



Aviation Investigation Final Report

Location:	BRENHAM, Texas	Accident Number:	FTW86LA039
Date & Time:	January 21, 1986, 12:14 Local	Registration:	N355RA
Aircraft:	Socata MS RALLYE 235C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

THE RIGHT FLAP PUSH ROD EXPERIENCED A PROGRESSIVE TYPE FAILURE FROM REPEATED EXCESSIVE FORCE BEING APPLIED BY THE FLAP DRIVE MOTOR. THE EXCESSIVE FORCE WAS CAUSED BY THE FLAP ROLLERS BEING NEGLECTED DURING MAINTENANCE TO THE EXTENT THAT THEY BECAME DRY AND SLID ON THE FLAP TRACK INSTEAD OF ROTATING. THE FLAP TRACK ALSO CONTAINED NOTICABLE WEAR ALTHOUGH THE LAST ANNUAL INSPECTION WAS COMPLETED ONLY THREE MONTHS PRIOR TO THE ACCIDENT. THE AIRCRAFT BECAME UNCONTROLLABLE DUE TO SPLIT FLAPS DURING THE FINAL PORTION OF ITS FINAL APPROACH FOR LANDING. THE AIRCRAFT TOUCHED DOWN BUT WAS VEERING LEFT. IN ORDER TO PREVENT A COLLISION WITH PARKED AIRCRAFT THE PILOT ADVANCED THE THROTTLE AND BECAME AIRBORNE. AFTER CLEARING THE PARKED AIRCRAFT THE PILOT ATTEMPTED A FORCED LANDING WHICH TERMINATED IN A GROUP OF TREES ON THE EDGE OF THE AIRPORT.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (C) FLT CONTROL SYST,WING FLAP CONTROL - FAILURE,TOTAL
2. (F) MAINTENANCE,ANNUAL INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL
3. (C) FLIGHT CONTROL,FLAP - JAMMED

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Private	Age:	35, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 18, 1985
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	440 hours (Total, all aircraft), 30 hours (Total, this make and model), 407 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Socata	Registration:	N355RA
Model/Series:	MS RALLYE 235C MS RALLYE	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	13260
Landing Gear Type:		Seats:	4
Date/Type of Last Inspection:	October 16, 1985 Annual	Certified Max Gross Wt.:	2645 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	193 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-540-B4B5
Registered Owner:	JOE R. HARDING	Rated Power:	235 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots / 25 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BENCHLEY , TX	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	11:45 Local	Type of Airspace:	Class D

Airport Information

Airport:	BRENHAM 11R	Runway Surface Type:	Asphalt
Airport Elevation:	278 ft msl	Runway Surface Condition:	Dry
Runway Used:	16	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	Forced landing;Full stop;Go around;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	30.150648,-96.389755(est)

Administrative Information

Investigator In Charge (IIC):	Johnson, J
Additional Participating Persons:	PAUL ALLEN; HOUSTON , TX
Original Publish Date:	
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=21995

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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](#).