

National Transportation Safety Board

Office of Aviation Safety
Central Region



CEN23FA239

ACCIDENT FLIGHT DATA SUMMARY

ACCIDENT

Location: Watertown, Wisconsin
Date: June 14, 2023
Time: 0903 central daylight time
Airplane: Mooney M20R, Registration No. N1025C

ACCIDENT SYNOPSIS

On June 14, 2023, about 0903 central daylight time, a Mooney M20R airplane, N1025C, was destroyed during an accident near Watertown, Wisconsin. The pilot and passenger were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* (CFR) Part 91 personal flight.

FLIGHT SUMMARY

The pilot filed an instrument flight rules (IFR) flight plan from Watertown Municipal Airport (RYV), Watertown, Wisconsin, direct to Manitowish Waters Airport (D25), Manitowish Waters, Wisconsin, with an enroute cruise altitude of 8,000 ft mean sea level (msl). The RYV airport had a remote communications outlet monitored by an individual who relayed the instrument clearance from Madison Approach Control to the pilot before the flight departed RYV. At 0853, the pilot was cleared direct D25, climb and maintain 3,000 ft msl after takeoff, and to expect 6,000 ft msl about 10 minutes after departure.

According to automatic dependent surveillance-broadcast (ADS-B) data, at 0900:46, the airplane was on initial climb from runway 5 at RYV, as depicted in figure 1. An airport surveillance video camera at RYV captured the airplane climbing wings level into an overcast ceiling. The RYV weather station reported an overcast ceiling at 300 ft above ground level (agl). Based on several pilot reports, the reported cloud tops were about 3,000 ft mean sea level (msl).

At 0901:07, the airplane entered a climbing left turn toward west-northwest, as depicted in figure 2 and figure 3. At 0901:50, the airplane entered a descent from 1,734 ft msl while still in the left turn. At 0902:00, the airplane was descending at 1,941 feet per minute (fpm) with a 30° left-wing-down roll angle. About 5 seconds later, the airplane entered a climb from 1,481 ft msl while in a left turn toward west-northwest at 163 knots calibrated airspeed (KCAS).

At 0902:22, the airplane was flying west at 133 KCAS and climbing 3,394 fpm. About 8 seconds later, the airplane was in a left turn toward southwest at 111 KCAS and climbing at 1,986 fpm.

At 0902:44, the airplane entered a climbing right turn toward north. At 0902:53, the airplane entered a descending right turn from a maximum altitude of 2,793 ft msl. About 15 seconds later, the airplane's roll angle was about 80° right-wing-down as the airplane descended at 11,411 fpm in a right turn toward northeast.

At 0903:10, the final recorded ADS-B data point, the airplane was flying at 211 KCAS as it descended 13,504 fpm with a 56° right-wing-down roll angle. According to the Mooney M20R Pilot Operating Handbook, the never exceed airspeed (V_{NE}) for the airplane was 196 KCAS. The final track point was at 1,166 ft msl and about 255 ft east-northeast of the initial impact with the ground.

A witness reported seeing the airplane descend "nose first" into a grass field and wooded area near the soccer fields in Brandt-Quirk Park. The witness also reported there was a large explosion after the airplane impacted the ground.

