

Summary of Aircraft Examination

NATIONAL TRANSPORTATION SAFETY BOARD Office of Aviation Safety Washington, DC 20594

SUMMARY OF AIRCRAFT EXAMINATION

-- CEN20FA032 --

A. ACCIDENT

Location: Victoria, Texas

Date: December 8, 2019

Time: 2017 central standard time

Aircraft: N4602B, Cessna 208B (s/n 208B0140)

Engine: Pratt & Whitney Canada PT6A-114A (s/n PC-E 17092)

B. OVERVIEW

On December 9, 2019, about 2017 central standard time, a Cessna 208B airplane, N4602B, was destroyed during an accident near Victoria, Texas. The airline transport pilot was fatally injured. The airplane was registered to and operated by Martinaire Aviation LLC under the provisions of Title 14 *Code of Federal Regulations* Part 135 as a cargo flight.

C. PARTICIPANTS

Representatives from the NTSB, FAA, Textron Aviation, Pratt & Whitney Canada, and Martinaire Aviation LLC participated in exams at the accident site on the day following the accident and at the recovery location (Air Salvage of Dallas) on December 13, 2019.

D. SUMMARY OF EXAMINATIONS

The accident aircraft impacted flat terrain in a nearly vertical attitude and came to rest inverted on a 240° magnetic heading.

The propeller hub was buried about 5 ft deep into clay soil and the airplane was highly fragmented, with remnants of the fuel tank and engine tubing located 225 ft from the main wreckage.



Summary of Aircraft Examination

All four corners of the aircraft were identified and all flight control surfaces were observed attached to the airframe.

Flight control cable continuity was partially established from the control surfaces to the cockpit area with multiple overload separation from impact.

Flaps were in the up position and the elevator trim was 5° tab up. The aileron trim actuator was not observed and the roll indicator was between neutral and full right.

The fuel selector handle and valve were impact damaged.

Both fuel tanks were impact damaged and no fuel was recovered from any of the fuel tanks.

The vacuum driven attitude, direction, and turn/bank gyro rotors (copilot's side of cockpit) showed evidence of rotational scoring.

The electrically powered attitude gyro (pilot's side of cockpit) did not show evidence of rotational scoring.

The position of the inverter select switch could not be determined due to impact damage.

The annunciator panel was retained for further examination to assess if panel lights were illuminated when the aircraft impacted the ground.

Disassembly of the engine showed rotational contact marks on the first stage carrier and rotational damages to the second and third stage compressor rotor blades consistent with the engine making power at the time of impact.

The fuel nozzle assemblies and lines that were accessible showed varying degrees of mechanical damages but were in place.

The engine components accessed did not reveal any evidence of any pre-impact mechanical anomalies that would have precluded normal operation.

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