Aviation Investigation Final Report

Location:	Farmingdale, New York	**Accident Number:**	MIA08LA005
Date & Time:	October 21, 2007, 17:53 Local	**Registration:**	N43450
Aircraft:	Piper PA-32R-301	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The Piper and Cessna pilot were both inbound to the same airport in visual meteorological conditions (VMC).The Cessna pilot reported to the local controller (LC) that he was 1 mile south of a published reporting point located 13.5 miles to the northeast of the airport. The LC directed the pilot to report entering a left downwind, and the pilot continued on southerly heading for 4 miles before turning right to a southwesterly heading. The Piper pilot contacted the LC and reported 10 miles to the north of the airport. The LC directed the Piper pilot to enter a left downwind stating, "Cessna four five zero republic report entering left down", and the Piper pilot acknowledged, "left downwind for runway one ninner." The LC subsequently informed the Cessna pilot that he had possible traffic off his eleven o'clock position at a half-mile westbound at 1,000 feet. The Cessna pilot responded, "seven two mike looking for traffic." Forty one seconds later, the Piper pilot informed the LC of the collision and declared an emergency. The LC stated in an interview with the National Transportation Safety Board that he scanned the runways, traffic pattern, final approach course, and the remote automated radar display (RACD), when he noticed two VFR targets northeast of the field close to one another. Assuming the target on a southwesterly heading was a VFR helicopter passing to the north of the airport, the LC issued possible traffic to the southbound aircraft, assuming it was the Cessna pilot when it was actually the Piper pilot, and the Cessna pilot acknowledged the traffic call. Federal Aviation Administration (FAA) Order 7110.65, Air Traffic Control, paragraph 2-1-1, Air Traffic Service: "The primary purpose of the ATC system is to prevent a collision between aircraft operating in the system and to organize and expedite the flow of traffic, and to provide support for National Security and Homeland Defense. In addition to its primary function, the ATC system has the capability to provide (with certain limitations) additional services. The ability to provide additional services is limited by many factors, such as the volume of traffic, frequency congestion, quality of radar, controller workload, higher priority duties, and the pure physical inability to scan and detect those situations that fall in this category. The provision of additional services is not optional on the part of the controller, but rather is required when the work situation permits." According to the FAA, traffic advisories to

VFR aircraft is considered an additional service. In addition, paragraph 2-1-21, Traffic Advisories: "Unless an aircraft is operating within Class A airspace or omission is requested by the pilot, issue traffic advisories to all aircraft (IFR or VFR) on your frequency when, in your judgment, their proximity may diminish to less than the applicable separation minima. Where no separation minima applies, such as for VFR aircraft outside of Class B/Class C airspace, or a TRSA, issue traffic advisories to those aircraft on your frequency when in your judgment their proximity warrants it.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of both pilots to see and avoid while maneuvering in VFR conditions resulting in a midair collision. Contributing to the accident was the local controller's failure to properly identify conflicting traffic.

Findings

Occurrence #1: MIDAIR COLLISION
Phase of Operation: MANEUVERING

Findings
1. (C) VISUAL LOOKOUT - NOT MAINTAINED - PILOT IN COMMAND
2. (C) VISUAL LOOKOUT - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT
3. (C) CONTROL TOWER SERVICE - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)

Factual Information

On October 21, 2007, at about 1753 eastern daylight time, a Piper PA-32R-301, N43450, registered to a private owner, operating as a 14 Code of Federal Regulations (CFR) Part 91 personal flight, and a Cessna 152, N4672M, registered to AADH Inc., operating as a 14 CFR Part 91 instructional flight, collided in flight at about 1,150 feet, in the vicinity of Republic Airport (FRG), Farmingdale, New York. Visual meteorological conditions prevailed and neither pilot filed a flight plan. Both airplanes received substantial damage and landed without further incident at FRG. The Piper commercial pilot and one passenger reported no injuries. The Piper flight originated from Poughkeepsie, New York, on October 21, 2007, at 1715. The Cessna student pilot reported no injuries and the flight originated from Groton, Connecticut, on October 21, 2007, at 1700.

