



## RECORD OF CONVERSATION

**Jim Silliman**  
**Air Safety Investigator**  
**Central Region**

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**Date: March 28, 2018**  
**Person Contacted: Mr. Miles Loomis, Pilot**  
**NTSB Accident Number: CEN17LA156**

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### Narrative:

Mr. Loomis stated that his brother, Dwight, had gone to Galena, IL to build the gyroplane from the kit that was sent from the kit manufacturer. The distributor for the kit was located at Galena, IL. He stated that a flight operations manual came with the aircraft but was unsure if it came with a maintenance manual.

He stated that he did not “mess” with the Turbo knob located on the center pedestal in the cockpit. He wasn’t exactly sure how it worked or what it controlled. His brother would set it during ground operations and he didn’t move it when he flew.

He stated that his brother made adjustments to the turbo controller after the carburetors had been worked on. He wasn’t sure how his brother made the adjustments, whether it was using the Turbo knob or something else. He said that the gyroplane was flying fine since April 7, 2017, when the engine wasn’t running right.

On the day of the accident, he said that he and his son had flown from Knoxville, IA to Newton, IA and back. The flight was about 1-hour long. After they landed, he checked the fuel and it showed 10 gallons remaining. He was going to refuel the aircraft when Jeff Jorgenson came by and they decided to go for a 10-minute flight since Jeff had never flown in a gyroplane before. He stated that Mr. Jorgenson weighed about 220 lbs and he weighed 165 lbs. With 10 gallons of fuel on board, he stated that they were within the Weight and Balance limits of the aircraft.

He stated that he taxied to the end of the runway and did a full-length departure. He stated that the taxi, runup, takeoff, and climb to 500 ft agl were normal. The engine was running fine and everything looked normal. He had planned to climb to 1,000 ft agl, circle around, and come back to the airport. However, while continuing to climb through about 500 ft agl, the gyroplane stopped climbing and started to descend. He didn’t remember hearing any change to the sound of

the engine, but he was aware that the gyroplane wasn't climbing anymore. He thought the engine was still running but the gyroplane was losing altitude. He checked the altimeter and confirmed that they were in a descent. He started to turn back to the airport while still in a descent. He realized he couldn't make it back to the airport and he tried to put it into a field. He saw the powerlines and turned sharply to avoid hitting the powerlines, but the gyroplane hit the powerline and impacted the side of the ditch. He turned the engine and fuel off and he and the passenger climbed out the aircraft.

The gyroplane was taken back to the airport and placed on the ramp. The next day the FAA inspectors examined the aircraft. The engine appeared to be okay, so they decided to try start the engine. It started without hesitation and it was run at idle power, since the propeller was broken, and it created a lot of vibration.

He said that the insurance company eventually sold the wreckage to someone in Poland. He said the manufacturer was originally in Poland but was now located in Malta.

He stated that his brother did all the maintenance work on the airplane, except for the work on the carburetors, which was done by a mechanic familiar with Rotax engines.



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**Date: March 29, 2018**  
**Person Contacted: Mr. Dwight Loomis, Owner/Builder**  
**NTSB Accident Number: CEN17LA156**

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### Narrative:

Mr. Dwight Loomis stated that the dealer for the gyroplane was in Dubuque, Iowa. He went there to put the gyroplane together after it had been shipped from Poland by the kit manufacturer. He stated that the gyroplane was fully operational in Poland and that the manufacturer had test flown the gyroplane before disassembling part of the aircraft for shipment to the USA. He stated that it took about 30 hours of work to get the gyroplane operational once he started on the project. He stated that the dealer provided helpful guidance about how the gyroplane should be reassembled by the owner.

He stated that the gyroplane operated flawlessly until they started having carburetor problems with flooding. An aviation mechanic familiar with Rotax engines installed new carburetor floats when the aircraft had 266.2 hours. The mechanic synchronized the carburetors and it seemed to fix the flooding problem. The mechanic was a trained Rotax mechanic, but he was unfamiliar with the modified turbocharger installation and did not know how to repair or maintain it. Mr. Loomis stated that the kit manufacturer provided a Rotax 912 ULS maintenance manual but did not provide any maintenance, repair, or operational manual for the turbocharger.

Mr. Loomis stated that the gyroplane continued to have problems developing full power. He stated that the engine would develop about 3,500 RPMs instead of developing full power at 5,200 to 5,300 RPMs. The dealer suggested they try removing the orifice (manifold pressure probe) and clean it of any oil, grease or debris. Mr. Loomis removed the orifice and cleaned it. However, there was no index on the orifice, so he reinstalled it in the same position as best as he could determine. By trial and error, he would loosen the lock nut on the orifice and turn it 1/16-inch one way or the other until the engine developed full power at 5,300 RPMs. He stated that the engine would develop full power for a while and then it would revert to only producing about 3,500 RPMs. Then he would readjust the orifice until he got it to produce full power again. He

stated that he repeated this process about 5 or 6 times, and the gyroplane was flown about 30 hours.

His brother, the accident pilot, did not fly on April 7, 2017, because the engine was developing full power. “Not running right – missed a high RPM.” Dwight Loomis reported that he adjusted the orifice again until the engine produced full power. The gyroplane continued to fly well for 7.9 hours until the accident occurred.

