

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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OPERATIONAL FACTORS

Group Chair's Factual Report

April 25, 2025

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A. INCIDENT

Location: Naples, Florida
Date: February 9, 2024
Time: 1517 Eastern Standard Time (EST)
2017 Universal Coordinated Time (UTC) ¹
Airplane: N823KD, Bombardier Inc CL-600-2B16; Hop-a-Jet

B. OPERATIONAL FACTORS GROUP

Chairman	Rocky Stone National Transportation Safety Board Washington, DC
Member	Bill Bramble National Transportation Safety Board Washington, DC
Member	Amanda Taylor National Transportation Safety Board Washington, DC
Member	Michael Torrent Federal Aviation Administration Miramar, FL
Member	Matthew Rigsby Federal Aviation Administration Fort Worth, TX
Member	Anthony Donato Hop-a-Jet Worldwide Jet Charter Fort Lauderdale, FL

C. SUMMARY

On February 9, 2024, about 1517 eastern standard time, a Bombardier Inc CL-600-2B16, N823KD, was destroyed when it was involved in an accident near Naples, Florida. The two airline transport pilots were fatally injured. The cabin attendant and the two passengers sustained minor injuries, and one person on the ground suffered

¹ All times within this report are EST unless otherwise noted. At the time of the accident UTC time was EST + 5 hours.

minor injury. The airplane was operated by Ace Aviation Services (doing business as Hop-A-Jet) as a Title 14 Code of Federal Regulations Part 135 on-demand passenger flight.

The airplane was flying to Naples Municipal Airport (APF), Naples, Florida, from Ohio State University Airport (OSU), Columbus, Ohio, where it had flown earlier in the day. The airplane was serviced with 350 gallons of fuel before departure from OSU.

Preliminary Automatic Dependent Surveillance - Broadcast (ADS-B) flight track and air traffic control (ATC) data revealed that the flight crew contacted the ATC tower at APF while on a right downwind leg of the approach to the airport and maneuvering for a 5-mile final approach to runway 23. At 1508, the tower controller cleared the flight to land. The airplane was about 6.5 miles north of APF, about 2,000 ft geometric altitude (GEO) and 166 knots groundspeed, as it turned for the base leg of the traffic pattern.

A preliminary review of the data recovered from the airplane's flight data recorder revealed that the first of three Master Warnings was recorded at 1509:33 (L ENGINE OIL PRESSURE), the second immediately following at 1509:34 (R ENGINE OIL PRESSURE), and at 1509:40 (ENGINE). The system alerted pilots with illumination of a "Master Warning" light on the glareshield, a corresponding red message on the crew alerting system page and a triple chime voice advisory ("Engine oil").

Twenty seconds later, at 1510:05, about 1,000 ft msl and 122 kts, on a shallow intercept angle for the final approach course, the crew announced, "...lost both engines... emergency... making an emergency landing" (see figure 1). The tower controller acknowledged the call and cleared the airplane to land. At 1510:12, about 900 ft and 115 knots, the crew replied, "We are cleared to land but we are not going to make the runway... ah... we have lost both engines."

There were no further transmissions from the flight crew and the ADS-B track data ended at 1510:47, directly over Interstate 75 in Naples, Florida.

Dashcam video submitted to the National Transportation Safety Board captured the final seconds of the flight. The airplane descended into the camera's view in a shallow left turn and then leveled its wings before it touched down aligned with traffic travelling the southbound lanes of Interstate 75. The left main landing gear touched down first in the center of the three lanes, and then the right main landing gear touched down in the right lane. The airplane continued through the break-down lane and into the grass shoulder area before impacting a concrete sound barrier. The airplane was obscured by dust, fire, smoke, and debris until the video ended.