The Piper pilot stated he was at 2,500 feet, 10 miles north of FRG, when he radioed the control tower for landing. The controller instructed him to report a left downwind for runway 19. The pilot continued his descent to 1,400 feet while heading towards the southwest. He then started a right turn and a descent to 1,100 feet. The pilot then observed an airplane out of his left eye, immediately pulled back on the control yoke, and both airplanes collided. He declared an emergency, squawked 7700 on the transponder, and landed with out further incident.

The Cessna pilot stated he was at 1,150 feet, 2 miles south of "Northport stacks," which were located 13.5 miles to the north northeast of FRG, when he contacted controllers at FRG control tower for landing instructions. The controller informed the pilot to enter a left downwind for landing on runway 19. The controller was busy and did not point out any traffic on his initial contact. The pilot stated he was about 4 miles east of the airport, when the controller informed him of traffic at his 11 o'clock position. The pilot immediately heard a loud bang, declared an emergency, and landed with out further incident.

A Garmin global positioning system (GPS) GPSMAP 296 hand-portable unit was in use at the time of the accident by the Piper pilot. The unit was examined by the National Transportation Safety Board . The unit showed no evidence of damage and data for the accident flight was downloaded using Garmin Map Source V6.12.2.

The download revealed the accident aircraft departed Poughkeepsie, New York, about 1732. The aircraft flew on a relatively steady southeasterly heading toward Long Island, New York while cruising at 3,500 feet GPS altitude. The pilot initiated a descent about 1750. About 1758:55, ground speed began to rapidly decrease from approximately 140 mph to minimum of 107 mph over a 28 second period. During this same period aircraft GPS altitude climbed from approximately 1,230 feet to a maximum of 1,295 feet. Airspeed increased back to approximately 130 mph as the airplane resumed its descent and turned to a southwesterly heading. The airplane entered a left base for runway 19 at FRG at approximately 1800. The

airplane turned final at 1801:30 and landed at 1802:44 based on the recorded groundspeed and GPS altitude.

In addition, the Safety Board Vehicle Recorder Laboratory conducted a Pilot Visibility Study utilizing recorded data recovered from the GPS unit and area surveillance radar (ASR) data. The calculations illustrated in the visibility study indicate the Piper pilot could see the Cessna airplane no earlier than 1758:21 approximately 44 seconds prior to the collision, and that the airplanes were about 9,500 feet apart when the Cessna airplane would have entered the Piper Pilot's field of view. The calculations also indicated that the Cessna pilot could see the Piper airplane no earlier than 1758:18, approximately 48 seconds prior to the collision, and that the airplanes were about 10, 300 feet apart when the Piper airplane entered the Cessna pilot's field of view. These calculations are based on aircraft size and range alone, and assume that the observed aircraft was actually in a position to be viewed through the windscreen of the observing aircraft. Zero winds and zero deck angle, was assumed for the calculations. The calculations further indicate that the Cessna was approximately 25 to 35 degrees left of the nose and 2 degrees below the level flight position as seen by the pilot of the Piper approximately 2 minutes prior to the collision. The calculations indicate that the Piper was approximately 80 to 100 degrees right of the nose and about 2 degrees above the level flight position as seen by the pilot of the Cessna approximately 2 minutes prior to the Collision.

Results of U.S. Navy research indicates that it takes 12.5 seconds for a well-trained pilot to perceive an object, recognize that object as an aircraft, become aware that the object is on a collision course, decide on a course of action, initiate the action, and have the aircraft respond to the pilot's input.

The air traffic control group convened at FRG Air Traffic Control Tower (ATCT) on October 26, 2007. After receiving initial briefings on the sequence of the events, the group toured the tower, reviewed data provided by the facility, listened to recorded voice communications and interviewed controllers and the supervisor. Review of voice communications revealed the Cessna pilot reported at 1753, that he was 1 mile south of the Northport stacks [a published VFR reporting point 029 degrees at 13.5 miles from FRG to the FRG ATCT. The local controller (LC) directed the pilot to report entering a left downwind. The pilot continued on a southerly heading of approximately 170 degrees for 4 miles before turning right to a southwesterly heading of approximately 230 degrees at 1756 EDT.

At 1755, the Piper pilot contacted the FRG ATCT and stated; "uh republic tower [unintelligible] four three four five zero we are showing ten to the north." The FRG LC directed the Piper pilot to enter a left downwind; by stating "Cessna four five zero republic report entering left down". The Piper pilot acknowledged, "left downwind for [runway] one ninner."

