



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

May 31, 2018

ACCIDENT SITE EXAMINATION SUMMARY

WPR18FA155

This document contains 14 embedded images.

A. ACCIDENT

Location: Melville, New York
Date: May 30, 2018
Aircraft: N62382; North American SNJ-2
NTSB Investigator-in-Charge: Andrew Swick

On May 30, 2018, about 1348 eastern daylight time, a North American SNJ-2, N62382, impacted terrain following a loss of control shortly after takeoff from Republic Airport (FRG), Farmingdale, New York. The airline transport pilot was fatally injured and the airplane was destroyed. The airplane was registered to SNJ-2 Corp., and operated by Skytypers, as a Title 14 *Code of Federal Regulations* Part 91 repositioning flight. Visual meteorological conditions prevailed, and no flight plan was filed for the cross-country flight. The airplane was one of six airplanes intended to fly in formation and destined for Patuxent River Naval Air Station (NHK), Patuxent River, Maryland.

A flight instructor, who was in the airport traffic pattern for runway 14, reported that he observed the number 3 and 4 airplanes abort their takeoff, while number 5 and 6 departed uneventfully toward the northwest. The instructor stated that he saw the number 5 airplane initiate a climbing right 180° turn, similar to a chandelle maneuver, from an altitude of about 800 feet above ground level (agl). He estimated that throughout the turn, the bank angle of the airplane was about 70° to 80°, until it reached an altitude of about 1,200 feet agl. The instructor further reported that he observed the number 6 airplane conduct the same maneuver, however, at the top of the turn, the airplane entered a spin, and remained in a constant rate spin, until it descended into terrain. The instructor added that it appeared that no attempt to recover had been initiated.

The pilot of the lead airplane (number 1) who was holding northeast of the airport, stated that his rear seated passenger observed the accident airplane pass underneath their holding area and make a climbing “high-G” turn to the left. The airplane subsequently entered a spin and spiraled to the ground.

A video provided by a witness located near the accident site captured the airplane in a steep nose down angle, rotating around its vertical axis, until impacting the ground.

Examination of the accident site revealed that the airplane impacted trees and terrain in a vertical, nose-down attitude. Wreckage debris remained within 50ft of the main wreckage. A post-impact fire consumed most of the left wing, cabin and aft fuselage. The wreckage was recovered to a secure facility for further examination.

B. PARTICIPANTS

Andrew Swick-NTSB IIC
Christos E. Tzavelis-FAA IIC
Stanley Routh-FAA

C. SUMMARY

Examination of the accident site was conducted on May 31, 2018. All major structural components of the airplane were located at the accident site. The wreckage was recovered to a secure location for further examination.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site Examination

Main Wreckage: N 40° 46.050', W-073° 23.423' – Elevation: 155 feet
Accident site was about 2.5 miles north of the departure end of runway 14 at FRG.

