



Special Requirements for Bathymetric Data

MARINE SCIENTIFIC RESEARCH REQUESTS

The Government of Canada wishes to inform all parties requesting authorization to conduct marine scientific research in areas under Canada's jurisdiction (meaning Canada's inland waters, territorial sea (0-12NM), exclusive economic zone (12-200NM), and extended continental shelves) that Canada requires copies of all bathymetric data derived from these marine scientific research projects. This includes single and multi-beam data collected in passage to and from the research site as well as the bathymetric data collected at or in the investigation area.

Bathymetric data collected in areas under Canada's jurisdiction must be provided to Fisheries and Oceans Canada's Canadian Hydrographic Service (CHS). In order to ensure that this data can be properly utilized, the Government of Canada requests the following:

1. A metadata profile containing, to the fullest extent possible, the elements in Table 1 be provided when the data is submitted;
2. Copies of all the files associated with the bathymetric data set(s) are submitted;
3. Where possible, the bathymetric data be gridded to the best possible resolution and that this grid is submitted with the data; and,
4. All of the above are concurrently submitted to the IHO Data Centre for Digital Bathymetry (DCDB).

Table 1. Metadata Profile for Bathymetric Data

General Information		
Location(s)	(e.g. city, river)	
Survey purpose	(e.g. site monitoring, after dredging)	
Start and end date of survey	Start yyyy-mm-dd	End yyyy-mm-dd
Organization name		
Organization contact information		
Responsible researcher for survey - Name		
Responsible researcher for survey - Contact information		
Analyzed for Navigational Warnings (NAVWARN)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Restricted data	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Backscatter available	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Data Acquisition	
Vessel(s)	
Sounding hardware	(e.g. Hydrobox, Kongsberg EM2040)
Technique of Sounding	(e.g. multi-beam sonar, LiDAR)
Resolution	(e.g. 0.5m, 5m x 5m matrix)
Data acquisition software	(e.g. HYPACK, QINSy, SIS, ISAH)
Data processing software	(e.g. HYPACK, FLEDERMAUS, AutoCAD, HIPS, JRSondeW7)

Horizontal Reference	
Horizontal coordinates system	(e.g. Northing, Easting, DD, D-M-S)
Horizontal datum	(e.g. NAD 27, NAD 83, WGS84)
Projection	(e.g. UTM zone 3)
Positioning method	(e.g. DGPS, RTK, PPK)
Positioning hardware	(e.g. Trimble R7, Trisponder, POSMV)
Benchmark reference	(e.g. 80k0559)
Benchmark coordinates	Northing, Easting or D-M-S



Vertical Reference	
Vertical reference system	(e.g. CD, CGVD28, IGLD)
Benchmark reference height	
Water level reduction method	(e.g. HyVsep, Tidal observation)
Tidal station reference	(e.g. : Toronto #13320)

Survey Accuracy	
Horizontal accuracy	(e.g. $\pm 1m$, $\pm 5m$)
Vertical accuracy	(e.g. $\pm 0.15m$, $\pm 0.50m$, $\pm 1m$)
Sounding corrected for vessel draft	Yes <input type="checkbox"/> No <input type="checkbox"/>
Calibration data	Yes <input type="checkbox"/> No <input type="checkbox"/>
IHO CATZOC	(e.g. CATZOC = A2)
IHO Order of Survey	(e.g. Special, 1A)

All correspondence with the CHS shall be coordinated by email to:

DFO.NCRCHSInfo-InfoSHCNCR.MPO@dfo-mpo.gc.ca

Subject: MSR Bathymetric Data

Hydrographer General of Canada