

NTSB Accident Number CEN19FA122



INVESTIGATION SUMMARY

ACCIDENT

Location: Kingsland, Texas
Date: April 21, 2019
Time: 1443
Aircraft: Rans S-7S Courier experimental
Registration: N25TX

PARTICIPANTS

Josh Lindberg
Air Safety Investigator
National Transportation Safety Board

Randy Kaser
Inspector
FAA - SAT FSDO

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HISTORY OF FLIGHT

On April 21, 2019, at 1443 central daylight time, a Rans S-7S airplane, N25TX, impacted the ground after takeoff from Shirley Williams Airport (44TE), Kingsland, Texas. The pilot and pilot-rated-passenger were fatally injured and the airplane was destroyed by a postimpact fire. The airplane was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed. The local flight was departing at the time of the accident.

A witness reported that the pilot had just completed touch-and-go landings at 44TE before he landed and the passenger boarded. He saw the airplane taxi back to the runway then shortly after heard it impact the ground.

The airplane departed to the south on runway 16 and impacted the ground at the end of the runway (figure 1).



Figure 1 – Aerial view of accident site with notation

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AIRPORT INFORMATION

Runway 16/34
Dimensions: 2600 x 100 feet / 792 x 30 meters
Surface: Turf
Runway 16 Runway 34
Traffic Pattern: Left Left
Obstacles: ft Trees ft from runway ft Power Line ft from runway

PERSONNEL INFORMATION

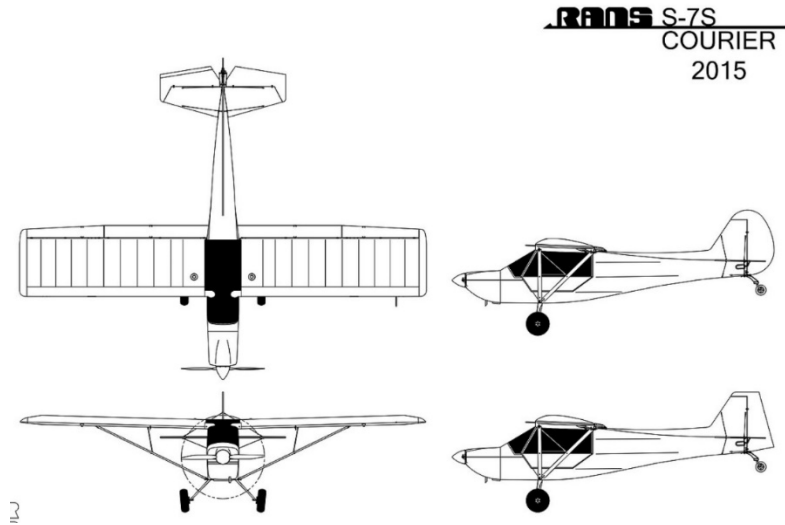
Pilot Name: [REDACTED] DOB: [REDACTED]
Height: 71 inches Weight: 240 lbs
Class: THIRD Rstr: Y
Cert No: [REDACTED] Cert Lv: COMMERCIAL PILOT
Ratings: C/BAL P/ASEL
Limits : ENGLISH PROFICIENT./LIMITED TO HOT AIR BALLOONS WITH AIRBORNE HEATER.
Flight experience that included 215 total and 1 hours in last six months as of exam dated 12/30/2017
limitation(s): Must wear lenses for distant, have glasses for near vision.

Pax Name: [REDACTED] DOB: [REDACTED] Height: 76 inches Weight: 240 lbs
Class: THIRD Dte: 08/13/2002 [REDACTED] Path: Rstr: Y
PILOT [REDACTED] PRIVATE Issued: 08/23/18
MECHANIC [REDACTED] A&P Issued: 08/23/18
180 total and 10 hours in last six months as of exam dated **08/31/2002**
Limitation: Must wear corrective lenses. **The Medical Certificate expired for all classes on 08/31/2004**; airman had not applied for BasicMed but he was flying an airplane that met the definition of a Light Sport Aircraft. This pilot's most recent valid medical certificate had expired and he was flying a Light Sport Aircraft. He was medically eligible to fly as a light sport pilot as long as he had a valid driver's license and was in compliance with 14 CFR Part 61.53 "Prohibition on operations during medical deficiency" and other applicable FAA regulations.

