



SOUTH FLORIDA FLIGHT STANDARDS DISTRICT OFFICE 19

Urian Riley – South Florida Flight Standards District Office 19

December 17, 2020

INSPECTOR STATEMENT

NTSB No.: ERA21LA080

SAS ACTIVITY No.: SO19202103426

ATQA No.: ASO1921008

Registration: N5547Y

Make: SOCATA

Model: TB-10-10

Serial Number: 1246

Aircraft Last Annual: Unknown

Engines Last Annual/100Hr: Unknown

L/R Prop Last 100Hr/Annual: Unknown

When: December 17, 2020

Where: Approximately One Mile West of Hollywood North Perry Airport. (HWO) Pembroke Pines, FL 33023, Latitude 25.59.41 N, Longitude 080.15.24 W.

What: Part 91 operator, operating 1991 Socata, TB-10-10 aircraft N5547Y, serial number 1246 departed Hollywood North Perry Airport (HWO) from Runway 28L, shortly after takeoff the aircraft descended into a wooded park area located approximately one mile west of the airport impacting a tree, severing portions of the left outboard wing area and left aileron rupturing the left wing fuel tank before impacting the ground and limbs of a second tree coming to rest upright on a segment of fencing and catching fire approximately twenty (20) feet from the west bound traffic lanes of the roadway at the intersection of Pembroke road and Josey lane. The aircraft was occupied by four individuals, the pilot in command (PIC) and three passengers, the occupants of the aircraft sustained serious injuries and were transported to medical facilities.

RECORD OF CONVERSATION

Urian T. Riley

Aviation Safety Inspector

SO-19

Date: December 17, 2020

Person Contacted: Officer Palmer

Pembroke Pines Police Case number: 74532

ATQA No.: ASO1921008

NTSB Accident Number: ERA21LA080

Narrative:

Officer Palmer initiated contact in person on the site of the accident and provided turnover information. officer palmer provided his cell phone number as [REDACTED] during the turnover of information officer palmer provided the following:

Pembroke Pines Police Case number 74532, and preliminary aircraft occupant information he indicated that the aircraft tail number was N5547Y.

He was asked about the number of occupant's onboard the aircraft and their condition.

Four occupants. Pilot – Jason Sorrell date of birth [REDACTED] front right seat passenger Jason Isaacs date of birth [REDACTED] right rear seat passenger Joseph Isaacs date of birth [REDACTED] left rear seat passenger Jocelyn Isaacs date of birth [REDACTED]

He was asked if there were any witnesses. officer Palmer provided a text messaged photo copy of hand written notes indicated two potential witnesses.

Witness one: Natolyn Jones-Ferguson address [REDACTED] phone number [REDACTED]

[REDACTED] Witness two: Jemanika Noizy phone number [REDACTED]

Office Palmer indicated that the witnesses were reluctant to give their information and any official statement to police at that time. additionally he stated that one of the potential witnesses wanted to contact their mental health professional before giving a statement. officer palmer did not indicate which potential witness the comment referred too.

RECORD OF CONVERSATION

Urian T. Riley

Aviation Safety Inspector

SO-19

Date: December 17, 2020

Person Contacted: Chris Sasso

Pembroke Pines Police Crime Scene Technician Case number: [REDACTED]

ATQA No.: ASO1921008

NTSB Accident Number: ERA21LA080

Narrative:

CST Sasso initiated contact in person on the site of the accident she provided her cell phone number as [REDACTED]

She was asked if she would provide all photos taken prior to FAA –NTSB arrival on site.

She indicated that there were photos taken that may be helpful and that she would place them on a CD and hold them at the Pembroke Pines Police Department for pickup at a later date.

She asked to be notified prior to picking up the CD. Via the phone number provided.

