



# Aviation Investigation Final Report

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<b>Location:</b>	MEMPHIS, Tennessee	<b>Accident Number:</b>	ATL94LA045
<b>Date &amp; Time:</b>	January 27, 1994, 21:30 Local	<b>Registration:</b>	N3844C
<b>Aircraft:</b>	CESSNA 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

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## Analysis

N3844C (A CESSNA 310R) LANDED ON RUNWAY 36R AT MEM, AS N2069C (A BEECH E18S) WAS TAXIING FROM THE UPS RAMP TO THE AMR COMBS SOUTH RAMP. THE CESSNA STAYED WITH MEM TOWER AFTER CLEAR OF RUNWAY 36R, AND WAS CLEARED TO TAXI TO THE AMR COMBS SOUTH RAMP. MEM GROUND, WHO WAS WORKING THE BEECH 18, DIRECTED THE BEECH TO GIVE WAY TO THE CESSNA, AS THEY WERE NOT IN RADIO CONTACT WITH THE CESSNA. THE BEECH 18 PILOT SAW THE CESSNA, WHICH HE THOUGHT WAS TAXIING TO THE AMR COMBS NORTH RAMP. ACCORDING TO TWO MARSHALLERS ON THE RAMP AND THE CESSNA PILOT, THE BEECH 18 COLLIDED WITH THE CESSNA FROM THE LEFT, REAR SIDE. THE MARSHALLERS ALSO REPORTED THAT THE BEECH 18 HAD ONLY THE STROBE LIGHT ON WHEN THE ACCIDENT OCCURRED; THE POSITION AND TAXI LIGHTS WERE NOT ILLUMINATED. THE BEECH 18 PILOT REPORTED THAT HE COULD NOT SEE THE CESSNA WHEN THE COLLISION OCCURRED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOT OF N2069C TO FOLLOW THE ATC DIRECTIVE TO GIVE WAY TO N3844C, AND THE INADEQUATE VISUAL LOOKOUT BY THE PILOT OF N2069C. A FACTOR WAS THE DARK NIGHT LIGHTING CONDITION AT THE TIME OF THE ACCIDENT.

## Findings

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Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: TAXI - FROM LANDING

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. OBJECT - AIRCRAFT MOVING ON GROUND
3. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT
4. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT OF OTHER AIRCRAFT

## Factual Information

On January 27, 1994, at 2130 central standard time, a Cessna 310R, N3844C, and a Beech E18S, N2069C, collided while taxiing at the Memphis International Airport in Memphis, Tennessee. The airline transport pilot of N3844C and the commercial pilot of N2069C were not injured. There was substantial damage to N3844C; the damage to N2069C was minor. N3844C was operated by RAS, Inc., and N2069C was operated by Springdale Air Service, Inc. N3844C was operating under 14 CFR Part 135 at the time of the accident, while N2069C was operating under 14 CFR Part 91. Night, visual meteorological conditions existed at the time of the accident. The flight of N3844C originated in Meridian, Mississippi, at 2020. N2069C was repositioning on the airfield after unloading cargo.

The pilot of the Cessna 310R, N3844C, reported the following: He requested to land long on Runway 36, which was approved by Memphis Tower. After landing, he was instructed to taxi to the end of the runway, then taxi to the ramp (AMR Combs Ramp), while remaining on the tower frequency. He taxied clear of the runway and proceeded toward the AMR South ramp. He observed a Beech Baron coming out of the ramp area, and turned slightly to the right. He then slowed the aircraft and began looking for a ramp lineman. As he was taxiing into the ramp area, he felt the aircraft shake, and heard a loud noise. He turned around and saw the Beech 18 (N2069C) at his 7 to 8 o'clock position.

The pilot of the Beech E18S, N2069C, reported the following: After unloading cargo, he called Memphis Ground Control and requested to taxi from the United Parcel Service Ramp to AMR Combs South Ramp. He was cleared to reposition as requested. While taxiing north on Taxiway Charley, he observed a Cessna 310 on landing roll, runway 36. The ground controller then directed him to give way to the Cessna 310, and that the ground controller was not talking to him (The Cessna 310). He then stopped and waited while the Cessna exited the runway. He then observed the Cessna taxi to the north, as if he was going to the AMR North ramp. When he thought the Cessna was taxiing to the north of his position, he turned west and proceeded into the AMR South ramp area. He observed a marshaller directly in front of him, who waved him to the north, and another marshaller began running northward across the ramp. He then turned about 45 degrees to the right, and slowed his taxi speed to allow the second marshaller to reach his parking spot. As the marshaller set up to direct him in, the Cessna "taxied through my right prop, striking the left wing tip."

One of the two AMR Combs marshalls reported that the Cessna was taxiing toward him at 3 to 5 miles per hour, when the Beech 18 hit the Cessna about 30 feet short of the ramp, while still on Taxiway Charley. The impact was to the left wing, and the left horizontal stabilizer of the Cessna. He stated that he did not see the Beech until the moment of impact, because the Beech "didn't have any lights on." After the impact, the Cessna continued toward him and was parked, while the Beech stopped at the location of impact.

The other marshaller saw the Cessna coming from the far runway, and thought that it was the Beech 18. She reported that "The Beech 18 just kept going into the back of it (the Cessna)." She reported that the Beech did not have any external lights on, only the strobe light, and that she did not see him (the Beech) until it was too late.

The pilot of the Beech E18S reported to an airport policeman that he did not see the Cessna just prior to the impact.

