ALERT BULLETIN

AB 2025:21/10-1
9/30/2025
2266219, 2272946

TO: Airport Manager, La Guardia Airport (LGA), NY, FAA (AEA-600)

INFO: FAA (AAS-1, AAS-300, AVP-1, AVP-200, AFS-260, AJV-A, AFS-200, Director of Air Traffic Operations ESA North, Runway Safety Team, ATM LGA Tower), A4A, AAAE, ALPA, AOPA, APA, ASAP, ATSAP, ATSG, CAPA, EAA, IATA, IBT, ICAO, ICASS, IFALPA, IPA, NAFI, NATCA, NBAA, NTSB, RAA, SWAPA, Jeppesen Sanderson Inc.

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

SUBJ: Possible Magnetic Anomaly at LGA

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 following:

ASRS recently received reports from pilots describing heading indication issues believed to be associated with magnetic disturbances at LGA airport.

(ACN 2266219) Air carrier Captain reported the compass malfunctioned during the takeoff roll on LGA Runway 4. After the First Officer ran the QRH, the compass worked properly for the remainder of the flight.

(ACN 2272946) Small transport pilot reported the magnetic heading indicators on both PFDs disagreed by more than 5 degrees during departure climb at LGA, resulting in a track deviation from the SID. The indicators realigned after level-off.

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.

ACN 2266219

DATE / TIME	
Date of Occurrence	202507
Local Time Of Day	0601 to 1200
PLACE	
Locale	LGA.Airport
State	NY
Altitude - AGL	0
AIRCRAFT / EQUIPMENT X	
ATC / Advisory - TRACON	N90
Make Model Name	Bombardier/Canadair Undifferentiated or Other Model
Operating Under FAR Part	121
COMPONENT 1	
Aircraft Component	AHRS/EFIS
PERSON 1	
Function - Flight Crew	Captain
Function - Flight Crew	Pilot Flying
ASRS Report Number	2266219
EVENTS	
Anomaly	Aircraft Equipment Problem - Less Severe
Anomaly	Deviation - Track / Heading - All Types
Anomaly	Deviation / Discrepancy - Procedural - Clearance
Detector - Automation	Aircraft Other Automation
Detector - Person	Air Traffic Control
Detector - Person	Flight Crew
Result - Flight Crew	Overcame Equipment Problem
Result - Air Traffic Control	Issued Advisory / Alert

NARRATIVE 1

I operated flight LGA – ZZZ. During the takeoff roll on Runway 4, I received an Electronic Flight Instrument System (EFIS) COMP MON caution message with an amber heading flag on my compass at approximately 80 kt. I noticed my compass showed roughly 060° when it should have showed 040°. I continued the takeoff and made a left turn to 360° per the SID. I was trying to fly by the standby compass. I called for the QRH for EFIS COMP MON. At this time, ATC queried us about our heading asking if we were on a 360° heading. The FO said our compass is showing 360° but we were having issues. ATC told us we looked to be flying a 340° and told us to turn 20° right. ATC said that we were not affecting any other traffic. ATC then told us to proceed direct ZZZZZ. After the FO ran the QRH, the compass worked properly the rest of the flight.

The FO mentioned this has happened before on Runway 4. It may be an area of known magnetic anomalies and therefore may need to be in a specific mode for takeoff like the rest of the runways in LGA.

SYNOPSIS

Air carrier Captain reported the compass malfunctioned during the takeoff roll on LGA Runway 4. After the First Officer ran the QRH, the compass worked properly for the remainder of the flight.

ACN 2272946

DATE / TIME	
Date of Occurrence	202508
Local Time Of Day	1201 to 1800
PLACE	
Locale	LGA.Airport
State	NY
Altitude - AGL	0
ENVIRONMENT	
Flight Conditions	VMC
Weather	Other: haze
AIRCRAFT / EQUIPMENT X	
ATC / Advisory - TRACON	N90
Make Model Name	Small Transport
Operating Under FAR Part	91
COMPONENT 1	
Aircraft Component	Compass (HSI/ETC)
PERSON 1	
Function - Flight Crew	First Officer
Function - Flight Crew	Pilot Not Flying
ASRS Report Number	2272946
EVENTS	
Anomaly	Aircraft Equipment Problem - Less Severe
Anomaly	Deviation - Track / Heading - All Types
Anomaly	Deviation / Discrepancy - Procedural - Clearance
Detector - Automation	Aircraft Other Automation
Detector - Person	Flight Crew
Result - Flight Crew	Became Reoriented
Result - Flight Crew	Overcame Equipment Problem
Result - Flight Crew	Requested ATC Assistance / Clarification

NARRATIVE 1

My Captain and I lined up on Runway 13 at LGA for departure. Once on the runway, waiting for takeoff clearance, the crew ran through standard call-outs, which include "assigned runway confirmed, heading checks". It was clear that this was the assigned Runway 13, as the numbers on the pavement confirmed that. However, our gyroscopic and synthetic vision equipment did not support that we were on a heading of 134 degrees, the charted runway heading for Runway 13. The runway information tab on our charts warned us of potential magnetic anomalies when lined up for departure on Runway 13, which the crew was aware of, so we proceeded to standby for our takeoff clearance from ATC. Our IFR clearance had us flying a SID, the LGA7 departure Whitestone climb which required us to turn to specific headings upon becoming clear of obstacles after takeoff, and reaching 2.5 DME from the LGA VOR. Once airborne, the magnetic heading indicators on our aircraft had not corrected themselves, and were more that 5 degrees off of each other, which raised the heading mis-compare flag on both mine and my Captain’s PFD. After receiving a few more heading instructions from ATC during the departure phase, we had reduced the workload to allow bringing up the heading issue with ATC. After this, we were told what ATC saw our heading as, and used that to cross check with the instrumentation in the aircraft. Once level, the headings slowly began to correct themselves and realigned correctly. Being aware of the magnetic anomaly on Runway 13 at LGA prevented the crew from taking more decisive action when the equipment stopped working correctly, which caused the SID to be flown slightly off course than what it is charted to be. During this situation, we should have reported the loss of accurate magnetic heading indication to ATC sooner, as the New York airspace is very crowded and the flying of a SID into busy airspace has the potential to cause aircraft separation issues. Had ATC known about the issue sooner, we could have been issued NO-GYRO vectors to prevent the potential loss of separation between other aircraft, had there been more in the area at that time. Luckily on this day it was VMC conditions, with haze not really affecting visibility at the lower altitudes when this occurred. In the future, understanding the difference between a slight magnetic anomaly and a larger magnetic heading fluctuation would help the crew decide that canceling the takeoff clearance and using an intersection departure would help reduce the chances of a situation like this happening again.

SYNOPSIS

Small transport pilot reported the magnetic heading indicators on both PFDs disagreed by more than 5 degrees during departure climb at LGA, resulting in a track deviation from the SID. The indicators realigned after level-off.