19th Meeting of the Data Quality Working Group

Discussion on the development of S-68 Edition 2.0.0

Agenda Item 5.3A

DQWG-19, VTC Event, 25- 26 March 2024

- S-68 Ed 1.0.0 has been approved by MSs and released on the IHO Website.

- CATZOC Allocation is a very complex problem, and there are still many problems to be solved.

- It is necessary to brainstorm to develop a work plan of the development of S-68 Ed 2.0.

International
Hydrographic
Organization

1. Add a new chapter relevant to degradation to S-68.

2. More details about feature detection.

3. Develop a spreadsheet to translates the new S-44 matrix parameters into CATZOC .

4. Improve the allocation of CATZOC values of CSB data.

5. A new chapter to describe How to update the existing CATZOC value based on new data.

6. Terminology.

7. Refine the procedure of CATZOC allocation.

8. how to handle the differences in CATZOC allocation schemes between adjacent countries.

9. Recommendation on how to transfer to the CATZOC allocation scheme based on S-68.

10. Other aspects.

➤ Degradation

- Water affected by natural disasters or maritime accidents.

- Data from non-HOs.

- Date of Survey. For example, data become too old.

- Generalization in Cartography.

- Data from digitalization of paper chart.

➢Degradation

- Category of survey. For example, survey is not controlled and systematic.

- The depth was not maintained according to the required cycle.

- Seafloor variability. For example, sediment deposit.

- Usage band. Whether to assign CATZOC D to all ENCs in Usage band 1 and 2?

- Oceanic.

➢ Feature detection

● Relationship with vertical and horizontal uncertainty and bathymetric coverage is clear, but less so for feature detection.

➢ Translate the new S-44 matrix parameters into CATZOC

	Criteria	1	2	3	4	5	6	7	8	9	10	11	12	13	14
B	BATHYMETRY														
a	Depth THU [m]	500	200	100	50	20	15	10	5	2	1	0.5	0.35	0.1	0.05
b	Depth THU [% of depth]	20	10	5	2	1	0.5	0.25	0.1						
c	Depth TVU "a" [m]	100	50	25	10	5	2	1	0.5	0.3	0.25	0.2	0.15	0.1	0.05
d	Depth TVU "b" Note 1	0.20	0.10	0.05	0.023	0.02	0.013	0.01	0.0075	0.004	0.002				
e	Feature Detection [m]	50	20	10	5	2	1	0.75	0.7	0.5	0.3	0.25	0.2	0.1	0.05
f	Feature Detection [% of Depth]	25	20	10	5	3	2	1	0.5	0.25					
g	Feature Search [%]	1	3	5	10	20	30	50	75	100	120	150	200	300	
h	Bathymetric Coverage [%]	1	3	5	10	20	30	50	75	100	120	150	200	300	

- The Section 7.6 of S-44 Ed 6.1.0 introduced a new specification matrix that provides a range of selectable criteria for bathymetric parameters and other data types collected, reported, and delivered as part of a hydrographic survey.
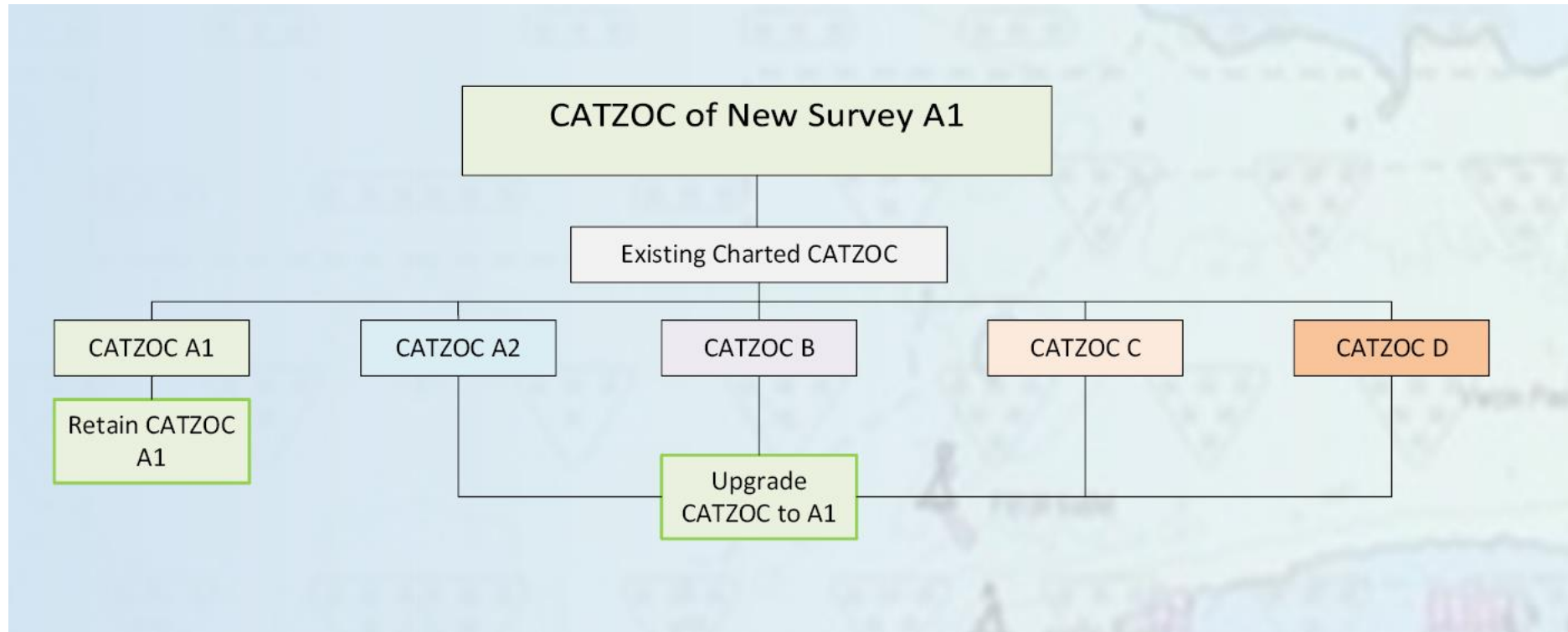- The scope of the spreadsheet is to help HOs in assigning CATZOC with producing an aggregated CATZOC value for the input survey parameters.

