#### NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering Washington, D.C. 20594

August 30, 2001

# Aircraft Performance

### Group Chairman's Wreckage Site Factual Report

## A. ACCIDENT

Location:	Aspen, CO
Date:	March 29, 2001
Time:	1902 MST
Aircraft:	Gulfstream III, N303GA
NTSB Number:	DCA01MA034

### B. Group Chairman

Daniel R. Bower, Ph.D.

### C. GROUP

Not Applicable

### **D. SUMMARY**

On March 29, 2001, at 19:02 Mountain Standard Time (MST) time, a Gulfstream III, registration number N303GA, operated by AVJET Corp., collided with terrain about 0.4 miles northwest of the Aspen-Pitkin County Airport, Aspen, Colorado. The airplane was destroyed and the flight crew of 2, one flight attendant, and all 15 passengers were fatally injured during impact with sloping terrain. The accident site was about 100 feet above the airport elevation of 7815 feet. The flight had arrived under Instrument Flight Rules and had reported the airport in sight. The flight was operating as an IFR flight under FAR Part 135 operations. The reported weather at 18:53 was wind 250 degrees at 3 knots, visibility 10 miles, light snow, few clouds at 1,500 feet, ceiling 2,500 feet broken, 5,000 feet broken. Approximately 10 minutes after the accident the reported visibility decreased to 1<sup>3</sup>/<sub>4</sub> miles in light snow.

The Performance Group chairman arrived on scene the day after the accident and commenced on scene documentation of the accident site and evaluation of the available radar data.

#### E. DETAILS OF FIELD INVESTIGATION

#### Accident Location

The accident aircraft debris was found scattered in and around the main wreckage resting location. The aircraft had initially impacted one side of a large (~150 feet wide) drainage ditch leaving a furrow in the ground, and then impacted the opposite wall of the drainage ditch. The location of various features at the impact location was determined by a Global Positioning Satellite (GPS) receiver. The location of the main wreckage was determined to be 39° 14.278' N, 106° 52.621' W, at an elevation of 7760 feet. The impact marks and wreckage pattern showed the aircraft initially impacted left wing down in a shallow descending attitude on the one side of the drainage ditch. The location of the initial impact mark was 39° 14.315' N, 106° 52.637' W.

Measurements obtained from tree strikes near the initial ground scar showed the aircraft initially impacted in a 49-degree left wing down attitude, with a flight path angle of –15 degrees. Figure 1 shows a view along the flight path, looking back along the path immediately prior to impact with the ground. Highlighted by the red lines are sheared off branches, depicting the orientation angle of the left wing and winglet immediately before the left wingtip impacted the ground.

The initial ground scar was approximately 72 feet long before ending as the drainage ditch began, and pieces of the left wing surrounded the impact scar. A large portion left wingtip, including the left winglet was near the initial impact mark. Figure 2 shows the initial impact ground scar, viewing along the direction of flight. The initial impact point is in the lower right hand corner of the picture, and the left winglet is identified in the picture. The majority of the aircraft wreckage was located on the south side of the drainage ditch.

A survey team from the Federal Bureau of Investigation (FBI) performed a laser transit survey of the major features of the accident site, and showed the main wreckage to be located approximately 2200 feet from the center of the approach end of runway 15. The FBI provided the compiled information from the laser transit survey to the Structures Group Chairman. For details and results from the laser transit survey, see Appendix A of the Structures Group Chairman's Factual Report.

Daniel R. Bower, Ph.D. Senior Aerospace Engineer Figure 1 - Tree Strikes, viewing North back along flight path from initial impact point. Red Lines denote sheared branches.



Figure 2 – Initial ground scar, viewing South along direction of flight

