



# Aviation Investigation Final Report

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<b>Location:</b>	Wichita, Kansas	<b>Incident Number:</b>	DCA14IA016
<b>Date &amp; Time:</b>	November 21, 2013, 21:20 Local	<b>Registration:</b>	N780BA
<b>Aircraft:</b>	Boeing 747 - 409LCF	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Non-scheduled		

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## Analysis

The captain briefed a visual approach to IAB runway 19L and that they were to back it up with the RNAV GPS runway 19L to IAB. He informed the first officer (FO) that he expected to be high on the profile as he had the three times he had previously flown into KIAB and that it was hard to acquire the runway visually unless the approach light system and runway lights were turned up to bright. The FO did not remember the briefing containing the caution in the company's station guide regarding the three airports in close proximity to KIAB nor to remain above 3,000 feet until west of Beech Field. In post incident interviews, both pilots indicated they were aware of the NOTAM that runway 1L/19R at KIAB was closed at the time of the incident.

When the flight was about 25 miles from KIAB, and the crew contacted approach control as the airplane was leveling at 10,000 feet. Approach control cleared the flight for the RNAV/GPS runway 19L approach and to cross WITBA at 4,000 feet. When the flight was about 12 miles north of KIAB, and 4.6 miles north of KAAO, at 3,900 feet, the controller instructed the flight to contact the tower. The crew then checked in with KIAB tower and was cleared to land on runway 19L. At that time, both pilots stated that a well-lit runway was visible in the approximate location of KIAB, which they believed to be runway 19L. The captain then disconnected the autopilot, discontinued the RNAV approach, and began a slightly steeper than normal approach to the what they believed to be the KIAB runway. Neither pilot crosschecked nor verified the airport position using onboard navigation after that point. The flight crew did not recognize the error until after touchdown when they each realized the runway was shorter than expected and the airport surroundings were not familiar. The local controller had less than one minute to detect the flight's premature descent, and the minimum safe altitude warning software assumed that the airplane was intentionally landing at KAAO and therefore did not issue a warning to the approach controller.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

the flight crew's failure to properly identify the airport and runway of intended landing. Contributing to the incident was the flight crew's failure to follow company procedures for crosschecking navigational information and visual cues to verify the airport and runway of intended landing.

**Findings**

<b>Personnel issues</b>	Incorrect action performance - Flight crew
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## Factual Information

### History of Flight

Landing	Miscellaneous/other (Defining event)
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On November 20, 2013, about 2120 central standard time, Atlas Air flight 4241, a Boeing 747-400 LCF, N780BA, mistakenly landed at Colonel James Jabara Airport (KAAO), Wichita, Kansas, about 9 miles north of its intended destination, McConnell Air Force Base (KIAB), Wichita, Kansas. The flight had been cleared to land on runway 19L at KIAB, which is 12,000 feet long, however, it landed on runway 18 at KAAO, which is 6,101 feet long. There were no injuries to the two pilots onboard and the aircraft was not damaged. The aircraft was being operated under the provisions of 14 Code of Federal Regulations Part 121 as a cargo flight from John F. Kennedy International Airport (KJFK), New York, New York. Night visual meteorological conditions prevailed at the time of the incident.

The captain was the pilot flying and the first officer was the pilot monitoring. According to the flight crew, while on the ground at John F. Kennedy International Airport (KJFK), the captain had preplanned for the approach by loading the flight plan into the flight management computer (FMC) for the flight to KIAB, to include entering the RNAV GPS runway 19L approach while on the ground. Prior to arrival, the captain briefed a visual approach to runway 19L and to back it up with the RNAV GPS runway 19L.

At 2109, the crew contacted Wichita (ICT) approach control, and was told to expect runway 19L. At about this time, the FO's primary flight display (PFD) started to malfunction, which required the FO to cross reference his PFD's indications with those of the captain's PFD.

