Aviation Investigation Final Report

Location:	Marathon, Florida	**Accident Number:**	ERA20LA149
Date & Time:	April 9, 2020, 17:00 Local	**Registration:**	N6263R
Aircraft:	Pipistrel Italia SRL Sinus 912 LSA	**Aircraft Damage:**	Destroyed
Defining Event:	Aerodynamic stall/spin	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the motor glider performed a preflight inspection, departed the airport, and remained in the local area conducting maneuvers. Witnesses observed the glider about a mile from the airport and reported hearing unusually loud noises coming from it and, subsequently, a laboring engine. The glider had the appearance of wobbling; the engine surged and sputtered, and the glider then made a sharp left turn and the nose dropped.

The glider's airframe ballistic parachute deployed shortly before the impact with a residential home and a postimpact fire ensued. It is likely that the glider entered an aerodynamic stall and an entry phase of a spin prior to impact. It is also likely that, despite the pilot's attempt to pull the airframe parachute, it was not deployed at a sufficient altitude to arrest the descent.

The airframe was destroyed by post-impact fire, which precluded an examination of the flight control system. Examination of the engine did not reveal any preimpact anomalies that would have precluded normal operation.

Toxicology testing detected three potentially impairing substances in the pilot's specimens. The sedating antihistamine diphenhydramine was detected in his blood and not quantified by one laboratory and not detected in iliac blood by another laboratory. While diphenhydramine is known to cause sedation, the level detected in the pilot's blood appears to be well below therapeutic levels. Although no absolute threshold for impairment exists, any psychomotor effects from such a low diphenhydramine level would likely have been insignificant. The motion sickness medication meclizine was also detected but not quantified in the pilot's blood. While meclizine can cause drowsiness, it's also likely that any effects would have been minor at low concentrations detected. Duloxetine was detected at therapeutic levels in the pilot's blood. The medication and conditions for which it is prescribed can impair the mental or physical ability to perform complex tasks. However, based on the operational evidence, the pilot appeared to have been intentionally testing the glider and took actions, although too late, to

deploy the parachute. Thus, it is unlikely that effects from the pilot's use of diphenhydramine, duloxetine, and meclizine were factors in the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's loss of control of the motorized glider, which resulted in an aerodynamic stall and collision with a residential home and postimpact fire. The reason for the loss of control could not be determined due to the condition of the wreckage.

Findings

Aircraft	Airspeed - Not attained/maintained
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Maneuvering	Aerodynamic stall/spin (Defining event)

On April 10, 2020, at 1700 eastern daylight time, a Pipistrel Italia SRL Sinus 912 LSA, N6263R, was destroyed when it was involved in an accident near Marathon, Florida. The pilot was fatally injured. The glider was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the airport manager at the Marathon International Airport (MTH), Marathon, Florida, the pilot arrived at the airport and was seen on surveillance video conducting a preflight inspection of the motor glider. After the pilot completed the inspection, he taxied to the runway and departed at an undetermined time.

The manager further reported that the pilot was flying over the airport and in the local area most of the day. About 1600, he heard the pilot on the airport's common traffic advisory frequency reporting that he was at 7,000 ft and circling the airport. That was the last radio transmission he heard from the pilot.

Two witnesses stated that they heard an unusually loud noise and as they looked around, they saw the accident glider to the north and determined that was where the noise was coming from. The witnesses were south of the airport and could hear the engine "laboring" and saw the glider wobbling in the air. The glider then made a “sharp left turn" and then the engine started to "surge, sputter" and before it lost power completely. The nose of the glider "dropped down", and, about a second before impacting a house, the glider's airframe ballistic parachute deployed. A postimpact fire ensued.

Pilot Information

Certificate:	Private	**Age:**	66,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	Glider	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Unknown	**Last FAA Medical Exam:**	September 18, 1980
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 126.9 hours (Total, all aircraft), 31 hours (Total, this make and model), 31 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Pipistrel Italia SRL	**Registration:**	N6263R
Model/Series:	Sinus 912 LSA	**Aircraft Category:**	Airplane
Year of Manufacture:	2020	**Amateur Built:**	
Airworthiness Certificate:	Special light-sport (Special)	**Serial Number:**	998 SNM 912 LSA
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	Condition	**Certified Max Gross Wt.:**	600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	19.5 Hrs	**Engine Manufacturer:**	Rotax
ELT:	Not installed	**Engine Model/Series:**	912UL2-01
Registered Owner:	On file	**Rated Power:**	58 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

A review of the records found in the pilot's vehicle revealed that the airplane had a total time of 20 hours. A glider endorsement was found that was dated a month prior. A container was found in the back of the pilot's vehicle that contained what a Federal Aviation Administration inspector said appeared to be automotive fuel. The fuel was checked for debris and contamination, and none was found.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	MTH,5 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	45°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots /	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	290°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.9 inches Hg	**Temperature/Dew Point:**	31°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Marathon, FL (MTH)	**Type of Flight Plan Filed:**	None

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Departure Point:	Marathon, FL (MTH)	**Type of Flight Plan Filed:**	None

Destination:	Marathon, FL (MTH)	**Type of Clearance:**	VFR
Departure Time:	16:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	The Florida Keys Marathon Intl MTH	**Runway Surface Type:**	Asphalt
Airport Elevation:	5 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	25	**IFR Approach:**	None
Runway Length/Width:	5008 ft / 100 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	24.719444,-81.058609(est)

The airframe was destroyed by post impact fire which precluded the investigation from determining flight control continuity. Postaccident examination of the engine did not reveal any preimpact anomalies that would have precluded normal operation.

Medical and Pathological Information

According to the autopsy performed by The District 16 Medical Examiner's Office, Marathon, Florida, the determined cause of death was multiple blunt force trauma, and the manner of death was accident.

Toxicology testing detected diphenhydramine in the pilot's bile, liver tissue, and blood; one laboratory did not detect diphenhydramine in his iliac blood. Duloxetine was detected in his blood at 43 ng/mL and his liver tissue. Meclizine and the non-impairing medications amlodipine and sildenafil were detected in the blood and liver tissue.

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Donald H Casto; FAA/FSDO; Miramar, FL Jordan Paskevich; Rotech Flight Safety Inc.; Vernon
Original Publish Date:	September 7, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101159