



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

Western Pacific Region

August 9, 2018

Accident Site Examination Report

WPR18FA211

This document contains 3 embedded photos.

ACCIDENT:

Location: Santa Ana, CA
Date: August 5, 2018
Aircraft: Cessna 414, Registration Number: N722RP, Serial #: 414-0385
NTSB IIC: Albert Nixon

EXAMINATION PARTICIPANTS:

Albert Nixon
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National Transportation Safety Board
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WRECKAGE AND IMPACT INFORMATION

The airplane was examined at the accident site by investigators from the National Transportation Safety Board (NTSB), Continental Motors, and Textron Aviation. The airplane impacted a parking lot about 1.6 miles northwest of the SNA airport. The wreckage was contained within about 150 ft debris trail and the main portion of the wreckage came to rest between the first piece of identified wreckage and the last piece of identified wreckage. The first piece of identified wreckage was the left-wing tip which was located about 90 ft from the main wreckage. The last piece of identified wreckage was the right-wing tip which was located about 60 ft from the main wreckage.

The initial impact point (IIP) was a depression in the asphalt. About 12 ft from this depression was a crater about 3 ft long, 2 ft wide and 6 inches deep. A propeller blade from the left engine was separated from the hub and found in the crater. Several left wing fragments were found near the IIP. The aileron trim actuator, which located in the left wing, separated from the wing upon impact, and was observed in the parking lot near the IIP. The aileron trim cables were observed separated, consistent with tension overload.

The main wreckage consisted of the fuselage, right engine, right wing, and empennage. The fuselage was slightly canted to the left. The empennage was mostly separated from the fuselage but remained attached by the control cables. The front of the aircraft and cabin area was destroyed during impact. The cabin door remained attached.



Figure 1: Airplane wreckage in parking lot (Right side).

The inboard section of the left wing was separated from the fuselage at the wing root. Furthermore, the left engine, left flap and left main landing gear, remained attached to this inboard wing section.

The right wing remained partially attached to the fuselage. The right wing section outboard of the nacelle separated and was found within the debris path. The right aileron remained attached at the inboard connection.

The right engine impacted into an unoccupied parked vehicle. The vehicle was then displaced by about 65 ft from its original location. The right propeller separated at the hub and was found inside the aft section of the vehicle. A few other unoccupied vehicles were struck by the airplane debris.

The empennage remained partially attached to the fuselage. The vertical stabilizer remained attached to the empennage and was relatively intact. The rudder remained attached to the vertical stabilizer and the rudder trim was near the neutral position. The leading edge of the left horizontal stabilizer sustained impact damage. The elevators remained attached to the horizontal stabilizers. The elevator trim was observed near the neutral position.

Flight control continuity was established from the cockpit area to each respective flight control surface, except for the left aileron that had separated. Aileron flight control cable continuity was confirmed from the cockpit to the control surfaces bell crank through cable separations that exhibited tensile overload. Rudder and elevator flight control cable continuity was confirmed from the cockpit to the control surface bell cranks through cable separations that exhibited either tensile overload or were cut by investigators to facilitate recovery.

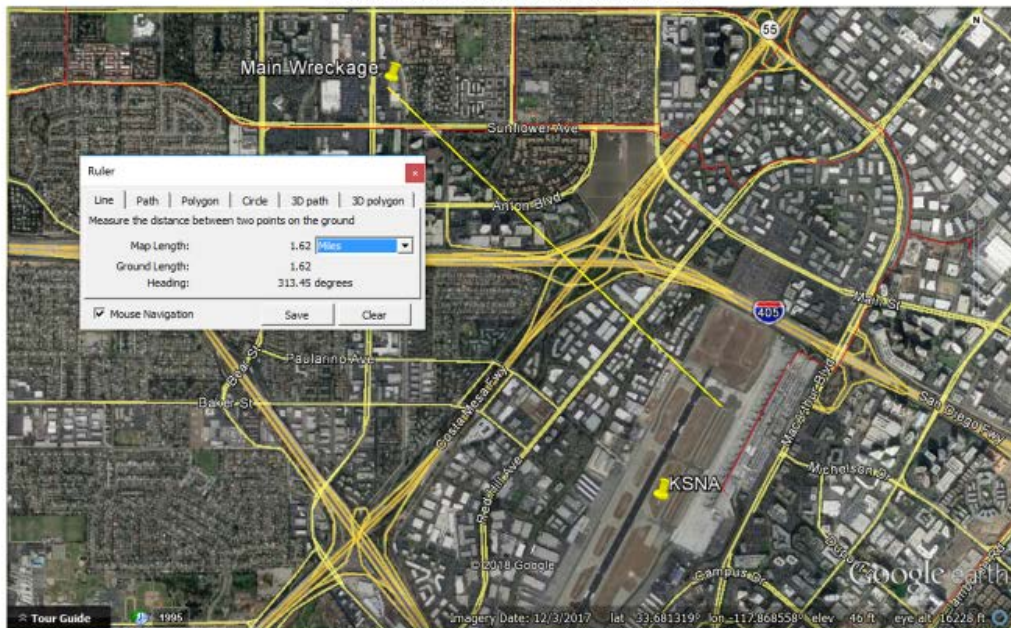
Examination of the flap motor revealed the left and right flap chains had 7.5 links from the sprocket, consistent with about a 10° flap setting.

The landing gear actuator was observed in the extended position. Brake assembly parts were observed in one of the impact craters. Additionally, impact markings and damage on the main landing gear assemblies were consistent with the gear in the extended position.

The left fuel selector handles were observed between the Left Main and Left Auxiliary tanks and the right fuel selector handle was observed between the Right Main and Right Auxiliary tanks. The pointer tip of the left fuel handler selector was fractured. The left and right fuel selector cables were stretched during the separation of the wings outboard of the nacelles and the left and right control arms were pulled beyond the OFF position. The fuel selector valves were substantially damaged by impact and unable to be functionally tested. The only fuel tank not breached was the right auxiliary tank. During the examination, about 2.5 gallons of fuel drained from the tank. The fuel was blue in color and clear of contaminants. The airplane was configured with the following fuel tanks: left and right main (located at the wing tips), left and right auxiliary (located in the wings outboard of the nacelles), and right wing locker (located in the right nacelle behind the engine).

The on-scene examination of the airframe and engine revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation. Following the on-scene examination, the airplane wreckage was recovered to a secure facility for further examination.

WPR18FA211-N727RP-SANTA ANA, CA



NOT TO SCALE

Figure 2: Accident site location from SNA Airport.

WPR18FA211-N727RP-SANTA ANA, CA



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Figure 3: Accident site debris trail.