



National Transportation Safety Board Aviation Accident Final Report

Location:	HUGHES, AR	Accident Number:	FTW82FA108
Date & Time:	03/29/1982, 1610 CST	Registration:	N5957K
Aircraft:	GULFSTREAM AMERICAN 690C	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal

Flight Conducted Under: Part 91: General Aviation - Ferry

Analysis

THE ACFT HAD BEEN ON SALES DEMONSTRATION FLTS AND WAS ON A DELIVERY FLT FROM MEMPHIS, TN TO DALLAS, TX. THE PLANE WAS OBSERVED DEPARTING AT 1550 CDT IN A MAX PERFORMANCE CLIMB. RADAR INFO FROM MODE C OF THE TRANSPONDER RETURNS INDICATED THAT THE ACFT CLIMBED FROM 1000 TO 16,000 FT IN 7 MIN AND 14 SEC. LEVEL FLT WAS INDICATED AT 16,300 FT FROM 1558:16 TO 1601:17 CDT. THE LAST ALT RETURN WAS FROM 16,000 FT AT 2201:07. TWO MORE RETURNS WERE RECEIVED AT 2201:49 & 2202:08, BUT WITH NO ALTITUDE READ-OUT. AT ABOUT THAT TIME, THE ACFT WAS OBSERVED SPIRALING DOWN, COUNTERCLOCKWISE, WITH A PORTION OF THE LEFT WING MISSING. THE WING TIP (OUTER WING PANEL OUTBOARD FROM ABOUT WING STATION 190), LEFT AILERON AND LEFT ENGINE TAIL CONE PANEL WERE FOUND ABOUT 3 MI FROM THE MAIN WRECKAGE IMPACT POINT. AN EXAMINATION REVEALED THAT THE WING PANEL SEPARATION OCCURRED UPWARD FROM POSITIVE OVERLOAD FORCES. NO EVIDENCE WAS FOUND OF FATIGUE OR PRE-EXISTING FAILURE. LIGHT TO MODERATE TURBULENCE WAS REPORTED BETWEEN 14,000 AND 18,000 FT MSL.

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. WEATHER CONDITION - TURBULENCE
2. (C) WING,SPAR - OVERLOAD
3. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
4. (F) OVERCONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
5. (F) OVERCONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND
6. WING - SEPARATION

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: UNKNOWN

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	33, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	01/08/1982
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	6830 hours (Total, all aircraft), 182 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	GULFSTREAM AMERICAN	Registration:	N5957K
Model/Series:	690C 690C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	11720
Landing Gear Type:	Retractable - Tricycle	Seats:	11
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	10325 lbs
Time Since Last Inspection:	55 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	55 Hours	Engine Manufacturer:	AIRESEARCH
ELT:	Installed	Engine Model/Series:	TPE331-5-254K
Registered Owner:	GULFSTREAM AMERICAN	Rated Power:	715 hp
Operator:	GULFSTREAM AMERICAN	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MEM, 0 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	1554	Direction from Accident Site:	245°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 25000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	16 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	66 °C / 0 °C
Precipitation and Obscuration:			
Departure Point:	MEMPHIS, TN (MEM)	Type of Flight Plan Filed:	None
Destination:	DALLAS, TX (DAL)	Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	

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):	Report Date:	03/29/1983
Additional Participating Persons:		
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](#).