

How Shom allocate CATZOC values ?

CATZOC on Shom charts (ENC and paper charts) is derived from Survey CATZOC populated in Shom Bathymetry Data Base. Rules to allocate CATZOC are :

1) New survey (from 2014)

Shom survey validation teams allocate CATZOC to there date based on IHO S-57 ZOC-table.

A basic table (based on the comparaisn between the “theoretical” values in ZOC and S-44 tables) helps in this task to convert S-44 order to ZOC :

ZOC / S-44	Special Order	1a	1b	2	No order
A1	Green	Green	Red	Red	Red
A2	Yellow	Green	Red	Red	Red
B	Yellow	Yellow	Green	If P > 310 m	Red
C	Yellow	Yellow	Yellow	Green	Red
D	Yellow	Yellow	Yellow	Yellow	Green

Green = Authorized / Yellow = Authorized but downgrades CATZOC / Red = Forbidden

Of course, the position and depth accuracies and seafloor coverage are the criterias for allocation: they must be verified to validate a ZOC.

2) Old survey (before 2014)

Two methods has been used to allocate ZOC for old surveys :

- If metadata is sufficient, CATZOC has been allocated automatically based on IHO S-57 ZOC-table. The seafloor coverage criteria was evaluated from Shom metadata based on S-44 order and Shom criterias which are in the former Shom’s hydrography norm (area completely surveyed / area with full sea floor coverage / area inadequately surveyed / ...). This allocation is checkef by the cartographer when compiling the charts.
- Without metadata, CATZOC has been allocated based on the source of the survey, the date, the scale and the technique of sounding. This table summarizes :

Source	Date	Scale	Technique of sounding	ZOC
Shom	Since 1992	MBES	Full sea floor search + sidescan	A2
	Since 1992	MBES	Full sea floor search	B
	Since 1980	≥ 1: 20 000	Sidescan	A2
	Since 1970	≥ 1: 5 000 (P< 20 m)		B
		≥ 1: 100 000 (P< 100 m)		
		Previous criterias not repected		C
	1935 - 1970			C
	Before 1935	Coastal survey		C
Other survey			D	
Other HO	Same rules than Shom's Survey – can't be better than B except if Shom has the information from the HO.			B
Other survey	Since 2003		Full sea floor search	B
	Since 1970	≥ 1: 5 000 (P< 20 m)		B
		≥ 1: 100 000 (P< 100 m)		
		Previous criterias not repected		C
	1935 - 1970			C
	Before 1935	Coastal survey		C
		Other survey		D
Reconnaissance survey				D
Passage soundings			Passage soundings (MBES)	C
			Passage soundings	D

			(SBES) – GEBCO	
Aerial photography				D
Foreign charts	If a CATZOC diagram is present : use it. However, see the scale of survey on the Source diagram :			
		≥ 1 : 250 000		C
		< 1 : 250 000		D

Remarks: On Shom charts:

- CATZOC is not downgraded due to the passage of time (mariners have to read CATZOC with M_SREL) ;
- CATZOC could be downgraded due to generalization (safety purpose).