

Enclosure 1.

II. Airplane FLT 223, Indianapolis to Baltimore, diverted to September 95

A. Pilot Log Book Report

(45)

On climb out of IND, leaving 27,000' for FL 37,000, aircraft experienced an uncommanded rudder trim input to the full left travel. Aircraft was being /hard flown/; disengaged yaw damper with no effect; accomplished emergency/abnormal proc; declared an emergency and diverted to DAY. Aircraft landed without incident, safely with no injuries to pax or crew.

B. Post Crew Comments

Flight crew reported that while enroute to Indianapolis climbing through 27,000 feet flying manual (A/P not engaged), to 30,000 feet at max rate climb, 2000 ft/min, (FMC) encountered full rudder left. The Yaw Damper was disconnected and could not re-trim (rudder trim knob centered), centered with peddles and approximately 3/4 in-flight spoiler. Crew commented that rudder trim knob was centered when the rudder moved to left, crew did not touch knob as it moved to the left. Pilot commented that rudder moved full left in approximately 1 to 2 seconds and it was stated that the rudder moved faster than during ground rudder checks. Pilot diverted to Dayton. Airplane landed without incident. Pilot recalled no flight deck lights/warnings, however, noted an earlier VHF com problem which cleared. Side slip indicator during event indicated 2-2 1/2 ball widths to right. Airplane rolled about 15 to 20 degrees, hand flying. Airplane heading 070 degrees in turn to establish new heading (as cleared by ATC) to (heading 100 - 110 degrees).

Airplane landed using flaps 15, 153 knots, with 1/2 to 3/4 spoiler. Airplane gross weight 113 Klbs.

C. Miscellaneous Information from Various Sources

D. Post Event Trouble Shooting Information

Aircraft power off, rudder trim unit OK. Power on A/C, Check Trim, full left found PCU control unit switch bad, pin 12 shorted to pin 1. Found dirt on trim knob. Also prior to disconnect of connector ground was found that disappeared as connector was disconnected. Rudder trim module, actuator, indicator removed and replaced. Aircraft flight tested OK on 1 October and returned to service. Further details available on telex

E. Removed Components & Test Results

- Rudder Trim Actuator P/N 81205 (10-62025-1), S/N B0394 removed.
 - Test results ...
- Rudder Trim Module P/N 69-73703-5, S/N D00142 removed.
 - Test results ...
- Rudder Trim Indicator P/N CNN-3641-C (10-6203501), S/N 442DA removed.
 - Test results ...

F. FDR Analysis & Interpretations



