

# AN/ARC-201 SINCGARS Airborne Radio

The AN/ARC-201 is a tactical airborne radio subsystem that provides secure, anti-jam voice and data communication.



The Exelis AN/ARC-201 Single Channel Ground and Airborne Radio System (SINCGARS) System Improvement Program (SIP) airborne radio is a reliable, field-proven voice and data battlespace communications system with networking capabilities.

The AN/ARC-201 is a tactical airborne radio subsystem that provides secure, anti-jam voice and data communication. The integration of COMSEC and the Data Rate Adapter (DRA) combines three Line Replaceable Units into one and reduces overall weight of the aircraft.

Additional features such as improved error correction, Enhanced Data Modes (EDMs) (including packet data), more flexible remote control and Global Positioning System (GPS) compatibility allow the Exelis Airborne SINCGARS radio to

assume a number of new roles supporting future digital battlefield requirements.

The AN/ARC-201 is backwards compatible with existing SINCGARS Data Modes (SDMs). The EDMs of the radio employ a Reed-Solomon Forward Error Correction (FEC) technique that provides enhanced bit-error-rate performance. The EDM packet data mode supports packet data transfer from the airborne host computer to another airborne platform, or to the groundbased equivalent SINCGARS system. The radio is Enhanced System Improvement Program (ESIP) waveform compatible and provides voice and data packet retransmission capabilities as well as improved noisy channel avoidance for enhanced Frequency Hopping (FH) synchronization.

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## RECEIVER CHARACTERISTICS

Noise figure	10 dB
Image rejection	MIL-STD 461A
IF rejection	100 dB minimum

## TRANSMITTER CHARACTERISTICS

Power output	10 watts nominal
Harmonic suppression	MIL-STD 461A
Transmitter spurious responses	100 dB
Frequency deviation	± 6.5 kHz

## INPUT POWER

Primary power	28 Vdc per MIL-STD 704 (<5 Amps max.)
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## FUNCTION

- > 30-88 MHz VHF-FM
- > 2,320 channels

## TECHNICAL FEATURES

- > Jam-resistant communications
- > Voice and data
- > Automatic retransmit
- > Built-in amplitude homing
- > Integrated COMSEC
- > Integrated DRA functions
  - TACFIRE and SINCGARS data modes: 600, 1200, 2400, 4800, 16,000 bps
  - Enhanced packet data modes: 1200, 2400, 4800, 9600, RS-232
  - Packet EDM mode is 16 kbps (only RS-423)
  - 1553B bus provides radio control and GPS data input/output
- > Built-in test
- > AM-7189A/ARC-compatible
- > Six FH presets (including TRANSEC keys)
- > Six single channel presets plus manual and cue channels
- > Voice and data retransmit in packet
- > Improved noisy channel avoidance to enhance FH synchronization
- > ESIP waveform compatible
- > Situational Awareness (SA)
- > Replaces bus radio (RT-1478), DRA (CV-3885) and external COMSEC
- > MIL-STD-1553B compatible
- > Provides 1553B control of AM-7189A/ARC 40-watt amplifier

## INTERFACE CHARACTERISTICS

Interfaces with the following avionics equipment:

- > ID-1351A homing meter
- > C-16111, C-6533, C-10414 intercoms
- > AM-7189A/ARC 40-watt power amplifier



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