Aviation Investigation Final Report

Location:	WALLER, Texas	**Accident Number:**	FTW00LA219
Date & Time:	July 29, 2000, 15:00 Local	**Registration:**	N105LW
Aircraft:	Let L-23 SUPER BLANKIT	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the towplane reported that the takeoff was normal, and while climbing through 600 feet agl, he initiated a turn to the east and he felt the glider release as the airplane was turning. Witnesses reported that when the towplane turned left, the glider continued straight ahead and entered a climb. The glider then entered an uncoordinated turn to the right toward the airport. Subsequently, the glider's nose dropped, and it entered a spin and impacted the ground. When the tow plane landed it was evident that the tow rope had separated, and the glider pilot had not released in the normal manner. The 5/16-inch polypropylene rope separated at a point 25 feet forward of the glider attach point. The rope's fibers, at the point of separation, were frayed and uneven. The remainder of the rope was clean and free of abrasions, knots, and nicks. According to toxicology tests, 0.034 (ug/ml,ug/g) diphenhydramine was detected in the pilot's blood, and an unquantified amount was found in the urine. Diphenhydramine is an over-the-counter drug used as an antihistamine. Results of a study on diphenhydramine concluded that it adversely affects a person's ability to maneuver an automobile.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain control of the glider while maneuvering. Contributory factors were the in-flight separation of the tow rope and the pilot's physical impairment from his use of diphenhyrdramine.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (F) GLIDER LAUNCH/TOW EQUIPMENT - SEPARATION

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND
4. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
5. TERRAIN CONDITION - GROUND

Factual Information

On July 29, 2000, at 1500 central daylight time, a Let L-23 Super Blankit non-powered glider, N105LW, was destroyed when it impacted trees following a separation of the towrope and loss of control during the initial takeoff climb from the Houston Gliderport, Waller, Texas. The glider was registered to and operated by The Soaring Club of Houston, Houston, Texas. The private pilot, who held a glider rating, sustained fatal injuries. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The local flight was originating at the time of the accident.

According to the pilot of the towplane, the takeoff from runway 17 was normal and while climbing through 600 feet agl he initiated a left turn to the east. He reported that as the airplane was turning he "felt the glider release from the tow," and he then banked hard left to give way to the glider. Subsequently, the pilot received a radio transmission that the glider had crashed, and he returned to the airport. Upon landing it was evident that the tow rope had separated, and the glider pilot had not released in the normal manner.

According to witnesses, the initial climb-out "appeared quite normal" and "as usual, at the end of the airport the tow plane commenced a left turn." However, the glider continued straight ahead and it entered a climb. The glider was 250-300 feet agl when it began a "very uncoordinated turn to the right," and as it turned through 90 degrees, the "nose of the glider dropped and it entered a spin." Subsequently, the glider completed 1-2 turns before impacting trees and the ground. One witness, who was part of the airport crew and a wing runner for the gliders, stated that "it was picture-perfect for soaring," and "all other flights that day were without incident and none of the pilots of the Blankit that day had mentioned any problems."

The separated sections of the rope were removed from the glider attach point and from the tow plane by an FAA inspector. The rope was sent to the NTSB Investigator-In-Charge for examination. The rope was separated approximately 25 feet forward of the attach point on the glider, and the rope's fibers, at the separation point, appeared frayed and uneven. The remainder of the rope appeared clean and was free of abrasions, knots, and nicks. According to Soaring Club personnel, the rope was 5/16-inch polypropylene, with a breaking strength of 1,300 pounds.

According to FAA records and the pilot's flight logbook, the pilot was issued a private pilot certificate (single-engine land) on September 19, 1970, and a glider rating on April 30, 2000. He had accumulated a total of 118.4 flight hours, of which 26.2 flight hours were in gliders. His last FAA third class medical certificate was issued on June 14, 1992, and there was no record of the pilot having been issued an FAA medical certificate since that time. Additionally, the FAA does not require a pilot to hold a medical certificate to pilot a glider.

An autopsy was performed by the Office of the Medical Examiner of Harris County, Houston, Texas. Toxicological tests were performed by the FAA's Civil Aeromedical Institute, Oklahoma City, Oklahoma. The tests were negative for carbon monoxide, cyanide and ethanol. The tests revealed the following; Bupropion present in blood and urine, bupropion metabolite detected in blood and urine, 0.034 (ug/ml, ug/g) diphenhydramine detected in blood, and diphenhydramine detected in urine. Bupropion is a prescription mediation (commonly known by the trade name Wellbutrin) used in the treatment of depression, attention deficit hyperactivity disorder, and smoking cessation. Diphenhydramine is an over-the-counter antihistamine (commonly known by the trade name Benadryl) used in symptomatic management of allergic symptoms and also for its sedative, antitussive and antispasmodic effects.

The American College of Physicians-American Society of Internal Medicine conducted a study (Effects of Fexofenadine, Diphenhydramine, and Alcohol on Driving Performance) on the effects of diphenhydramine on driving performance. The results of that study indicated that "Participants had significantly better coherence after taking alcohol or fexofenadine (Allegra) than after taking diphenhydramine...After participants took diphenhydramine, driving performance was poorest, indicating that diphenhydramine had a greater impact on driving than alcohol did."

Pilot Information

Certificate:	Private	**Age:**	53,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Expired	**Last FAA Medical Exam:**	August 14, 1992
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	118 hours (Total, all aircraft), 26 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Let	**Registration:**	N105LW
Model/Series:	L-23 SUPER BLANKIT L-23 SUPER	**Aircraft Category:**	Glider
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Utility	**Serial Number:**	938105
Landing Gear Type:		**Seats:**	2
Date/Type of Last Inspection:	April 22, 2000 Annual	**Certified Max Gross Wt.:**	1120 lbs
Time Since Last Inspection:	70 Hrs	**Engines:**	Unknown
Airframe Total Time:	1399 Hrs	**Engine Manufacturer:**	
ELT:		**Engine Model/Series:**	
Registered Owner:	THE SOARING CLUB OF HOUSTON	**Rated Power:**	
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:	HOU ,47 ft msl	**Distance from Accident Site:**	30 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Scattered / 6000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Broken / 25000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	150°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	27°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WALLER , TX (89TA)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	HOUSTON GLIDERPORT 89TA	**Runway Surface Type:**	Grass/turf
Airport Elevation:	300 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	17	**IFR Approach:**	
Runway Length/Width:	3500 ft / 300 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	30.050788,-95.920417(est)

Administrative Information

Investigator In Charge (IIC):	Ragogna, Jason
Additional Participating Persons:	DAVID H MILLER; HOUSTON , TX
Original Publish Date:	July 10, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49876