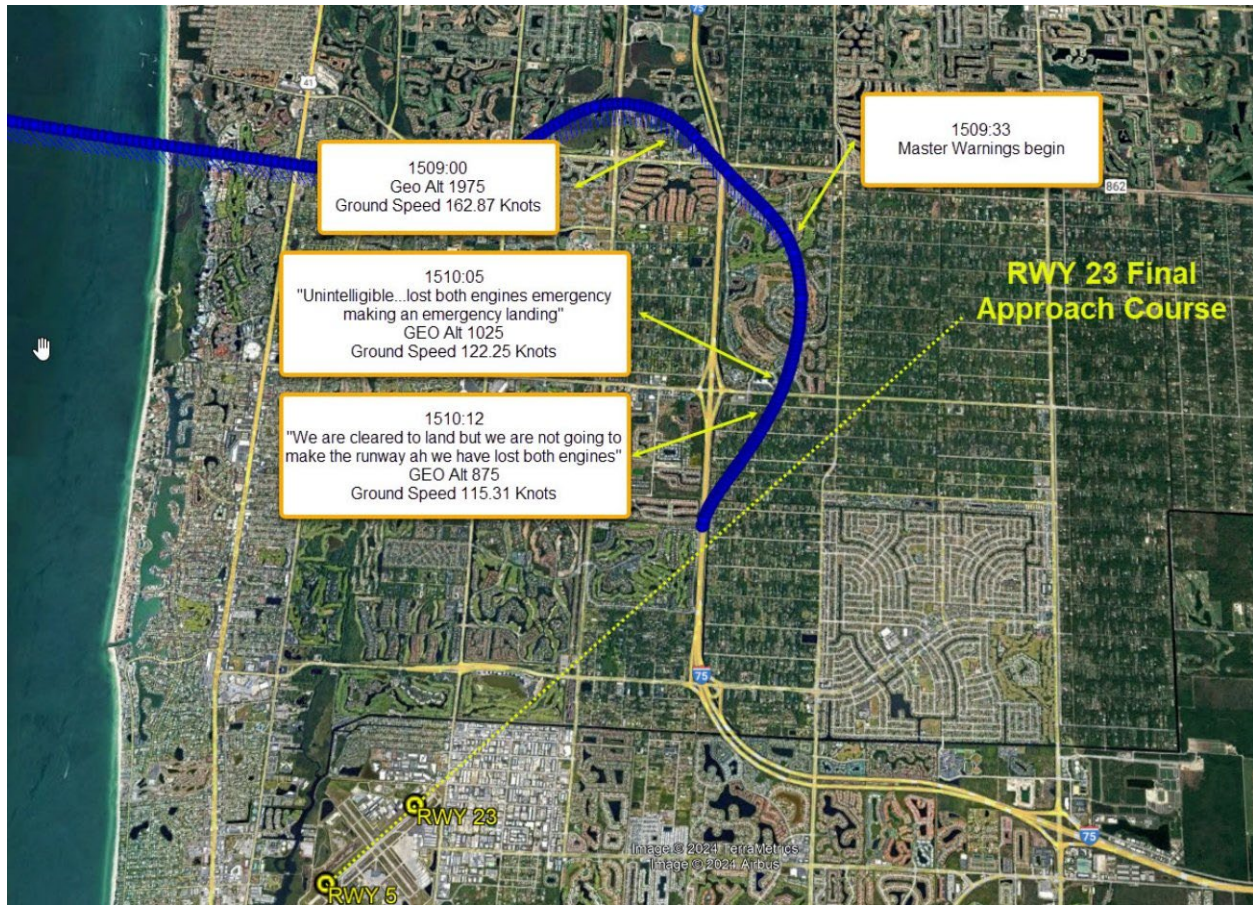


Figure 1 – Plot of the airplane’s ADS-B ground track (blue dots) with annotations of specific events during the approach that include time as well as the airplane’s geometric altitude and groundspeed (source: Federal Aviation Administration).

