



# Aviation Investigation Factual Report

<b>Location:</b>	ATLANTA, Georgia	<b>Accident Number:</b>	ATL93FA061
<b>Date &amp; Time:</b>	February 19, 1993, 10:57 Local	<b>Registration:</b>	N621SG
<b>Aircraft:</b>	ROBINSON R22B	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Factual Information

### HISTORY OF FLIGHT

On February 19, 1993, at about 1057 eastern standard time, a Robinson R22B, N621SG, and a Cessna 152, N5532Q, were destroyed following a midair collision over the Fulton County Airport in Atlanta, Georgia. Both aircraft were destroyed in the collision, and the four crew members on board the two aircraft were fatally injured. The Robinson R22B was being operated under 14 CFR Part 91 by Prestige Helicopters, Incorporated of Lawrenceville, Georgia, and the Cessna 152 was being operated under 14 CFR Part 91 by Peachtree Dekalb Flight Academy, Incorporated of Chamblee, Georgia. Visual meteorological conditions existed at the time, and no flight plan had been filed by either aircraft for the local training flights. Both aircraft departed Peachtree Dekalb Airport at about 1000.

The Robinson R22B helicopter departed Peachtree DeKalb Airport at about 1000 for the purpose of conducting a helicopter instrument rating practical examination. At 1032:30 the pilot of the helicopter, N621SG, contacted the Atlanta Approach Control and advised the controller that the aircraft was being used for the purpose of conducting an instrument check ride, and requested a Very High Frequency Omni-range (VOR) approach to Runway 26 at the Fulton County Airport. The pilot requested that this approach be followed by a missed approach, and then proceed to the Initial Approach Fix (IAF) for a holding turn and an Instrument Landing System (ILS) approach to Runway 8 at the Fulton County Airport, and then to be followed by an Automatic Direction Finder (ADF) approach to Runway 8.

At 1033:41 Atlanta Approach Control contacted the Fulton County Airport Control Tower and advised the tower personnel that the helicopter intended to execute a VOR approach to Runway 26. The Approach Control Personnel did not advise the Tower that the Helicopter was conducting an instrument check ride. The Fulton County Tower approved the request and Approach Control Cleared the helicopter for the approach. At 1036:10 the pilot of the helicopter contacted the Fulton County Tower and the tower advised the helicopter that it appeared to be about one half mile north of course. At 1038:23 the control tower cleared the helicopter for the low approach, and again advised that the helicopter was north of course. The pilot advised that they were following the instrument indications in the cockpit and requested a missed approach to the IAF for the ILS. The tower cleared the helicopter for a missed approach direct to the IAF. At 1042:37 the pilot of the helicopter contacted Atlanta Approach, advised that he was executing the missed approach, and was cleared to execute one turn in the holding pattern and then to execute the ILS approach to Runway 8. At 1054:51 the helicopter was advised to again contact the Tower.

At 1055:03 the pilot of the helicopter contacted the Fulton County Airport Air Traffic Control Tower, and was cleared as number two for the approach following a Piper Seminole, which

was pointed out to the helicopter. At 1055:20 the pilot of the helicopter stated "Okay we got the Seminole in sight six two one sierra golf we'll be low approach back around for the NDB." The tower personnel responded "Helicopter one sierra golf roger number two runway eight cleared low approach." At 1056:51 Fulton County Tower advised the helicopter "Helicopter one sierra golf Cessna ahead and to your left touch and go runway niner." The pilot of the helicopter responded "Sierra Golf". At 1057:40 the pilot of a twin Cessna N3417G asked the tower what the explosion over the field was, and the tower responded "a helicopter and a cessna".

The Cessna 152, N5532Q departed Peachtree Dekalb Airport at about 1000 for the purpose of flight instruction. At 1046:46 the pilot of N5532Q contacted the Fulton County Air Traffic Control Tower and requested landing instructions for Runway 9 at the Fulton County Airport. The Tower instructed N5532Q to report left downwind for landing Runway 9.

