

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

May 23, 2018

Global Positioning System Device

Specialist's Factual Report
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1. EVENT

Location: Gamis, California
Date: November 25, 2016
Aircraft/ID: Bellanca 7GCAA
Registration: N88373
Operator: Private
NTSB Number: WPR17FA029

2. EVENT SUMMARY

On November 25, 2016 about 1145 Pacific standard time, a Bellanca 7GCAA, N88373, was substantially damaged when it impacted terrain following a loss of control while on approach to landing at a private airstrip near Glamis, California. The private pilot sustained fatal injuries and his passenger sustained serious injuries. The airplane was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight. The flight originated from an open desert landing area about 5 minutes prior to the accident.

3. DETAILS OF DEVICE INVESTIGATION

The National Transportation Safety Board's (NTSB) Vehicle Recorder Division received the following Global Positioning System (GPS) device:

Device: Garmin GPSMAP 295
Device Serial Number: 98832059

Figure 1 shows the condition of the device as it arrived in the laboratory. The device's internal memory was imaged and decoded using laboratory hardware and software.

3.1. Garmin GPSMAP 295 Detailed Description

The Garmin GPSMAP 295 is a portable GPS receiver capable of storing date, route-of-flight, and flight-time information. A detailed tracklog – including latitude, longitude, date, time, and groundspeed information – is stored within the unit whenever the receiver has a lock on the GPS navigation signal. All recorded data is stored in non-volatile memory.¹ The unit contains hardware and software permitting the download of recorded waypoint, route, and tracklog information to a PC via a built-in serial port. An internal battery is used as back-up power to the internal memory and real-time clock during those periods when main power is removed.

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

The data extracted from the Garmin GPSMAP 295 included three sessions from November 25, 2016.² None of the sessions included the accident flight.

Figure 1. Photo of Garmin GPSMAP 295



² All dates and times are referenced to Coordinated Universal Time (UTC) unless otherwise specified.