Aviation Investigation Final Report

Location:	Paragonah, Utah	**Accident Number:**	WPR09LA317
Date & Time:	June 29, 2009, 14:30 Local	**Registration:**	N68MP
Aircraft:	SCHEMPP-HIRTH VENTUS 2CM	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was competing in a glider competition. He was going to depart using the glider's engine; however, it would not start so the pilot was required to enter the departure line with the other gliders that were being towed. The initial takeoff was uneventful. The tow plane pilot reported that the glider released from the tow plane approximately 1,800 feet above ground level, which was 200 feet lower than the normal release altitude. A witness then reported that the nose of the glider pitched up and down until entering into a descent to ground impact. Data obtained from onboard recorders showed that the glider entered into a left spiral dive until impact with the ground. Examination of the wreckage revealed no pre-impact mechanical malfunctions that would have resulted in a loss of control. The pilot had a history of coronary artery disease with angioplasty and stent placement 3 months prior to the accident, and an intermittent abnormal heart rhythm (atrial fibrillation) noted at that time. He would have been at low risk for clot formation in the stent or for stroke or other incapacitation related to his atrial fibrillation, but the condition of his remains did not permit the evaluation of any potential abnormalities in the heart or brain. The pilot did not have a current FAA medical certificate, and none was required for the operations in which he was engaged.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The glider departed controlled flight for undetermined reasons.

Findings

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

Factual Information

History of Flight

Enroute-climb to cruise	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

HISTORY OF FLIGHT

On June 29, 2009 at 1430 mountain daylight time, a Schempp-Hirth Ventus 2CM glider, N68MP, collided with terrain near Paragonah, Utah, approximately 3 miles north of the Parowan Airport. The pilot was operating the glider under the provisions of 14 Code of Federal Regulations Part 91. The pilot was killed and the glider sustained substantial damage. Visual meteorological conditions prevailed and no flight plan was filed.

According to the pilot's friend, the pilot was participating in a glider competition. The accident flight was normal, and the pilot launched with a group of gliders. General procedures were that the gliders did not release from the towplane until at least 2,000 feet above ground level. The pilot's friend reported that there was little thermal activity at the time of the tow. On the accident tow, the glider disconnected at approximately 1,800 feet instead of 2,000 feet. The glider then "...entered a phugoid oscillation which increased until the glider pitched nose down and then impacted the ground." The pilot's friend stated that the engine of the glider remained stowed throughout the flight. Additionally, the pilot's friend reported that the pilot was not feeling well the day prior to the accident flight.

Several Air Force Academy cadets assisted the pilot in getting the glider airborne. They reported that he was attempting to use his engine for takeoff but it would not start. Two of the cadets noticed that the pilot's hands were "shaking" while he was attempting to start the engine. The pilot appeared to have been frustrated in his engine not starting. The pilot was the last glider to depart.

The pilot was carrying a SPOT locater device during the flight. The user activates SPOT in the event of an emergency, which in turn activates emergency services, or it can be used as a tracking and locator device. Information obtained from SPOT showed that the unit was in track mode until 1427:57 on June 29. At 1545:57 the unit began sending a 911 message until the last 911 message was transmitted on June 30, at 1801:02.

PERSONNEL INFORMATION

The pilot, age 65, held a private pilot certificate for single-engine airplanes and gliders. No aviation medical certificate was required for the accident flight. The pilot's last medical certificate was a third-class medical, and was issued on May 5, 2008; it held the restriction that

the pilot must have available glasses for near vision. The medical was not valid after April 30, 2009. The pilot reported 830 flight hours on his last medical application, with 30 hours in the past 6 months.

A review of a copy of the pilot's logbook showed that he had about 898 flight hours, with 360 hours in the same make and model as the accident glider.

GLIDER INFORMATION

The glider, serial number (SN) 192, was issued its experimental airworthiness certificate in July of 2007. It was equipped with a Solo 2526-01 engine that was propelled by a Technoflug KS-1G-152-R-122 propeller. Review of copies of the maintenance logbook records showed that the last annual inspection was on June 5, 2009, at a total airframe time of 31.1 hours and a tachometer time of 0.15 hours.