At 1758:47, LC transmitted "Cessna seven two mike possible traffic off to your eleven o'clock and a half mile westbound at one thousand." The Cessna pilot responded, "seven two mike looking for traffic." Forty one seconds later the Piper pilot stated, "[unintelligible] tower we have mayday mayday mayday we have collision we are four or five miles to the east we need

immediate landing instructions".

At the time of the midair collision, ATCT controller staffing included a local controller (LC) and a ground controller (GC). The GC position was combined with flight data (FD), clearance delivery (CD), and the controller-in-charge (CIC) positions. Concurrently, both LC and GC were in the process of position relief briefings with the oncoming controllers. There were no ATC equipment outages or unusual activities such as airfield construction in progress at the time of the midair collision.

According to the LC, traffic was "busy" with multiple arrivals and departures, having up to eight aircraft at one time in the 30 minutes preceding the midair collision. While working airport traffic, the LC received a call from the Cessna pilot over the Northport stacks but did not respond to him due to traffic.

At 2153:05, the LC received a second call from the Cessna pilot about 1 mile south of the Northport stacks. LC directed the Cessna pilot to report entering a left downwind, and the Cessna pilot acknowledged. At 2155:15, the Piper pilot radioed the LC stating, "showing ten to the north". The LC responded with, "Cessna four five zero republic report entering a left down." The Piper pilot responded, "left downwind for one ninner."

The LC stated he scanned the runways, traffic pattern, final approach course, and the remote automated radar display (RACD), where he noticed two VFR targets northeast of the field close to one another. Assuming the target on a southwesterly heading target was a VFR helicopter passing to the north of the airport, [a common occurrence], the LC issued possible traffic to the southbound aircraft, assuming it was the Cessna pilot when it was actually the Piper pilot, and the Cessna pilot acknowledged the traffic call.

According to the Federal Aviation Administration (FAA) Order 7110.65, Air Traffic Control, paragraph 2-1-1, Air Traffic Service: "The primary purpose of the ATC system is to prevent a collision between aircraft operating in the system and to organize and expedite the flow of traffic, and to provide support for National Security and Homeland Defense. In addition to its primary function, the ATC system has the capability to provide (with certain limitations) additional services. The ability to provide additional services is limited by many factors, such as the volume of traffic, frequency congestion, quality of radar, controller workload, higher priority duties, and the pure physical inability to scan and detect those situations that fall in this category. The provision of additional services is not optional on the part of the controller, but rather is required when the work situation permits." According to the FAA, traffic advisories to visual flight rules (VFR) aircraft is considered an additional service.

According to FAA Order 7110.65, Air Traffic Control, paragraph 2-1-21, Traffic Advisories: "Unless an aircraft is operating within Class A airspace or omission is requested by the pilot, issue traffic advisories to all aircraft (IFR or VFR) on your frequency when, in your judgment, their proximity may diminish to less than the applicable separation minima. Where no separation minima applies, such as for VFR aircraft outside of Class B/Class C airspace, or a

TRSA, issue traffic advisories to those aircraft on your frequency when in your judgment their proximity warrants it.

Pilot Information

Certificate:	Commercial	**Age:**	49,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	December 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	May 1, 2006
Flight Time:	1042 hours (Total, all aircraft), 800 hours (Total, this make and model), 939 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N43450
Model/Series:	PA-32R-301	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32R-8413011
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	June 1, 2007 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:	13 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2152 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	IO-540
Registered Owner:	Karmendra S. Sidhu	**Rated Power:**	300 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Dusk
Observation Facility, Elevation:	KFRG,82 ft msl	**Distance from Accident Site:**	
Observation Time:	17:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	19°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Poughkeepsie, NY (KPOU)	**Type of Flight Plan Filed:**	None
Destination:	Farmingdale, NY (KFRG)	**Type of Clearance:**	None
Departure Time:	17:15 Local	**Type of Airspace:**	

Airport Information

Airport:	Republic Airport KFRG	**Runway Surface Type:**	Asphalt
Airport Elevation:	82 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	19	**IFR Approach:**	None
Runway Length/Width:	5516 ft / 150 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	40.729442,-73.41333

