### AN/SSQ-77B VLAD (1994, A-Size, 99 Chn, 152/305m, 1/4/8hrs)

## Sonobuoy

Type: Sonobuoy

Weight: 11.0 kg

Length: 1.0 m

Span: 0.0 m

Length: 1.0 m Diameter: 0.0

Generation: None



#### Sensors / EW:

- AN/SSQ-77B VLAD - Hull Sonar, Passive-Only, Sonobuoy, Passive-Only Directional Vertical Line Array DIFAR (VLAD), Max range: 74.1 km

#### Weapons / Loadouts:

- AN/SSQ-77B VLAD - (1994, A-Size, 99 Chn, 152/305m, 1/4/8hrs) Sonobuoy.

OVERVIEW: The AN/SSQ-77B Vertical Line Array Directional Frequency Analysis and Recording (VLAD) is an "A-size" passive, vertical-line array DIFAR directional sonobuoy.

DETAILS: The AN/SSQ-77B VLAD is a passive sonobuoy designed to increase signal detection in a high-ambient noise environment. It uses a vertical line array of omnidirectional hydrophones to form an selectable angled beam to exploit either bottom-bounce or convergence zones and reduce high ambient/shipping noise, while attenuating reception of unwanted noise. This capablity gives the AN/SSQ-77B the ability to search, detect, and classify a target at extended ranges with minimum expenditure of sonobuoys.

Like the DICASS it also provides a magnetic bearing to the signal of interest. It has a frequency capability in the 10 Hz-2,400 Hz range. It is capable of deploying at depths of 500 or 1,000 feet preset lifetimes of either 1, 4 or 8 hours.

NOTES: Fully operational within 4 minutes of entering the water. Service tests models approved for use in 1978. Production began in 1980.

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SOURCES: Friedman, Norman, and Norman Friedman. The Naval Institute Guide to World Naval Weapon Systems, 1997-1998 Annapolis, Md: Naval Institute Press, 1998, pg. 657-58; GlobalSecurity.org - Reliable Security Information. "AN/SSQ-77B Vertical Line Array Directional Frequency Analysis and Recording (VLAD) Sonobuoy." Accessed November 24, 2014. http://www.globalsecurity.org/military/systems/ship/systems/an-ssq-77.htm; Jane's Underwater Warfare Systems, "AN/SSQ-77B (VLAD)"