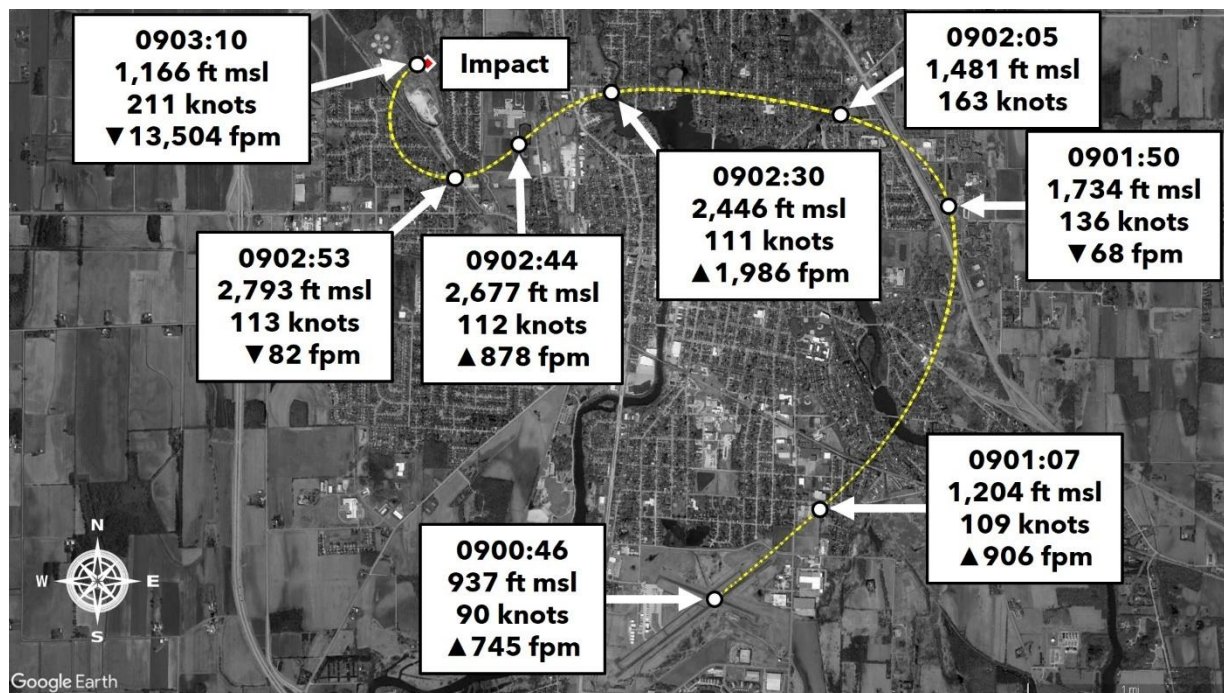


Figure 1. Plot of airplane flight track data.