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight engineer; Flight instructor	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	December 2, 1993
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	6940 hours (Total, all aircraft), 2000 hours (Total, this make and model), 6550 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N3844C
<b>Model/Series:</b>	310R 310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310R1238
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	December 11, 1993 AAIP	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>	36 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	7516 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-M1
<b>Registered Owner:</b>	JIM RATLIFF AIR SERVICE, INC.	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>	RAS, INC.	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	MEM ,332 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	21:45 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2200 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	13°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	MERIDIAN , MS (MEI)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>		<b>Type of Clearance:</b>	
<b>Departure Time:</b>	20:20 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	MEMPHIS INTERNATIONAL MEM	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	332 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	36R	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	8400 ft / 150 ft	<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

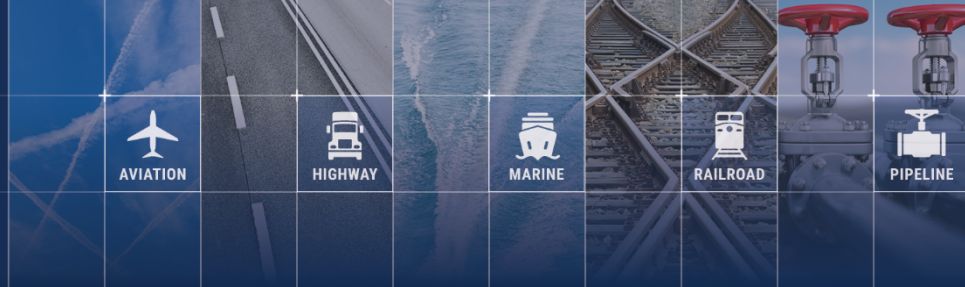
<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	HICKS,, RALPH
<b>Additional Participating Persons:</b>	DEBORA J CATRON; MEMPHIS , TN MICHAEL L ELLIOTT; MEMPHIS , TN
<b>Original Publish Date:</b>	November 14, 1994
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=3344">https://data.ntsb.gov/Docket?ProjectID=3344</a>

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](#).



# Aviation Investigation Final Report

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<b>Location:</b>	MEMPHIS, Tennessee	<b>Accident Number:</b>	ATL94LA045
<b>Date &amp; Time:</b>	January 27, 1994, 21:30 Local	<b>Registration:</b>	N2069C
<b>Aircraft:</b>	BEECH E18S	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

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## Analysis

N3844C (A CESSNA 310R) LANDED ON RUNWAY 36R AT MEM, AS N2069C (A BEECH E18S) WAS TAXIING FROM THE UPS RAMP TO THE AMR COMBS SOUTH RAMP. THE CESSNA STAYED WITH MEM TOWER AFTER CLEAR OF RUNWAY 36R, AND WAS CLEARED TO TAXI TO THE AMR COMBS SOUTH RAMP. MEM GROUND, WHO WAS WORKING THE BEECH 18, DIRECTED THE BEECH TO GIVE WAY TO THE CESSNA, AS THEY WERE NOT IN RADIO CONTACT WITH THE CESSNA. THE BEECH 18 PILOT SAW THE CESSNA, WHICH HE THOUGHT WAS TAXIING TO THE AMR COMBS NORTH RAMP. ACCORDING TO TWO MARSHALLERS ON THE RAMP AND THE CESSNA PILOT, THE BEECH 18 COLLIDED WITH THE CESSNA FROM THE LEFT, REAR SIDE. THE MARSHALLERS ALSO REPORTED THAT THE BEECH 18 HAD ONLY THE STROBE LIGHT ON WHEN THE ACCIDENT OCCURRED; THE POSITION AND TAXI LIGHTS WERE NOT ILLUMINATED. THE BEECH 18 PILOT REPORTED THAT HE COULD NOT SEE THE CESSNA WHEN THE COLLISION OCCURRED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOT OF N2069C TO FOLLOW THE ATC DIRECTIVE TO GIVE WAY TO N3844C, AND THE INADEQUATE VISUAL LOOKOUT BY THE PILOT OF N2069C. A FACTOR WAS THE DARK NIGHT LIGHTING CONDITION AT THE TIME OF THE ACCIDENT.



## Findings

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Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: TAXI

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. OBJECT - AIRCRAFT MOVING ON GROUND
3. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
4. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND

## Factual Information

See NTSB Report ATL-94-L-A045A for narrative.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	26, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	December 1, 1993
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	4100 hours (Total, all aircraft), 800 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BEECH	<b>Registration:</b>	N2069C
<b>Model/Series:</b>	E18S E18S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	BA-430
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	November 16, 1993 Annual	<b>Certified Max Gross Wt.:</b>	10100 lbs
<b>Time Since Last Inspection:</b>	99 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	12889 Hrs	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	R-985-AN14B
<b>Registered Owner:</b>	SPRINGDALE AIR SERVICE, INC.	<b>Rated Power:</b>	450 Horsepower
<b>Operator:</b>	SPRINGDALE AIR SERVICE, INC.	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	HBCA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	MEM ,332 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	21:45 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2200 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	13°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	Unknown
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	

## Airport Information

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<b>Airport Elevation:</b>	332 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	36R	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	8400 ft / 150 ft	<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Minor
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	HICKS,, RALPH
<b>Additional Participating Persons:</b>	DEBORA J CATRON; MEMPHIS , TN MICHAEL L ELLIOTT; MEMPHIS , TN
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