

# National Transportation Safety Board

Office of Aviation Safety  
Central Region



CEN23FA046

## **ACCIDENT FLIGHT DATA SUMMARY**

## ACCIDENT

Location: Wonder Lake, Illinois  
Date: November 25, 2022  
Time: 1615 central standard time (2215 UTC)  
Airplane: Extra EA 300/LC; Registration No. N361LX

## ACCIDENT SYNOPSIS

On November 25, 2022, about 1615 central standard time, an Extra EA 300/LC airplane, N361LX, was substantially damaged when it was involved in an accident near Wonder Lake, Illinois. The pilot was fatally injured. The aerobatic airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

## FLIGHT SUMMARY

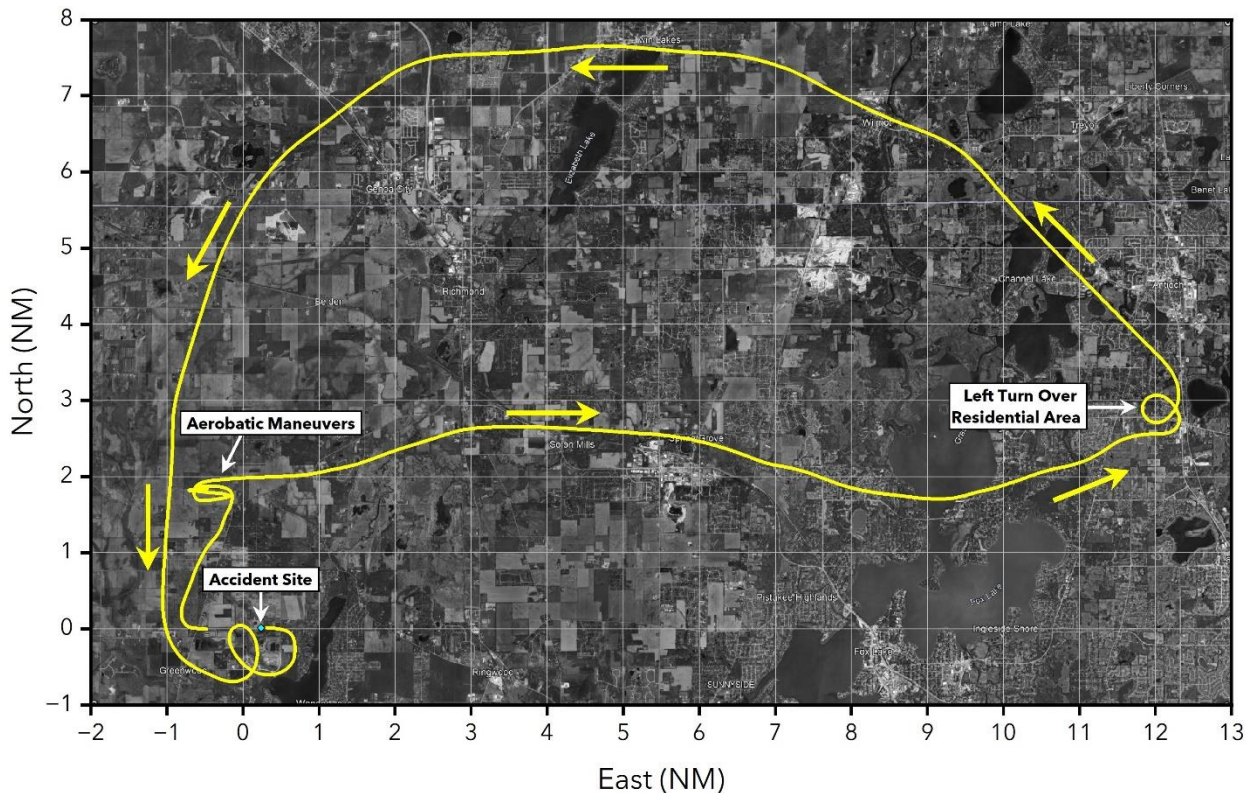
A review of Federal Aviation Administration (FAA) automatic dependent surveillance-broadcast (ADS-B) data indicated that at 1558, the airplane departed runway 27 at Galt Field Airport (10C), Wonder Lake, Illinois, and then entered a climbing right turn toward north and 3,000 ft mean sea level (msl), as depicted in Figure 1. Between 1559:15 and 1600:30, the airplane completed at least two aerobatic maneuvers about 1.8 nautical miles (nm) north-northwest of 10C. Following the aerobatic maneuvers, the airplane flew east toward Antioch, Illinois. About 1605, the airplane entered a left 360° turn over a residential area located about 1.8 nm south of downtown Antioch, Illinois. The airplane's altitude during the 360° turn was about 1,250 ft above ground level (agl). Following the 360° turn, the airplane turned northwest and climbed to about 2,700 ft msl. At 1608:30, the airplane turned west and descended to 2,400 ft msl. At 1610, about 1.7 nm north of Genoa City, Wisconsin, the airplane turned south and continued toward 10C.

