Aviation Investigation Preliminary Report

Location:	Bangor, ME	**Accident Number:**	CEN26FA098
Date & Time:	January 25, 2026, 19:44 Local	**Registration:**	N10KJ
Aircraft:	Bombardier CL-600-2B16	**Injuries:**	6 Fatal
Flight Conducted Under:	Part 91: General aviation - Business		

On January 25, 2026, at 1944 eastern standard time (EST), a Bombardier CL-600-2B16 (Challenger 650) airplane, N10KJ, sustained substantial damage when it was involved in an accident near Bangor, Maine. The pilot, copilot, and 4 passengers were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 business flight.

A review of ADS-B flight track data revealed that at 1420:47 central standard time, the airplane departed William P Hobby Airport (KHOU), Houston, Texas, on the first leg of a two-leg transatlantic flight to Châlons Vatry Airport (LFOK), Châlons-en-Champagne, France. At 1809:15 EST (all times EST unless otherwise noted), the airplane landed on runway 33 at Bangor International Airport (KBGR) and then taxied to the airport's fixed based operator (FBO) ramp to refuel.

According to the airplane's flight data recorder (FDR), at 1815:22, the airplane arrived to the FBO ramp. The left-and-right engines were shut down, and the airplane remained electrically powered by the auxiliary power unit (APU) while the airplane was refueled with Jet A-1 fuel. After refueling, the airplane's total fuel load was about 19,872 lbs.

At 1913:42, the airplane began taxiing from the FBO ramp toward the deice pad. At 1917:46, the airplane stopped at the deice pad and subsequently shut down the engines in preparation for deicing.

According to a preliminary review of airport closed-circuit television (CCTV) footage, the airplane was facing northwest during the deicing and anti-icing applications. The airplane deicing process started at 1919:26 and concluded at 1927:04. According to FBO documentation, about 41 gallons of Type I deice fluid (Inland Technologies SafeTemp ES Plus) were used to deice the airplane.

This information is preliminary and subject to change.

Continued airport CCTV footage showed the application of Type IV anti-ice started at 1927:43 and concluded at 1930:55. According to FBO documentation, about 28 gallons of Type IV anti-ice fluid (Dow Chemical Inc. UCAR FLIGHTGUARD AD-49) were dispensed during the anti-ice process. The reported airport weather conditions when the anti-ice fluid was dispensed included a surface visibility of 3/4 statute miles (sm), light snow, an outside temperature of -16°C, and a surface wind from 040° at 6-8 knots (055° magnetic). Nighttime conditions existed during the deice/anti-icing process.

Following the anti-icing application, the airplane sat for 4 minutes 51 seconds before it taxied from the deice pad at 1935:46. At that time, about 8 minutes 3 seconds had elapsed since the start of the anti-icing application.

According to a preliminary review of the cockpit voice recorder (CVR), the flight crew discussed holdover times during the taxi to runway 33. The pilot commented that it was “standard” to have 14-18 minutes and that if the wait was more than 30 minutes, they would return to the ramp to deice again. The copilot concurred with the pilot.

At 1940:16, the airplane stopped about 200 ft before the runway 33 hold short line. At 1940:54, the tower controller asked the flight crew to report when they were ready for takeoff. The copilot replied that they would advise when ready. At 1942:50, the copilot told the tower controller that they were ready for takeoff on runway 33. About 3 seconds later, the tower controller told the flight crew that the runway 33 runway visibility range (RVR) was greater than 6,000 ft, the surface wind was 060° magnetic at 9 knots, the flight was cleared for takeoff on runway 33, and to fly runway heading after takeoff. At 1942:56, the airplane resumed the taxi onto runway 33, and at 1943:04, the copilot read back the takeoff clearance correctly to the tower controller. There were no additional radio transmissions recorded between the flight crew and the tower controller.

According to the FDR, at 1943:57, the engine power began to increase toward the selected takeoff thrust of 85%, as depicted in figure 1. The takeoff began with the flaps extended to 20°, the pitch trim set at -4.8°, and the wing and cowl anti-ice systems engaged.

