

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

May 13, 2020

Global Positioning System

Factual Report

By Noreen Price, Aviation Accident Investigator

1. EVENT SUMMARY

Location: Moose Pass, AK
Date: June 28, 2019
Aircraft: Maule M-6-235
Registration: N56512
Operator: Private
NTSB Number: ANC19FA029

On June 28, 2019, about 1608 Alaska daylight time (AKDT), a float-equipped, Maule M-6-235 airplane, N56512, sustained substantial damage following impact with steep, mountainous, tree-covered terrain about seven miles northwest of Moose Pass, Alaska. The commercial pilot and two passengers were fatally injured, and one pilot-rated passenger seated in the right front seat sustained serious injuries. The airplane was being operated by the pilot as a visual flight rules (VFR) flight under the provisions of Title 14 *Code of Federal Regulations* Part 91. Marginal visual meteorological conditions were reported in the area, and no flight plan was filed. The flight departed Big Johnstone Lake near Seward, Alaska, about 1529, and was destined for Lake Hood, Anchorage, Alaska.

2. DETAILS OF INVESTIGATION

The following device was recovered from the accident site and downloaded by the NTSB on July 1, 2019. See images 1 and 2.

Device Manufacturer/Model:	Garmin GPSmap 496
Part Number/SN:	010-00578-00/ 2303287



Images 1 and 2. Recovered Garmin GPSmap 496 front and back.

2.1. Data Recovery

The device was undamaged and was downloaded normally using the manufacturer's software.

2.2. Data Description

The data extracted included 193 recorded positions in AIRLOG 68 on June 28, 2019, the day of the accident flight. The flight data began recording at 1536:02 AST and ended at 1618:20 AST. The following parameters were recorded: elevation, leg distance, leg elapsed time, calculated leg ground speed, calculated leg course, date, time, latitude, and longitude.

2.3. Tabular Data

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

2.4 Geographical Display

Refer to Figures 1 and 2 for GPS track data over lay on Google Earth map. Track derived from keyhole markup language (.KML) data file extracted using Garmin BaseCamp version 4.6.2.

The GPS data indicated that, about 1602 the airplane crossed Moose Pass at a GPS altitude of about 2,000 ft. The airplane continued northwest along the Sterling Highway at various GPS altitudes between 1,700 ft and 2,400 ft. About 1606, after passing the intersection of the Sterling and Seward Highways, a right 180° turn was initiated to the southeast, and shortly thereafter, the airplane began a descent to a GPS altitude of 1,215 ft. At 1607:00, the airplane began a left turn towards a northerly heading and initiated a climb. At 1607:34, the airplane was on a track of 354°, at an altitude of 2,032 ft and a groundspeed of 37 knots. The last fully recorded in-flight data point was at 1608:01, when the airplane was at a GPS altitude of 1,587 ft and 0 knot groundspeed on a track of 282°.