After the airplane came to rest, the cabin attendant stated that she identified that the cabin and emergency exits were blocked by fire and coordinated the successful egress of her passengers and herself through the baggage compartment door in the tail section of the airplane.

D. AIRPLANE INFORMATION

According to FAA and maintenance records, the airplane was manufactured in 2004 and was powered by two GE CF34 Series turbofan engines. The airplane’s most

recent continuous airworthiness inspection was completed on January 5, 2024, at 9,763 total hours of operation.

E. DETAILS OF THE INVESTIGATION

1.0 Operational Factors Group Chairman Activity Report

1.1 February 10, 2024

The Operational Factors Group Chair assigned to the investigation and began collecting pilot information from the Hop-a-Jet and the FAA. Traveled to Jacksonville, FL, site of wreckage removal.

1.2 February 12-15, 2024

Wreckage arrives at Florida Air Recover, Jacksonville, FL on February 12. Examination of cockpit wreckage begins and continues through February 15.

1.3 February 13, 2024

Operational Factors Group Chair discusses a hung start incident that occurred about two and a half weeks prior to the accident flight.²

1.4 February 20, 2024

Operational Factors Group members interviewed the Cabin Attendant for the accident flight.³

1.5 April 1, 2024

Interviewed pilots who flew with the accident pilots to document their style of flying.

2.0 History of Flight

The accident flight was the second of three planned flights for the day. The crew and aircraft started at Fort Lauderdale Executive airport (FXE) and ferried the aircraft to the Ohio State University Airport (KOSU) in Columbus, Ohio. There they picked up two passengers for the trip to Naples Municipal Airport (APF). They were planning to ferry the aircraft and crew back to FXE after dropping off the passengers at APF.

² Attachment 1 - MOR conversation with Anthony Donato

³ Attachment 2 - Bosmans Interview 20240220 with addendum

3.0 Pilot Information and Occupants

The crew consisted of a captain, first officer and cabin attendant. There were two passengers on board.

3.1 Captain Information

The captain was 50 years old and held an Airline Transport Pilot (ATP) certificate with a rating for multiengine land with type ratings on the CL-604⁴, LR-60⁵ and LR-JET⁶. He held commercial pilot privileges for airplane single engine land, and private pilot privileges for rotorcraft - helicopter. His certificate held the limitation English Proficient. He held a FAA first-class medical certificate dated October 10, 2023, with the limitation of "must use corrective lens(es) to meet vision standards at all required distances."

3.1.1 Captain Certification Records

Notice of Disapproval - Private Pilot Helicopter was issued on February 9, 1996. Unsatisfactory items: Pilot Operation VI Task C. All other pilot operations completed. First Failure.

Private Pilot - Rotorcraft - Helicopter certificate issued February 14, 1996.

Private Pilot - Airplane Single-Engine Land certificate issued December 26, 1996.

Notice of Disapproval - Private Pilot Airplane Multiengine Land on June 3, 2002. Unsatisfactory items: Engine Failure During Takeoff Before V (simulated). First failure.

Private Pilot - Airplane Single and Multiengine Land, Rotorcraft Helicopter certificate issued June 5, 2002.

Notice of Disapproval - Private Pilot Airplane Single Engine Instrument Airplane on December 6, 2003. Unsatisfactory items: Precision ILS instrument approach. First failure.

⁴ Bombardier Inc., CL-600-2B16 (CL-604 variant). Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

⁵ Learjet Inc., 60. Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

⁶ Learjet Inc., 23, 24, 24A, 24B, 24D, 24E, 24F, 25, 25B, 25C, 25D, 25F, 28, 29, 31, 31A, 35, 35A, 36, 36A 55, 55B, 55C. Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

Private Pilot - Airplane Single and Multiengine Land, Instrument Airplane, Rotorcraft Helicopter certificate issued December 8, 2003.

