

N513WF: Incident Narrative

Overview

This document gives an overview of the N513WF incident on Thursday, June 10th 2021. The flight left KBF1 at about 7:12PM PST and got to KCLS at about 8:00 PM PST cruising at 4500. The flight left KCLS at about 8:09 PM PST with plan to head to KTIW for dinner cruising at 3500. Abeam KOLM, it was decided to divert to KPLU to head to restaurant on the field as the restaurant at KTIW would be closing at 9PM. The diversion was executed with a focus to avoid the MOA near KOLM navigating south of the MOA. While enroute to KPLU with autopilot on, the engine failed without any warning and pilot executed emergency landing in a cattle field.

Checkin

- ~6:10 PM PST: Checked out aircraft, reviewed squawks and status sheet. Observed there was about 80-90 hours remaining before the next 100 hr inspection. Filled out the FRAT form with 1 yellow indicator as there was a passenger onboard.
- ~6:15 PM PST: Preflight was conducted, observed about 7 gallons of oil. Pilot observed the need for fuel and flagged the fuel truck (not Signature truck).
- ~6:45 PM PST: Fuel was received and pilot sumped both wings and below engine. Fuel was observed to be valid without water.

Engine Start

- ~6:45 PM PST: There were multiple attempts to start the engine. The first was following a warm start procedure with 1/4 inch throttle. The first attempt did not work while holding the push to start button for about 5 to 10 seconds. The next step was to turn on the fuel pump, then introduce mixture for about 5 seconds. Once this step was completed, the start attempt was executed again; however, the plane did not start and did not seem to crank. The pilot attempted to speak with an instructor who was near a C152 in the parking; however, that instructor was on a call. The pilot then went and attempted to start the plane again, then the plane started. The pilot continued with the before taxi checklist before calling ground for a Vashon departure.

Runup & Takeoff

- ~7:00 PM PST: Run-up was completed with the assistance of passenger walking through the checklist. The only observation at run-up was the right magneto check increased the RPM to 1900 instead of observing a drop. On the left magneto check a drop was observed. All engine instruments indicated green.
- Flight plan was activated at about 7:12 PM PST.

Flight to KCLS

- Departed KBFI on the Vashon departure. The autopilot was engaged on climb after crossing the northern tip of Vashon at a climb airspeed of about 80kts. The climb checklist was executed.
- Once establishing cruise altitude the cruise checklist was executed.
- The GPS flight plan in the Garmin unit was added in flight direct to KOLM then to KCLS.
- The pilot attempted to obtain VFR flight following about ~7 miles NW of KTIW by contacting Seattle Approach on 120.1, however, ATC returned about 1 minute late stating VFR flight following to callback in 30 minutes.
- The autopilot was used to descend to 1700ft.
- The autopilot was disengaged prior to overflying the field at KCLS.
- The pilot entered left 45 into the traffic pattern at 1200ft for runway 34.
- The pilot landed runway 34 and closed flight plan on Foreflight at about 8:00 PM PST.

KCLS

- The pilot executed the after landing checklist.
- The pilot taxied back to the run-up box for runway 34.
- The pilot added all the frequencies for KTIW while on the ground for weather and tower before take off.

KCLS Return Flight

- The pilot took off KCLS with the intent to head to KTIW for dinner.
- The autopilot was activated for climb to 3500 at 82kts.
- The climb checklist was executed.
- Once at cruise altitude, abeam KOLM it was decided by pilot and passenger that KTIW would be closing at 9PM, therefore divert to KPLU as the restaurant on that field closes at midnight.
- The pilot used heading mode on the autopilot to navigate south of the MOA and continued flight heading to KPLU while looking up frequencies for KPLU.
- The pilot does not recall executing a cruise checklist; however, the passenger recalls it being executed.
- About 5 to 10 minutes after entering direct to KPLU at 3500, the engine failed.
- The pilot does not recall the state of the propeller at time of engine failure.
- The pilot does not recall any visible alerts at time of engine failure or just before. There was no roughness of engine felt.

Emergency Landing

- An attempt to restart the engine was executed, fuel select was already on both, fuel shutoff valve was in, mixture was rich.
- An attempt to disengage autopilot was executed, but the wrong button was pressed and auto pilot was still on.
- The fuel pump was turned on and the push to start button was engaged, but nothing responded.

- The frequency was changed to 121.5.
- Last altitude observed from memory was 2700 and the autopilot was attempting to keep the plane climbing.
- On observation the AP was still on, the yoke was pushed down to establish glide speed as there was warning on the G5 and could hear the stall horn.
- The AP button was pushed and it was disengaged.
- Glide airspeed of between 68 and 70 was established as trim was applied.
- Made mayday mayday mayday calls on 121.5 and someone responded asking whether "mayday mayday" was said.
- At the same time the throttle was being pushed in and out with the hopes of the engine starting but no response.
- There was an airpark nearby however, gliding would not have worked therefore established on a down wind for a grass pasture. At first the grass field looked flat, and there were cows observed.
- While approaching the "base" turn, power lines were observed. 10 degrees of flaps was introduced.
- The base turn was executed and Foreflight announced 500.
- An incline was noticed just before the touch down and began flaring.
- The plane bumped, then bumped about 3 to 4 times before the nose wheel collapsed. While bumping the yoke was pushed forward.
- The electrical equipment was turned off and the plane was exited.
- There were cows which started getting closer to the plane, pilot and passenger returned to the plane. There were no injuries and there was an attempt to contact help. Waited in the airplane until help arrived.