



# National Transportation Safety Board Aviation Accident Factual Report

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<b>Location:</b>	Immokalee, FL	<b>Accident Number:</b>	MIA04LA050
<b>Date &amp; Time:</b>	02/03/2004, 1015 EST	<b>Registration:</b>	N252WF
<b>Aircraft:</b>	Mooney M20K	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## HISTORY OF FLIGHT

On February 3, 2004, about 1015, eastern standard time, a Mooney M-20K, N252WF, registered to and operated by a private individual as a Title 14 CFR Part 91 personal flight, made a forced landing in a potato field, about 7 miles east of Immokalee Airport, Immokalee, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The private-rated pilot and one passenger received minor injuries, and the airplane incurred substantial damage. The flight originated at Kendall-Tamiami Airport, Miami, Florida, the same day, about 0945.

The pilot stated that he was en route to Punta Gorda, Florida, to the Mooney maintenance facility where he has his airplane serviced, to have a 25-hr oil change performed. He further stated that the airplane was in cruise flight, at an altitude of 4,500 feet, when he detected a slight engine vibration. He noted that the fuel consumption had increased from the usual 12.5 gals/hr to 15.7 gals/hr, at 2,300 rpm and a manifold pressure of 30.00. He said that the characteristics he noted at that time were similar to those of a partially plugged fuel injector he had encountered in the past, and since he was half the distance to Punta Gorda, he elected to continue. Shortly thereafter he said the engine ceased operating. He said there were no sputtering or other noises, the engine just abruptly ceased operating, while the propeller continued to windmill. He said he established the proper glide attitude, while looking for a place to land. He said he switched fuel tanks, turned on the boost pump, and attempted to restart the engine, but it did not restart. At an altitude of about 3,000 feet, he said he noticed a field with long furrows, and after declaring an emergency and performing prelanding tasks, made a forced landing to the field. During the landing rollout the airplane incurred damage.

An FAA airframe and powerplant mechanic with an inspection authorization rating, who responded to the scene of the accident stated that he found the B-nut on the inlet side of the fuel flow divider loose, about one full turn. In addition he said he saw signatures consistent with a leak which originated at the B-nut and ran down the right front of the engine case.

On February 10, 2004, the NTSB conducted a follow-on examination of the accident airplane.

Assisting the NTSB was a representative from Teledyne Continental Motors, as well as the airplane mechanic who had responded to the scene of the accident, and had witnessed the loose B-nut on the inlet side of the fuel flow divider. The examination revealed that the fuel manifold was properly positioned, and there were no anomalies noted with the unit. In addition, when the fuel manifold was opened, the screen was found to be clean and fuel was present. At the connection of the B-nut on the fuel inlet line to the manifold, torque putty was noted on the threaded connection on the manifold side, and no putty was observed on the B-nut. In addition, the engine was given an initial test run and no anomalies were noted. The B-nut was then placed in the position it was found at the accident scene, and the engine tested a second time, and during the test run, when the electric fuel boost pump turned on, fuel poured from around the B-nut.

## TESTS AND RESEARCH

The accident airplane was equipped with a Teledyne Continental Motors TSIO-360-MB2B, 210 horsepower engine, serial number 279325-R. According to the airplane's engine log book, the engine had been rebuilt by Teledyne Continental Motors, and shipped to Mod Works Inc., Punta Gorda, Florida, who installed it in the accident airplane on March 03, 2003. According to the engine logbook, at the time of the accident the engine had accumulated a total time of 80 hours since installation, and had received two previous oil changes, all of which had been performed by Mod Works Inc.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	68, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	11/18/2002
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	04/22/2002
<b>Flight Time:</b>	1800 hours (Total, all aircraft), 1560 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Mooney	<b>Registration:</b>	N252WF
<b>Model/Series:</b>	M20K	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	25-1189
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	03/03/2003, Annual	<b>Certified Max Gross Wt.:</b>	2900 lbs
<b>Time Since Last Inspection:</b>	80 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1680 Hours at time of accident	<b>Engine Manufacturer:</b>	Teledyne Continental
<b>ELT:</b>	Installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	TSIO-360-MB2B
<b>Registered Owner:</b>	George M. Darnell	<b>Rated Power:</b>	210 hp
<b>Operator:</b>	George M. Darnell	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	APF, 9 ft msl	<b>Distance from Accident Site:</b>	28 Nautical Miles
<b>Observation Time:</b>	0953 EST	<b>Direction from Accident Site:</b>	218°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 Miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.15 inches Hg	<b>Temperature/Dew Point:</b>	21° C / 15° C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Miami, FL (TMB)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Punta Gorda, FL (PGD)	<b>Type of Clearance:</b>	VFR Flight Following
<b>Departure Time:</b>	0945 EST	<b>Type of Airspace:</b>	Class E

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	26.433056, -81.401111

## Administrative Information

<b>Investigator In Charge (IIC):</b>	John W Lovell
<b>Additional Participating Persons:</b>	Lorenzo Valerio; FAA FSDO; Miami, FL
<b>Investigation Docket:</b>	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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .