



## MEMORANDUM FOR RECORD

**Peter Wentz**  
**Air Safety Investigator**  
**Eastern Region Aviation**

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Date: 2/25/2020  
Email from FAA Inspector Matthew J. Cady

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Here is the airworthiness write up.

12/312019--Assisted with accident investigation as follows:

Responded to Bang's Towing in Amityville, NY to accompany Insurance Company Rep. present to view and inspect wreckage of N52840, a 1988 Mooney M20J, S/N 24-1683 which crashed into trees just south of Republic Airport on Saturday December 28, 2019 (ref. Accident # [REDACTED]). While at this location some of the PIC's property (Backpack containing miscellaneous personal items, and aircraft POH) recovered from aircraft and returned to Farmingdale FSDO.

A visual inspection of engine did not reveal any obvious mechanical anomalies or deficiencies that could account for the loss of power reported by the PIC. The only damage to fuel system in engine compartment was a fitting on the fuel control which occurred during the recovery operation, as witnessed by the FRG FSDO ASI present during the wreckage removal. The use of a tow strap caused other damage in this area (on Vacuum Pump and Oil Filter) as well. During ASI inspection, multiple fuel lines were disconnected to check for the presence of fuel. Small amount of residual fuel present in manifold supply and the return line from the fuel control to the pump. All other lines completely dry, most notably, the fuel supply line from the aircraft to the fuel pump. Reported findings to IIC. No further assistance required.

**Inspector Matthew J. Cady** 

*AFG-100/EA11 - Operations Unit*

*Farmingdale, NY (KFRG)*

Phone: [REDACTED]

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|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------|--------------------|
| RECORD OF <input checked="" type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE OR <input type="checkbox"/> TELEPHONE CALL            |                                           | TIME<br>7:30 PM         | DATE<br>12/28/2019 |
| NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION<br>Inspector Matthew Cady and Joe Rachiele at Nassau University Medical Center |                                           | ROUTING                 |                    |
|                                                                                                                                               |                                           | SYMBOL                  | INITIALS           |
| with airman Mattia Emidio Filaci [REDACTED]                                                                                                   |                                           |                         |                    |
|                                                                                                                                               |                                           |                         |                    |
|                                                                                                                                               |                                           |                         |                    |
| SUBJECT<br>N58240 Accident KFRG                                                                                                               |                                           |                         |                    |
|                                                                                                                                               |                                           |                         |                    |
| DIGEST                                                                                                                                        |                                           |                         |                    |
| Met with the PIC of N58240 at NUMC. Airman gave an account of the accident. He was on final                                                   |                                           |                         |                    |
| for Runway 1 at KFRG when his engine quit. He attempted to restart by switching tanks but                                                     |                                           |                         |                    |
| he ended up in the trees on the side of westbound Southern State Parkway. There was no post                                                   |                                           |                         |                    |
| crash fire. The airman recounted the last time he filled the aircraft with full fuel (92                                                      |                                           |                         |                    |
| gal usable) was in Walterboro, SC on 10/14 and flew direct to KFRG. Since then he has flown                                                   |                                           |                         |                    |
| multiple trips between FRG and FOK. He took 10 gallons on fuel from Sheltair FOK on 12/21.                                                    |                                           |                         |                    |
| He recalls having 10 gallons in the left tank and 18 gallons in the right tank when he                                                        |                                           |                         |                    |
| departed FOK-FRG on 12/28 the accident flight. Airman was instructed to get some rest post                                                    |                                           |                         |                    |
| accident and gather his aircraft and pilot records for further examination from us.                                                           |                                           |                         |                    |
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| CONCLUSION, ACTION TAKEN, OR REQUIRED                                                                                                         |                                           |                         |                    |
| Use Mooney Missile Conversion POH Performance Charts to accurately gauge fuel burn versus                                                     |                                           |                         |                    |
| fuel potential fuel onboard                                                                                                                   |                                           |                         |                    |
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|                                                                                                                                               |                                           |                         |                    |
| DATE<br>12/30/2019                                                                                                                            | TITLE<br>[REDACTED] AS<br>Matthew J. Cady | SIGNATURE<br>[REDACTED] |                    |

| RECORD OF <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE OR <input checked="" type="checkbox"/> TELEPHONE CALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | TIME<br>9:00 AM                                                                                                                                                                                                                           | DATE<br>01/03/2019 |        |          |  |  |  |  |  |  |  |  |  |  |
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| NAME(S) OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION<br>Matthew Cady with Mattia Filiaci                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | ROUTING<br><table border="1"> <tr> <th>SYMBOL</th> <th>INITIALS</th> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> |                    | SYMBOL | INITIALS |  |  |  |  |  |  |  |  |  |  |
| SYMBOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | INITIALS                  |                                                                                                                                                                                                                                           |                    |        |          |  |  |  |  |  |  |  |  |  |  |
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| SUBJECT<br>N52840 Accident                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                                                                                                                                                                                           |                    |        |          |  |  |  |  |  |  |  |  |  |  |
| DIGEST<br>Met with PIC Filiaci to go over flight planning for the flights from 10/14 to the accident flight on 12/28. The issues discussed were the fact that the engine quit while on the right tank during a right S-turn on final. The PIC switched to the left tank and the windmilling engine did not restart before the emergency landing. He cannot recall if he switched on the fuel pump. Upon visual inspection of the right on the ground it was empty. The left tank was compromised and therefore could not be evidence if there was any fuel in it because it was split open. The PIC gave flight planning numbers that indicated he would have needed 82 gallons total for the flying he did prior to the accident. Manufacturers numbers indicate he would have needed 104 gallons. He has 104 usable gallons in the aircraft including the 10 gallons he purchased at FOK on 12/21. The PIC with his calculations only burned 82 gallons on his flights. The PIC's performance numbers are well below the manufactures. The PIC does not visually check the quantity in the tank. He has an overreliance on the JPI EMB 830 and his own calculations. |                           |                                                                                                                                                                                                                                           |                    |        |          |  |  |  |  |  |  |  |  |  |  |
| CONCLUSION, ACTION TAKEN, OR REQUIRED<br>Check the veracity of the PIC's gallon per hour rates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                                                                                                                                                                                           |                    |        |          |  |  |  |  |  |  |  |  |  |  |
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| DATE<br>1/3/20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TITLE<br>ASI Matthew Cady | SIGNATURE<br>                                                                                                                                        |                    |        |          |  |  |  |  |  |  |  |  |  |  |