



Aviation Investigation Final Report

Location:	Wallkill, New York	Accident Number:	NYC07LA148
Date & Time:	June 24, 2007, 18:37 Local	Registration:	N14VS
Aircraft:	Syracuse Vans RV-4	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The amateur-built experimental airplane was observed performing aerobatics about 250 feet above ground level. The airplane performed a barrel roll, then completed about half of a loop when it stalled at the top and descended straight into the ground. The engine ran continuously throughout the accident sequence, with no changes in power noted. The pilot had accumulated approximately 1,000 hours of total flight experience; however, no record of his aerobatic experience was recovered. The reported weather near the accident site, about the time of the accident, included clear skies, wind at 6 knots, and visibility 10 miles.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to attempt low altitude aerobatics, and his failure to maintain airspeed during the aerobatics, which resulted in an inadvertent stall while maneuvering.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. LOW ALTITUDE FLIGHT/MANEUVER - ATTEMPTED - PILOT IN COMMAND
2. (C) IMPROPER DECISION - PILOT IN COMMAND
3. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
4. STALL - INADVERTENT

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

On June 24, 2007, about 1837 eastern daylight time, an amateur built Vans RV-4, N14VS, was substantially damaged while maneuvering near Wallkill, New York. The certificated commercial pilot and passenger were fatally injured. Visual meteorological conditions prevailed for the flight that departed Orange County Airport (MGJ), Montgomery, New York, about 1700. No flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

A witness was standing outside of his residence, and observed the accident airplane. The witness stated that the airplane was flying north, approximately 250 feet above ground level (agl). The airplane performed a barrel roll, and then entered a loop. The airplane had completed about half of the loop, when it "wobbled," dropped from the top of the loop, and dove straight into the ground. The witness added that the engine noise was continuous, with no changes noted.

According to the airplane's logbook, it was manufactured from 1981 to 1983. The airplane's most recent annual condition inspection was completed on November 25, 2006. At that time, the airplane and the engine had accumulated 428.4 total hours of operation.

According to Federal Aviation Administration (FAA) records, the pilot, age 70, held a commercial pilot certificate, with ratings for airplane single engine land and airplane multiengine land. The pilot's logbook was not recovered, and his aerobatic experience was unknown. His most recent FAA third class medical certificate was issued on November 22, 2005. At that time, the pilot reported a total flight experience of 1,000 hours.

An autopsy was performed on the pilot at the Orange County Regional Medical Center, Middletown, New York. Toxicological testing was subsequently performed by the FAA Forensic Toxicology Research Team, Oklahoma City, Oklahoma. No preimpact medical anomalies were noted.

The reported weather at MGJ, about 4 miles east of the accident site, at 1854, was: wind from 240 degrees at 6 knots; visibility 10 miles; sky clear; temperature 27 degrees Celsius (C); dew point 12 degrees C; altimeter setting 30.05 inches of mercury.

Pilot Information

Certificate:	Commercial	Age:	70, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	November 1, 2005
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Syracuse	Registration:	N14VS
Model/Series:	Vans RV-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	295
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	November 1, 2006 Condition	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	428 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-320
Registered Owner:	James Whiteford	Rated Power:	150
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MGJ,365 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	18:54 Local	Direction from Accident Site:	80°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	27°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Montgomery, NY (MGJ)	Type of Flight Plan Filed:	None
Destination:	(MGJ)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	

Airport Information

Airport:	Orange County Airport MGJ	Runway Surface Type:	
Airport Elevation:	365 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	41.498889,-74.345558

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Daniel Spera; FAA/FSDO; Teterboro, NJ
Original Publish Date:	March 31, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66047

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).