At 1051:52 N5532Q reported left downwind for landing Runway 9. The tower cleared N5532Q for touch and go landing on Runway 9 and advised the pilot of King Air traffic three and one half miles west of the field landing on Runway 8. At 1055:47 the Tower again cleared N5532Q for touch and go landing on Runway 9. No further conversations were made with N5532Q. During the approach to the airport and landing approach of N5532Q, the Tower pointed out numerous traffic to the pilot of N5532Q, however, the Tower did not point out the helicopter, N621SG, to the pilot of N5532Q.

Witnesses stated that at the time of the mid air collision, the Cessna N5532Q was apparently descending on final approach for Runway 9, and it appeared that the helicopter, N621SG, was executing a climbing left turn just past the approach end of Runway 8. The witnesses stated that the helicopter appeared to overtake the Cessna.

## PERSONNEL INFORMATION

Mr. Ronald M. Lorber, the pilot in command of the Robinson R22B, N621SG, was a commercial pilot with airplane single engine land, helicopter, and instrument airplane ratings. Mr. Lorber was taking the practical examination for a helicopter instrument rating at the time of the accident. Normal procedure during this examination would have been for Mr. Lorber to have been wearing a vision restricting device for this flight, which would limit his ability to see outside the aircraft cockpit. During the ILS approach, Mr. Lorber's attention would be entirely focussed on the aircraft instrument panel.

Mr. Richard Hull, the examiner/observer of the Robinson R22B, N621SG, was an airline transport pilot with airplane single engine, airplane multiengine, helicopter, and airplane and helicopter instrument ratings. Mr. Hull also held a flight instructor's certificate with airplane single engine, airplane multiengine, helicopter, and airplane and helicopter instrument ratings. Mr. Hull's duties during the helicopter instrument practical examination would be to evaluate Mr. Lorber in accordance with the Federal Aviation Administration Practical Test Standards, and to act as an observer during the flight. During an ILS approach, the examiner's attention

would be divided between the instrument panel, and outside of the aircraft to observe other traffic in the area. During an ILS approach, as the flight approaches the decision height (DH), the movement of the localizer and glideslope needles becomes more rapid. The examiner must devote more and more of his attention to the instrument readings in the cockpit in order to insure that the applicant is using proper control inputs to maintain course and altitude. During an examination, the examiner must allow the applicant to initiate an improper procedure in order to properly evaluate the applicant, unless a hazardous situation intervenes.

Mr. William Meagher III, the flight instructor/pilot in command of the Cessna 152, N5532Q was a commercial pilot with airplane single engine land, airplane multiengine land, and instrument airplane ratings. He also held a flight instructor certificate with airplane single engine, airplane multiengine, and instrument airplane ratings. As a flight instructor of a student pilot, Mr. Meagher's responsibilities would include teaching his student techniques and procedures used in order to obtain a private pilot's certificate. This would include the practice of insuring clearance from other aircraft during flight. A normal practice during traffic pattern operations would be for the pilot to check the final approach path, prior to turning from base to final, and insure that no other aircraft were on final for the same runway.

Mr. Dan Dunn, the student pilot of the Cessna 152, N5532Q held a student pilot certificate with no ratings.

Additional pilot information may be obtained in this report under the sections titled First Pilot Information, and in Supplement E.

## AIRCRAFT INFORMATION

The Robinson R22B, N621SG, while not certified for flight under instrument conditions, was equipped with the necessary equipment for instrument flight training. The pilot in command/applicant position in the Robinson R22B is the right pilot seat. The observer/examiner position is the left pilot seat.

Visibility from the left pilot seat looking directly ahead of the aircraft, both above and below the aircraft flight path is unobstructed. Located above the door and extending toward the nose of the aircraft is a structural panel approximately 10 inches in width and 18 inches in length. This panel creates a blind spot for the pilot in the left seat, above and to the left side of the aircraft flight path.