At 2111:10 the flight crew requested to proceed direct to WITBA and conduct the RNAV 19L approach. The flight was subsequently cleared to descend to 4,000 feet.

At 2114:00, the ICT controller indicated that the flight was "25 miles from the airport, cross WITBA at 4,000, cleared RNAV/GPS runway 19L approach."

At 2118:45, the flight was instructed to contact McConnell tower. At that time, the flight was at 3,900 feet, 12 miles north of KIAB and 4.6 miles north of KAAO.

At 2119:05, the KIAB local controller clear the flight to land on runway 19L, which the flight crew acknowledged.

At 2120:38, according to recorded ICT radar data, the airplane landed at KAAO.

At 2121:42, the IAB local controller contacted the flight stating, "...check wheels down and expect midfield turn off taxiway Delta."

At 2121:51, the flight responded, "...4241 we might uh we'll get back to you here momentarily we're not on your approach."

At 2122:09, flight 4241 indicated, "...uh yes sir we just landed at the other airport." During the subsequent discussion, the flight crew initially thought they had landed at KBEC but worked with the KIAB local controller to finally determine they had landed at KAAO.

#### PERSONNEL INFORMATION

The captain held a valid FAA Airline Transport Pilot (ATP) certificate with type ratings for B707, B727, B737, and B747-400. He possessed a first-class medical certificate, last issued on August 12, 2013, with the stated limitation that he must wear corrective lenses; possess glasses for near/intermediate vision. He had accumulated about 20,000 hours total flight time, of which 8,000 hours were as pilot in command. He had 10,000 flight hours in the B747, of which 1,460 hours were as pilot in command. He also stated that he had flown the incident airplane about 25 times and had accumulated 150 hours in it.

The first officer held a valid FAA ATP certificate with type ratings for B747-400, B727, A300, BA3100, and the SF340. He possessed a first-class medical certificate, last issued on May 9, 2013, with the stated limitation that he must wear corrective lenses. He had accumulated 11,861 total flight hours, of which 3,025 were as pilot in command, and 2,096 were in the B747-400.

#### AIRCRAFT INFORMATION

The incident airplane, the Boeing 747-LCF Dreamlifter, N780BA, serial number 24310, was manufactured in 1990 and is registered to Boeing Aircraft Holding Company and was operated by Atlas Air under contract. It had been converted to a Dreamlifter and issued an airworthiness certificate on June 2, 2007. The airplane has a max weight of 800,000 pounds and can transport cargo up to 87,346 lbs. At the time of the incident the airplane had accumulated 71,751 flight hours on the airframe, as of its last inspection on September 9, 2013.

#### METEOROLOGICAL INFORMATION

At 2120, when the airplane landed at KAAO, the weather was; winds from the south-southeast at 5 knots, visibility 10 miles, and sky conditions clear. At KIAB where the airplane was supposed to have landed, the winds were from the southeast at 5 knots, visibility 10 miles, sky conditions clear.

#### AIRPORT INFORMATION

McConnell Air Force Base (KIAB), is located 4 miles south of Wichita, Kansas, and had a field elevation of 1,371 feet it is equipped with an operating control tower, and two runways, runway 1L/19R and runway 1R/19L, both of which has an available landing distance of 12,000 feet. The incident flight was cleared to land on runway 19L which has a 4-light precision approach path indicator (PAPI) on the left side of the runway, with a 3.00-degree glide path. The runway also has an ALSF1 approach lighting system that included strobe lights/sequence flashers, along the approach path.

The incident airport, Colonel James Jabara Airport (KAAO), is located 9 miles northeast of Wichita, Kansas, at a field elevation of 1,421 feet MSL. It is a public airport and has no control tower. KAAO had a single runway 18/36 that was 6,101 feet long and 100 feet wide, with a concrete/grooved surface. Runway 18 had a 4-light precision approach path indicator (PAPI) on the left side of the runway with a 3.00-degree glide path, and it also had a Medium-intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR).

