

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



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ELECTRONIC DEVICES

Specialist's Factual Report

August 29, 2024

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A. ACCIDENT

Location: Plymouth, New York
Date: May 28, 2023
Time: 1452 eastern daylight time (EDT)
1852 coordinated universal time (UTC)
Airplane: Cessna 182, N8775X

B. ELECTRONIC DEVICES SPECIALIST

Specialist: Gerald Kawamoto
Recorder Specialist
National Transportation Safety Board (NTSB)

C. DETAILS OF THE INVESTIGATION

A group was not convened. The NTSB Vehicle Recorder Division received the following electronic devices:

Recorder Manufacturer/Model: Electronics International SR-8A
Recorder Serial Number: 156127

Recorder Manufacturer/Model: Apple iPad Mini 3
Part Number: A1599
Recorder Serial Number: DLXPX4RZG5V4

Recorder Manufacturer/Model: Samsung Galaxy A53
Part Number: SM-A536U
IMEI: 353454197586953

1.0 Electronics International SR-8A Description and Data Recovery

The Electronics International SR-8A is an 8-channel Smart Engine Analyzer that can be used for analysis of engine parameters such as EGT and CHT. The device does not store non-volatile memory, thus no accident-related data were recovered.¹ The device as received is shown in figure 1.

¹ Non-volatile memory (NVM) is semiconductor memory that does not require external power for data retention.



Figure 1. Electronics International SR-8A as received.

2.0 Personal Electronic Devices (PEDs) Description

PEDs are a category of devices comprised primarily of portable computing devices and mobile phones. Portable computing devices are typically capable of internet access, email, messaging services, and can run user-installed applications to perform specific tasks. Depending on the model, mobile phones can perform many of the same tasks as portable computing devices, plus have voice call and text messaging capabilities. PED user and system data is typically stored on non-volatile memory and can be accessed through manufacturer-provided interfaces.

2.1 Personal Electronic Devices (PEDs) Data Recovery

The condition of the devices upon arrival at the Vehicle Recorder Laboratory is shown in figures 2 and 3.

The Samsung Galaxy A53 sustained mechanical bending damage. The device was otherwise in good condition and powered on normally and data were extracted using forensic laboratory tools. No accident-related data were present upon review of the device's content.

The Apple iPad Mini 3 sustained significant impact damage, rendering it inoperable. The internal circuit board was removed and installed in a lab surrogate. The device powered on intermittently and was unlocked with a passcode provided to the investigation team. The ForeFlight application was in the recently used app bin, however, potential data were not recoverable from the application due to account and user permission restrictions.



Figure 2. Front and back of the Samsung Galaxy A53 as received.



Figure 3. Front and back of the Apple iPad Mini 3 as received.

Submitted by:

Gerald Kawamoto
Recorder Specialist