According to personnel who have instructed in the Robinson R22B, the normal approach speed used for instrument approaches is 90 knots indicated airspeed.

The pilot/student position in the Cessna 152 would normally be the left seat, and the instructor/observer would normally utilize the right pilot seat.

According to the Cessna 152 Information Manual, the approach speed for a short field landing

is 54 knots indicated airspeed.

## METEOROLOGICAL INFORMATION

Meteorological information may be obtained in this report under the sections titled Weather Information.

## AERODROME INFORMATION

The Fulton County Airport has three runways, Runway 14/32, Runway 8/26, and Runway 9/27. While Runways 8/26 and 9/27 are numbered as having different headings, they are actually parallel to each other. The distance between the centerline of Runways 8/26 and 9/27 is 400 feet. Runway 8/26 is 5,796 feet in length, and 100 feet in width. Runway 9/27 is 2,801 feet in length, and 60 feet in width. The landing threshold of Runway 9 is located 2,346.62 feet east of the landing threshold of Runway 8. The Air Traffic Control Tower at Fulton County Airport is located approximately 2500 feet east of the approach end of Runway 8.

## WRECKAGE AND IMPACT INFORMATION

The wreckage was distributed over an area approximately 600 feet in length. The direction of the wreckage path was approximately 090 degrees. The first pieces of the wreckage were parts of the Cessna right wing. These pieces were found in the bottom of a ravine approximately 100 yards north of the approach end of runway 8. Some of the Cessna wing parts showed white paint transfer marks, that matched the white paint on the rotor blades of the helicopter.

The main wreckage of the Cessna was located on the approach end of runway 14, and the main wreckage of the Robinson helicopter was located on the parallel taxiway to runway 14 adjacent to the approach end of the runway.

The fuselages of both aircraft had been nearly consumed by post crash fire.

See Wreckage Distribution Diagram attached to this report for further information.

## MEDICAL AND PATHOLOGICAL INFORMATION

The Medical Examiner listed the cause of death of Mr. Lorber as generalized blunt force trauma. The Toxicology report for Mr. Lorber was negative for drugs and ethanol.

The Medical Examiner listed the cause of death of Mr. Hull as generalized blunt force trauma. The Toxicology report for Mr. Hull was negative for drugs and ethanol.

The Medical Examiner listed that cause of death of Mr. Meagher as generalized blunt force trauma. The Toxicology report for Mr. Meagher was negative for drugs and ethanol.

The Medical Examiner listed the cause of death of Mr. Dunn as generalized blunt force trauma. The Toxicology report of Mr. Dunn showed that his blood contained 61.300 (ug/ml, ug/g) Acetaminophen. The Toxicology report was negative for ethanol.

#### ADDITIONAL INFORMATION

The published missed approach procedure for the ILS Runway 8 at the Fulton County Airport is a climb straight ahead to 1700 feet followed by a climbing left turn to 3000 feet, and proceed direct to the locator outer marker. (See Attached ILS Runway 8 Approach Chart.)

The Air Traffic Control Procedures applicable to this accident are found in Federal Aviation Administration Order 7110.65H.

Paragraph 2-21 states, "Unless an aircraft is operating within the Positive Control Area or omission is requested by the pilot, issue traffic advisories to all aircraft (IFR/VFR) on your frequency when in your judgement their proximity may diminish to less than the applicable separation minima. Where no separation minima applies, such as for VFR aircraft outside an ARSA, TRSA, or TCA, issue traffic advisories to those aircraft on your frequency when in your judgement their proximity warrants it."

Paragraph 3-90 states, "Establish the sequence of arriving and departing aircraft by requiring them to adjust flight or ground operation as necessary to establish proper spacing."

Paragraph 3-92 states, "Authorize simultaneous, same direction operations on parallel runways, on parallel landing strips, or on a runway and a parallel landing strip only when the following conditions are met:

- a. Operations are conducted in VFR conditions unless visual separation is applied.
- b. Two-way radio communication is maintained with the aircraft involved and pertinent traffic information is issued.
- c. The distance between the runways or landing strips is in accordance with the minima in Table 3-92[1] (use the greater minimum if two categories are involved)."

