



**U.S. Department
of Transportation
Federal Aviation
Administration**

SAFO

Safety Alert for Operators

SAFO 17013
DATE: 12/14/17

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO.

Subject: Rockwell Collins Flight Management Systems Pro Line 4 and Pro Line 21 Navigation Databases

Purpose: This SAFO informs the operators of Rockwell Collins Flight Management Systems (FMS) Pro Line 4 and Pro Line 21 FMS of the reinstatement of approximately 10,000 approach procedures and provides awareness to flightcrews of the new Rockwell Collins Temperature Compensation Limitations. The approach procedures will be reinstated in the 12/14/2017 navigation database update.

Background: During flight inspection, an operator observed the FMS map displaying an incorrect turn for the CYXJ (Fort St John) ILS Runway 29 missed approach while using temperature compensation (aircraft CRJ-200 with Pro Line 4 FMS 4.2). The operator assumed this was only with the map display and reported this issue to Rockwell Collins. Rockwell Collins determined that if the crew manually edits or temperature-compensates a “Climb to” altitude, the FMS removes the database turn direction (if any) on the following leg if the leg is Course-to-Fix or Direct-to-Fix. After sequencing the “Climb to” leg, the FMS will turn in the wrong direction if the required turn direction is not the most direct. This can occur in departures and missed approaches.

Discussion: The Federal Aviation Administration (FAA) is working with Rockwell Collins to resolve this issue. Rockwell Collins has released an OPS Bulletin (Rockwell Collins OPSB 0166-17R4) to mitigate the issue.

The condition occurs in FMS versions 3.3 through FMS 4.2. The affected part numbers are identified in Table 1. For assistance in finding the FMS version installed on your aircraft, see Rockwell Collins Service Information Letter (SIL) 523-0824752 (Flight Management System Version [FMS] Matrix).

Table 1: List of Affected Rockwell Collins Part Numbers.

| Type Number | Rockwell Collins Part Number (RCPN) |
|-------------|-------------------------------------|
| FMC-3000 | 822-0883-xxx |
| FMC-4200 | 822-0783-xxx |

| Type Number | Rockwell Collins Part Number (RCPN) |
|-------------|-------------------------------------|
| FMC-5000 | 822-0891-xxx |
| FMC-6000 | 822-0868-xxx |

Recommended Action: Operators should familiarize themselves with the information in this SAFO, as well as OPSB 0166-17R4, which provides guidance for flight crews to operate Rockwell Collins systems or products. Flight crews should be aware of the new Rockwell Collins-imposed limitations as well as the recommendations identified in OPSB 0166-17R4.

Contact: Questions or comments regarding this SAFO should be directed to Small Aircraft AEG at (816) 329-3233 or (316) 941-1290.