



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	DECATUR, TX	<b>Accident Number:</b>	FTW88MA083
<b>Date &amp; Time:</b>	03/25/1988, 0830 CST	<b>Registration:</b>	N411AE
<b>Aircraft:</b>	British Aerospace BAE-3101	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Ferry

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## 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

<b>Certificate:</b>	Airline Transport; Flight Instructor	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Single-engine	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last Medical Exam:</b>	09/09/1988
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	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

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

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DFW, 603 ft msl	Observation Time:	0848 CST
Distance from Accident Site:	45 Nautical Miles	Direction from Accident Site:	135°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	18° C / 5° C
Lowest Ceiling:	None / 0 ft agl	Visibility	15 Miles
Wind Speed/Gusts, Direction:	7 knots, 360°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
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	Adopted 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 <a href="mailto:pubinq@ntsb.gov">pubinq@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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