



National Transportation Safety Board Aviation Accident Final Report

Location:	Hudson, CO	Accident Number:	DEN01LA059
Date & Time:	03/01/2001, 1550 MST	Registration:	N4386W
Aircraft:	Meshko Zenair CH-701	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot had just taken off and was climbing at 80 percent power (5,000 rpm) when he noticed the EGT rising "into redline 1,625 degrees F." He leveled off, reduced power to 4,800 rpm, and reduced propeller pitch. EGT stopped rising and came down slightly, but was still above redline. All other engine indications were normal. EGT continued to rise and the engine started losing power and was "running rough." The pilot tried to land at a nearby airport, but was forced to make a landing in an open field. He said he flared at the the last moment and hit the ground sharply. The nose wheel broke off when it struck a tire track and the airplane nosed over. The pilot, who also built the airplane, suspected detonation caused the rise in EGT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loss of engine power as a result of detonation. A contributing factor was the unsuitable terrain on which to make a forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE

Findings

1. ENGINE INSTRUMENTS,EGT/TOT GAGE - OVERTEMPERATURE
2. (C) MISC,ENGINE PRE-IGNITION AND/OR DETONATION

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE

Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On March 1, 2001, approximately 1550 mountain standard time, a Meshko-Zenair CH-701, N4386W, was substantially damaged when it collided with the ground during a forced landing in a field north of Platte Valley Airpark, Hudson, Colorado. The private pilot, the sole occupant in the airplane, received serious injuries. Visual meteorological conditions prevailed, and no flight plan was filed for this personal flight being conducted under Title 14 CFR Part 91. The flight had originated at Greeley-Weld County Airport, Greeley, Colorado, at approximately 1530.

According to the pilot's accident report, he had just taken off and was climbing at 80 percent power (5,000 rpm) when he noticed the exhaust gas temperature (EGT) rising "into redline 1,625 degrees F." The pilot leveled off, reduced power to 4,800 rpm, and reduced propeller pitch. The EGT stopped rising and came down slightly, but was still above redline. All other engine indications were normal. EGT continued to rise and the engine started losing power and "running rough." The airplane began losing altitude so the pilot slowed to 45 mph and selected an open field. He flared "at [the] last moment [and] hit [the] ground sharply." The nose wheel ran over a tire track in the ground and was sheared off. The strut dug into the ground and the airplane nosed over.

The pilot, who was also the builder of the airplane, suspected detonation caused the rise in EGT.

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	75, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	01/17/2001
Occupational Pilot:	No	Last Flight Review or Equivalent:	04/14/2000
Flight Time:	24006 hours (Total, all aircraft), 56 hours (Total, this make and model), 24006 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Meshko Zenair	Registration:	N4386W
Model/Series:	CH-701	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	001
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	02/11/2001, Annual	Certified Max Gross Wt.:	1328 lbs
Time Since Last Inspection:	4 Hours	Engines:	1 Reciprocating
Airframe Total Time:	56 Hours at time of accident	Engine Manufacturer:	Subaru
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	EA 81 150TTB1
Registered Owner:	George M. Meshko	Rated Power:	160 hp
Operator:	George M. Meshko	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GXY, 4658 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	1555 MST	Direction from Accident Site:	355°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	17 knots / 24 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.79 inches Hg	Temperature/Dew Point:	10° C / -5° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Greeley, CO (GXY)	Type of Flight Plan Filed:	None
Destination:	Erie, CO (48V)	Type of Clearance:	None
Departure Time:	1530 MST	Type of Airspace:	Class G

Airport Information

Airport:	Platte Valley Airpark (18V)	Runway Surface Type:	Unknown
Airport Elevation:	4965 ft	Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Report Date:	07/30/2001
Additional Participating Persons:	Gerald H Villhauer; Federal Aviation Administration; Denver, CO		
Publish Date:	08/03/2011		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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