



# Aviation Investigation Final Report

<b>Location:</b>	ARCADIA, Florida	<b>Accident Number:</b>	MIA86LA230
<b>Date &amp; Time:</b>	August 7, 1986, 20:05 Local	<b>Registration:</b>	N1996Y
<b>Aircraft:</b>	MOONEY M20E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

## Analysis

DURING CRUISE, THE PLT ATTEMPTED TO SWITCH FUEL TANKS AND THE FUEL SELECTOR VALVE BECAME STUCK IN THE 'OFF' POSITION. A SUCCESSFUL GEAR-UP FORCED LDG WAS MADE IN A FIELD. AN EXAM OF THE VALVE CONFIRMED THAT IT WAS STUCK DUE TO CORROSION AND RUST, THE OPERATOR'S MECHANIC STATED THAT PRIOR TO THEIR RECENT ACQUISITION OF THE ACFT, IT HAD REMAINED INACTIVE AND OUTDOORS FOR A LONG PERIOD OF TIME. DURING THE RECENT ANNUAL INSP, HE STATED THAT THE FUEL CAP SEALS HAD DETERIORATED AND HAD TO BE REPLACED AND THAT WATER HAD BEEN FOUND IN THE FUEL TANKS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE

#### Findings

1. (C) FUEL SYSTEM,SELECTOR/VALVE - BINDING(MECHANICAL)

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. (F) WHEELS UP LANDING - INTENTIONAL - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	27, 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>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	July 10, 1986
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1580 hours (Total, all aircraft), 4 hours (Total, this make and model), 1351 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 68 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MOONEY	<b>Registration:</b>	N1996Y
<b>Model/Series:</b>	M20E M20E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	283
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 17, 1986 Annual	<b>Certified Max Gross Wt.:</b>	2575 lbs
<b>Time Since Last Inspection:</b>	8 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1865 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360-A1A
<b>Registered Owner:</b>	TAMPA AIRWAYS, INC.	<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	FMY ,18 ft msl	<b>Distance from Accident Site:</b>	48 Nautical Miles
<b>Observation Time:</b>	19:50 Local	<b>Direction from Accident Site:</b>	350°
<b>Lowest Cloud Condition:</b>	Scattered / 5000 ft AGL	<b>Visibility</b>	12 miles
<b>Lowest Ceiling:</b>	Broken / 10000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 22°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	FT.LAUDERDALE , FL (FXE )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	TAMPA , FL (TPA )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:20 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	0 ft / 0 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

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

## Administrative Information

**Investigator In Charge (IIC):** Bird, Ronald

**Additional Participating Persons:** DUNTON WYATT; ORLANDO , FL

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=31689>

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