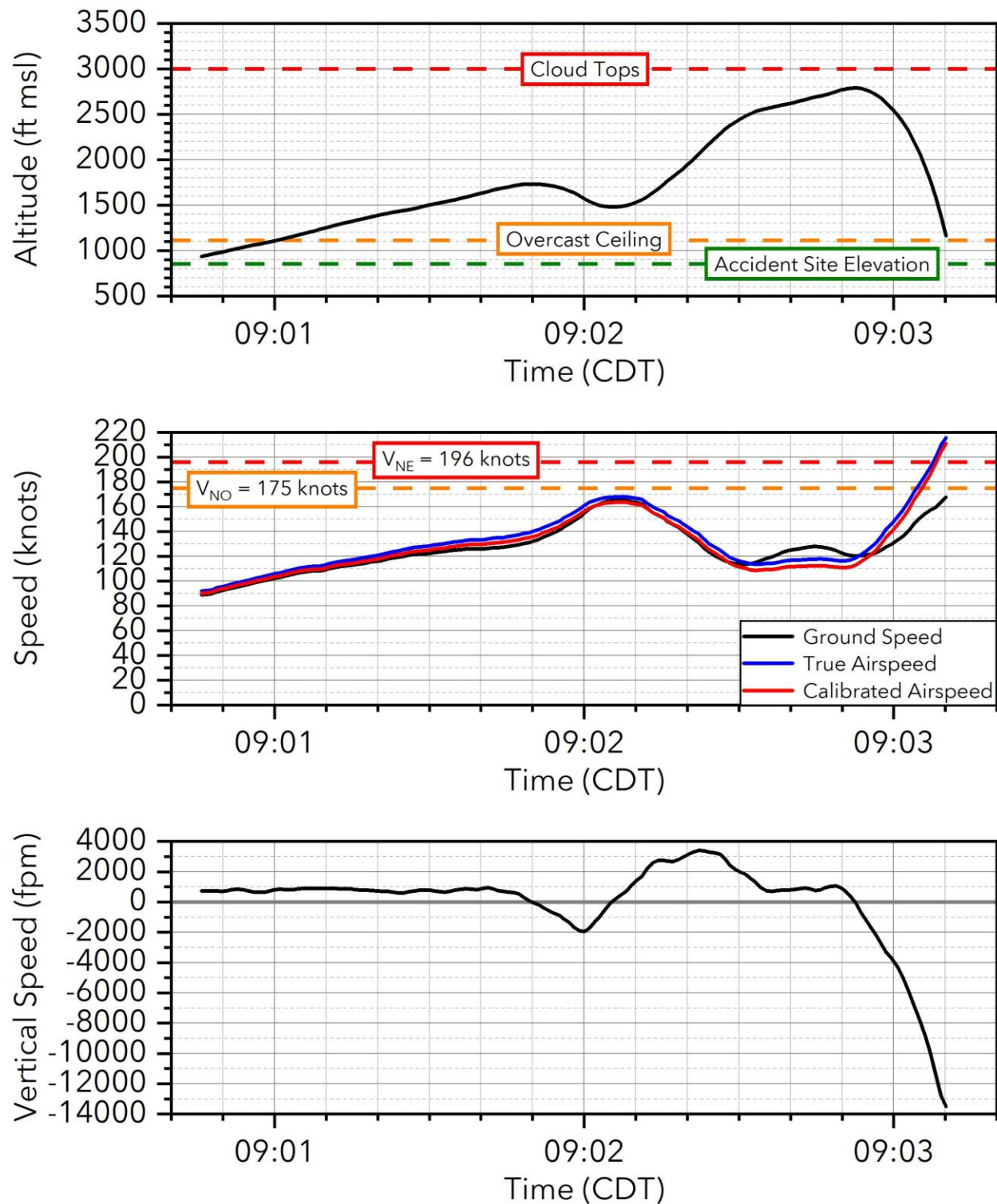


Figure 2. Plots of airplane altitude, ground speed, true airspeed, calibrated airspeed, and vertical speed.

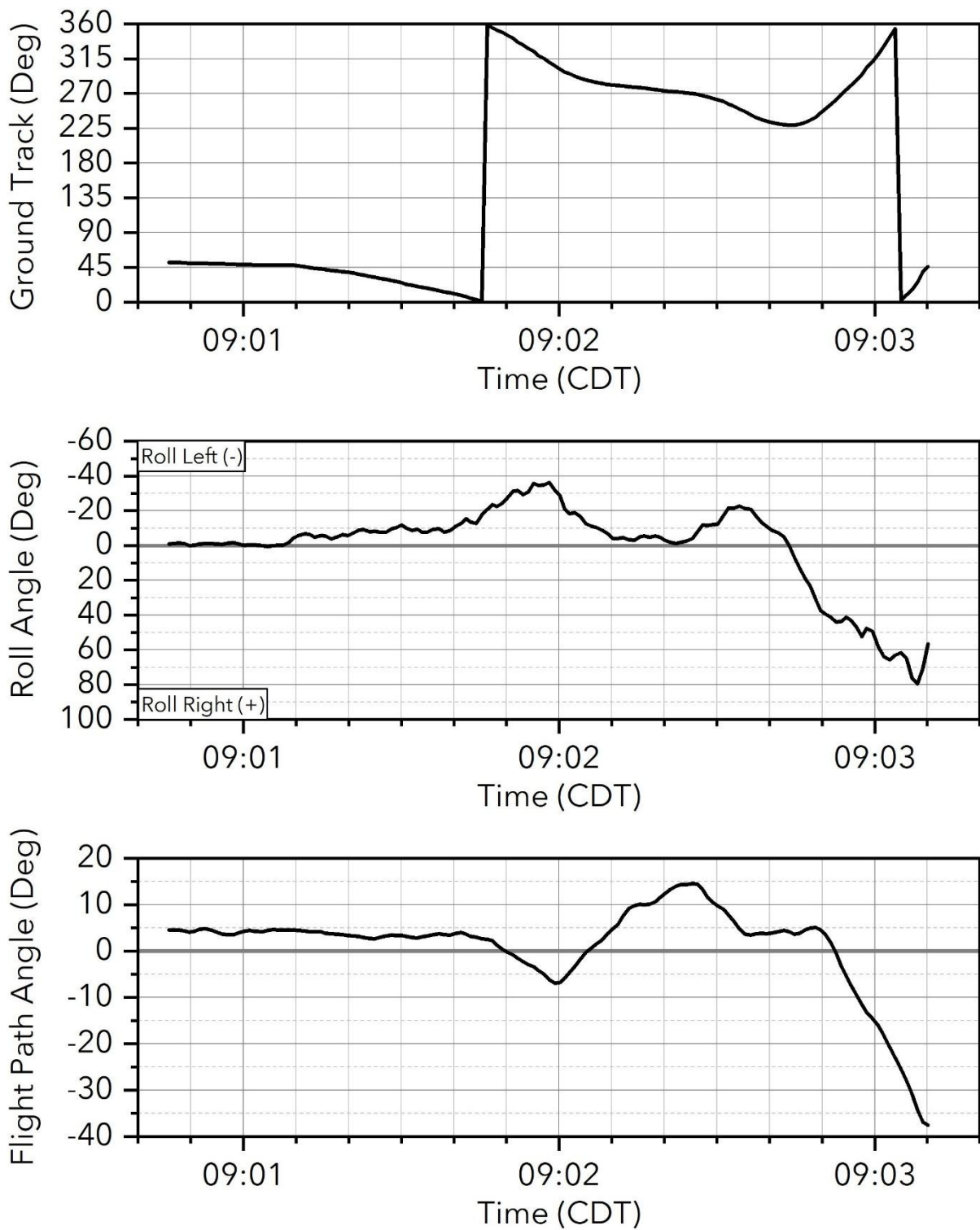


Figure 3. Plots of airplane ground track, roll angle, and flight path angle.