



Aquatics Environmental Services Inc.
609 Club Road, St. Andrews, MB R1A 3P6
Telephone: 204.289.2400
Email: info@aquatics-esi.com

Survey Vessel:

.Ice Strengthened Hydrographic Survey Vessel
.Named: Aurora Magnetica

Aurora Magnetica

Length Overall / Draft:

.18.5m / 1.4m

Fuel

.10,400 liters

Duration

.3 months typical survey

Description:

The Aurora Magnetica is an ice long distance endurance vessel designed for hydrographic surveying in both shallow and deep waters. Built for travel in ice prone arctic waters, the Aurora Magnetica has been designed to be a simple, efficient, and cost effective research platform capable of several month autonomous operation.



The ship was constructed with an aluminum hull capable of withstanding the forces of ice. She has a very shallow draft and is designed to be beached on her flat bottom hull in low tides. Since 2004, the Aurora Magnetica has served as a platform for research activity, film crews, as well as personal travelers primarily throughout the Canadian arctic in Greenland.

The Aurora Magnetica was designed by hydrographic surveyors for the purpose of hydrographic surveying. The vessel has undergone an extensive refit specifically for this purpose. She is equipped with a multibeam system and associated equipment. There are 4 computer work stations with a centralized rack mount computer system for on-board acquisition and simultaneous processing.



Port of Registration	Yellowknife, NT CANADA
Draft	1.4 m (4.6 ft)
Beam	5.2 m (17 ft)
Length Overall	18.5 m (61 ft)
Beam	5.2 m (17 ft)
Length Overall	18.5 m (61 ft)
Gross Tonnage	57.7 tonnes
Hull Construction	Marine aluminum, 20mm thick (0.8 inch)
Fuel Tanks	10,400 litres (2,750 USG) diesel
Watertight Bulkheads	2 total, 3 autonomous compartments
Main Engines	Perkins Sabre M92 X 2 (135.32 Kw)
Accommodation	Total 9 bunks 1 crew cabin 3 guest cabins of 2 bunks per cabin, 1 cook's cabin
Facilities	Bathroom, Shower, Laundry, Workshop
Workspace	Inside 5.4 m X 3.6 Outside 4 m X 3.6 m
Range – Open	9,000 nm at 7.1 knot wind / sea average
Total Autonomy	3 months (est.) for 8 persons including winter conditions
Other	A – Frame for side scan / sensor deployment Heavy duty davit for tender deployment Zodiac Hurricane Tender, 60hp Outboard
Survey Gear (minimum)	R2Sonic Multibeam Survey System Applanix PosMV (position and attitude) Rack mount computer system Computers – specialized hydrographic software Power backup system 6 Kw power generator for survey equipment 4 computer work stations monitors throughout vessel (wheelhouse X 2, lab X4, galley X1)



