

N622MP Accident - Statement

4/10/18

CFII: Hendry, Jeff

Student: Jim Patterson

This flight was conducted for the purpose of flight training a Commercially Rated Rotorcraft Pilot working towards a Certified Flight Instructing Rating.

Preflight was performed around 1510 on the Robinson R22 Beta II, N622MP at Sacramento Executive Airport (KSAC). ½ quart of oil was added and no other discrepancies were found. Approx. 1530, the aircraft was started, warmed up, current ATIS was obtained, and aircraft was hover taxied on the North Ramp short of Taxi-Way Charlie. A South-South-West departure was requested, towards Franklin Field (F72). We obtained a clearance from the tower with a South bound departure remaining West of Runway 20. Approx. 2 miles South of the KSAC, an amended clearance from the tower was obtained to continue on course. We continued from that location, crossing the extended centerline of Runway 20 for a direct course to Franklin Field.

Upon arrival to Franklin Field, there were no other aircrafts in the flight patterns. Runway 27 was the selected due to wind direction (see weather). While at Franklin and during our 1.2 hour flight (collective hobbs) before the accident. Several flight maneuvers were performed such as the following:

- Normal & Steep approaches
- Quick Stops (Rapid Deceleration)
- Hover Autorotation's
- Slope Landings
- Flight Patterns
- Straight-In Autorotation's

To avoid the flow of fixed wing traffic, we decided to move to Runway 18 when a fixed wing entered the traffic pattern for Runway 27. While operating on Runway 18, the student performed two straight-in, full-down autorotation's to a run on landing. After the student's second auto was performed. Proper exchange of the controls had taken place. I demonstrated one straight-in, full-down autorotation to a run on landing with the student following along. I then departed Runway 18 for right closed traffic to demonstrate another straight-in, full down autorotation with a run on landing as before. The auto was entered at 500' AGL, and a glide ratio was set at 65 KIAS. An aft cyclic flare was started approx. 40' AGL to slow the aircrafts momentum. Approx. 8' AGL the aircraft was leveled, and the nose pointed in the direction of travel with approx. 25 knots of airspeed. The aircraft met the ground at a normal run-on landing configuration. Approx. 10' - 15' into the ground run, the student without command applied aft cyclic. I corrected the cyclic movement to the neutral position as quickly as possible and lowered the collective to slow the aircraft ground speed. Then the aircraft jumped and yawed hard left, spinning the aircraft approx. 150°. Total ground run was approx. 50' when the aircraft came to a complete stop. Control vibrations were felt in both the collective and cyclic controls. I opened my door to inspect the situation and could see that the blade had come in contact with the tail boom. Immediate actions were taken to shut down the engine and stop the rotor system. Time was approx. 1710.

Upon inspection of the aircraft, the tail boom was intact with a large dent on the upper left-hand side and a tear in the skin on upper right-hand side. The tail rotor drive shaft was broken and there was no visible damage to the tail rotor blades, gear box, horizontal or vertical stabilizer. A single main rotor blade had three noticeable warp marks and paint transfer to the blade. Within a couple of minutes, the weight of the tail rotor assembly drooped towards the ground tearing open the boom significantly more.

After shut-down of the aircraft, the owners of the company were notified of the accident. NTSB was then notified approx. 1 minute later, and a report was filed. Permission to move the aircraft from the runway was obtained from Zoe Keliher with the NTSB.

Weather –

- Ceiling: Overcast 12,000
- Visibility: 10
- Wind: variable 220° - 250°, 12 knots gust 20

Jeffery J. Hendry

Signature: _____