According to the CVR, at 1944:05, the copilot announced that the takeoff power was set and that the airspeed indicator was functioning. At 1944:10, the copilot announced that the airspeed was 80 knots indicated airspeed (KIAS). At 1944:18, the copilot announced that the airplane had reached decision speed V_1 (136 KIAS). However, according to the FDR, the airplane was accelerating through 127 KIAS when the copilot made the V_1 callout. At 1944:22, the copilot announced that the airplane was at rotation speed V_R (139 KIAS). According to the FDR, at that time the airplane was accelerating through 140 KIAS and the nosewheel weight-on-wheel indication changed from ground to air. At 1944:24, the left and right main landing gear weight-on-wheel indications changed from ground to air.

At 1944:25, the airplane’s radio altitude was 6 ft, the pitch angle was about 13° nose-up, the angle-of-attack (AOA) was about 19°, and the airplane roll was nearly level. About a second

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later, the airplane's radio altitude was 11 ft, the pitch angle was about 11° nose-up, the airplane was in a 1°-2° left roll, the AOA was about 20°, and both stick shakers independently activated for about 1 second.

At 1944:27, the airplane's radio altitude was 14 ft, the pitch angle was about 9° nose-up, the AOA was about 16°, and the airplane transitioned from a left to a right roll. Despite the airplane not being equipped (nor required) to record control wheel position, as the airplane's right roll increased the deflection of both ailerons increased to their respective limits, consistent with full left-wing-down control wheel input.

At 1944:30, just before the FDR stopped recording, the airplane's pitch angle was about 6° nose-up and the bank angle was about 77° right-wing-down. Both stick shakers activated again during the final second of recorded data. Although the radio altimeter indicated 31 ft, this height value was likely affected by the roll angle.