RECORD OF CONVERSATION

Urian T. Riley

Aviation Safety Inspector

SO-19

Date: December 17, 2020

Person Contacted: Nina Macpherson

BCAD North Perry Airport Manager

ATQA No.: ASO1921008

NTSB Accident Number: ERA21LA080

Narrative:

Nina Macpherson initiated contact in person on the site of the accident she indicated that aircraft N5547Y was cleared for takeoff from runway 28L IFR departure to Marathon, shortly after takeoff the aircraft was not seen on radar and did not answer radio calls from the tower stated she saw smoke in the distance west of the airport.

She added that the aircraft is normally fueled at Hollywood Aviation and that the aircraft records may be located there as well.

Who: Pilot In Command:

Jason Lewis Sorrell

[REDACTED]

Coral Springs, Florida

Florida Driver License # Unknown

Date of Birth:

[REDACTED]

FAA PRIVATE ASEL INSTRUMENT, Certificate No. [REDACTED]

Medical Certificate Third Class: Date of Examination: 05-26-2017

FAA REMOTE PILOT SUAS, Certificate No. [REDACTED]

Front Right Seat Passenger:

Jason Isaacs

(Juvenile) – 7 years old.

Address Unknown:

Left Rear Seat Passenger:

Jocelyn Isaacs

(Juvenile) - 12 years old

Address Unknown:

Right Rear Seat Passenger:

Examination of the aircraft and crash site:

Examination of the accident site revealed fire damage to the wooded park area and grass within a radius of approximately fourteen (14) feet around the aircraft concentrated on the South west corner of the wooded park property. Examination of the accident scene revealed damage to two large trees, approximately twelve (12) feet of chain-link fencing including three metal fence posts which were bent and damaged. Further examination revealed a section of chain-link fencing on the west end of the property that was cut and removed to provide access for emergency response. Burnt aircraft structure and what appears to be the remains of three aircraft headsets, a very high frequency (VHF) radio antenna, a shoe, a surgical mask and a portable ADS-B device with battery pack were found on the ground approximately ten to twelve feet west of the aircraft fuselage. The ADS-B unit appeared to be in the on position with blue indicator lights observed to be flashing, the unit was left in place and allowed to continue operating and later recovered and retained for further examination.

Further examination of the accident site revealed pieces of what appeared to be paint and composite material chips. Pieces of the left wing, wing tip and fragments of wood were found scattered throughout the scene. Examination of the area north east of the aircraft fuselage revealed damage to a large tree with its trunk severed and upper portion removed, the tree displayed evidence of being struck by the aircraft and observed to be the primary point of impact.

A segment of the aircraft left wing outboard area, wing spar, left aileron and aileron control torque tube were found hanging from the remaining limbs of the tree, with the left aileron damaged and bent rearward in the center, the left aileron was observed to be attached to the left wing segment at all attach points, evidence of paint transfer and debris from the wing were imbedded in the tree trunk. The tree measured approximately twelve inches in diameter and was broken off approximately eight feet above ground level, the upper half of the tree was found lying approximately twenty (20) feet away from the base of the tree and within five feet of a large portion of the aircrafts left wing which was found to be separated from the aircraft fuselage and exhibiting evidence of impact damage and post impact fire exposure.

Additional examination of the park area north east of the aircraft fuselage revealed a debris field that spanned from the north east to the south west with several aircraft parts scattered around the primary impact point. The fuselage of the aircraft was found sitting upright resting on a line of chain-link fencing at the south west corner of the park property.

A large portion of the left wing consisting of the wing root to the stall warning indicator was found severed from the fuselage with the top side facing up, leading edge angled upward and left main landing gear attached, the left wing fuel tank showed significant damage and was ruptured at the leading edge near the center of the severed wing

segment, with evidence of exposure to high temperatures consistent with post impact fire damage. No evidence of residual fuel was observed in the ruptured tank, the left wing fuel tank filler cap was found intact and secured.

Examination of the left wing segment revealed it appeared largely intact with the left flap attach points intact, the inboard flap hinge was observed to be separated from the left wing internal structure displaying evidence consistent with post impact damage. The left flap was observed to be in the retracted position.

