

Aviation Investigation Final Report

Location: WINSLOW, Arizona Accident Number: LAX99LA257

Date & Time: July 24, 1999, 09:15 Local Registration: N102E

Aircraft: Ewertz STARDUSTER Aircraft Damage: Substantial

Defining Event: 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

In the takeoff initial climb the pilot noticed that the controls were becoming sluggish, and the aircraft was no longer climbing and had entered a descent. He verified that he had applied full throttle. As the aircraft continued to descend, the pilot attempted to avoid the obstacles in his flight path. He began a shallow turn but because of his continued descent, he was unable to clear the utility lines ahead. He chose instead to sacrifice altitude and continue in the turn. As he approached a road that ran parallel to the utility lines, the aircraft's wing struck a tree. After the impact the aircraft became uncontrollable, descending through the remaining altitude until it collided with terrain next to the roadway. The density altitude was computed to be 7,407 feet. The pilot said that there were no mechanical malfunctions with either the engine or airframe.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to attain and maintain a sufficient flying airspeed for the existing density altitude conditions, which resulted in an inadvertent stall/mush.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

- 1. WEATHER CONDITION HIGH DENSITY ALTITUDE
- 2. (C) AIRSPEED NOT OBTAINED/MAINTAINED PILOT IN COMMAND
- 3. (C) STALL/MUSH ENCOUNTERED PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT Phase of Operation: DESCENT - UNCONTROLLED

Findings

- 4. OBJECT WIRE, TRANSMISSION
- 5. EVASIVE MANEUVER ATTEMPTED PILOT IN COMMAND
- 6. OBJECT TREE(S)

Page 2 of 6 LAX99LA257

Factual Information

On July 24, 1999, at 0915 hours mountain standard time an amateur-built experimental Starduster II, N102E, collided with a tree during the takeoff initial climb from the Winslow-Lindbergh Regional Airport, Winslow, Arizona. The aircraft sustained substantial damage; however, the certificated commercial pilot and his pilot-rated passenger were not injured. The aircraft was owned and operated by the pilot under the provisions of 14 CFR Part 91 when the accident occurred. The flight was originating at the time as a personal cross-country flight to Moriarity, New Mexico. Visual meteorological conditions prevailed at the time and no flight plan was filed.

The pilot reported that he lifted off from runway 04 at between 65 and 70 mph after a 4,000-foot takeoff roll. He made his initial climb at 71 to 75 mph until the aircraft reached approximately 250 feet agl. As the flight progressed to a point about 0.25 miles from the departure end of the runway, the pilot noticed that the controls were becoming sluggish and the aircraft was no longer climbing and had begun a descent. He verified that he had full throttle, noting that the engine tachometer was indicating about 2,450 rpm. As the aircraft descended, the pilot's attention was now drawn to obstacles in his flight path. He began a shallow, 5- to 10-degree banked, turn to the right, while maintaining about 68 to 71 mph. Estimating that with his continued descent he would be unable to clear the utility lines that lay immediately ahead, the pilot chose instead to sacrifice about 50 feet of altitude while continuing in the turn. As he approached a paved road that ran parallel to the utility lines, the aircraft's right wing struck a tree. After the impact the aircraft became uncontrollable, descending through the remaining 20 to 25 feet of altitude until colliding with terrain next to the roadway.

The airport is located at an elevation of 4,941 feet msl. The reported temperature and winds at the time of the accident were 81 degrees Fahrenheit and 060 degrees at 7 knots. Density altitude was computed by Safety Board investigators to be 7,407 feet.

The maximum allowable takeoff weight was 1,985 pounds. The actual takeoff weight was estimated by Safety Board investigators to be approximately 1,620 pounds. Power was supplied to the aircraft by a normally aspirated 150 horsepower (hp) engine with a fixed pitch propeller. The engine manufacturer stated that the engine was capable of producing 118 hp at full throttle under the density altitude conditions existing at the time of takeoff.

The pilot stated that there were no mechanical malfunctions with the engine or airframe.

Page 3 of 6 LAX99LA257

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	39,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	August 20, 1998
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	3800 hours (Total, all aircraft), 3200 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ewertz	Registration:	N102E
Model/Series:	STARDUSTER II STARDUSTER	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	100
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	January 17, 1999 Annual	Certified Max Gross Wt.:	1985 lbs
Time Since Last Inspection:	8 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	98 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-320-A1A
Registered Owner:	GREGORY SCOT LAMB	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Page 4 of 6 LAX99LA257

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	INW ,4941 ft msl	Distance from Accident Site:	
Observation Time:	08:56 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	(INW)	Type of Flight Plan Filed:	None
Destination:	MORIARITY , NM (0E0)	Type of Clearance:	None
Departure Time:	09:14 Local	Type of Airspace:	Class E

Airport Information

Airport:	WINSLOW-LINDBERG REGIONAL INW	Runway Surface Type:	Asphalt
Airport Elevation:	4941 ft msl	Runway Surface Condition:	Dry
Runway Used:	4	IFR Approach:	None
Runway Length/Width:	7499 ft / 150 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.100585,-110.639251(est)

Page 5 of 6 LAX99LA257

Administrative Information

Investigator In Charge (IIC): Crispin, Robert

Additional Participating Persons:

Original Publish Date: August 14, 2001

Last Revision Date:

Investigation Class: Class

Note:

Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=46944

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

Page 6 of 6 LAX99LA257