

AN/ARS-6 (V12)

2ND GENERATION PERSONNEL LOCATOR SYSTEM



PLS V12: A SINGLE SYSTEM SOLUTION FOR COMBAT SEARCH AND RESCUE

Cubic's 2nd Generation AN/ARS-6 (V12) Personnel Locator System is a high-performance, cost-effective Search and Rescue (SAR) and Combat Search and Rescue (CSAR) System with a proven operational track record. The airborne guidance system is the latest evolution of Cubic's AN/ARS-6 PLS® – the No. #1 CSAR system for U.S. and NATO forces for nearly two decades. The V12 is smaller, lighter and more powerful than its predecessor.

PLS provides secure, encrypted communications between rescue forces and isolated personnel during civil and combat rescue missions. The system is primarily installed on rotary wing aircraft, but has evolved to include selected fixed wing aircraft and unmanned aerial vehicles that support today's personnel recovery missions.

KEY FEATURES

- Retaining all the functions and backward compatibility of the original ARS-6 (V), the V12 has added several important capabilities including:
- Interoperability with all U.S. and many NATO deployed combat survival radios, including the PRC-112B/G, PRC-434, and PRQ-7
 - Extended, improved, high quality two-way voice now covers entire 225 to 400 MHz UHF Band
 - An advanced 360-degree wideband DF antenna option provides accurate azimuth measurements at all angles from 118 to 407 MHz
 - Up to eight channel “signal detect” scan
 - Decode of 406 MHz COSPAS-SARSAT embedded GPS position
 - Interoperability with all standard civil emergency distress beacons and Cubic's Tactical ELT
 - Flexible interface includes: MIL-STD-1553B, ARINC-429 and RS-422
 - Embedded ISR video and data transceiver option

Additionally, the new V12 PLS receiver/transmitter is a functional replacement for the original AN/ARS-6 R/T, interfacing with existing aircraft PLS installations and wiring (A Kit), including original hardware (CDU, RDU and ASU LRU). The lighter, smaller V12 can also be configured as a data bus controlled system, taking full advantage of integrated/bused cockpits.



AN/ARS-6 (V12) DATA SUMMARY

General

- Frequency Range225 MHz to 300 MHz (Interrogation Mode)
225 MHz to 400 MHz (AM Voice)
118 MHz to 407 MHz (DF)
- Available Channels3000 in 25 kHz steps (Interrogation Mode)
7000 in 25 kHz steps (DF)
- Antenna Coverage360°

Receiver

- TypeDual conversion superheterodyne
- Sensitivity-105 dBm (nom.)
- Audio InputHigh 200 mW / Low 50 mW
(600Ω impedance - compatible with standard ICS)

Transmitter

- Average Power Output10 Watts
- SpectrumNominal 50 dB down at ± 1 MHz from the carrier frequency (transpond mode)
- Audio Input1VPP (150Ω impedance - compatible with standard ICS)

Physical

- Receiver-TransmitterSize - 4.97” x 6.25” x 14.72” (13 lbs.)
- DF AntennaSize - 13” diameter (8 lbs.)
- Operational Temperature-40 C° to +55 C°
- Storage Temperature-57 C° to +85 C°
- Power Required5.5 Amps (max) at 28 Vdc
75 Amps Receive/Standby @ 28 Vdc

Supported Interfaces

- MIL-STD-1553
- ARINC-429
- Stand-Alone
- RS-422

