



MEMORANDUM for RECORD

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Date: November 15, 2018
Wreckage Examination – N75SX, E/A-B Sonex
NTSB Accident Number: ERA18LA248 – Marion, SC

The wreckage of N75SX was examined at the facilities of Atlanta Air Recovery, Griffin, Georgia on November 15, 2018. Sr. ASI Ralph Hicks conducted the examination with the assistance of AAR staff.

- The wreckage was generally intact, with the left wing separated from the main wreckage and the right wing attached to the fuselage.
- The left wing exhibited forward-to-aft crushing signatures throughout its length. The aileron and flap remained attached to the wing. The flap was found in the retracted position. The aileron control tube remained inside the wing. The tube was fractured in overload near the cockpit stick area and the connection to the aileron was fractured at the threaded rod (bent over, overload signatures).
- The right wing exhibited forward-to-aft crushing signatures throughout its length. The aileron and flap remained attached to the wing. The flap was found in the retracted position. The aileron control tube remained inside the wing. The tube was continuous to the aileron, where it was fractured at the threaded rod (bent over, overload signatures).
- The control stick in the cockpit remained attached. The elevator control rod was fractured in overload at the base of the control stick. The aileron control rods were connected at each side of the control stick.
- The elevator control rod was continuous from the fracture at the control stick aft to the elevator. The elevator remained attached to the horizontal stabilizer. The elevator trim tab remained attached and connected to the cockpit. The tab was in the neutral (faired) position. The left and right elevators were buckled. The left horizontal stabilizer was

undamaged and the right stab had a dent on the upper inboard section at the tailcone junction.

- The rudder cables were continuous from the rudder to the cockpit. The rudder remained attached to the vertical stabilizer. The rudder and vertical stabilizer were bent and buckled to the left.
- The 4-point seat belts remained attached at their mounting points in the cockpit. The webbing was cut. This appeared to be to facilitate removal of the pilot.
- There were 3 Garmin 195 units within the wreckage contents. Two units were inside a carrying bag and undamaged/unused. The third unit was heavily damaged and caked with mud. The battery was broken away.
- The ELT head was located, still attached to the antenna. The battery was missing. The identification plate was not located. The ELT was in the "ON" position.
- The fuel tank was not located.
- The fuel strainer/filter was not located.
- All fuel lines found in the wreckage were dry and unobstructed.
- The engine was separated from the firewall. The propeller hub remained attached to the crankshaft. The wooden propeller blades were missing; separated from the hub by torsional overload signatures. The engine was turned through manually by turning the starter rig on the rear accessory section with a bar. Internal engine continuity was confirmed. Internal stiffness prevented compression check. Rocker covers were removed and cylinder head components were unremarkable.
- One spark plug from each cylinder removed and photographed. #1 and #3 electrodes had rust/corrosion deposits and normal wear. #2 and #4 appeared normal color and wear. The tops of all plugs had impact damage.
- Oil filter broken free and crushed.
- The Bing carburetor was separated from the engine. Partially disassembled. No residual fuel. Bowl broken away and missing.
- There was a Grand Rapids Technologies Model 2000 unit loose and heavily damaged.
- The main landing gear were separated from the fuselage. One main tire was missing and the other was located off the wheel. One wheel assembly remained attached to the gear and the other was missing.
- The tailwheel and control cables remained attached to the empennage.