The wreckage of Cessna N5532Q was released to Mr. Kevin Twiss, the owners insurance representative, on February 25, 1993.

The wreckage of Robinson N621SG was released to Mr. Royce Bosselman, the owners insurance representative, on February 25, 1993.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	46, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 7, 1992
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	349 hours (Total, all aircraft), 192 hours (Total, this make and model), 304 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROBINSON	<b>Registration:</b>	N621SG
<b>Model/Series:</b>	R22B R22B	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1985
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	November 25, 1992 Annual	<b>Certified Max Gross Wt.:</b>	1370 lbs
<b>Time Since Last Inspection:</b>	44 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	543 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-320-B2C
<b>Registered Owner:</b>	ROTOR LEASING, INC.	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	PRESTIGE HELICOPTERS, INC.	<b>Operating Certificate(s) Held:</b>	None
<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>	Day
<b>Observation Facility, Elevation:</b>	FTY ,841 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	11:08 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Thin Overcast / 25000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	0°C / -11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	CHAMBLEE (PDK )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:15 Local	<b>Type of Airspace:</b>	Class D;Class E

## Airport Information

<b>Airport:</b>	FULTON COUNTY FTY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	841 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	8	<b>IFR Approach:</b>	ILS;Practice
<b>Runway Length/Width:</b>	5796 ft / 100 ft	<b>VFR Approach/Landing:</b>	Go around;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Fatal	<b>Latitude, Longitude:</b>	33.739635,-84.569351(est)

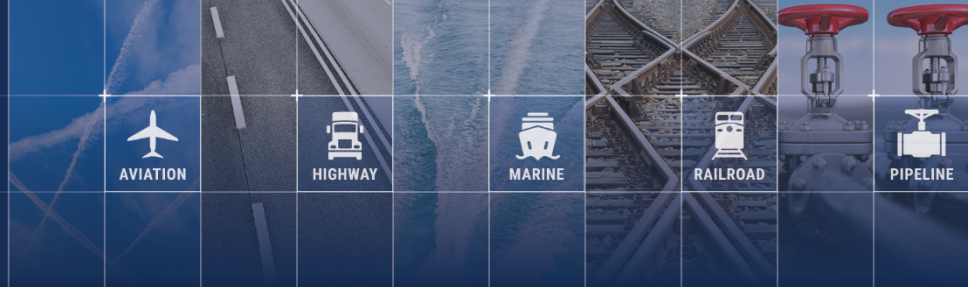


## Administrative Information

Investigator In Charge (IIC):	SASSER, ROFF
Additional Participating Persons:	ROBERT BRUCE; COLLEGE PARK , GA WENTWORTH RICHARD; WASHINGTON , DC
Report Date:	February 7, 1994
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=3178">https://data.nts.gov/Docket?ProjectID=3178</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 Factual Report

<b>Location:</b>	ATLANTA, Georgia	<b>Accident Number:</b>	ATL93FA061
<b>Date &amp; Time:</b>	February 19, 1993, 10:57 Local	<b>Registration:</b>	N5532Q
<b>Aircraft:</b>	CESSNA 152	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Factual Information

### HISTORY OF FLIGHT

On February 19, 1993, at about 1057 eastern standard time, a Robinson R22B, N621SG, and a Cessna 152, N5532Q, were destroyed following a midair collision over the Fulton County Airport in Atlanta, Georgia. Both aircraft were destroyed in the collision, and the four crew members on board the two aircraft were fatally injured. The Robinson R22B was being operated under 14 CFR Part 91 by Prestige Helicopters, Incorporated of Lawrenceville, Georgia, and the Cessna 152 was being operated under 14 CFR Part 91 by Peachtree Dekalb Flight Academy, Incorporated of Chamblee, Georgia. Visual meteorological conditions existed at the time, and no flight plan had been filed by either aircraft for the local training flights. Both aircraft departed Peachtree Dekalb Airport at about 1000.