➢ Improve the allocation of CATZOC values of CSB data

● Deep discussion will be conducted in the next Agenda 5.4.

➢ How to update the existing CATZOC value based on new data
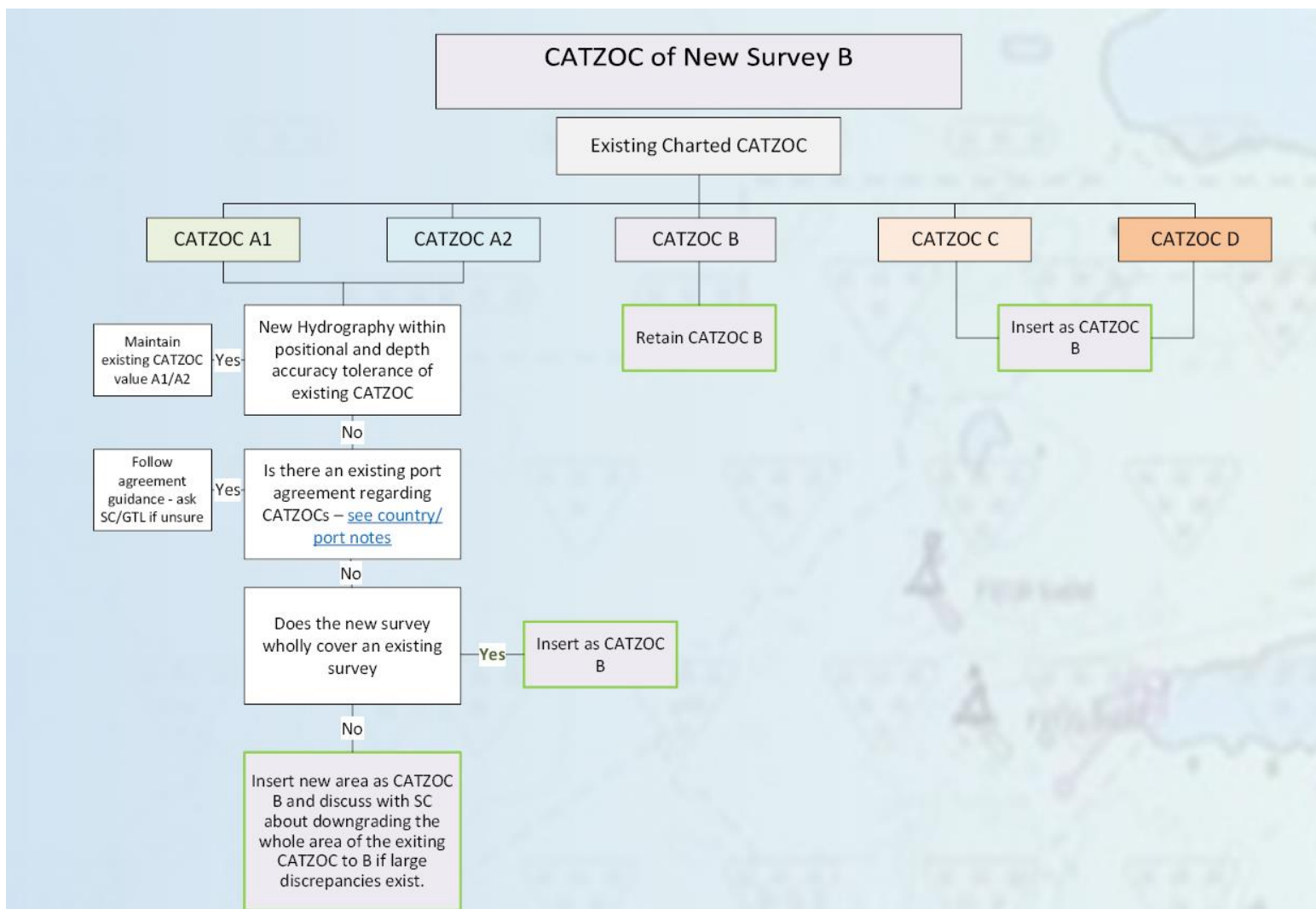
● This part is recommended by HSWG.

