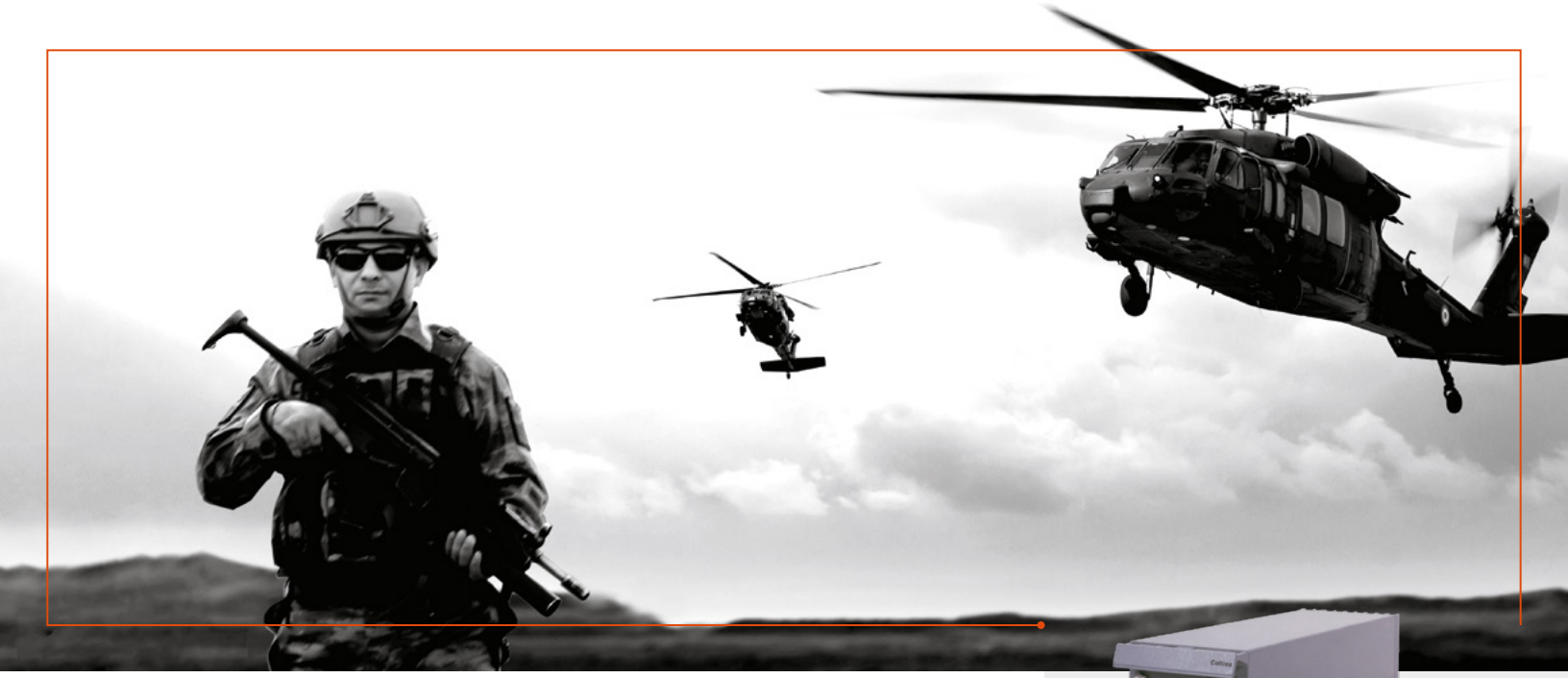

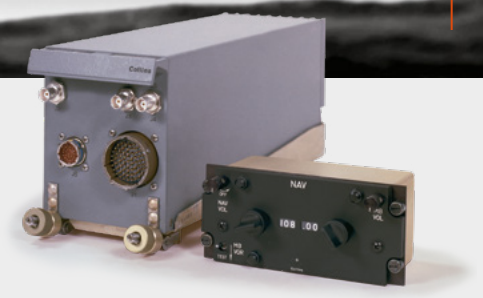

AN/ARN-147(V) VOR/ILS/GS/MB RECEIVER SYSTEM

COMPACT, LIGHTWEIGHT AND LOW COST

The military standard for navigation and landing systems

The Collins AN/ARN-147(V) VOR/ILS/GS/MB receiver system is recognized worldwide as a value-added solution on multiple military platforms. Originally designated as the standard VOR/ILS receiver for the United States Air Force, the An/ARN-147(V) quickly gained acceptance by many military users around the world and is installed on a multitude of platforms, including C-130, C-141, C-5, UH-1N, CH-47, UH-60, T-50 and JAS 39 Gripen.

