RECORD OF CONVERSATION

Eliott Simpson
Aviation Accident Investigator
Western Pacific Region

Date: May 13, 2015
Person Contacted: Darwin Conrad, [redacted]
NTSB Accident Number: WPR15FA158

Narrative:

The following is a summary of an interview conducted with Darwin Conrad on May 8, 2015. Mr. Conrad is the President and owner of Rocket Engineering.

He stated that Rocket Engineering is an STC Company, specializing in Continental and P&W PT6 engine conversions, with about 600 aircraft converted since inception in 1990. Of those aircraft, about 300 are the Piper Malibu series converted to the PT6 engine of the type involved in the accident. Rocket holds a Repair Station for aircraft in the conversion process, however subsequent maintenance of those conversions returning for annual inspections do not meet process requirements and must be signed off by a FAA approved IA.

No other Rocket aircraft have been involved in an accident during Rocket's care, custody and keeping.

William McLain, who holds an IA certificate, performed the inspection on the accident airplane. He was the only employee at the time who held an IA, and therefore did all the annual inspections on returning aircraft. Chris Hansen also worked on the airplane during the inspection. Mr. McClain has been working on and off for Rocket over the past few years, depending on work load, and has been employed full time for Rocket for the last year.

Records indicated that the accident airplane was converted to a JetProp in 2008. Typically such a conversion takes 2,000 man hours to perform over the course of 3 months.

The owner flew up from Woodland Hills, and delivered the airplane to Rocket for an annual inspection. The owner also arranged for Western Aviation to perform an Avionics Upgrade during the inspection. Mr. Conrad stated that it is not unusual for owners to bring back previously converted airplanes to Rocket for inspections, and often they find modifications and discrepancies on post-conversion. He often finds that work needs to be performed to these aircraft to "bring them back into the umbrella" of the original STC.

Mr. Conrad stated that the accident pilot, Rich Runyon, was employed as an Engineer for Rocket, and he was the primary FAA liaison. He worked with the FAA FSDO as well as the certification branch in Seattle and he was also in charge of PMA for the company. His background included time as a test pilot for the Air Force, a DER Test Pilot for the FAA, company FAA flight test pilot and engineer and he flies at least 200 hours per year. Typically he performs post-conversion test flights, flying about 10 hours to debug issues as well as customer familiarization with the new conversion. For the accident flight, he was performing a post-maintenance check. This is standard procedure after maintenance. He was seated in the left seat, and Lyn Amestoy (also a pilot), a Rocket customer service and sales employee was in the right seat acting as a second set of eyes.

Follow up: September 9, 2015

Mr. Conrad was away in Reno in hospital with his wife the days leading up to and including the accident. He stated that throughout the time the airplane was at Rocket, the owner regularly called to check the status of the project, concerned that it would not be completed on schedule.

Mr. Runyon had an FAA medical scheduled for the following morning at 0800, so chose to do the flight check that night instead of the following day.

RECORD OF CONVERSATION

Eliott Simpson
Aviation Accident Investigator
Western Pacific Region

Date: May 13, 2015
Person Contacted: William McLain - [redacted]
NTSB Accident Number: WPR15FA158

Narrative:

The following is a summary of an interview conducted with Mr. William McLain on May 8 and May 11, 2015. Mr. McLain's legal counsel, Mark Conlin was present for both interviews.

Mr. McLain is employed at Rocket Engineering as an Inspector, he has been an A&P mechanic for about 22 years, and held an IA for 17 years. He is employed full time, and works just under 40 hours per week.

He performed the most recent annual inspection for the accident airplane, during which time he performed multiple maintenance procedures.

The airplanes owner brought the airplane into Rocket about 2 weeks prior to the accident for an annual inspection and Avionics upgrade. The owner had arranged for Western Aviation to perform the avionics work while the airplane was undergoing the inspection at Rocket.

