

NTSB Briefing Points on Mid-Air Collision near DCA

February 14, 2025 • Provided by Chairman Homendy

Good afternoon and thank you for joining us.

The on-scene portion of our investigation into the January 29th midair collision near Reagan National Airport has wrapped up. We have the perishable evidence we need so we want to provide an investigative update and talk about next steps.

Let's begin with some information on the Black Hawk's route and then proceed through the accident sequence.

This particular flight was a check ride for the pilot flying the Black Hawk. Generally, a check ride is a practical exam that a pilot must pass to be qualified to perform specific aircrew or mission duties.

The Army does three types of check rides on helicopters - instrument, annual, and night vision goggles. This was a combined annual and night vision goggles check ride.

We believe the helicopter crew was likely wearing night vision goggles throughout the flight, given the nature of the check ride. Additionally, had they been removed the crew was required to have a discussion about going "unaided". There is no evidence on the cockpit voice recorder, or CVR, of such a discussion.

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On this chart, you'll see the routes they were generally following Helicopter Route 1 to Helicopter Route 4. These routes are designated by the Federal Aviation Administration (FAA), and - although you see blue lines - there are no defined boundaries to these routes.

You'll note on the chart that pilots are expected to maintain the maximum altitude charted when ceiling permits, unless otherwise instructed by Air Traffic Control (ATC). The maximum altitudes along Helicopter route 1 are 1,300 feet between Cabin John and Chain Bridge; 1,000 feet at Chain Bridge; 700 just after Chain Bridge; 300 at the Key Bridge; and 200 feet just south of Memorial Bridge.

I'm going to read some preliminary investigative information which is derived from a variety of electronic and other sources as of 1:00pm today.

- About 8:15 pm EST, the CRJ left 37,000 feet pressure altitude for an initial descent.
- About 8:30, the Blackhawk began travelling generally southbound after maneuvering near Laytonsville, Maryland. CVR audio from the Blackhawk indicated the instructor pilot was the pilot monitoring and transmitting on the radio and the pilot was the pilot flying. (ATC Radar & Blackhawk CVR)
- At 8:33:41, the Blackhawk crew requested Helicopter Route 1 to 4 to Davison Army Air Field, which the tower controller approved.
- 8:38:39, the Blackhawk reached the intersection of the DC Beltway and the Potomac River near Carderock, Maryland. After briefly turning westbound, the Blackhawk turned back to the east and began descending as it picked up helicopter route 1 over the Potomac River southeast toward downtown Washington, DC.
- At 8:39:10, Potomac Approach cleared the crew of the CRJ for the Mount Vernon Visual Runway 1 approach.

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- At 8:40:46, the CRJ rolled out of a left turn established on the ILS Localizer for Runway 1, at approximately 4,000 feet pressure altitude, 170 knots, with landing gear up and flaps extended to 20 degrees.
- At 8:43:06, the CRJ crew made initial contact with DCA Tower. The tower controller then asked if the crew could switch to runway 33. The CRJ crew agreed to switch to runway 33.
- At 8:43:48, the Blackhawk was about 1.1 nautical miles (NM) west of the Key Bridge. The pilot flying indicated they were at 300 feet. The instructor pilot indicated they were at 400 feet. Neither pilot made a comment discussing an altitude discrepancy. At this time, we do not know why there is a discrepancy between the two; the investigative team is exploring this.
- At 8:44:27, as the Blackhawk approached the Key Bridge, the instructor pilot indicated the Blackhawk was at 300 feet descending to 200 feet.
- Between 8:44:41 and 8:44:45 the CRJ crew selected 30 degrees of flaps and then 45 degrees of flaps.
- At 8:44:49, the CRJ landing gear were down and locked. The aircraft was fully configured for landing, approximately 6.2 NM south of the airport.
- At 8:45:27, the autopilot was disconnected and the CRJ began a shallow right turn off of the Runway 1 localizer at a radio altitude of approximately 1,700 ft and an airspeed of 134 kts. This occurred approximately 5.0 NM south of the airport.
- At 8:45:30, the Blackhawk passed over the Memorial Bridge. The instructor pilot told the pilot flying that they were at 300 feet and needed to descend. The pilot flying said they would descend to 200 feet.
- At 8:45:58, the Blackhawk then crossed over the Washington Tidal Basin and followed the Washington Channel consistent with Helicopter Route 1.
- It is now approximately two minutes before the collision.
- At 8:46:01, a radio transmission from the tower was audible on the CRJ CVR informing the Blackhawk that traffic just south of the Wilson Bridge was a CRJ at 1200 feet circling to runway 33.