METEOROLOGICAL INFORMATION

At 1353, an aviation routine weather report (METAR) at Cedar City Regional Airport, Cedar City, Utah, located approximately 20 nautical miles southwest of the accident site, was reporting; winds variable at 6 knots, visibility, 10 statute miles; sky condition clear; temperature, 32 degrees Celsius; dew point, -8 degrees Celsius; altimeter, 29.83 inHg.

FLIGHT RECORDERS

A Volkslogger 1.0 flight data logger and a Flarm collision avoidance unit were recovered from the wreckage and sent to the Safety Board Materials Laboratory for readout. Both units recorded data that showed the flight from 1420 to 1429 mountain daylight time. The takeoff point was from the Parowan airport. The track showed a general climb in a northeasterly direction, and then the glider entered a left spiral dive.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot had a history of coronary artery disease for which he had angioplasty and a stent placement in 2004, subsequent to which he was evaluated and granted a special issuance of a medical certificate by the FAA. In March 2009, the pilot was admitted to the hospital with chest pain and underwent angioplasty and a second stent placement on March 24, 2009. While hospitalized, he was diagnosed with an abnormal heart rhythm, paroxysmal atrial fibrillation, with heart rates up to 135. He was placed on a blood thinner (warfarin) to reduce his risk of stroke from the condition. His cardiologist noted, on April 10, 2009, that the pilot "theoretically could be on just an aspirin a day." On that visit, the pilot's medications were noted to be atorvastatin, clopidogrel (for a month), niacin, metoprolol, aspirin, and warfarin. Warfarin was noted to have been discontinued on April 17, 2009.

An autopsy was performed at the State of Utah, Office of the Medical Examiner. The condition

of the remains did not permit the evaluation of any potential abnormalities in the heart or brain. Local toxicology testing on vitreous fluid was negative for volatiles, including ethanol. No other toxicology testing was performed.

TESTS AND RESEARCH

The wreckage was extensively damaged by impact forces. All of the control surfaces, or portions of them, were identified in the recovered wreckage. The wings remained attached at their center connection pins, although the fuselage structure had broken away. Each wing was fractured at its midsection and in multiple pieces. The rudder cables were continuous from the base of the rudder to the rudder pedals. The horizontal stabilizer and elevator had separated from the empennage. The aileron and flap controls had separated at the center section. Both spoilers were intact and not extended. The canopy release handle was found loose within the recovered wreckage. The canopy latching pins were bent. The engine had broken away from the remainder of the wreckage. The propeller had separated from the engine. No pre-impact mechanical anomalies were identified during the examination.

Pilot Information

Certificate:	Private	**Age:**	65,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Single
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	May 27, 2008
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 22, 2007
Flight Time:	998 hours (Total, all aircraft), 360 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	SCHEMPP-HIRTH	**Registration:**	N68MP
Model/Series:	VENTUS 2CM	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	192
Landing Gear Type:		**Seats:**	1
Date/Type of Last Inspection:	June 5, 2009 Condition	**Certified Max Gross Wt.:**	1157 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	34 Hrs as of last inspection	**Engine Manufacturer:**	Solo
ELT:	C91 installed, activated, did not aid in locating accident	**Engine Model/Series:**	2625-01
Registered Owner:	Michael K Packard	**Rated Power:**	
Operator:	Michael K Packard	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	CDC,5622 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	13:53 Local	**Direction from Accident Site:**	160°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.82 inches Hg	**Temperature/Dew Point:**	32°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Parowan, UT (1L9)	**Type of Flight Plan Filed:**	None
Destination:	Parowan, UT (1L9)	**Type of Clearance:**	None
Departure Time:	14:20 Local	**Type of Airspace:**	

Airport Information

Airport:	Parowan 1L9	**Runway Surface Type:**	
Airport Elevation:	5930 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	
Total Injuries:	1 Fatal	**Latitude, Longitude:**	37.898056,-112.776664

Administrative Information

Investigator In Charge (IIC):	Dunks, Kristi
Additional Participating Persons:	Bernard Connolly; Federal Aviation Administration; Salt Lake City, UT
Original Publish Date:	April 22, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=74164