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AIRCRAFT INFORMATION

Rans S-7S Courier, tailwheel, tandem seating, fabric covering.
Rotax 912S UL, mogas



METEOROLOGICAL INFORMATION

Moderate wind reported from airport manager – from the south about 15 kt gusting to 25 kt

FLIGHT RECORDERS

N/A

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WRECKAGE AND IMPACT INFORMATION



Figure 2 – Wreckage from back right side

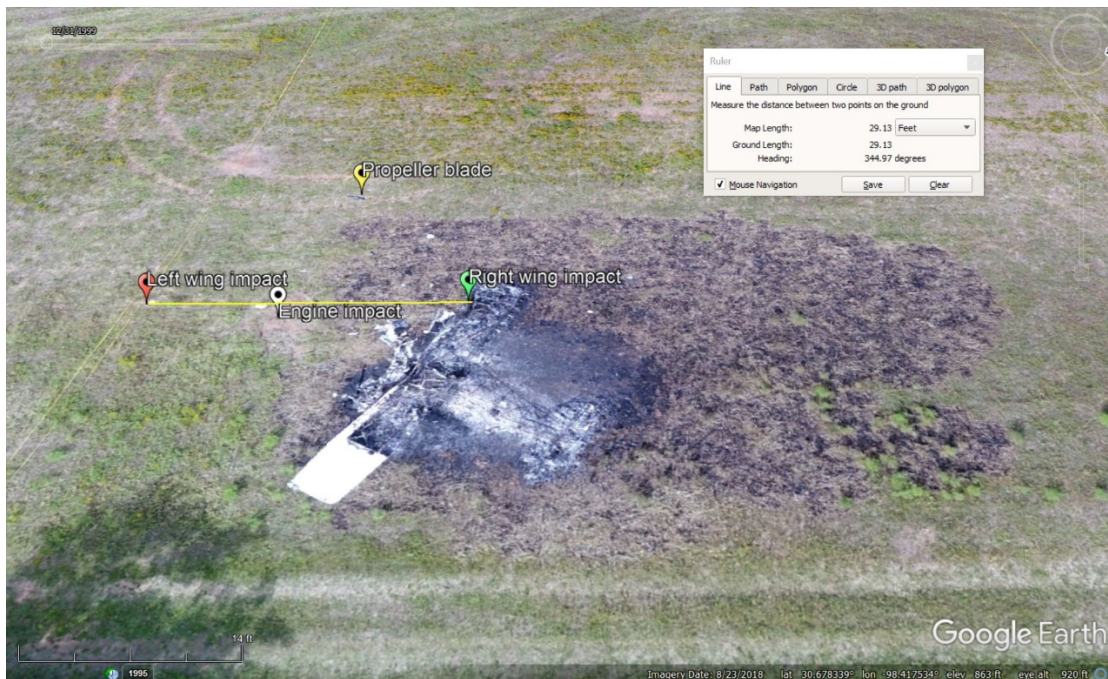


Figure 3 – Accident site with measurement

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Airframe

The first impact mark was defined be a small impact in the dirt which contained the left wing tip red lens and the pitot tube. About 12-14 ft north of that was the engine impact crater was at least 1 distinct propeller slash mark and debris from the nose/cowling/engine and one full propeller blade. Dirt from the crater was displaced to the west, consistent with the initial impact momentum being toward the west. Underneath where the right wing came to rest was a small impact mark and divot consistent with the right wing tip impacting the ground. The left/right wing and engine impact craters were aligned on a 166 heading; the airplane would've been pointed on a 255 heading. The main wreckage was north of that and came to rest pointed on a 190 heading. The evidence is consistent with the airplane in a left turn when the left wing hit the ground, followed by the engine then the right wing. The airplane continued to rotate counterclockwise and the momentum took it backward to the final resting location.

The wing struts were bent and damaged by fire. The cockpit and forward fuselage area was crushed forward and damaged by impact and fire.

The aileron control cables were intact and continuous from the left side, through the center, to the right side. The controls were moved by hand which led to appropriate flight control surface movement.

The rudder cabled were intact and continuous from the pedals to the rudder attach points at the tail. The elevator push-pull tube was damaged by fire but appeared to be present before the fire. The rear elevator control rod aft of the main control tube was impact broken but the hardware and bracket remained attached to the elevator surface.

The left flap control rod was broken and damaged by fire. The right flap control rod was impact broken near the flap surface but the hardware remained attached. The position of the flaps could not be determined.

Engines/Propellers

The engine remained attached to the engine mounts which were broken from the airframe. The engine was mostly intact and severely damaged by fire. The propeller hub remained attached to the crankshaft and one blade remained attached to the hub. A second blade was broken from the hub at the blade room and was found next to the initial engine impact crater – it exhibited chordwise scratches on the face. The third blade was also broken from the hub at the blade root and was found about 20 ft west of the main wreckage – it exhibited chordwise scratches and the blade tip was separated. The engine was not examined in detail during the on-scene investigation.