Notice of Disapproval - Commercial Pilot Airplane Single Engine Land on May 4, 2004. Unsatisfactory items: E. National Airspace System (ASEL and ASES), F. Short Field Approach (Confined Area - ASES), Takeoff and Landing (ASEL and ASES), K. Power-Off 180 Degree Accuracy Approach and Landing. First failure.

Commercial Pilot - Airplane Single Engine Land, Instrument Airplane, Private Pilot Privileges Airplane Multiengine Land, Rotorcraft Helicopter certificate issued May 10, 2004.

Commercial Pilot - Airplane Single and Multiengine Land, Instrument Airplane, Private Pilot Privileges Rotorcraft Helicopter certificate issued July 12, 2004.

Notice of Disapproval - LR-JET Type Rating on October 29, 2005. Unsatisfactory items: Maintaining aircraft control while in a holding pattern, non-precision approaches down to MDA. First failure.

Commercial Pilot - Airplane Single and Multiengine Land, Instrument Airplane, LR-JET, Private Pilot Privileges Rotorcraft Helicopter certificate issued November 1, 2005. This certificate is subject to Pilot-in-Command limitation for additional LR-JET ratings.

Commercial Pilot - Airplane Single and Multiengine Land, Instrument Airplane, LR-JET, Private Pilot Privileges Rotorcraft Helicopter certificate issued January 5, 2006.

Notice of Disapproval - Airline Transport Pilot on November 17, 2007. Unsatisfactory items: Area VI. Landings and approach to landing., Task D. Landing from a circling approach. First failure.

Airline Transport Pilot - Airplane Multiengine Land, LR-JET, Commercial Privileges Airplane Single Engine Land, Private Pilot Privileges Rotorcraft Helicopter certificate issued November 17, 2007.

Airline Transport Pilot - Airplane Multiengine Land, LR-JET, LR-60, Commercial Privileges Airplane Single Engine Land, Private Pilot Privileges Rotorcraft Helicopter certificate issued May 5, 2008.

Airline Transport Pilot - Airplane Multiengine Land, CL-604, LR-JET, LR-60, Commercial Privileges Airplane Single Engine Land, Private Pilot Privileges Rotorcraft Helicopter, English Proficient certificate issued November 22, 2016.

3.1.2 Captain Certificates and Ratings Held at Time of the Accident

Airline Transport Pilot (issued November 22, 2016)
Airplane Multiengine Land, CL-604, LR-JET, LR-60,
Commercial Privileges Airplane Single Engine Land,
Private Pilot Privileges Rotorcraft Helicopter,
English Proficient

MEDICAL CERTIFICATE FIRST CLASS (issued October 10, 2023)

Limitations: Must use corrective lens(es) to meet vision standards at all required distances.

3.1.3 Captain Flight Hours

The following hours were provided by Hop-a-Jet Worldwide Jet Charter via the NTSB Pilot/Operator Aircraft Accident/Incident Report form⁷ and other company records.

Previous 24 hours ⁸	4.9
Previous 7 days	7.5
Previous 30 days	35.6
Previous 90 days	155.8
Total Hours CL-604/605	2,808
Total Hours PIC CL-604/605	2,374
Total Flight Experience PIC	6,280
Total Flight Experience	10,525

3.2 First Officer Information

The first officer was 65 years old held an airline transport pilot certificate with ratings for airplane single and multiengine land, with multiple type ratings. His most recent FAA first-class medical certificate was issued on September 26, 2023. His employer reported he had accrued 24,618 total hours of flight experience, of which 138 hours were in the accident airplane make and model.

3.2.1 SIC Pilot's Certification Records

Private Pilot - Airplane Single-Engine Land certificate issued September 13, 1976.

⁷ NTSB Form 6120

⁸ All times include the accident flight

Private Pilot - Airplane Single and Multiengine Land certificate issued March 8, 1978.

Notice of Disapproval - Instrument Airplane on September 20, 1978. Unsatisfactory items: VOR Approach, ADF Approach, VOR Intersection Holding. First failure.

