



# Aviation Investigation Final Report

<b>Location:</b>	Conway, Arkansas	<b>Accident Number:</b>	CEN21FA277
<b>Date &amp; Time:</b>	June 18, 2021, 13:57 Local	<b>Registration:</b>	N62WR
<b>Aircraft:</b>	CIRRUS DESIGN CORP SR20	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

A witness reported that he heard the accident pilot report an emergency landing on runway 2, which was not a runway at the accident airport. Shortly thereafter, he observed the airplane make a left turn and it overflowed the runway. He stated that the airplane appeared “crazy fast.” The airplane then entered a steep left bank and spun 1 1/2 rotations before impacting the ground.

During the impact sequence, the airframe parachute deployed, and the canopy was found still bundled in a straight line away from the wreckage. A postaccident examination revealed the pitot tube cover remained secured on the pitot tube with a “REMOVE BEFORE FLIGHT” banner attached.

Toxicology testing detected an antidepressant and a mood stabilizing medication in the pilot’s blood and urine. These medications and the associated medical conditions for which they are prescribed can negatively impact judgment and psychomotor performance. However, the investigation was unable to obtain psychiatric records to determine the severity of the conditions for which the pilot was being treated. Also, given the pilot’s skill and experience in this model airplane, the investigation was unable to distinguish between deficits in his capabilities and signs of his psychiatric illness. Thus, this investigation was unable to determine whether the effects from the pilot’s use of the medications or his psychiatric condition were factors in the accident.

## Probable Cause and Findings

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

The pilot's failure to maintain adequate airspeed, which resulted in an aerodynamic stall and spin. Contributing to the accident was the failure of the pilot to perform an adequate preflight inspection, to include removal of the pitot tube cover.

## Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Not attained/maintained
Personnel issues	Preflight inspection - Pilot

# Factual Information

## History of Flight

Approach-VFR pattern final	Loss of control in flight (Defining event)
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On June 18, 2021, about 1357 central daylight time, a Cirrus SR20 airplane, N62WR, was destroyed when it was involved in an accident at Conway Regional Airport (CXW), Conway, Arkansas. The pilot, who was the sole occupant, sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

A witness reported that after the airplane departed runway 22 at CXW, he heard a transmission over the Universal Integrated Communications (UNICOM) frequency that stated, “six-two whiskey romeo emergency landing runway 2.” There is no runway 2 at CXW. Shortly thereafter, he observed the accident airplane make a left turn and overfly runway 4 and stated that the airplane appeared “crazy fast.” After the airplane overflew runway 4, it entered a steep left bank, made 1 1/2 rotations and then impacted the ground.

Recovered GPS data from the airplane revealed that the highest altitude achieved on the flight was 593 ft above ground level (agl) when the airplane was on a crosswind leg in the traffic pattern. The airplane then began a continuous descent until impact. The downwind leg was flown about 0.1 nautical mile south of the runway (see figure 1).



Figure 1: Pictorial view of flight path

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	38,Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	BasicMed	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	March 6, 2021
<b>Flight Time:</b>	210.9 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CIRRUS DESIGN CORP	<b>Registration:</b>	N62WR
<b>Model/Series:</b>	SR20	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2006	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1606
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	IO360
<b>Registered Owner:</b>	LAMAY-O INC	<b>Rated Power:</b>	
<b>Operator:</b>	On file	<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>	KCXW, 276 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	12:50 Local	<b>Direction from Accident Site:</b>	40°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	6 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots / 12 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	120°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.95 inches Hg	<b>Temperature/Dew Point:</b>	32°C / 20°C
<b>Precipitation and Obscuration:</b>	Moderate - None - Haze		
<b>Departure Point:</b>	Conway, AR	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	CONWAY RGNL CXW	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	276 ft msl	<b>Runway Surface Condition:</b>	Dry;Rough;Vegetation
<b>Runway Used:</b>	04/22	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5500 ft / 100 ft	<b>VFR Approach/Landing:</b>	Precautionary landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	35.025973,-92.547776

The airplane impacted the ground in a nose-low, inverted attitude. The right wing was fractured, and pieces of the wing were located in the initial ground scar. Propeller slash marks were found in the ground near the initial impact point and contained white paint transfer signatures (see figure 2). The propeller blades were found fractured and separated from the crankshaft flange.





