



National Transportation Safety Board Aviation Accident Final Report

Location:	DECATUR, TX	Accident Number:	FTW88MA083
Date & Time:	03/25/1988, 0830 CST	Registration:	N411AE
Aircraft:	British Aerospace BAE-3101	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Ferry		

Analysis

THE COPLT WAS FLYING THE ACFT AS IT WAS BEING FERRIED AFTER MINOR MAINTENANCE. AS THEY WERE IN A DESCENT AND WERE APCHG THE DESTN ARPT, THE CAPT NOTED A LEFT ENG TORQUE FLUCTUATION OF 20% TO 30% & ELECTED TO SECURE THE ENG, ALTHOUGH NO YAWING WAS NOTICED. DRG SHUTDOWN, THE LEFT PROP DID NOT FEATHER & DRAG INCREASED UNTIL THE ACFT WOULD NOT SUSTAIN LEVEL FLT. AN ATTEMPTED RESTART OF THE LEFT ENG WAS UNSUCCESSFUL, SO THE CAPT TRIED TO FEATHER IT AGAIN. HOWEVER, THE LEFT PROP STILL DID NOT FEATHER. SUBSEQUENTLY, THE PLTS WERE FORCED TO LAND IN AN OPEN FIELD ON UNEVEN TERRAIN & THE ACFT WAS DAMAGED. AN EXTENSIVE INVESTIGATION WAS MADE, BUT NO CAUSE COULD BE FOUND FOR THE TORQUE FLUCTUATION, NOR COULD THE CONDITION BE DUPLICATED, HOWEVER, THE INVESTIGATION DID NOTE THAT THE AIR & GROUND PROCEDURES FOR ENG SHUTDOWN WERE SIMILAR. A VARIATION IN THE GROUND SHUTDOWN PROCEDURES ALLOWED FOR ENGAGEMENT OF THE START LATCHES.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: AIRPLANE'S ENCOUNTER WITH ROUGHT TERRAIN DURING AN ATTEMPTED FORCED LANDING. THE FORCED LANDING WAS NECESSITATED AFTER THE CAPTAIN USED IMPROPER PROCEDURES TO SHUTDOWN THE LEFT ENGINE IN FLIGHT FOLLOWING AN UNEXPLAINED TORQUE FLUCTUATION.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: DESCENT - NORMAL

Findings

1. 1 ENGINE
 2. (F) REASON FOR OCCURRENCE UNDETERMINED
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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

3. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
 4. (C) PROPELLER FEATHERING - NOT ATTAINED - PILOT IN COMMAND
 5. (F) HABIT INTERFERENCE - PILOT IN COMMAND
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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

6. (F) TERRAIN CONDITION - NONE SUITABLE
7. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	33, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	09/09/1988
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	4841 hours (Total, all aircraft), 2100 hours (Total, this make and model), 3230 hours (Pilot In Command, all aircraft), 246 hours (Last 90 days, all aircraft), 75 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	British Aerospace	Registration:	N411AE
Model/Series:	BAE-3101 BAE-3101	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	671
Landing Gear Type:	Retractable - Tricycle	Seats:	21
Date/Type of Last Inspection:	03/03/1988, AAIP	Certified Max Gross Wt.:	15212 lbs
Time Since Last Inspection:	83 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	4475 Hours	Engine Manufacturer:	AIRESEARCH
ELT:	Not installed	Engine Model/Series:	TPE-331
Registered Owner:	U.S. TRUST CO. OF NEW YORK	Rated Power:	900 hp
Operator:	CHAPARRAL AIRLINES	Operating Certificate(s) Held:	Commuter Air Carrier (135); On-demand Air Taxi (135)
Operator Does Business As:	AMERICAN EAGLE	Operator Designator Code:	CPLA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DFW, 603 ft msl	Distance from Accident Site:	45 Nautical Miles
Observation Time:	0848 CST	Direction from Accident Site:	135°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18° C / 5° C
Precipitation and Obscuration:			
Departure Point:	WICHITA FALLS, TX (SPS)	Type of Flight Plan Filed:	None
Destination:	DALLAS, TX (DFW)	Type of Clearance:	VFR
Departure Time:	0805 CST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	01/16/1990
Additional Participating Persons:	G C CROCKER; DALLAS, 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](#).