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	Ray Melcer; Farmingdale FSDO, EA-11; Farmingdale, NY
Original Publish Date:	August 28, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66928

Aviation Investigation Final Report

Location:	Farmingdale, New York	**Accident Number:**	MIA08LA005
Date & Time:	October 21, 2007, 17:53 Local	**Registration:**	N4672M
Aircraft:	Cessna 152	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The Piper and Cessna pilot were both inbound to the same airport in visual meteorological conditions (VMC).The Cessna pilot reported to the local controller (LC) that he was 1 mile south of a published reporting point located 13.5 miles to the northeast of the airport. The LC directed the pilot to report entering a left downwind, and the pilot continued on southerly heading for 4 miles before turning right to a southwesterly heading. The Piper pilot contacted the LC and reported 10 miles to the north of the airport. The LC directed the Piper pilot to enter a left downwind stating, "Cessna four five zero republic report entering left down", and the Piper pilot acknowledged, "left downwind for runway one ninner." The LC subsequently informed the Cessna pilot that he had possible traffic off his eleven o'clock position at a half-mile westbound at 1,000 feet. The Cessna pilot responded, "seven two mike looking for traffic." Forty one seconds later, the Piper pilot informed the LC of the collision and declared an emergency. The LC stated in an interview with the National Transportation Safety Board that he scanned the runways, traffic pattern, final approach course, and the remote automated radar display (RACD), when he noticed two VFR targets northeast of the field close to one another. Assuming the target on a southwesterly heading was a VFR helicopter passing to the north of the airport, the LC issued possible traffic to the southbound aircraft, assuming it was the Cessna pilot when it was actually the Piper pilot, and the Cessna pilot acknowledged the traffic call. Federal Aviation Administration (FAA) Order 7110.65, Air Traffic Control, paragraph 2-1-1, Air Traffic Service: "The primary purpose of the ATC system is to prevent a collision between aircraft operating in the system and to organize and expedite the flow of traffic, and to provide support for National Security and Homeland Defense. In addition to its primary function, the ATC system has the capability to provide (with certain limitations) additional services. The ability to provide additional services is limited by many factors, such as the volume of traffic, frequency congestion, quality of radar, controller workload, higher priority duties, and the pure physical inability to scan and detect those situations that fall in this category. The provision of additional services is not optional on the part of the controller, but rather is required when the work situation permits." According to the FAA, traffic advisories to

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Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of both pilots to see and avoid while maneuvering resulting in a midair collision. Contributing to the accident was the local controller's failure to properly identify conflicting traffic.

Findings

Occurrence #1: MIDAIR COLLISION
Phase of Operation: CRUISE

Findings
1. (C) VISUAL LOOKOUT - NOT MAINTAINED - PILOT IN COMMAND
2. (C) VISUAL LOOKOUT - NOT MAINTAINED - PILOT IN COMMAND
3. (C) CONTROL TOWER SERVICE - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)

Factual Information

On October 21, 2007, at about 1753 eastern daylight time, a Piper PA-32R-301, N43450, registered to a private owner, operating as a 14 Code of Federal Regulations (CFR) Part 91 personal flight, and a Cessna 152, N4672M, registered to AADH Inc., operating as a 14 CFR Part 91 instructional flight, collided in flight at about 1,150 feet, in the vicinity of Republic Airport (FRG), Farmingdale, New York. Visual meteorological conditions prevailed and neither pilot filed a flight plan. Both airplanes received substantial damage and landed without further incident at FRG. The Piper commercial pilot and one passenger reported no injuries. The Piper flight originated from Poughkeepsie, New York, on October 21, 2007, at 1715. The Cessna student pilot reported no injuries and the flight originated from Groton, Connecticut, on October 21, 2007, at 1700.

The Piper pilot stated he was at 2,500 feet, 10 miles north of FRG, when he radioed the control tower for landing. The controller instructed him to report a left downwind for runway 19. The pilot continued his descent to 1,400 feet while heading towards the southwest. He then started a right turn and a descent to 1,100 feet. The pilot then observed an airplane out of his left eye, immediately pulled back on the control yoke, and both airplanes collided. He declared an emergency, squawked 7700 on the transponder, and landed with out further incident.