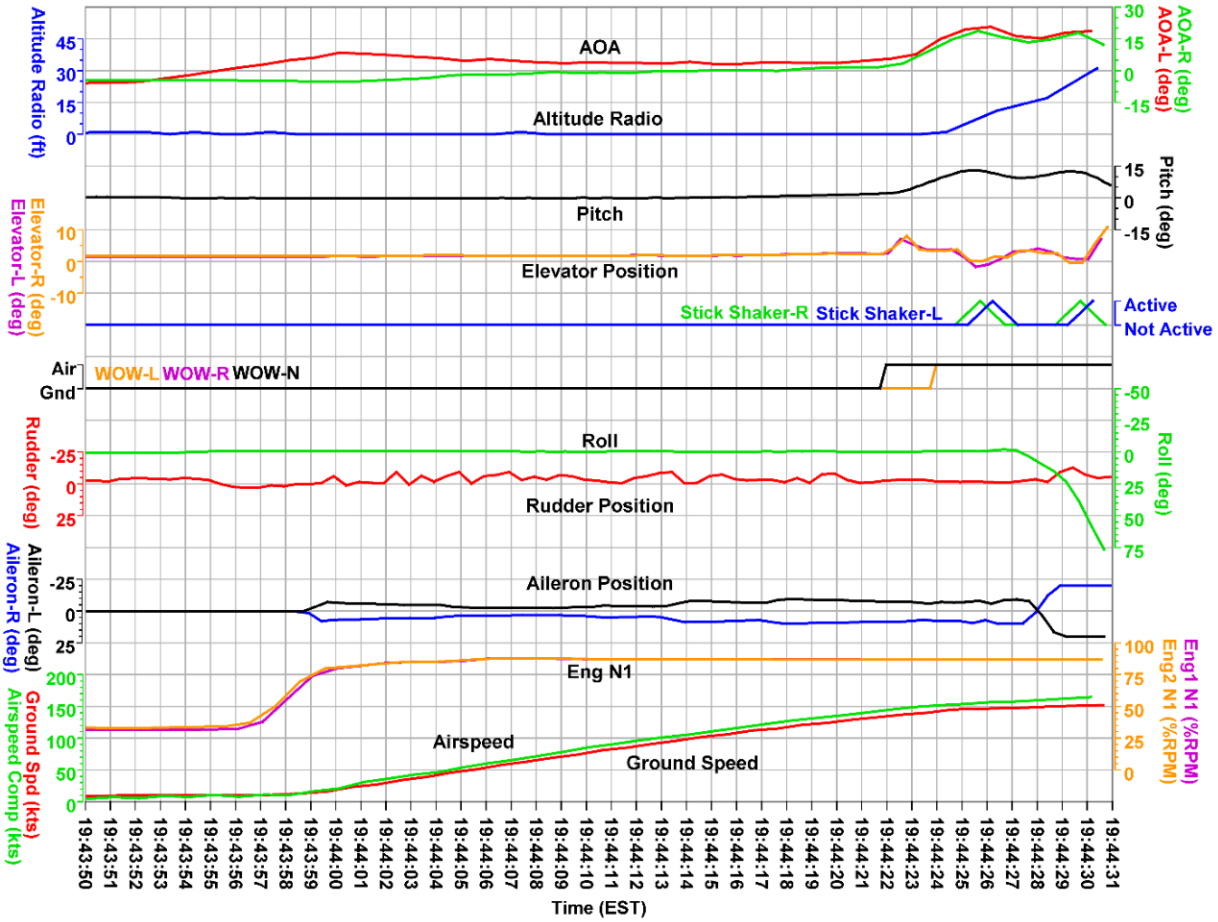


Figure 1. Plot of selected FDR parameters during the takeoff.

A preliminary review of the FDR data did not reveal any evidence of a flight control malfunction or failure, and both engines continued to develop takeoff power until the FDR recording stopped.

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There were multiple airport CCTV cameras that captured the airplane during the takeoff. Several of these cameras showed the airplane impact the ground followed by multiple explosions as the impact sequence progressed.

Evidence of the impact sequence began with a series of scrapes on the runway and fuel residue, as depicted in figure 2. The scrape marks began about 5,808 ft from the approach end of runway 33, 42 ft to the right of the runway centerline, and were generally orientated on a 338° magnetic heading. A wide area of fuel residue was observed with a shift in direction to about 355° magnetic that extended about 57 ft near the right edge of the runway.

