



# Aviation Investigation Final Report

<b>Location:</b>	New Albany, Mississippi	<b>Accident Number:</b>	CEN19FA119
<b>Date &amp; Time:</b>	April 13, 2019, 15:14 Local	<b>Registration:</b>	N265DS
<b>Aircraft:</b>	Rockwell International NA-265-65	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>	Electrical system malf/failure	<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

Two instrument-rated commercial pilots and one passenger were conducting a cross-country flight in instrument meteorological conditions when they began discussing an electrical malfunction; they then reported the electrical problem to air traffic control. The airplane subsequently made a descending right turn and impacted wooded terrain at a high speed. Most components of the airplane were highly fragmented, impact damaged, and unidentifiable.

Based on the limited discussion of the electrical problem on the cockpit voice recorder and the damage to the airplane, it was not possible to determine the specific nature of the electrical malfunction the airplane may have experienced. While it was not possible to determine which systems were impacted by the electrical malfunction, it is possible the flight instruments were affected. The airplane's descending, turning, flight path before impact is consistent with a system malfunction that either directly or indirectly (through a diversion of attention) led to the pilot's loss of awareness of the airplane's performance in instrument meteorological conditions and subsequent loss of control of the airplane.

## Probable Cause and Findings

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

An unidentified electrical system malfunction that led to the pilots losing awareness of the airplane's performance in instrument meteorological conditions and resulted in a loss of control of the airplane.

## Findings

<b>Aircraft</b>	(general) - Failure
<b>Aircraft</b>	Directional control - Attain/maintain not possible
<b>Aircraft</b>	Pitch control - Attain/maintain not possible
<b>Environmental issues</b>	Clouds - Effect on personnel
<b>Personnel issues</b>	Aircraft control - Pilot

## Factual Information

### History of Flight

Enroute-cruise	Electrical system malf/failure (Defining event)
Enroute	Loss of control in flight
Emergency descent	Collision with terr/obj (non-CFIT)

On April 13, 2019 about 1514 central daylight time, a Rockwell International NA-265-65 airplane, N265DS, impacted terrain near New Albany, Mississippi, following a reported electrical malfunction. The two commercial pilots and one passenger were fatally injured. The airplane was destroyed. The airplane was registered to Classic Aviation Inc. and operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight. Instrument meteorological conditions were reported at the accident site and along the route of flight about the time of the accident, and the flight was operated on an instrument flight rules flight plan. The flight originated from the University-Oxford Airport (UOX), Oxford, Mississippi, at 1506 and was destined for the Marion County-Rankin Fite Airport (HAB), Hamilton, Alabama.

Air Traffic Control (ATC) audio and flight track recordings and recordings from the cockpit voice recorder (CVR) recovered from the wreckage captured some portions of the accident flight. At 1501, the captain requested and received a clearance from the ATC controller to depart UOX and proceed to HAB. ATC provided a clearance. At 1506, the captain reported climbing through 1,300 ft mean sea level (msl). The controller subsequently notified the flight of moderate to severe precipitation in the area of UOX and provided a clearance to 11,000 ft msl. About 1508 the airplane's transponder stopped transmitting altitude information. The ATC controller queried the flight at that time for the airplane's altitude and indicated there was moderate to heavy precipitation along their route of flight. The captain acknowledged the radio call and stated the flight was climbing through 9,000 ft for 11,000 ft msl.

At 15:08:02 the CVR captured the pilots discussing unknown system anomalies. The pilots discussed a "filament" issue that was rectified. About a minute later the pilots began checking circuit breakers and discussing affected equipment, stating "a ground blower breaker \* is gone \*," "avionics master \*\*\* heading," and "we got something off on the autopilot." The captain assumed control of the airplane from the copilot at 15:09:56 and the copilot reported he no longer had communications with ATC at 15:10:27. The CVR recording ended at 15:10:43 and did not capture any additional communications. Neither pilot referenced an emergency checklist during the recorded communications and a specific malfunction was not identified.

From 1506 to 1510, the airplane maintained an approximate heading of 080°. At 1510, the airplane turned right to a heading of 120°, and at 1512, the airplane made a left turn to a heading of 040°.

About 1512, the controller asked the pilots if they were having navigation issues or if they were deviating. The captain responded they were deviating and that they were having "AC [alternating

current] voltage problems." The last radio call received from the flight was an acknowledgement of a heading assignment to 095° at 1513. The airplane disappeared from radar about 30 seconds later and the controller tried unsuccessfully to raise the flight on the radio at that time. Radar data showed the airplane began a right turn at 1513 that continued to a heading of about 270° until radar contact was lost at 1513:26. The final radar return was about 1/2 mile southeast of the accident location. See figure 1.

