



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	Sterling, MA	<b>Accident Number:</b>	NYC02LA046
<b>Date &amp; Time:</b>	01/01/2002, 1458 EDT	<b>Registration:</b>	N117BB
<b>Aircraft:</b>	LET L-23	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Instructional

---

## Analysis

As the glider neared the airport, the student pilot entered the downwind leg further out from the runway than she normally would. As the glider was turned on to the base leg, the student realized that she would not make the runway and elected to perform a forced landing to a two-lane highway. The glider touched down on the southbound lane of the elevated roadway, impacted a metal guardrail, and came to rest upright. The student had accumulated about 13 hours of dual instruction in gliders, with 7 or 8 different flight instructors, and about 1.4 hours of solo time. The student added that previous to the accident flight, she had no plans to fly solo due to the wind conditions. After her flight instructor reassured her that the previous dual flight had been good, and student climbed into the glider alone. The recorded weather at a nearby airport, about the time of the accident, included winds from 250 degrees at 13 knots, gusts to 22 knots.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilots inadequate compensation for wind conditions which resulted in an off-field landing, and the CFI's improper decision to allow the student to fly solo. Factors related to the accident were the gusting wind conditions, and the students lack of total experience in gliders.

## Findings

---

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: EMERGENCY DESCENT/LANDING

### Findings

1. OBJECT - FENCE
2. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
3. (F) LACK OF TOTAL EXPERIENCE IN KIND OF AIRCRAFT - PILOT IN COMMAND
4. (F) WEATHER CONDITION - GUSTS
5. (C) PLANNING/DECISION - IMPROPER - FLIGHT INSTRUCTOR(ON GROUND)

## Factual Information

On January 1, 2002, about 1458 eastern standard time, a LET L-23 glider, N117BB, was substantially damaged during a forced landing near the Sterling Airport, Sterling, Massachusetts. The student pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the instructional flight conducted under 14 CFR Part 91.

According to the student pilot, the accident flight was the second flight of the day, which was conducted solo.

The first flight was about 3-1/2 hours earlier, and was conducted with an instructor. The student added that it was windy on the flight, and she had no plans to solo due to the wind conditions. When the flight instructor asked her if she wanted to fly again, she said yes, assuming the flight would be conducted as dual instruction. When the student realized that the flight would be conducted solo, she replied that she did not want to go solo, and that it was still too rough. After the flight instructor reassured her that the previous dual flight had been good, the student climbed into the glider alone.

On the solo flight, as the glider was towed behind a tow plane, the student observed that the wind was blowing down the favored runway, runway 34. During the tow to altitude, the conditions were rough, with the towline going slack, and then tight, requiring the student to make corrections more often than she had done in the past. As the glider approached 2,500 feet, the towline was released and the student began to practice maneuvers. During the maneuvers, the student stated that she hit her head twice on the canopy due to the turbulent conditions. About 12 minutes into the flight, the student decided to return to the airport. She entered the traffic pattern, on the downwind leg, at 1,500 feet, but further out from the runway than she normally would have flown. While on the downwind leg, the student checked the operation of the airbrake and kept her hand on it as she had been taught. As the glider was turned on to the base leg, the student realized that she would not make the runway and elected to perform a forced landing to a two-lane highway. The glider touched down on the southbound lane of the elevated roadway and impacted a metal guardrail, coming to rest upright on the highway.

The student additionally stated that she might have been moving the speed brake handle inadvertently during the approach due to the turbulence.

The student reported she had accumulated about 13 hours of dual instruction, with 7 or 8 different flight instructors, at the Massachusetts Institute of Technology Soaring Club. She also accumulated about 1.4 hours of solo time. All of her previous flights had been conducted on days with light or calm wind conditions, with some crosswind landings.

The recorded weather at a nearby airport, about the time of the accident, included winds from 250 degrees at 13 knots, gusts to 22 knots.

## Student Pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	36, Female
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	None	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	17 hours (Total, all aircraft), 17 hours (Total, this make and model), 2 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	LET	<b>Registration:</b>	N117BB
<b>Model/Series:</b>	L-23	<b>Aircraft Category:</b>	Glider
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Experimental	<b>Serial Number:</b>	917815
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	08/27/2001, Annual	<b>Certified Max Gross Wt.:</b>	1124 lbs
<b>Time Since Last Inspection:</b>	25 Hours	<b>Engines:</b>	0
<b>Airframe Total Time:</b>	911 Hours at time of accident	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	M.I.T. Soaring Association	<b>Rated Power:</b>	
<b>Operator:</b>	M.I.T. Soaring Association	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FIT, 348 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1452 EST	Direction from Accident Site:	20°
Lowest Cloud Condition:	Few / 4900 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	18 knots / 22 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.93 inches Hg	Temperature/Dew Point:	-1° C / -13° C
Precipitation and Obscuration:			
Departure Point:	Sterling, MA (3B3)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1430 EDT	Type of Airspace:	Class G

## Airport Information

Airport:	Sterling Airport (3B3)	Runway Surface Type:	Asphalt
Airport Elevation:	459 ft	Runway Surface Condition:	Dry
Runway Used:	34	IFR Approach:	None
Runway Length/Width:	3010 ft / 40 ft	VFR Approach/Landing:	Forced Landing

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	42.454722, -71.733333

## Administrative Information

Investigator In Charge (IIC):	Stephen M Demko	Report Date:	06/25/2003
Additional Participating Persons:	Steven Racicot; FAA; Windsor Locks, CT		
Publish Date:			
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).