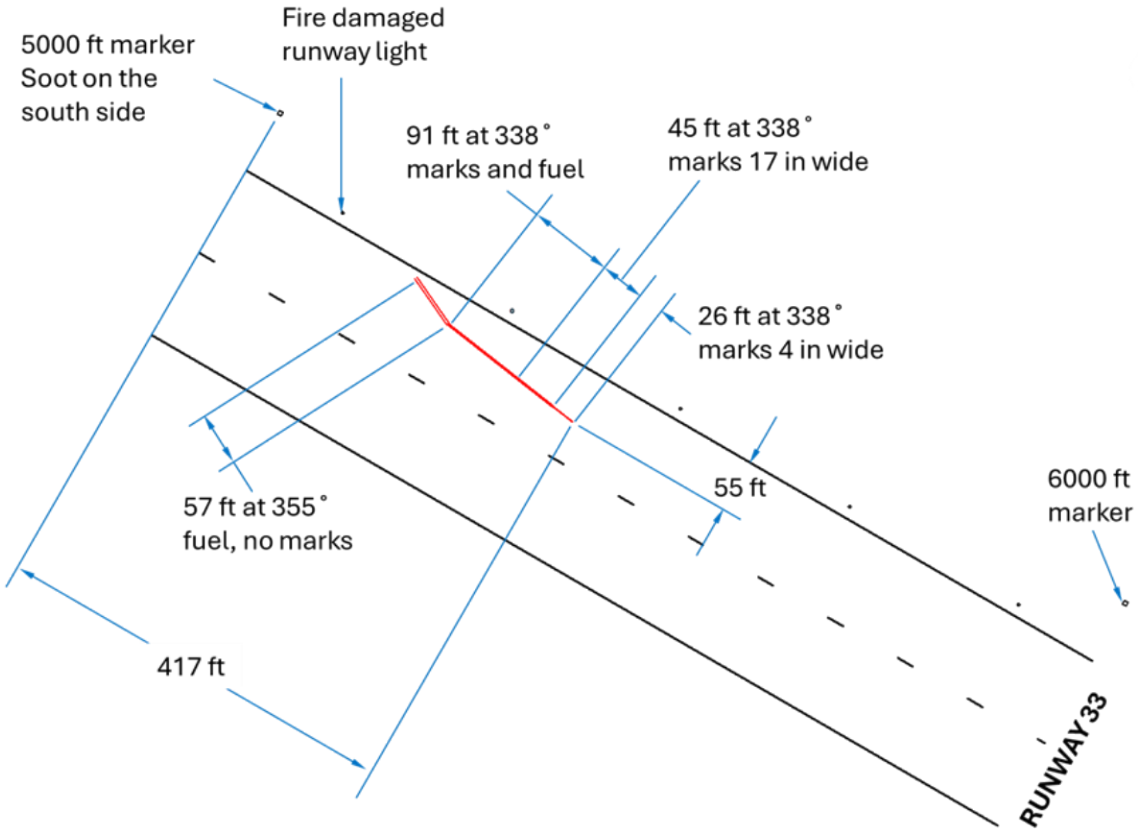


Figure 2. Diagram depicting location of scrapes and fuel observed on runway.

The airplane departed the right side of runway 33 into the grass runway safety area about 20° right of the runway heading, as depicted in figure 3. The wreckage debris path consisted of the right winglet and both winglet tips, windshield sections, the main entry door, several flight deck components, and engine parts. The debris field was about 1,270 ft long and 150 ft wide. The airplane came to rest upside down on a magnetic heading of 355°. The cockpit, cabin, and empennage exhibited thermal damage consistent with a prolonged postimpact fire. The fuselage, between the main entry door and wing root, exhibited damage consistent with airport rescue and firefighting rescue efforts. The wings remained attached to the fuselage. Photographs captured immediately after the accident showed the nose and main landing gear

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extended. The two turbofan engines remained partially attached to the pylons. Both engines contained debris and a significant amount of firefighting foam and ice. There was no evidence of a preimpact separation of any airplane component, flight control, or structure.

