

Jim Silliman Air Safety Investigator Central Region

Date: June 9, 2014 Person Contacted: Kim Lorentzen NTSB Accident Number: CEN14FA278

Narrative:

Kim related that the accident pilot was the third owner of the airplane. He purchased it in November 2013. He left the airplane in Bend until he was going to fly it back to Germany. He purchased the airplane from Mike Johnson and the airplane was kept in Bend, OR.

I didn't know he was in town until Saturday when Doug told me about the accident.



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Date: June 10, 2014 Person Contacted: David Robinson NTSB Accident Number: CEN14FA278

Narrative:

Associated with the Lancair fleet flight training. The accident pilot only had a couple of days available for training in November last year. He met with one my contract instructors who provided him some ground school. He provided ½ day of ground school, however, they did not go flying because the fuel control unit was not functioning properly. The fuel control unit was leaking fuel but the pilot didn't want to get it fixed.

David said it's very important to keep from getting air in the fuel control unit. It can cause the engine to flameout. There is a procedure during the ground checks for that.

The airplane was equipped with a 70 gallon fuel bladder in the airplane before takeoff which would make it very heavy with an aft CG. It would be near or aft of the CG limits. He stated that the airplane is a completely different airplane with aft CG. The airplane has a lot of torque and not a lot of tail. It's a very unforgiving airplane, and you need to get training.

He saw the pilot taxiing the airplane back to the hangar about 2 days before the accident. He had never met the pilot personally.

He related that the airplane is very challenging to fly, and he had heard that the pilot had only received a couple hours of dual instruction – just enough training to do takeoffs and landings.

He had heard that the autopilot was not functioning and that it needed to get fixed.



Jim Silliman Air Safety Investigator Central Region

Date: June 11, 2014 Person Contacted: Erik Miller NTSB Accident Number: CEN14FA278

Narrative:

Erik refueled the airplane from the truck. The pilot actually fueled the bladder using some type of funnel. The fuel bladder was located in the back seat area. The back seats had been removed, but he did not see how the black colored bladder was secured or strapped down. The pilot put 60 gallons in the fuel bladder and he topped off both wings with fuel.

He fueled the airplane in the morning. The pilot seemed to be alert and during their conversation nothing seemed out of the ordinary.



Jim Silliman Air Safety Investigator Central Region

Date: June 12, 2014 Person Contacted: J.C. Peterson NTSB Accident Number: CEN14FA278

Narrative:

J.C. provided about 3 to 4 hours of ground instruction last November. The instruction was primarily about the aircraft systems and some aircraft accident history. Then during the preflight of the airplane, a noticeable amount of fuel was found under the fuel control unit. They ran the engine to see if there was any air in the fuel. J.C. chose not to fly the airplane until the problem was fixed. To J.C.'s knowledge, the pilot never got the fuel control unit fixed.

J.C. discussed the danger of allowing air getting into the fuel control unit, which made it important not to let air get into the airplane's belly tank. Procedures also required that the fuel boost pump be turned on for the entire flight. During the pre-takeoff procedures, you check for and Ng and fuel pressure to drop. You shut off the boost pump for 5 second to verify that there is no air in the FCU.

J.C. saw the airplane flying recently but he didn't see the pilot. The pilot did not contact J.C. for any training. He heard that Scott Fordham instructed him for about one day.

The 70-gallon fuel bladder was not in the airplane when J.C. saw the airplane in November. J.C. said the airplane looked like an average Lancair IV. J.C. never flew the airplane.

He said that the Lancair IV is a challenging airplane to fly, especially with the torque produced by the turbine.

J.C. said the two wing tanks feed the belly tank. Be careful to avoid getting air into the belly tank since it might get into the engine. The wing tanks feed the belly tank simultaneously. Treat the belly tank like it's not there. Set the fuel selector to BOTH and the belly tank feeds directly to the engine. Never get into the belly unless you're in a descent. Get air out of the belly by the vent. Wing tanks can provide you with a range of 1,000 to 1,100 miles with zero wind. The belly tank

gives you about another hour of flight. The 70-gallon fuel bladder. The turbine aircraft has critical CG. J.C. said he would completely advise against adding that much weight in the aft cabin.



