



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Salisbury, NC	<b>Accident Number:</b>	GAA17CA465
<b>Date &amp; Time:</b>	08/04/2017, 0800 EDT	<b>Registration:</b>	N777NG
<b>Aircraft:</b>	CZECH AIRCRAFT WORKS SPOL SRO SPORTCRUISER	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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## Analysis

The student pilot reported that he had departed with the intent to perform touch-and-go takeoffs and landings. After takeoff, he realized that the canopy was not latched. He struggled to maintain airplane control in the pattern, but he was able to land normally.

The student pilot then checked the latch handle, and he believed that he had secured the canopy correctly. He took off and flew one pattern but just before landing, the canopy opened and obstructed the pilot's view of the runway.

The airplane landed hard and bounced, and the pilot aborted the landing.

The student pilot flew a third pattern and made an approach over the runway centerline, "slightly above stall airspeed." The airplane landed hard on the runway, and the right main landing gear (MLG) and the nose landing gear separated from the airplane. The airplane skidded to a stop on the runway.

The airplane sustained substantial damage to the right MLG attachment points and the right-wing spar.

The student pilot asserted that the canopy latch was down during the takeoffs but was not seated correctly. For the latch to seat correctly, "the canopy itself needed to be pushed up so that gravity seated the canopy."

The airplane was equipped with a full-width clear canopy, hinged in the front and tipped forward for entry to the cockpit.

The manually operated canopy was supposed to be closed by the pilot by reaching above their head and grabbing the handle identified by the manufacturer's illustrated parts catalogue as SF0730N. Per the photographs provided by Federal Aviation Administration (FAA) aviation safety inspectors, the handle was not installed on the canopy.

The canopy security latches consisted of two metal claw-type latches that were mechanically moved forward to secure the canopy to the fuselage. The canopy latches were moved forward to the secure position when the pilot lowered the canopy "T" handle. The "T" handle was affixed to the baggage compartment front wall in the cockpit between the left and right seats just above the arm rest and just below the pilot headset audio input jacks.

The student pilot's head set control unit was about 4 inches long by 1 inch in diameter. Photographs taken shortly after the accident and provided by FAA inspectors revealed that the control unit was lodged underneath the "T" handle.

The student pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The physical interference of the student pilot's headset control unit with the canopy, which prevented the canopy latches from seating properly and resulted in the canopy opening in flight and the subsequent hard landing.

### Findings

Aircraft	Interphone - Unintentional use/operation (Cause)
Personnel issues	Aircraft control - Student pilot (Cause)
Environmental issues	Access to equipment/controls - Effect on operation (Cause)

## Factual Information

### History of Flight

Landing-flare/touchdown	Hard landing (Defining event)
Takeoff	Loss of control in flight

### Student Pilot Information

Certificate:	Student	Age:	68, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport Pilot Without Waivers/Limitations	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 46 hours (Total, all aircraft), 46 hours (Total, this make and model), 7 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	CZECH AIRCRAFT WORKS SPOL SRO	Registration:	N777NG
Model/Series:	SPORTCRUISER A	Aircraft Category:	Airplane
Year of Manufacture:	2007	Amateur Built:	No
Airworthiness Certificate:	Special Light-Sport	Serial Number:	07SC059
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	06/01/2017, Annual	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2593 Hours at time of accident	Engine Manufacturer:	ROTAX
ELT:	C91A installed, not activated	Engine Model/Series:	ROTAX 912S (4
Registered Owner:	NMG AVIATION LLC	Rated Power:	100 hp
Operator:	NMG AVIATION LLC	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RUQ	Distance from Accident Site:	
Observation Time:	1145 UTC	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	7 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:		Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	19° C / 19° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Salisbury, NC (KRUQ)	Type of Flight Plan Filed:	None
Destination:	Salisbury, NC (KRUQ)	Type of Clearance:	None
Departure Time:	0800 EDT	Type of Airspace:	Class G

## Airport Information

Airport:	ROWAN COUNTY (KRUQ)	Runway Surface Type:	Unknown
Airport Elevation:	772 ft	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	5500 ft / 100 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## 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:	35.645833, -80.520278 (est)

## Administrative Information

Investigator In Charge (IIC):	Michael A Hicks	Report Date:	02/21/2018
Additional Participating Persons:	Greg Small; FAA; Charlotte, NC		
Publish Date:	02/21/2018		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=95741">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=95741</a>		

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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](#).