Dwight Loomis compared the engine problem to when a “choke” lever is pulled when an engine is operating - It loses power and can’t develop enough power for operation.

He stated that he didn’t understand the operation of the turbo system. A tube was attached to one end of the orifice and it was attached to an instrument in the cockpit. There was a TURBO knob located on the center pedestal, but he wasn’t sure what its function was. He said he turned it occasionally, but it didn’t make any difference in the turbo boost. He said it would make a change to the turbo pressure gauge of about 1/10<sup>th</sup> degree. He said that when the engine developed 5,300 RPMs, the pressure gauge would indicate about 40” Hg. When in cruise flight, it would be 10 – 15” Hg.



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**Date: April 2, 2018**  
**Person Contacted: Mr. Chris Lord, Gyrocopterguy**  
**NTSB Accident Number: CEN17LA156**

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### **Narrative:**

Mr. Lord stated that the orifice (manifold pressure probe) is located on the aluminum tube that is between the intercooler and the airbox. The turbocharged air goes from the turbocharger to the intercooler and then to the airbox and then to the carburetors. The orifice senses the turbocharged air pressure and provides vacuum to the top of the carburetors' diaphragm which then schedules fuel for the carburetors. The greater the turbocharged air pressure, more fuel is required. He stated that the position of the orifice is critical and it's a very sensitive adjustment. If it moves or becomes obstructed in any way, then the fuel schedule to the carburetors is adversely affected and the engine fails to produce the required power.

He stated that the Turbo adjustment knob on the center pedestal is for adding boost power. The knob is connected to the wastegate via a transparent plastic hose. It bleeds off turbo vacuum pressure and overcomes the springs, allowing for more boost power.

He stated that the manifold pressure gauge is not connected to the Turbo boost knob. It shows how much manifold pressure is produced.

He stated that Celier did not provide operating or maintenance manuals for the gyroplane. There were no procedures provided about how to operate or maintain the turbocharged Rotax 912 ULST.

He stated that he is no longer a dealer for the Xenon gyroplane. The company moved from Poland to Malta.



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**Date: April 3, 2018**  
**Person Contacted: Mr. Jeff Jorgenson, Pilot Rated Passenger**  
**NTSB Accident Number: CEN17LA156**

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### **Narrative:**

I made Mr. Loomis aware that I had no experience in a gyroplane or rotorcraft. I was strictly a passenger on the flight.

About 1 minute after takeoff, there was a pitch change in the engine noise. It raised my awareness. I mentioned that there was a field on the right and the pilot said, "I'm trying."

It all happened within 10 to 15 seconds. No long dialogue. It just happened fast.

I was concerned about the powerlines. He was focused on the flying. He tried to turn to avoid the powerlines, but we hit them and landed on the side of the ditch.

We were about  $\frac{3}{4}$  down the runway when the engine started sounding different.



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**Date: April 11, 2018**  
**Person Contacted: Mr. Chris Lord, Gyrocopterguy**  
**NTSB Accident Number: CEN17LA156**

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### Narrative:

Mr. Lord reported that the gyroplane met the “51%” rule for an experimental, amateur-built gyroplane. He stated that the aircraft’s rotor is test flown to ensure proper balance and tracking of the rotor head. It was then disassembled and shipped with the rest of the gyroplane kit to the United States. The owner/builder then built and assembled the gyroplane using the FAA “Amateur-Built Fabrication and Assembly Checklist Gyroplane” as a build guide for complying with the “51%” rule.

He stated that Mr. Dwight Loomis took a “couple” of weeks to fully complete building the gyroplane. He said it took more than the 30 hours which Mr. Loomis stated. He said building amateur-built kit gyroplanes is different than airplanes. The gyroplane exemptions and the point system make it possible to build a gyroplane to the 51% rule. After it was completed, he flew it for the first few hours.

He provided initial gyroplane flight instruction for Dwight Loomis and his wife, and for Mr. Miles Loomis. He said each received about 60 hours of flight instruction in gyroplanes before they received their check rides.



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**Date: April 12, 2018**  
**Person Contacted: Mr. Dwight Loomis, Aircraft Builder**  
**NTSB Accident Number: CEN17LA156**

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### Narrative:

I asked Mr. Loomis about how he built the aircraft. He stated that he thought that the aircraft came as a kit. The tail section was all in pieces and he had to put it all together, including some gluing of some of the components and installing the fuel system. It didn't appear that it had ever been assembled before. The kit came in two large wooden boxes. One contained the rotor system.

He said that the cabin came as one piece with the windows already installed. The instruments were already installed but he added the radios and transponder. He had to build and assemble most of the rest of the gyroplane.

He said that it did take longer than the 30 hours he previously reported. He thought it could have been 4 days working about 12 hours each day.

He said he has flown 3 different Xenon 4 gyroplanes and each one flew identically as the others. He said his Xenon 4 had good flying characteristics and operated the way it should, except for the engine problems.

He said he had about 40 flight hours when he took his Sport Pilot's test.

He said the kit came with a pilot's operating manual, but it didn't explain the operation of the turbocharged engine. They received a Rotax 912 maintenance manual, but there was no manual that provided maintenance instructions for the turbocharger modification.