



# Aviation Investigation Preliminary Report

<b>Location:</b>	Minden, NV	<b>Accident Number:</b>	WPR24FA304
<b>Date &amp; Time:</b>	September 16, 2024, 09:46 Local	<b>Registration:</b>	N78074 (A1); N844CP (A2)
<b>Aircraft:</b>	Globe Swift GC-1B (A1); TEXTRON AVIATION Cessna T206H (A2)	<b>Injuries:</b>	1 Fatal (A1); 2 None (A2)
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal (A1); Part 91: General aviation - Instructional (A2)		

On September 16, 2024, at 0946 Pacific daylight time, a Globe Swift GC-1B (Swift), N78074, and a Textron Aviation Cessna T206H Station Air (Cessna), N844CP, were substantially damaged when they were involved in an accident near the Minden-Tahoe Airport (KMEV), Minden, Nevada. The Swift pilot was fatally injured and the Cessna pilot and instructor pilot were not injured. The Swift was operated as a Title 14 Code of Federal Regulations (CFR) Part 91 personal flight. The Cessna was operated as a Title 14 CFR Part 91 instructional flight.

The left-seated pilot of the Cessna stated that the purpose of the flight was to perform a Form 5 flight, which was an annual check-ride where he demonstrated fundamental flight maneuvers (e.g., an instrument approach, coordinated turns, etc). After maneuvering south of the airport, he performed the RNAV 34 instrument approach, and overflew the airport on the missed approach; at no time was he using any form of vision restriction devices. The pilot then entered the traffic pattern for a short-field landing on Runway 34, making radio announcements about his intentions.

After the short-field landing, the pilot executed a touch-and-go. He transitioned to the crosswind at 5,300 feet msl and continued climbing to the downwind leg where he planned to ascend to the traffic pattern altitude (TPA) of 5,700 feet msl. From looking at his flight track, the pilot estimated that at 9:46:37, he heard a radio call from another airplane that stated they were on a 45° intercept for the downwind leg for runway 34. At that time, both he and the right-seated instructor pilot began scanning for traffic outside but could not locate the other airplane. The pilot asked the instructor pilot to check his iPad for ADS-B traffic and he was not able to locate any airplanes. The pilot stated he was making a radio call of his position while on the downwind leg when around 5,4000 feet msl, the airplane impacted the Swift. He never observed the airplane and instead believed that the engine or propeller blade experienced a catastrophic failure.

The windscreen became covered in oil and the nose cowling flew upward and was pinned against the windscreen only allowing visibility through the oil door. The instructor pilot assumed the flight controls and made an emergency landing to runway 12. The pilot emphasized that the pattern they flew was normal, and both he and the instructor pilot were actively scanning outside the airplane. The pilot recalled that the weather conditions were overcast at 8,000 feet msl, but clear below, with no glare or visibility issues.

The Cessna was equipped with a Garmin G1000 that recorded trip parameters on an SD card. The recorded data disclosed that the Cessna departed Minden at 0908. After takeoff, the airplane executed several maneuvers south of the airport before returning and overflying runway 34 at 0941 (while at an altitude of 5,700 feet msl). The airplane entered the crosswind leg of the traffic pattern about 1 nm north of the approach end of runway 16 and turned left onto the downwind leg at 5,825 feet msl, flying directly above US-395. After touching down on the runway, the airplane took off again at 0945:20. The airplane turned crosswind about 0.4 nm of the approach end of runway 16 at 0946:25 at an altitude of 5,225 feet msl. The ADS-B data shows the airplane then making a left turn and descending to runway 12 (see Figure 01 below).