Jim Silliman Air Safety Investigator Central Region

Date: June 10, 2014 Person Contacted: Michael Guinn NTSB Accident Number: CEN14FA278

Narrative

He reported that he had been helping the former airplane owner, Mr. Mike Johnson, with the maintenance on the airplane until he recently sold it in November. He's an A&P and IA so he could do the conditional inspections of the airplane. He stated that the airplane was in good condition and he made logbook entries for the inspections.

He stated that the new owner asked him for advice. He installed some ON/OFF fittings on the fuel bladder but he did not install the bladder into the airplane. He provided some advice about the AC/DC converter and some autopilot problems. The pilot had questions about the autopilot system and the trim system. He did not work on the airplane since last May or June. He did the inspection for Mr. Johnson when he was trying to sell it.

He didn't think the airplane was being used from November to June. The pilot popped up about 2 weeks ago.

He said the accident pilot seemed like a nice guy. He said he seemed kind of bull-headed and wanted to do some things his own way.

There was a 35-gallon belly tank. The fuel bladder was in the back seat.

J.C. Peterson was supposed to train him but he wasn't comfortable with the airplane.



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Date: June 19, 2014 Person Contacted: Mr. Gabe Daniels NTSB Accident Number: CEN14FA278

Narrative

Professional Air. He was a customer of ours for fuel and hangar. He had some small things fixed like GPS updates but that was the extent of it. We fueled the airplane. The pilot would be here for 2 weeks at a time. We'd pull his airplane out of the hangar. The pilot came back a couple times last year. Mr. Daniels didn't see him flying with anyone. He knew he was going to fly to Germany, and he found out he was going to fly to Duluth the day before the departure.

The pilot emailed him before he left from Duluth seeking a clarification about a fuel receipt. The pilot said he flew 4.2 hours en route to Duluth.

Mr. Daniels said the pilot was nice and easy-going. He seemed smart, intelligent, in control – not aloof. He was not concerned about the pilot's flying ability.

He didn't have any experience with the aircraft. He saw the pilot flying the airplane while he was in Bend. He didn't see anyone flying with him in May 2014.

Mr. Daniels stated that Lancair IVs are very unforgiving airplanes due to: stall/spin entry, fast airplane, lots of power, small wings, and originally designed for smaller engine.

He never saw the fuel bladder in the back of the seat.



Jim Silliman Air Safety Investigator Central Region

Date: June 19, 2014 Person Contacted: Mr. Simeon Geoff NTSB Accident Number: CEN14FA278

Narrative

He was on the ramp in Duluth on Saturday, June 7, 2014, when he saw the accident airplane taxing for takeoff. He didn't see the airplane takeoff.

He said the visibility looked good for instrument approaches. The weather was maybe IFR or MVFR. East of the runway the weather was down to the ground. Easterly winds brought a layer down to the ground. Western end of the field is fine.

Driving down the hill toward the lake, there was a cloud layer that had a 300 to 400 foot ceiling. Heavy fog going up the hill. Ceilings over the airport were overcast. He would have been IMC shortly after takeoff.



Jim Silliman Air Safety Investigator Central Region

Date: June 19, 2014 Person Contacted: Mr. Rick Parker NTSB Accident Number: CEN14FA278

Narrative

Rick Parker rented his hangar to the pilot where he kept N86NW, but he never flew with him. The pilot sent him emails between November 2013 and June 2014 mainly concerning packages that would be arriving that needed to be placed in the hangar.

The pilot sent him an email on Friday, June 6th that stated that he was having a problem with the autopilot. The email stated that the autopilot was trying to kill him. Mr. Parker didn't know if the pilot got it fixed.

He seemed to be a cautious, but he never flew with him. He never opened the boxes that were sent to the hangar, and he didn't have any technical questions about the airplane. The pilot took out the back seats to put a fuel bladder in the back. He was concerned about the autopilot.

He did some flying with Scott Fordham. He flew the airplane to Las Vegas.



Jim Silliman Air Safety Investigator Central Region

Date: June 25, 2014 Person Contacted: Mr. Jay Hanson NTSB Accident Number: CEN14FA278

Narrative

Jay Hanson was one of the divers who recovered the pilot's body from the airplane wreckage in 137 feet of water in Lake Superior.

He stated that he observed 3 ends of the seat belts lying loose amidst the wreckage. He reported that they did not have to unbuckle the seatbelts or cut the seat belts or shoulder harness to get the pilot removed from the airplane wreckage.



