

Description for Experimental license request for Garmin International Inc.

The program of research is related to aviation data links of air-ground communications for the purpose of communicating safety related air traffic control messages between aircraft crew and air traffic route controllers. The avionics will communicate with ground-based stations through an RF link known to the aviation community as VDL (VHF Digital Link) Mode 2. VDL Mode 2 is an air-ground communications protocol which operates in the aviation COM band of 118- 137 MHz. VDL Mode 2 typically operates on its common signaling channel of 136.975 MHz. VDL Mode 2 is characterized by Differential 8 Phase Shift Keying digital modulation, 25 kHz channel spacing.

Before beginning flight trials with our avionics, Garmin will mount our GDR 66 aviation radio and antenna from a fixed location on our facility. This radio will communicate with a VDL Mode 2 ground station provided by Collins Aerospace/ARINC at nearby New Century Airport (KIXD). Garmin has received approval from ASRI for operation on these frequencies.

This experimentation will be instrumental in developing data Link avionic systems and radios to be eventually used by civil aircraft. The goal of this research is to develop next generation air traffic control systems to promote safety of the operation of civil aircraft and to improve the capability and efficiency of the air traffic control system, including but not limited to the system provided by the FAA.

A similar request was previously licensed under expired experimental license call sign WF2XXM.