

10/28/2022

**FOR YOUR INFORMATION**

2022-111/3-14

1933985

To: Boeing Commercial Airplane Company

Info: FAA (AVP-1, AVP-200, AFS-200, AFS-900, AFS-260, AFS-100, AIR-720, AIR-780, AIR-360, SEA-AEG), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, IPA, NTSB, PAMA, RAA, SWAPA, TWU

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

Re: B737-800 Weather Radar Anomalies

We recently received ASRS reports 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 Dr. Becky Hooey at (408) 541-2854 or email at [becky.l.hooey@nasa.gov](mailto:becky.l.hooey@nasa.gov).



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



## ACN 1933985

### DATE / TIME

Date of Occurrence	202209
Local Time Of Day	No Local Time Of Day Stated

### PLACE

Altitude - AGL	0
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### AIRCRAFT / EQUIPMENT X

Make Model Name	B737-800
Operating Under FAR Part	121

### COMPONENT 1

Aircraft Component	Weather Radar
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### PERSON 1

Function - Maintenance	Technician
ASRS Report Number	1933985

### EVENTS

Anomaly	Aircraft Equipment Problem - Less Severe
Anomaly	Deviation / Discrepancy - Procedural - Published Material / Policy
Detector - Automation	Aircraft Other Automation
Detector - Person	Flight Crew
Result - General	Maintenance Action

### NARRATIVE 1

I have written up four -800s in the last year for weather radar that does not accurately depict thunderstorms on the 160-mile scale. In visual conditions it has been obvious that weather was within and above our altitude (confirmed with WSI EFB radar display). The radars displayed no weather returns at all. When within 80 miles, the radar depicted some returns but all were hashed out in green, meaning our altitude was well above. Visual verification proved this to be false. Once within the 40-mile scale, it would more accurately depict intensity and height, but by then it could be too late to make a preemptive turn.

Two Mechanics informed me that there was a known corruption of the data on the -800's memory that depicts return tops. The most recent Mechanic also said how temperature (heat) sensitive the transmitters are and he blew out a canister filter that was full of debris. We have recently been reminded of turbulence injuries to Flight Attendants. The scenario I have written about happening in IMC or night conditions, when 100% of our faith relies on accurate radar returns, could lead to inadvertent penetration of thunderstorms.

### SYNOPSIS

Air carrier pilot reported problems with the B737-800 weather radar not working correctly on numerous aircraft.