Jim Silliman Air Safety Investigator Central Region

Date: July 15, 2014 Person Contacted: Mr. Dave McCrae NTSB Accident Number: CEN14FA278

Narrative

I got a call from the pilot. He was having autopilot troubles. He heard that RDD has experience with TruTrack autopilots so he wanted to know if we could help him.

He flew the airplane to Redmond on Friday morning about 0730. He said he was having problems with the autopilot which created violent pitch-ups.

We looked at it and it was an easy fix. The auto-trim was reverse sensing which caused the nose to trim up or down which was backwards from what was required. The fix took less than 20 minutes. All that was required was to flip a switch on the auto-trim module.

He said he was flying back to Bend, Oregon. He didn't tell me that he was flying to Duluth that day. He sent me a text on Friday night from Duluth. The text stated that the autopilot was working much better. I heard on Tuesday that he had an accident.



Jim Silliman Air Safety Investigator Central Region

Date: July 16, 2014 Person Contacted: Mr. Dave McCrae NTSB Accident Number: CEN14FA278

Narrative

The pilot was super upbeat, super excited. He loved the aircraft. I invited him to come back.

I saw the rubber auxiliary fuel tank that was in the back seat area. The tank was all collapsed and there was no fuel in it. It didn't smell like fuel in the cabin.

The pilot said he had some problems with his panel, but he did specify what the problems were. The airplane seemed like a typical Lancair IV except for the auxiliary fuel tank.

The airplane was equipped with a TruTrak Sorcerer autopilot. It's a higher end autopilot and it had an auto-trim module.

The pilot said that he had pulled out some part of the autopilot, and had sent in to be repaired. When he got it back, he installed it himself.

The autopilot trim system should be checked during the pre-takeoff checklist.



Jim Silliman Air Safety Investigator Central Region

Date: February 24, 2015 Person Contacted: Mr. Michael Guinn NTSB Accident Number: CEN14FA278

Narrative

The Crossbow AHRS 500 was located forward of the inspection panel: About 12 inches forward and 8 inches up. The aircraft heat exchanger was about 2 feet forward of the AHRS. The pitch autopilot servo was about 2 feet behind the AHRS.

The rear seat bottom and back cushion were held on by Velcro.

The magnetometer was located in the forward part of the lower vertical stabilizer - at the same height as the horizontal stabilizer.

Mr. Johnson didn't have autopilot problems that he was aware of.



Jim Silliman Air Safety Investigator Central Region

Date: February 24, 2015 Person Contacted: Mr. Steve Gibson NTSB Accident Number: CEN14FA278

Narrative

Michael Guinn did the work. He wasn't working for me then. Owner did that. He asked us to do it. The airplane wasn't made to have a 75 gallon fuel bladder in the aft seat.

We did the annual inspections for Mike Johnson before Alexander bought it. We did the pre-buy on it. We turned down the work for installing the bladder. Lancair told us not to do it. But the new owner was an engineer.

I saw him fuel the bladder at the FBO so it was done. He had the bladder in when he went to Las Vegas. He saved on fuel in Las Vegas.

It was gravity feed. No boost pump. You can't pressurize composite fuel tanks. He went with gravity feed.

I saw him fly when the weather was really bad. A snow storm came through and you couldn't see the airplane taxi by. He climbed out of it immediately. He flew IFR to Las Vegas.

On his second trip to Vegas, he had the fuel bladder in.

We didn't do any maintenance on the airplane since the pre-buy inspection on the airplane. He borrowed a 5-gallon bucket and bled the FCU. He did that on the ramp in front of the hangar.

Mike Johnson. He would find a few discrepancies but nothing real serious. He had someone borescope the Walters engine somewhere on the east coast before we did the last annual inspection. We did 3 annuals in my hangar. He would take it to an avionics shop for avionics. We don't do avionics. Nice looking aircraft. Mike kept on maintenance pretty good.



Jim Silliman Air Safety Investigator Central Region

Date: February 24, 2015 Person Contacted: Mr. Heath LaHoste NTSB Accident Number: CEN14FA278

Narrative

The AHRS is typically in the tail aft of the baggage compartment and near the access panel in the tail. It's an appropriate place for it.

The fluxgate is in the vertical stabilizer. It's "S-glass." S-glass is not carbon based glass. Components can see through.