



National Transportation Safety Board Aviation Accident Final Report

Location:	KENEFIC, OK	Accident Number:	FTW91FA074A
Date & Time:	05/07/1991, 0510 CDT	Registration:	N106MA
Aircraft:	MITSUBISHI MU-2B-20	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal

Flight Conducted Under: Part 91: General Aviation - Business

Analysis

THE PILOTS OF MITSUBISHI MU-2, N106MA, & A CESSNA 310 WITH NO REGISTRATION NUMBER ELECTED TO FLY IN FORMATION AT NIGHT, THOUGH NEITHER PILOT HAD FORMAL TRAINING IN FORMATION FLYING NOR EXPERIENCE IN NIGHT FORMATION. THEY JOINED UP IN FLIGHT & THE MU-2 PILOT WAS FLYING ON THE WING OF THE CESSNA 310. THE MU-2 PILOT COMMUNICATED THAT HE WAS GOING TO CHANGE POSITIONS FROM THE RIGHT SIDE TO THE LEFT SIDE OF THE 310C. THE CESSNA 310 PILOT & HIS PASSENGER LOST SIGHT OF THE MU-2 WHEN IT DROPPED BACK TO A POSITION IN THE REAR OF THE CESSNA 310. SOON THEREAFTER, THE 2 AIRCRAFT COLLIDED & THE MU-2 WENT OUT OF CONTROL & CRASHED. THE RIGHT HORIZONTAL STABILIZER WAS TORN FROM THE CESSNA 310 & THE 310'S EMPENNAGE, RIGHT WING & PROPS WERE DAMAGED, BUT IT WAS LANDED WITHOUT INJURY TO ITS OCCUPANTS. AN INVESTIGATION REVEALED THE TAIL LIGHT OF THE CESSNA 310 WAS INOPERATIVE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER PLANNING/DECISION BY THE PILOTS OF BOTH AIRCRAFT, AND THE MITSUBISHI PILOT'S MISJUDGMENT OF HIS POSITION, WHILE ATTEMPTING TO FLY FORMATION AT NIGHT WITH AN AIRCRAFT THAT DID NOT HAVE ALL NAVIGATION LIGHTS OPERATIVE. FACTORS RELATED TO THE ACCIDENT WERE: BOTH PILOT'S LACK OF TRAINING IN THE TYPE OF OPERATION, DARKNESS, INOPERATIVE NAVIGATION (TAIL) LIGHT ON THE CESSNA 310, AND THE LACK OF VISUAL PERCEPTION THAT WOULD HAVE BEEN AVAILABLE TO THE MITSUBISHI PILOT.

Findings

Occurrence #1: MIDAIR COLLISION

Phase of Operation: CRUISE

Findings

1. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND
3. (C) PLANNING/DECISION - IMPROPER - PILOT OF OTHER AIRCRAFT
4. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT OF OTHER AIRCRAFT
5. (F) LIGHT CONDITION - DARK NIGHT
6. (F) EXTERIOR LIGHT(S) - INOPERATIVE
7. OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT OF OTHER AIRCRAFT
8. (C) FORMATION FLYING - MISJUDGED - PILOT IN COMMAND
9. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial	Age:	28, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	04/29/1991
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3850 hours (Total, all aircraft), 1400 hours (Total, this make and model), 312 hours (Last 90 days, all aircraft), 133 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MITSUBISHI	Registration:	N106MA
Model/Series:	MU-2B-20 MU-2B-20	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	184
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	9920 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE-331
Registered Owner:	CORPORATE AVIATION SERVICES	Rated Power:	665 hp
Operator:	CORPORATE AVIATION SERVICES	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
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	0 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:	TULSA, OK (TUL)	Type of Flight Plan Filed:	None
Destination:	DALLAS, TX (DAL)	Type of Clearance:	None
Departure Time:	0500 CDT	Type of Airspace:	

Airport Information

Airport:	TEXOMA (K49)	Runway Surface Type:	N/A
Airport Elevation:	3462 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	MATTHEW ELLIS	Report Date:	01/25/1993
Additional Participating Persons:	N. AADLAND; 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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