



Aviation Investigation Final Report

Location:	Gresham, Oregon	Accident Number:	SEA01LA066
Date & Time:	March 21, 2001, 13:29 Local	Registration:	N8346E
Aircraft:	Mooney M20A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot departed Tracy, California, on a nonstop delivery flight to the new owner of the recently sold 1959 Mooney M20A. Approximately three hours and 19 minutes later (more than 470 nautical miles of flight), descending toward his destination of Troutdale, Oregon, the engine stopped. The pilot executed an emergency landing to a golf course approximately 2.5 nautical miles south of his destination airport and the aircraft impacted trees during the forced landing to a golf course. The pilot fueled before departing and believed both wing tanks were full (17.5 gallon capacity each) and that the "...auxiliary tank sounded full...." A police officer from the Gresham Police Department interviewed the pilot immediately following the accident and reported to an FAA inspector that the pilot stated that he "...couldn't understand how he could have run out of gas but when the engine quit he switched tanks and tried everything he could but the engine wouldn't start. All his fuel gauges read empty...." The FAA inspector found six ounces of fuel in each wing tank and less than one gallon in the auxiliary tank (14 gallon capacity).

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate decision in which he failed to refuel while en route, resulting in fuel exhaustion and loss of engine power.

Findings

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

Findings

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

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings

4. (F) OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On March 21, 2001, approximately 1329 Pacific standard time (PST), a Mooney M20A, N8346E, registered to and being operated by Martin Specialties, Inc., and being flown by a commercial pilot, was substantially damaged during a collision with trees and terrain while executing a forced landing following a power loss on descent into the Troutdale Airport, Troutdale, Oregon. The pilot sustained serious injuries. Visual meteorological conditions existed and no flight plan had been filed. The flight, which was personal, was operated under 14CFR91, and originated from Tracy, California.

The pilot reported (in a written statement by his daughter, see attached NTSB Form 6120.1/2) that he departed Tracy Municipal (TCY) approximately 1010 PST destined for Troutdale Airport. The flight was being operated as a delivery flight to the new owner, and the straight-line distance between Tracy and Troutdale was measured as approximately 470 nautical miles.

The pilot could not remember how much fuel was in the aircraft prior to departing Tracy and he did not stop for fuel en route to Troutdale. He reported in the statement, "...[the] fuel tanks had no readable method to measure fuel from [the] filling points..." and also believed that both wing tanks were full and that "...[the] auxiliary tank sounded full...." Later in his statement he reported, "...at the time of realization that fuel was not going to last [a] report [was] made to Troutdale airport..." and "...having lost 80 feet of glide path when the fuel ended, [the] pilot decided to take trees to keep from injuring people on the ground...."

The aircraft was several miles south of the Troutdale airport when the engine lost all power. The pilot executed an emergency landing to a golf course approximately 2.5 nautical miles south of the Troutdale Airport.

On-site examination of the aircraft's fuel system by an inspector from the Hillsboro Federal Aviation Administration's Flight Standards District Office revealed six ounces of fuel in each wing tank and less than one gallon in the auxiliary tank. The four-position (Left-Right-Aux-OFF) fuel selector was observed to be set on the "LEFT" tank position. Emergency medical personnel had removed the pilot from the site; however, the inspector interviewed the police officer from the Gresham Police Department who interviewed the pilot immediately after the accident. The inspector reported that the officer was told by the pilot that he "...couldn't understand how he could have run out of gas but when the engine quit he switched tanks and tried everything he could but the engine wouldn't start. All his fuel gauges read empty..." (refer to attached statement).

The 1959 Mooney M20A was equipped with a 17.5 gallon fuel tank in each wing and a 14 gallon auxiliary tank in the fuselage.

Pilot Information

Certificate:	Commercial	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-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:	July 7, 2000
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N8346E
Model/Series:	M20A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1524
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-360
Registered Owner:	Martin Specialties, Inc.	Rated Power:	180 Horsepower
Operator:	Martin, Glenn H.	Operating Certificate(s) Held:	None
Operator Does Business As:	Martin Specialties, Inc.	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	TTD,39 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	13:43 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	14°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tracy, CA (TCY)	Type of Flight Plan Filed:	None
Destination:	Troutdale, OR (TTD)	Type of Clearance:	VFR flight following
Departure Time:	10:10 Local	Type of Airspace:	Class D

Airport Information

Airport:	Not Applicable	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	45.499881,-122.42971(est)

Administrative Information

Investigator In Charge (IIC):	Mccreary, Steven
Additional Participating Persons:	Michael Benedict; FAA FSDO; Hillsboro, OR
Original Publish Date:	August 26, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=51948

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](#).