At 1613:12, the airplane entered the traffic pattern at 10C while on a left crosswind for runway 27, as depicted in Figure 2. The airplane was decelerating through 160 knots calibrated airspeed (KCAS) as it entered the traffic pattern, as shown in Figure 3. Between 1613:45 and 1614:30, the airplane made a 360° left turn while abeam the runway 27 threshold. The airplane's altitude was about 1,800 ft msl (950 ft agl) during the 360° turn. After the 360° turn, the airplane entered a descending left base turn toward runway 27. During the descending turn, the airplane briefly decelerated to 70 KCAS and achieved a maximum descent rate of about 1,700 feet per minute (fpm). At 1615:23, the final ADS-B data point was recorded about 0.31 nm from the runway 27 threshold. At that time, the airplane was at 922 ft msl, 84 KCAS, descending about 900 fpm. The airplane had a 270.5° true heading, 2.7° left-wing-down roll, and -6.4° flight path angle, as shown in Figure 4. The airplane subsequently descended into

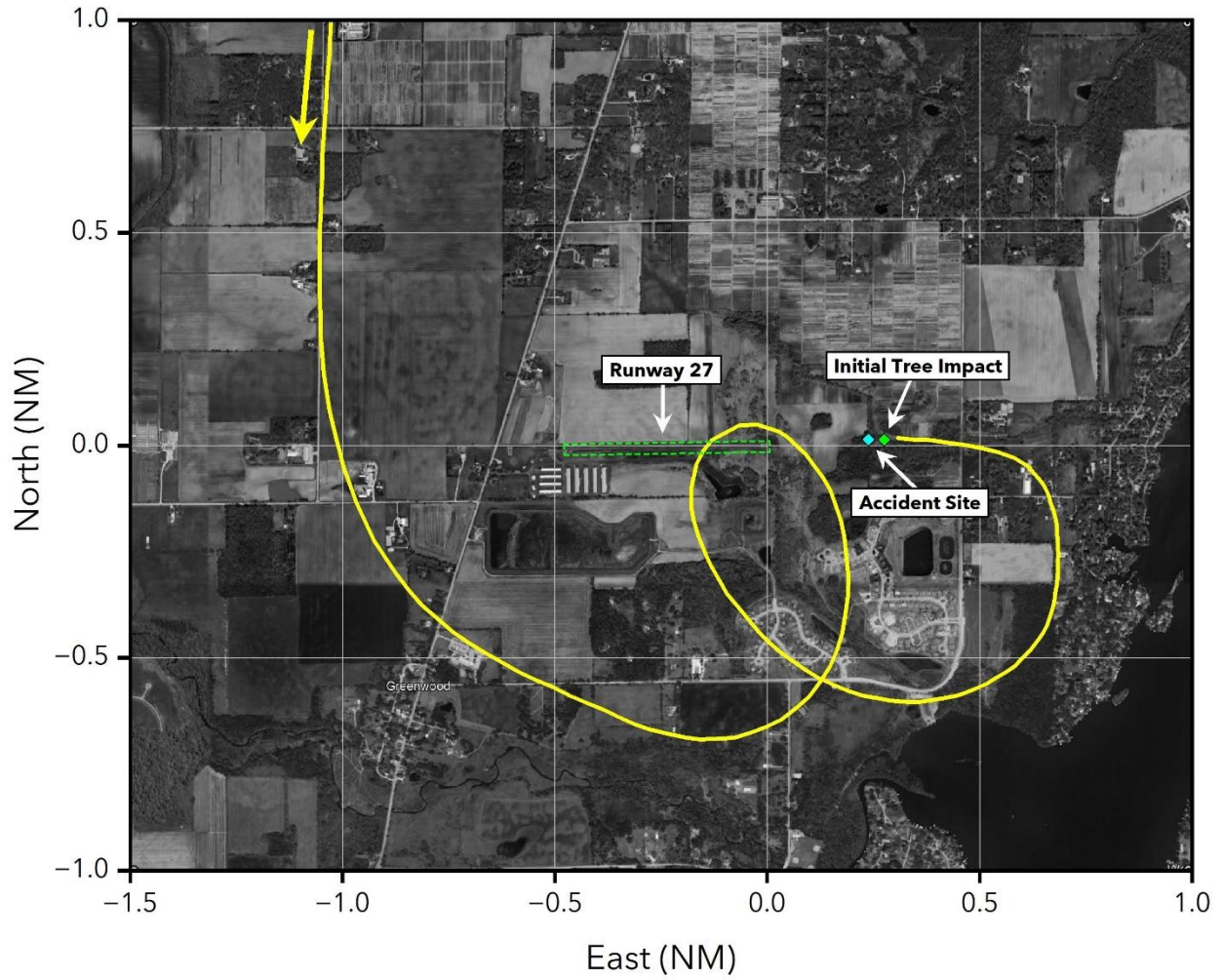
trees about 0.28 nm from the runway 27 threshold. The airplane then continued a west trajectory before coming to rest about 0.24 nm from the runway 27 threshold.

