



National Transportation Safety Board Aviation Accident Final Report

Location:	PORT JEFFERSON, NY	Accident Number:	IAD03LA055
Date & Time:	05/26/2003, 1425 EDT	Registration:	N1234
Aircraft:	Cessna 414	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The commercial pilot/owner was on a cross-country flight from Orlando, Florida, to Salisbury, Maryland, on an instrument flight rules (IFR) flight plan. The pilot stated that all five fuel tanks were topped off and verified as full before departure. The fueler, in a written statement, reported that he added 100 gallons of fuel and that the fuel tank levels were topped off. In addition to the main tanks, the airplane was equipped with two large-capacity auxiliary tanks (31.5 gallons of useable fuel each) and a locker tank, and the airplane's total useable fuel capacity was 183 gallons. As the airplane approached Maryland, the pilot requested weather for White Plains, New York (HPN) and then changed his destination to HPN. As he approached the New York area at 21,000 feet, air traffic control (ATC) instructed the pilot to fly a published arrival procedure and to maintain an altitude of 16,000 feet. The pilot stated that, due to poor weather and air traffic congestion, he became concerned about possible delays and informed ATC that he had "minimal fuel." He did not declare an emergency. ATC then issued the pilot a descent clearance, and he reduced both throttles to idle. In preparation to level off at the new altitude, the pilot increased power on both throttles, and the right engine stopped producing power. The pilot was unable to maintain the assigned altitude and told the controller that he had "lost an engine, and needed vectors to the nearest runway." The left engine stopped producing power about 2 minutes later. The pilot ditched the airplane and exited the airplane before it sank. The airplane was not recovered. The pilot reported that there were no mechanical problems with the airplane before the flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of power to both engines for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: MANEUVERING

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. ALL ENGINES

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. TERRAIN CONDITION - WATER

Factual Information

On May 26, 2003, at 1428 eastern daylight time, a Cessna 414, N1234, was destroyed during a forced landing into Long Island Sound, about 6 nautical miles north of Port Jefferson, New York. The certificated commercial pilot/owner was not injured. An instrument flight rules (IFR) flight plan was filed for the flight, which originated at Orlando International Airport (MCO) Orlando, Florida, about 1010, and was destined for Westchester County Airport (HPN), White Plains, New York. Instrument meteorological conditions prevailed for the personal flight conducted under 14 Code of Federal Regulations Part 91.

The pilot stated that he had been in Orlando to attend a 3-day Cessna 414 recurrent flight training course. Before departure, the airplane was fueled with 100 gallons of 100LL aviation gasoline, which the pilot stated filled all five tanks. The airplane was equipped with two 50-gallon main tanks, two 31.5-gallon auxiliary tanks, and a 20-gallon locker tank, with a total useable fuel capacity of 183 gallons. The pilot stated that he visually examined the fuel tank levels and took fuel samples. The pilot stated that he confirmed that the tanks were full and that the fuel samples did not contain water or debris.

The pilot reported that after he departed, he set climb power and leveled off at an altitude of 21,000 feet mean sea level (msl). He then set a cruise power setting of 55 percent.

According to the pilot, the flight was uneventful through the arrival into the New York area. Fuel quantity was determined by comparing the fuel gauges to an after-market electronic fuel computer, along with noting the time each fuel tank was selected.

As he approached New York (about 4 hours into the flight), the pilot said he was instructed by air traffic control (ATC) to fly the Bono Three arrival, and maintain 16,000 feet. The pilot requested a lower altitude, but due to poor weather conditions and air traffic congestion, the controller informed him that "it would be a while" before he'd be able to give him a lower altitude.

The pilot became increasingly concerned about ATC delays, and informed the controller that he had "minimal fuel," about 20 gallons per side. He did not declare an emergency.

The controller then instructed the pilot to descend to 4,000 feet, and provided radar vectors. The pilot reduced both throttles to idle, and while the airplane was descending, he noticed that the fuel gauges indicated a rapid decline in available fuel, which was "not normal." As the airplane approached its newly assigned altitude, the pilot increased the power settings on both throttles, and the right engine stopped producing power. The pilot was unable to maintain altitude, and informed the controller that he had "lost an engine, and needed vectors to the nearest runway." The controller provided radar vectors to Igor I Sikorsky Memorial Airport (BDR), Bridgeport, Connecticut.

Approximately 1 to 2-minutes after the right engine quit, the left engine stopped producing power. After realizing how far off-shore he was, the pilot informed the controller that he was going to ditch the airplane in the water.

According to the pilot, he maintained a "safe airspeed," turned the airplane into the wind, and raised the landing gear. He broke out of the cloud layer 280 feet above the water, noted the direction of the 6-foot waves, and made a "soft" water landing.

After touchdown, the airplane began filling with water. The pilot donned a personal flotation

device (PFD), grabbed a flare gun, ate a nutrition bar, and dialed 911 on his cell phone. The 911 dispatcher connected him to the Coast Guard for further rescue assistance, and afterwards, the pilot exited the airplane. While waiting to be rescued, he caught a wave in his face, and swallowed a mouthful of salt water infused with gasoline.

