

# **Aviation Investigation Final Report**

Location:	Belgrade, Montana	Accident Number:	SEA02LA140
Date & Time:	July 31, 2002, 14:45 Local	<b>Registration:</b>	N70741
Aircraft:	Blanik L-13	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

### Analysis

Just about the time the glider pilot was ready to initiate his base turn for the parallel sod runway, the tower controller asked him if he saw the traffic on a one mile final to the paved runway. According to the pilot, he then let go of the spoiler handle (the spoilers were partially deployed), in order to reach the microphone that was stored in a pocket on the right side of the glider. He advised the tower that he did not have the traffic in sight, put the microphone back in the pocket, and then reached back for the spoiler handle. At that time he discovered that the spoilers had deployed to the full open position. The pilot then immediately retracted the spoilers and made a turn to final. After turning final, the pilot realized that he probably would not be able to make it to the threshold of the sod runway, but because of the aircraft on final for the paved runway, he made the decision not to request a change to that runway (the threshold of which was approximately 2,500 feet closer to his position at the time). As the pilot continued on toward the threshold of the sod runway, he attempted to maneuver toward its right side in order to avoid some stakes that were between him and the runway threshold, and in order to land well clear of the paved runway. Ultimately the aircraft touched down approximately 200 feet short of the sod runway threshold and 50 feet to the right of its right edge. Although the initial touchdown in the tall weeds was uneventful, almost immediately after starting the landing roll, the aircraft impacted a ditch that the pilot had not been aware of.

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The glider pilot's improper in-flight planning decision and his failure to attain the proper touchdown point. Contributing to the accident were the inadvertent activation of the speed brakes, the pilot's failure to maintain altitude, the high vegetation and the ditch.

#### **Findings**

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER Phase of Operation: LANDING - ROLL

Findings

1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

2. (C) PROPER TOUCHDOWN POINT - NOT OBTAINED - PILOT IN COMMAND

3. (F) SPEED BRAKES - INADVERTENT ACTIVATION - PILOT IN COMMAND

4. (F) ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

5. (F) TERRAIN CONDITION - HIGH VEGETATION

6. (F) TERRAIN CONDITION - DITCH

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER Phase of Operation: LANDING - ROLL

Findings

7. (F) TERRAIN CONDITION - HIGH VEGETATION

8. (F) TERRAIN CONDITION - DITCH

### **Factual Information**

On July 31, 2002, approximately 1445 mountain daylight time, a Blanik L-13, N70741, impacted a ditch after landing short of the runway at Gallatin Field Airport, Belgrade, Montana. The aircraft was owned by Big Sky Soaring Inc., and operated by Sunbird Aviation. The private pilot and his passenger received minor injuries, and the glider sustained substantial damage. The 14 CFR Part 91 personal pleasure flight departed Gallatin Field Airport, Belgrade, Montana, approximately one hour prior to the accident, and was being operated in visual meteorological conditions. No flight plan had been filed.

According to the pilot, he released from the tow plane just south of Saddle Peak, and soared Bridger Ridge until about 1430. At that time he called Bozeman Tower to report leaving the ridge and to request landing on the grass/sod runway located just to the right of the paved runway (see attached satellite image). The tower reported the current winds as 300 degrees at 20 knots, and instructed the pilot to report 30 seconds prior to entering the downwind for sod runway 30. When he was 30 seconds from a downwind entry, the pilot advised the tower of this position, and after being cleared to land on the sod runway, entered a left downwind. Just about the time the pilot was ready to initiate his base turn, the tower controller asked him if he saw the traffic on a one mile final to the paved runway. According to the pilot, he then let go of the spoiler handle (the spoilers were partially deployed), in order to reach the microphone that was stored in a pocket on the right side of the glider. He advised the tower that he did not have the traffic in sight, put the microphone back in the pocket, and then reached back for the spoiler handle. At that time he discovered that the spoilers had deployed to the full open position. The pilot then immediately retracted the spoilers and made a turn to final. After turning final, the pilot realized that he probably would not be able to make it to the threshold of the sod runway, but because of the aircraft on final for the paved runway, he made the decision not to request a change to that runway (the threshold of which was approximately 2,500 feet closer to his position at the time). As the pilot continued on toward the threshold of the sod runway, he attempted to maneuver toward its right side in order to avoid some stakes that were between him and the runway threshold, and in order to land well clear of the paved runway. Ultimately the aircraft touched down approximately 200 feet short of the sod runway threshold and 50 feet to the right of its right edge. Although the initial touchdown in the tall weeds was uneventful, almost immediately after starting the landing roll, the aircraft encountered a ditch that the pilot had not been aware of. Upon impacting the far wall of the ditch, the aircraft sustained substantial damage generated by the force of the collision.

#### **Pilot Information**

Certificate:	Private	Age:	72,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:	No
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	October 23, 2000
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	June 1, 2001
Flight Time:	789 hours (Total, all aircraft), 80 hours (Total, this make and model), 754 hours (Pilot In Command, all aircraft), 37 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Blanik	Registration:	N70741
Model/Series:	L-13	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	027341
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	June 7, 2002 Annual	Certified Max Gross Wt.:	1103 lbs
Time Since Last Inspection:	20 Hrs	Engines:	0
Airframe Total Time:	2100 Hrs at time of accident	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	Big Sky Soaring, Inc.	Rated Power:	
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:	Sunbird Aviation	Operator Designator Code:	

#### Meteorological Information and Flight Plan

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Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
<b>Observation Facility, Elevation:</b>	KBZN	Distance from Accident Site:	0 Nautical Miles
Observation Time:	14:56 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	20 knots / 31 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	29°C / -5°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Belgrade , MT (BZN )	Type of Flight Plan Filed:	None
Destination:	(BZN)	Type of Clearance:	VFR
Departure Time:	13:45 Local	Type of Airspace:	Class D

# **Airport Information**

Airport:	Gallatin Field BZN	Runway Surface Type:	Grass/turf
Airport Elevation:	4500 ft msl	Runway Surface Condition:	Dry;Rough
Runway Used:	30R	IFR Approach:	None
Runway Length/Width:	2000 ft / 150 ft	VFR Approach/Landing:	Full stop

# Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	45.776668,-111.152778

#### **Administrative Information**

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	Ed Warmoth; FAA FSDO
Original Publish Date:	April 8, 2003
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55350

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available <u>here</u>.