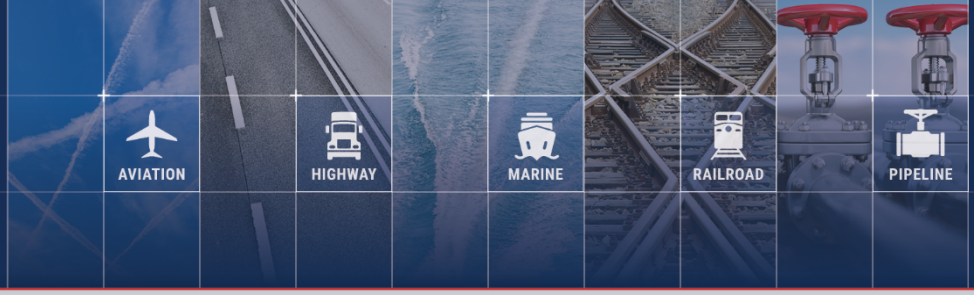

Aviation Investigation Final Report

Location:	WINSLOW, Arizona	**Accident Number:**	LAX99LA257
Date & Time:	July 24, 1999, 09:15 Local	**Registration:**	N102E
Aircraft:	Ewertz STARDUSTER II	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	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)

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.

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 Medical--no 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:**	

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 Precipitation		
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)

Administrative Information

Investigator In Charge (IIC):	Crispin, Robert
Additional Participating Persons:	STEVE D'URSO; SCOTTSDALE , AZ
Original Publish Date:	August 14, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46944