11/27/2018 **FOR YOUR INFORMATION** 2018-146/3-19

1581122

To: Boeing Commercial Airplane Company

Info: FAA (AVP-1, AVP-200, AFS-200, AFS-280, AFS-100, AFS-900, ANM-100, SEA-ACO, SEA-AEG, AQS-230), A4A, AFA, ALPA, AMFA, APFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, NTSB, PAMA, TWU

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: B737-700 Loss of Pitot/Static PFD Data

We recently received an ASRS report describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dennis Doyle at (408) 541-2831 or email at dennis.j.doyle@nasa.gov

Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189

ACN: 1581122

Time
Date: 201809
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZZZ.ARTCC
State Reference: US
Altitude.MSL.Single Value: 39000

Environment
Flight Conditions: Mixed

Aircraft 1
ATC / Advisory.Center: ZZZ
Make Model Name: B737-700

Component 1
Aircraft Component: Flight Dynamics

Person 1
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: Captain
ASRS Report Number: 1581122

Events
Anomaly.Aircraft Equipment Problem: Less Severe
Detector.Automation: Aircraft Other Automation
Detector.Person: Flight Crew
Result.Flight Crew: Overcame Equipment Problem
Result.Flight Crew: FLC complied w / Automation / Advisory
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Air Traffic Control: Provided Assistance

Narrative 1

Cruising at FL390 on First Officer's (FO) leg, at approximately half-way [into the flight], the First Officer's primary flight display (PFD) did not display airspeed, altitude, vertical speed indicator, VNAV pitch bar, or Baro bug information. The B autopilot also self-disconnected. The FO's PFD did have the attitude indicator, LNAV course bar, and Horizontal Situation Indicator displayed normally. SPEED and ALT warning flags occupied the blank space where the airspeed and altitude information were normally displayed. No other warning flags, FMC alerts, or annunciators, including any IRS annunciators, were present. One small clue of the cause of the issue was an unusual code on the IRS control panel indicating a "07" when status was selected on the right IRS. All information was displayed normally on the Captain's instruments and control was transferred to the good side as trouble shooting took place. Reviewing the QRH gave neither indication of the cause of the problem nor any definitive procedure to correct the issue. With lack of any guidance on the situation, we decided to take inventory of the remaining flight instruments and troubleshoot what we reasonably could. We did not attempt to select Attitude on the IRS control panel as we had good attitude indicator on the FO's PFD. We did attempt to select the IRS both on 1, but that was unsuccessful in regaining lost information displays but did cause a loss of the A autopilot; therefore, that switch was re-selected to the neutral position. No other switch reposition was determined to be of aid. After exhausting

reasonable ideas to regain the information, we concluded attempts at correcting the deficiency, declared "Unable RVSM" to ATC, and were given clearance to descend to FL270. We informed Dispatch of the loss of pitot static flight indicators on the FO's PFD and queried about potential issues with weather and visibility at [destination] which had been experiencing rain and thunderstorms prior to our departure. We concluded that we would not want to have to do an instrument approach and would divert to a VMC alternate if an instrument approach would be necessary. The weather in [destination] was currently VMC with good visibility and ceilings above 4000 FT, and radar indicated it would remain VMC through our ETA. We elected to continue to the original destination with the caveat of a divert if the weather deteriorated. An otherwise uneventful visual approach and landing ensued. During taxi to the gate the lost pilot static instruments were suddenly redisplayed. Logbook write up was made and Maintenance was called. After over an hour of maintenance work on the aircraft and no cause or solution found, the decision was made to find another aircraft for the next leg.

Synopsis

B737-700 Captain reported pitot static indications on the First Officer's PFD blanked and were replaced with warning flags.