The outboard portion of the left wing from the landing and taxi lights to the wing tip including the left aileron and portions of the left wing spar were not present, the outboard end of the left wing was curled rearward away from the leading edge showing evidence of impact damage with evidence of wrinkling in the leading edge skin, torn metal skin and spar material were observed.

The Pitot tube was found attached to the lower section of the left wing. Examination of the area beneath the left wing revealed the upper engine cowling and fragments of the left and right sides of the lower engine cowling in a debris field that ran northeast to southwest in direction towards the front of the nearby aircraft fuselage and engine approximately ten (10) feet.

The right wing was found attached to the fuselage, with right main landing gear and right aileron attached at all attach points, the right flap was found attached by the inboard attach point with the outboard flap attach point found to be intact at the hinge and still attached to the right wing trailing edge, but torn away from the flap with evidence of damage consistent with post impact damage.

Examination of right wing showed evidence of substantial post impact fire damage to the trailing edge and flap area, the leading edge displayed impact damage with a large segment of the leading edge crushed inward towards the spar mid span. The right wing fuel tank filler cap was found installed and secured.

During aircraft recovery the right wing was cut away from the fuselage between the fuselage and wing mating points, by cutting the wing spar, after removal a small fuel access panel on the lower side of the wing was opened evidence of residual fuel was observed inside the right wing initial examination of the fuel did not reveal evidence of water or other readily observable contamination, absorbent pads were used to stop fuel spilling out of the wing, the exact quantity of remaining fuel was not able to be determined.

Examination of the fuselage cabin area, fuselage and cabin overhead revealed evidence of significant heat and fire exposure consistent with post impact fire damage, with the upper fuselage and overhead burned away and collapsed inward onto the cabin interior and lower fuselage structure, the aircraft rear passenger seating, left pilots seat and right pilots seat were found to be secured to the aircraft fuselage at all attach points, seat coverings and aircraft interior coverings were consumed by fire.

The empennage was attached to the fuselage by a small section of lower fuselage metal skin and remaining portions of the elevator control system torque tubes. The lower portion of the fuselage was found to be significantly damaged with the wing spar intact, a pilot log book was recovered from the wreckage of the fuselage which contained personally identifiable information and airman certificate number of the pilot in command (PIC), the pilot log showed evidence of fire and water damage to its outer edges and was retained for further examination.

A portable electronic device within a black protective case consistent with an iPad was recovered from the wreckage of the fuselage, the device showed evidence of exposure to high temperatures and water with portions of the protective case melted together, the device still in its protective case was retained for further examination.

An examination of the aileron and elevator flight control systems torque tubes revealed evidence of aileron and elevator system continuity. The elevator was found attached to the empennage at all attach points.

The rudder was found attached to the vertical stabilizer at all attach points, evidence of damage to the rudder skin was observed on the right side at the center hinge area consistent with post impact damage. An examination of the rudder control system and rudder trim system revealed evidence of rudder system continuity.

The flap drive motor was found to be largely intact, with evidence of damage to the flap drive screw mechanism consistent with post impact damage, flap position at the time of impact could not be determined on site due to damage, additional post accident evaluation to determine flap position recommended.

The forward section of the aircraft fuselage consisting of the firewall nose landing gear and landing gear mount was bent forward and to the aircraft right, showing signs of impact and evidence of post impact fire damage with the forward portion of the firewall and substructure compressed inward towards the cockpit area.

Examination of the fuel system revealed the fuel boost pump lines and fittings were intact at the fuselage fire wall, continuity was observed from the left and right wing fuel lines to the fuel selector valve, to electric fuel boost pump, to mechanical fuel pump and carburetor.

The fuel selector valve was found to be intact with evidence of exposure to high temperatures consistent with post impact fire damage.

