

Bathythermal Buoy

AN/SSQ-536G



Key features

- Functionally the same as the A-size SSQ-36B and SSQ-937D
- G-Size
- 50% smaller, 29% lighter than the A-size SSQ-36D
- Compatible with all western sonobuoy processors
- Continuous temperature data to 800m
- Temperature accuracy ± 0.56 °C
- Performance rated for sea-state 5 operation

Overview

The Ultra Maritime SSQ-536G bathythermograph buoy provides information on the sea temperature as its probe sinks, allowing the operator to create a water column temperature vs. depth profile to support acoustic propagation analysis. It is functionally identical to the A-size SSQ-36B but with reduced volume and weight. The SSQ-536G can profile the entire 800m water column within 10 minutes of water entry. It is equipped with a probe release detector to ensure data integrity.

The SSQ-536G was originally designed for Canada's helicopter program and was qualified in 1999. Its small size makes the SSQ-536G ideal for volume and/or weight constrained platforms such as helicopters or small Maritime Patrol Aircraft, however the SSQ-536G is also easily deployed from a surface ship.

Technical Specification

Bathythermograph Characteristics

Description	Bathythermograph Buoy	
Dimensions	G-Size Length:	419 mm (16.5 in)
	Diameter:	124 mm (4.875 in)
	Mass:	4.0 kg (8.81 lbs)
	C of G:	10.2 cm (4 in) from the bottom end
	Ballistic Coefficient:	60 kg/m ²
Power Source	Lithium-manganese dioxide battery	
Dimensions Deployment:	Maximum Platform Speed:	370 kts
	Maximum Platform Altitude:	9,144 m (30,000 ft)
Temperature Range:	Storage Temperature:	-40 °C to +70 °C
	Launch Air Temperature:	-20 °C to +55 °C
	Seawater Temperature:	-2 °C to +35 °C
Operation Depth:	Continuous 0 to 800 m	
Operating Life:	12 minutes maximum	
RF Channel:	EFS Programmable, 99 Channels (136MHz to 173.5MHz, 375kHz spacing)	
VHF Radiated Power:	0.25 Watt nominal	
Telemetry Frequency Range:	1,340 Hz to 2,720 Hz	
Temperature Sensor:	Temperature Accuracy:	± 0.56 °C
	Launch Air Temperature:	< 200 ms
	Seawater Temperature:	-2 °C to +35 °C

Key benefits

- ITAR-free Canadian design
- Lightweight G-Size Bathythermograph
- 7 year shelf life in sealed container
- 90 days unpacked storage life
- Scuttles within 30 hours (after operation)
- When gravity or pneumatic launch is preferred

The SSQ-536G is configured for gravity launch. It has a 99-channel uplink capability for additional operational flexibility and is compatible with all known acoustic processors and sonobuoy receivers.

The SSQ-536G design became the basis for the UK's G-size SSQ-937D in 2007. The two bathythermograph buoys re operationally similar, although they do have minor interface differences.



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NATO STOCK NUMBER
SSQ-536G: 5845-21-914-4791