



MEMORANDUM FOR RECORD

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Date: 10/16/2022
Subject: ERA24FA038, Interview with Co-owner
Contact: Nathan Ruedy – [REDACTED]

Mr. Ruedy was a co-owner of the accident airplane. He was interviewed at the Everett-Stewart Regional Airport (UCY) and the following is a summary of the interview.

The following is a summary of details shared by his partner in the airplane, Mr. Jeff Nelson. He concurred with the majority of the digest, and added detail for clarity on some points.

Mr. Nelson, Stanley Hales, and Mr. Ruedy were the partners.

Mr McDonald, the flight instructor was providing instruction to the 3 owners for familiarization and to meet insurance requirements. The goal was to meet requirements and increase individual proficiency as much as possible. Mr. McDonald was a recognized aerobatic instructor with experience in this make and model airplane.

Mr. Ruedy was familiar with Mr. McDonald's reputation and experience, and he was also recommended by another owner of the Xtremeair XA42. The accident pilot, Mr. Hales, had accrued 10 hours of instruction. The "ground" instruction was limited to discussion of the airplane and its features, and aerodynamic characteristics during pre-flight and walk-around inspections. Discussion about emergency procedures and limitations was limited to V-speeds and aerodynamic characteristics specifically, but many topics were covered in conversation both individually and in group discussions with Mr. McDonald.

Most flights included aerobatic maneuvers. No formal weight-and-balance was performed prior to each flight. The pilots and the instructor all relied on their knowledge of the airplane's limitations prior to each flight.

Q: Can I have your full name and phone number?

A: Nathan Ruedy

[REDACTED]

Q: What certificates do you hold:

A: ATP, 737, ERJ-170, CFI/MI, Tailwheel, high performance

Q: How much flight experience do you have?

A: 10,500 hours

Q: How many in the ExtremeAir XA42?

A: 3.2 hours

Q: You have flown with Mr. McDonald?

A: We didn't log the hours and he didn't sign it.

Q: Was the airplane a recent purchase?

A: Yes.

Q: You three (Jeff, Stan, and Nathan) were all partners in the aircraft?

A: Correct.

Q: Some of this is background that Mr. Nelson provided. Please feel free to add or subtract.

A: No objections most of the information provided. However, discussing the implications of weight and balance were done and accounted for. I added implications that I have run a weight and balance on this aircraft. The numbers did not match exactly with the book.

Q: Was that shared with the others?

A: I just assumed that everyone did their homework to make sure they were in cg limits. Just wanted to make sure that Scott was aware of where we were in cg limits.

Q: Both of those guys were a bit heavy (Stan and Scott). Was that a consideration?

A: Absolutely that was a limitation. We looked at the numbers with me running at 210 lbs. We were in the limits. We would generally run the flight based on the training. 15 gallons a side. Center tank was always full.

Q: Talk about the fuel loading and fuel management. How would you use the fuel, access the fuel, takeoff climb, level off...?

A: Takeoff you are required to be on Acro tank. At 1000 feet, there is a power reduction. You switch the wing tanks. You would fly out to the practice area. There you would fly to 5,000 to 7,000 feet. Once you fly back, you would fly back on the wing tanks. I would select left wing tank and get the wing tanks as low as possible. Wing tanks on the way back, and back to acro for landing. Acro through pattern. May level off at pattern altitude to go on wings. Base turn would be on acro.

Q: Are there any restrictions that you know of on the fuel tanks? Ones you must avoid, or be aware of?

A: The goal is to get the wing tanks burned off. 9-10 gallons in the wing tanks. 5 gallons a side to get burned. Fly acro in the practice area.

Q: Is the 5 gallons in the main tanks a limitation?

A: May be a g requirement for full deflection. None of us used a full deflection of the control surfaces in our 3 days.

Q Where is the fuel selector? Is it well protected?

A: It is well protected and is low in the center console.

Q: What was the briefing, was it formal?

A: It was based off where you were in the progression of the training. Would provide different maneuvers based on where you are. "I want to see snap rolls." Once you got in a position, you would make the brief for the . Slow down, it is just too much aircraft for you. Third flight built a bunch of confidence.

Q: Any discussion about minimal altitudes?

A: No there was not. This training. We had all gotten our aerobatics training somewhere else. That was basic knowledge. We are all going to great trained until we were all safe.

Q: Where were you when the accident occurred?

