

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

June 23, 2019

Cockpit Display

Factual Report
By Doug Brazy

1. EVENT SUMMARY

Location: Hampton, Georgia
Date: June 12, 2020
Aircraft: Vans RV8
Registration: N553KM
Operator: Private
NTSB Number: ERA20LA213

2. DETAILS OF INVESTIGATION

The following device was downloaded:

Device: Garmin GDU465 (G3X System)
Serial Number: 353000370

2.1. Data Recovery

The device was undamaged and was downloaded normally using the manufacturer's software. Figure 1 shows the front and rear of the device.

Figure 1. Photos of undamaged Garmin GDU465



2.2. Data Description

The data extracted included engine, flight, and system parameters from February 15, 2020 through June 12, 2020. The accident flight began on June 12, 2020 about 23:38:00¹ and the recorded data ended at 23:40:12. The parameter data fields from the log file header are listed below. Data *may not have been recorded for all parameters at all times*, depending on system/device installation, configuration, and operation.

UTC Date (yyyy-mm-dd)
UTC Time (hh:mm:ss)
Power Timestamp (msec)
Latitude (WGS84 deg)
Longitude (WGS84 deg)
GPS Altitude (WGS84 ft)
GPS Fix Status
GPS Ground Speed (kt)
GPS Ground Track (deg true)
GPS Velocity E (m/s)
GPS Velocity N (m/s)
GPS Velocity U (m/s)
Magnetic Heading (deg)
Pressure Altitude (ft)
Baro Altitude (ft)
Vertical Speed (fpm)
Indicated Airspeed (kt)
True Airspeed (kt)
Pitch (deg)
Roll (deg)
Longitudinal Accel (G)
Lateral Accel (G)
Normal Accel (G)
Roll Rate (deg/sec)
Pitch Rate (deg/sec)
Yaw Rate (deg/sec)
Normalized AOA (0-1)
Selected Heading (deg)
Selected Altitude (ft)
Baro Setting (inch Hg)
Active Nav Source
Nav Identifier
Nav Frequency (MHz)
Nav Distance (nm)
Nav Bearing (deg)
Nav Course (deg)
Cross Track Distance (nm)
Horizontal CDI Deflection
Horizontal CDI Full Scale (ft)

