



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	ROCKSPRINGS, TX	<b>Accident Number:</b>	FTW85FA259
<b>Date &amp; Time:</b>	06/19/1985, 1510 CDT	<b>Registration:</b>	N199TA
<b>Aircraft:</b>	SWEARINGEN SA-26AT	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Executive/Corporate		

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## Analysis

AS THE ACFT WAS CLIMBING THRU 14,800' FOR 19,000', THE PLT REPORTED A RAPID DECOMPRESSION. TWO MINUTES LATER, HE REPORTED THAT HE HAS LOST THE TAIL. ACFT IMPACTED IN AN INVERTED FLAT SPIN AND THE TAIL AND A SECTION OF EMPENNAGE WERE FOUND ABOUT 3/4 MILE AWAY FROM MAIN WRECKAGE. INVESTIGATION REVEALED THAT A SKIN SEAM HAD SPLIT OPEN ALONG A 54' SPAN IN AN AREA WHERE 2 PIECES OF 'L' SHAPED CHANNEL HAD BEEN RIVETED TOGETHER TO FORM A STRINGER. NORMALLY THE STRINGER WOULD BE MADE USING A SINGLE PIECE OF 'T' SHAPED CHANNEL. THE NON-STANDARD STRINGER HAD BEEN FABRICATED DURING REPAIRS MADE ON THE ACFT FOLLOWING A GEAR UP LANDING 7 YRS PRIOR TO THIS ACCIDENT. ANALYSIS REVEALED THAT THE RIVETS HOLDING THE 'L' CHANNELS TOGETHER AND FAILED IN FATIGUE DUE TO TENSILE CYCLIC LOADING WHENEVER THE ACFT WAS PRESSURIZED. ACFT HAD A HISTORY OF PRESSURIZATION PROBLEMS FOLLOWING THE REPAIR THAT WAS NOT PROPERLY PERFORMED OR INSPECTED.

## Probable Cause and Findings

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

## Findings

Occurrence #1: DECOMPRESSION

Phase of Operation: CLIMB - TO CRUISE

### Findings

1. (C) FUSELAGE - DECOMPRESSION
2. (C) FUSELAGE,SKIN - SEPARATION
3. (C) FUSELAGE,STRINGER - FATIGUE
4. (C) MAINTENANCE,MAJOR REPAIR - IMPROPER - OTHER MAINTENANCE PERSONNEL
5. (F) FACILITY,INADEQUATE DESIGN(STANDARD/REQUIREMENT) - OTHER MAINTENANCE PERSONNEL
6. (C) FUSELAGE,STRINGER - PREVIOUS DAMAGE
7. (C) MAINTENANCE,INSPECTION - NOT PERFORMED - OTHER MAINTENANCE PERSONNEL
8. (F) FACILITY,INADEQUATE DESIGN(STANDARD/REQUIREMENT) - FAA(OTHER/ORGANIZATION)

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Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: DESCENT - EMERGENCY

### Findings

9. (C) FUSELAGE - SEPARATION

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Occurrence #3: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: DESCENT - UNCONTROLLED

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

Certificate:	Commercial	Age:	45, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/22/1985
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	4843 hours (Total, all aircraft), 66 hours (Total, this make and model), 4624 hours (Pilot In Command, all aircraft), 105 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	SWEARINGEN	Registration:	N199TA
Model/Series:	SA-26AT SA-26AT	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	T26-110
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	01/16/1985, AAIP	Certified Max Gross Wt.:	10062 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	GARRETT
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	TPE-331-1151G
Registered Owner:	TELCO SYSTEMS, INC.	Rated Power:	665 hp
Operator:	TELCO SYSTEMS, INC.	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DLF, 1144 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	1526 CDT	Direction from Accident Site:	209°
Lowest Cloud Condition:	Scattered / 2000 ft agl	Visibility	7 Miles
Lowest Ceiling:	Broken / 5000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	25° C / 19° C
Precipitation and Obscuration:			
Departure Point:	DEL RIO, TX (DRT)	Type of Flight Plan Filed:	IFR
Destination:	MCGREGORY, TX (F60)	Type of Clearance:	IFR
Departure Time:	1452 CDT	Type of Airspace:	Student Jet Training Area

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	
Additional Participating Persons:	OWEN M RUSSELL; SAN ANTONIO, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).