



FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-19-19

Date: December 5, 2019

SUBJ: Navigation: Transponder System

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin informs owners and operators of an issue with certain ground stations properly detecting and tracking aircraft equipped with Rockwell Collins TDR-94 and TDR-94D ATC/Mode S Transponders.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

Certain ground stations outside of the United States have issues tracking aircraft equipped with TDR-94() ATC/Mode S Transponders modified by Rockwell Collins Service Bulletin TDR-94()-34-30; this is marked on the unit as MOD "30". Issues include instances where aircraft were not detected by a Multilateration (MLAT) ground system, where an aircraft was not tracked when close to the airport, or where a duplicate return was sensed by an Air Traffic Control Radar Beacon System (ATCRBS) ground station.

The loss of detection / duplicate reports usually occur when TDR-94() MOD 30 equipped aircraft are close to the ground station. For MLAT stations, this is usually within 1 nautical mile of the ground station; other ground systems have had issues at a greater distance. This issue is only evident near ground stations that have not implemented Dynamic Minimum Trigger Level (MTL).

Recommendations

There is an update available to the TDR-94() that will allow all ground stations outside of the United States to properly detect and track the aircraft. The FAA recommends that owners and operators, who have a TDR-94() marked with MOD "30", refer to Rockwell Collins Service Bulletin TDR-94()-34-33 Revision No. 1 or later for further information.

For Further Information Contact

Christopher Withers, Aerospace Engineer, 1801 Airport Road, Suite 100, Wichita KS 67209; phone: (316) 946-4190; fax: (316) 946-4107; e-mail: christopher.d.withers@faa.gov

For Related Service Information Contact

Rockwell Collins, 400 Collins Road NE, Cedar Rapids, IA 52498; phone: (319) 295-5000.