The Robinson R22B helicopter departed Peachtree DeKalb Airport at about 1000 for the purpose of conducting a helicopter instrument rating practical examination. At 1032:30 the pilot of the helicopter, N621SG, contacted the Atlanta Approach Control and advised the controller that the aircraft was being used for the purpose of conducting an instrument check ride, and requested a Very High Frequency Omni-range (VOR) approach to Runway 26 at the Fulton County Airport. The pilot requested that this approach be followed by a missed approach, and then proceed to the Initial Approach Fix (IAF) for a holding turn and an Instrument Landing System (ILS) approach to Runway 8 at the Fulton County Airport, and then to be followed by an Automatic Direction Finder (ADF) approach to Runway 8.

At 1033:41 Atlanta Approach Control contacted the Fulton County Airport Control Tower and advised the tower personnel that the helicopter intended to execute a VOR approach to Runway 26. The Approach Control Personnel did not advise the Tower that the Helicopter was conducting an instrument check ride. The Fulton County Tower approved the request and Approach Control Cleared the helicopter for the approach. At 1036:10 the pilot of the helicopter contacted the Fulton County Tower and the tower advised the helicopter that it appeared to be about one half mile north of course. At 1038:23 the control tower cleared the helicopter for the low approach, and again advised that the helicopter was north of course. The pilot advised that they were following the instrument indications in the cockpit and requested a missed approach to the IAF for the ILS. The tower cleared the helicopter for a missed approach direct to the IAF. At 1042:37 the pilot of the helicopter contacted Atlanta Approach, advised that he was executing the missed approach, and was cleared to execute one turn in the holding pattern and then to execute the ILS approach to Runway 8. At 1054:51 the helicopter was advised to again contact the Tower.

At 1055:03 the pilot of the helicopter contacted the Fulton County Airport Air Traffic Control Tower, and was cleared as number two for the approach following a Piper Seminole, which

was pointed out to the helicopter. At 1055:20 the pilot of the helicopter stated "Okay we got the Seminole in sight six two one sierra golf we'll be low approach back around for the NDB." The tower personnel responded "Helicopter one sierra golf roger number two runway eight cleared low approach." At 1056:51 Fulton County Tower advised the helicopter "Helicopter one sierra golf Cessna ahead and to your left touch and go runway niner." The pilot of the helicopter responded "Sierra Golf". At 1057:40 the pilot of a twin Cessna N3417G asked the tower what the explosion over the field was, and the tower responded "a helicopter and a cessna".

The Cessna 152, N5532Q departed Peachtree Dekalb Airport at about 1000 for the purpose of flight instruction. At 1046:46 the pilot of N5532Q contacted the Fulton County Air Traffic Control Tower and requested landing instructions for Runway 9 at the Fulton County Airport. The Tower instructed N5532Q to report left downwind for landing Runway 9.

At 1051:52 N5532Q reported left downwind for landing Runway 9. The tower cleared N5532Q for touch and go landing on Runway 9 and advised the pilot of King Air traffic three and one half miles west of the field landing on Runway 8. At 1055:47 the Tower again cleared N5532Q for touch and go landing on Runway 9. No further conversations were made with N5532Q. During the approach to the airport and landing approach of N5532Q, the Tower pointed out numerous traffic to the pilot of N5532Q, however, the Tower did not point out the helicopter, N621SG, to the pilot of N5532Q.

Witnesses stated that at the time of the mid air collision, the Cessna N5532Q was apparently descending on final approach for Runway 9, and it appeared that the helicopter, N621SG, was executing a climbing left turn just past the approach end of Runway 8. The witnesses stated that the helicopter appeared to overtake the Cessna.

