

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

January 7, 2020

Global Positioning System

Factual Report
By Heidi Kemner

1. EVENT SUMMARY

Location: Blairsville, Georgia
Date: December 19, 2018
Aircraft: Piper PA-28-181
Registration: N6143J
NTSB Number: ERA19FA070

2. DETAILS OF INVESTIGATION

On December 19, 2018, at 1936 eastern standard time, a Piper PA-28-181, N6143J, was substantially damaged when it collided with trees and terrain while on final approach to runway 8 at Blairsville Airport (DZJ), Blairsville, Georgia. The private pilot and two passengers were fatally injured, and another passenger was seriously injured. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91. The flight originated from DZJ about 1853.

The following device was downloaded:

Device Manufacturer/Model: Garmin GPSmap 496
Serial Number: 19728783

2.1. Data Recovery

The device was undamaged and was downloaded normally using the manufacturer's software. Figures 1 and 2 show the front and back of the device.

Figure 1. Photo of undamaged device.



Figure 2. View of back of GPS



2.2. Data Description

The data extracted included 30 track logs from July 29, 2018, through December 19, 2018. The accident flight was recorded starting 018:47:31 EST and ending 19:36:29 EST on December 19, 2018.

Below is a graph of the altitude and speed data from the accident flight.

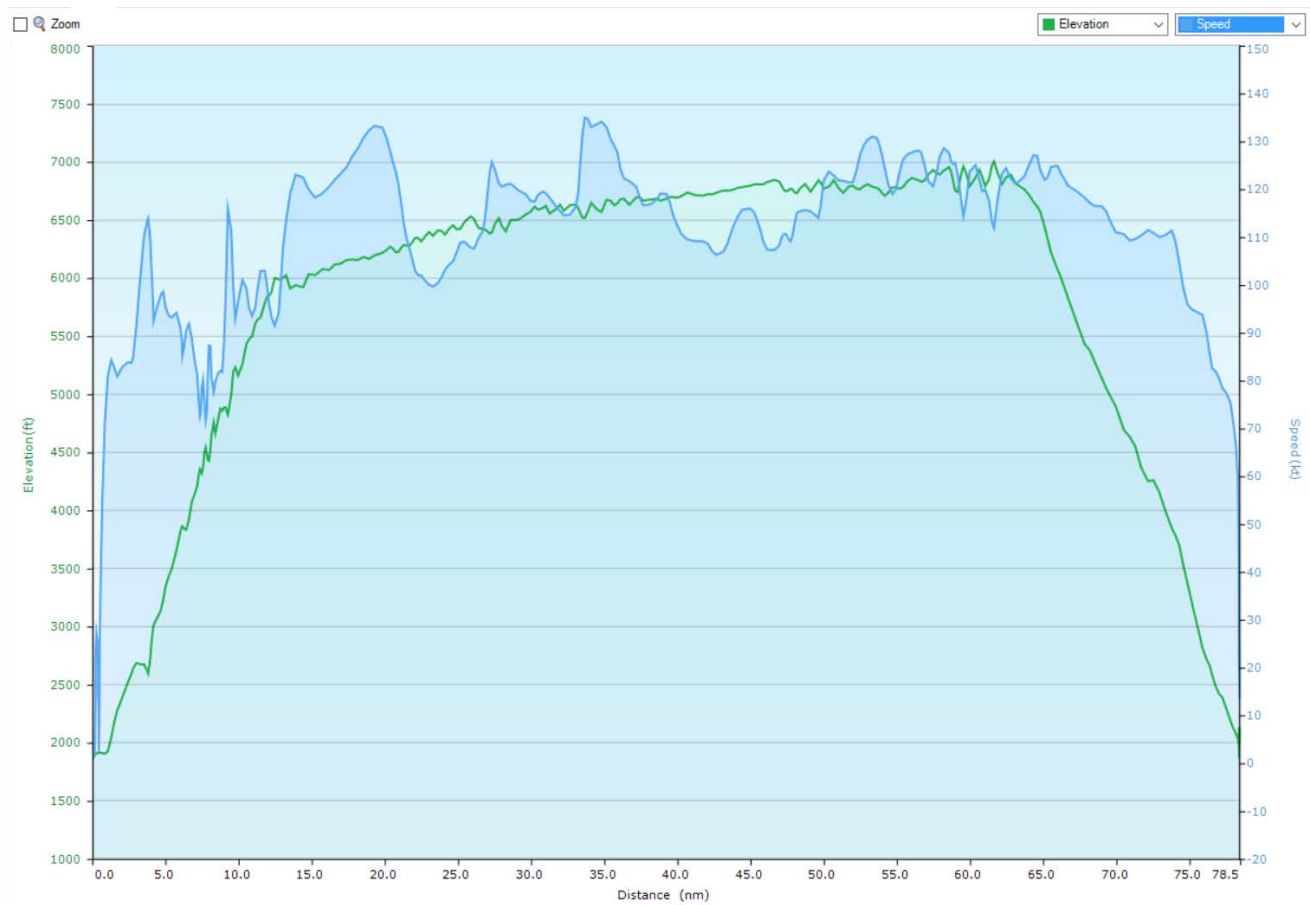


Figure 3. Graph of elevation and speed data from accident flight.