The AN/ARN-147(V) is a proven design derived from extensive experience in navigation and precision approach and landing systems. As a leading supplier of these systems, Collins Aerospace has designed and manufactured more than 100,000 VHF navigation and landing systems.

Solid-state modular design and rugged construction provide long life, high reliability and excellent maintainability for both new and retrofit applications on fixed- and rotary-wing aircraft.

The receiver combines all VOR/ILS functions in one compact, lightweight, low-cost system. The AN/ARN-147(V) meets multiple stringent MIL-STD requirements, assuring peak performance under the harshest military aircraft environments.

With support for both analog and digital (MIL-STD-1553B) interfaces, the AN/ARN-147(V) is compatible with a variety of aircraft architectures.

The AN/ARN-147(V) is available to meet FM broadcast immunity requirements as defined in ICAO Annex 10. Noncompliant models can be upgraded with an FM immunity retrofit kit.

KEY FEATURES AND BENEFITS

- Low power, lightweight, solid-state design
- FM broadcast immunity per ICAO Annex 10
- Analog and MIL-STD-1553B interface
- MIL-E-5440 Class 2 environment
- MIL-STD-810 vibration
- MIL-STD-461/462 electromagnetic interface
- Selectable rotor modulation suppression
- High reliability: Predicted mean time between failures is 7,700 hours

Collins Aerospace

SPECIFICATIONS

OPERATING CHARACTERISTICS

VOR/LOC		
Frequency range		108.00 - 117.95 MHz
Frequency control		MIL-STD-1553B or ARINC 2-out-of-5
VOR channels		160
LOC channels		40
Audio sensitivity		10 µV
Frequency stability		±0.005%
Flag sensitivity		10 µV
Deviation output		
VOR	Low-level	150 mV at 10 degrees
	High-level	2.0 V at 10 degrees
	MIL-STD-1553B	12 bits plus sign, range ±180 degrees, LSB 0.044 degrees
LOC	Low-level	90 mV at 0.093 DDM
	High-level	1.2 V at 0.093 DDM
	MIL-STD-1553B	12 bits plus sign, range ±0.4 DDM, LSB 0.0002 DDM
Deviation accuracy		
VOR		RTCA DO-196
LOC		RTCA DO-195 Class B
Low-level flag		+300 to +500 MV, 1 to 5 loads, 1,000 ohms each
High-level flag		+15 to +22 V, 1,500-ohm load
RMI capacity		1 to 5 loads
RMI accuracy		RTCA DO-196
Audio output		Not less than 100 mW into 150 ohms

GLIDESLOPE

Frequency range	329.15 to 335.00 MHz
Frequency control	MIL-STD-1553B or ARINC 2-out-of-5 (paired with localizer channels)
Channels	40 with 150 kHz spacing
Frequency stability	±0.005%
Flag sensitivity	20 µV
Deviation outputs	
Low-level	78 mV at 0.091 DDM
High-level	1.04 V at 0.091 DDM
MIL-STD-1553B	12 bits plus sign, range ±0.8 DDM, LSB 0.0002 DDM
Deviation accuracy	RTCA DO-192
Low-level flag	+300 to +500 mV, 1 to 5 loads, 1,000 ohms each
High-level flag	+15 to +22 V, 1,500 ohms load minimum

MARKER BEACON

Frequency	75 MHz
Sensitivity	High: 200 to 1,000 µV (adjustable) Low: 1,000 to 4,000 µV (adjustable)
Lamp outputs	3 lamps output, +28 VDC lamp load, 340 mA maximum, strappable for single lamp
Audio output	Not less than 100 mW into 150-ohm load, at 10 times lamp threshold

PHYSICAL CHARACTERISTICS

Size	4.12 x 5 x 12 in. (W/H/D); 104.6 x 127.3 x 304.8 mm (W/H/D)
Weight	
With MIL-STD-1553B	8 lbs. (3.6 kg)
Without MIL-STD-1553B	7.5 lbs. (3.4 kg)

Specifications subject to change without notice.

Collins Aerospace

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