



National Transportation Safety Board Aviation Accident Final Report

Location:	FLAMINGO, FL	Accident Number:	MIA91FA023
Date & Time:	11/09/1990, 1447 EST	Registration:	N21ST
Aircraft:	CESSNA 421B	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

AS THE ACFT (N21ST) WAS EN ROUTE ON A FLT FROM KEY WEST TO NAPLES, FL, THE PLT OF ANOTHER ACFT SAW A 'FIRE BALL' IN THE VCNTY OF WHERE N21ST SUBSEQUENTLY CRASHED. WHEN N21ST DID NOT ARRIVE, A SEARCH WAS INITIATED. THE WRECKAGE WAS FND THE NEXT DAY AT 1704 EST, IN THE EVERGLADES NATL PARK, NR FLAMINGO, FL. DRG IMPACT, THE MAIN WRECKAGE WAS BURIED IN 30' OF MUD. THE LEFT OUTBOARD WING SECTION (FM JUST OUTBOARD OF THE ENG NACELLE TO THE WING TIP) WAS FND APRX 1 MI FM THE MAINWRECKAGE. AN EXAM REVEALED THE WING HAD FAILED WHERE THE NACELLE FUEL TANK & THE AUX FUEL TANK BOOST PUMPS WERE MOUNTED. NO EXHAUST SYS FAILURE OR LEAKAGE FM THE FUEL TANKS WAS FND IN THE AREA OF THE FIRE. THE GREATEST FIRE DMG WAS AT A POINT WHERE THE LEFT NACELLE FUEL TANK BOOST PUMP WAS MOUNTED & AFT FM THERE TO WHERE THE REAR WING SPAR HAD BURNED THRU. THE ELEC FUEL BOOST PUMPS WERE NOT RECOVERED AFTER THE ACDNT. THE IGNITION SOURCE FOR THE FIRE WAS NOT DETERMINED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: AN UNDETERMINED AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION, WHICH RESULTED IN A FUEL FED FIRE IN THE LEFT WING.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FIRE
Phase of Operation: CRUISE

Findings

2. (C) FUEL SYSTEM - FIRE
3. (C) WING - FIRE
4. WING,SPAR - BURNED
5. WING - SEPARATION

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

Factual Information

Pilot Information

Certificate:	Commercial	Age:	69, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	09/28/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	10100 hours (Total, all aircraft), 50 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N21ST
Model/Series:	421B 421B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	421B-0963
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	06/28/1990, Annual	Certified Max Gross Wt.:	7450 lbs
Time Since Last Inspection:	51 Hours	Engines:	2 Reciprocating
Airframe Total Time:	2741 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	GTSIO-520-H
Registered Owner:	ST. PAUL AVIATION	Rated Power:	375 hp
Operator:	ST. PAUL AVIATION	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MTH, 7 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	1355 EST	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 10000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	31° C / 27° C
Precipitation and Obscuration:			
Departure Point:	KEY WEST, FL (EYW)	Type of Flight Plan Filed:	None
Destination:	NAPLES, FL (APF)	Type of Clearance:	None
Departure Time:	1415 EST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	In-Flight
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	10/10/1991
Additional Participating Persons:	JOHN HUY; WICHITA, KS HAAKON WEISE; MIAMI, FL DALE CARTER; MOBILE, AL		
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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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](#).