



# Aviation Investigation Final Report

<b>Location:</b>	HAMPSHIRE, Illinois	<b>Accident Number:</b>	CHI96FA323
<b>Date &amp; Time:</b>	August 30, 1996, 20:25 Local	<b>Registration:</b>	N570SR
<b>Aircraft:</b>	Globe GC-1B	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported he had landed at night on runway 09 and rolled out to the east mid-field taxiway. He made a left turn onto the cross taxiway, then turned left and proceeded westbound on the parallel taxiway toward his hangar. As he was taxiing, an aircraft was on final approach for landing on runway 09. The pilot reported he turned off his landing lights so as not to blind the approaching airplane. Within seconds after the landing aircraft passed behind him, the pilot felt a collision. He exited the aircraft to investigate. He discovered a 12 year old boy and an unlighted mini-bike under the aircraft. Examination of the site indicated the mini-bike had struck the airplane in the center of the taxiway. The boy had worn a black helmet with a full face, clear plastic visor. The boy was returning home via the taxiway on his 3.5 horsepower mini-bike. The rules governing the residential airstrip did not specifically list a prohibition about riding a bike or mini-bike on the taxiways at night. Also, there was no rule, or note of caution, in the Airport Rules and Regulations concerning the use of landing lights at the residential airstrip while taxiing at night.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: improper use of the mini-bike by the driver. Factors relating to the accident were: darkness, the unlighted mini-bike, and insufficient standards required by the residents of the airstrip concerning use of the taxiways at night.

## Findings

Occurrence #1: PROPELLER/ROTOR CONTACT TO PERSON

Phase of Operation: TAXI - FROM LANDING

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) OBJECT - VEHICLE
3. (C) IMPROPER USE OF EQUIPMENT/AIRCRAFT - DRIVER OF VEHICLE
4. (F) INSUFFICIENT STANDARDS/REQUIREMENTS - OTHER INSTITUTION

## Factual Information

On August 30, 1996, at 2025 central daylight time (CDT), a Globe GC-1B (Swift), N570SR, while taxiing at night after landing, was struck by a 12 year old boy who was riding a mini bike on the taxiway. The boy received fatal injuries. The pilot was not injured and the airplane received minor damage. The 14 CFR Part 91 flight had departed Poplar Grove Airport, Belvidere, Illinois, and had landed at Casa de Aero, a private airstrip near Hampshire, Illinois. Visual meteorological conditions prevailed and no flight plan had been filed.

Two aircraft had departed Poplar Grove Airport at about 2005 CDT en route to Casa de Aero. The first plane to depart was a Piper Arrow. The second was the Swift. The Swift overtook the slower Arrow and proceeded to land at Casa de Aero.

The pilot of the Swift reported that he landed on runway 09 and rolled out to the east mid-field taxiway. The aircraft made a left onto the cross taxiway, and then entered the north taxiway and proceeded westbound. The pilot reported that the Arrow was on final approach for landing to runway 09, so he turned off the Swift's landing lights so as not to blind the pilot of the Arrow. The pilot reported that he left the Swift's position lights on. The pilot reported that seconds after the Arrow had passed behind the Swift, he felt a collision with something. He shut down the engine and got out of the airplane to investigate. He reported that he discovered a 12 year old boy and an unlighted mini bike under the aircraft. He reported that the boy was severely injured and he went to get assistance and call 911.

The passenger in the Piper Arrow reported that the Swift had stopped and turned off its landing lights and strobe lights about halfway down the taxiway. He reported that the Swift was moving very slowly, or perhaps, not at all. As the Arrow turned off the runway, the Swift pilot made a radio transmission indicating that he had hit something on the taxiway.

A witness reported that the boy had been at a friend's house on the west end of the field. The boy was returning home on his unlighted 3.5 horsepower mini bike. He was wearing a helmet with a full face, clear plastic visor.

The mini bike collided with the airplane on the center of the taxiway. The mini bike traveled underneath the aircraft's left wing root area. The boy survived the collision but died about two hours later.

## Personnel Information

The pilot was an airline transport pilot with about 10,056 total flight hours and 482 hours in the Swift. He had a total of about 1,950 hours of night flying experience. He held a current First Class Medical Certificate.

## Aircraft Information

The aircraft had 3060 total hours. The last annual inspection had been conducted on June 2, 1996. The aircraft had landing lights, strobe lights, and position lights.

## Wreckage and Impact Information

The examination of the accident site indicated that the mini bike had impacted the airplane in about the center of the taxiway. The airplane's engine cowling was dented above the engine exhaust stack. There were impact marks proceeding along the belly of the aircraft near the left wing root.

## Additional Information

The residents of Casa de Aero, a residential flying community, had established rules governing the use of taxiways and runways. A set of rules was published for children. The rules included the following points:

1. Cross the runway at the ends only! Stop look both way by turning head.
2. When riding a powered vehicle remember it is very hard to hear airplanes.
3. To travel between taxiway and road use your property only.
4. Inform guests they may ride bikes on the taxiway only with you or someone from Casa de Aero.
5. Bicycles and toys must be kept clear of taxiway as all times.
6. Keep in mind there is an active grass runway between the taxiway and runway.
7. Absolutely no playing on taxiways or runways at anytime.

There was no prohibition listed in either the Children's Safety Rules or the Airport Rules and Regulations concerning the use of bicycles or motor bikes on the taxiway at night. There was no rule, or note of caution, in the Airport Rules and Regulations concerning the use of landing lights while taxiing at night.

There were no parties to the investigation.

The aircraft was released to the aircraft owner on September 6, 1996.

## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 19, 1996
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10056 hours (Total, all aircraft), 482 hours (Total, this make and model), 5684 hours (Pilot In Command, all aircraft), 235 hours (Last 90 days, all aircraft), 84 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Globe	<b>Registration:</b>	N570SR
<b>Model/Series:</b>	GC-1B GC-1B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2286
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	June 2, 1996 Annual	<b>Certified Max Gross Wt.:</b>	1970 lbs
<b>Time Since Last Inspection:</b>	2 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3060 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360 H7B
<b>Registered Owner:</b>		<b>Rated Power:</b>	210 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	DPA ,758 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	00:45 Local	<b>Direction from Accident Site:</b>	120°
<b>Lowest Cloud Condition:</b>	Clear / 0 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None / 0 ft AGL	<b>Visibility (RVR):</b>	0 ft
<b>Wind Speed/Gusts:</b>	10 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	50°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	20°C / 13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	BELVIDERE , IL (C77)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:15 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	CASA DE AERO C-38	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	860 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	27	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	3000 ft / 50 ft	<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Minor
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	1 Fatal	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal, 1 None	<b>Latitude, Longitude:</b>	42.089725,-88.52005(est)

## Administrative Information

**Investigator In Charge (IIC):** Silliman, James

**Additional Participating Persons:**

**Original Publish Date:** April 3, 1997

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=10105>

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