

NATIONAL TRANSPORTATION SAFETY BOARD

Alaska Region
Anchorage, Alaska

August 20, 2019

Global Positioning System

Factual Report
By Noreen Price

1. Event Summary

Location: Ketchikan, Alaska
Date: July 11, 2019
Aircraft: Piper PA-24-180
Registration: N5840P
Operator: Private Pilot
NTSB Number: ANC19FA033

2. Details of Investigation

The following device was downloaded:

Device Manufacturer/Model: Garmin GPSmap 396

2.1. Data Recovery

The device was received from the Ketchikan Volunteer Rescue Team. The unit had a damaged USB connector and was sent to the NTSB Recorder Laboratory for download. See figure 1 and 2.



Figure 1. Garmin GPSmap 396 front view.



Figure 2. Back view

2.2. Data Description

The data extracted included 77 active log sessions from April 7, 2019 to July 11, 2019. The accident flight was recorded in log number 76, starting 1011:57 Alaska daylight savings time (AKST) and ending 1418:18 on July 11, 2019 and included 874 data line entries. The total elapsed time of active log 76 was 4 hrs, 6 minutes and 21 seconds. The total distance recorded was 528 nautical miles and the maximum GPS altitude was 11,875 ft. See figure 3.

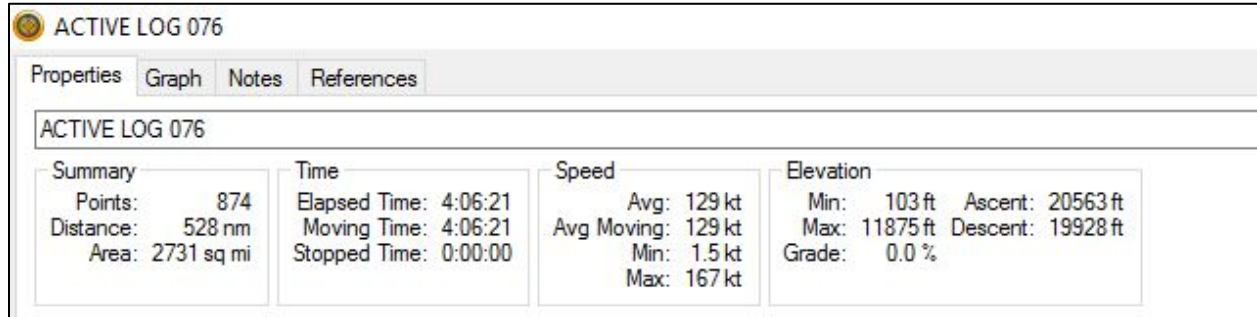


Figure 3. GPS Active Log 076 data.

2.3. Tabular Data

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

2.4. Graphical Display

Figure 4. depicts an overlay of the GPS data on Google Earth map for the route of flight.

Figure 5. depicts an overlay of the GPS data on Google Earth map for the end of the flight.

Figure 6. depicts a graph of altitude and speed of the entire flight.

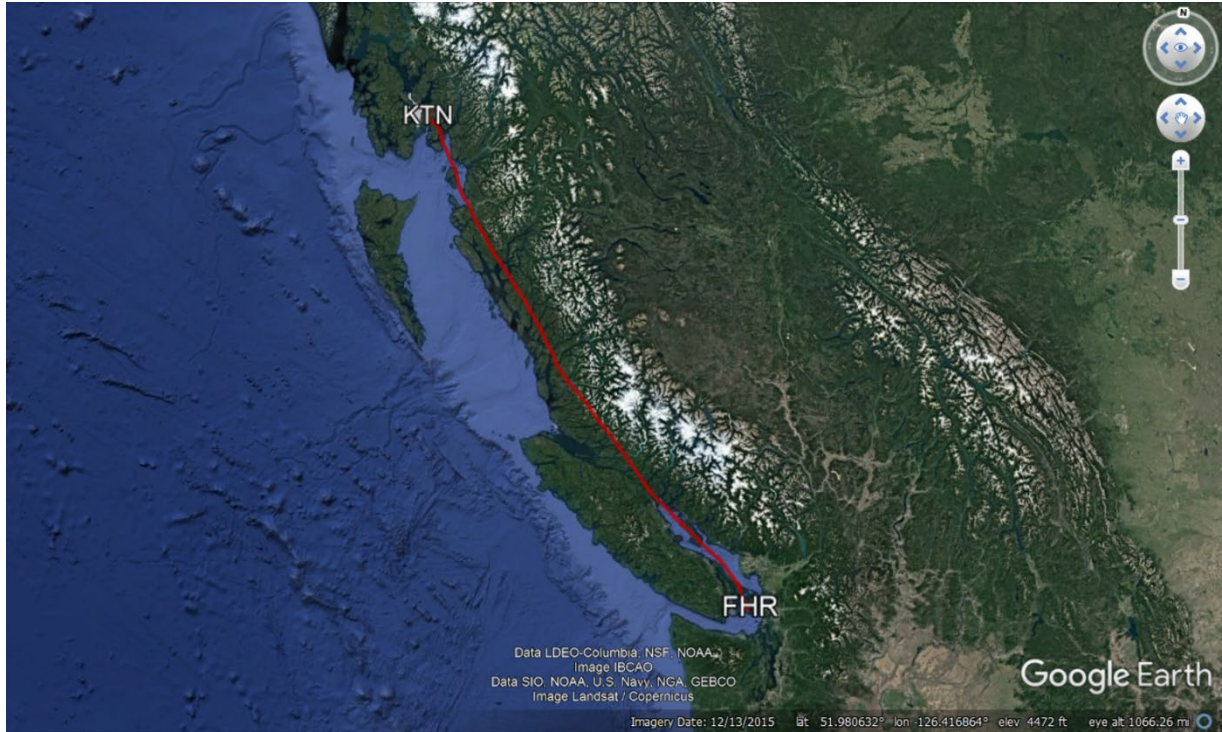


Figure 4. N5840 GPS data for whole route.

