



National Transportation Safety Board Aviation Accident Final Report

Location:	NACOGDOCHES, TX	Accident Number:	FTW91FA029
Date & Time:	01/11/1991, 1040 CST	Registration:	N311DS
Aircraft:	BEECH F-90	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious

Flight Conducted Under: Part 91: General Aviation - Ferry

Analysis

THE PILOT REPORTED THAT SHORTLY AFTER LIFTING OFF, THE AIRPLANE BEGAN DECELERATING SLOWLY. HE THOUGHT THE THROTTLES HAD RETARDED; HOWEVER, ALL OF THE ENGINE INSTRUMENTS INDICATED TAKEOFF POWER. REALIZING THAT HE COULD NOT RETURN TO THE AIRPORT, THE PILOT SELECTED A FORCED LANDING AREA AND AIMED THE AIRPLANE BETWEEN TWO TREES. INVESTIGATION REVEALED THAT BOTH PROPS WERE AT OR NEAR FEATHER PITCH ANGLES AT IMPACT AND BEING DRIVEN UNDER POWER. BOTH ENGINES HAD BEEN CHANGED IMMEDIATELY PRIOR TO THE FLIGHT AND BOTH GROUND IDLE STOPS HAD BEEN ADJUSTED AFTER THE ENGINE CHANGE WITH THE LEFT ENGINE BEING SLAVED TO THE RIGHT. THE SYSTEM OPERATED OFF OF A SQUAT SWITCH ON THE RIGHT GEAR. MISRIGGING OF THE RIGHT ENGINE WOULD BE REFLECTED IN THE LEFT AND ALLOW OIL PRESSURE TO BE VENTED FROM THE DOMES, WHICH IN TURN WOULD ALLOW THE PROPELLER CYLINDER SPRINGS TO DRIVE THE PROPS TOWARD FEATHER AS THE RIGHT STRUT EXTENDED DURING TAKEOFF.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF THRUST DUE TO THE PROPELLER'S FEATHERING ON LIFTOFF AS A RESULT OF IMPROPER ADJUSTMENTS MADE DURING AN ENGINE CHANGE. A FACTOR WAS THE LACK OF SUITABLE TERRAIN TO WHICH THE PILOT COULD EXECUTE A FORCED LANDING.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) PROPELLER GOVERNOR CONTROL, LINKAGE - IMPROPER
2. (C) PROPELLER FEATHERING - INADVERTENT ACTIVATION
3. (C) MAINTENANCE, ADJUSTMENT - IMPROPER - OTHER MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - EMERGENCY

Findings

4. OBJECT - TREE(S)
5. (F) TERRAIN CONDITION - NONE SUITABLE

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial; Private	Age:	58, 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:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	11/01/1990
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	6689 hours (Total, all aircraft), 56 hours (Total, this make and model), 6689 hours (Pilot In Command, all aircraft), 130 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N311DS
Model/Series:	F-90 F-90	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	LA-41
Landing Gear Type:	Retractable - Tricycle	Seats:	1
Date/Type of Last Inspection:	01/09/1991, AAIP	Certified Max Gross Wt.:	10950 lbs
Time Since Last Inspection:	1 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	3262 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT6A-135
Registered Owner:	RIDGEAIRE, INC.	Rated Power:	750 hp
Operator:	RIDGEAIRE, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	5° C / 2° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	ADDISON, TX (ADS)	Type of Clearance:	IFR
Departure Time:	1040 CST	Type of Airspace:	Class D

Airport Information

Airport:	EAST TEX REG. (OCH)	Runway Surface Type:	Concrete
Airport Elevation:	372 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	
Runway Length/Width:	5001 ft / 75 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	03/09/1993
Additional Participating Persons:	B. RICHEY; HOUSTON, 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 pubinq@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](#).