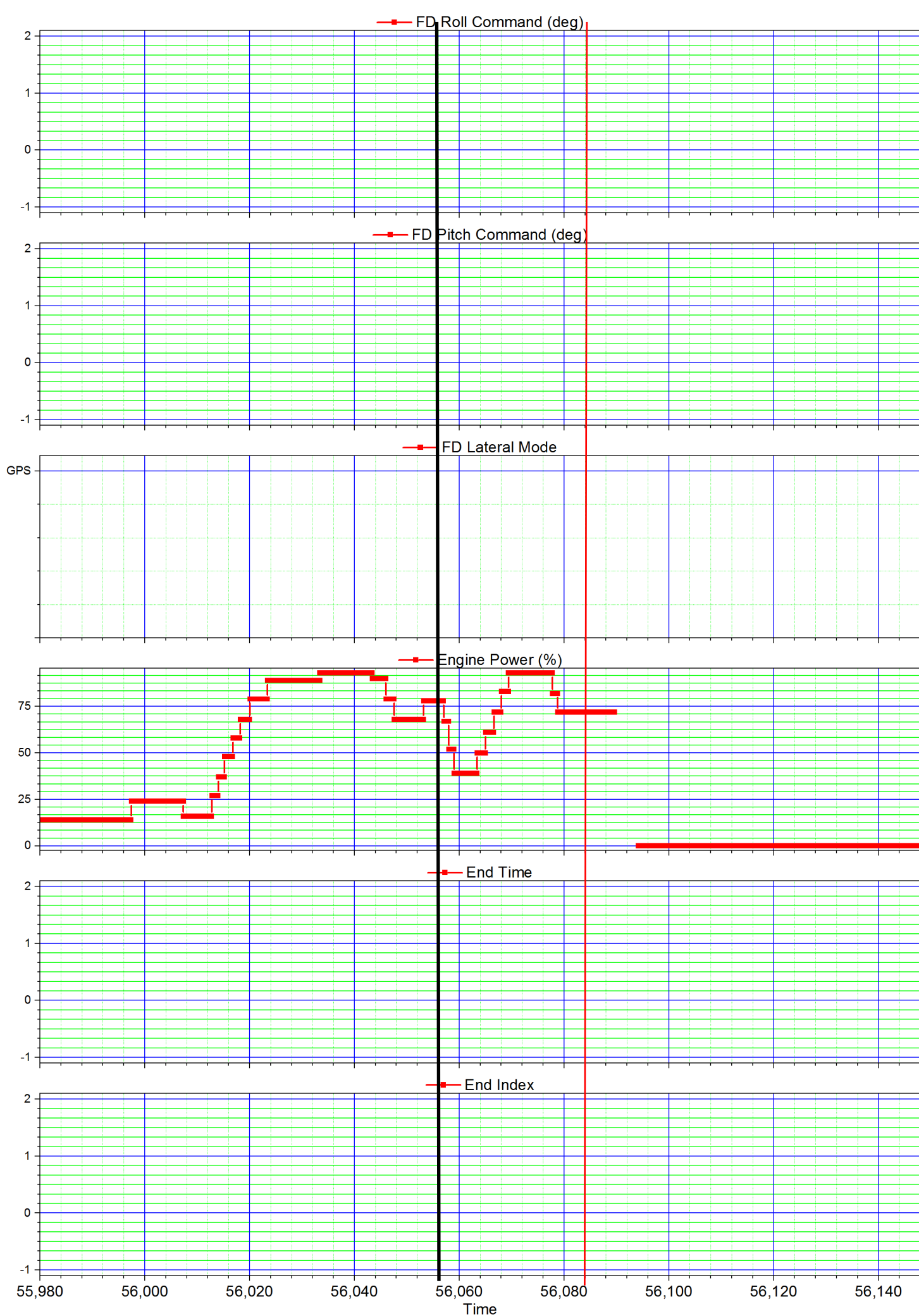
¹ All dates and times are referenced to Coordinated Universal Time (UTC).