According to the Extra EA 300/LC Pilot Operating Handbook (POH), at the airplane's maximum gross weight of 2,095 lbs, the wings-level aerodynamic stall speed is 64 KIAS. The wings-level aerodynamic stall speed is 59 KIAS at 1,800 lbs gross weight. Performance calculations based on the recorded ADS-B data indicated that the airplane did not exceed the airplane's maximum lift coefficient ( $C_{Lmax} = 1.3$ ) while in the descending left turn toward the runway, as shown in Figure 5.

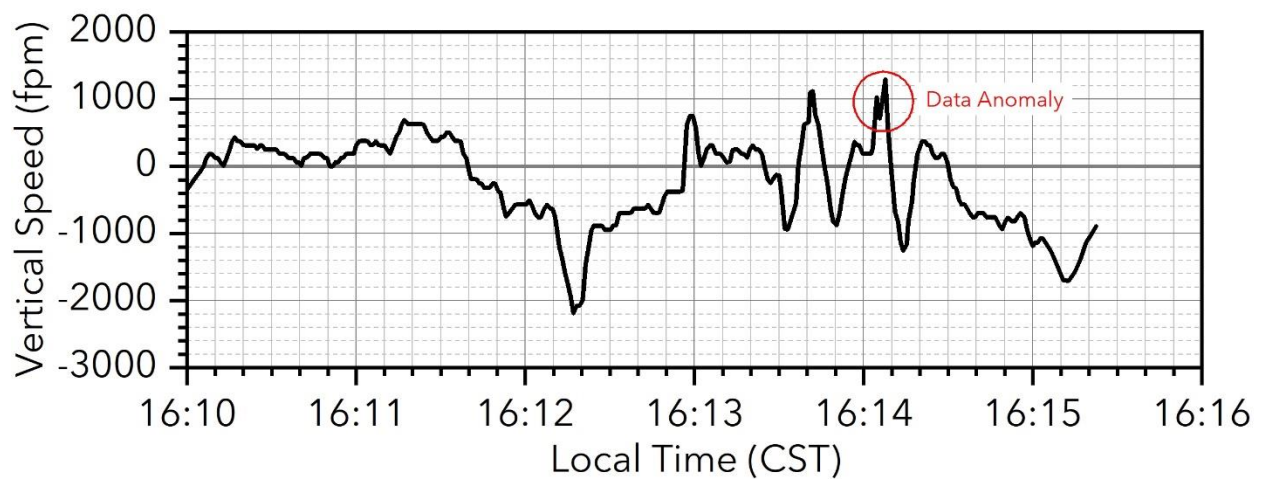
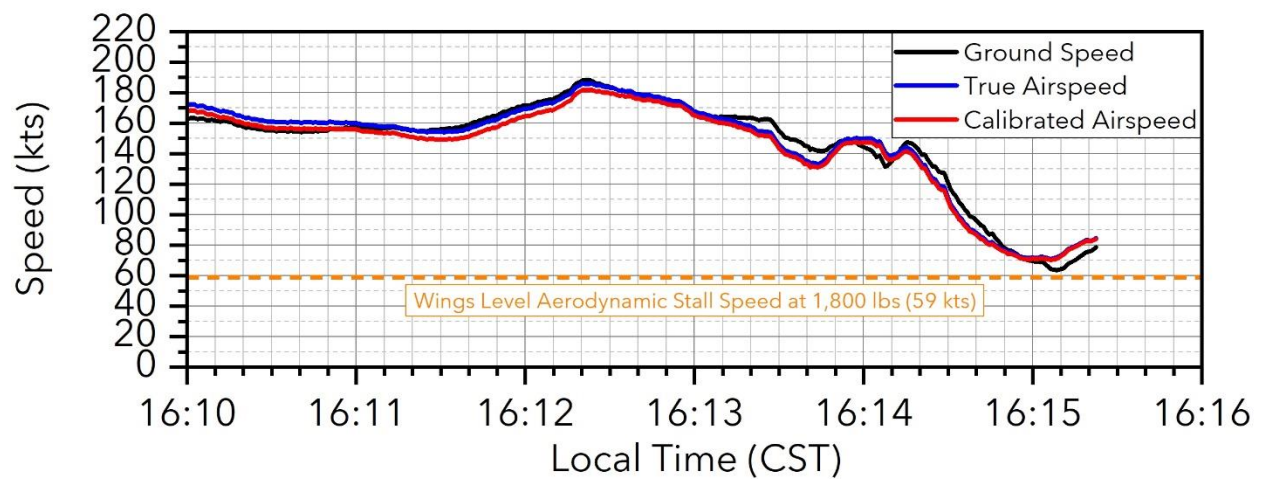
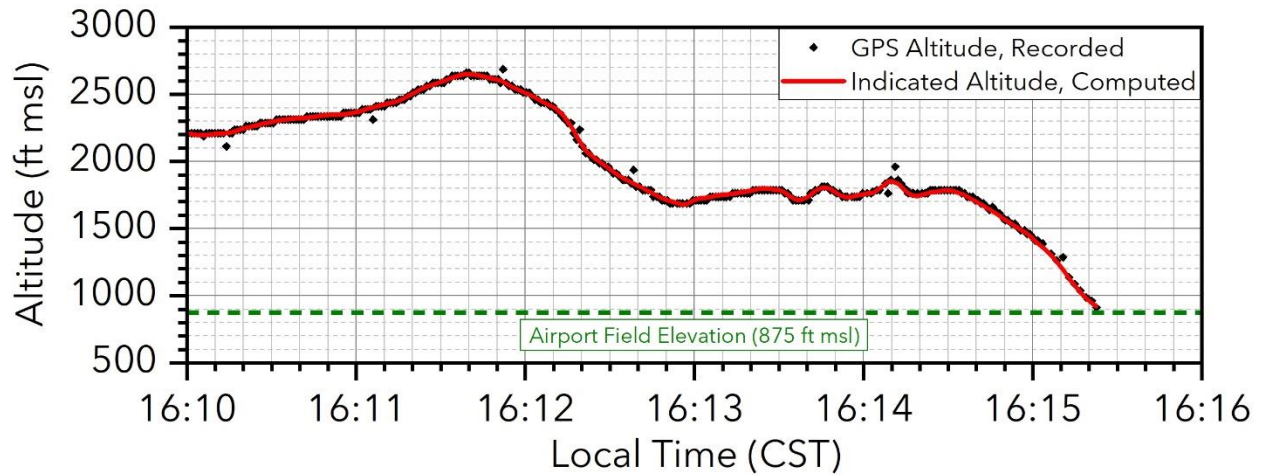
A review of downloaded engine monitor data confirmed that the engine was operating at the time of the accident. The engine's cylinder head temperatures (CHT), exhaust gas temperatures (EGT), fuel flow, and total fuel used are depicted in Figure 6. The engine monitor did not record exhaust gas temperature for cylinder No. 2 during the accident flight or the previous flight flown on November 23, 2022. According to the engine monitor, 6.2 gallons of fuel was used between engine startup and the interruption of electrical power to the engine monitor during impact.



