

DQWG

DQWG18/5/6 Rev1

Meeting 18

8 Feb 2023

Agenda Item 5.6

Draft CATZOC Allocation Scheme of China MSA

Submitted by China

SUMMARY

Executive Summary: China MSA has completed the draft CATZOC allocation scheme, and the DQ Working Group is invited to note the information provided in this document and take relevant actions..

Action to be taken: See Section 4

Related documents:

1 Background

At present, CATZOC in ENC of China MSA is uniformly set as B. With the improvement of CATZOC application requirements, we realize that there is a big gap between this allocation scheme and user's requirements.

Recently, China MSA has carried out investigation and research. On the basis of fully considering various factors affecting CATZOC and considering the current situation of China hydrographic survey, a draft CATZOC allocation scheme has been preliminarily formulated. The draft allocation is currently being evaluated by China MSA and will be formally implemented after it is approved.

2 Introduction

The draft CATZOC allocation of China MSA is as follows:

2.1 New survey data of China MSA (from 2023)

SOURCE	CATZOC	Technique of sounding	Seafloor Coverage	Scale
China MSA	A1	<ul style="list-style-type: none"> ● MBES; ● IHO S-44 order 1a or better. 	100%	
	A2	<ul style="list-style-type: none"> ● SBES+SSS; ● Open spaced MBES with SSS (skunk stripping); ● IHO S-44 order 1b or 2. 	100%	
	B	● SBES	Not 100%	$\geq 1:60000$
		● LIDAR	Not 100%	
	C	● SBES	Not 100%	$< 1:60000$
		● SDB	Not 100%	
	D	● Areas affected by disasters		
		● Aerial photography		
U	● Unsurveyed area			

2.2 Old survey data of China MSA (before 2023)

Source	Survey Date	CATZOC	Scale
China MSA	1995-2023	B	$\geq 1:60000$
		C	$< 1:60000$
	Before 1995	D	

2.3 Data from other source

Source	CATZOC	Scale
Other source	B	$\geq 1:60000$

	C	$\geq 1:500000$, $< 1:60000$
	D	$< 1:500000$

3 Discussion

3.1 New survey data of China MSA (from 2023)

- CATZOC A1, controlled systematic survey with full seafloor search using a MBES with high position and depth accuracy. IHO S-44 order 1a or better.
- CATZOC A2, controlled systematic survey with less position and depth accuracy than CATZOC A1, undertaking a full seafloor search using either: SBES with SSS; Open spaced MBES with SSS (skunk stripping); IHO S-44 order 1b or 2.
- CATZOC B, controlled systematic survey using a SBES which is not 100% seafloor coverage, when scale $\geq 1:60000$; LIDAR surveys will be CATZOC B.
- CATZOC C, controlled systematic survey using a SBES which is not 100% seafloor coverage, when scale $< 1:60000$; Satellite Derived Bathymetry will be CATZOC C.
- CATZOC D, for the natural disaster affected areas, CATZOC will set to D; Aerial photography will be CATZOC D.
- CATZOC U, unsurveyed areas will be CATZOC U.

3.2 Old survey data of China MSA (before 2023)

- Considering the current situation that CATZOC is uniformly set to B in ENC of China MSA, the highest level of data surveyed before 2023 will be CATZOC B, and then it will be appropriately degraded according to the affecting factors.

- For the data from 1995 to 2023, considering the development of GNSS positioning technology and the popularization of SBES and MBES, the sounding accuracy and positioning accuracy have been significantly improved. Therefore, the data's CATZOC in this period are mainly classified according to the scale. The area with the scale $\geq 1:60000$ is set as B, and the area with the scale $< 1:60000$ is degraded to C;

- For the data before 1995, due to poor timeliness, backward survey methods and other factors, the CATZOC will be D.

3.3 Data from other source

- For the data from other hydrographic survey institutions, due to the lack of data acquisition information such as survey method and time, the CATZOC will be mainly set according to the scale;

- When scale $\geq 1:60000$, the CATZOC will be B;
- When $1: 500000 \leq \text{scale} < 1:60000$, the CATZOC will be C;
- When scale $< 1: 500000$, the CATZOC will be D.

4 Action

The DQWG is requested to:

- a. **Note** the information provided;
- b. **Complete** the Guidelines and recommendations for Hydrographic Offices for the allocation of CATZOC as soon as possible, so as to provide guidance on the CATZOC allocation to Member States.