The Cessna pilot stated he was at 1,150 feet, 2 miles south of "Northport stacks," which were located 13.5 miles to the north northeast of FRG, when he contacted controllers at FRG control tower for landing instructions. The controller informed the pilot to enter a left downwind for landing on runway 19. The controller was busy and did not point out any traffic on his initial contact. The pilot stated he was about 4 miles east of the airport, when the controller informed him of traffic at his 11 o'clock position. The pilot immediately heard a loud bang, declared an emergency, and landed with out further incident.

A Garmin global positioning system (GPS) GPSMAP 296 hand-portable unit was in use at the time of the accident by the Piper pilot. The unit was examined by the National Transportation Safety Board . The unit showed no evidence of damage and data for the accident flight was downloaded using Garmin Map Source V6.12.2.

The download revealed the accident aircraft departed Poughkeepsie, New York, about 1732. The aircraft flew on a relatively steady southeasterly heading toward Long Island, New York while cruising at 3,500 feet GPS altitude. The pilot initiated a descent about 1750. About 1758:55, ground speed began to rapidly decrease from approximately 140 mph to minimum of 107 mph over a 28 second period. During this same period aircraft GPS altitude climbed from approximately 1,230 feet to a maximum of 1,295 feet. Airspeed increased back to approximately 130 mph as the airplane resumed its descent and turned to a southwesterly heading. The airplane entered a left base for runway 19 at FRG at approximately 1800. The

airplane turned final at 1801:30 and landed at 1802:44 based on the recorded groundspeed and GPS altitude.

In addition, the Safety Board Vehicle Recorder Laboratory conducted a Pilot Visibility Study utilizing recorded data recovered from the GPS unit and area surveillance radar (ASR) data. The calculations illustrated in the visibility study indicate the Piper pilot could see the Cessna airplane no earlier than 1758:21 approximately 44 seconds prior to the collision, and that the airplanes were about 9,500 feet apart when the Cessna airplane would have entered the Piper Pilot's field of view. The calculations also indicated that the Cessna pilot could see the Piper airplane no earlier than 1758:18, approximately 48 seconds prior to the collision, and that the airplanes were about 10, 300 feet apart when the Piper airplane entered the Cessna pilot's field of view. These calculations are based on aircraft size and range alone, and assume that the observed aircraft was actually in a position to be viewed through the windscreen of the observing aircraft. Zero winds and zero deck angle, was assumed for the calculations. The calculations further indicate that the Cessna was approximately 25 to 35 degrees left of the nose and 2 degrees below the level flight position as seen by the pilot of the Piper approximately 2 minutes prior to the collision. The calculations indicate that the Piper was approximately 80 to 100 degrees right of the nose and about 2 degrees above the level flight position as seen by the pilot of the Cessna approximately 2 minutes prior to the Collision.

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According to the LC, traffic was "busy" with multiple arrivals and departures, having up to eight aircraft at one time in the 30 minutes preceding the midair collision. While working airport traffic, the LC received a call from the Cessna pilot over the Northport stacks but did not respond to him due to traffic.

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TRSA, issue traffic advisories to those aircraft on your frequency when in your judgment their proximity warrants it.

Student pilot Information

Certificate:	Student	**Age:**	25,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	February 1, 2007
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	54 hours (Total, all aircraft), 47 hours (Total, this make and model), 5 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N4672M
Model/Series:	152	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	152-84477
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	July 1, 2007 Annual	**Certified Max Gross Wt.:**	1670 lbs
Time Since Last Inspection:	90 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	9834 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-235-L2C
Registered Owner:	AADH Inc.	**Rated Power:**	110 Horsepower
Operator:	Danny Waizman	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Dusk
Observation Facility, Elevation:	KFRG,82 ft msl	**Distance from Accident Site:**	
Observation Time:	17:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	19°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Groton, CT (KGON)	**Type of Flight Plan Filed:**	None
Destination:	Farmingdale, NY (KFRG)	**Type of Clearance:**	None
Departure Time:	17:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	Republic Airport KFRG	**Runway Surface Type:**	Asphalt
Airport Elevation:	82 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	19	**IFR Approach:**	None
Runway Length/Width:	5516 ft / 150 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	40.729442,-73.41333

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	Ray Melcer; Farmingdale FSDO, EA-11; Farmingdale, NY
Original Publish Date:	August 28, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66928