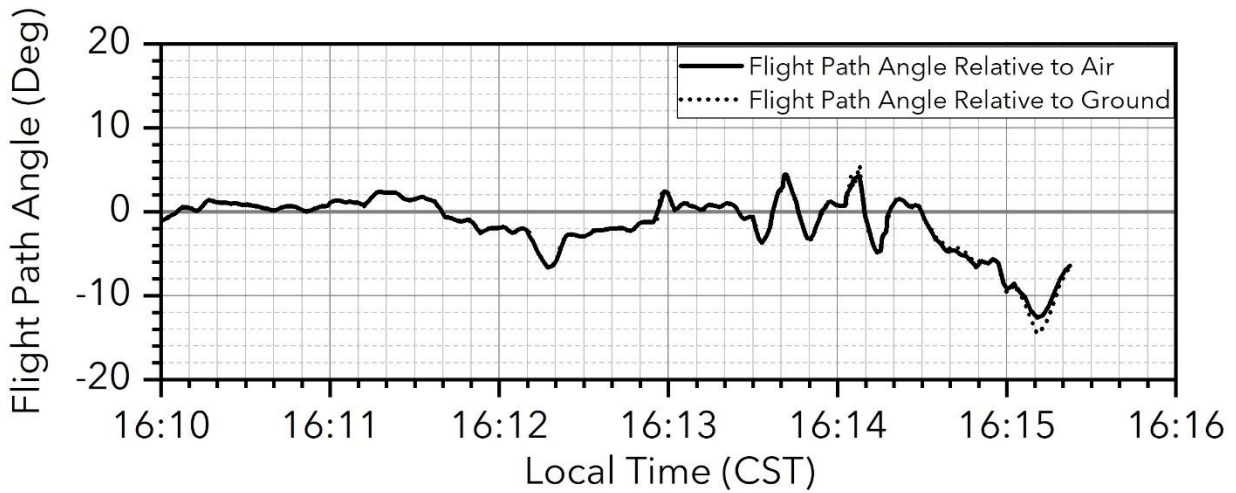
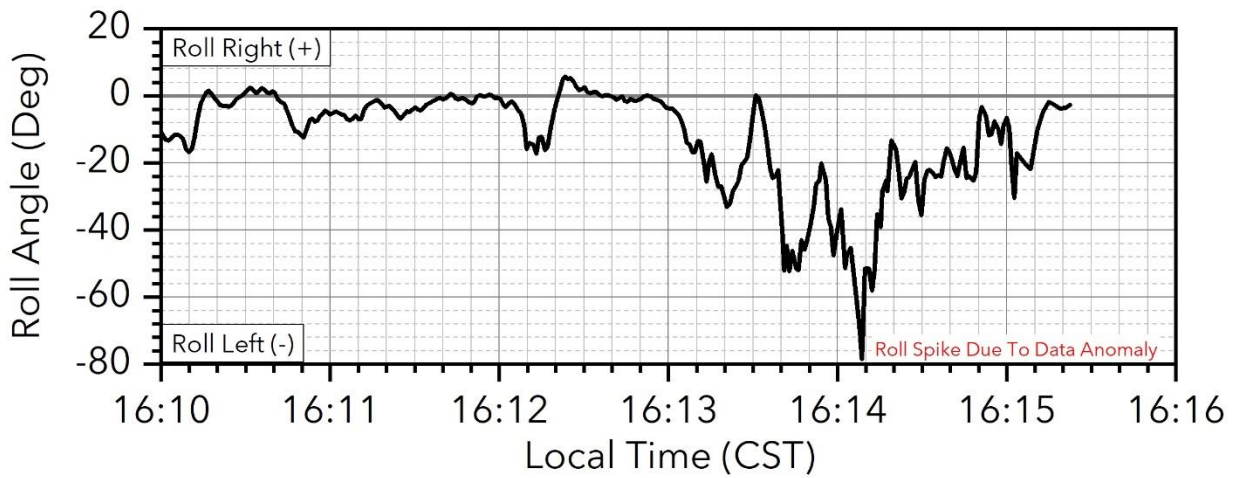
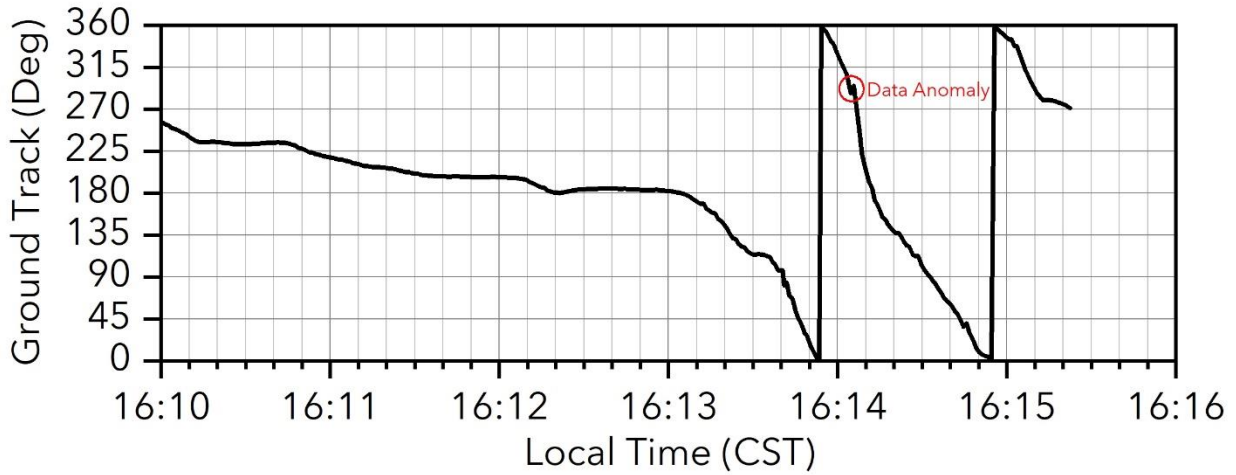
**Figure 1.** Plot of the airplane ground track for accident flight.