Private Pilot - Airplane Single and Multiengine Land, Instrument Airplane certificate issued September 23, 1978.

Commercial Pilot - Airplane Multiengine Land, Private Pilot Privileges: Airplane Single-Engine Land, Instrument Airplane certificate issued October 28, 1978.

Flight Engineer, Turbojet Powered, certificate issued December 8, 1980.

Commercial Pilot - Airplane Single and Multiengine Land, Instrument Airplane certificate issued February 20, 1981.

Flight Instructor - Airplane Single Engine Land, certificate issued February 20, 1981.

Notice of Disapproval - Type - LR Jet on March 26, 1981. Unsatisfactory items: Steep Turns, VOR Circle, ADF, ILS Approaches.

Commercial Pilot - Airplane Single and Multiengine Land, LR Jet, Instrument Airplane certificate issued May 1, 1981.

Commercial Pilot - Airplane Single and Multiengine Land, LR Jet, IA Jet, Instrument Airplane certificate issued June 11, 1982.

Airline Transport Pilot - Airplane Multiengine Land, B737, Commercial Pilot Privileges: Airplane Single Engine Land, LR Jet, IA Jet, Instrument Airplane certificate issued November 17, 1982.

Airline Transport Pilot - Airplane Multiengine Land, B737, B757, B767, Commercial Pilot Privileges: Airplane Single Engine Land, LR Jet, IA Jet, Instrument Airplane certificate issued December 13, 1989.

Airline Transport Pilot - Airplane Multiengine Land, B737, B757, B767, DC-9, Commercial Pilot Privileges: Airplane Single Engine Land, LR Jet, IA Jet, Instrument Airplane certificate issued July 9, 1994.

Airline Transport Pilot - Airplane Multiengine Land, LR Jet, IA Jet, B737, B757, B767, DC-9, A320 CIRC APCH VMC ONLY, Commercial Pilot Privileges: Airplane Single Engine Land, certificate issued November 26, 2002.

Airline Transport Pilot - Airplane Multiengine Land, LR Jet, IA Jet, B737, B757, B767, DC-9, A320/A330 CIRC APCH VMC ONLY, Commercial Pilot Privileges: Airplane Single Engine Land, certificate issued May 18, 2003.

Airline Transport Pilot - Airplane Multiengine Land, LR Jet, IA Jet, B737, B747, B757, B767, DC-9, A320/A330 CIRC APCH VMC ONLY, Commercial Pilot Privileges: Airplane Single Engine Land, B747 SIC Privileges Only, certificate issued November 22, 2005.

Airline Transport Pilot - Airplane Multiengine Land, LR Jet, IA Jet, B737, B747, B757, B767, DC-9, A320, A330 Commercial Pilot Privileges: Airplane Single Engine Land, A330 CIRC APCH VMC ONLY, B747 SIC Privileges Only, English Proficient, certificate issued February 20, 2015.

Airline Transport Pilot - Airplane Multiengine Land, LR Jet, IA Jet, B737, B747, B757, B767, DC-9, A320, A330 Commercial Privileges: Airplane Single Engine Land, B747 SIC Privileges Only, English Proficient, certificate issued July 29, 2020.

Notice of Disapproval - Type - LR 60 on February 5, 2023. Unsatisfactory items: Flight Preparation, Performance and Limitations. First Failure.

Airline Transport Pilot - Airplane Multiengine Land, LR 60, LR Jet, IA Jet, B737, B747, B757, B767, DC-9, A320, A330 Commercial Privileges: Airplane Single Engine Land, B747 SIC Privileges Only, English Proficient, certificate issued February 6, 2023.

Airline Transport Pilot - Airplane Multiengine Land, LR 60, LR Jet, CL-604, IA Jet, B737, B747, B757, B767, DC-9, A320, A330 Commercial Privileges: Airplane Single Engine Land, B747 SIC Privileges Only, English Proficient, certificate issued October 20, 2023.

