



# Aviation Investigation Final Report

<b>Location:</b>	UNIONVILLE, Pennsylvania	<b>Accident Number:</b>	IAD02LA071
<b>Date &amp; Time:</b>	July 5, 2002, 14:00 Local	<b>Registration:</b>	N4446W
<b>Aircraft:</b>	Burkhart Grob G103 TWIN ASTIR	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

While on a left downwind for runway 07, the glider pilot saw a tow plane and glider departing runway 25. The pilot had elected to land on runway 07 because it was the runway he had used to depart earlier, but the winds had changed and the runway in use at the time was runway 25. When he turned on to final approach, the pilot realized he was getting close to the tow plane, and ducked under it to avoid a collision. The glider landed short of the runway, into a field with crops, and subsequently went into a ditch.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's evasive maneuver to avoid a collision with a departing airplane, which resulted in a landing short of the runway. A factor was the pilot's decision to land on the runway opposite the one in use.

## Findings

Occurrence #1: ABRUPT MANEUVER  
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

- Findings
1. (C) EVASIVE MANEUVER - INITIATED - PILOT IN COMMAND
  2. (F) WRONG RUNWAY - SELECTED - PILOT IN COMMAND
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Occurrence #2: UNDERSHOOT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

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

Phase of Operation: LANDING

Findings

3. TERRAIN CONDITION - CROP

4. TERRAIN CONDITION - DITCH

## Factual Information

On July 5, 2002, about 1400 eastern daylight time, a Burkhart Grob G103 Twin Astir glider, N4446W, was substantially damaged after it landed short of runway 07 at the Ridge Soaring Gliderport (79N) Unionville, Pennsylvania. The certificated commercial pilot and the passenger were not injured. Visual meteorological conditions prevailed and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

In a written statement, the pilot stated that when he was on left downwind for runway 07, he saw a tow plane and a glider taking off on runway 25. The pilot had elected to land on runway 07 because it was the runway he had used to depart earlier, but the winds had changed and the runway in use at the time was runway 25. When he turned on final approach, the pilot realized he was getting close to the tow plane, and ducked under it to avoid a collision. The avoidance maneuver resulted in the glider landing short of the runway, and subsequently colliding with a ditch.

A witness observed the glider when it was on short final approach to runway 07. He said the glider appeared low and touched down short of the runway in a field with crops about 2 1/2 feet high. The glider traveled about 20 feet, then hit a ditch that separated the field from the approach end of runway 07. The left wing of the glider came up and the glider pivoted on the right wing. The tail boom fractured, but remained attached to the airframe by pushrods.

The witness also noted that the winds were from the northwest at 5 to 10 knots.

The pilot reported a total of 8,000 flight hours, of which, 300 hours were in gliders. He also reported that there were no mechanical anomalies with the glider.

Two Federal Aviation Administration (FAA) inspectors performed an examination of the glider. According to an inspector, the fuselage was fractured aft of the wings.

Weather at University Park Airport, State College, Pennsylvania, 4 nm southeast, at 1347, included winds from 360 degrees at 8 knots, and visibility 20 statute miles.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	62, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Glider; Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	February 1, 2002
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	May 8, 2002
<b>Flight Time:</b>	8000 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Burkhart Grob	<b>Registration:</b>	N4446W
<b>Model/Series:</b>	G103 TWIN ASTIR	<b>Aircraft Category:</b>	Glider
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	3822-K-81
<b>Landing Gear Type:</b>		<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	350 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	0
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	KNAUFF AND GROVE INC	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	UNV,1239 ft msl	<b>Distance from Accident Site:</b>	4 Nautical Miles
<b>Observation Time:</b>	13:47 Local	<b>Direction from Accident Site:</b>	135°
<b>Lowest Cloud Condition:</b>	Few / 5000 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	360°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.12 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	UNIONVILLE, PA (79N)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	Unknown
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Unknown

## Airport Information

<b>Airport:</b>	Ridge Soaring Glideport 79N	<b>Runway Surface Type:</b>	Asphalt,Grass/turf
<b>Airport Elevation:</b>	815 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	07	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3325 ft / 100 ft	<b>VFR Approach/Landing:</b>	Unknown

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	39.900821,-75.740409(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Yeager, Leah
<b>Additional Participating Persons:</b>	Ron Puntillo; FAA/FSDO; Harrisburg, PA
<b>Original Publish Date:</b>	August 26, 2003
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=55171">https://data.nts.gov/Docket?ProjectID=55171</a>

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