The pilot also noted that he had not experienced any mechanical problems with the airplane prior to the flight. The airplane was recently painted, during which time, he had the tip tanks resealed.

A review of air traffic control transcripts revealed the pilot was cleared for take-off from Orlando International Airport at 1010, with an intended destination of Salisbury, Maryland. While en route, he was cleared to a cruising altitude of 21,000 feet msl.

At 1251, the pilot requested and received the current weather at Westchester County Airport, White Plains, New York. Eight minutes later, he told ATC that he wanted to change his final destination from Salisbury, Maryland, to White Plains. Subsequently, ATC issued a new clearance, which included the Bono Three arrival.

An hour later, the pilot contacted New York Air Route Traffic Control Center (ARTCC), and requested a lower altitude. ATC cleared him to 17,000 feet.

At 1401, the pilot again requested a lower altitude so he could prepare for the approach. ATC was unable to grant the request due to conflicting traffic, and instructed the pilot to reduce his airspeed by 10 knots. The pilot acknowledged.

At 1410, the pilot advised ATC that he was approaching minimal fuel. ATC advised the pilot that they understood that he could not accept any additional delays, and was cleared to cross the Deer Park intersection, descend to 15,000 feet, and resume normal speed. The pilot acknowledged.

Two minutes later, ATC asked the pilot how much fuel he had left onboard and if he was declaring an emergency. The pilot responded that he was not declaring an emergency, and had about 40 minutes of fuel remaining.

Over the next 12 minutes, ATC provided radar vectors and cleared the pilot to an altitude of 4,000 feet. At one point ATC asked the him if he wanted to be vectored around a level three cell, and the pilot responded that he wanted the "fastest time to the runway" and elected to fly through it.

At 1424, ATC noted that the airplane was descending through 3,200 feet, at which time, the pilot reported that he had an "engine out." ATC acknowledged, and asked the pilot if he wanted vectors to Bridgeport, CT, and if he was able to conduct an instrument approach. The pilot advised that he could.

As ATC was coordinating the pilot's approach into BDR, the pilot stated he was going to ditch the airplane into the water.

The airplane came to rest in 80-90 feet of salt water, and was never recovered.

A review of the airplane's maintenance history revealed that both engines had undergone an after-market RAM Series VI - 335 horsepower, engine overhaul improvement (ROI) installation, which increased fuel burn rate. According to RAM power charts, at a power setting of 55 percent (maximum range cruise), the fuel burn rate would have been approximately 31.2 gallons per hour for both engines, plus an additional 8 gallons for climb to

cruise altitude. At a power setting of 65 percent (economy cruise), the fuel burn rate would have been 36.4 gallons per hour for both engines, plus an additional 9 gallons for climb to cruise altitude.

The pilot reported approximately 1,000 flight hours of flight time, of which, 70 hours were in make and model. He also stated that he was very conservative, and kept a flight log in the airplane which detailed his fuel management calculations for the flight. However, the log sank with the airplane. The airplane was registered by the owner on May 14, 2002.

Weather at Igor I Sikorsky Memorial Airport, about 9 miles north, at 1439, included winds from 020 degrees at 8 knots, visibility 1 statute mile, heavy rain, mist, scattered clouds at 1,500 feet, overcast clouds at 3,500 feet, temperature 52 degrees Fahrenheit, dewpoint 52 degrees Fahrenheit, and barometric pressure setting 29.96 inches Hg.

Pilot Information

Certificate:	Commercial	Age:	41, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/07/2003
Occupational Pilot:		Last Flight Review or Equivalent:	05/25/2003
Flight Time:	1250 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1234
Model/Series:	414	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	0525
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	05/19/2003, Annual	Certified Max Gross Wt.:	6350 lbs
Time Since Last Inspection:	25 Hours	Engines:	2 Reciprocating
Airframe Total Time:	4259.3 Hours as of last inspection	Engine Manufacturer:	Teledyne Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520
Registered Owner:	RITS AVIATION LLC	Rated Power:	335 hp
Operator:	RITS AVIATION LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BDR, 10 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1439 EDT	Direction from Accident Site:	190°
Lowest Cloud Condition:	Scattered / 1500 ft agl	Visibility:	1 Miles
Lowest Ceiling:	Broken / 3500 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	11°C / 11°C
Precipitation and Obscuration:			
Departure Point:	ORLANDO, FL (MCO)	Type of Flight Plan Filed:	IFR
Destination:	WHITE PLAINS, NY (HPN)	Type of Clearance:	IFR
Departure Time:	1010 EDT	Type of Airspace:	Class B

Airport Information

Airport:	NONE	Runway Surface Type:	Water
Airport Elevation:		Runway Surface Condition:	Wet
Runway Used:	NA	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	41.032222, -73.218056

Administrative Information

Investigator In Charge (IIC):	LEAH D YEAGER	Report Date:	12/04/2006
Additional Participating Persons:	DAVID CARREAU; FAA/FSDO; WINDSOR LOCKS, CT		
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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