



Memorandum for Record

Fabian Salazar
Air Safety Investigator
National Transportation Safety Board
Investigator in Charge

NTSB Accident Number: WPR20LA189
Aircraft Registration & Make/Model: SA-342J / N342J
Accident Location: Minden, NV
Accident Date: June 21, 2020

Steven Hamilton
Owner/Operator

In a telephone interview held on June 22, the pilot stated that he planned to fly his wife to Carson City, Nevada, to visit a friend who was interested in purchasing a similar helicopter. He stated that he filled the helicopter's fuel tank up and departed Minden-Tahoe (MEV), Minden, Nevada. He said the departure and flight to Carson City was uneventful. He made a second flight while in Carson City and later returned to MEV. It was during the approach to landing at MEV when the event occurred. He said when he was approaching the landing spot and was in a high hover, about 10 to 15 MPH and about 25 ft in the air, He initially lowered the collective to get the helicopter down to about 15 to 20 feet above ground level (agl). He proceeded towards a field on the airport near his hangar. While at about 25 feet agl, he lowered the collective again with the desire to descend to about 15 feet. He said immediately after he lowered the collective, "everything just went away like somebody turned off the lights." He stated that he did not hear any noise coming from the engine.

The pilot said that a man who came to assist him, stated that he had heard the engine popping. The pilot stated that when the engine failed, he immediately lowered the collective to "put it on the ground right now." He stated that the helicopter came out of the air like it was falling, and he did not have sufficient forward airspeed to do anything with. He said that when he got to about 15 feet agl, he "yanked up on the collective and it didn't appear like it did much of anything, but it may have softened the impact." He recalled the rotors turning and the engine RPM reduce to zero rapidly. He estimated the entire event took less than seven seconds.

The pilot stated that he had no history of hot starts with the engine and that the helicopter had been a wonderful machine. He stated that the engine was an 14H Astazou. He estimated that he

had flown the helicopter a maximum of 1 hour 15 minutes after filling up the fuel tank and that the helicopter can usually go 350 miles on one tank, and that he had plenty of fuel on board. He reported that Mr. Bill Kyle performed maintenance on the helicopter, and that the helicopter had a brand-new tail rotor [fenestron] gearbox.

On a second interview with the pilot, he stated that he had recovered the engine, transmission, fenestron and main rotor blades in his hangar. He stated that the transmission would not rotate, and he observed evidence of slow rotor rotation. He stated that one of the main rotor blades appears to have cut off the tail. He stated that he had to remove the exhaust diffuser and it did not appear to have any damage from components exiting the engine. When asked if he himself had heard the popping or perhaps a loud bang, he mentioned the witness had heard the popping. He stated that he was coming in over some sagebrush when it happened. He said that he normally flies over the field to his hangar.

When asked about his ADS-B he agreed the helicopter was ADS-B equipped. He also had the registration for as long as he owned the helicopter. He had a GPS, but it was burned in the fire. He volunteered to provide his track of the flight and diagram it on an old sectional.

He stated that the two landings and takeoffs conducted at Carson City were normal and uneventful. He said that when he was returning, the EGT was running at 500°C and it normally ran at 450°C, so he was a little concerned. He stated that the helicopter was running flawlessly, “there was no pop and I never heard anything”.

He said that he approached the west ramp from the west, at about 300 feet agl. He then hover taxied (air taxied) over to the field where the accident happened, and he started letting down over that field, “going down and slowing down in order to hover taxi at 45 to 50 feet agl. He then decided to go lower and thought he was at about 25 feet. He lowered the collective and “that’s when everything just immediately stopped”.

When asked how he lowered the collective (smooth, abrupt, quickly?), he stated that he never did anything abrupt, and said “this is a helicopter that you never do anything abrupt in.” He added that he was raising the nose and lowering the collective to slow down and lower his altitude. He said that when he felt the bottom fall out, he looked at his dual tachometer and saw the long needle of the Engine RPM arcing over towards zero. He did not recall what the short needle of the rotor RPM was doing. He said that it took only 2 seconds to go to zero.

When asked about the history of the transmission he said that he didn’t have any history of the transmission other than it was in the helicopter most of its life and he had not had to do any maintenance to it other than a blade dampener that mounted to the outside. He said that it never used oil and had always ran reliably. He stated again that the transmission was seized. He did state that the transmission was dripping oil after the accident. He said that the clutch did not look too bad but would not turn. and one of the cast brackets of the transmission looked like it got a lot of heat.

When asked about the approach into MEV. He explained his procedure was to slow down and not to descend faster than 300 feet per minute to avoid settling with power. He said that he likes to start on the approach when he is about two miles from the landing spot and that he likes to get the helicopter decelerated under 70 knots indicated airspeed (KIAS) so that he crosses the fence, located about 200 yards behind the accident site, at 50 KIAS, and where he is only coming down at about 100 to 200 feet per minute. He said that he then just lets the energy dissipate and gradually lower the collective to do the approach. He said that he approaches at a 45° angle to the field that he crashed in and aims for the field adjacent to the accident site. He said that when he crosses the taxiway, he likes to be at about 15 feet. He was approaching the taxiway at about 25 feet, so he thought it time to lower the collective to get down to the desired 15 feet.

When asked, he stated that he loses ETL when over the powerlines. He stated that ETL was at about 70 Knots.

When asked about him pulling collective to cushion the landing, he stated that he pulled the collective rapidly and “it felt like it wasn’t even connected, and he didn’t think it did much of anything.”

He stated that the 20-gallon aux fuel tank that was located beneath the baggage compartment was still full and did not burn in the fire. He said that he filled the tank and it took 66 gallons that day. He stated that he purchased the fuel from Hutt Aviation, and that it “definitely was jet A that went into the helicopter.”

He thought the accident happened about 1230-1300 local.