



National Transportation Safety Board Aviation Accident Final Report

Location:	FORT LAUDERDALE, FL	Accident Number:	MIA99LA136
Date & Time:	04/20/1999, 1910 EDT	Registration:	N744MA
Aircraft:	Cessna 402B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

While on approach to land the left engine surged and lost power. The pilot switched the left engine fuel selector to another fuel tank and the engine restarted. A short time later the left engine surged and lost power again. The pilot switched the left engine fuel selector to the right main fuel tank and the engine again restarted. A short time later the left engine quit again and he shutdown the engine and feathered the propeller. A short time later the right engine surged and lost power. He shut down the right engine and feathered the propeller. He then made a forced landing in a field and during landing rollout the aircraft's left wing collided with a tree. A fire erupted in the left wing area. Post crash examination showed the right main fuel tank was empty. The right auxiliary fuel tank contained 2.5 gallons. The left main fuel tank contained one half gallon of fuel and the left auxiliary tank was ruptured. The pilot operating handbook stated that the main fuel tanks had one gallon unusable fuel and the auxiliary fuel tanks had one half gallon of unusable fuel.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to fuel exhaustion and the pilot in command's failure to ensure that the aircraft had adequate fuel to complete the flight.

Findings

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

Phase of Operation: APPROACH

Findings

1. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND
3. (C) FLUID,FUEL - EXHAUSTION

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

4. OBJECT - TREE(S)

Factual Information

On April 20, 1999, about 1910 eastern daylight time, a Cessna 402B, N744MA, registered to Three Amigos Flying Services, Inc., and operated by Execstar Aviation, Inc., as a Title 14 CFR Part 135 nonscheduled domestic cargo flight from Fort Myers, Florida to Fort Lauderdale, Florida, crashed while attempting a forced landing following loss of power in both engines, while on approach to Fort Lauderdale Executive Airport. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft received substantial damage and the commercial-rated pilot received minor injuries. The flight originated from Fort Myers, the same day, about 1830.

The pilot stated that while 6 miles from the Fort Lauderdale Executive Airport, the left engine fuel flow surged and the engine lost power. He switched fuel tanks for the left engine and the engine regained power. About 3 miles from the airport, the left engine surged again and lost power. He cross fed the left engine from the right main fuel tank and the engine regained power. About 2 miles out, the left engine quit again. He then shut down the engine and feathered the propeller. Shortly after this, the right engine surged and quit. Attempts to restart the right engine were unsuccessful and he shut down the right engine and feathered the propeller. He retracted the wing flaps and made a forced landing in a field. During landing rollout the aircraft collided with trees and came to rest. A fire erupted in the left. The pilot stated to the NTSB that he had run out of fuel.

A Fort Lauderdale police officer located at the arrival end of runway 8 at the Fort Lauderdale Executive Airport, reported observing N744MA approaching the runway from the west. The right propeller was stopped and the left propeller rotating slowly. He then observed the aircraft descend into trees and brush. He went to the scene and found the pilot outside of the aircraft. The pilot stated to him that he had run out of gas. (See Police Department Report).

Postcrash examination of the aircraft by an FAA inspector showed the aircraft touched down in a field and during landing rollout the left wing contacted a tree and separated from the aircraft. The right engine controls were in the engine shutdown position and the propeller was in the feathered position. The right engine fuel selector was off. The left engine controls were in the engine shutdown position and the left engine fuel selector was in the right main fuel tank position. The left propeller was not in the feathered position. The right auxiliary fuel tank was undamaged and contained 2.5 gallons of fuel. The right main fuel tank was undamaged and contained no fuel. The left main fuel tank was undamaged and contained one half gallon of fuel. The left auxiliary fuel tank was ruptured during the accident. (See FAA Inspector Statement)

The Cessna 402B Pilot's Operating Handbook states that each main fuel tank contains about 1 gallon of unusable fuel and that each auxiliary fuel tank contains about one half gallon of unusable fuel. (See Cessna Pilot Operating Handbook page).

Pilot Information

Certificate:	Commercial	Age:	33, 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:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/01/1999
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2600 hours (Total, all aircraft), 500 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft), 110 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N744MA
Model/Series:	402B 402B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	402B-0592
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	04/15/1999, 100 Hour	Certified Max Gross Wt.:	6300 lbs
Time Since Last Inspection:	18 Hours	Engines:	2 Reciprocating
Airframe Total Time:	2675 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-E
Registered Owner:	THREE AMIGOS FLYING SVCS., INC	Rated Power:	300 hp
Operator:	EXECSTAR AVIATION, INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	XVQA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FXE, 14 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1923 EDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	23° C / 13° C
Precipitation and Obscuration:			
Departure Point:	FORT MYERS, FL (FMY)	Type of Flight Plan Filed:	None
Destination:	(FXE)	Type of Clearance:	None
Departure Time:	1830 EDT	Type of Airspace:	Class D

Airport Information

Airport:	FORT LAUDERDALE EXECUTIVE (FXE)	Runway Surface Type:	Asphalt
Airport Elevation:	14 ft	Runway Surface Condition:	Dry
Runway Used:	8	IFR Approach:	None
Runway Length/Width:	6001 ft / 100 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	09/07/2000
Additional Participating Persons:	JAMES PICOLE; FORT LAUDERDALE, FL REINALDO BAHAMONDE; FORT LAUDERDALE, FL		
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.ntsb.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](#).