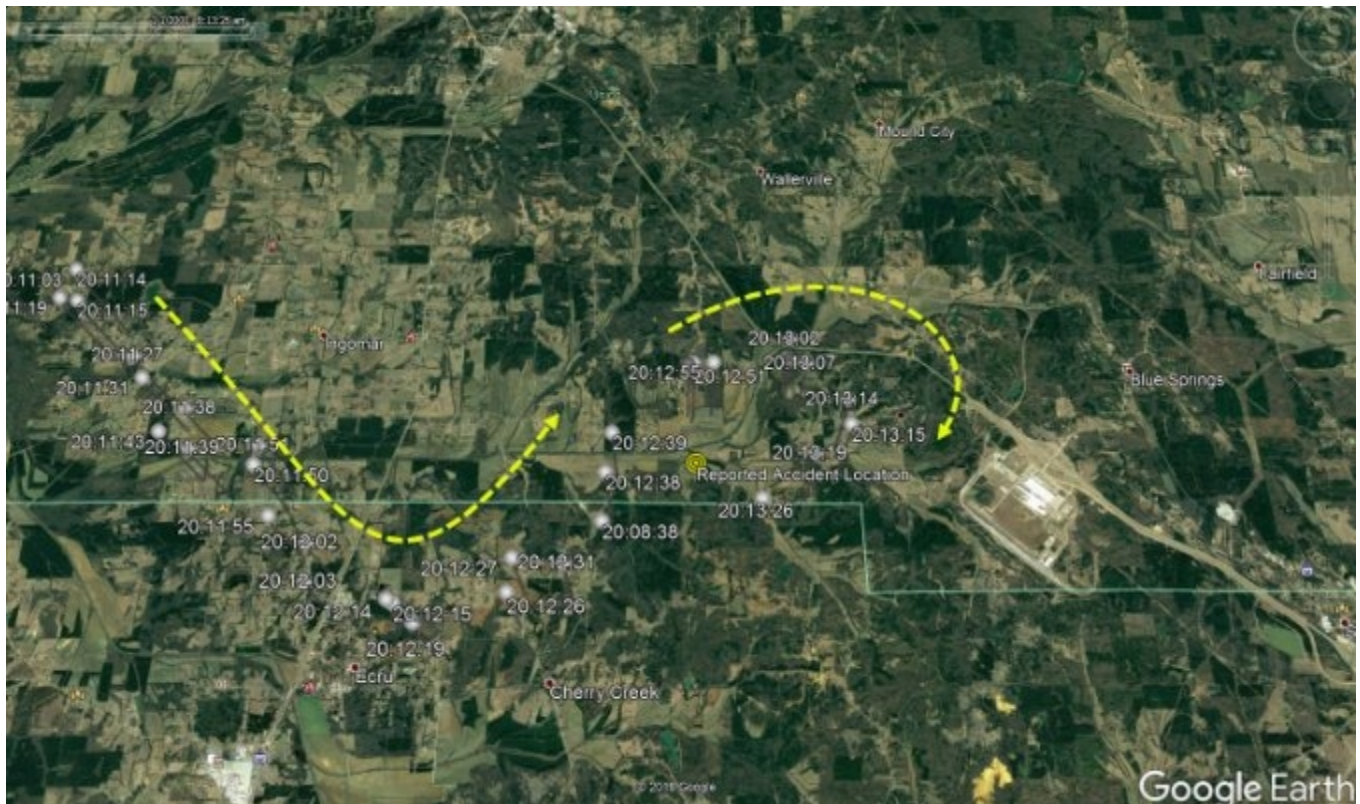


Figure 1 - Radar Track (All times in UTC)

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	70, 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>	None	<b>Restraint Used:</b>	Unknown
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 29, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 22200 hours (Total, all aircraft)		

## Co-pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Unknown
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 29, 2018
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 2250 hours (Total, all aircraft)		

Pilot logbooks for the pilot and copilot were not recovered during the investigation.

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Rockwell International	<b>Registration:</b>	N265DS
<b>Model/Series:</b>	NA-265-65	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1980	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Transport	<b>Serial Number:</b>	465-45
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	10
<b>Date/Type of Last Inspection:</b>	August 4, 2017 100 hour	<b>Certified Max Gross Wt.:</b>	23999 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo fan
<b>Airframe Total Time:</b>	10754 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Airesearch
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	TFE731 SER
<b>Registered Owner:</b>		<b>Rated Power:</b>	1550 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

The total time on the airplane and time since last inspection could not be determined due to the damage to the airplane.

