



National Transportation Safety Board Aviation Accident Final Report

Location:	TULSA, OK	Accident Number:	FTW91FA043
Date & Time:	02/22/1991, 1519 CST	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
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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
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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):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
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:	08/21/1990
Occupational Pilot:	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:	No
Airworthiness Certificate:	Normal	Serial Number:	786SA
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	02/22/1991, 100 Hour	Certified Max Gross Wt.:	11575 lbs
Time Since Last Inspection:	1 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	6094 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE-331-10
Registered Owner:	SCOPE LEASING, INC.	Rated Power:	715 hp
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 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	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
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:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	Traffic Advisory
Departure Time:	1518 CST	Type of Airspace:	

Airport Information

Airport:	TULSA INTERNATIONAL (TUL)	Runway Surface Type:	
Airport Elevation:	677 ft	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:	

Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	01/28/1993
Additional Participating Persons:	M. PITMAN; OKLAHOMA CITY, OK		
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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