3.2.1 Second in Command Certificates and Ratings Held at Time of the Accident

Airline Transport Pilot (issued February 6, 2023)
Airplane Multiengine Land, CL-604⁹, LR-JET¹⁰, LR-60¹¹, B737, B747, B757, B767, DC-9, A320, A330

⁹ Bombardier Inc., CL-600-2B16 (CL-604 variant). Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

¹⁰ Learjet Inc., 23, 24, 24A, 24B, 24D, 24E, 24F, 25, 25B, 25C, 25D, 25F, 28, 29, 31, 31A, 35, 35A, 36, 36A 55, 55B, 55C. Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

¹¹ Learjet Inc., 60. Source: FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, dated March 29, 2024

Commercial Privileges Airplane Single Engine Land,
B747 SIC Privileges Only
English Proficient

MEDICAL CERTIFICATE FIRST CLASS (issued September 26, 2023)

Limitations: Must use corrective lens(es) to meet vision standards at all required distances.

3.2.2 First Officer Flight Hours

The following hours were provided by Hop-a-Jet Worldwide Jet Charter via the NTSB Pilot/Operator Aircraft Accident/Incident Report form¹² and other company records.

Previous 24 hours ¹³	4.9
Previous 7 days	6.7
Previous 30 days	39.0
Previous 90 days	143.0
Total Hours CL-604/605	138
Total Hours PIC CL-604/605	42
Total Flight Experience PIC	13,086
Total Flight Experience	24,618

4.0 Summary of Cabin Attendant Interview

On February 20, 2024, the Operations/HP Group interviewed the Cabin Attendant. See Attachment 2.

Prior to landing, the cabin attendant relocated from the passenger cabin to the jumpseat. This was standard operating procedure for Hop-A-Jet. The cabin attendant first recognized there was a malfunction when she saw red writing on the screens in the cockpit. She overheard one of the pilots state "we're in an emergency". She then heard "we just lost both engines". She then asked the pilots "should I prepare the cabin?" and was told "brace for impact". There was no further communication between the pilots and cabin attendant. She then relocated from the cockpit jumpseat to the cabin and took a seat on the forward bulkhead. She briefed the passengers "we need to get in the brace positions". She then announced "brace, brace, brace" and the aircraft then impacted the ground. After the aircraft came to a stop, the cabin was rapidly filling with smoke, and she could see "neon flames". She unsuccessfully attempted to open the forward door and overwing emergency exit.

¹² NTSB Form 6120

¹³ All times include the accident flight

She stated it was good that the overwing exit didn't open, as there was fire outside of the window. She now realizes that the only viable exit is the baggage door. One of the passengers is already back there, possibly attempting to open the door. She instructs him to "get out of my way". After struggling with the door, she finally successfully opened it. After a slight hesitation, the passengers follow her out and she directs them "we need to get away from the aircraft".

5.0 Summary of Pilot Interviews

On April 1, 2024, the Operations Group interviewed four pilots regarding the flying styles of the accident pilots. A brief summary of the interviews is below.

The accident captain was described as a meticulous planner. "He would have literally written down the fuel planning for every single leg" of a trip. His flying was described as "very structured". He was described as "one of the quietest guys I've ever flown with". His checklist discipline was described as "it was just like you're in the flight simulator in CAE with the proper callouts and everything". His flying style was described as "different from everybody else... he flew slower than ... the rest of us. He would configure early; he would slow down early."

The first officer was described as "a very calm individual, extremely calm individual." "He was there to participate and be involved and to learn and to be an active member of the crew.... Not just a gear monkey."

F. LIST OF ATTACHMENTS

Attachment 1 - MOR conversation with Hop-a-Jet pilot

Attachment 2 - Cabin Attendant Interview

Attachment 3 - Hop-a-Jet Pilot Interviews

Submitted by:

Robert Stone
Operational Factors