



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region
August 8, 2019

Accident Site Notes
WPR19FA212

This document contains 4 embedded photos.

ACCIDENT:

Location: Camarillo, CA
Date: 8/7/2019
Aircraft: Experimental Express 2000, Registration Number: N43FD
NTSB IIC: Jack Vanover

EXAMINATION PARTICIPANTS:

Jackie Vanover
Aviation Accident Investigator
National Transportation Safety Board
Federal Way, WA 98003

Adrian Rivera
Aviation Safety Inspector
Federal Aviation Administration
Van Nuys, CA

Mike Council
Air Safety Investigator
Continental Engines
Mobile, AL

Route of Flight:

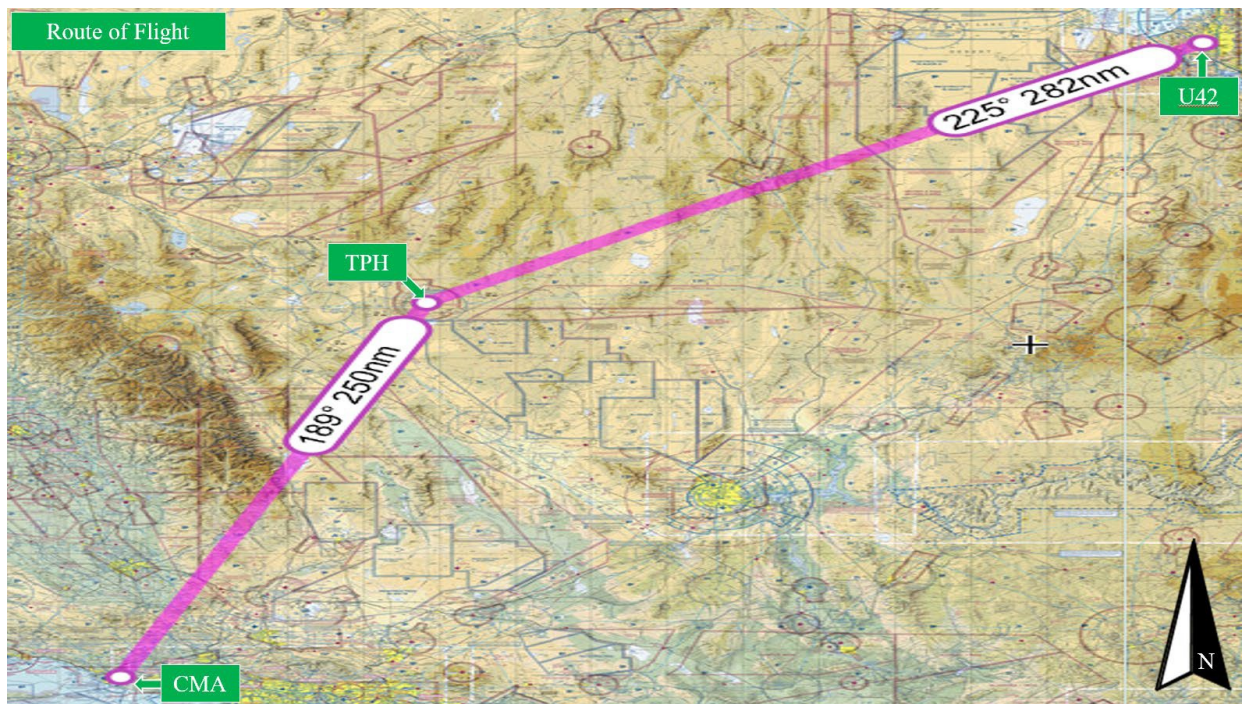


Figure 1: Route of Flight.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located on airport property.