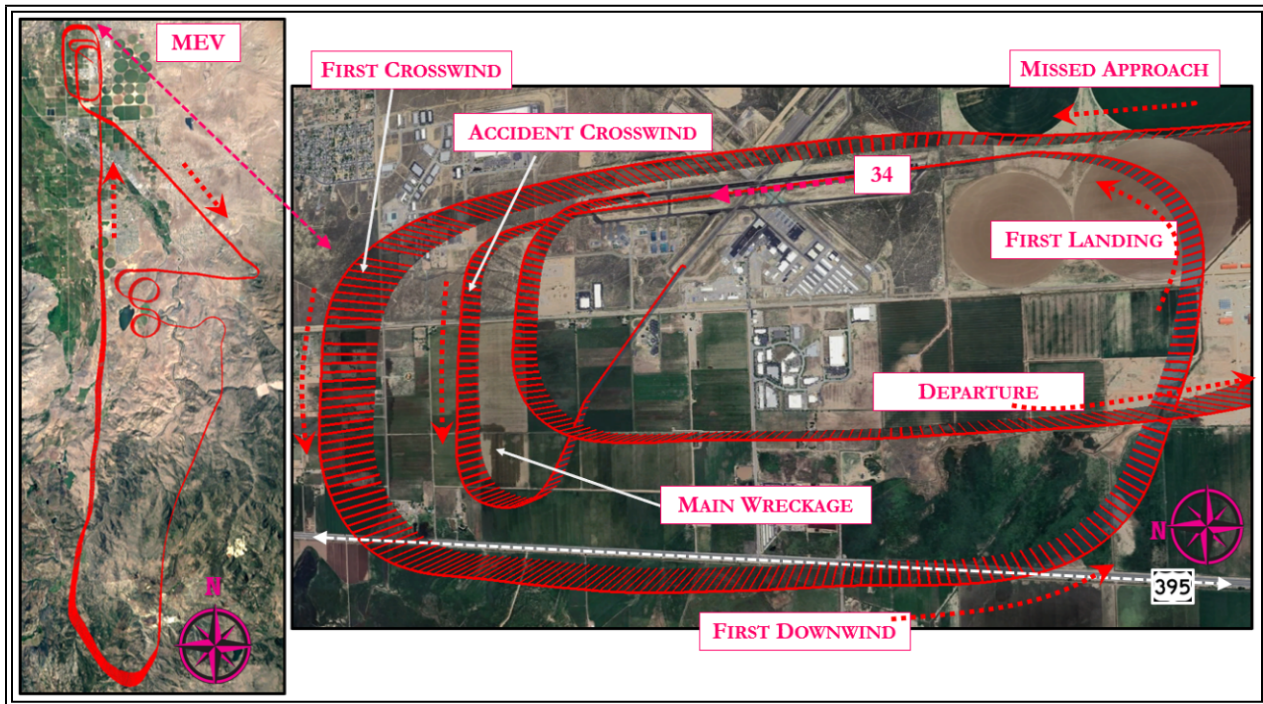


Figure 01: Cessna ADS-B and G1000 tracks.

A friend of the Swift pilot stated that he sent him a text at 0925 on the morning of the accident stating that he was preparing to move his airplane from the Pinenut Airport (NV55), Gardnerville, Nevada, to KMEV. The pilot explained that he wanted to move his airplane before an incoming storm and avoid a potentially muddy airstrip before their upcoming fly-in in Jackson, California. The friend was waiting for the pilot at KMEV and planning to drive him back to Gardnerville.

The friend further stated that he knew the pilot well and had purchased his Swift airplane from him. He described the pilot as being meticulous and would consistently follow the same routines during flights. He described the pilot's typical flight path from NV55 to KMEV, which involved flying west initially, then north along the mountain range. As the airplane would get near the ski pools, the pilot would make a radio call to enter the 45° angle to intercept the downwind leg for runway 34. The pilot would fly this interception, crossing over US-395, and then adjoin the downwind with a close-in traffic pattern. The friend emphasized that the pilot was diligent about listening for traffic and maintaining a constant lookout for other aircraft in the area.

