



RECORD OF COMMUNICATION

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Western Pacific Region

Date: August 30, 2018
Person Contacted: Mr. Jack Norris (builder/owner/pilot)
NTSB Accident Number: WPR17LA148

Narrative: The following information is a verbatim extract of an email Q&A between the NTSB and the pilot on this date:

NTSB QUESTIONS

Some questions about the electric fuel pump came up; I know its been a while but if you can respond that would be appreciated

- a. Where was the switch for the electric fuel pump located
- b. Any photos of that
- c. What were the normal procedures for pump use(when on, when off etc)
- d. What electric pump procedures did you use during to flight PRIOR to the engine roughness
- e. What electric pump procedures did you use during to flight AFTER to the engine roughness

PILOT RESPONSES

- a. The Electric Fuel pump switch was just below the EFIS and bordered by the Avionics and Landing Light switches.
- b. I've included the photo below. The electric pump was located inside the firewall at the lower right hand side. I've included a picture on the outside of the firewall. The electric pump is the the directly opposite the fuel gascolator (blue) below the battery.
- c. The normal procedure was to turn on the electric fuel pump before magnetos and starter. Upon change in tone (indicating fuel bowl was filled) proceed to engine start. Turn off electric pump.
- d. I used the electric pump for engine start.
- e. The engine was not rough, it lost power. I changed the throttle position to no avail. A linkage problem was one possibility. I had switched tanks about 1 minute earlier (carb holds 15 seconds of fuel). As I was checking throttle and engine instruments , I put the plane into a 180 degree right hand turn to head toward a plateau to my rear I had observed earlier. It was the only landing spot I had observed in the mountains east of New River and north of Phoenix. I checked the mag switch and reviewed the engine instruments on the EFIS and verified readings with the EIS as I began my descent. I mistook a windmilling engine for an idling engine. I did not attempt a restart. I then proceeded to advise ATC and

Deer Valley to no avail. I later learned from KDVT that they were having communications problems to the area I was in. I was now below the ridge-line and abandoned any comm attempt. I identified the small plateau and set up for landing.

In retrospect it might have been an incomplete turn-to the right fuel tank that caused the fuel starvation. The proper procedure should have been to engage the electric fuel pump and switch back to the left fuel tank. A restart attempt should have then been made in lieu of an attempt at communication given my roughly 4 1/2 minutes from the start of the power loss to sliding to a stop on landing. After my failed communication, I concentrated on flying the airplane. I did not have sufficient room to maneuver to land into the wind and the tail wind resulted in higher energy on the landing.

During my initial 40 hours of flight testing the mechanical fuel pump failed. The manufacturer had installed a faulty fuel pump. The actuator casting was bent and the pin that rides on the camshaft to activate the pump cycles was too long. Jabiru provided a replacement. The replacement pump was within manufacturers specification and resolved the surge/less than peak power anomaly.

The emergency landing sequence did not mirror the surging and lack of full power evidenced by the faulty mechanical pump during the test flight period.