*Figure 2: Propeller slash mark with white paint transfer*

Fragments of windscreen were found in the vicinity of the propeller. During the impact sequence, the Cirrus Airframe Parachute System (CAPS) deployed, and the canopy was found still bundled in a straight line away from the wreckage. The total debris field from the CAPS rocket to the main wreckage was about 110 ft. A postaccident examination revealed the pitot tube cover remained secured on the pitot tube with a “REMOVE BEFORE FLIGHT” banner attached (see figure 3).



*Figure 3: Airplane as it came to rest with pitot tube cover secured in place*

## Medical and Pathological Information

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Federal Aviation Administration (FAA) Forensic Sciences Laboratory toxicology testing detected the antidepressant bupropion at 6,618 nanograms per milliliter (ng/mL) and its metabolite hydroxybupropion at 444 ng/mL in the pilot's cavity blood. The mood stabilizing medication lamotrigine was detected in his cavity blood at 2,134 ng/mL. All three compounds were also detected in his urine.

*Bupropion* is a medication prescribed as an antidepressant (commonly marketed as Wellbutrin) or for smoking cessation (commonly marketed as Zyban). *Hydroxybupropion* is the major active metabolite of bupropion. The treatment of depression would require FAA review before flying, and bupropion is not one of the drugs that FAA will permit use for depression. According to the FAA, bupropion carries the warning that the medication may impair mental or physical ability required to perform hazardous tasks.



*Lamotrigine* is a prescription medication indicated for treatment of bipolar disorder and adjunctive treatment of epilepsy. It is commonly marketed as Lamictal. Lamotrigine can have impairing performance effects including dizziness and drowsiness, and patients should be warned not to operate complex machinery while on the medication.

One record was obtained from the healthcare provider who completed the pilot's BasicMed form on January 16, 2021. The pilot reported no medical conditions and the use of no medications.

## **Additional Information**

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The Cirrus Design SR20 Pilot's Operating Handbook contained a description for the conduct of a preflight inspection under the normal procedures section. That procedure contained the following:

- 12. Left Wing Tip
  - b. Pitot Mast (underside) ..... Cover Removed, Tube Clear

## **Preventing Similar Accidents**

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Understand Impairment Risk (SA-037)

### **The Problem**

Toxicology tests of pilots involved in fatal aviation accidents increasingly show evidence that a wide variety of over-the-counter (OTC) and prescription drugs have been used, including drugs that are potentially impairing. Pilots may be using OTC or prescription drugs without realizing that they can cause impairment. Pilot impairment due to the effects of drugs reduces the safety of flight, increases accident risk, and is preventable.

### **What can you do?**

- Discuss EVERY medication you take regularly, including OTC, prescription, and other drugs, with your aviation medical examiner during your medical certification exam.
- Make sure anyone prescribing medication for you knows that you are a pilot. Ask if the medication is safe to take before or while flying or if there is an alternative that would be less likely to cause impairment.
- DO NOT FLY if you notice you are feeling sleepy, “out of it,” or jittery after using any drug. These feelings mean you are probably impaired.
- For medications that have a warning about using caution when driving a vehicle, the Federal Aviation Administration (FAA) recommends waiting at least 5 times the longest recommended interval between doses before flying to be sure you are safe to fly. For example, if the dosing interval states, “take every 4 to 6 hours” that means waiting 30 hours (5 times the longest dosing interval of 6 hours).
- When choosing OTC medications, read the label. If it has a warning that states, “Use caution when driving a vehicle or operating machinery,” ask the pharmacist if there is something else you can use that will not increase your risk of impairment.

See <https://www.nts.gov/Advocacy/safety-alerts/Documents/SA-037.pdf> for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Williams, David
<b>Additional Participating Persons:</b>	Nathan Bradshaw; FAA; Little Rock, AR Brad Miller; Cirrus Aircraft; Duluth, MN

<b>Original Publish Date:</b>	August 12, 2022
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**Last Revision Date:**

<b>Investigation Class:</b>	<a href="#">Class 3</a>
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**Note:**

<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=103289">https://data.nts.gov/Docket?ProjectID=103289</a>
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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 [here](#).