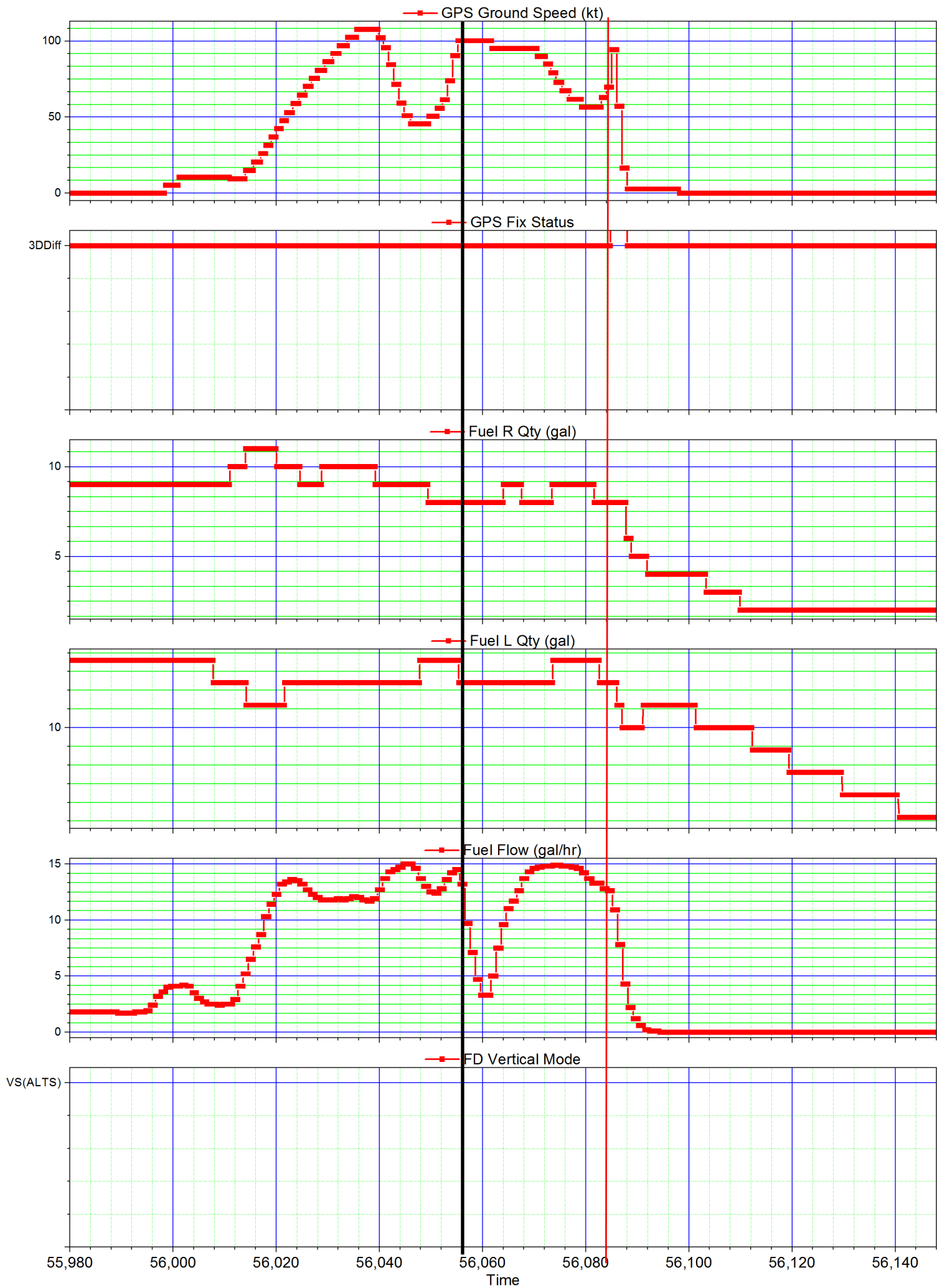
Horizontal CDI Scale
Vertical CDI Deflection
Vertical CDI Full Scale (ft)
AFCS State
AFCS Disengage
AFCS Status
AFCS Flags
FD Lateral Mode
FD Vertical Mode
FD Roll Command (deg)
FD Pitch Command (deg)
AP Roll Command (deg)
AP Pitch Command (deg)
AP VS Command (fpm)
AP Airspeed Command (kt)
Roll Steering (deg)
Roll Servo Torque (%)
Pitch Servo Torque (%)
Yaw Servo Torque (%)
Magnetic Variation (deg)
Outside Air Temp (deg C)
Density Altitude (ft)
Wind Speed (kt)
Wind Direction (deg true)
AHRS State
 AHRS1 Flags
 AHRS2 Flags
 AHRS3 Flags
Transponder Code
Transponder Mode
CAS Alert
Terrain Alert
Engine Power (%)
EGT 1 (deg F)
EGT 2 (deg F)
EGT 3 (deg F)
EGT 4 (deg F)
CHT 1 (deg F)
CHT 2 (deg F)
CHT 3 (deg F)
CHT 4 (deg F)
OIL TEMP (deg F)
Fuel L Qty (gal)
Fuel R Qty (gal)
OIL PRESS (PSI)
RPM
Manifold Press (inch Hg)
Volts 1 (volts)
Volts E (volts)
Fuel Flow (gal/hr)
Elevator Trim

