



# Aviation Investigation Final Report

<b>Location:</b>	WAUKEE, Iowa	<b>Accident Number:</b>	CHI98LA142
<b>Date &amp; Time:</b>	May 7, 1998, 12:30 Local	<b>Registration:</b>	N5360D
<b>Aircraft:</b>	Bombardier RANS S-9	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

Witnesses reported the pilot was attending an auto auction which he left to go get his airplane. It is reported the pilot told people at the auction that he was going to 'buzz' them and they should watch for him. Witnesses reported seeing the airplane fly over the auction at an altitude between 50 and 100 feet agl. The airplane made a 180 degree turn after which it entered a steep left turn and descended to impact with the terrain. One witness reported hearing the engine running until impact. Post accident inspection failed to reveal any mechanical failure/malfunction of the airplane or engine.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain control of the airplane which resulted in a stall while performing intentional buzzing maneuvers.

## Findings

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

### Findings

1. (F) BUZZING - INTENTIONAL - PILOT IN COMMAND
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. (C) STALL

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

## Factual Information

On May 7, 1998, at 1230 central daylight time, a Rans S-9, N5360D, operated by a private pilot collided with the terrain following a loss of control while performing a low level maneuver in Waukee, Iowa. The pilot sustained fatal injuries. The airplane was destroyed. The 14 CFR Part 91 flight was operating in visual meteorological conditions and no flight plan was filed. The flight originated from DeSoto, Iowa, approximately five minutes prior to the accident.

According to witnesses the pilot was attending the West Central Auto Auction prior to leaving to get his airplane. The receptionist at Air Craft Super Market in DeSoto, Iowa, reported seeing the pilot takeoff in his airplane around 1230 cdt. She reported, "...he did not come into the business, but evidently just went to the hangar got his plane and left possibly in a hurry as I was told by people at West Central he said he would buzz the place, to watch for him." A private pilot who witnessed the accident reported he stepped outside a building when someone told him about an airplane "buzzing" the parking lot. He stated the airplane was heading southwest across the parking lot at an altitude of about 60 feet above the ground (agl) when it entered a left descending 60 degree bank turn. He continued to report it appeared that the pilot attempted to "...pull the nose of the aircraft up, stalled and made a left corkscrew into the ground." Another witness reported seeing the airplane approach from the southwest at an altitude of about 100 feet agl before it made a 180 degree turn back to the southwest. He reported the airplane then entered a left turn and descended from an altitude of about 50 feet agl. This witness reported hearing engine noise during the descent.

The post accident inspection of the airplane was conducted by an Inspector from the Federal Aviation Administration (FAA) Flight Standards District Office in Des Moines, Iowa. The inspector reported that the airplane impacted the terrain in a nose low attitude. He reported that flight control continuity was established although movement of the flight controls was restricted due to impact damage. The throttle control and the pitch trim control levers were found in the full forward positions which correlated to full throttle and full nose down trim. The elevator trim tab position corresponded to full nose down trim. The engine was turned over by hand and compression was noted. Both fuel tanks were ruptured during the impact and fuel was seen "pouring" from the fuel tanks.

The pilot received his Private Pilot Certificate on March 1, 1998. According to copies of his logbook he had a total flight time of 88.9 hours as of May 4, 1998. These records did not show any flight time in Rans S-9 airplanes. The pilot held a Third Class medical certificate issued on September 29, 1997, with no limitations.

According to records maintained by Rans the original kitplane was purchased in 1988. According to FAA records show the airplane received an Experimental Airworthiness Certificate on October 20, 1988. The registration number on the airplane at this time was

N5360D. On October 10, 1991, the airplane was sold to another individual. This individual completed an Aircraft Registration Application on October 21, 1992, listing the registration number as N5360D. FAA records show ownership of the airplane changed two additional times. Once on March 22, 1994, then again on November 11, 1995. There is no record of Aircraft Registration Applications having been completed by the last two owners. N5360D did receive another Experimental Airworthiness Certificate on September 11, 1996. There was no record of the accident pilot having purchased the airplane. There was no registration number on the airplane at the time of the accident. FAA records the registration number was still associated with this airplane and it had not been retired.

An autopsy on the pilot was performed by the Polk County Medical Examiner on May 8, 1998. Toxicological test conducted by the FAA Civil Aeromedical Institute were negative for all substances tested.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	46, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	September 29, 1997
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	89 hours (Total, all aircraft), 22 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bombardier	<b>Registration:</b>	N5360D
<b>Model/Series:</b>	RANS S-9 RANS S-9	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	0388047
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	670 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>		<b>Engine Model/Series:</b>	503
<b>Registered Owner:</b>	GARY R. FRIAR	<b>Rated Power:</b>	47 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	DSM ,957 ft msl	<b>Distance from Accident Site:</b>	9 Nautical Miles
<b>Observation Time:</b>	13:54 Local	<b>Direction from Accident Site:</b>	155°
<b>Lowest Cloud Condition:</b>	Scattered / 3700 ft AGL	<b>Visibility</b>	8 miles
<b>Lowest Ceiling:</b>	Overcast / 9000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots / 18 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	100°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	17°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	DE SOTO , IA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:25 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	41.600482,-93.860427(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sullivan, Pamela
<b>Additional Participating Persons:</b>	ROBERT WATKINS; DES MOINES , IA
<b>Original Publish Date:</b>	February 15, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=10867">https://data.nts.gov/Docket?ProjectID=10867</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).