

September 27, 2010

Subject: Project description: ADS-B

Appareo is designing an implementation of the FAA's next gen air-traffic-control (ATC) protocol: ADS-B. The radio broadcasts aircraft state information to any other aircraft equipped with an ADS-B capable receiver. This provides increased situational awareness for pilots. Alternatively, the radio can be installed on unmanned platforms for automated acquisition of airborne targets that are equipped with either 978 UAT transceivers or 1090 Mode S squitters.

Background:

Currently, there is only one commercially available implementation of the 978 transceiver (Garmin GDL-90). This particular device is an implementation of an out-of-date version of the MOPS (Minimum Operation and Performance Standards - requirements for ADS-B protocol/UAT data link). The FAA has recently released an ADS-B mandate for 2020 - our efforts directly address the availability of avionics to meet that mandate.

Project Objectives:

Create a 978 MHz (UAT) transceiver compliant with the ADS-B/UAT link layer protocols. The radio will include a 1090 MHz (Mode S Extended Squitter) receiver to allow for reception of ADS-B over both the 978/1090 data links increasing the number of targets that can be seen.

Very Respectfully,