The Swift was not equipped with ADS-B and no radar data was available at the time of this writing. The pilot often flew the friend's GC-1B Swift airplane that was equipped with ADS-B (wired to the navigation lights) and a higher-horsepower engine than the accident Swift. Investigators located several flight tracks that were attributed to when the pilot was flying, one of which occurred on July 20, 2024 and originated from NV55 and terminated at KMEV (see Figure 02 below). The friend confirmed that this was the pilot's exact normal pattern and that he was flying the airplane at that time. It is presumed that the prior approximate 15-minute flight was similar to the accident flight path.

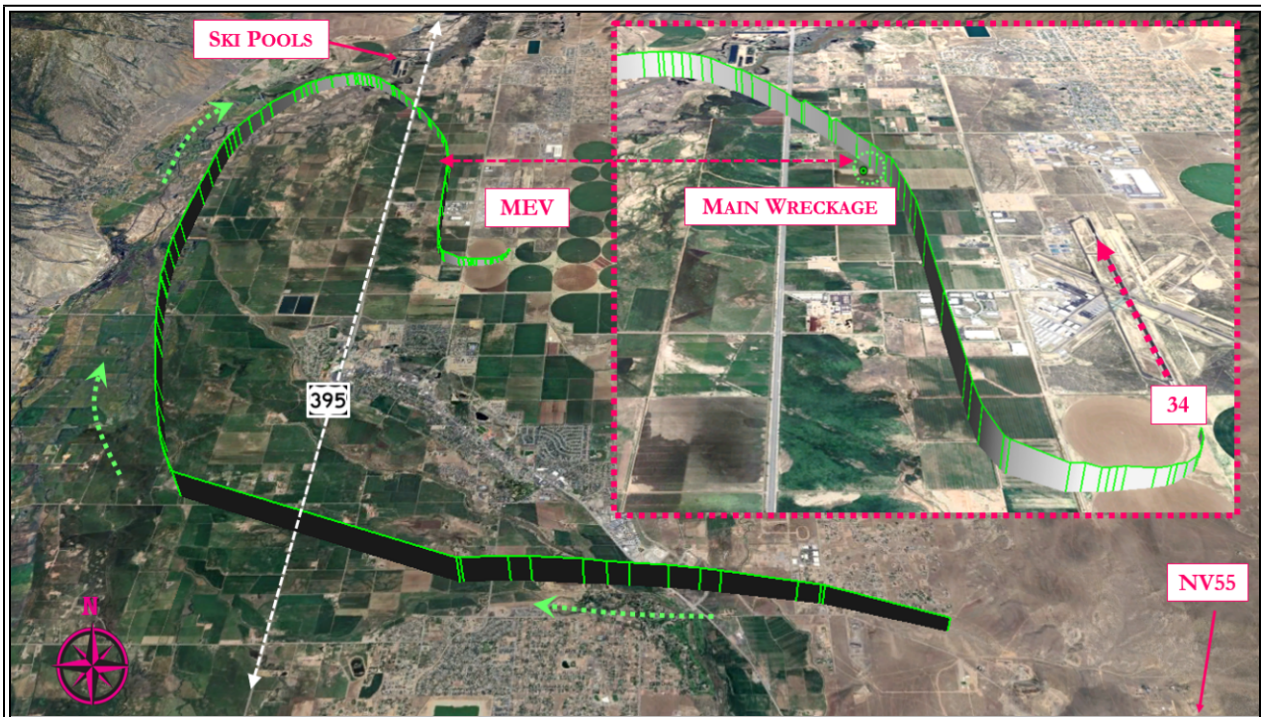


Figure 02: Swift pilot's prior traffic pattern to runway 34

Numerous cameras captured low-quality footage of the airplanes' movements leading up to the impact. An airport security camera showed the Cessna on crosswind in a gradual ascent and the Swift arriving from Jack's Valley, northwest of KMEV (see Figure 03 below). A dashcam video from a driver heading north on the US-394 showed the Swift crossing west over the freeway and at a slightly higher altitude of

the Cessna just prior to impact (see Figure 04 below). After impact, the Swift can be seen erupting in flames and falling near vertical to the fields below. It could not be definitively determined if the Swift made an evasive maneuver before the impact or if either airplane had the navigation and strobe lights operating.

