

**NATIONAL TRANSPORTATION SAFETY BOARD**  
Vehicle Recorder Division  
Washington, DC 20594  
December 30, 2014

## **On Board Image Recorder**

**Specialist's Factual Report**  
**By George Haralampopoulos**

### **1. EVENT**

|               |                 |
|---------------|-----------------|
| Location:     | Bronx, New York |
| Date:         | January 4, 2014 |
| Aircraft:     | Piper PA-28-180 |
| Registration: | N9409J          |
| Operator:     | Private         |
| NTSB Number:  | ERA14LA085      |

### **2. GROUP**

In agreement with the Investigator-In-Charge, a group did not convene and a summary report was prepared.

### **3. SUMMARY**

January 4, 2014, about 1519 Eastern standard time, a Piper PA-28-180, N9409J, was substantially damaged during a forced landing on an expressway in Bronx, New York. The private pilot and two passengers were not injured. The airplane was registered to and operated by a private individual, under the provisions of 14 *Code of Federal Regulations* (CFR) Part 91, as a personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed; VFR flight following was obtained. The flight originated from Danbury Municipal Airport, Danbury, CT, at about 1426 EST.

A USB drive containing an onboard video file from a Garmin Virb was sent to the National Transportation Safety Board's Image Laboratory for readout and analysis.

### **4. DETAILS OF INVESTIGATION**

#### **4.1. Video Files**

The video file from the USB drive was 23 minutes and 56 seconds in length. The file contained footage taken from an image recorder that was mounted on the right side of the windshield inside the cockpit.

## **4.2. Timing and Correlation**

Timing of the video file to the Coordinated Universal Time (UTC) was established by correlating common events from the image recorder and the aircraft's Engine Data Monitor (EDM)<sup>1</sup>. Due to the sampling rate between the video and EDM, the corrected video time may have up to a 5 second difference.

The event selected was the removal of power to the avionics as captured by the video at 0015:54 (hhmm:ss) corresponding to the end of the EDM recording at 2019:47 UTC. Accordingly, for this report, 2003:53 was added to the video's elapsed time to convert to UTC.

## **4.3. Summary of Recorded Contents**

The image recorder was pointed outside the aircraft and its field of view was predominantly outside the windshield; however, portions of the instrument panel were recorded including the center communication radios and a portion of the tachometer from zero to 1000 RPM. Audio from the powerplant system was recorded throughout most of the video. Conversation in the cockpit became audible following a decrease in engine power.

The video began with the aircraft heading southbound on the Hudson River corridor near the southern end of Manhattan Island. The aircraft performed one and a half passes around the Statue of Liberty. Around this time, at about 2007:01 UTC, an adjustment of engine power was audible.

After the Statue of Liberty passes, the aircraft began returning northbound uneventfully until 2016:42 UTC, where a small drop off in engine power was audible. During this time the RPM needle began to waver corresponding with fluctuating engine noise until about 2017:14 UTC, when the RPM needle settled at about 500 RPM. Concurrently, shaking and vibration of the aircraft were observed.

At 2017:33 UTC, a mayday call was heard from the cockpit followed by successive transmissions to Air Traffic Control. At about 2018:05 UTC, the aircraft began to turn right over the Bronx. At about 2019:23 UTC, movement of the propeller ceased and the tachometer dropped to zero. At 2019:29 UTC, a passenger began to brace and the aircraft touches down 5 seconds later. At 2019:40 UTC the aircraft came to rest. After the aircraft came to rest, conversation in the cockpit was recorded.

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<sup>1</sup> Additional information regarding the EDM can be found in the report "EDM and GPS Factual Report" in the public docket.