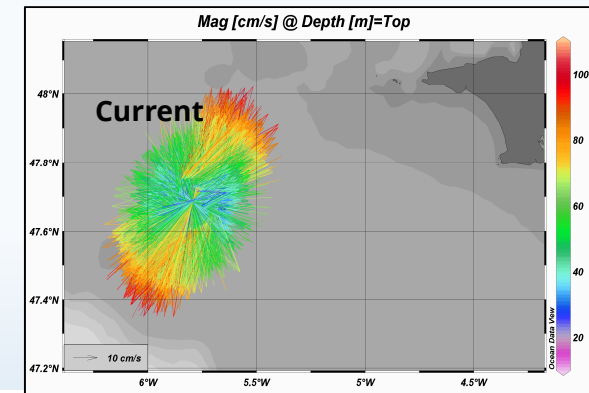
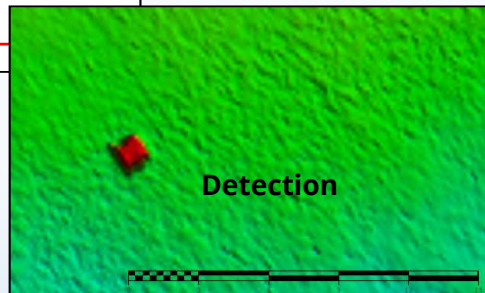
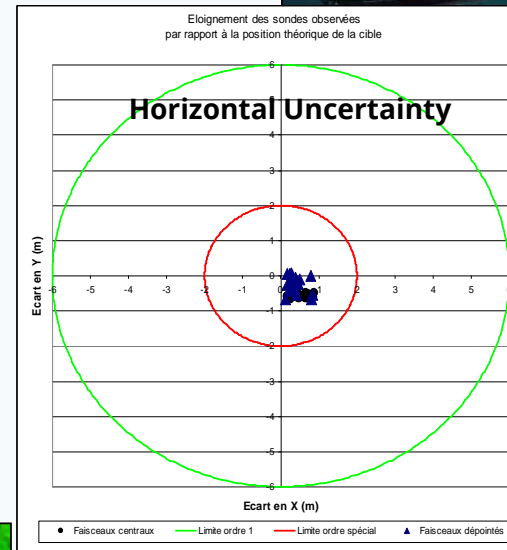
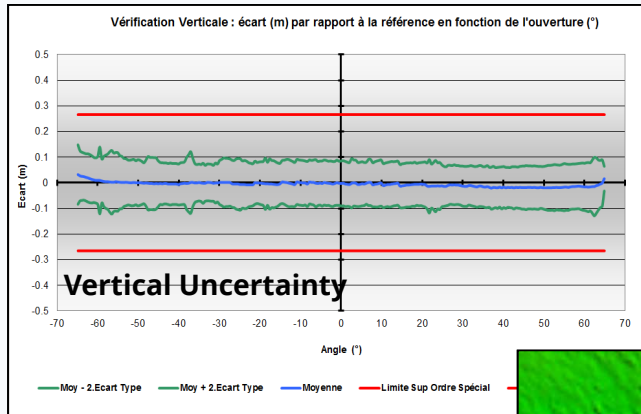
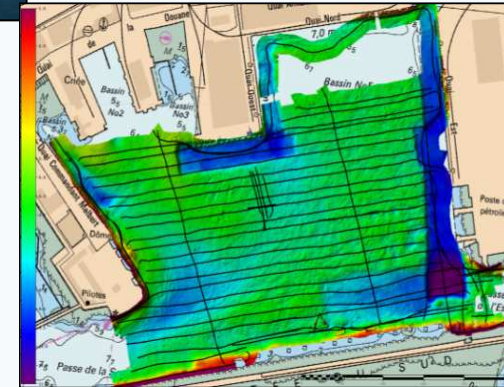


Reminder (S44 topic)

The IHO S-44 provides minimum standard for Hydrographic surveys, dedicated for safety of navigation



Coverage
Positioning of Aids to navigation, of Coastline



Principal activities and achievements

“Kick off” meeting in PARIS, 20-22 June 2017
(28 representatives : 13 MS + Observer + Expert Contributors + IHO).



