

# Bathythermal Buoy

AN/SSQ-937D



## Key features

- Functionally the same as the SSQ-36B and SSQ-536G
- G-Size
- 50% smaller, 29% lighter than the A-size SSQ-36B
- Compatible with all western sonobuoy processors
- Continuous temperature data to 800m
- Temperature accuracy  $\pm 0.56$  °C
- Performance rated for sea state 5 operation
- Uses AFS to set the RF channel

## Overview

The Ultra Maritime SSQ-937D bathythermograph buoy has been designed, built, and qualified for use by the UK MoD. This world-leading product provides the Anti-Submarine Warfare (ASW) operator with an extremely precise plot of sea temperature vs. depth. Gravity launched from aircraft, helicopters, or surface ships, the SSQ-937D offers high performance in a small package, lightweight bathythermal buoy.

The SSQ-937D is a G-size microprocessor controlled bathythermal buoy. It is equipped with probe release detection to ensure data integrity in water profiling.

The SSQ-937D provides accurate temperature vs. depth profile from the sea surface to 800 m. It can profile entire water column within 10 minutes of water entry.

# 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
	Ballistic Coefficient:	60 kg/m <sup>2</sup>
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:	AFS 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-937D 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.

It provides further operational flexibility due to its reduced size and weight when compared to "A" size bathothermal buoys.



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NATO STOCK NUMBER  
WSSQ-937D: 5845-99-497-9138