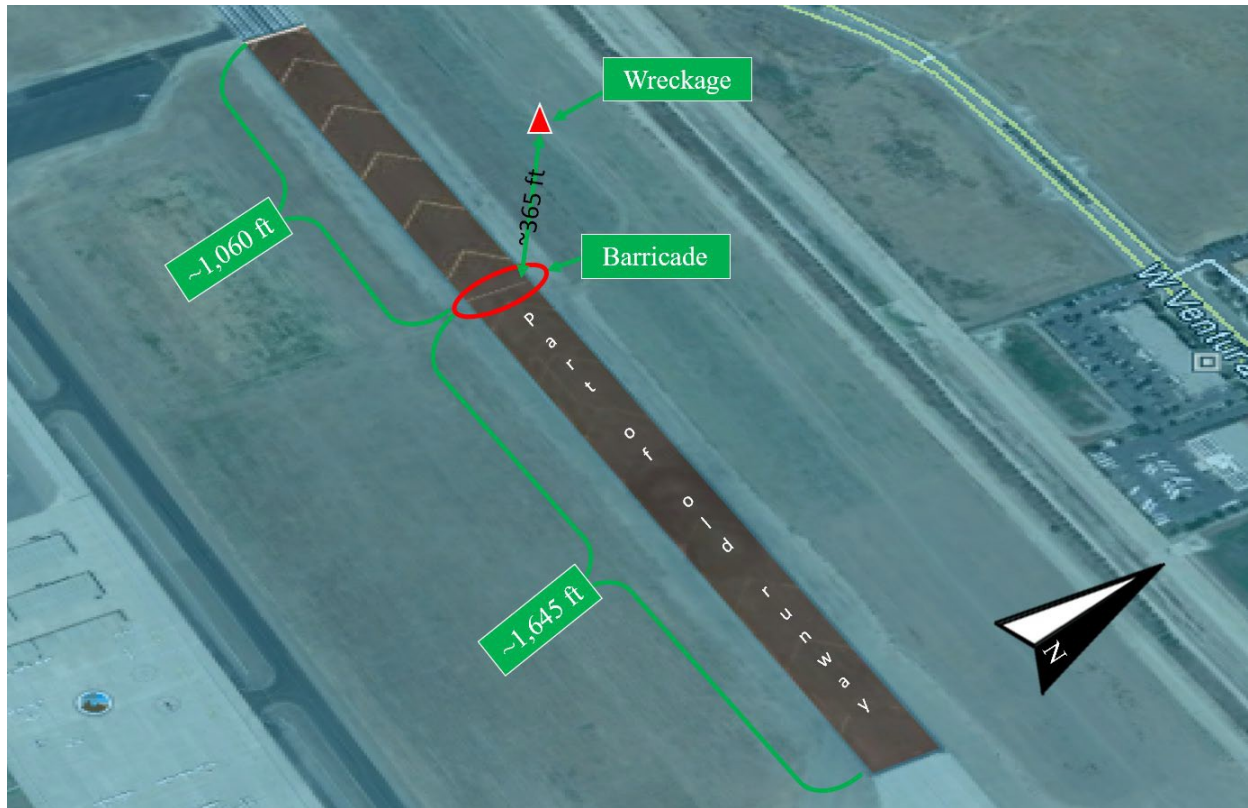


Figure 2: View of Wreckage relative to runway 26.

The wreckage debris field was from the initial impact point to the main wreckage was approximately 130 ft in an overall southeast to northwest orientation. The first identified point of contact with ground was located at GPS N34°12'50.94" and W-119° 4'55.26", which consisted of ground scarring and contained composite fragments from the right-wing tip. The main wreckage was located at GPS N34°12'52.07" and W-119° 4'56.11". The main wreckage consisted of the fuselage, empennage, engine, and both wings.