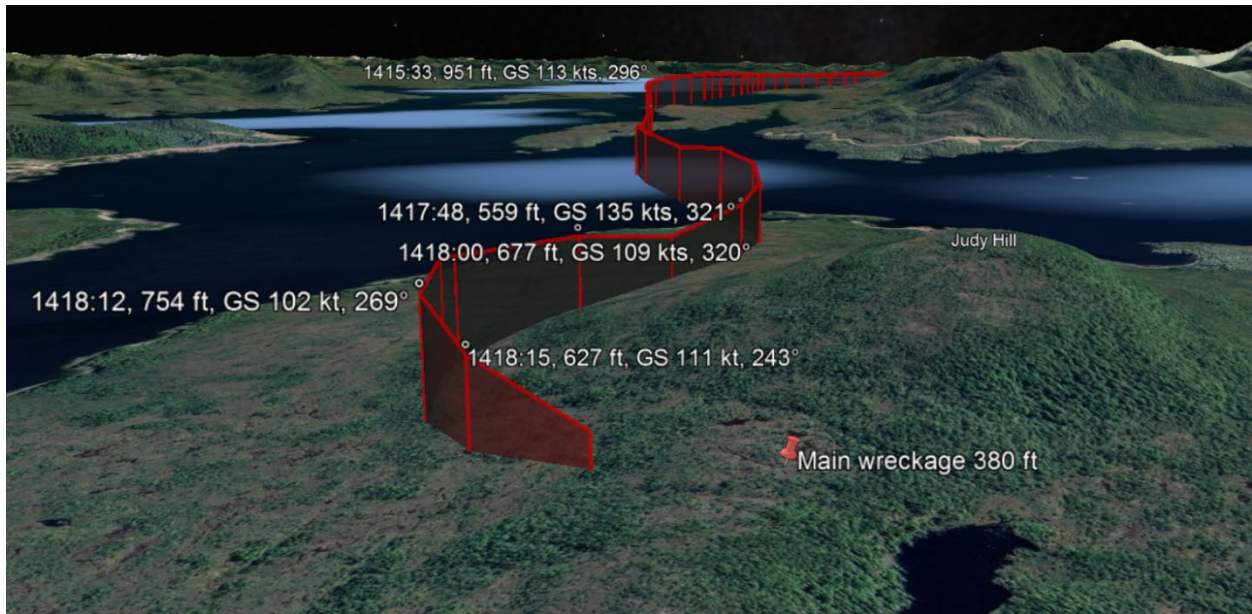


Figure 5. GPS end of flight route on 3D Google Earth image looking south.

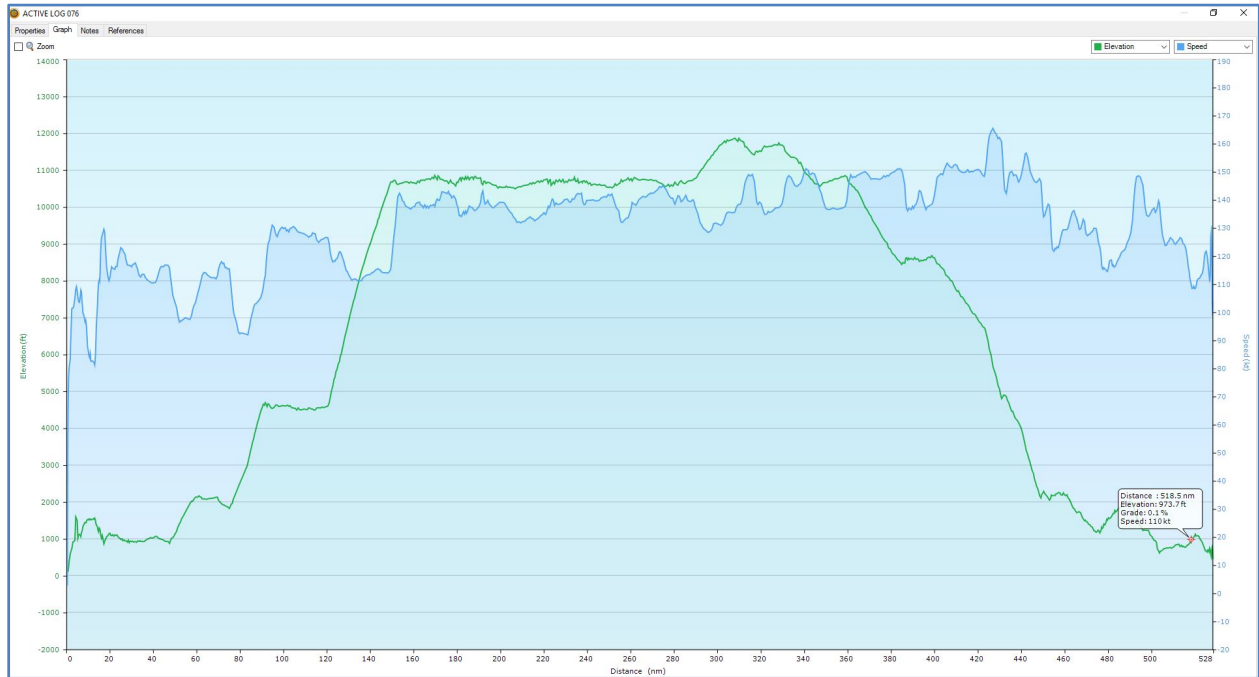


Figure 6. GPS data graph of elevation and groundspeed for entire flight.