

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

September 28, 2022

Electronic Devices

Specialist's Factual Report By Gerald Kawamoto

1. EVENT SUMMARY

Location: Canandaigua, New York
Date: June 21, 2022
Aircraft: Lightning
Registration: N51TM
Operator: Private
NTSB Number: ERA22LA287

2. GROUP

A group was not convened.

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following devices:

Device 1 Manufacturer/Model:	Grand Rapids Technology (GRT) EIS 6000
Serial Number:	19027
Device 2 Manufacturer/Model:	iFly 740b GPS
Serial Number:	ZZBAAA0039

3.1. GRT EIS 6000 Device Description

The GRT EIS Model 6000 is a panel mounted engine monitor. The device contains a back-lit, sunlight readable display providing the operator graphical and digital displays of various engine parameters. The device also assists the pilots to lean the engine and allows for various alarms when monitored systems exceed various settings. The device does not contain any internal memory for the recording of engine information, other than retention of total engine time and length of previous flight.

3.1.1. GRT EIS 6000 Device Condition

The device was in good condition upon arrival at the Vehicle Recorder Laboratory and powered on normally using laboratory equipment.

3.1.2. GRT EIS 6000 Data Description

Figure 1 shows the device powered on with the screen showing parameters retained in internal memory. The parameters displayed are as follows:

- **Flight Timer: 0:16:00 h:mm:ss**
Upon powering, the flight timer shows the length of the previous flight in hours and minutes. This time will be displayed until 3 minutes into the next flight, at which time it will be replaced with the length of the current flight in hours, minutes and seconds.
- **Hourmeter: 412.9 Hours**
This function allows the operator to set the hour meter so that it matches the actual time on the engine. The hour meter may be set to any value between 0 and 6553.5 hours. The hour meter will advance only when the tachometer is above a user defined RPM entry, which is recommended to be set to slightly above the power setting used for taxi in order to more accurately reflect actual flying time. It will reset to zero after 6553.5 hours.



Figure 1. Flight Timer and Hourmeter parameters.

3.2. iFly 740b GPS Device Description

The iFly 740b is a portable GPS with a 7-inch touchscreen. The device has features such as Synthetic Vision, Wi-Fi Connectivity, Flight Planning, ADS-B Weather and Traffic compatibility. Historical flight data may be written to an SD card mounted in the device. No data is recorded directly to the device's internal memory.

3.2.1. iFly 740b GPS Device Condition

The device was in good condition upon arrival at the Vehicle Recorder Laboratory, as shown in Figure 2, and contained a 16 GB SD card.



Figure 2. iFly 740b GPS as received.

3.2.2. iFly 740b GPS Data Description

The contents of the SD card were examined, and the last historical flight data was recorded on May 12, 2022. The date of the accident was June 21, 2022, thus, no accident-related data were recovered.