

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

July 29, 2019

Global Positioning System

**Factual Report
By Heidi Kemner**

1. EVENT SUMMARY

Location: Carrabelle, Florida
Date: February 5, 2018
Aircraft: Gregory Newman Sonex Trainer
Registration: N543SX
NTSB Number: ERA18LA083

2. DETAILS OF INVESTIGATION

The following device was downloaded:

Device Manufacturer/Model: Garmin GPSmap 196
Serial Number: 65429633

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.

A black Garmin GPSmap 196 handheld GPS device is shown from a top-down perspective, resting on a wooden surface. The device features a large, rectangular, monochrome screen that is currently blank. Below the screen, the text "GPSmap 196" is printed in white. To the right of the screen, the "GARMIN" logo is visible. The right side of the device is equipped with a control panel containing several buttons: a "QUIT" button, an "ENTER MARK" button, a "MENU" button, a "LIGHT" button (indicated by a red light icon), a "PAGE" button, an "IN" button, a "DIR" button (indicated by a compass rose icon), and a "NRST FIND" button. A small, circular, black protrusion is visible on the left side of the device. The device is mounted on a black, adjustable stand.

A black plastic electronic device, possibly a portable power source or a small appliance, lying on a wooden surface. The device has a circular fan-like component on the left side and a rectangular section on the right with a small metal latch. The text "MADE IN TAIWAN" is visible on the right side.

2.2. Data Description

The data extracted included 23 track logs from July 19, 2017¹ through the accident flight, which began at 10:52:33 EST and ending 10:56:AM EDT on February 5, 2018.

