

N5136E Accident Investigation

Time & Date of Accident: 01/07/2026 at 1400 CST

Location: San Marcos, TX (HYI)

FAA Accident Incident Report: ASW1726013

NTSB Report: CEN26LA092

Narrative:

On January 7, 2026, at approximately 1400 local time, a Cessna 172N aircraft was involved in an accident during an instructional flight maneuver to simulate an engine-out emergency after rotation. The pilot proceeded to take off on Runway 17, and after rotation, started to perform the flight maneuver to simulate an engine out. Upon descending for landing on Runway 17, the pilot maintained control of the aircraft. However, during touchdown, the aircraft experienced a hard landing, which resulted in the nose landing gear bending forward. The pilot was able to continue maintaining control to taxi the aircraft back to ramp with no further incident.

FAA On Site Investigation(s):

On 1/9/2026, we went to US Aviation Group's maintenance hangar to observe damage to aircraft N5136E that was a result of a hard landing. The nose landing gear assembly was observed to be bent forward. Measurements were taken from the firewall to the centerline of the nose wheel and compared to the same reference points on an undamaged Cessna 172. The comparison indicated that the damaged nose landing gear assembly was displaced forward by approximately seven inches. The upper strut mounting bolts were observed to be fully attached, with no visible cracking or bolt failure; however, deformation of the firewall was noted at the upper attachment location, with the structure displaced aft. The lower strut fitting attachment point exhibited a shear failure, with the fitting separated at that location. The mechanic reported disconnecting the steering arm attachments to facilitate towing the aircraft back to the hangar after the incident. An inspection of the propeller revealed no signs of prop strikes. Examination of the main landing gear showed no obvious damage. Performed flight control movement checks and flight controls moved freely with no signs of friction or binding. It was noted that the elevator trim was set to full nose down. Mechanic stated that they did not move the trim prior to relocating the aircraft to the hangar.

Conducted an interview with the flight school's Operations Manager since the instructor pilot was not available for interview at that time. The Operations Manager explained that the maneuver that the instructor was performing was called a simulated engine failure during climb out. He showed us a download of the flight and the data showed the engine information, altitude,

air speed and other flight instrument information. It appeared that the pilot maintained control and speeds up to the point of decent.

On January 14, 2026, we traveled to US Aviation's maintenance hangar. The NTSB on-call investigator requested an engine run and a check of the flight controls for proper rigging and movement. After discussing the engine run with the mechanic, we determined that the aircraft's current condition was not safe for an engine run. Instead, we decided to check the compression readings and inspect the spark plugs. All spark plugs appeared to be in good condition. Compression check results were as follows: #1 78/80, #2 70/80, #3 74/80, #4 76/80. The mechanic then checked the elevator cables for proper tension; the results were: 25 lbs for the top cable, 16 lbs for the bottom cable. Elevator travel measurements were 27 degrees up and 23 degrees down. Also checked elevator trim for full travel and found no defects. We reviewed the logbooks and confirmed that the last annual inspection was completed in July 2025 and the last 100-hour inspection in December 2025. The engine compression readings were consistent with those recorded during the 100-hour inspection.

Aircraft Information:

Cessna 172N, N5136E

Serial Number: 17271729

Total airframe hours: 11,122

Pilot Interview:

On January 13, 2026, the Operations Inspector conducted a Zoom meeting with the instructor pilot. The pilot explained that during a simulated engine failure on climb out, they maintained control of the aircraft, not the student. This maneuver was included in the flight school's lesson plans as a demonstration, but students were not required to perform it. The instructor pilot admitted he had not received formal training on this maneuver, only having observed it previously. He stated that the maneuver was performed during the first flight of the day for this aircraft. The pilot also mentioned performing the maneuver on a previous flight in a different aircraft without any issues. When asked about differences between the aircraft, the pilot noted that the flight controls felt heavy and the engine seemed sluggish. He could not recall whether the flaps were set to 0 degrees or 10 degrees and did not recall the trim settings. During the descent, the pilot reported that speed and descent appeared normal. Upon touchdown, the aircraft landed on the main landing gear first and bounced, then settled back down hard. Once fully on the ground, the aircraft was difficult to steer, requiring differential braking to maintain directional control while taxiing back to the ramp. Afterwards, the pilot informed maintenance of the possible hard landing and steering issues.



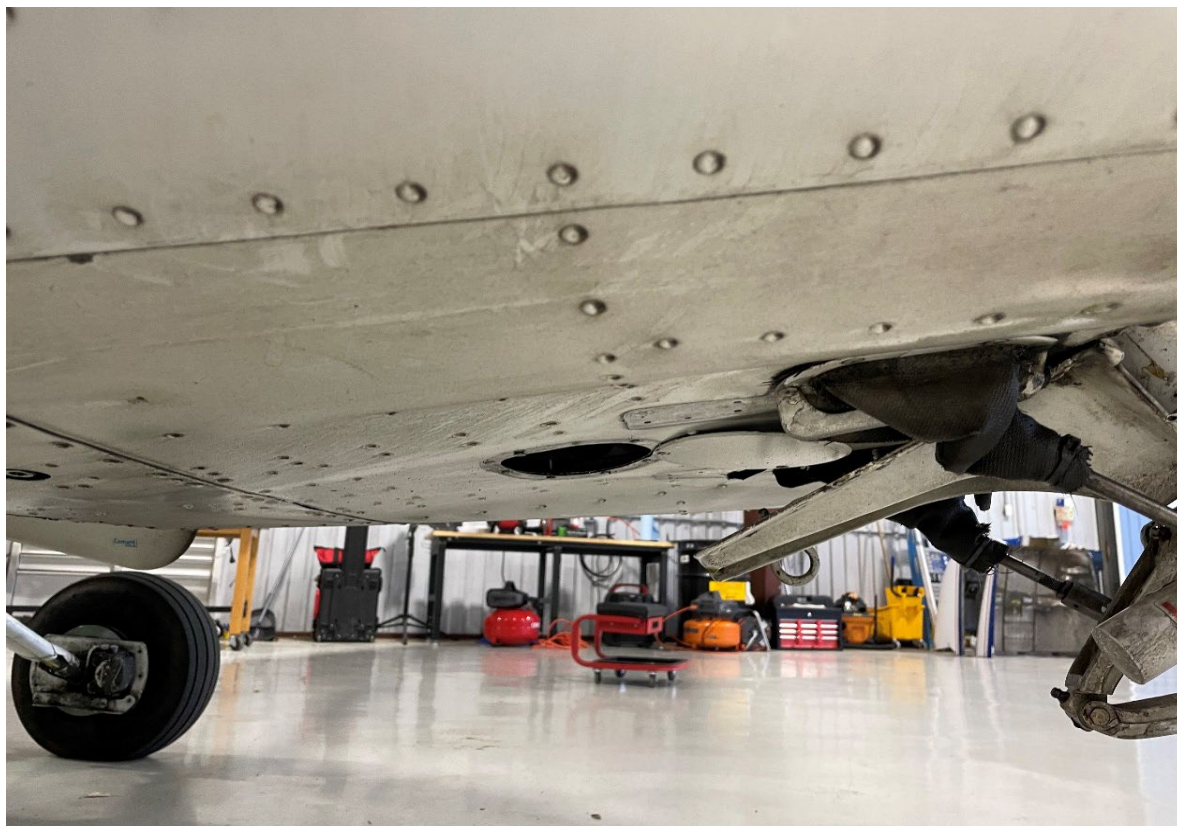
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