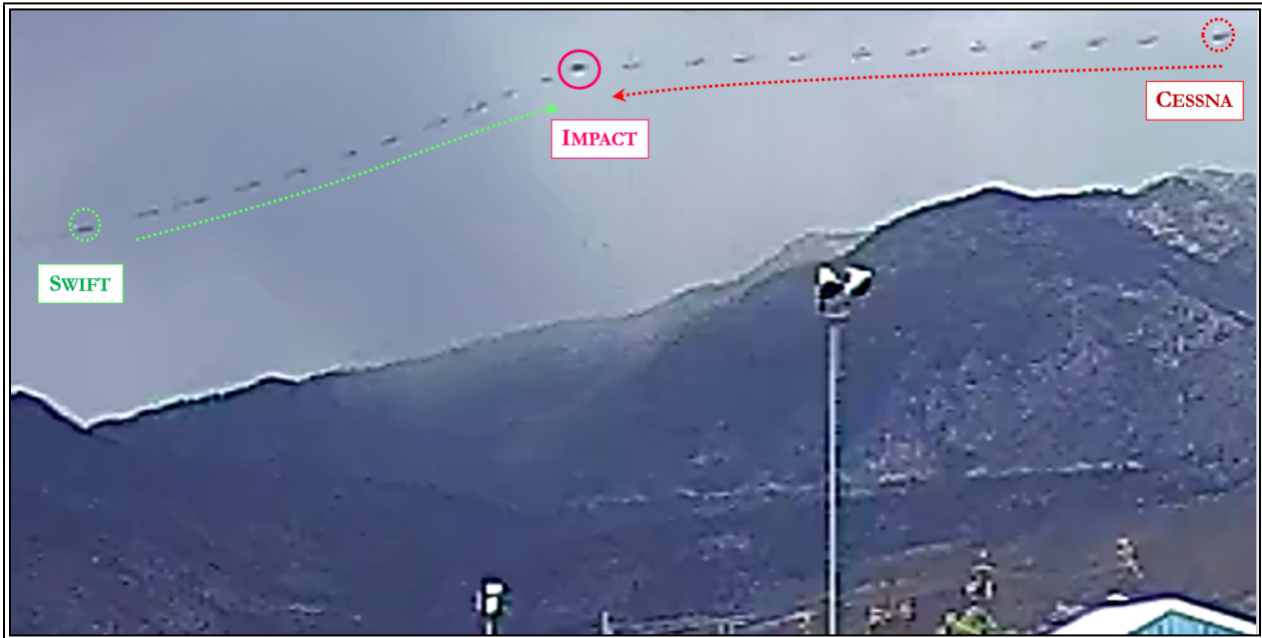


Figure 03: Composite footage of a northwest-facing airport security camera showing the impact.