Mr. McLain stated that it is not unusual for owners of JetProp-converted aircraft to come back to Rocket for an annual inspection. When the airplane arrived there were no logbooks, so the owner had them sent separately. He commenced with the inspection utilizing the inspection checklist, and logged information in the discrepancy sheet including historical AD's, SB's and current action items. Once the logbooks arrived he checked them for history and AD/SB compliance. He did not observe any egregious problems with the airplane, but did note that the elevator, aileron and rudder tensions were each about 10 pounds too high. He addressed this concern with the owner, who stated that this was on purpose because the autopilot performed better with them over tensioned. He also noticed wear on the aileron and elevator cables around pulleys and at contact areas with the phenolic guides (mid-wing for aileron). He noted that the airplane had flown 300 hours since the last inspection, without any intermediate 100 hour inspections.

He replaced the four aileron cables for both wings and aft elevator cable, the outboard one which was marked number 1 in the parts manual, and he readjusted all to the upper limit of their tension range (35 pounds for aileron) in order to fulfil the desire of the owner to have the cables tight. This work was performed on May 5, 6, and the day of the accident (7). He utilized the Piper maintenance instructions

for the replacement procedure, as per his standard procedures, specifically page 2A24 for aileron cable identification. He removed the aileron as required; the instructions did not require the removal of the flap, which he left in place. He only replaced one cable at a time in order to prevent installing the wrong cable.

Following completion, he checked the aileron operation both inside and outside the airplane, confirming smooth and full deflection. As part of the test procedures, he installed the control bar and checked neutral on both ailerons, and utilizing a protractor for angular deflection measurements. He utilized he assistance of mechanic David Barbieri during the work, specifically to inspect the aileron operation after the installation.

He checked his tools after the accident, and none were missing. He has replaced aileron cables on Malibu/Mirage airplanes about 5 times before.

On the day of the accident, the pilot, Rich Runyon performed a preflight inspection while Mr. McLain installed the seats.

None of the maintenance required defueling, and he confirmed just prior to the accident flight by looking at the instrument panel fuel gauges, that the left tank contained 38 gallons of fuel, and the right 39.

The work performed by Western Avionics took place mostly in the aft baggage compartment by one mechanic. The aileron and elevator cables were purchased through the parts distributor Aviall.

Follow up discussion via phone October 5, 2015:

Mark Conlin was present.

Mr. McLain stated that he was not working on other aircraft at the time, his time that week was spent exclusively working on N962DA.

The airplanes owner originally dropped off the airplane on a Monday, and requested that it be completed the Thursday of the following week. The owner had called about three times to ask when the airplane would be ready, each time Mr. McLain stated that the airplane would not be ready on the requested date because other issues were being discovered that needed to be resolved. Ultimately, Mr. McLain referred the owner to the salesman because he felt he could be more, "diplomatic" with the owner.

Mr. McLain stated that there was no unusual rush or pressure to get the airplane finished that day, beyond the usual desire to be home on time. He reported that he generally finishes work around 1630. He was not aware of any outside pressure from the pilot to have it finished that day.

He stated that his work is always checked by another mechanic, and on this day it was done David Barbieri, who Mr. McLain stated examined the aileron control system, and that he observed him do it.

RECORD OF CONVERSATION

Eliott Simpson
Aviation Accident Investigator
Western Pacific Region

Date: May 13, 2015
Person Contacted: David Mark Barbieri - [redacted]
NTSB Accident Number: WPR15FA158

Narrative:

The following is a summary of an interview conducted with Mr. David Mark Barbieri on May 11, 2015. Mr. Barbieri's legal counsel, Mark Conlin was present for the interview.

Mr. Barbieri is a mechanic employed at Rocket Engineering. His background includes that time as a crew chief in the US Airforce, as well as a mechanic for United Airlines from 1989 to 2005. He has worked for Rocket Engineering since 2006. He holds an A&P certificate, but does not have an IA.

He works primarily on the Duke Airplane conversions, as well as performing sheet metal, landing gear, battery modifications, and engine removal for the Piper conversion series.