A: (pointed to location on map that Mr. Nelson pointed to earlier).

Q: Can you describe what you saw?

A: To start off, by the time for it to matter, to hear the engine noise (I have no recollection of what sound the engine was making, from my visual, from the final spin).

(continued) I would say that he was 1200 to 1500 feet. Sounded great. Ton of speed. It pulled vertical into the avalanche. The snap was hit at the exact spot. I told him on the previous calls, I told him to hit it. The nose did an extra rotation in the same direction. In the roll axis. Push (elevator) forward and opposite (right) rudder. Stopped upright, and it looks like they yawed to the left. If you go full right, the nose will start a downward tumbling. It is possible, it entered a gyroscopic tumble. At which point, it went into a spin. A one and a quarter spin. When they got out of the spin they were 500 ft. AGL. I

mention speculation, it looked like someone saw the ground and got spooked, and tried to pull out there. And they entered into another spin.

To summarize, you could fill a book with what I didn't know about aerobatics, that Scott did know. The reason I knew what the airplane was doing, was because of him. They had a better chance of getting out with having Scott in the aircraft.

Q: What do you think happened?

A: The avalanche all by itself, in this airplane, is one of the more benign maneuvers that someone can do. They were probably 2000+ feet. The way the airplane has the tendency with the left rudder. When it entered the spin. It could have been leftover pieces of a tumble. They were able to get out of it. But there was that moment of panic. One or both of the pilots and saw the ground coming at them, and pulled the stick harder than they should have.

Q: Why did they not keep flying and why did they stall?

A: When they came around. Hit it here. They do the snap roll here. They overcorrect for it. This is the highest energy maneuver in aerobatics. You lose energy in this thing. A ton of induced drag. A bobble in either direction, you are going to stall. The inertia was going to keep going, or there wasn't enough air going over the wing. The extra rotation may have been a crossover snap roll. Talk about losing energy. When they kicked that rudder, and the nose kicked, you lost about 400 feet.

Q: Why would I continue the maneuver?

A: I am guessing someone kept the rudder in too much. There is no more energy left in the aircraft. Once you press the aircraft.

Q: Full power for the entire time?

A: Correct.

S: There is a chance that there was a differing opinion in the cockpit. We are pilots, and all capable of screwing this up. 100%. Stan being new with the aircraft, not as much total

time. There is a chance he could have screwed up. One could have recognized it was an inverted spin. It is a possibility.

Q: Is it customary to initiate maneuvers at 2000 feet?

A: Yes, very standard. I was in radio communication with them the entire flight. I thought they were under control. The chute is 0.5 seconds to release. At 600 feet, they were under control (I thought).

Q: The characteristic when you push that left rudder and the nose goes down and left. Coming out of that snap roll, is that something you would say, if you are not used to it, it could be a problem?

A: If you hadn't seen it, which we've all seen it.

Q: Was it a surprise?

A: I think it is a lot easier. It is designed to be a lot more unstable. This aircraft is the slightest movement. It is not an Extra. More maneuverable. I would call it significant. 500 degrees a second. That elevator is so strong, overall lack of familiarization to the aircraft. Very sensitive. If you are fighting over this much elevator, you could have an issue.

Q: Have you flown this solo?

A: No.

We were about 150 lbs. below the MGTOW. You get another 200 lbs. back if you fly solo.

Q: Do you know where the cg is on the envelope.

A: I would have to go back to my notes.

Q: Please attach weight and balance when you write up your notes.

The interview was ended.

Mr. Ruedy was contacted by email with this digest attached, and was asked to concur with its content, which he did. He also enclosed further details about what he witnessed, and they are attached below.

In the Avalanche, the plane was over 2000 feet at the top of the looping portion and instead of doing a single roll, it did 1 and 1/2 rolls. The extra half roll looked like it may have been a crossover snap roll meaning it was initiated with right rudder under negative G. To recover from that they went back to full left rudder to stop the rotation, wings level and upright. The left rudder then caused the plane to initiate about 1/4 of a tumble that was again stopped with right rudder and aft stick pressure. That caused a right hand 1 1/2 spin that was recovered around 600 feet. At that point the airplane could have been recovered but when the ground is that Big in the front window, even the best pilot can panic and pull too hard, which is what happened and they entered their final left spin into the ground.

The only other thing I found was making sure to say the snap roll is one of the largest energy LOSING maneuvers in aerobatics.