



Aviation Investigation Final Report

Location:	Fort Pierce, Florida	Accident Number:	MIA02LA165
Date & Time:	September 1, 2002, 12:53 Local	Registration:	N33N
Aircraft:	Cessna T337D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that he estimated that at takeoff the airplane had about 35 gallons of fuel on board, and after about 45 minutes, while in cruise flight, at an altitude of 4500 feet, the front engine suddenly ceased operating. He stated that he had experienced problems in the past with water in the fuel tanks, so he did not declare an emergency, even after unsuccessful attempts to restart the engine. He said the airplane was maintaining 120 knots, and fully controllable while being only powered by the rear engine. He said that in his mind, it was only water in the left tank, and his destination, Fort Pierce, Florida, was only 10 miles away, so he continued to his destination. After contacting FAA Fort Pierce Air traffic Control Tower, the pilot said that he then entered a right base, turned on to the final approach course for an approach to land on runway 09, lowered his landing gear, set 10 degrees of flaps, and was on final at about 600 feet altitude, when all of a sudden the rear engine ceased operating. He said the only area to land was a small field on the right, so he turned 90 degrees, and entered a dive to prevent the airplane from stalling. The aircraft impacted in an orange grove, rebounded once, and then stopped in a canal. The pilot stated the engines failed due to fuel "starvation", and added that "the airplane had not been loaded with enough fuel..." Prior to the accident, the pilot said that there were no mechanical failures or malfunctions to the airplane or to any of its systems. The FAA Inspector who responded to the accident scene stated that during his examination he discovered no fuel in the fuel tanks, and minimal fuel at the scene.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's misjudgment of the fuel supply, and subsequent fuel exhaustion.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

3. TERRAIN CONDITION - DITCH

Factual Information

On September 1, 2002, about 1253 eastern daylight time, a Cessna T337D, N33N, registered to K.R. Aviation Inc., and operated by a private individual as a Title 14 CFR Part 91 personal flight, made a forced landing in an orange grove in Fort Pierce, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The commercial-rated pilot received serious injuries, and the commercial-rated passenger received minor injuries. The airplane incurred substantial damage. The flight departed from Fort Lauderdale, Florida, the same day, about 1130.

The pilot stated that he estimated that at takeoff the airplane had about 35 gallons of fuel on board, and after about 45 minutes, while in cruise flight, at an altitude of 4,500 feet, the front engine suddenly ceased operating. He stated that he had experienced problems in the past with water in the fuel tanks, so he did not declare an emergency, even after unsuccessful attempts to restart the engine. He said the airplane was maintaining 120 knots, and fully controllable while being only powered by the rear engine. He said that in his mind, it was only water in the left tank, and his destination, Fort Pierce, Florida, was only 10 miles away, so he continued to his destination. After contacting FAA Fort Pierce Air Traffic Control Tower, the pilot said that he then entered a right base, turned on to the final approach course for an approach to land on runway 09, lowered his landing gear, set 10 degrees of flaps, and was on final at about 600 feet altitude, when all of a sudden the rear engine ceased operating. He said the only area to land was a small field on the right, so he turned 90 degrees, and entered a dive to prevent the airplane from stalling. The aircraft impacted in an orange grove, rebounded once, and then stopped in a canal. The pilot stated the engines failed due to fuel "starvation", and added that "the airplane had not been loaded with enough fuel..." Prior to the accident, the pilot said that there were no mechanical failures or malfunctions to the airplane or to any of its systems.

The FAA Inspector who responded to the accident scene stated that during his examination he discovered no fuel in the fuel tanks, and minimal fuel at the scene.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	28, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical—no waivers/lim.	Last FAA Medical Exam:	June 18, 2002
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1600 hours (Total, all aircraft), 30 hours (Total, this make and model), 1300 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N33N
Model/Series:	T337D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	337-1122
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	TSIO-360-A3
Registered Owner:	K. R. Aviation Inc.	Rated Power:	210 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	FPR,25 ft msl	Distance from Accident Site:	
Observation Time:	12:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 1900 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	28°C / 26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Lauderdale, FL (FXE)	Type of Flight Plan Filed:	None
Destination:	Fort Pierce, FL (FPR)	Type of Clearance:	None
Departure Time:	11:30 Local	Type of Airspace:	Class D

Airport Information

Airport:	Fort Pierce FPR	Runway Surface Type:	
Airport Elevation:	20 ft msl	Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	Unknown
Runway Length/Width:		VFR Approach/Landing:	Forced landing;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	27.495,-80.368331

Administrative Information

Investigator In Charge (IIC):	Lovell, John
Additional Participating Persons:	Joe Radosky; FAA FSDO; Orlando, FL
Original Publish Date:	March 30, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=55648

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).