

11/2/2023

FOR YOUR INFORMATION

2023-178/5-61

2034222

To: Airport Manager, Boston Logan Intl, (BOS), MA, FAA (AAS-1)

Info: FAA (AEA-600, AFS-260, AFS-200, AJI-144, AVP-1, AVP-200, ATM BOS Tower, Director of Air Traffic Operations, ESA North), A4A, AAEE, ALPA, APA, ASAP, ATSAP, ATSG, CAPA, IATA, ICAO, ICASS, IFALPA, IPA, NATCA, NTSB, RAA, SWAPA

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

Re: BOS Airport Low Visibility Signage and Marking Issues

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.



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



ACN 2034222**DATE / TIME**

Date of Occurrence 202309
Local Time Of Day 1201 to 1800

PLACE

Locale BOS.Airport
State MA
Altitude - AGL 0

ENVIRONMENT

Flight Conditions IMC
Weather Rain

AIRCRAFT / EQUIPMENT X

ATC / Advisory - Ground BOS
Make Model Name Commercial Fixed Wing
Operating Under FAR Part 121

PERSON 1

Function - Flight Crew Captain
Function - Flight Crew Pilot Flying
ASRS Report Number 2034222

PERSON 2

Function - Flight Crew First Officer
Function - Flight Crew Pilot Not Flying
ASRS Report Number 2034230

EVENTS

Anomaly Deviation / Discrepancy - Procedural - Clearance
Anomaly Deviation / Discrepancy - Procedural - Published
Material / Policy
Anomaly Ground Incursion - Runway
Anomaly Ground Event / Encounter - Weather / Turbulence
Detector - Person Flight Crew
Result - Flight Crew Requested ATC Assistance / Clarification
Result - Air Traffic Control Issued New Clearance

NARRATIVE 1

Taxied from the terminal to RWY 4 R, via Mike taxiway onto RWY 14/32 . We were instructed to hold short at the visual hold point for RWY 4R. The aircraft nose inadvertently crossed the hold short line. I advised Tower, we were then given taxi instructions to rejoin RWY 4R and were given a take off clearance. Departed normally to destination.

We left the gate and needed new RWY data for wet conditions as rain began. I advised Ground that we needed to stop and review the data on Bravo Taxiway and Juliet. initially given the OK for that but as we approached that spot Ground told us to continue with a different path to RWY 4R. We slowed the taxi as heavy rain was falling which was reducing visibility. We methodically finished the data review and ran the before takeoff checklist. When we turned right onto Mike and left onto RWY 14/32, the visibility was reduced to 5000 RVR for a visual hold point. With limited markings, short taxi to the hold point after making the turn,

and HUD (Head-up Display) deployed with wipers going full the aircraft nose inadvertently crossed the hold short line. I stopped the airplane and advised Tower immediately. We were then given different instructions to taxi to RWY 4R and was given takeoff clearance.

I am a zero judgement person and I am always open to suggestions as to how/why things happen and ways to improve safety. Having said all of that, I would only ask to what weather conditions are allowed for a visual hold point with limited markings/signs/lights to be utilized. I heard over the Tower frequency that RWY 4R RVR was 5000 ft. It struck me that with the heavy rain and low visibility that 14/32 would be the better option than having us stay on Bravo and hold short of RWY 4R from that point, as the signage and markings are much better at that hold point than they are on RWY 14/32.

NARRATIVE 2

After pushing back in BOS, we received the load closeout but the numbers didn't autoload. We sent for a new performance data and began taxiing. Our initial taxi instructions were 4R via Kilo, Bravo, hold short of Juliet. The CA (Captain) asked ground to stay short of Juliet for a couple minutes to wait for the new performance data. Ground said they wanted us to hold on runway 14 and to continue via Bravo, Mike, Runway 14. Meanwhile our new performance data loaded and the CA asked me to give him the load closeout brief as we were taxiing slowly on Bravo. The CA then called for the before takeoff checklist as we were turning onto Mike. Upon finishing the before takeoff checklist, the CA comes to a stop and says that he thinks he missed the hold line on Runway 14 for Runway 4R. He immediately tells tower that we might be past the hold line for 4R, which is confirmed by another aircraft. Tower sent the next arrival around and had us taxi back around on 4R, Bravo, Mike, Runway 14. We then departed without incident.

The hold point on Runway 14 for Runway 4R is noted as a visual hold point. In the rainy, IFR conditions, it was difficult to see the lines on the pavement with no associated lights.

I suggest adding more signage/lighting to the hold point on Runway 14 to make it clearer to see in low visibility conditions, and in the meantime using that hold point only during day VFR conditions. It should also be added as a hot spot on the airport diagram so that other crews are aware of the risk.

SYNOPSIS

Air carrier flight crew reported a runway incursion while taxiing in low visibility weather in BOS and taxied past the ATC assigned runway hold short point. The Captain contacted ATC and received further taxi instructions.