Examination of the fuel selector valve revealed the upper selector mechanism was partially melted with the valve selected to the left tank position and confirmed by introducing air flow through the valve inlets.

Further examination of the fuel selector valve revealed the exterior lock wire was intact, the valve filter bowl was removed and filter element examined, evidence of small particles of material were observed on the filter and in the filter bowl consistent with

metallic shavings, the filter bowl was reinstalled with the particles undisturbed for future examination and possible sampling.

The engine was found to be largely intact and separated from the aircraft with portions of the engine mount attached, resting nose down turned approximately ninety degrees to the left of the aircraft firewall and nose landing gear, the engine crankshaft was observed to be broken, portions of the crankshaft drive seal protruded from the engine case with the propeller and crankshaft flange missing.

Examination of the engine revealed the propeller governor control cable attached to the propeller governor the throttle control cable and mixture control cable linkages with all connecting hardware were found intact and connected to the carburetor control arm and mixture control arm with the throttle and mixture cables separated at a point just behind the metal sleeves attached to the rear of the engine consistent with post impact damage, the engine rear accessory section was observed to be intact with the propeller governor, dual magneto, mechanical fuel pump and vacuum pump attached, the mechanical fuel pump was found broken in half at the mating area with bent fasteners and evidence of post impact fire damage, the lower half of the mechanical fuel pump was observed to be hanging from the engine fuel line connected to the fuel inlet of the carburetor, no evidence of fuel was observable in the mechanical fuel pump.

Examination of the carburetor revealed it was intact and secured to the engine, the carburetor control arm position was documented with a photograph and found to move freely, the carburetor bowl drain plug was removed no evidence of fuel was observed from the carburetor bowl drain, an attempt to examine the carburetor fuel finger screen was unsuccessful as the finger screen was found to be frozen inside the carburetor housing (The carburetor finger screen was damaged during attempted removal) prior to attempted removal the screen was intact with no outwardly observable damage or deformation the fuel fitting was reinstalled. The carburetor inlet air box was found to be damaged crushed upwards towards the carburetor inlet consistent with post impact damage no obstructions were observed in the carburetor inlet.

Examination of the engine ignition system revealed the system largely intact with damage to ignition leads on the aft left side and the number two cylinder upper spark plug lead was severed, consistent with post impact damage.

Examination of the engine oil system external lines and fittings were found to be largely intact with damage to the oil cooler consistent with post impact damage oil was found to be present in the engine.

An impact crater consistent with a secondary point of impact was observed approximately two (2) feet to the right of the left wing root area trailing edge flap.

Examination of the impact crater revealed the front engine cowling and a large section of the left lower engine cowling, with the engine crankshaft flange pulley and ring gear partially exposed above ground.

The propeller spinner and spinner bulkhead were found to be buried approximately one and a half feet in the ground at its deepest point and required extrication.

The metal variable pitch propeller was found to be intact, for identification purposes propeller blades are described in this report as blade exhibit one and blade exhibit two.

Blade exhibit one was observed to be uniform in shape with no visually observable bends, no evidence of leading edge gouging or tip curling damage, no evidence of scratches consistent with chord wise scratching or scoring was observed.

Blade exhibit two was bent rearward with no evidence of leading edge gouging or tip curling damage, no evidence of chord wise scratches or scoring were observed.

The Spinner and bulkhead were pressed uniformly into the propeller hub with four distinguishable wrinkles observed.

The pulley and ring gear were attached to the propeller and broken with evidence of deformation consistent with impact damage.

Numerous aircraft parts were scattered throughout the area adjacent the wing engine and fuselage.

An aircraft metal data plate with aircraft make, model, serial number and type certification basis information was recovered from the airframe empennage left side and retained for further examination.

Post clearing examination of the scene revealed a substantial pattern of dead grass around and between the primary point of impact and the secondary point of impact consistent with fuel spray pattern post impact originating from the primary point of impact through the second point of impact.

Uriah [REDACTED]
Aviation Safety Inspector