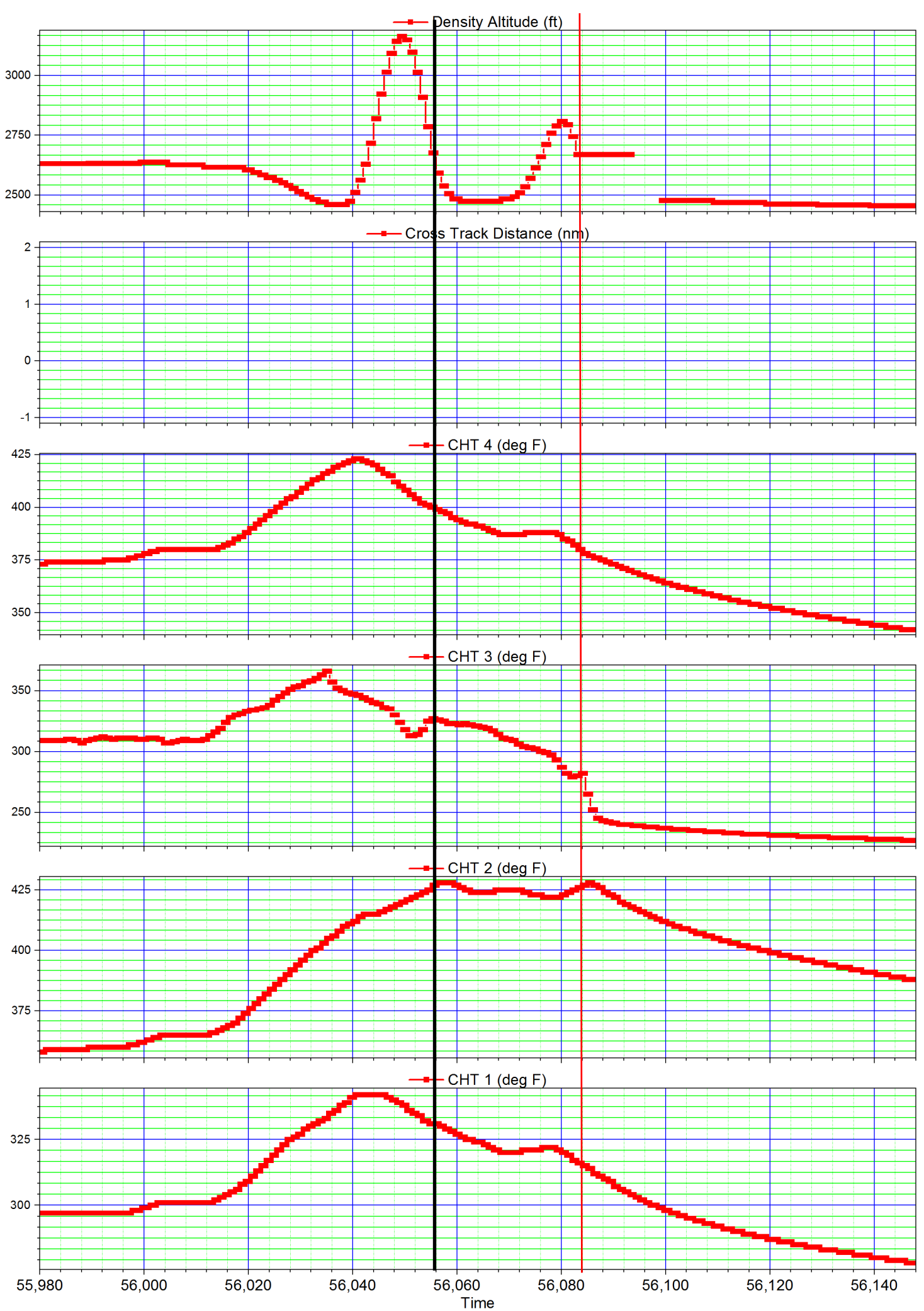
Aileron Trim
STBY BATT ON (discrete)
AFCS TO/GA (discrete)
RPM2