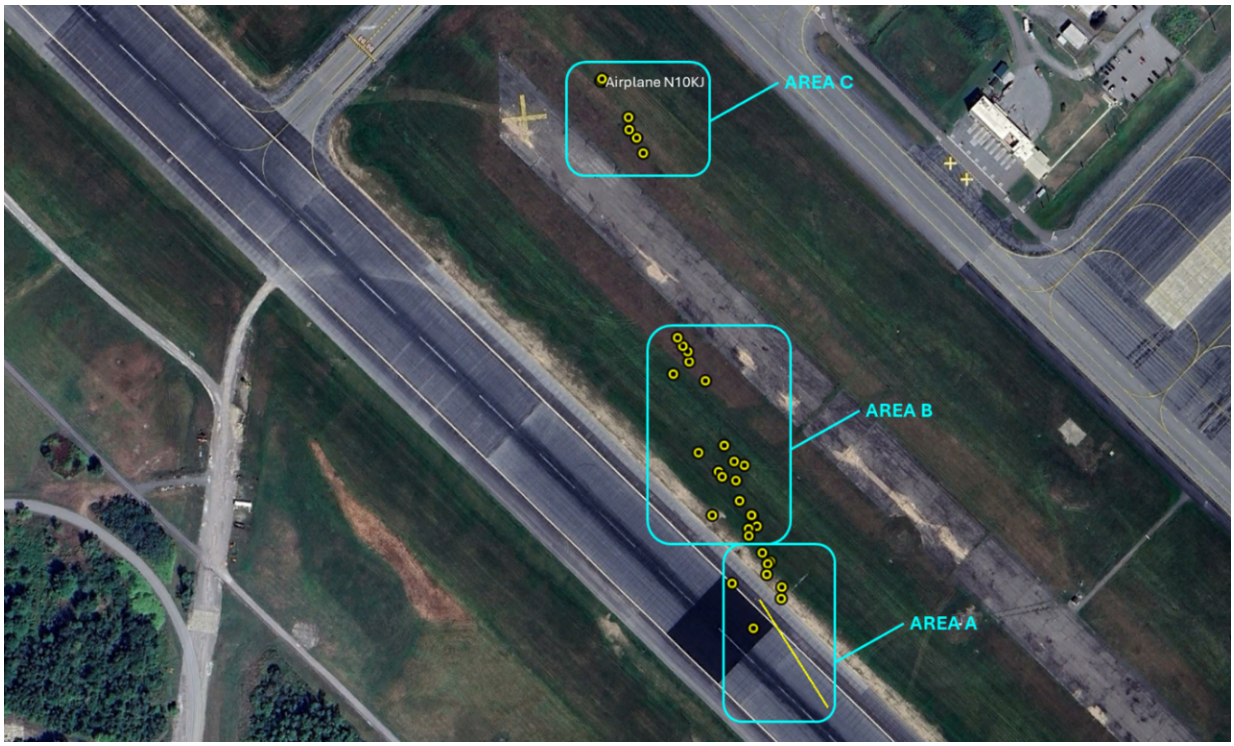


Figure 3. Plot depicting wreckage debris path.

Holdover time is the estimated period for which deicing or anti-icing fluid will prevent the accumulation of ice, snow or frost on an aircraft. According to the FAA Holdover Time Guidelines for Winter 2025-2026, the corrected snowfall intensity associated with 3/4 sm visibility at night and an outside temperature at or below -1°C was considered “moderate”, as shown in Figure 4. Additionally, a “moderate” snowfall intensity and a -16°C outside temperature resulted in a maximum holdover time of 9 minutes from the start of the anti-ice application, as shown in Figure 5.

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Visibility		Day		Night	
Statute Miles	Meters	-1 °C and below 30 °F and below	Above -1 °C Above 30 °F	-1 °C and Below 30 °F and below	Above -1 °C Above 30 °F
≤1/4 (≤3/8)	≤400 (≤600)	Heavy	Heavy	Heavy	Heavy
1/2 (>3/8 to ≤5/8)	800 (>600 to ≤1000)	Moderate	Heavy	Heavy	Heavy
3/4 (>5/8 to ≤7/8)	1200 (>1000 to ≤1400)	Moderate	Moderate	Moderate	Heavy
1 (>7/8 to ≤1 1/8)	1600 (>1400 to ≤1800)	Light	Light	Moderate	Moderate
1 ¼ (>1 1/8 to ≤1 3/8)	2000 (>1800 to ≤2200)	Light	Light	Moderate	Moderate
1 ½ (>1 3/8 to ≤1 5/8)	2400 (>2200 to ≤2600)	Light	Light	Moderate	Moderate
1 ¾ (>1 5/8 to ≤1 7/8)	2800 (>2600 to ≤3000)	Very Light	Light	Light	Light
2 (>1 7/8 to ≤2 ¼)	3200 (>3000 to ≤3600)	Very Light	Very Light	Light	Light
2 ½ (>2 ¼ to ≤2 ¾)	4000 (>3600 to ≤4400)	Very Light	Very Light	Very Light	Very Light
3 (>2 ¾ to ≤3 ¼)	4800 (>4400 to ≤5200)	Very Light	Very Light	Very Light	Very Light
≥3 ½ (>3 ¼)	≥5600 (>5200)	Very Light	Very Light	Very Light	Very Light

Figure 4. Snowfall intensities as a function of prevailing visibility (Source: FAA Holdover Time Guidelines Winter 2025-2026, Table 54; NTSB annotated)