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- CVR data from the Blackhawk indicated that the portion of the transmission stating the CRJ was “circling” may not have been received by the Blackhawk crew. We hear the word “circling” in ATC communications, but we do not hear the word “circling” on the CVR of the Blackhawk. The Recorders Group is evaluating this.
- At 8:46:08, the Blackhawk crew responded they had the traffic in sight and requested visual separation which was approved by DCA Tower.
- At 8:46:29, the CRJ crew received a 1000-foot automated callout.
- At 8:46:47, DCA tower cleared other jet traffic on Runway 1 for immediate departure with no delay.
- At 8:47:27, or 32 seconds before impact, the Blackhawk passed the southern tip of Hains Point.
- A second later, the CRJ began a left roll to turn to final on Runway 33. The CRJ was at a radio altitude of 516 ft and 133 kts.
- At 8:47:29, the CRJ crew received a 500-foot automated callout.
- At 8:47:39, or 20 seconds before impact, a radio transmission from the tower was audible on both CVRs asking the Blackhawk crew if the CRJ was in sight. Audible in the ATC radio transmission was a Conflict Alert in the background.
- At 8:47:40, the CRJ crew received an automated traffic advisory from the TCAS system stating “Traffic, Traffic.” TCAS is the Traffic Alert and Collision Avoidance System on the CRJ.
- At 8:47:42, or 17 seconds before impact, a radio transmission from the tower was audible on both CVRs directing the Blackhawk to pass behind the CRJ. CVR data from the Blackhawk indicated that the portion of the transmission that stated “pass behind the” may not have been received by the Blackhawk crew. Transmission was stepped on by a 0.8 second mic key from the Blackhawk. The Blackhawk was keying the mic to communicate with ATC.
- In response, at 8:47:44, the Blackhawk crew indicated that traffic was in sight and requested visual separation which was approved by DCA Tower. The instructor pilot then told the pilot flying they believed ATC was asking for the helicopter to move left toward the east bank of the Potomac.

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- At 8:47:52, or 7 seconds before impact, the CRJ rolled out on final for runway 33. The CRJ was at a radio altitude of 344 ft, 143 kts.
- At 8:47:58, or 1 second before impact, the CRJ began to increase its pitch, reaching about 9 degrees nose up at the time of collision. FDR data showed the CRJ elevators were deflected near their maximum nose up travel.
- The last radio altitude recorded for the CRJ was 313 ft and was recorded two seconds prior to the collision. The CRJ pitch at this time was, again, 9 degrees nose up, and roll was 11 degrees left wing down. The CRJ was descending at 448 feet per minute.
- The radio altitude of the Blackhawk at the time of the collision was 278 feet and had been steady for the previous 5 seconds. The Blackhawk pitch at the time of the collision was about a half degree nose up with a left roll of 1.6 degrees. Examination of wreckage will assist in determination of the exact angle of the collision.
- We are confident that the radio altitude of the Black Hawk at the time of the collision was **278** feet. I want to caution this does not mean this is what the Black Hawk crew was seeing on the barometric altimeters in the cockpit.
- We are seeing conflicting information in the data, which is why we aren't releasing altitude for the Blackhawk's route.