For the accident airplane, William McLain asked him to assist with rehanging the ailerons, as well as verifying the safety wires at the aileron sector wheels. All went smoothly, and this was the only work he performed on the airplane. Mr. McLain was preparing to perform the cable tension check, and Mr. Barbieri asked Dan, the Western Aviation mechanic, if blocking the yoke would disturb his work, he confirmed that it would be ok.

RECORD OF CONVERSATION

Eliott Simpson
Aviation Accident Investigator
Western Pacific Region

Date: May 13, 2015
Person Contacted: Barry Huck, [redacted]
NTSB Accident Number: WPR15FA158

Narrative:

The following is a summary of an interview conducted with Mr. Barry Huck on May 11, 2015. Mr. Huck declined to have a representative present.

Mr. Huck is the President of Western Aviation, and he holds an A&P certificate with IA ratings.

Western Aviation is primarily an avionics shop, and has worked with Rocket Engineering on multiple occasions in the past.

The owner of the accident airplane called Western requesting an avionics upgrade updating to ADS-B, and including Sirius XM satellite services. The upgrade included, amongst other operations, the installation of a Garmin GDL69A along with firmware upgrades and antenna changes. The majority of the work was performed in the rear section of the airplane, and included a cable run to the forward cabin. Mr. Huck offered to provide a detailed statement from the technician who performed the work. (See Dan Koterba statement).

Once complete Mr. Huck signed the logbook entry after the mechanic who installed the system performed an inspection. Typically, Mr. Huck signs off on anything requiring a major alteration and in this case the upgrade required completion of multiple FAA form 337's. For this work, he inspected as the work progressed, but did not perform a final inspection after it was completed.

Follow up: Sep 10, 2016

Mr. Huck had planned 18 days to complete all of the work, about 40 to 45 hours total, but new it would be tight because the owner had other work he needed to have completed at PropJet. During the installation the owner made multiple requests to add work, some luxury items such as installing Bose Headset sockets. Some items were performed, some were not, due to time constraints. The physical work was completed the Friday week prior to the accident but the day of the accident he believes the mechanic was working on the airplane performing firmware upgrades and updating flight manuals.

Western Aviation Inc
N692DA Avionics Installation

The scope of the installation was to remove the Garmin GTX 32 Transponder and install a Garmin GTX 33ES ADSB out transponder, a Garmin GDL 88 ADSB data link, and a tray and wiring for a Garmin GDL 69A XM data link. To start the project the GTN 750, GMA 35, and GNS 480 units and trays were removed. Also removed were the aft headliner, RH mid-seat and cabinet, rear seat, and RH lower sidewall. New wiring was routed down the RH side from the rear avionics bay to the avionics circuit breaker panel and behind the instrument panel to the GTN 750 and GMA 35 connectors where the new wiring was terminated. Two switches and wiring were added for XM audio and an existing music input and interfaced to the GMA 35 music 1 and 2 inputs. The majority of the terminations were done in the rear avionics bay. During the installation it was discovered that the existing coax cable for the transponder was the wrong type and too long to meet the requirements of the GTX 33ES STC. The DME coax cable was the right type and length, so the antenna cables were swapped in the rear avionics bay. The TCAD transponder antenna coupler had to be re-located from the bottom of the GMX 200 tray to a new location just forward of the table on the right side of the aircraft, and interfaced to what is now the transponder antenna. The wiring for the new equipment in the rear avionics bay was terminated and the trays were installed. The existing GTN 750 GPS antenna was removed and a combination GPS/XM antenna was installed in its place using the existing antenna doubler. A new coax cable was installed and routed aft to the GDL 69A tray. A new CI 105 antenna was installed on the bottom of the aircraft (see DER) and a new coax was routed aft to the GDL 88 tray. All trays, radios, and above listed removed interior was re-installed with the exception of the rear seat which was to be re-installed by Rocket Engineering personnel.

If you have any questions, please feel free to call.

Western Aviation, Inc
[redacted]

[redacted]

Daniel M. Koterba
Repairman