



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

June 2, 2018

WRECKAGE EXAMINATION SUMMARY

WPR18FA155

This document contains 10 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

All major structural components of the airplane were identified. Flight control cable continuity was attained. Multiple holes and damage were found on the heater muff and was sent to the NTSB materials lab for further examination. An Appareo Stratus PRX V2 unit was sent to the NTSB Recorders Lab for further examination.

D. DETAILS OF THE INVESTIGATION

1.0 Postaccident Examination



Figure 1-Recovered Wreckage

The post-accident examination of the wreckage was conducted on June 2, 2018, by the NTSB-IIC and the FAA at the facilities of Anglin Aircraft Recovery Services, in Clayton, Delaware. Flight control cable continuity was attained. The engine and propeller assembly separated from the main wreckage and had impact damage to its forward side. Several cylinder pushrod housings were bent aft. The crankcase forward cover was partially separated from the crankcase.



Figure 2-Engine, forward side

The forward positioned sparkplugs were removed, and the electrode areas had normal amounts of carbon deposits and the electrodes revealed normal wear.



Figure 3-Upper Sparkplugs

The cylinders were boroscoped and the cylinder combustion areas showed normal amounts of carbon deposits and were undamaged. The aft positioned sparkplugs were examined, and the electrode areas had normal amounts of carbon deposits and the electrodes revealed normal wear.



Figure 4-Boroscope View (aft positioned sparkplug)



Figure 5-Carburetor Inlet Screen

The carburetor separated from the engine and had impact damage. The inlet screen was removed and was clear of debris. The screen was buckled on one side although intact.



Figure 6-Carburetor



Figure 7-Exhaust Muff and Exhaust Pipe Section

The exhaust muff and associated exhaust pipe was removed from the engine. The exhaust pipe was buckled. Wear and rubbing was noted on the exhaust muff. The connected scat tubing had thermal damage. The exhaust muff and associated pipe was sent to the NTSB materials laboratory for further examination.



Figure 8-Exhaust Muff Damage

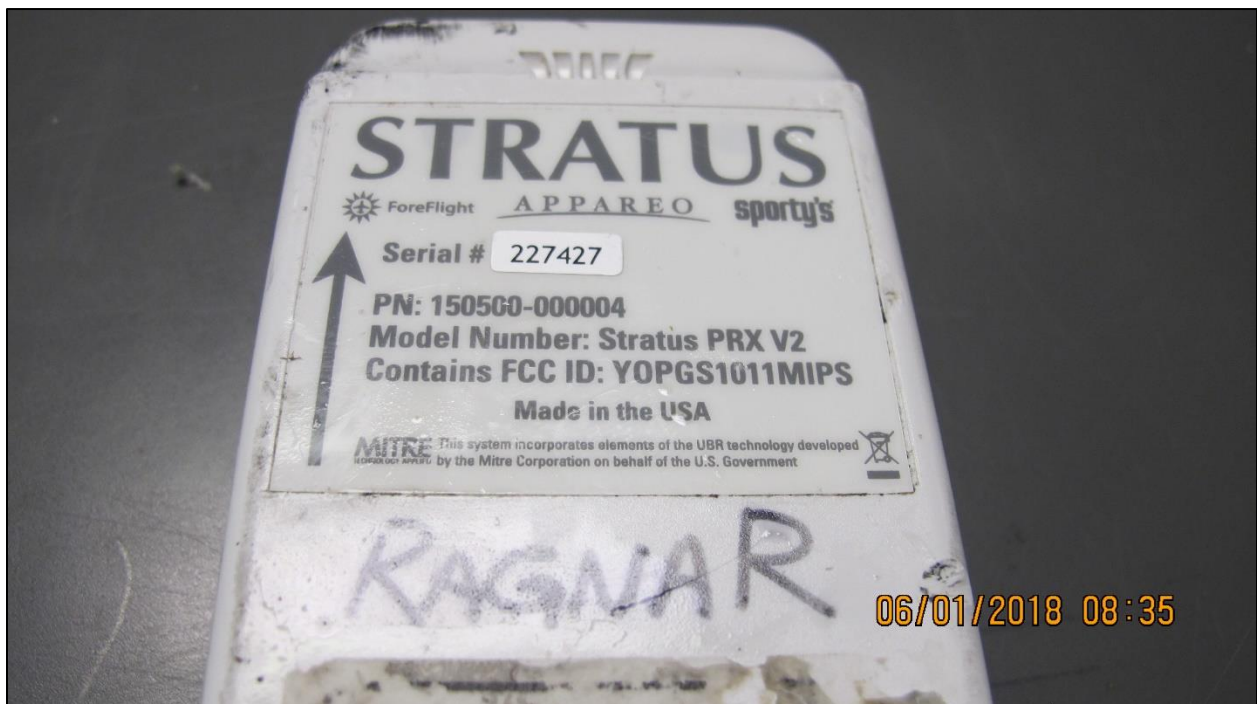


Figure 9-Appareo Stratus PRX V2

An Appareo Stratus PRX V2 unit was found across the street from the main wreckage. The unit was wet and raddled on the inside when shook by hand. The unit was sent to the NTSB Recorders Lab for further examination. An iPad was found near the main wreckage and the screen was broken. The iPad was retained with the wreckage.



Figure 10-iPad

Submitted by: Andrew Swick