

2/28/2019

FOR YOUR INFORMATION

2019-9/4-3

1590427

To: Airport Manager, Memphis Intl. Airport (MEM), TN, FAA (ATM MEM ATCT)

Info: FAA (AAS-1, AAS-300, AJI-144, AVP-1, AVP-200, AFS-200, AFS-280, AFS-400, ASO-500), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IATA, IBT, ICAO, ICASS, IFALPA, NTSB, PAMA, SWAPA, TWU

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

Re: MEM RWY 18R LED Lighting Anomaly

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: 1590427

Time

Date: 201810

Local Time Of Day: 1801-2400

Place

Locale Reference.Airport: MEM.Airport

State Reference: TN

Environment

Flight Conditions: VMC

Aircraft 1

ATC / Advisory.Tower: MEM

Make Model Name: Commercial Fixed Wing

Person 1

Function.Flight Crew: Captain

ASRS Report Number: 1590427

Events

Anomaly.Ground Event / Encounter: Other / Unknown

Detector.Person: Flight Crew

Result.Flight Crew: Became Reoriented

Narrative 1

On final approach into MEM on RWY18R I noticed what looked like a faint displaced threshold. This made me think I had missed a NOTAM about some construction. As we flew closer to the runway I realized it was a double image just like I had noticed in OKC about 6 months earlier. The double image is caused by the LED lighting and it appears to be like a prism or holographic effect in the windows or the aircraft. I wear glasses and so during taxi in I raised my glasses and had the same double image and my First Officer who does not wear glasses had the same double image. Also, the double image changes with seat position and is in the front and side windows. In OKC earlier I thought it was caused by the lights being step 5 but the lights in MEM were at mid-range intensity. This is a safety of flight issue that would affect your depth perception in a low visibility approach to a manual landing. I have never seen this in my entire career with regular incandescent lights. I think LED lights somehow reacting with the different layers of the aircraft windows.

Synopsis

Air carrier Captain reported LED lighting on Runway 18R at MEM could affect depth perception in low visibility due to prism effect.