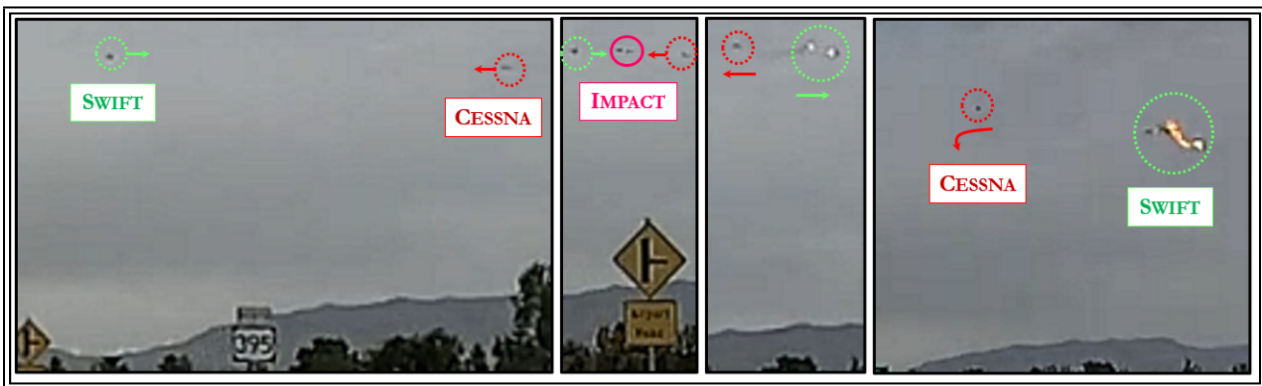


Figure 04: Clips of dashcam footage showing the seconds before and after the impact.

Comparing the Cessna flight track and the prior Swift flight track showed that the paths intersected near the location where the videos appeared both of them collided (see Figure 05 below).



Figure 05: Comparison of the Cessna's accident flight track and the Swift pilot's prior flight.

The non-towered airport recorded the Common Traffic Advisory Frequency (CTAF) transmissions. A review of the recordings revealed that eleven minutes before the accident, the left-seated pilot of the Cessna transmitted that they were 10 miles from the airport, intending to perform touch-and-go practice takeoffs and landings. Shortly thereafter, he reported overflying the runway and entering the downwind leg of the traffic pattern for runway 34. His subsequent transmissions provided position reports as the airplane proceeded through the pattern. He first reported that the airplane was on the downwind leg, then on the base leg, and finally, at 09:44:14, he announced they were on final approach for runway 34.

At 09:46:36, the Swift pilot reported being on a 45-degree intercept to the downwind leg for runway 34. Ten seconds later, the Cessna pilot transmitted that they were on a "crosswind to left..." It is presumed that the two airplanes collided during this transmission, with the impact occurring at 09:46:53.

At 09:48:02, the Cessna pilot reported being on the runway, indicating a loss of engine power. Twenty-eight seconds later, the right-seated pilot of the Cessna made a radio call stating they had been involved in a mid-air collision and requested the dispatch of medical and fire services.

The main wreckage of the Swift was located 1 nm from the approach end of runway 16, on a heading of 290°. The wreckage had sustained significant fire damage, primarily to the cockpit and inboard wings where the fuel tanks were located; the main landing gear was found in the retracted position. The remaining wing and fuselage skin did not show evidence of impact damage from the collision with the Cessna. The propeller remained attached to the engine and was undamaged. The main tail section,

located 450 feet from the main wreckage, was missing the bottom tail cone, the outboard right elevator, horizontal stabilizer, and the rudder, all of which were found nearby in the debris field. The debris field stretched over 1,025 feet and contained intermingled pieces from both the Cessna and Swift (see Figure 06 below). Numerous fragments of the Swift's skin were scattered throughout the debris field, with the majority coming from the lower tail section. Numerous pieces of debris were coated with red hydraulic oil from the Cessna's propeller hub.

