

Aeronautical Radio, Inc. (ARINC), in cooperation with Rockwell/ Collins Aviation Group, is establishing two ground stations on frequency 136.975 MHz, one each at the Collins manufacturing facilities located in Melbourne, Florida, and Cedar Rapids, Iowa. The purpose of these stations is to evaluate co-channel and adjacent channel protection requirements for the recently ICAO “Standards and Recommended Practices” (SARPs) for VHF Data Link Mode-2 (VDL-2) air-ground data link communications.

These stations will operate under the control of a central computer located in the ARINC “System Test-Bed” at ARINC Headquarters, Annapolis, MD, or in a “stand-alone” mode under the control of a co-located computer for preliminary tests. All signals will be identifiable by digital addresses contained in each data block sent by either the ground station, or the associated aircraft. Aircraft will transmit only under the control of the associated ground station’s computer, and may be operated at altitudes up to 45,000 ft MSL, for an effective range of approximately 225 nmi.

Experimentation at, or near line-of-sight is necessary to evaluate near/far effects among various communications and navigation systems in the aircraft. The frequency 136.975 MHz is reserved by ICAO specifically for VDL-2 as a “common signaling channel”, which has not yet been placed in operational use. This application for an Experimental license is directly related to ARINC’s plan for implementation of an operational system on this frequency.

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