
		NTSB ID: IAD00LA027A		Aircraft Registration Number: N2520Z	
		Occurrence Date: 03/18/2000		Most Critical Injury: Minor	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place ERWINNA		State PA	Zip Code 18920	Local Time 1110	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Bellanca		Model/Series 8KCAB		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On March 18, 2000, at 1110 Eastern Standard Time, a Bellanca 8KCAB, N2520Z, and a Piper PA-25, N7460Z, were substantially damaged during a midair collision and subsequent collision with terrain at the Vansant Airport (9N1), Erwinna, Pennsylvania. The certificated flight instructor and certificated private pilot in the Bellanca suffered minor injuries. The certificated airline transport pilot in the Piper also suffered minor injuries. Visual meteorological conditions prevailed. The Piper was a local glider tow and the Bellanca was a local instructional flight. Both flights originated at the Vansant Airport about 1100 and 1040, respectively. No flight plan was filed for either flight conducted under 14 CFR Part 91.</p> <p>During a telephone interview, the flight instructor said the purpose of the flight was to give flight instruction to the private pilot. He said they departed 9N1, flew to a training area, practiced some maneuvers, and returned for some traffic pattern work.</p> <p>The flight instructor said they were in the traffic pattern for several minutes and were on the fourth approach to Runway 07 at the time of the accident. He said:</p> <p>"We were on final and [the private pilot] started to pull the nose up to stretch his glide. I told him, 'Don't do that. Lower the nose and add power.' All of a sudden there was this big 'clunk' and I said, 'What are you doing?' At that point I took the controls, but they stopped working. We hit the ground about 70 degrees nose down."</p> <p>The flight instructor said the private pilot was unable to egress the airplane. He said the fuel spilled as he coaxed and helped the pilot out of the airplane. The flight instructor said it was several minutes before he was aware that another plane was involved and entangled with his own.</p> <p>In a telephone interview, the private pilot gave an account of the flight consistent with that of his flight instructor. He said that on the fourth approach, they flew a "squared off traffic pattern" and were approximately 50 feet above ground level (agl) on final approach when he became aware of the other airplane. According to the private pilot:</p> <p>"There was a shadow that passed over. Then there was an impact and [the instructor] said, 'What was that?' I knew at the jolt that we hit something. The tail jerked to the left, the right wing dropped, and we went straight down."</p> <p>In a telephone interview, the pilot in the Piper said he was returning after he towed a glider to 5,000 feet agl, 5 miles northeast of 9N1. He said he entered a "normal" traffic pattern for practice, as he usually flies a more abbreviated pattern for noise abatement and to expedite glider towing. According to the pilot:</p> <p>"When I come off a tow, I do a pretty good wing over to check for traffic. I usually do a split-S</p>					
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## Narrative (Continued)

off a tow. I arrived [at 9N1] about 1,000 feet agl east of the airport, and did about a 45-degree entry on the downwind. I was practicing a standard pattern and it about killed me. I checked traffic and made my base turn about three-quarters of a mile past the runway end. I checked traffic, turned base, checked traffic, and turned final. I'm looking out there and I don't see anything. I turned final from a modified base for noise abatement."

The pilot said that once established on final approach, he was checking for vehicle traffic on the roadway at the approach end of runway 07. He said the towrope was suspended several feet below the airplane on approach and that conflict with vehicle traffic was a concern. According to the pilot:

"I'm getting ready to roll it on when, I felt a bump, I'm pulling back on the yoke, and the airplane's not coming up. The next thing I know, I'm on the ground thinking, 'What the hell happened?' I thought I broke an elevator cable."

According to the pilot, immediately after the accident, all three pilots involved compared stories and announced that they hadn't seen any other aircraft. He said, "Three sets of eyes and nobody saw anything."

Three witnesses provided written statements. Two witnesses described the Bellanca above and behind the Piper after both airplanes turned final. They said the Bellanca overtook the Piper as it descended below the Piper in a slip. Three witnesses said the Bellanca slowed, pitched up, and was struck from behind by the Piper. One witness said the Decathlon's approach was on the runway heading, while the Piper's approach was "...tracking inbound left of the centerline on a slight angle."

