

# Mid-Air Collision of CRJ-700 “AA5342” & UH-60 “PAT25”

29 January 2025

## Summary of Current Facts

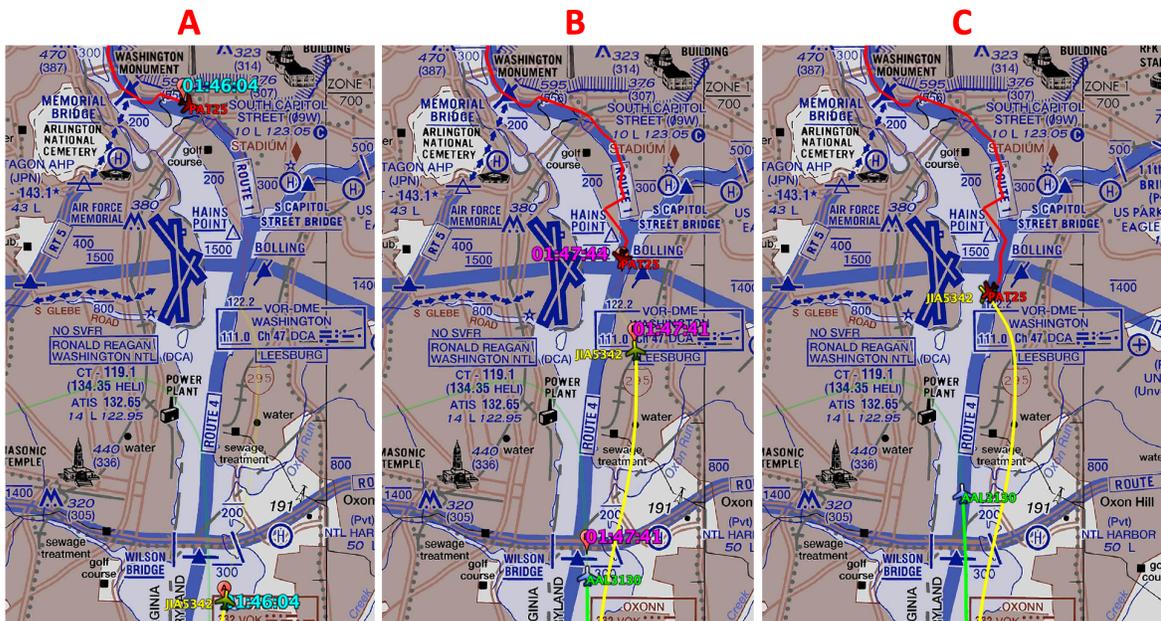


**Bombardier CRJ700**  
**WINGSPAN:** 76 Feet, 3 Inches  
**LENGTH:** 106 Feet, 1 Inch  
 “BLUESTREAK 5342” – N709PS  
 ICT – DCA



**Sikorsky UH-60 Blackhawk**  
**MAIN ROTOR SPAN:** 53 Feet, 7 Inches  
**LENGTH:** 64 Feet, 8 Inches  
 PAT25

- PAT25 was southbound on helicopter ROUTE “1 to 4”, while AA5342 was northbound along the Potomac River at an altitude of 1,200 feet, breaking off from the runway 01 visual approach to setup for the circle to land visual approach to RWY33.
- At approximately 20:46:04, air traffic control at Reagan Tower advises PAT25 of traffic just south of the Wilson bridge at 1,200 feet. PAT25 acknowledges the traffic is in sight and requests “visual separation” which is approved by ATC.
- At approximately 20:47:41, ATC again asks PAT25 if they have the RJ in sight and instructs the helicopter to pass behind the RJ. PAT25 acknowledges the aircraft is in sight. A collision alarm can be heard in the control tower.
- The collision occurs at approximately 08:48:02. The altitudes of both the UH-60 and CRJ-90 appear to converge at 300 feet AGL. A review of video footage shows that the Blackhawk impacts the lower left side of the CRJ, which is in a shallow left bank, separating the aircraft’s left wing. Both aircraft fall into the Potomac River approximately 5 seconds after impact.
- The altitude restriction for helicopter traffic on ROUTE 1 & 4 in that area is at or below 200’ AGL.



	UTC	Local Time	Radio
A	01:46:04	08:46:04	ATC: "PAT25 Traffic just south of the Wilson bridge is a CRJ 1,200 feet circle to RWY33"
			PAT25: "PAT25 has the traffic in sight, request visual separation"
	01:46:12	08:46:12	ATC: "Visual Separation Approved"
B	01:46:52	08:46:52	AAL1630 Cleared for immediate takeoff RWY01
	01:47:41	08:47:41	ATC: "PAT25, Do you have the CRJ in sight?"
	01:47:46	08:47:46	ATC: "PAT25, pass behind the CRJ"
	01:47:47	08:47:47	PAT25: "PAT25 has the aircraft in sight request visual separation"
C	01:47:50	08:47:50	ATC: "Separation"
	01:48:02	08:48:02	Collision

The contents of this document are based on publicly available data, audio, and video as of the date of this document. Note – the UH-60 was not transmitting ADS-B data but was equipped with a Mode S transponder. Currently available flight position data is based on multilateration, which may be inaccurate, particularly at low altitudes.

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#### Questions

- Did PAT25 misidentify the traffic target with either background lights or with another aircraft, such as AA3130, an Airbus on approach to runway 01, which was 3.5 miles directly in front of the Blackhawk at the time of the second traffic call?
- Why was the collision alarm received by ATC during the second call to PAT25 not followed by immediate and specific instructions to de-conflict the two aircraft?
- Why did ATC not provide a more specific location and altitude of the CRJ to the Blackhawk during the second traffic call to ensure the Blackhawk was referencing the correct aircraft? (ex “traffic is at your 10-11 o’clock 100 feet above and ½ mile away”)
- Was the Blackhawk crew using night vision goggles during this training mission? Was the use of NVGs in a highly backlit area a factor for possibly misidentifying the called traffic? Is the use of NVGs advised when unaided night flight is safer in areas of dense air traffic? Was the limited field of view of 40° a factor?
- Was either the Blackhawk or the CRJ out of position, either laterally or vertically?
- Why was the Blackhawk cleared onto Route 4 with an aircraft on the circling approach to runway 33?
- Why was the traffic collision and avoidance system (TCAS) system programmed to inhibit resolution advisories below 1000 feet? Why are aural warnings to the crew always limited below 500 feet? Should the system be more sophisticated to discern false warnings from actual collision threats in an airport environment?
- Why was the Blackhawk not transmitting ADS-B position? This is a requirement of all civil aircraft in the National Airspace System. The Blackhawk was not on a security sensitive mission or in a hostile environment.
- Why was the CRJ not made aware of the passing helicopter traffic southbound along the river by ATC? The use of separate frequencies by ATC for landing traffic and transitioning helicopter traffic could remove potentially valuable situational awareness from pilots who are listening to the tower frequency. Without relaying the information, ATC may prevent flight crews from having increased situational awareness to collision threats. Additionally, an unannounced helicopter passing closely behind/above or below an aircraft on short final can also be a risk to spooking a flight crew during an extremely intense phase of flight and may also introduce wake turbulence risks to both aircraft.