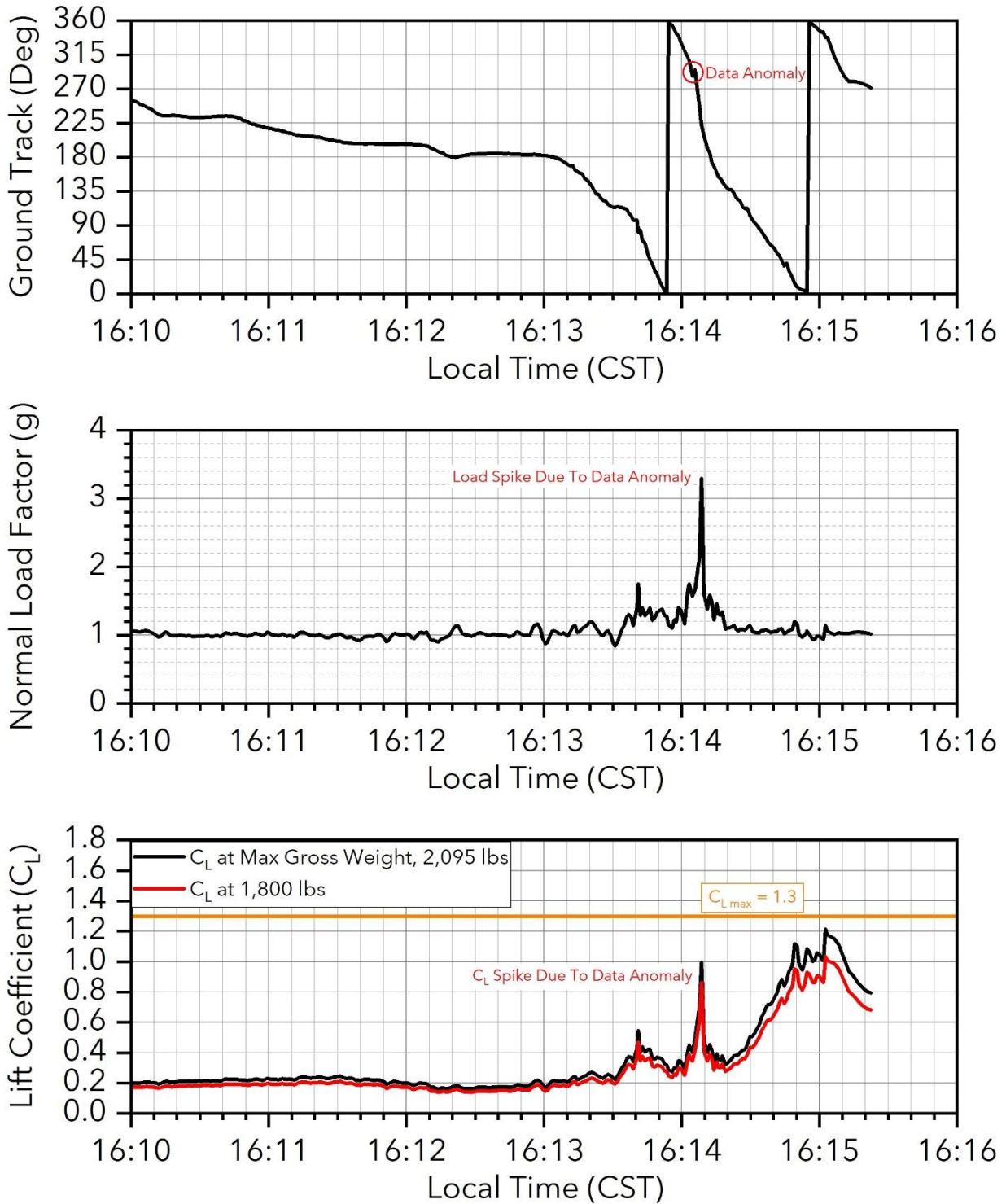
**Figure 2.** Plot of the airplane ground track while in traffic pattern.



