



National Transportation Safety Board Aviation Accident Final Report

Location:	REDWATER, TX	Accident Number:	FTW86MA058
Date & Time:	04/04/1986, 1922 CST	Registration:	N50SK
Aircraft:	Israel Aircraft Industries 1124A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	7 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

AIRPLANE CRASHED DURING A UNCONTROLLED DESCENT, FOLLOWING A TURBULENCE UPSET AT FL370. THE UPSET OCCURRED AS A RESULT OF CLR AIR TURB ASSOCIATED WITH A VIP LVL 6 THUNDERSTORM LOCATED WITHIN 7 MILES OF THE LAST POS OF THE AIRPLANE. AFTER THE UPSET, THE AIRPLANE PENETRATED AND DESCENDED THRU THE CELL WHICH CONTAINED LIGHTNING, EXTREME TURB AND SEVERE ICING. DURING THE UPSET/DESCENT BOTH ENG'S FLAMED OUT AND THE CREW'S ATTEMPTS TO RECOVER THE AIRPLANE WERE UNSUCCESSFUL DUE TO CONDITIONS IN THE CELL. CREW RECV'D AN IMPROPER BRIEFING FROM FSS AND RPT'D THEIR RADAR WAS MALFUNCTIONING TO THE DEP CONTROLLER. SIGMET AND AWW INFO WAS NOT GIVEN DURING THE BRIEFING. AS THE AIRPLANE CAME OUT OF THE BOTTOM OF THE CELL AT 4,000', THE CREW OVERSTRESSED THE AIRPLANE CAUSING THE LFT MLG DOOR TO SEPARATE AND HIT THE LFT HORZ STAB WHICH SUBSEQUENTLY SEPARATED IN OVERLOAD. IMPACT WAS 82 DEGREES NOSE DOWN. NATURE OF THE AIRPLANE RADAR MALF COULD NOT BE DETERMINED.

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: CLIMB - TO CRUISE

Findings

1. (C) FLIGHT/NAV INSTRUMENTS,WEATHER RADAR SYSTEM - FAILURE,PARTIAL
 2. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - CONTINUED - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE - NORMAL

Findings

3. (C) WEATHER CONDITION - THUNDERSTORM
 4. (C) WEATHER CONDITION - TURBULENCE,CLEAR AIR
 5. (C) WEATHER CONDITION - GUSTS
 6. (C) WEATHER CONDITION - DOWNDRAFT
 7. (F) LIGHT CONDITION - DARK NIGHT
 8. (C) PREFLIGHT BRIEFING SERVICE - IMPROPER - ATC PERSONNEL(FSS)
 9. (C) HAZARDOUS WEATHER ADVISORY - NOT ISSUED - ATC PERSONNEL(FSS)
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Occurrence #3: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE - NORMAL

Findings

10. (C) IN-FLIGHT WEATHER ADVISORIES - NOT ISSUED - ATC PERSONNEL(FSS)
 11. (C) INFORMATION UNCLEAR - ATC PERSONNEL(FSS)
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Occurrence #4: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE - NORMAL

Findings

12. REMEDIAL ACTION - ATTEMPTED - PILOT IN COMMAND
 13. (F) EXCESSIVE WORKLOAD (TASK OVERLOAD) - PILOT IN COMMAND
 14. (F) EXCESSIVE WORKLOAD (TASK OVERLOAD) - COPILOT/SECOND PILOT
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Occurrence #5: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: DESCENT - UNCONTROLLED

Occurrence #6: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial; Flight Engineer	Age:	35, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	07/11/1985
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	7353 hours (Total, all aircraft), 657 hours (Total, this make and model), 107 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Israel Aircraft Industries	Registration:	N50SK
Model/Series:	1124A 1124A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	309
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	03/07/1986, Continuous Airworthiness	Certified Max Gross Wt.:	23500 lbs
Time Since Last Inspection:	45 Hours	Engines:	2 Turbo Fan
Airframe Total Time:	2745 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TFE731-3-1G
Registered Owner:	DRAYTON ASSOCIATES	Rated Power:	3700 lbs
Operator:	SINGER CORP.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	TXK, 0 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1926 CST	Direction from Accident Site:	42°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 4000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	DALLAS, TX (RDB)	Type of Flight Plan Filed:	IFR
Destination:	TETERBORO, NJ (TEB)	Type of Clearance:	IFR
Departure Time:	0000	Type of Airspace:	Class A

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	5 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	7 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	02/02/1988
Additional Participating Persons:	J. C PIERCE; DALLAS, TX BRUCE BEARD		
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](#).