

AN/SSQ-53F DIFAR Sonobuoy

Passive Directional

The AN/SSQ-53F is a NATO A-size sonobuoy manufactured for the U.S. Navy which combines a passive directional and calibrated wide band omni capability into a single multi-functional sonobuoy. This advanced sonobuoy combines the capabilities of both the AN/SSQ-53D and AN/SSQ-57 sonobuoys.

The Q-53F can operate in three available acoustic sensor modes that are selectable via EFS or CFS. A Constant Shallow Omni (CSO) provides acoustic information at a fixed depth of 45 ft (13.7 m) while a Calibrated Omni (CO) co-located with a DIFAR sensor provides acoustic information at a selectable operational depth. The buoy amplifies the underwater acoustics and provides directional data necessary to establish bearing to the source of the acoustic energy.

This sonobuoy features both Electronic Function Select (EFS) for use prior to loading and launching, and Command Function Select (CFS) to allow the operator to modify the sonobuoy's mode of operation after it has been deployed in the water. These functions allow the operator to select operating mode (sensor selection), buoy life, depth setting, AGC level and RF channel.

- Acoustic Sensor Selection
 - *CSO, CO, or DIFAR*
- EFS Selectable
 - *RF Channel, Life, Depth, Sensor, AGC level*
- CFS Commandable
 - *RF Channel, Life, Sensor, AGC Level*
- 1 Watt 96-channel RF transmitter
- Factory configurable to AN/SSQ-53D standard
 - *Single Sensor (DIFAR)*
 - *3 Depths (90 ft, 400 ft, 1000 ft)*
 - *No CFS*



SPECIFICATIONS

NSN 5845-01-475-9870

PHYSICAL CHARACTERISTICS

Weight8.6 kg (19 lbs)
 Sonobuoy Launch Container.....LAU-126/A

PERFORMANCE DATA

RF Command Receiver.....UHF – single channel
 RF Transmitter Power Output.....1 W minimum
 RF Transmitter Operating Frequency96 Channel Selectable
(136.000 to 173.500 MHz)
 Sensors/Audio Frequencies.....CSO (30 to 5000 Hz)
CO (5 to 20 kHz)
DIFAR (5 to 2400 Hz)
 Operating Life.....0.5, 1.0, 2.0, 4.0, or 8.0 hours
 Operating Depth.....d1: 27 meters (90 ft)
d2: 61 meters (200 ft)
d3: 122 meters (400 ft)
d4: 305 meters (1000 ft)
 EFS selections..... RF, Life, Depth, Sensor, and AGC
 CFS selections..... RF, Life, Sensor, and AGC
 Launch Altitude..... 12 to 9144 meters (40 to 30000 ft)
 Launch Speed..... 0 to 370 KIAS
 Shelf Life 5 years in sealed container