#### NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division Washington, D.C. 20594

January 7, 2014

# **Electronic Devices Factual Report**

Specialist's Factual Report by Bill Tuccio, Ph.D.

#### 1. EVENT

Location: Owasso, Oklahoma
Date: November 10, 2013
Aircraft: Mitsubishi MU-2B-25

Registration: N856JT Operator: Private

NTSB Number: CEN14FA046

On November 10, 2013, at 1546 central standard time, a Mitsubishi MU-2B-25 twinengine airplane, N856JT, impacted wooded terrain while maneuvering near Owasso, Oklahoma. The commercial pilot, who was the sole occupant, sustained fatal injuries. The airplane was destroyed. The airplane was registered to Anasazi Winds, LLC, Tulsa, Oklahoma, and operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, and an instrument flight plan had been filed. The flight departed Salina Regional Airport (SLN), Salina, Kansas, approximately 1500, and was en route to Tulsa International Airport, Tulsa, Oklahoma.

#### 2. DETAILS OF DEVICE INVESTIGATION

The Safety Board's Vehicle Recorder Division received the following devices:

Device 1: Garmin GDL 69

Device 1 Serial Number: 47702969

Device 2: Garmin GDL 88
Device 2 Serial Number: 22T001263

### 2.1. Garmin GDL 69 Device Description

The Garmin GDL 69 is an XM satellite weather receiver. The unit receives information from the XM commercial satellite service and provides that information to the pilot via other compatible avionics. According to the manufacturer, the unit does not retain any historical information.

### 2.1.1. Garmin GDL 69 Data Recovery

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed the unit had sustained minor damage, as shown in figure 1.



Figure 1. Garmin GDL 69.

### 2.1.2. Garmin GDL 69 Data Description

The device does not record any electronic historical information. The exterior of the unit was labelled with the XM Data ID "5YJDD0CF."

## 2.2. Garmin GDL 88 Device Description

The Garmin GDL 88 is a dual-link ADS-B<sup>1</sup> device. The ADS-B unit is capable of 1090 Mhz and 978 Mhz ADS-B operations, as well as traffic (TIS-B) and weather (FIS-B)

<sup>&</sup>lt;sup>1</sup> ADS-B means Automatic Dependent Surveillance – Broadcast. The ADS-B system uses GPS signals and ground based uplinks and downlinks to provide traffic and weather information in the evolving NextGen system.

information. GDL 88 aircraft position information is broadcast to ground and air based receivers; additionally, TIS-B and FIS-B information is made available to the pilot through compatible avionics. According to the manufacturer, the unit does not retain any historical information.

#### 2.2.1. GDL 88 Data Recovery

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed the unit had sustained minor damage, as shown in figure 2.



Figure 2. Garmin GDL 88.

### 2.2.2. GDL 88 Data Description

The device did not retain any historical information.