

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Central Region

AIRCRAFT AND ENGINE EXAMINATION

-- CEN18FA262 --

A. ACCIDENT

Location: Moriarty, New Mexico

Date: July 10, 2018

Aircraft: Schempp-Hirth Flugzenbau GMBH Ventus 3F motorglider,

B. PARTICIPANTS

Dr. David Bowling

Regional Chief/Senior Air Safety Investigator

National Transportation Safety Board

Chris Jarmen

President

Air Transport

C. ACCIDENT SUMMARY

On July 10, 2018, about 1507 mountain daylight time, a Schempp-Hirth Flugzenbau GMBH Ventus 3F motorglider, N753R, impacted terrain 1/2 mile southeast of Moriarty Municipal Airport (0E0), Moriarty, New Mexico. The private pilot sustained fatal injuries and the glider was substantially damaged. The glider was privately owned and was being operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight, which originated from 0E0 about 1312.

D. GENERAL DESCRIPTION

The wreckage was recovered by Air Transport on July 12, 2018, and taken to their facility in Phoenix, Arizona. The glider and it's electric flight sustaining motor were examined on July 23, 2019.

The glider fractures were re-examined. All fractures were upward and aft, and the forward fuselage, cockpit area, and left wing structure were embedded with soil and vegetation from the accident site, indicative of a steep nose down and left turning impact with terrain. The crush angles on the fuselage were consistent with a 60-degree nose down descent angle at impact.

A retracing of the flight control tubes and control cables from the cockpit to the flight control and spoiler surfaces reconfirmed flight control continuity.

The FES-DIS-M100 front electric sustainer (FES) engine, remains of the FES-VEN-P14-102, 28-inch diameter, two-bladed propeller, and two FES batteries were examined. The propeller showed one blade broken aft, and fragmented. The other blade was separated at the hub. Both blades showed chordwise rubs and scratches on the front blade faces. The propeller hub was offset and pressed aft into the front case of the engine. The engine's single shaft was bent about 15 degrees and the base of the remaining propeller blade was embedded between the case and the engine shaft. An attempt to turn the shaft was unsuccessful. The power and control cables to the engine were located. AP7518 digital Ohmmeter was applied to the power cables and showed electrical resistance to the engine through several settings. Reading results are listed below.

Ohmmeter setting	High	Low
2M	.404	.069
200K	192.5	-----
20K	11.84	-----
2K	1.848	-----
200	2.82 and Aural Tone	-----

Both FES batteries were located in the fuselage just behind the pilot's seat. Both batteries were intact but showed impact damage. No attempt was made to determine if they still held a charge.