Figure 4. View of accident flight route.

2.3. DATA ON GPS

The Garmin unit was examined and there were 4 routes programed into the GPS. See Figure 5.



Figure 5. View of routes programed into Garmin GPS Map 496.

Further examination of the JIVIM-KDZJ route revealed that there were three waypoints programed into the route. They were JIVIM, ZOTMI, and RW08. In addition, when selecting the JIVIM-KDZJ route, the top of the GPS screen stated "Active Route." See Figure 6.

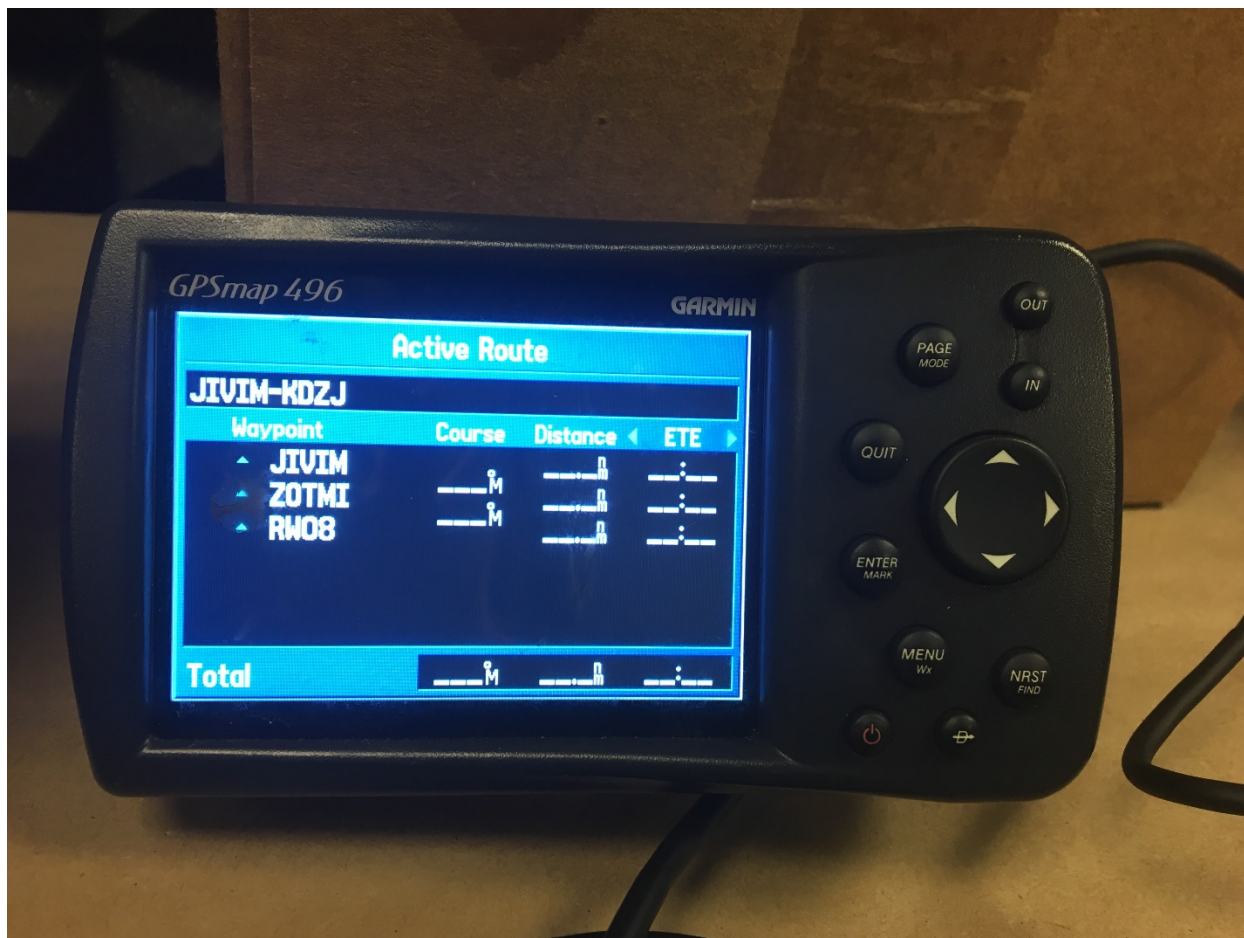


Figure 6. View of JIVIM-KDZJ route programed into GPS.

Further examination of the KDZJ RNAV RW08 route revealed that there were two waypoints noted in the route. They were ZOTMI and RW 08 at DZJ. See figure 7.



Figure 7. View of KDZJ RNAV RW08 route programed into GPS.

2.4. TABULAR DATA

Tabular data are included as Attachment 1. This attachment is provided in electronic comma-delimited (.CSV) format.