Data Quality Decision Tree

IHO — International Hydrographic Organization

data assessment	temporal variation	seafloor coverage	vertical uncertainty	horizontal uncertainty	Quality of Bathymetric Data value
Assessed, not Oceanic, not Unassessed	unlikely to change	full area search undertaken, significant seafloor features detected, depths measured	0.50 + 1%depth	5 + 5%depth	QoBD = 1 (*CATZOC A1*)
	likely to change but significant shoaling unexpected	full area search undertaken, significant seafloor features detected, depths measured	1.0 + 2%depth	20m	QoBD = 2 (*CATZOC A2*)
		full area search not achieved, uncharted features hazardous to surface navigation are not expected but may exist.	1.0 + 2%depth	50m	QoBD = 3 (*CATZOC B*)
QoBD = Oceanic	likely to change and significant shoaling expected	full area search not achieved, depth anomalies may be expected	2.0 + 5%depth	500m	QoBD = 4 (*CATZOC C*)
QoBD = Unassessed	extreme event	full area search not achieved, large depth anomalies may be expected	>2.0 + 5%depth	>500m	QoBD = 5 (*CATZOC D*)

Start

→ true (green)
→ false (red)

STEP	QUESTION / RESULT	YES	NO
1	Is data assessment = unassessed?	GO TO 2	GO TO 3
2	**QUALITY OF BATHYMETRIC DATA = UNASSESSED**	*CATZOC = U*	
3	Is data assessment = Oceanic?	GO TO 4	GO TO 5
4	**QUALITY OF BATHYMETRIC DATA = OCEANIC**		
5	Is category of temporal variation "Unlikely to change"?	GO TO 6	GO TO 10
6	Full area search undertaken, significant seafloor features detected, depths measured?	GO TO 7	GO TO 15
7	Is vertical uncertainty < 0.5m + 1% of depth?	GO TO 8	GO TO 12
8	Is horizontal position uncertainty < 5m + 5% of depth?	GO TO 9	GO TO 13
9	**QUALITY OF BATHYMETRIC DATA = 1**	*CATZOC = A1*	
10	Is category of temporal variation = likely to change but significant shoaling unexpected?	GO TO 11	GO TO 19
11	Full area search undertaken, significant seafloor features detected, depths measured?	GO TO 12	GO TO 15
12	Is vertical uncertainty < 1.0m + 2% of depth?	GO TO 13	GO TO 21
13	Is horizontal position uncertainty < 20m?	GO TO 14	GO TO 17
14	**QUALITY OF BATHYMETRIC DATA = 2**	*CATZOC = A2*	

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STEP	QUESTION / RESULT	YES	NO
15	Full area search not achieved, uncharted features hazardous to surface navigation are not expected but may exist?	GO TO 16	GO TO 20
16	Is vertical uncertainty < 1.0m + 2% of depth?	GO TO 17	GO TO 21
17	Is horizontal position uncertainty < 50m?	GO TO 18	GO TO 22
18	**QUALITY OF BATHYMETRIC DATA = 3**	*CATZOC = B*	
19	Is category of temporal variation = likely to change and significant shoaling expected?	GO TO 20	GO TO 24
20	Full area search not achieved, depth anomalies may be expected?	GO TO 21	GO TO 25
21	Is vertical uncertainty < 2.0m + 5% of depth?	GO TO 22	GO TO 26
22	Is horizontal position uncertainty < 500m?	GO TO 23	GO TO 26
23	**QUALITY OF BATHYMETRIC DATA = 4**	*CATZOC = C*	
24	Is category of temporal variation = extreme event?	GO TO 26	GO TO 2
25	Full area search not achieved, large depth anomalies may be expected?	GO TO 26	GO TO 2
26	**QUALITY OF BATHYMETRIC DATA = 5**	*CATZOC = D*	

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