3 outcomes:

1. Discussions about S-44 limitations
2. Questionnaire
3. “S44 Table” possible evolutions

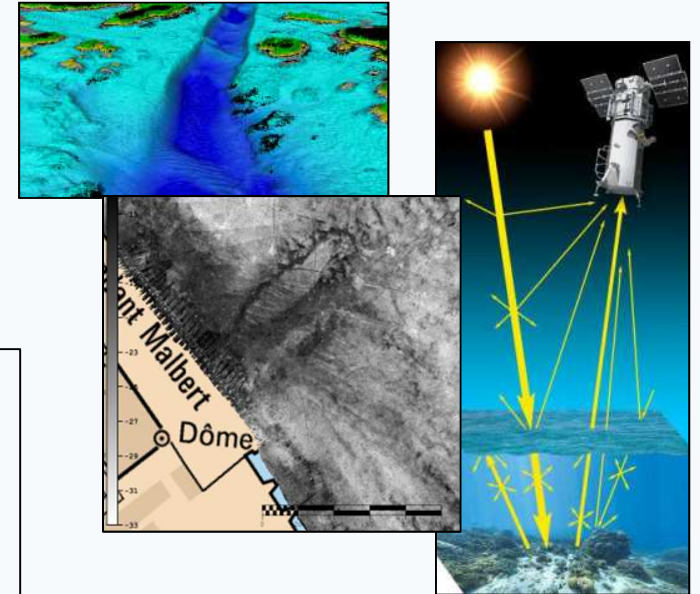


Principal activities and achievements

1. Discussions about S-44 limitations

Surveyors face Technologies more and more efficient (coverage, accuracy, new features).

Does the S-44 need to be more constrained or at the opposite, more flexible in order to accommodate data that might be less accurate but remain priceless when information is missing?



Principal activities and achievements

1. Discussions about S-44 limitations

For public maritime policies: bathymetric Surveys sometimes done by untrained people, or, using useless specifications for hydrography.



Knowledge of the hydrographic surveys standards is very important not only for the hydrographic community, but also for private/public contracting bodies.

(see the “European Coastal Mapping” project conclusions)



Principal activities and achievements

1. Discussions about S-44 limitations

“Hydrographic Needs” not only dedicated for safety of navigation (see “Blue Economy”)

Does the S-44 have to deal exclusively with safety of navigation or take into account other hydrographic needs?



Principal activities and achievements

1. Discussions about S-44 limitations

10 limitations underlined:

- 1 - S-44 only focused on a final objective which is the nautical chart, with a depth classification (possible solution: matrix or updated table)
- 2 - Difficulty to have an overview of all requirements (possible solution: matrix or updated table)
- 3 - Limited number of definitions (possible solution: support and liaison with the DQWG and VIM3)
- 4 - Misalignment between S-44 and CATZOC (possible solution: contacts with S-101WG and DQWG)
- 5 - Grid resolution and bathymetric surfaces not addressed (contact with S-102)
- 6 - Confusion between a-priori TPU and a-posteriori Qualification (review specific chapters of the S-44)
- 7 - S-44 should remain specific technologies neutral (review specific chapters of the S-44)
- 8 - Confusion of attribute in metadata
- 9 - Outdated chapters
- 10 - Annexes A & B to be placed in C-13 - Manual on Hydrography

AUS + GER : Coordinating Editors
(compiling all proposals/solutions
from members for the 6th Ed. draft)



Principal activities and achievements

2. Questionnaire

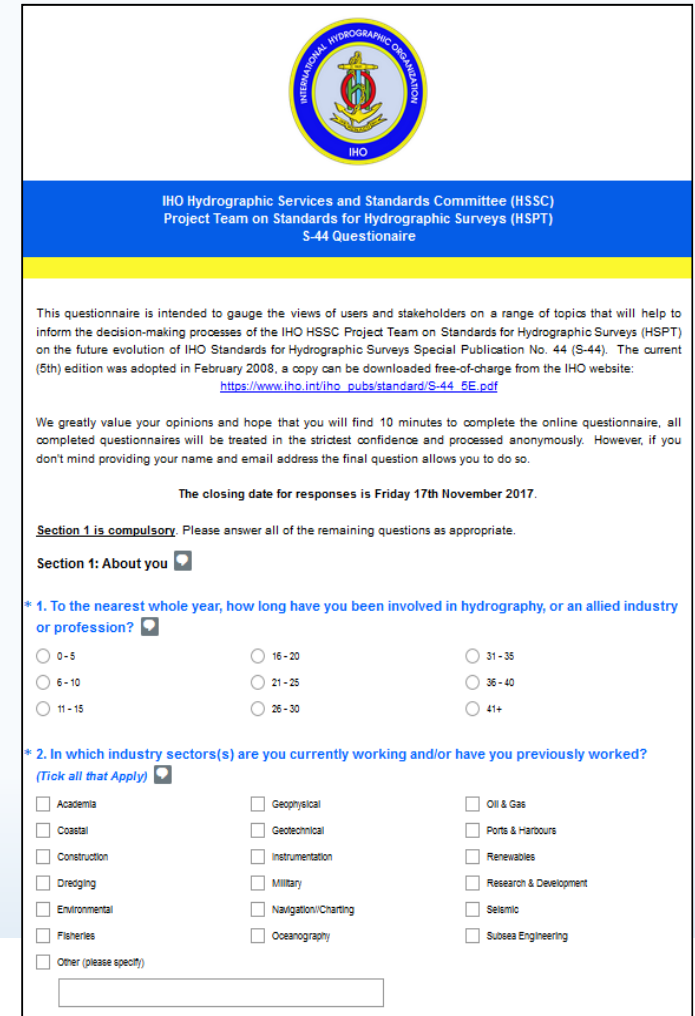
(https://www.surveymonkey.co.uk/r/HSPT_S-44_Q)

