



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

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**Date:** May 24, 2007

**In reply refer to:** A-07-38

Honorable Marion C. Blakey  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

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On October 11, 2006, about 1442 eastern daylight time, a Cirrus Design SR20, N929CD, operated as a personal flight, crashed into an apartment building in Manhattan, New York City, while attempting a 180° turn maneuver above the East River. The two pilots on board the airplane, a certificated private pilot who was the owner of the airplane and a passenger who was a certificated commercial pilot with a flight instructor certificate, were killed. One person on the ground sustained serious injuries, two people on the ground sustained minor injuries, and the airplane was destroyed by impact forces and postcrash fire. The flight was operating under the provisions of 14 *Code of Federal Regulations* Part 91, and no flight plan was filed.<sup>1</sup>

The accident airplane departed Teterboro Airport, Teterboro, New Jersey, about 1429 and was cleared for a visual flight rules (VFR) departure. According to air traffic control (ATC) transcripts, the pilots acknowledged that they were to stay out of the New York class B airspace.<sup>2</sup> After takeoff, the accident airplane turned southeast and climbed to an altitude of about 600 to 800 feet mean sea level. When the flight reached the western shore of the Hudson River, it turned to the south, remaining over the river, then descended to 500 feet. The flight continued southbound over the Hudson River until abeam of the southern tip of Manhattan, at which point, the flight turned southwest bound. Radar data indicated that the accident airplane's altitude varied from 500 to 700 feet for the remainder of the flight.

About 1436, the airplane flew around the Statue of Liberty then headed to the northeast, at which point, it proceeded to fly over the East River. About 1 mile north of the Queensboro

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<sup>1</sup> For more information, see *Crash During Turn Maneuver, Cirrus SR-20, N929CD, Manhattan, New York City, October 11, 2006*, Aircraft Accident Brief NTSB/AAB-07/02 (Washington, DC: NTSB, 2007), available on the National Transportation Safety Board's Web site at <<http://www.nts.gov/publictn/2007/AAB0702.pdf>>.

<sup>2</sup> Paragraph 3-2-3 of the *Aeronautical Information Manual* defines class B airspace as follows, "Generally, that airspace from the surface to 10,000 feet MSL [mean sea level] surrounding the nation's busiest airports in terms of IFR [instrument flight rules] operations or passenger enplanements. The configuration of each Class-B airspace area is individually tailored and consists of a surface area and two or more layers ... and is designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services within the airspace. The cloud clearance requirement for VFR operations is 'clear of clouds.'"

Bridge, the airplane made a left turn to reverse its course. Radar contact was lost about 1442. The airplane impacted a 520-foot tall apartment building 333 feet above street level.

The National Transportation Safety Board determined that the probable cause of this accident was the pilots' inadequate planning, judgment, and airmanship in the performance of a 180° turn maneuver inside of a limited turning space.

This accident occurred in a complex section of airspace surrounding Manhattan Island, near three major air carrier airports and a variety of other general aviation facilities accommodating both fixed-wing and rotary-wing aircraft. Because of the high density of air traffic in this area, the Federal Aviation Administration (FAA) has designated most of the airspace "class B," the second most restrictive designation for airspace in the United States. VFR operations are authorized below the class B airspace surrounding Manhattan Island in designated zones called the Hudson River and East River exclusion areas.<sup>3</sup> The accident occurred as the pilots attempted a 180° turn maneuver in the East River exclusion area.

According to the FAA, the purpose of the Hudson and East River exclusion areas (which were first defined in 1971) was to provide for VFR aircraft operations over the rivers for transiting, landing, or departing aircraft. Before the exclusion areas were defined, the floor of the class B airspace was typically at the surface of the rivers in the current areas of exclusion, and any aircraft operations over the rivers in these areas had to be coordinated with ATC. Seaplane and helicopter bases are currently located in or near these exclusion areas. At the time of the accident, fixed-wing, nonamphibious aircraft (such as the accident airplane) were not prohibited from operating in the exclusion area where the accident occurred, effectively requiring either a 180° turn to reverse course to avoid entering class B airspace or an ATC clearance to enter the class B airspace.

As a result of the accident, on October 13, 2006, the FAA published Notice to Airmen (NOTAM) 6/3495, temporarily restricting fixed-wing operations in the airspace above the East River. The NOTAM is intended to prevent airplane pilots from encountering a situation in which they must perform a 180° turn or other abrupt maneuver to avoid penetrating controlled airspace and states the following:

Effective immediately until further notice, VFR flight operations involving fixed wing aircraft (excluding amphibious fixed wing aircraft landing or departing New York Skyports Inc. Seaplane Base) in the East River class B exclusion area extending from the southwestern tip of Governors Island to the north tip of Roosevelt Island, are prohibited unless authorized and being controlled by ATC.

The NOTAM is in effect until further notice; however, the charts for the area would not be changed until rulemaking action is completed. In a December 2006 meeting held between FAA and Safety Board staff, the FAA indicated that it was planning rulemaking to make the prohibition contained in the NOTAM permanent. To date, no rulemaking has been issued. The Safety Board strongly supports the intent of the NOTAM and concludes that the prohibition outlined in the NOTAM should be made permanent to prevent similar accidents in the future.

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<sup>3</sup> The floor of the airspace in these exclusion areas varies from 1,100 to 1,800 feet.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Permanently prohibit visual flight rules flight operations involving fixed-wing, nonamphibious aircraft in the New York East River class B exclusion area unless those operations are authorized and being controlled by air traffic control.  
(A-07-38)

Chairman ROSENKER, Vice Chairman SUMWALT, and Members HERSMAN, HIGGINS, and CHEALANDER concurred with this recommendation. Vice Chairman Sumwalt filed a concurring statement, which is attached to the Aircraft Accident Brief for this accident.

*[Original Signed]*

By: Mark V. Rosenker  
Chairman