

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



ERA26FA035

NAVIGATION DEVICE DATA CARDS

Specialist's Factual Report

April 15, 2026

A. ACCIDENT

Location: Lebanon, Tennessee
Date: November 8, 2025
Time: 1341 Central Standard Time (CST)
Helicopter: Airbus Helicopters EC 130 T2, Air Methods LLC, N107VU

B. NAVIGATION DEVICE DATA CARDS SPECIALIST

Specialist: W. Deven Chen
Electrical Engineer – Recorder Specialist
National Transportation Safety Board (NTSB)

C. DETAILS OF THE INVESTIGATION

A recorder group was not convened. The NTSB Vehicle Recorder Division received three SD cards recovered from three navigation devices installed on the accident helicopter. Those three navigation devices were a Garmin GTN 750, a Garmin GTN 650, and a Garmin G500.

1.0 Devices Description

Garmin GTN 750 is a panel-mounted GPS receiver featuring a 6.9-inch color liquid crystal (LCD) display. It has a GPS/SBAS engine and is TSO-C146c certified for primary domestic, oceanic, and remote navigation including en route, terminal, and non-precision approaches, and approaches with vertical guidance, such as LPV and LNA/VNAV. The unit can simultaneously display approach information and weather and traffic data in relation to their position on a large, color moving map display. Its color moving map features a built-in database that shows cities, highways, railroads, rivers, lakes, and coastlines. The unit has a slot on the front for purchased electronic databases containing all airports, VORs, NDBs, Intersections, FSSs, Approaches, DPs/STARs and SUA information. A flight plan composed of multiple waypoints, including user-defined waypoints, can be programmed in the unit. The GTN 750 also includes a TSO approved airborne VHF communications transceiver and TSO approved airborne VOR/Localizer and Glideslope receivers. The unit contains an internal SD card, which can be accessed through the slot in the right side of the unit. If the unit is equipped with a firmware v6.50 or later, the internal SD card will store a limited set of flight data information.

Garmin GTN 650 is a panel-mounted flight GPS navigation instrument equipped with touchscreens, remote audio control, flight planning and electronic chart capabilities. There is a built-in terrain database that shows when potential conflicts are ahead. There is also XM Satellite weather, traffic and lightning available on a moving map. The units also allow pilots to fly GPS-guided LPV (localizer performance with

vertical guidance) glidepath approaches down to ILS (Instrument Landing System) minimums.

The Garmin G500 is a product derived from the Garmin G1000. The G500 is a versatile Electronic Flight Instrument System (EFIS) that can serve as a primary flight display (PFD), Multi-Function Display (MFD), Engine Information System (EIS), or a combination of all, depending on the configuration. The unit comes in a variety of display sizes and orientations and utilizes a color, touch-screen interface. The unit contains an Attitude Heading Reference System (AHRS) device and is capable of providing attitude information and air data information. The unit interfaces with a number of other compatible products and can display navigation, terrain, engine, weather, traffic and other parametric data streams. The unit can be synthetic vision capable. The unit can record to an externally removable SD card (if configured and installed).

1.1 Data Recovery

Figure 1 shows the three SD cards as received by the Vehicle Recorder Division. Two of the three SD cards only contained firmware; only the Garmin GTN 750 SD card contained both firmware and flight log folder. The flight log folder contained many flight logs; however, they were all recorded in 2021 and 2022. No data pertinent to the accident were recovered from the SD cards.



Figure 1. The three navigation device data cards as received.