

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR25FA020

ACCIDENT SITE EXAMINATION

October 22, 2024

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A. ACCIDENT

Location: Las Cruces, New Mexico
Date: October 20, 2024
Time: 0224 MDT
2024 UTC
Airplane: Extra Flugzeugbau GmbH 300/L, N512DW

B. ACCIDENT SITE EXAMINATION

IIC Scott Johnson
National Transportation Safety Board
Federal Way, Washington

Aviation Safety Inspector Steve White
Federal Aviation Administration
Lubbock, Texas

Aviation Safety Inspector Kiyo Kawaharada
Federal Aviation Administration
Lubbock, Texas



Figure 1 File photo N512DW

C. SUMMARY

On October 20, 2024, about 1424 Mountain daylight time, an Extra Flugzeugbau GmbH EA 300/L, N512DW, was destroyed when it was involved in an accident near, Las Cruces, New Mexico. The pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations part 91 personal flight.

The airplane was taking part in the Las Cruces, New Mexico Air and Space Expo and was completing the routine with no other aircraft airborne. No significant weather was reported with a scattered layer of clouds above the field at 6000 feet.

Videos were submitted to the NTSB by spectators in attendance. The videos show the accident airplane in the completion of two forward nose to tail tumbling maneuvers arresting the motion inverted and flat. The pilot then rolls the airplane to the right pushing the nose forward to begin maneuver recovery. At an attitude of approximately sixty degrees nose down just prior to impacting terrain the airplane appeared to snap into a right roll.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site



Figure 2 Wreckage site northeast view

GPS Location: 32.291206 / -106.92639

Elevation: 4456 ft mean sea level (MSL)

Examination of the accident site revealed that the airplane impacted desert terrain approximately 200 ft northwest of Runway 4/22 at Las Cruces International Airport (LRU). The airplane came to rest on its right side on a magnetic heading of approximately 130° at an elevation of 4,434 ft mean sea level (msl).

The first identified point of contact (FIPC) was a ground scar consistent with impact by the right wingtip. The right wing was separated from the fuselage and located adjacent to the initial ground scar.

A crater approximately 6 ft in diameter and 1 ft deep was observed at the right-wing root. The main wreckage came to rest about 20 ft beyond the crater. It had a berm on its southwest edge rising approximately 1 ft above the terrain which appeared to be mounding created by the impact force in the direction of the main wreckage. The left

wing, with the aileron attached, was found inverted approximately 50 ft from the FIPC.

The main wreckage was located 20 ft from the larger impact crater along a 070° magnetic heading. The aft tail section was oriented upright, attached and angled 40° left of the main fuselage centerline on a 170° magnetic heading. All four corners of the airplane were identified within 200 ft of the initial impact.

2.0 Airframe Examination



Figure 3 Wreckage site southwest view (Courtesy of FAA)

TACH: 3344 9/14/24 Annual
SMOH: 611 Source, logbook, pilot performed work.

The forward fuselage underwent a large amount of compression and clockwise twisting moment during the impact. The flight cockpit rolled upside down at the nose of the airplane where the airplane came to rest.

Most of the tail was intact. The ELT was functioning and immobilized by FAA personnel. Both rudder cables were attached to the rudder and functioned normally when each was actuated. The horizontal stabilizer was actuated and found functional to the point of separation from the forward fuselage.



Figure 4 Right and left wings

Both wings and ailerons were found near the fuselage. The right wing was shattered close to the point of impact upright, under and on top of where the main wing spar was found and extended to the 6-foot main crater. The right fuel tank was distinguishable and was thrown about 50 feet from the airplane. The right aileron was separated and adjacent to the shattered wing. The left wing and aileron were found inverted about 50 feet from the main crater impact wreckage together.

The flight cockpit was compressed and twisted clockwise almost 90 degrees with the engine resting on its right side. The instrument panel was largely compressed with smashed gauges, which were found in fragments in the cockpit area. There were three gauge holes in the dashboard for instruments that were not located.

3.0 Engine Examination



Figure 5 Engine and Propeller hub

Manufacturer	Lycoming
Model	AEIO-540-L1B5
S/N	L-25724-28A

The engine remained attached to the engine mount attached points twisted clockwise resting on its right side. The engine cowling was fracture separated. The engine and forward portion of the fuselage was impact damaged and displaced to the right. The engine mount had several fractures, consistent with impact damage. All four cylinders remained attached and exhibited impact damage. Impact had torn most all the exhaust, oil sump and intake manifold from the engine. Most engine accessories were torn from the engine and were heavily crushed found near the engine. No engine data instruments evidence was found. The absence of gauges in the engine instrument panel doesn't preclude the possibility of engine data monitoring. No EGT probe lines were found going into the cylinders. Instruments found did not match mounting holes available.

4.0 Propeller Examination

Manufacturer	MT-Propeller
Model	MTV-9-B-C
S/N	190686

A few years earlier the pilot had replaced the propellor with a three-blade wood prop. Only one blade was partially distinguishable with the remaining blades existing as wood chips. From what was observed the engine was making power when it impacted terrain. Three FAA inspectors observing the event all stated they heard the engine developing power to the ground.

5.0 Meteorological Information

KLRU 202035Z AUTO 20010KT 10SM SCT060 SCT080 26/07 A3020

6.0 Items retained

GoPro Hero 8 Black	Part SPJB1	S/N C33334250XXXXX
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Submitted by:

Scott Johnson
Aviation Accident Investigator