

ABSTRACT

Air traffic control is one of the most important aspects of flight management. One of the technologies used to monitor air traffic is Automatic Dependent Surveillance-Broadcast (ADS-B), an automated system for transmitting aircraft position and identity data. However, commercially available ADS-B receivers are expensive and require complex installation procedures. Therefore, this research aims to implement RTL-SDR (Software Defined Radio) as an affordable and user-friendly ADS-B receiver. RTL-SDR is a radio receiver device that can be controlled by computer software. By using RTL-SDR, an antenna and a computer, the researcher can collect and display ADS-B data from aircraft flying in the vicinity of the research site. The research results indicate that the RTL-SDR can be used as an effective and efficient alternative to an ADS-B receiver.

Keywords: ADS-B, ATC, GPS, RTL-SDR, GPS, airplane