



National Transportation Safety Board Aviation Accident Final Report

Location:	MARTINDALE, TX	Accident Number:	FTW84FA374
Date & Time:	09/01/1984, 1115 CDT	Registration:	N177M
Aircraft:	MILLER AIR SPORTS GEM 260	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

NOTES LEFT BY PLT INDICATE HE HAD BEEN TESTING THE FLIGHT ENVELOPE OF THIS EXPERIMENTAL RACING ACFT, INCLUDING OPERATION OF THE ENGINE BEYOND PROP LIMIT OF 4000 RPM. WITNESSES HEARD ENGINE SOUND SUDDENLY SPEED UP TO HIGH RPM THEN CEASE ALTOGETHER. SOME WITNESSES REPORTED HEARING AN EXPLOSIVE SOUND. ACFT WRECKAGE WAS SCATTERED OVER 1-1/2 MILES. HORIZONTAL AIRFRAME SURFACES WERE DISINTEGRATED; LARGEST PIECE WEIGHED LESS THAN 10 LBS. 3 PROP BLADES (WOOD CORE) HAD SEPARATED 8' OUTBOARD OF HUB; FOURTH BLADE SEPARATED INSIDE SPINNER. ONLY ONE BLADE WAS RECOVERED. EXAMINATION OF AIRFRAME FRACTURES REVEALED SEPARATIONS OCCURRED ALONG MULTIPLE AXES; SIGNATURES IN CONVENTIONAL MATERIALS SHOWED CHARACTERISTICS OF GROSS OVERLOAD. COMPOSITE MATERIAL SEPARATIONS PARALLELED WARP OF 'CLOTH' EXCEPT IN AREAS OF HIGH PEEL STRESS. ALL COMPOSITE STRUCTURES EXHIBITED UNIFORM SATURATION OF RESIN; NO AIR BUBBLES FOUND IN LAYUP.

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: UNKNOWN

Findings

1. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
2. (F) OVERCONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND
3. (F) PROPELLER SYSTEM/ACCESSORIES, BLADE - SEPARATION
4. STABILIZER - OVERLOAD
5. STABILIZER - DISINTEGRATED
6. WING - OVERLOAD
7. WING - DISINTEGRATED

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

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	47, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	01/23/1984
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	27487 hours (Total, all aircraft), 1 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	MILLER AIR SPORTS	Registration:	N177M
Model/Series:	GEM 260 GEM 260	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	M-103
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	07/09/1984, Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:	19 Hours	Engines:	1 Reciprocating
Airframe Total Time:	51 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Not installed	Engine Model/Series:	O-200-B
Registered Owner:	JAMES W. MILLER	Rated Power:	100 hp
Operator:	JAMES W. MILLER	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AUS, 632 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	1051 CDT	Direction from Accident Site:	360°
Lowest Cloud Condition:	Scattered / 1600 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29° C / 22° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

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):	JEAN H DAUGHERTY	Report Date:	
Additional Participating Persons:	JOHN SHEEHAN; 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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).