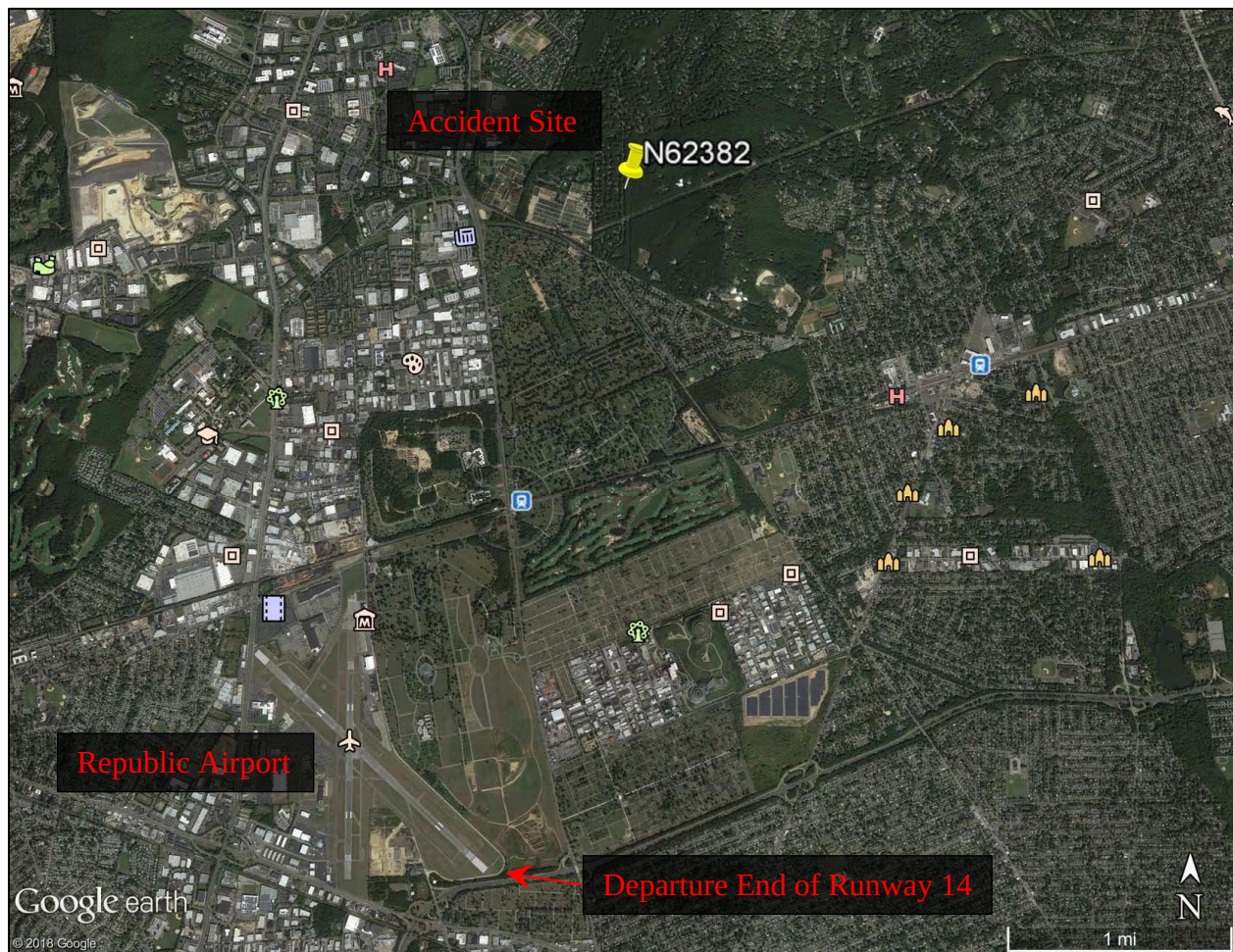


Figure 1-Aerial View of FRG and the Accident Site



Figure 2-Accident Site (northeast view)

Examination of the accident site was conducted on May 31, 2018, by the NTSB-IIC and the FAA. The accident site was located across the street from the address of 29 Northcote Drive, Melville, New York. The wreckage debris was contained within 50ft of the main wreckage. Several trees above and near the accident site were damaged and limbs and large branches were found throughout the accident site. The first identified point of contact (FIPC) with the ground was a crater near the engine and propeller assembly and was about 12ft from the east side of the road. The engine and propeller assembly were partially submerged in the crater. The direction of the airplane wreckage was oriented on a heading of a about 70° magnetic from the empennage to the engine.



Figure 3-Accident Site (southeast view)



Figure 4-Main Wreckage, Empennage

The empennage had impact and thermal damage. The right elevator separated from the stabilizer and was found on the road about 30ft from the main wreckage. Melted metal, control cables and debris were found between the main wreckage and the empennage. The elevator and rudder control cable continuity were attained from the flight control attach points to overload (broomstraw) signatures in the cables. The right rudder control cable was complete from the rudder surface attach point to pedal attach point.



Figure 5-Empennage



Figure 6-Left Wing (north view)

The left wing was mostly consumed by post-impact fire. The aileron and flap control surfaces were visible in their relative areas. The aileron control cables remained attached to the bellcrank and were continuous to the cabin area. The aileron control rod had thermal damage and was visible in its relative position. The outboard leading edge had accordion type crushing.



Figure 7-Left Wing (south view)



Figure 8-Right Wing (northwest view)

The right wing had impact and thermal damage. The outboard wing section, about 5ft long, separated from the wing. The wing flap was mostly consumed by fire and remnants were visible in the debris. The aileron separated from the wing and was found about 20ft east of the main wreckage. Aileron cables remained attached to the bellcrank in the wing and were continuous to the cabin area.



Figure 9-Right Wing (east view)



Figure 10-Outboard Right-Wing Section



Figure 11-Right Aileron



Figure 12-Right Inboard Wing and Cabin Area (west view)

The landing gear was found in the retracted position. The engine and propeller assembly remained attached and partially submerged in a small crater. The propeller blades were bent aft and had chordwise scratches and buffing on the cambered face of the blades. The engine cowling remained in its relative position and had impact damage. The engine remained partially attached to the main wreckage through various cables and tubing. The engine mounting assembly had impact damage.



Figure 13-Engine and Propeller Assembly (south view)



Figure 134-Cabin Area (east view)

The cabin area had impact and thermal damage. The rear seat smoke oil tank (full capacity of 50 gallons) was not identified. Several fitting and associated parts with the smoke oil system were found in the cabin area. Cabin flight and engine controls were damaged by post-impact fire and impact damage. Both aileron cables separated from the cabin torque tube arms. Flight control cable continuity was not confirmed while onsite. The wreckage was relocated on May 31, 2018, to Anglin Aircraft Recovery Services, in Clayton, Delaware.