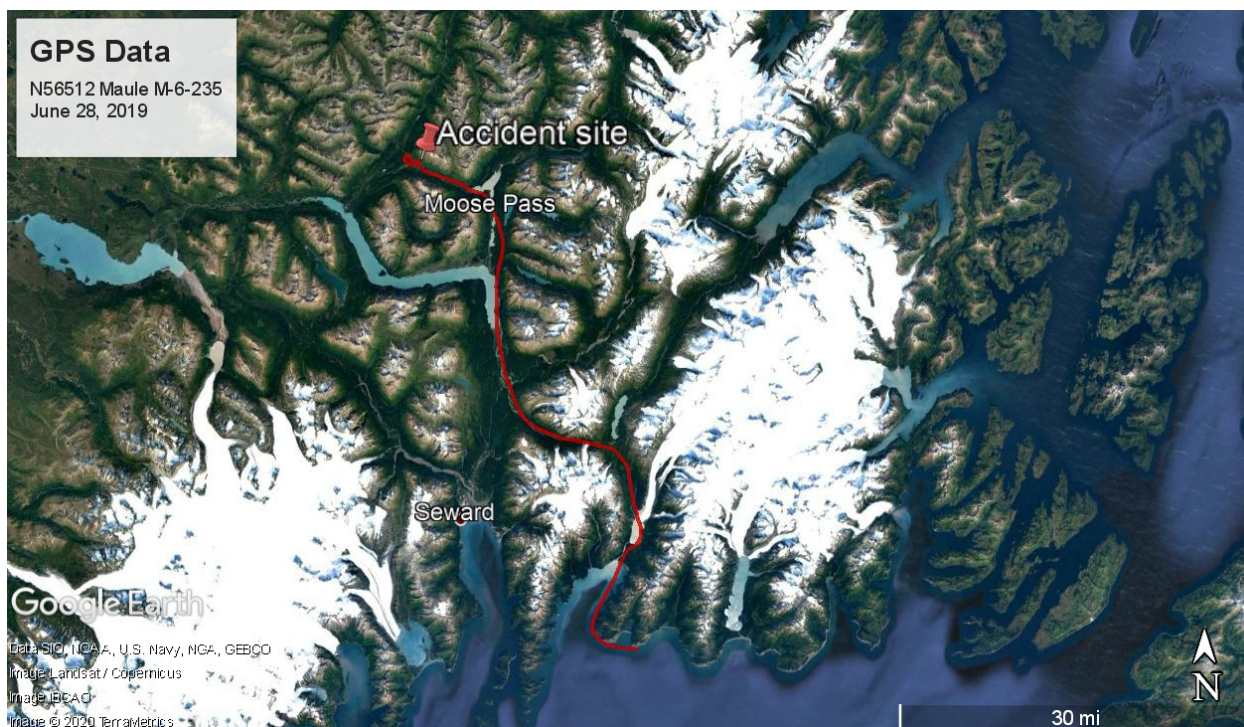


Figure 1. GPS Flight data overlay on Google Earth image

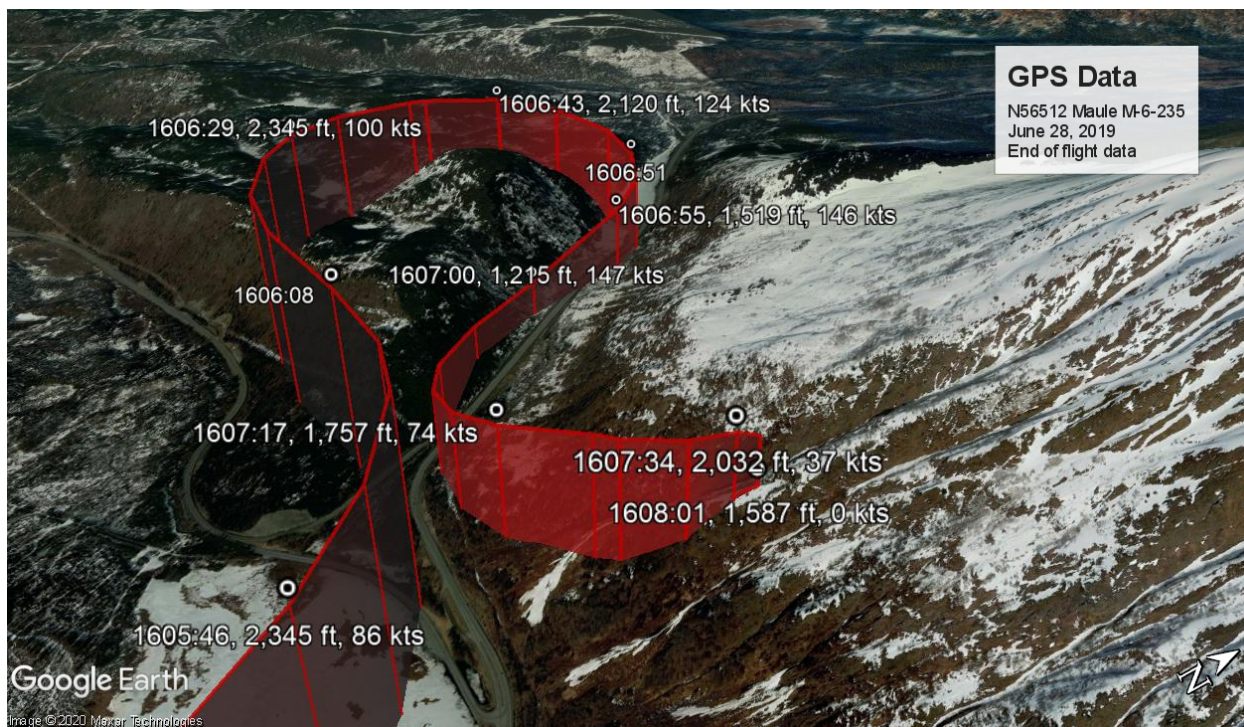


Figure 2. End of flight GPS data