## PERSONNEL INFORMATION

Mr. Ronald M. Lorber, the pilot in command of the Robinson R22B, N621SG, was a commercial pilot with airplane single engine land, helicopter, and instrument airplane ratings. Mr. Lorber was taking the practical examination for a helicopter instrument rating at the time of the accident. Normal procedure during this examination would have been for Mr. Lorber to have been wearing a vision restricting device for this flight, which would limit his ability to see outside the aircraft cockpit. During the ILS approach, Mr. Lorber's attention would be entirely focussed on the aircraft instrument panel.

Mr. Richard Hull, the examiner/observer of the Robinson R22B, N621SG, was an airline transport pilot with airplane single engine, airplane multiengine, helicopter, and airplane and helicopter instrument ratings. Mr. Hull also held a flight instructor's certificate with airplane single engine, airplane multiengine, helicopter, and airplane and helicopter instrument ratings. Mr. Hull's duties during the helicopter instrument practical examination would be to evaluate Mr. Lorber in accordance with the Federal Aviation Administration Practical Test Standards, and to act as an observer during the flight. During an ILS approach, the examiner's attention

would be divided between the instrument panel, and outside of the aircraft to observe other traffic in the area. During an ILS approach, as the flight approaches the decision height (DH), the movement of the localizer and glideslope needles becomes more rapid. The examiner must devote more and more of his attention to the instrument readings in the cockpit in order to insure that the applicant is using proper control inputs to maintain course and altitude. During an examination, the examiner must allow the applicant to initiate an improper procedure in order to properly evaluate the applicant, unless a hazardous situation intervenes.

Mr. William Meagher III, the flight instructor/pilot in command of the Cessna 152, N5532Q was a commercial pilot with airplane single engine land, airplane multiengine land, and instrument airplane ratings. He also held a flight instructor certificate with airplane single engine, airplane multiengine, and instrument airplane ratings. As a flight instructor of a student pilot, Mr. Meagher's responsibilities would include teaching his student techniques and procedures used in order to obtain a private pilot's certificate. This would include the practice of insuring clearance from other aircraft during flight. A normal practice during traffic pattern operations would be for the pilot to check the final approach path, prior to turning from base to final, and insure that no other aircraft were on final for the same runway.

Mr. Dan Dunn, the student pilot of the Cessna 152, N5532Q held a student pilot certificate with no ratings.

Additional pilot information may be obtained in this report under the sections titled First Pilot Information, and in Supplement E.

## AIRCRAFT INFORMATION

The Robinson R22B, N621SG, while not certified for flight under instrument conditions, was equipped with the necessary equipment for instrument flight training. The pilot in command/applicant position in the Robinson R22B is the right pilot seat. The observer/examiner position is the left pilot seat.

Visibility from the left pilot seat looking directly ahead of the aircraft, both above and below the aircraft flight path is unobstructed. Located above the door and extending toward the nose of the aircraft is a structural panel approximately 10 inches in width and 18 inches in length. This panel creates a blind spot for the pilot in the left seat, above and to the left side of the aircraft flight path.

According to personnel who have instructed in the Robinson R22B, the normal approach speed used for instrument approaches is 90 knots indicated airspeed.

The pilot/student position in the Cessna 152 would normally be the left seat, and the instructor/observer would normally utilize the right pilot seat.

According to the Cessna 152 Information Manual, the approach speed for a short field landing

is 54 knots indicated airspeed.

## METEOROLOGICAL INFORMATION

Meteorological information may be obtained in this report under the sections titled Weather Information.

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## WRECKAGE AND IMPACT INFORMATION

The wreckage was distributed over an area approximately 600 feet in length. The direction of the wreckage path was approximately 090 degrees. The first pieces of the wreckage were parts of the Cessna right wing. These pieces were found in the bottom of a ravine approximately 100 yards north of the approach end of runway 8. Some of the Cessna wing parts showed white paint transfer marks, that matched the white paint on the rotor blades of the helicopter.

The main wreckage of the Cessna was located on the approach end of runway 14, and the main wreckage of the Robinson helicopter was located on the parallel taxiway to runway 14 adjacent to the approach end of the runway.

