

**NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Washington, DC 20594**

January 4, 2017

**ATC RADAR STUDY
ERA16LA028**

A. AIRCRAFT ACCIDENT

Location: Belle Fontaine Beach, Mississippi
Date: October 26, 2015
Time: 1237 central daylight time
Aircraft: N817PR, Lancair Super ES

B. AIR TRAFFIC CONTROL INVESTIGATOR

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C. SUMMARY

On October 26, 2015, about 1237 central daylight time, an experimental, amateur-built Lancair Super ES, N817PR, operated by a private individual, was presumed destroyed after it impacted the Mississippi Sound, in the vicinity of Pascagoula, Mississippi. The commercial pilot and two passengers were presumed fatally injured. The airplane departed from Gulfport-Biloxi International Airport (GPT), Gulfport, Mississippi, about 1220. Visual meteorological conditions prevailed at the departure airport. No flight plan had been filed for the personal flight that was conducted under the provisions of 14 *Code of Federal Regulations* part 91.

D. RADAR DATA

The radar data used for this report was obtained from the Federal Aviation Administration airport surveillance radar sites located at Gulfport, Mississippi, and Mobile, Alabama. Recorded radar information showed that the aircraft departed GPT on transponder code 2526, continued straight out to the shoreline, then turned left roughly eastbound while climbing to 2,000 feet msl. (Figure 1.) At 1226, the pilot asked to terminate radar service and changed to transponder code 1200, as normal for aircraft operating under visual flight rules without ATC contact. There were no further communications with air traffic controllers.

The aircraft turned southeast, and at 1234 was located about 0.6 miles north of Horn Island in the Mississippi Sound, at 2,800 feet msl. N817PR's transponder replies ceased, and for the remainder of the flight the aircraft was tracked as a primary target (detected through reflected radar energy only, with no associated altitude information.) The aircraft turned northeast on a heading toward Pascagoula and Trent Lott International Airport (PQL), about 10 miles away.

Consistent primary targets continued until 1236:47. Estimated ground speed over the last 45 seconds of that flight segment was about 162 knots. Additional scattered primary targets were detected after 1236 as shown in figure 2, and were assessed for time and speed compatibility with the previous consistent target data. Beginning with the end of the consistent targets, the aircraft would have had to slow to 110 to 135 knots. There is no way to conclusively identify any of the subsequent targets as N817PR. However, flight at 110 to 135 knots is within the performance capability of the aircraft, so the additional targets cannot be dismissed from consideration.

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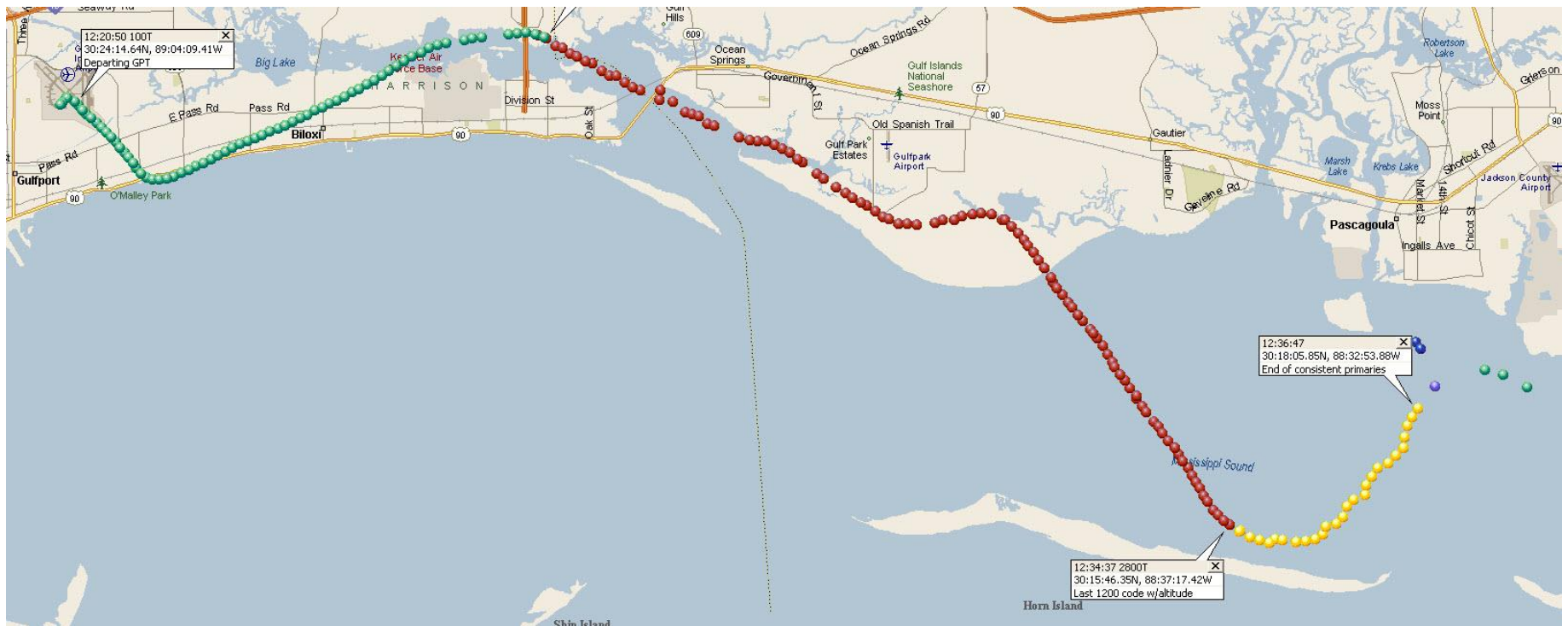


