ANC22FA041

GARMIN GTN 650

Specialist's Factual Report

December 16, 2022

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A.   ACCIDENT

Location: Kalea, HI
Date: June 8, 2022
Time: 1726 HST
Helicopter: Bell 407, K&S Helicopters, N402SH

B.   GARMIN GTN 650 SPECIALIST

Specialist   David Case
                          Computer Engineer / Vehicle Recorder Specialist
                          National Transportation Safety Board (NTSB)

C.   DETAILS OF THE INVESTIGATION

A cockpit display - recorded flight data group was not convened.

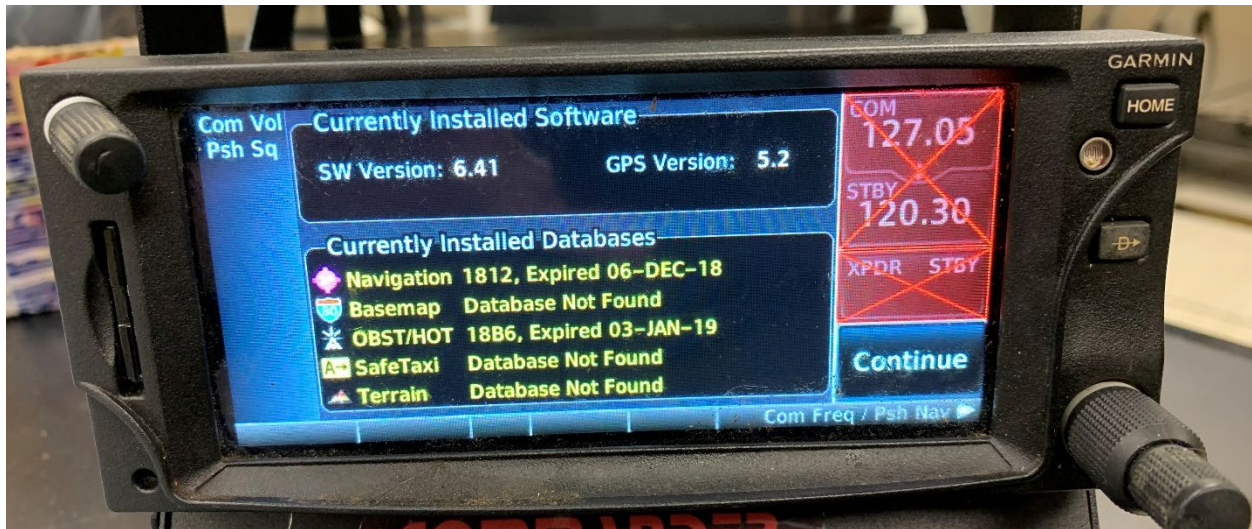The NTSB Vehicle Recorder Division received the following GPS Radio:

Recorder Manufacturer/Model: Garmin GTN 650
Part Number: 011-02256-00
Recorder Serial Number: 1Z8026654

1.0 Garmin GTN 650 Description

The Garmin GTN 650 is a combined aviation band / navigation radio. It also includes a GPS and mapping database that can be updated using an SD card. The GTN 650 is operated through a color touch screen interface on the front of the unit. The software in the radio can be updated, and later versions of the software can log many parameters including location, heading, speed, altitude, and selected waypoint.

2.0 Garmin GTN 650 Data Recovery

The GTN 650 was damaged in the event. The extent of the damage is shown in figure 1. The device powered on normally, and the touch screen interface still functioned. The software version was determined to be 6.41, which is older than the software version that implemented the logging functionality (6.5).

Figure 1. Front panel of GTN 650, showing current software revision on the device.

Figure 2. Serial number, part number, and modification level.

3.0   Garmin GTN 650 Recording Description

No data were logged due to the software on the device being too old.

Submitted by:

David L. Case
Computer Engineer / Vehicle Recorder Specialist