Outside Air Temperature[1]	Fluid Concentration Fluid/Water By % Volume	Freezing Fog, Freezing Mist[2], or Ice Crystals[3]	Snow mixed with Freezing Fog[4]	Very Light Snow, Snow Grains or Snow Pellets[5,6]	Light Snow, Snow Grains or Snow Pellets[5,6]	Moderate Snow, Snow Grains or Snow Pellets[5,6]	Freezing Drizzle[7]	Light Freezing Rain	Moderate Snow mixed with Rain[8,9]	Rain on Cold-Soaked Wing[9]	Other[10]
-3 °C and above (27 °F and above)	100/0	3:20 - 4:00	0:45 - 1:25	3:00 - 3:00	1:55 - 3:00	1:00 - 1:55	1:25 - 2:00	1:00 - 1:25	0:08 - 0:08	0:10 - 1:55	
	75/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	50/50	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
below -3 to -8 °C (below 27 to 18 °F)	100/0	0:20 - 1:35	0:35 - 1:05	2:55 - 3:00	1:30 - 2:55	0:45 - 1:30	0:25 - 1:25	0:20 - 0:25			
	75/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
below -8 to -14 °C (below 18 to 7 °F)	100/0	0:20 - 1:35	0:30 - 0:55	2:25 - 3:00	1:15 - 2:25	0:40 - 1:15	0:25 - 1:25[11]	0:20 - 0:25[11]			
	75/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
below -14 to -18 °C (below 7 to 0 °F)	100/0	0:25 - 0:40	0:01 - 0:06	0:30 - 0:45	0:09 - 0:30	0:02 - 0:09					
below -18 to -25 °C (below 0 to -13 °F)	100/0	0:25 - 0:40	0:00 - 0:02	0:10 - 0:20	0:03 - 0:10	0:01 - 0:03					
below -25 to -26 °C (below -13 to -15 °F)	100/0	0:25 - 0:40	0:00 - 0:01	0:07 - 0:10	0:02 - 0:07	0:00 - 0:02					

CAUTION: No holdover time guidelines exist

Figure 5. Type IV holdover times for Dow Inc. UCAR FLIGHTGUARD AD-49 (Source: FAA Holdover Time Guidelines Winter 2025-2026, Table 38; NTSB annotated)

The airplane wreckage was recovered to a secure storage facility for further examination. As part of the investigation, on-going activities include aircraft operations, aircraft performance, flight recorders, airport operations, survival factors, and human performance. A transcript of the CVR content applicable to the accident flight will be released as part of the investigation.

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Aircraft and Owner/Operator Information

Aircraft Make:	Bombardier	**Registration:**	N10KJ
Model/Series:	CL-600-2B16	**Aircraft Category:**	Airplane
Amateur Built:			
Operator:	Arnold & Itkin LLP	**Operating Certificate(s) Held:**	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	IMC	**Condition of Light:**	NightDark
Observation Facility, Elevation:	KBGR,147 ft msl	**Observation Time:**	19:26 Local
Distance from Accident Site:	1 Nautical Miles	**Temperature/Dew Point:**	-16°C /-19°C
Lowest Cloud Condition:		**Wind Speed/Gusts, Direction:**	6 knots / None, 40°
Lowest Ceiling:	IndefiniteVV / 1200 ft AGL	**Visibility:**	0.75 miles
Altimeter Setting:	30.39 inches Hg	**Type of Flight Plan Filed:**	IFR
Departure Point:	Bangor, ME (KBGR)	**Destination:**	Châlons-en-Champagne, France (LFOK)

Wreckage and Impact Information

Crew Injuries:	2 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	4 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	On-ground
Total Injuries:	6 Fatal	**Latitude, Longitude:**	44.811824,-68.830336

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	Charles A. Olvis; Federal Aviation Administration (AVP-110) ; Washington, DC Vincent Percesepe; Federal Aviation Administration (AVP-110); Washington, DC Ewan Tasker; Transportation Safety Board of Canada; Gatineau, OF Michael Lemay; Bombardier Inc.; Montreal, OF
Investigation Class:	Class 2
Note:	

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