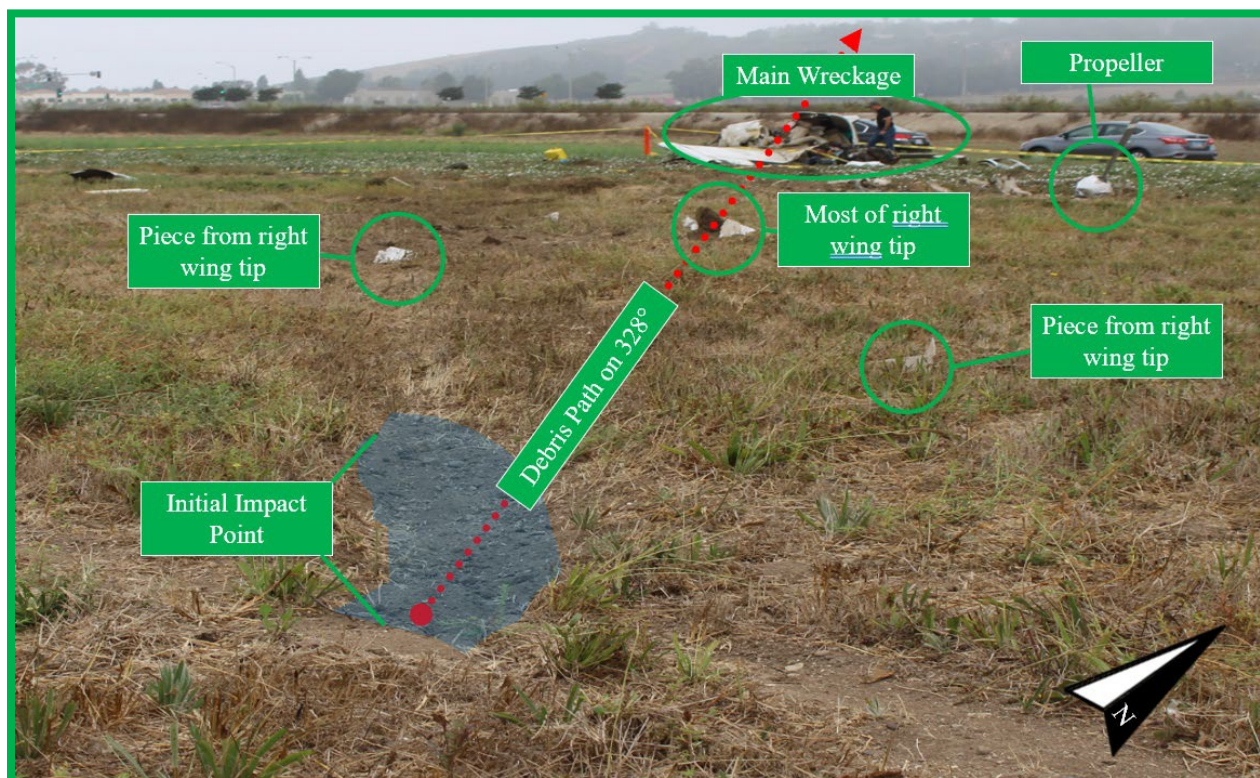


Figure 3: View of wreckage site.

The fuselage was located with the main wreckage. The cabin area was mostly destroyed. Flight control continuity was established for the elevator, rudder, and ailerons. All flight control torque tubes and control cables either remained attached or were broken under tension during impact. The fuel selector was found on the right tank. The mixture was found full forward. The throttle and propeller controls were broken and unreliable.

The empennage remained attached to the fuselage and displayed some damage. The elevator remained attached to the horizontal stabilizer and displayed impact damage. The elevator trim was observed to be near neutral. The rudder remained attached to the vertical stabilizer and no anomalies were noted.

The left wing remained attached to the fuselage and displayed crushing near the leading edge and the wing tip. The aileron remained attached to the wing. The trim tab remained attached to the aileron but was bent underneath the wing. The flap separated from the fuselage and was found under the wing. The hydraulic flap actuator was measured at 4 inches. The fuel cap remained secured. The wet wing fuel cell was found breached and about 2 gallons of residual fuel was drained during the recovery.

The right wing remained partially attached to the fuselage and had rotated upward about 90°. The leading edge and wing tip displayed extensive crushing. The aileron remained attached to the

wing. The flap separated from the fuselage and was found within about 10 ft of the main wreckage. The fuel cap remained secured. The wet wing fuel cell was found breached and about 1 gallons of residual fuel was drained during the recovery.

The engine separated from the firewall and was found next to the fuselage. All six cylinders remained attached to the engine and displayed some impact damage. The starter, air filter, air pump shear drive, and propeller were separated from the engine and located within the debris field.

The engine driven fuel pump remained attached but impact damage to the unmetered fuel pressure adjustment screw and lock nut was noted and all, but one fuel hose fitting fracture separated. The fuel mixture arm remained secured to its shaft and the damaged control cable remained attached. The instrument air pump separated and remained attached to the firewall. Damage to the propeller governor was noted.

The ACK Technologies Inc ELT Model E-01 TSO-C91a, Serial number 040213 did not activate during the crash. During the examination, the functionality of the ELT was tested, the switch was turned on and the signal was heard over VHF.

COCKPIT INSTRUMENTS

Master and Batt-On

Magneto-Both

Suction-Unremarkable

Flap peep sight- Unremarkable

Airspeed Indicator- Unremarkable

Turn and Bank Coordinator- Unremarkable

Attitude indicator- Unremarkable

Heading Indicator-bug set to 125°

Altimeter- Kollsman window set to 29.96

Vertical Speed Indicator- Unremarkable

VOR- OBS set to 196°

Autopilot- Unremarkable

The propeller was located at GPS N34°12'51.66" and W-119° 4'55.51" which was about 75 ft north of the IIP. Photos of the propeller were sent to a Hartzell investigator. He stated the following.

Signs of Power

1. Compound bending and twisting.
2. Remarkable leading-edge gouging

3. Being opposite rotation
4. Chord-wise/rotational abrasions
5. Some “ratcheting” on the crankshaft fracture surface



Figure 4: View of rotational forces on propeller spinner.