



Aviation Investigation Final Report

Location:	TULSA, Oklahoma	Accident Number:	FTW91FA043
Date & Time:	February 22, 1991, 15:19 Local	Registration:	N274MA
Aircraft:	MITSUBISHI MU-2B-60	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation		

Analysis

AIRPLANE WAS DEPARTING ON A REQUIRED MAINTENANCE TEST FLIGHT FOLLOWING REPLACEMENT OF BOTH ENGINES. WITNESSES STATED THAT THE TAKEOFF ROLL AND INITIAL CLIMB APPEARED NORMAL, BUT THAT AT ABOUT 500 FT AGL, THE AIRPLANE ENTERED A RIGHT BANK WHICH CONTINUED UNTIL THE WINGS WERE VERTICAL AND THE NOSE FELL THROUGH. AIRPLANE IMPACTED IN AN INVERTED STEEP NOSE DOWN ATTITUDE. EXAMINATION OF WRECKAGE REVEALED THAT THE RIGHT ENGINE HAD BEEN SECURED AND FEATHERED. SUBSEQUENT INVESTIGATION DID NOT REVEAL ANY EVIDENCE OF PRE-IMPACT FAILURE OR MALFUNCTION OF EITHER ENGINE OR ANY OF THE AIRFRAME SYSTEMS. ENGINE MOUNTING/RIGGING CONTINUITY COULD NOT BE ESTABLISHED DUE TO IMPACT DAMAGE. THE PILOT WAS A PRINCIPAL IN THE OPERATOR'S ORGANIZATION AND NOT ONE OF THE REGULAR LINE PILOTS. EVIDENCE INDICATED THAT THE GEAR WAS UP AND THAT THE LEFT SPOILER WAS DEPLOYED AT IMPACT. EMERG PROCEDURE TAUGHT IN TRANSITION TRAINING IS TO USE RUDDER TRIM AS SOON AS POSSIBLE AFTER ENG FAILURE TO PRECLUDE DEPLOYMENT OF SPOILERS. RUDDER TRIM FOUND IN NEUTRAL POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE SHUTDOWN OF ONE ENGINE FOR UNDETERMINED REASONS, AND THE PILOT'S FAILURE TO MAINTAIN VMCA DURING A CRITICAL PHASE OF FLIGHT. A FACTOR IN THE ACCIDENT WAS THE PILOT'S IMPROPER EMERGENCY PROCEDURE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. (C) REASON FOR OCCURRENCE UNDETERMINED
3. PROPELLER FEATHERING - PERFORMED - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

4. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND
5. (F) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Factual Information

Pilot Information

Certificate:	Commercial	Age:	58, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	August 21, 1990
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	4910 hours (Total, all aircraft), 445 hours (Total, this make and model), 4531 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MITSUBISHI	Registration:	N274MA
Model/Series:	MU-2B-60 MU-2B-60	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	786SA
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	February 22, 1991 100 hour	Certified Max Gross Wt.:	11575 lbs
Time Since Last Inspection:	1 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	6094 Hrs	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE-331-10
Registered Owner:	SCOPE LEASING, INC.	Rated Power:	715 Horsepower
Operator:	CORP. AVIATION SERVICES, INC.	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	HG7A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	16°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	Traffic advisory
Departure Time:	15:18 Local	Type of Airspace:	

Airport Information

Airport:	TULSA INTERNATIONAL TUL	Runway Surface Type:	
Airport Elevation:	677 ft msl	Runway Surface Condition:	
Runway Used:	35L	IFR Approach:	None
Runway Length/Width:	6101 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	36.190727,-95.910896(est)

Administrative Information

Investigator In Charge (IIC):	Wandel, Warren
Additional Participating Persons:	M. PITMAN; OKLAHOMA CITY , OK
Original Publish Date:	January 28, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=23250

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).