The fuselages of both aircraft had been nearly consumed by post crash fire.

See Wreckage Distribution Diagram attached to this report for further information.

## MEDICAL AND PATHOLOGICAL INFORMATION

The Medical Examiner listed the cause of death of Mr. Lorber as generalized blunt force trauma. The Toxicology report for Mr. Lorber was negative for drugs and ethanol.

The Medical Examiner listed the cause of death of Mr. Hull as generalized blunt force trauma. The Toxicology report for Mr. Hull was negative for drugs and ethanol.

The Medical Examiner listed that cause of death of Mr. Meagher as generalized blunt force trauma. The Toxicology report for Mr. Meagher was negative for drugs and ethanol.

The Medical Examiner listed the cause of death of Mr. Dunn as generalized blunt force trauma. The Toxicology report of Mr. Dunn showed that his blood contained 61.300 (ug/ml, ug/g) Acetaminophen. The Toxicology report was negative for ethanol.

#### ADDITIONAL INFORMATION

The published missed approach procedure for the ILS Runway 8 at the Fulton County Airport is a climb straight ahead to 1700 feet followed by a climbing left turn to 3000 feet, and proceed direct to the locator outer marker. (See Attached ILS Runway 8 Approach Chart.)

The Air Traffic Control Procedures applicable to this accident are found in Federal Aviation Administration Order 7110.65H.

Paragraph 2-21 states, "Unless an aircraft is operating within the Positive Control Area or omission is requested by the pilot, issue traffic advisories to all aircraft (IFR/VFR) on your frequency when in your judgement their proximity may diminish to less than the applicable separation minima. Where no separation minima applies, such as for VFR aircraft outside an ARSA, TRSA, or TCA, issue traffic advisories to those aircraft on your frequency when in your judgement their proximity warrants it."

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- a. Operations are conducted in VFR conditions unless visual separation is applied.
- b. Two-way radio communication is maintained with the aircraft involved and pertinent traffic information is issued.
- c. The distance between the runways or landing strips is in accordance with the minima in Table 3-92[1] (use the greater minimum if two categories are involved)."

The wreckage of Cessna N5532Q was released to Mr. Kevin Twiss, the owners insurance representative, on February 25, 1993.

The wreckage of Robinson N621SG was released to Mr. Royce Bosselman, the owners insurance representative, on February 25, 1993.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	25, 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>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Helicopter	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 25, 1992
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1047 hours (Total, all aircraft), 1009 hours (Pilot In Command, all aircraft), 66 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N5532Q
<b>Model/Series:</b>	152 152	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Utility	<b>Serial Number:</b>	1528519
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	February 11, 1993 100 hour	<b>Certified Max Gross Wt.:</b>	1675 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6200 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-235-L2C
<b>Registered Owner:</b>	PEACHTREE DEKALB FLIGHT ACAD.	<b>Rated Power:</b>	108 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<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>	Day
<b>Observation Facility, Elevation:</b>	FTY ,841 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	11:08 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Thin Overcast / 25000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	0°C / -11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	CHAMBLEE (PDK )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:00 Local	<b>Type of Airspace:</b>	Class D;Class E

## Airport Information

<b>Airport:</b>	FULTON COUNTY FTY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	841 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	8	<b>IFR Approach:</b>	ILS;Practice
<b>Runway Length/Width:</b>	5796 ft / 100 ft	<b>VFR Approach/Landing:</b>	Go around;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Fatal	<b>Latitude, Longitude:</b>	33.739635,-84.569351(est)

## Administrative Information

Investigator In Charge (IIC):	SASSER, ROFF
Additional Participating Persons:	ROBERT BRUCE; COLLEGE PARK , GA WENTWORTH RICHARD; WASHINGTON , DC
Report Date:	February 7, 1994
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=3178">https://data.nts.gov/Docket?ProjectID=3178</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](#).