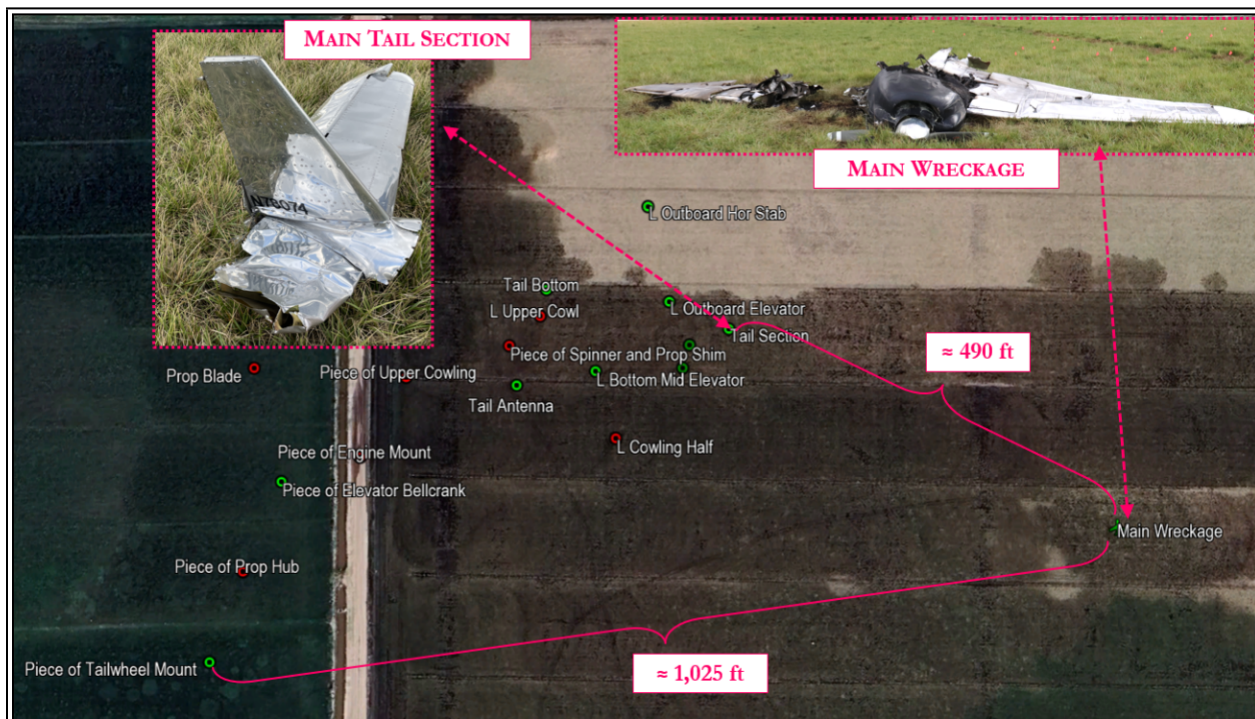


Figure 06: Main debris field (green dots from the Swift and red dots from the Cessna).

An examination of the Cessna revealed that one propeller blade had separated from the hub, with the main portion found in the debris field and the tip lodged in the firewall area (see Figure 07 below). The engine had canted to the right from the mounts breaking. Postaccident investigation also revealed that the Swift's tailwheel, along with portions of its mounting, was lodged entirely underneath the Cessna's engine, obscured from view without moving the engine (see Figure 08 below). Additionally, the Cessna's front-right engine mount had completely broken away from the airframe and was found near the tailwheel, having punctured the tunnel.



Figure 07: Cessna propeller (missing blade).

