



The

Signal

Team

AN/URT-44

OVER-THE-HORIZON COSPAS-SARSAT PERSONNEL LOCATOR BEACON

The Signal Team's AN/URT-44 is an enhanced performance Personnel Locator Beacon (PLB) designed as a form-and-fit replacement for the older-generation AN/URT-33A and C/M, exceeding their functional features and capabilities.

The AN/URT-44 PLB integrates the capabilities of the AN/URT-33, which transmitted the older style emergency location beacon at 243 MHz, along with new features which added the ability to transmit a second homing signal at 121.5 MHz and the newer digital formatted distress message at 406.037 MHz frequency to the Cospas-Sarsat transponder equipped satellites. This digital message includes GPS geolocation with an accuracy better than 26 meters (82 feet), thus greatly improving personnel location reliability, speed of rescue and level of confidence.

The 121.5 and 243 MHz transmissions of the AN/URT-44 provide approaching SAR forces with a beacon for their direction finding equipment. The primary advantage of a 406.037 MHz beacon over a 121.5 and 243 MHz beacon, when used in conjunction with the Cospas-Sarsat satellite system, is to provide initial SAR forces with the transmitter location. Thus, the beacon's location is computed by the Cospas-Sarsat system based on the Doppler shift between the 406.037 MHz beacon and the satellite orbital motion or the embedded GPS position when acquired by the beacon.

The AN/URT-44 uses an enhanced multi-moded waveform compatible with STANAG 7007, which facilitates location and detection during search and rescue operations. The device was qualified by Cospas-Sarsat authorities for military use at Class 2 standards.



**Selected by the US Air Force
as the Superior Successor
of the AN/URT-33**

When it comes to Personnel Locator Beacons – We've Got You Covered

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AN/URT-44

ENHANCED OVER-THE-HORIZON

COSPAS-SARSAT

PERSONNEL LOCATOR BEACON

Outstanding Features

- Commercially available batteries, extra long life for continuous beacon operation
- Simultaneous transmission at three beacon frequencies
- Super-compact and light-weight
- Manual and automatic activation
- Local and remote activation through USB port, A/C activation cable or magnetic activation plug
- Fully compatible with Cospas-Sarsat protocol, approved by C/S authorities
- Reprogrammable on aircraft
- Meets NATO STANAG 7007 latest issue, EUROCAE ED 62 RTCA, DO-204, DO-183

Key Performance Parameters

- **Beacon case:** The AN/URT-44 case dimensions and sculpted edge design are uniquely suited for installation into the existing ACES II/III survival kit and BA-22 parachute pockets.
- **Ability to transmit on 121.5/243 & 406 MHz:** The AN-URT-44 utilizes proven technology to provide a robust, reliable triple-frequency beacon, while simultaneously receiving the beacon's coordinates from the embedded GPS receiver.
- **Superior GPS filtering:** The GPS signal, received from the antennas, is conditioned through an LNA and ceramic bandpass filter, providing sufficient rejection of the homer signal at 121.5 and 243.0 MHz. and enabling the GPS receiver to acquire the PLB's coordinates even while transmitting the homer signal on 121/243 MHz.
- **Interface with the ACES II/III Remote Activation Cable:** The AN/URT-44, which was developed to USAF specifications, has an approved interface to a Remote Activation Cable Assembly.



System Performance

Frequencies: <ul style="list-style-type: none"> • SAR Beacon • Cospas-Sarsat (C/S) Beacon 	121.5 and 243 MHz, and programmable non-emergency frequencies; training frequencies available on request 406.037 MHz, selectable from 406.022 MHz to 406.076 MHz [Ch A to Ch S]
Transmit Power <ul style="list-style-type: none"> • 121.5, 243 MHz • 406.037 MHz 	100 mW Over-The-Horizon (OTH), 5W
GPS Receiver	Embedded, L1 C/A Code
Geolocation GPS Receiver Accuracy	<26 m (<82 feet) with 36 sec. cold-start first acquisition
Identification	Programmable C/S ID numbers
Antennas	Primary, GPS & UHF/VHF; Auxiliary: trailing (wire) GPS & VHF/UHF
Activation methods	Manual by user; automatic: mechanical; lanyard with magnetic actuator; A/C Remote Cable Activation Assembly
Environmental & EMI Characteristics	MIL-STD-810 & 461
Temperature Range	-40°C to +55°C operation -55°C to +85°C storage
Water Immersion	10 m (33 feet)
Battery Life at -20°C	>64 hrs in 406 Beacon Mode >46 hrs. in Dual Beacon Mode >24 hrs. in Triple Beacon Mode
BIT/Support Eqpt.	Go/No-Go BIT, LED indications
Weight	≤540 gr. (≤19 oz.)
Size - W×H×D	6.6 × 1.25 × 3.25 cm (2.59" × 4.88" × 1.28")



For Superior Non-Combat SAR Systems – Signal Team – *The Intelligent Choice*

For additional information please contact:

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