Figure 3. Graph of GPS Data

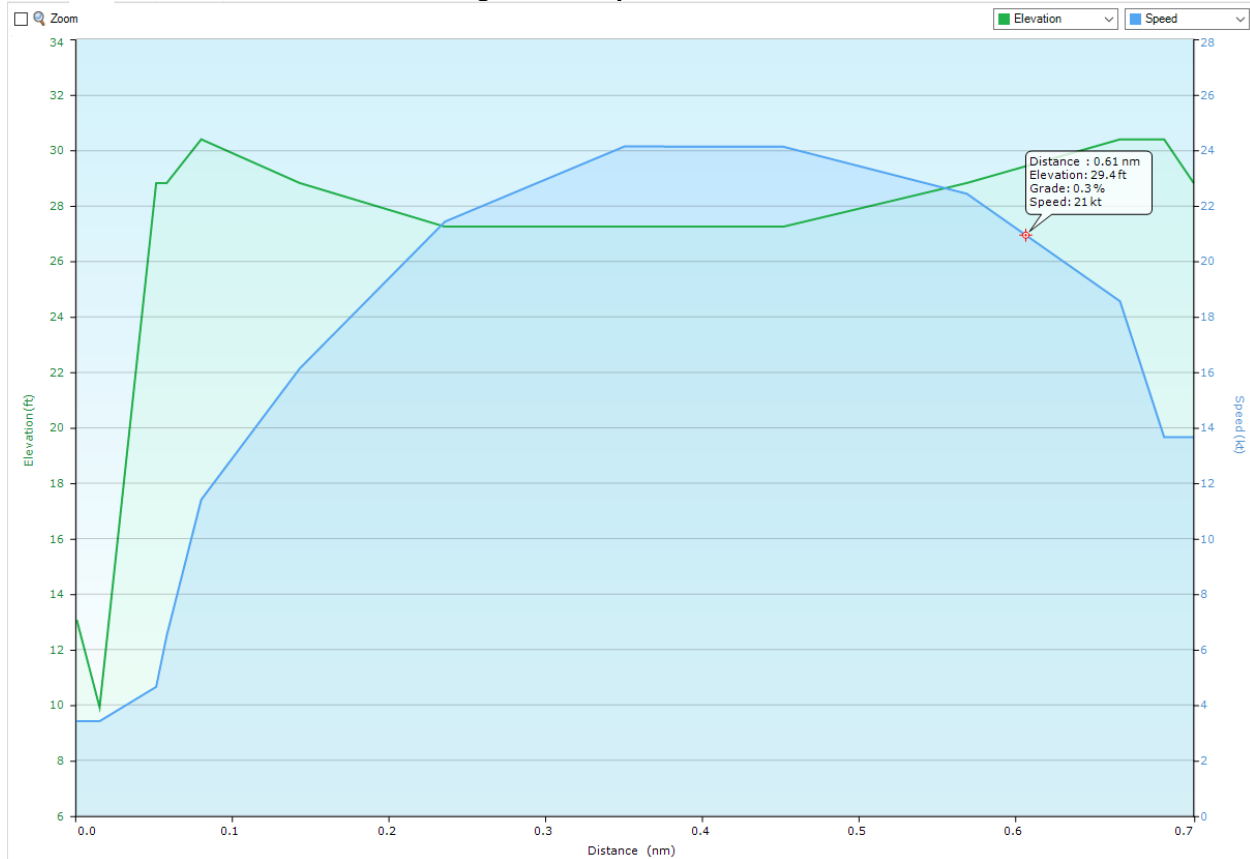
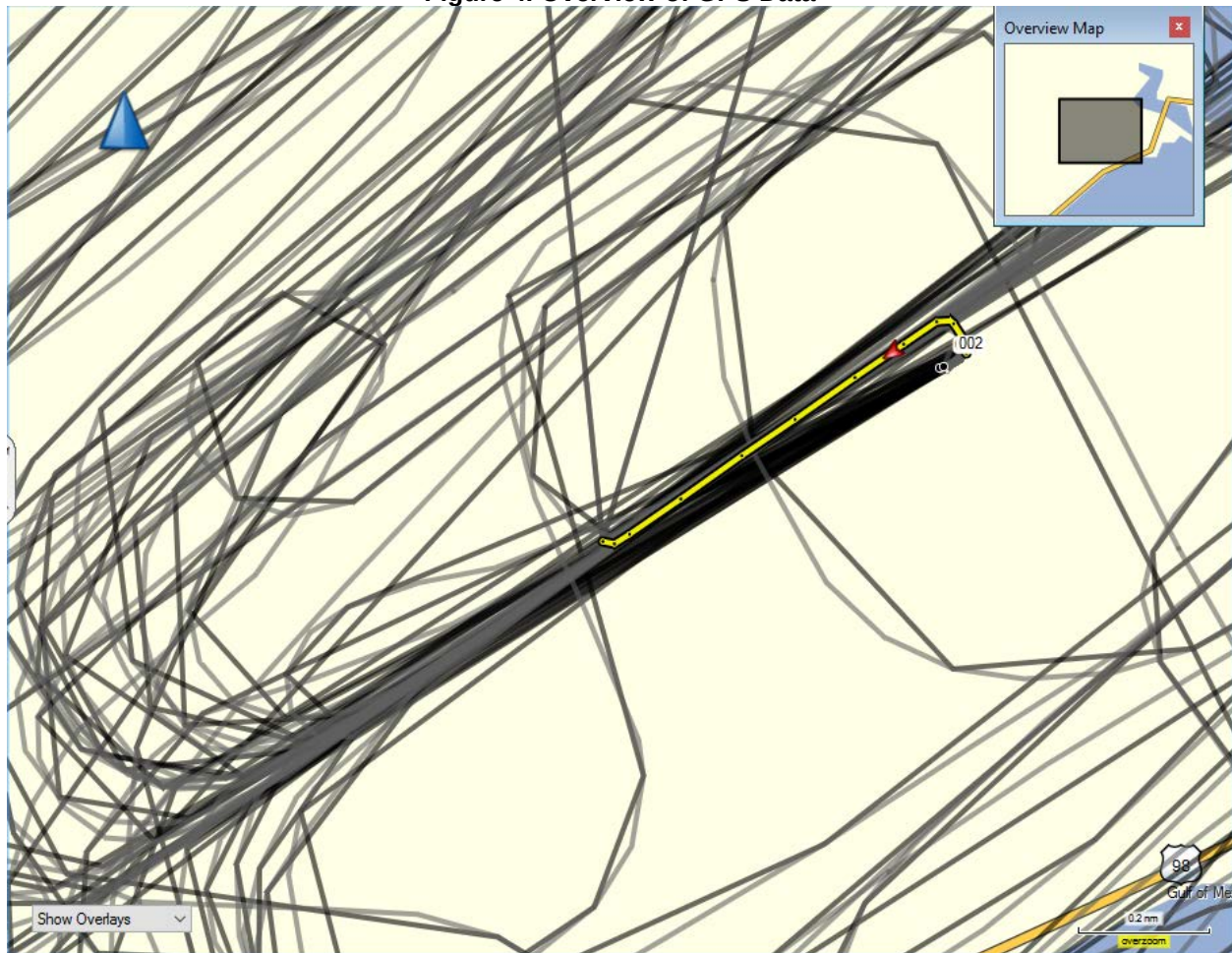


Figure 4. Overview of GPS Data



2.3. TABULAR DATA

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

¹ All dates and times are referenced to Eastern Standard Time (EST).