Designed to gauge the views of S-44 users, stakeholders and the wider hydrographic community on a range of topics

Administered by IFHS

Disseminated by IFHS, IHO and HSPT members
Closing date: Friday 17th November 2017
(postponed to the end of November)

Final results → 500 replies (61% involved in Navigation and Charting sector)



The screenshot shows the top portion of a survey page. At the top center is the IHO logo, a circular emblem with a compass and a globe. Below the logo is a blue header bar with the text: "IHO Hydrographic Services and Standards Committee (HSSC) Project Team on Standards for Hydrographic Surveys (HSPT) S-44 Questionnaire". A yellow bar follows. The main content area is white and contains the following text: "This questionnaire is intended to gauge the views of users and stakeholders on a range of topics that will help to inform the decision-making processes of the IHO HSSC Project Team on Standards for Hydrographic Surveys (HSPT) on the future evolution of IHO Standards for Hydrographic Surveys Special Publication No. 44 (S-44). The current (5th) edition was adopted in February 2008, a copy can be downloaded free-of-charge from the IHO website: https://www.iho.int/iho_pubs/standard/S-44_5E.pdf". Below this is a paragraph: "We greatly value your opinions and hope that you will find 10 minutes to complete the online questionnaire, all completed questionnaires will be treated in the strictest confidence and processed anonymously. However, if you don't mind providing your name and email address the final question allows you to do so." The closing date is stated as "Friday 17th November 2017". A note says "Section 1 is compulsory. Please answer all of the remaining questions as appropriate." The section title is "Section 1: About you". Question 1 asks: "To the nearest whole year, how long have you been involved in hydrography, or an allied industry or profession?" with radio button options: 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36-40, 41+. Question 2 asks: "In which industry sectors(s) are you currently working and/or have you previously worked? (Tick all that Apply)". It lists 12 categories with checkboxes: Academia, Coastal, Construction, Dredging, Environmental, Fisheries, Other (please specify), Geophysical, Geotechnical, Instrumentation, Military, Navigation/Charting, Oceanography, Oil & Gas, Ports & Harbours, Renewables, Research & Development, Seismic, and Subsea Engineering. There is an empty text box for "Other (please specify)".



Principal activities and achievements

3. “S44 Table” possible evolutions

3 options:

- Slight changes on the “Table1”
- Matrix approach
- Hybrid: Matrix and Table

Task lead by PTR/CAN/BRA

Criteria	Special	1a	1b	2
Description	UKC critical	Areas <100m UKC required	Areas <100m UKC not required	Areas >100m
Total Horizontal Uncertainty (m)	2.0	5+5% depth	5+5% depth	20+10% depth
Total Vertical Uncertainty (m)	a = 0.25 b=0.0075	a = 0.5 b=0.013	a = 0.5 b=0.013	a = 1.0 b=0.023
Feature Detection (m ³)	1.0	2 or 10% Depth after 40m depth	NA	NA
Seafloor Coverage / Line Spacing	100%	100%	3 x average depth or 25 meters	4 x average depth
Positioning of Fixed Aids (m)	2	2	2	5
Positioning of Coastline & Topography (m)	10	20	20	20
Floating Navigation Aids (m)	10	10	10	20



Future work programme

- January 2018: consolidated feedback and comments from completed questionnaire (IFHS)
- Intercessional activities: work on S44 limitations and solutions, including Table/Matrix (Coordinating Editors + All Members)
- May 2018: report to the HSSC-10 on the ongoing activities
- July 2018 : HSPT Second meeting (Niteroi / Brazil – to be confirmed)
- 2019: draft of a sixth edition submitted to the HSSC, and proposal for a **HSWG**, if it need be.



Questionnaire Results (sum up)

- 48.4% understand the differentiation between CATZOC and S-44, and, 55.2% consider it's important to have a clearer connection between both (10% it's not important).
- Considering the responders who choose Yes and No : 84.4% want a clearer connection, 15.6 don't need a clearer connection