## FLIGHT CREW INTERVIEWS

Both pilots stated that they were aware of the NOTAM that runway 1L/19R at KIAB was closed at the time of the incident.

Prior to arrival, the captain conducted an approach briefing for a visual approach to KIAB runway 19L and, in accordance with company procedures, back it up with the RNAV GPS runway 19L. During his briefing, the captain stated that he had flown this same approach at least three times and that he expected to be high on the profile as this had been the case on his previous approaches. He also briefed that acquiring the runway visually at McConnell was not easy unless the approach light system and runway lights were turned up to bright. The captain recalled that his briefing included a caution concerning the close proximity with 3 other airports; Colonel James Jabara Airport (KAAO), Wichita Dwight D. Eisenhower National Airport, and Beech Factory Airport (KBEC), which was noted on the company's KIAB Station Guide and on the Jeppesen Airport Information Chart. However, the FO did not remember the briefing included this caution or to not descend below 3,000 feet until west of "Beech Field", but that it did include the 3,000-foot altitude restriction at WARUN on the KIAB instrument approach procedure for the RNAV runway 19L approach. Neither pilot remembered briefing the approach light configuration for the planned landing runway.

The FO indicated that, about the time they contacted Wichita approach, his Primary Flight Display (PFD) started to malfunction (flight mode annunciators and flight director (FD) froze, the FD bars disappeared and the altitude hold indications flashed on and off). As a result, he had to cross reference his indications with those on the captain's PFD. The KIAB airport was not displayed on the captain's Navigation Display because he had the range set to 5 NM, which was too short a range for the airport to show on the display at that time.

Both pilots stated that a well-lit runway was visible in the approximate location of KIAB, which they believed to be runway 19L at IAB. During the approach, the captain disconnected the autopilot, discontinued the RNAV approach, and began a slightly steeper than normal visual approach to the runway. Neither pilot indicated that they referenced the navigational information for the RNAV runway 19L approach after the flight was cleared to land by the local controller.

## NTSB POSTINCIDENT SAFETY ALERT AND RECOMMENDATIONS

On March 26, 2014, in response to the circumstances of this incident and another similar incident, the National Transportation Safety Board issued a Safety Alert on wrong airport landings.

On May 4, 2015, in response to the circumstances of this incident and four other similar incidents, the National Transportation Safety Board issued Safety Recommendations A-15-9 and A-15-10 to the Federal Aviation Administration (FAA).

## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	64
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 12, 2013
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	September 5, 2013
<b>Flight Time:</b>	(Estimated) 2000 hours (Total, all aircraft), 10000 hours (Total, this make and model)		

## Co-pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	51
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 9, 2013
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	August 9, 2013
<b>Flight Time:</b>	(Estimated) 13000 hours (Total, all aircraft), 1800 hours (Total, this make and model), 2000 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N780BA
<b>Model/Series:</b>	747 - 409LCF 409	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	24310
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 19, 2013 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	800000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	4 Turbo jet
<b>Airframe Total Time:</b>	71751 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	PW4056-1C
<b>Registered Owner:</b>	Boeing Aircraft Holding Company	<b>Rated Power:</b>	56750 Lbs thrust
<b>Operator:</b>	Atlas Air , Inc.	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	UIEA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	IAB,1400 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	02:58 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	130°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.87 inches Hg	<b>Temperature/Dew Point:</b>	12°C / 7°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	New York, NY (JFK )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Wichita, KS (AAO )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	19:25 Local	<b>Type of Airspace:</b>	Air traffic control;Class E

## Airport Information

<b>Airport:</b>	Colonel James Jabara Airport AAO	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	1421 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	Global positioning system;RNAV
<b>Runway Length/Width:</b>	6100 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	37.747501,-97.221107(est)



## Administrative Information

**Investigator In Charge (IIC):** Lovell, John

**Additional Participating Persons:**

**Original Publish Date:** September 22, 2020

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=88465>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).