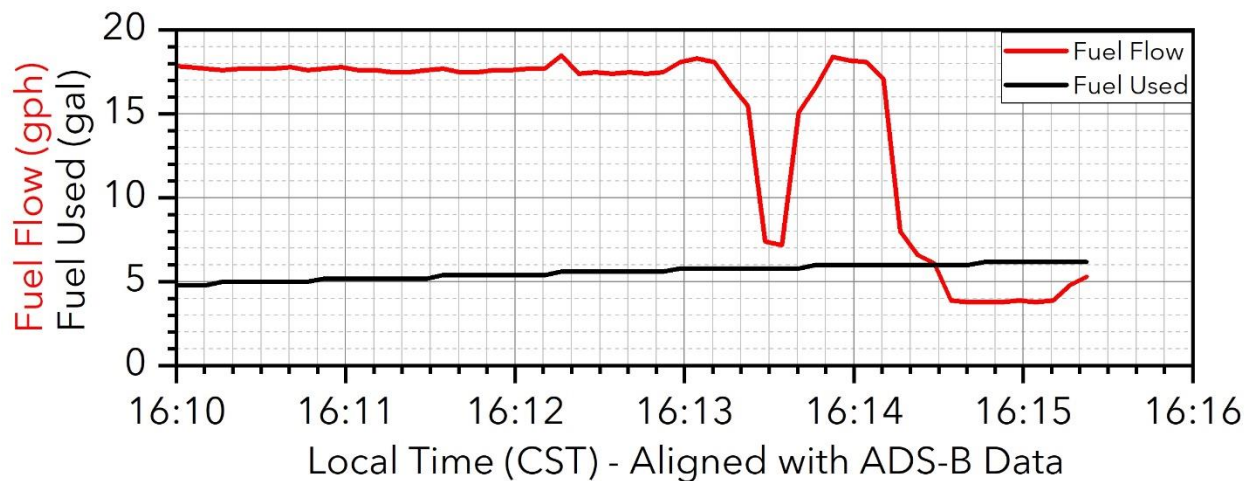
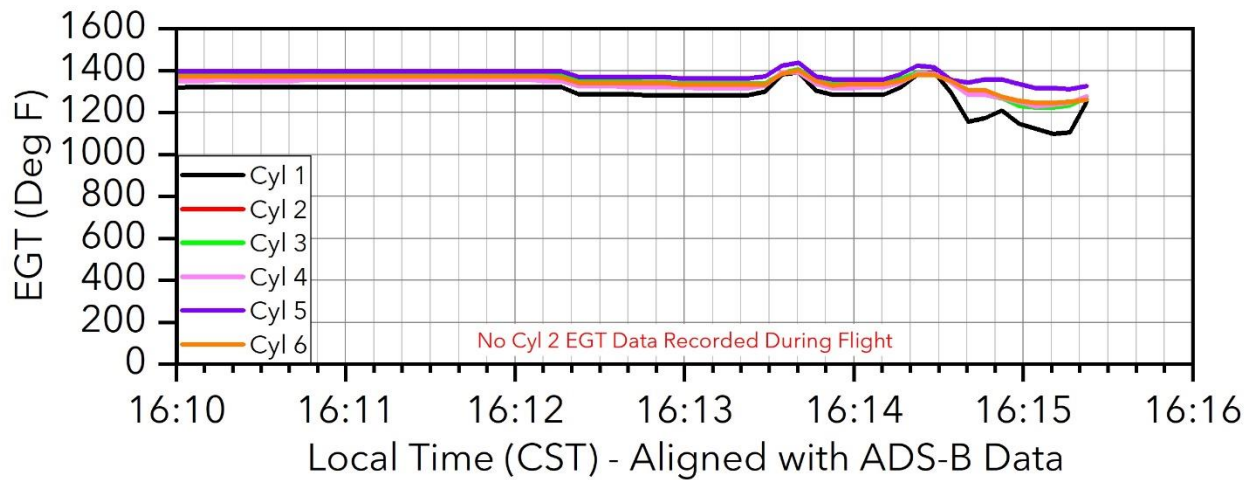
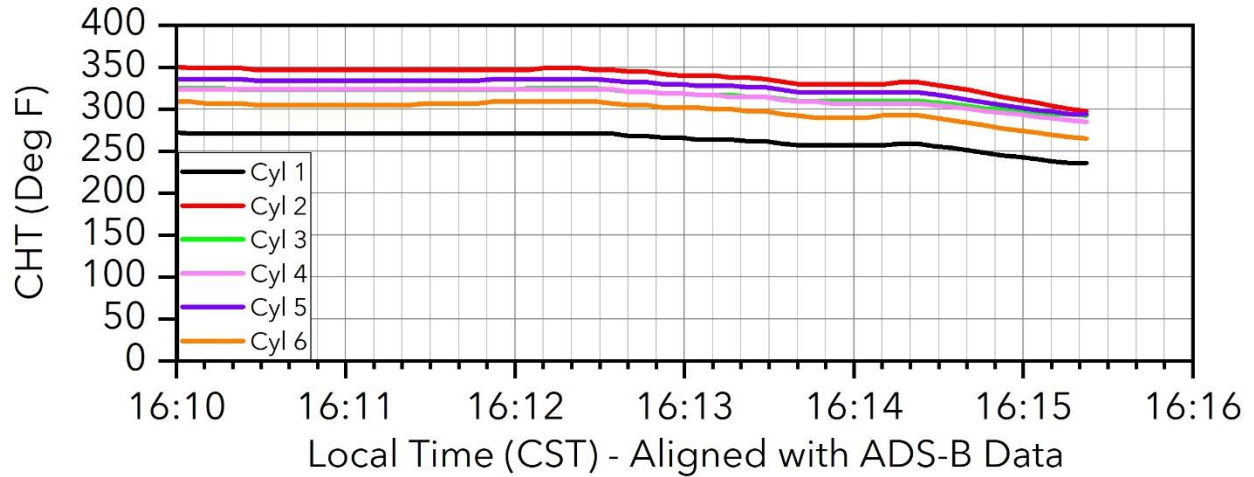
**Figure 3.** Plot of airplane altitude, ground speed, true airspeed, calibrated airspeed, and vertical speed.



**Figure 4.** Plot of airplane ground track, roll angle, and flight path angle.



**Figure 5.** Plot of airplane ground track, normal load factor, and lift coefficient.



**Figure 6.** Plot of engine CHT, EGT, fuel flow, and total fuel used.