Figure 1 – Overview of the flight. Green dots are transponder code 2526, red dots are transponder code 1200, and the yellow dots are “primary” targets based on reflected radar energy only, no functioning transponder detected.

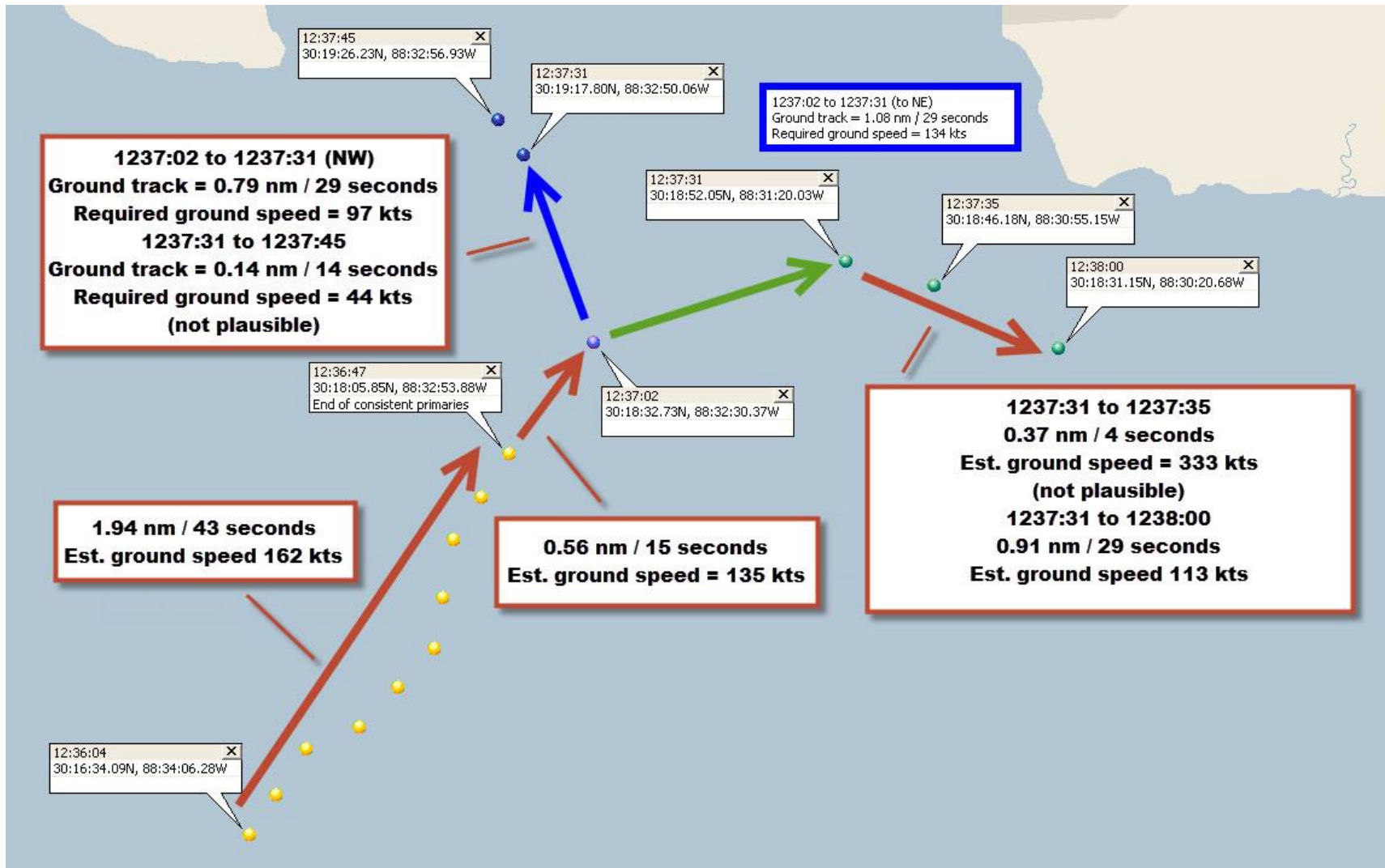


Figure 2 - Primary targets at the end of the flight, showing the consistent primary returns in yellow. Blue and green dots are additional primary returns not necessarily associated with N817PR. Arrow segments show timing and speeds required for an aircraft to make good the flight tracks shown.