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KTUP, 345 ft msl	<b>Distance from Accident Site:</b>	13 Nautical Miles
<b>Observation Time:</b>	15:24 Local	<b>Direction from Accident Site:</b>	308°
<b>Lowest Cloud Condition:</b>	Scattered / 1200 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 4000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	45°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.4 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 14°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Oxford, MS (KUOX)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Hamilton, AL (khab)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	15:06 Local	<b>Type of Airspace:</b>	Class G

The closest weather reporting facility to the accident site was the Tupelo Regional Airport (TUP),



Tupelo, Mississippi, located 13 1/2 miles southeast of the accident site at an elevation of 346 ft msl. The airport had an automated surface observing system that was augmented by ATC tower personnel during the period. The following conditions were reported surrounding the time of the accident:

TUP special weather observation at 1505, wind from 050° at 8 kts, visibility 10 miles in light rain, ceiling broken at 1,200 ft above ground level (agl), overcast at 4,000 ft, temperature 16°C, dew point 14°C, altimeter 29.82 inches of mercury (inHg). Remarks: automated observation system, lightning distant northwest through north.

TUP special weather observation at 1524, wind 050° at 7 kts, visibility 10 miles with thunderstorm in vicinity, light rain, scattered clouds at 1,200 ft agl, ceiling broken at 4,900 ft, overcast at 8,000 ft, temperature 16°C, dew point 14°C, altimeter 29.80 inHg. Remarks: automated observation system, lightning distant north and northwest.

### Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 Fatal	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 Fatal	<b>Latitude, Longitude:</b>	34.382499,-88.956108

The airplane impacted trees and terrain in a rural forest bordered by farm fields. Initial tree strikes were observed about 300 ft prior to the initial ground impact point. Impacted tree shear angles were indicative of impact about 30° right bank, 10° nose-low, and a 005° heading. The debris field measured 1,220 ft from the ground impact point (GIP) to the farthest located wreckage and was about 800 ft wide at the widest identified point. Impact angles and wreckage dispersion were oriented on a northerly heading. Most components of the airplane were highly fragmented, impact damaged, and unidentifiable.

Green position light material was located 50 ft before the GIP. The left wingtip was located about 130 ft and on a bearing of 325° from the GIP. Components of both engines were located between 400 and 800 ft from the GIP. Impact damage prevented positive identification of each engine and determination of the left or right position, as installed on the airplane. Compressor blades from both engines had leading edge gouges, curled leading edges, and sheared and broken blades. Components of both engines were identified with rotational markings. Impact damage and fragmentation prevented verification of flight control continuity and identification of flight control surfaces. Impact damage also prevented identification and examination of electrical system components and flight instruments.

### **Additional Information**

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### **Injuries to Persons**

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Narrative injuries to persons place holder

### **Damage to Aircraft**

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Narrative damage to aircraft place holder

### **Other Damage**

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Narrative other damage place holder

### **Communications**

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Narrative communications place holder

## **Flight recorders**

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The airplane was equipped with a cockpit voice recorder (CVR), which was located in the wreckage debris field. The CVR was downloaded by the National Transportation Safety Board (NTSB) Recorder Laboratory and was found to contain a recording of the accident flight.

## **Medical and Pathological Information**

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The remains of both pilots and the passenger were recovered and sent to the Mississippi State Medical Examiner, Pearl, Mississippi, to have autopsies completed. As of the writing of this report no autopsy reports were available. An evaluation of the circumstances of the accident, toxicological testing results, and a review of the pilot's medical history as recorded by the Federal Aviation Administration (FAA) was completed by an NTSB medical officer. The review found no evidence of a medical condition or use of a substance by either pilot which would have contributed to this accident.

## **Fire**

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Narrative fire place holder

## **Survival Aspects**

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Narrative survival aspects place holder

## **Tests and Research**

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Narrative tests and research place holder

## **Organizational and Management Information**

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Narrative organizational and management information place holder

## **Useful or Effective Investigation Techniques**

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## Administrative Information

<b>Investigator In Charge (IIC):</b>	Baker, Daniel		
<b>Additional Participating Persons:</b>	William Young; FAA; Jackson, MS		
<b>Original Publish Date:</b>	December 3, 2020	<b>Investigation Class:</b>	2
<b>Note:</b>	The NTSB traveled to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=99252">https://data.nts.gov/Docket?ProjectID=99252</a>		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).