



MEMORANDUM FOR RECORD

Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: January 1, 2020
Person Contacted: Bob Snyder - Chief Flight Instructor/Maintenance Test Pilot
NTSB Accident Number: ERA19FA034

Narrative:

Mr. Snyder worked at the U.S. headquarters for the gyrocopter kit manufacturer. He was interviewed at his place of employment, and the following is a summary of the interview. Mr. Snyder held a commercial pilot and flight instructor certificates with ratings for rotorcraft-gyroplane. He also held a private pilot certificate with ratings for single engine land and sea. And a maintenance certification for AutoGyros.

Mr. Snyder estimated he had about 4,000 total hours of flight experience, of which 700 hours were in the AutoGyro Cavalon.

Mr. Snyder demonstrated some of the components and features of the AutoGyro Cavalon model gyrocopter in the company hangar. He removed floor panels in order to reveal where the pitch and roll control inputs which were translated to a Teleflex (push-pull) cable. The cables then passed aft through the fuselage, and up through the pylon area (mast) where they connected to vertical push-pull tubes mounted on the rotorhead.

According to Mr. Snyder, the kit was purchased as a single purchase. A build-assist was a separate purchase. For the aircraft to be amateur built, the owner must build 51 percent of the aircraft. Mr. Snyder said his intent was for owners to build the largest possible percentage of the aircraft, and that his focus was to assist with safety-of-flight items.

Mr. Snyder was asked if there were published procedures for the conditional inspection and the 40-hour flyoff, and he said there were, and he forwarded copies by email.

Mr. Snyder was asked how track and balance was accomplished with the Cavalon, and he said that either Vibrex or PB4 balancing systems were used. Accelerometers were mounted on the rotorhead and they transmitted signals by Bluetooth to an iPad where vibrations were measured,

mapped, and corrective adjustments were adjusted off that mapping. Typically, the Cavalon rotor system could be tracked and balanced over the course of 6 flights.

Mr. Snyder was shown a video of the accident gyrocopter in flight immediately after it completed its 40-hour fly-off. The cyclic control was vibrating “pretty bad” in his estimation. When asked if he would sign off an aircraft that displayed that level of vibration in the cyclic following a conditional inspection, or the completion of a 40-hour fly-off, he said, “No.”

When asked if one could sign off the 40-hour fly-off with that level of vibration, and add, “Needs track and balance.” Mr. Snyder replied, “you could.”

Mr. Snyder said he spoke with the accident pilot about the vibrations in the flight controls of N198LT. Mr. Lord said the airspeed indicator was not connected and that Mr. Lord had forwarded the same video that he viewed with this investigator.

Mr. Snyder advised Mr. Lord that without a Vibrex or a PB4 it would be difficult to make an improvement. So, he advised that Mr. Lord could reposition the rotor system on the head 180-degrees, or add weight (washers) in one blade, and if that didn’t work, try the opposite side.

“I told him, it’s a crapshoot.”

When asked, Mr. Snyder said he “wouldn’t deliver an airplane like that.”

Ms. Rose said that she offered to overnight a Vibrex system, but Mr. Lord said he would “mess with it” before he decided. He added that his wife could overnight a balancing system from Illinois if needed. Didn’t discuss it again.

Mr. Trillo said that he had lost his interest in becoming a pilot and flying his aircraft, and the people at Cloud Nine were no longer affiliated with Auto-Gyro. So, he contacted Auto-Gyro and completed an agreement for them to pick up the aircraft, and market it for sale at the Deland Air Show, which would run November 1-3, 2018.

Mr. Trillo signed an agreement with Auto-Gyro and discussed that the Conditional Inspection and the 40-hour fly-off would be completed by the time Auto-Gyro’s pilot took delivery.

Mr. Trillo’s understanding was that the paperwork was completed as discussed prior to the pilot taking delivery of the accident gyrocopter.