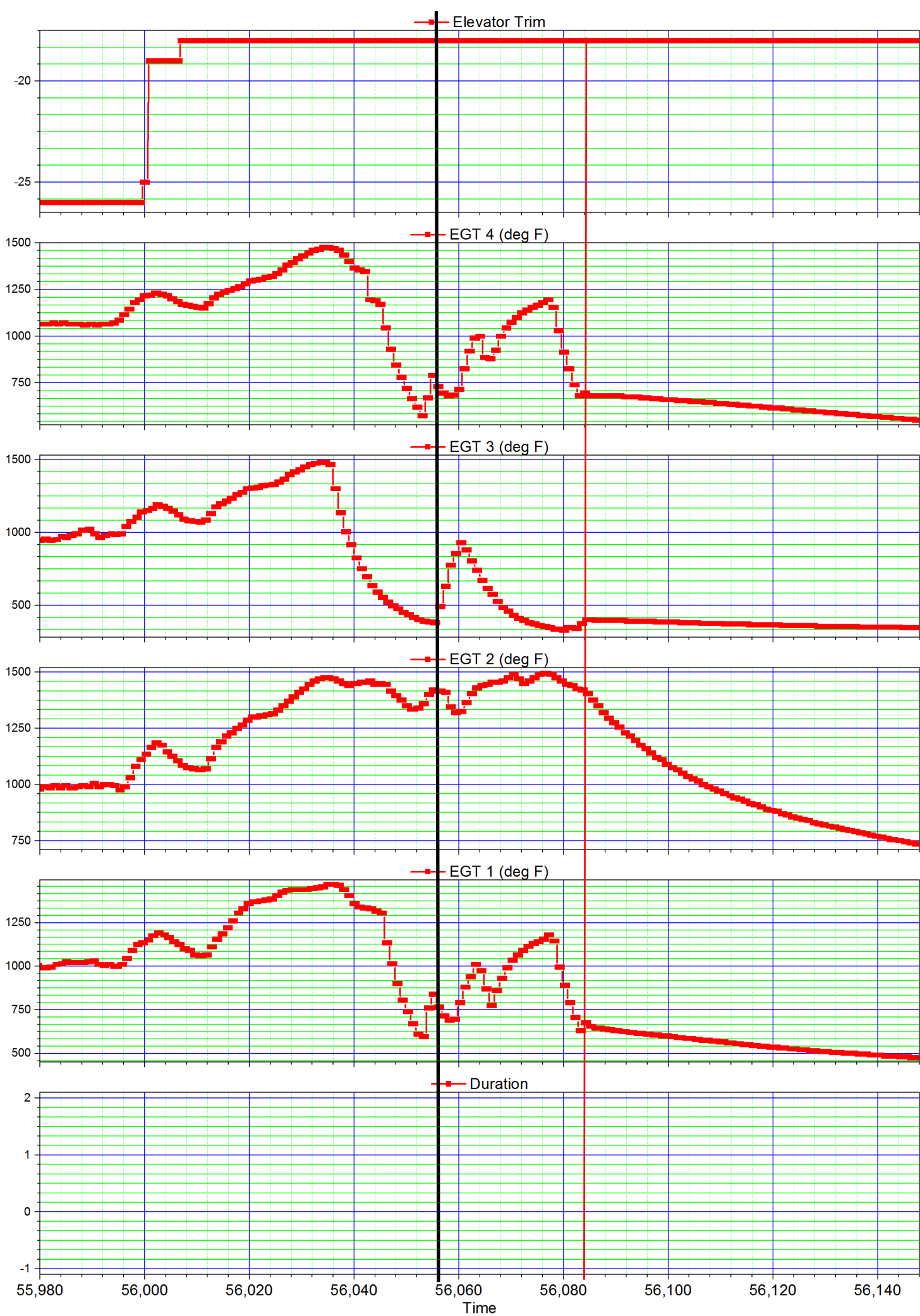
2.3. GRAPHICAL AND TABULAR DATA

Graphical and tabular data are included as Attachments 1 and 2. These attachments are provided in electronic format.







