



# Aviation Investigation Final Report

<b>Location:</b>	LA CROSSE, Kansas	<b>Accident Number:</b>	CHI99FA202
<b>Date &amp; Time:</b>	June 26, 1999, 12:30 Local	<b>Registration:</b>	N108AN
<b>Aircraft:</b>	RANS                      S-10 SAKOTA	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

An aircraft similar in description to the accident airplane was seen by a witness performing 'loops' on June 26, 1999 at 1230 central daylight time. The witness saw the airplane north of her home, which was located 2-3 miles south of the accident site. The airplane was found 2 miles east and 1-1/2 miles south of La Crosse, Kansas. Visual meteorological conditions prevailed at the time of the accident. The flight properties of the Rans S-10 Sakota were described in the aircraft's manual as, '...There is a slightly higher rate of speed decay in zero thrust mode and potential for high sink rates due to the 9.4 lb. wing loading. In pitch, the S-10 is neutral.' No mechanical anomalies were noted.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: directional control not maintained by the pilot.

### Findings

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

#### Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. ACFT/EQUIP,INADEQUATE HANDLING/PERF CAPABILITIES - KIT MANUFACTURER

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

## Factual Information

### HISTORY OF FLIGHT

On June 26, 1999, at approximately 1230 central daylight time, a Rans S-10 Sakota, N108AN, owned and piloted by a private pilot, was destroyed on impact with terrain. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot sustained fatal injuries. The flight originated from a private airstrip near Timkin, Kansas at approximately 1100.

A witness reported having seen an airplane at approximately 1230 which matched the description of the accident airplane. She reported that the airplane was doing stunts north of her residence which was located 2-3 miles south of the accident site.

### PERSONNEL INFORMATION

The pilot was 50 years old and the holder of a private pilot certificate with a single engine land rating. He received a third class medical certificate on September 23, 1998 with a restriction stating, "must wear corrective lenses". The pilot had accumulated a total flying time of approximately 317 hours. A log of flights states on June 25, 1996, "103 S-10 first flight, airwork and three TOLs".

### AIRCRAFT INFORMATION

N108AN was constructed by the pilot from a kit purchased on April 27, 1991. The airplane was registered as N108AN on May 31, 1994 and subsequently received an airworthiness certificate as an experimental amateur built aircraft on May 29, 1996.

### WRECKAGE AND IMPACT INFORMATION

The main wreckage was found in an agricultural field approximately 2 miles east and 1-1/2 miles south of LaCrosse, Kansas. The wreckage was contained in an area which was approximately 60 feet by 126 feet. The aircraft's fuselage was folded over onto itself in the aft direction, bent laterally and was lying on a magnetic heading of 160 degrees. There was ground scarring beneath the right wing's leading edge. The empennage, with its control surfaces, was attached to the airframe. The engine and propeller hub were buried approximately 2-1/2 feet below ground. Flight control continuity was established. Continuity of the engine was established. No engine anomalies were noted.

### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted by the Central Kansas Medical Center, Great Bend, Kansas, on June 28, 1999.

Federal Aviation Administration (FAA) toxicological results tested positive for 28 (mg/dL, mg/hg) ethanol detected in lung, 6 (mg/dL, mg/hg) acetaldehyde, and 33 (mg/dL, mg/hg) ethanol detected in muscle. Putrefaction was indicated on the FAA toxicological report.

#### TESTS AND RESEARCH

The Ran S-10 Sakota: General Description and Flight Properties states under "DESCRIPTION", The RANS S-10 is a mid wing tractor mono-plane with conventional landing gear. It's strut braced wings utilize aluminum tubes for spars, compression, anti-drag, tip and ribs. The fuselage is of welded 4130 chromoly steel. The design features aerobatic capability at or below 670 lbs, fully enclosed cockpit, bungee landing gear, steerable tailwheel, in-flight elevator trim and full span ailerons." Under, "FLIGHT PROPERTIES", the section states, "The S-10 flight properties are conventional in respect to general aviation aircraft in the areas of control and response. There is a slightly higher rate of decay in zero thrust mode and potential for high sink rates due to the 9.4 lb wing loading. In pitch, the S-10 is neutral. You can in calm air adjust the trim and fly hands off... for a while. But unless you make minor corrections such as leaning your body fore and aft it will not remain in trim. Pitch rate is fast at cruise and lessons as the plane slows down. During the first few flights the S-10 will seem too fast in pitch..."

#### ADDITIONAL INFORMATION

The Federal Aviation Administration was a party to the investigation.

The wreckage was released to the Rush County Sheriff, Lacrosse, Kansas. Retained parts were released to the wife of the pilot.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<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-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	July 23, 1998
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	317 hours (Total, all aircraft), 2 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	RANS	<b>Registration:</b>	N108AN
<b>Model/Series:</b>	S-10 SAKOTA S-10 SAKOT	<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>	0290087
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	892 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>	Not installed	<b>Engine Model/Series:</b>	532
<b>Registered Owner:</b>	FRANCIS PECHANEC	<b>Rated Power:</b>	65 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>	HYS ,1998 ft msl	<b>Distance from Accident Site:</b>	21 Nautical Miles
<b>Observation Time:</b>	10:55 Local	<b>Direction from Accident Site:</b>	350°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots / 14 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	140°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	27°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	TIMKIN , KS	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:00 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>	Destroyed
<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>	38.529846,-99.299392(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gallo, Mitchell
<b>Additional Participating Persons:</b>	JAMES O BAD HORSE; WICHITA , KS
<b>Original Publish Date:</b>	December 4, 2000
<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=46691">https://data.nts.gov/Docket?ProjectID=46691</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](#).