➢How to update the existing CATZOC value based on new data

➢ Terminology

- Replace "accuracy" with "uncertainty"
- Use the phrase, "CATZOC Capability" to clarify S-44 is one input of CATZOC
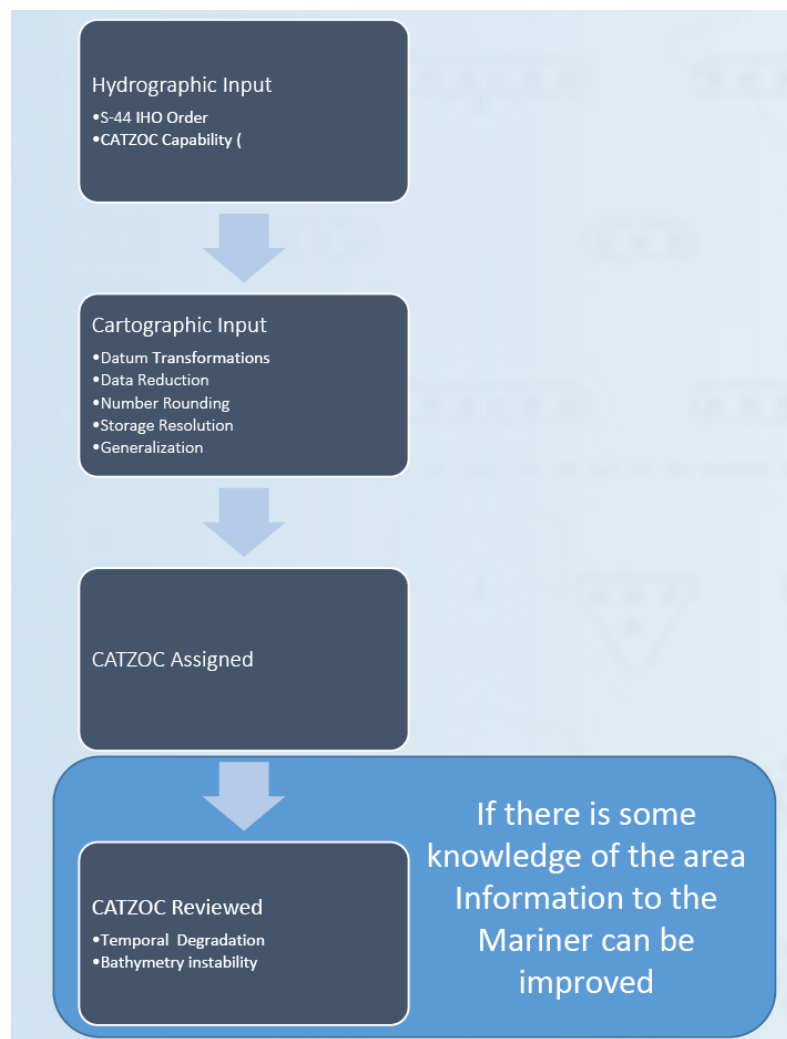- Seafloor Coverage vs Bathymetric Coverage - update Cross Reference Tables to ≤ 100% and ≥5%

➢Refine the procedure of CATZOC allocation

➢how to transfer to CATZOC allocation scheme based on S-68

- One step VS step by step.

- One step: modify all the existing CATZOC values of all ENCs in one step.

- step by step: modify the existing CATZOC values only when the ENC are updated and new survey data is available.

- How long to finish the transformation.

➢ how to handle the differences in CATZOC allocation schemes between adjacent countries

- Evaluate the potential impact of differences in CATZOC allocation schemes between adjacent countries

- Provide some recommendations on the resolution of this problem.

The DQWG is requested to:

a.Note the information provided;

b.Establish a new CATZOC subWG to develop S-68 Ed 2.0.0.