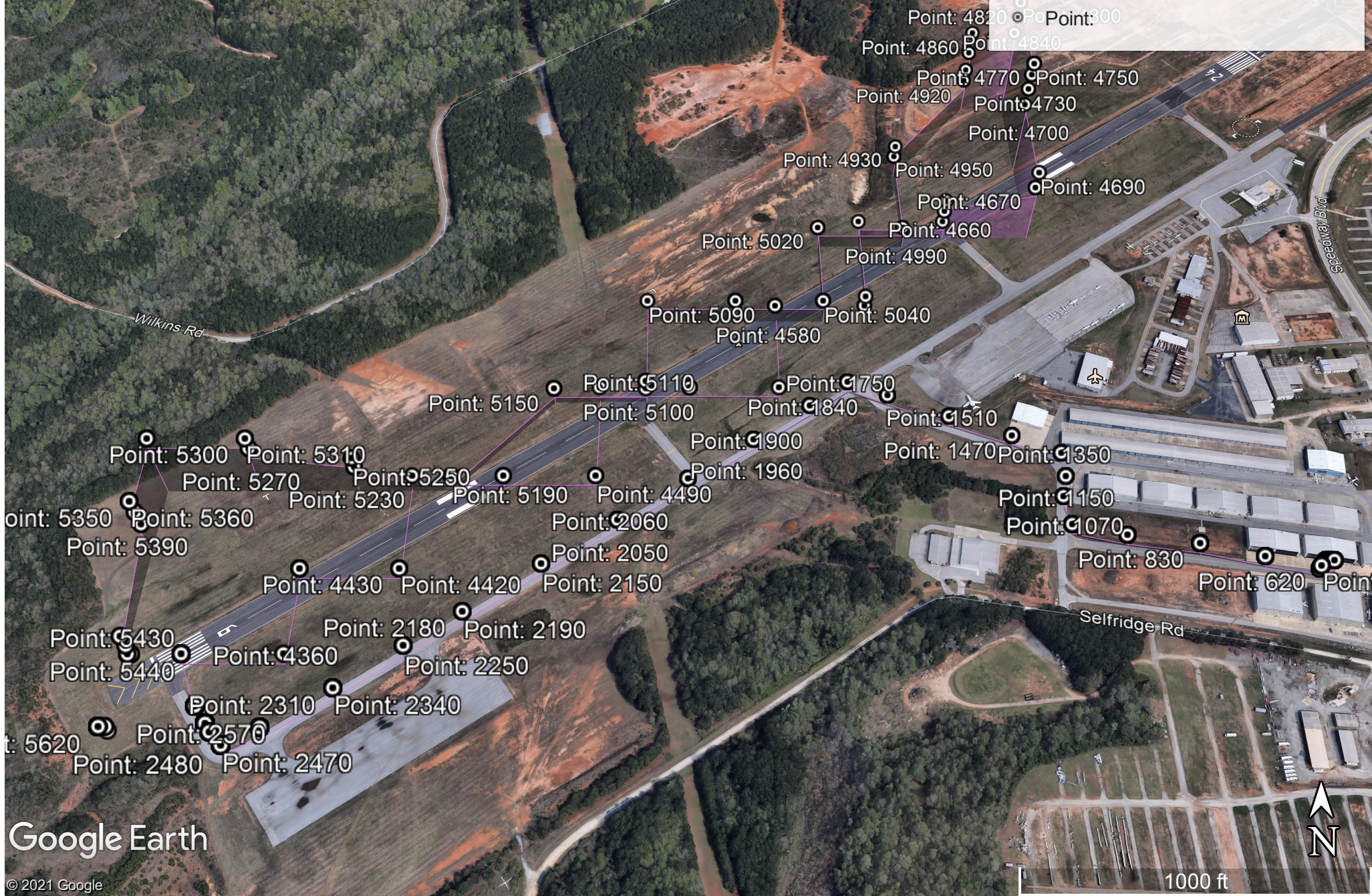


GPS Plots over HMP Airport

Write a description for your map.

Legend

-  Army Aviation Heritage Foundation
-  Feature 1
-  Flight Path



Google Earth