When questioned, the private pilot of the Bellanca said the traffic pattern was 1,400 feet mean sea level (msl). He said he did not know the altimeter setting at the time of the accident and that the altimeter was set to the field elevation at 9N1. The private pilot said he turned on the aircraft communication radio during engine start, but turned it off 10 minutes into the flight at the suggestion of his flight instructor.

The pilot of the Piper said he was not equipped with a communication radio. When questioned about the traffic pattern altitude, he said:

"One thousand feet agl. We start out at zero because of the gliders, so everything is agl."

In a telephone interview, the airport manager said there was no locally published procedure for flight in an around the traffic pattern nor were there any depicted "no fly" areas for purposes of noise abatement. He said:

"There is no published procedure. The main complaint is from the tow planes. We don't fly over the same houses every time. Going east or north, we vary the departure. We try to avoid houses we fly over all the time, generally on the turn from base to final."

According to the Aeronautical Information Manual:

"When two of more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right of way, but it shall not take advantage of this rule to cut in front of another which is on final approach to land, or to overtake that aircraft."

Each pilot reported there were no mechanical deficiencies with their respective airplanes.

The pilot in the Piper reported 10,622 hours of flight experience, 1,986 hours of which were in the Piper PA-25.

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Narrative (Continued)

The flight instructor reported approximately 14,000 hours of flight experience, with approximately 300 hours of experience in the Bellanca.

The private pilot reported 300 hours of total flight experience, with 2 hours of experience in the Bellanca.

At Doylestown (DYL), 9 miles northeast of 9N1, the winds were from 030 degrees at 8 knots in clear skies.

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<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
VANSANT AIRPORT	9N1	390 Ft. MSL	7	3058	120
Runway Surface Type: Grass/turf					
Runway Surface Condition: Dry					
Type Instrument Approach: NONE					
VFR Approach/Landing: Full Stop; Traffic Pattern					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
Bellanca		8KCAB		336-77	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Tailwheel					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt.	1800 LBS	Number of Engines: 1	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Reciprocating	Lycoming	AEIO-360-HIA	180 HP		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
100 Hour	11/1999	40 Hours	2129 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
SPORT AVIATION, INC		40 BRICK CHURCH ROAD			
		City	State	Zip Code	
		PIPERSVILLE	PA	18947	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:					
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Instructional					

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**First Pilot Information**

Name On File	City On File	State On File	Date of Birth	Age 73
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Sex: M	Seat Occupied: Rear	Principal Profession: Civilian Pilot	Certificate Number:
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Certificate(s): Commercial

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Glider

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Glider; Instrument Airplane

Type Rating/Endorsement for Accident/Incident Aircraft? No	Current Biennial Flight Review?
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Medical Cert.: Class 2	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 08/1999
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	14000	300	13800	200	990	11	120		2800	
Pilot In Command(PIC)	13800	300	13800			11	100		2800	
Instructor		300	8000	190	990				2800	
Last 90 Days	150									
Last 30 Days	50									
Last 24 Hours	1	1								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: None

Departure Point Same as Accident/Incident Location	State	Airport Identifier 9N1	Departure Time 1100	Time Zone EST
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Destination Local Flight	State	Airport Identifier	
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Type of Clearance: None

Type of Airspace: Class G

**Weather Information**

Source of Briefing: National Weather Service

Method of Briefing:

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<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
DYL	1554	EST	394 Ft. MSL	9 NM	197 Deg. Mag.
Sky/Lowest Cloud Condition: Clear			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL		Visibility: 10 SM	Altimeter: 30.00 "Hg
Temperature: -1 °C	Dew Point: -14 °C	Wind Direction: 30		Density Altitude: 2236 Ft.	
Wind Speed: 8	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

<b>Accident Information</b>		
Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
<b>- Injury Summary Matrix</b>	Fatal	Serious	Minor	None	TOTAL
First Pilot			1		1
Second Pilot			1		1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -			2		2
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	2		2

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**AVIATION**



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Occurrence Date: 03/18/2000

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

BRIAN C. RAYNER

Additional Persons Participating in This Accident/Incident Investigation:

ROBERT HARGER

FAA FSDO #05

ALLENTOWN, PA 18103