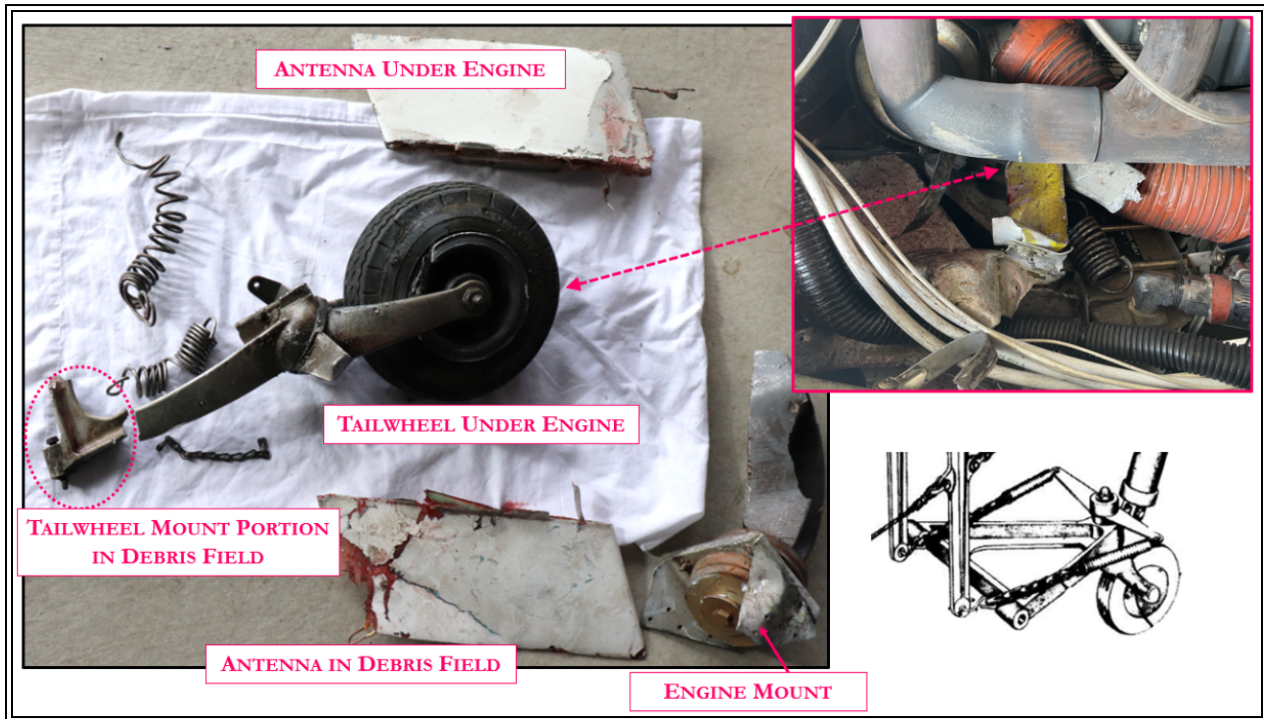


Figure 08: Swift tailwheel and antennas.

## Aircraft and Owner/Operator Information (A1)

<b>Aircraft Make:</b>	Globe Swift	<b>Registration:</b>	N78074
<b>Model/Series:</b>	GC-1B	<b>Aircraft Category:</b>	Airplane
<b>Amateur Built:</b>			
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Designator Code:</b>			

## Aircraft and Owner/Operator Information (A2)

<b>Aircraft Make:</b>	TEXTRON AVIATION Cessna	<b>Registration:</b>	N844CP
<b>Model/Series:</b>	T206H Station Air	<b>Aircraft Category:</b>	Airplane
<b>Amateur Built:</b>			
<b>Operator:</b>	CIVIL AIR PATROL	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Designator Code:</b>			

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	VMC	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KMEV,4726 ft msl	<b>Observation Time:</b>	09:55 Local
<b>Distance from Accident Site:</b>	1 Nautical Miles	<b>Temperature/Dew Point:</b>	15°C /-3°C
<b>Lowest Cloud Condition:</b>	Few / 6000 ft AGL	<b>Wind Speed/Gusts, Direction:</b>	10 knots / , 340°
<b>Lowest Ceiling:</b>	Broken / 7000 ft AGL	<b>Visibility:</b>	10 miles
<b>Altimeter Setting:</b>	29.83 inches Hg	<b>Type of Flight Plan Filed:</b>	
<b>Departure Point:</b>		<b>Destination:</b>	

## Wreckage and Impact Information (A1)

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	Unknown
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	39.017692,-119.77181

## Wreckage and Impact Information (A2)

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	39.017692,-119.77181



## Administrative Information

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**Investigator In Charge (IIC):** Keliher, Zoe

**Additional Participating Persons:** Brent Hargrave; Federal Aviation Administration; Reno, NV

**Investigation Class:** [Class 3](#)

**Note:**