

Special Flight Rules in the Vicinity of New York City

Module 1: Course Introduction

Introduction

On August 8, 2009, a helicopter conducting sightseeing operations and a single-engine, fixed-wing airplane en route to Ocean City, NJ, collided in midair over the Hudson River near Hoboken, NJ. Both aircraft were being operated in accordance with visual flight rules (VFR). Nine people, including the pilots and all passengers in both aircraft were killed.

This accident underscores the hazards of operating in congested airspace and highlights the importance of pilots taking proactive steps to mitigate risks when flying in these areas. To further enhance safety when operating in the vicinity of New York City, the FAA has issued an amendment to 14 CFR part 93 with which you must comply. This is in addition to reviewing the risk mitigation strategies that you need to know.

The amendment to part 93:

- Establishes a Special Flight Rules Area (SFRA) that covers two Class B airspace Exclusions: one over the Hudson River and one over the East River
- Defines operational procedures for pilots within these Exclusions

Course Overview

This course provides important information for pilots who conduct flights under VFR within the airspace in and around the Hudson and East Rivers. Specifically, this course:

- Defines the airspace in the vicinity of New York City, including the Hudson River and East River Exclusions
- Describes the new regulatory operational procedures for operating in the Exclusions
- Reviews charted procedures and provides recommendations for operations within the Exclusions

Course Organization

In addition to this introductory module, the course has two modules:

- Module 2, The Airspace, provides a description of the airspace in and around the Hudson River and East River
- Module 3, Pilot Operational Procedures, provides information on procedures to follow when operating in the airspace

Module 2: The Airspace

Overview of the Airspace

The airspace in the vicinity of New York City is used by a variety of air operators and pilots with varying experience levels:

- Aircraft of all sizes operate in and out of four major airports in the area: John F. Kennedy International Airport, Newark Liberty International Airport, LaGuardia Airport, and Teterboro Airport
- A large number of uncontrolled helicopter and fixed wing aircraft with various performance capabilities and missions operate over the Hudson River and East River. Uncontrolled aircraft refers to aircraft operated without air traffic control (ATC) traffic advisories and separation services.

This mix of different types of operations occurs in a very limited, narrow airspace, increasing the risk of mid-air collisions. An important step in ensuring a safe flight is to familiarize yourself with the airspace.

This module:

- Describes the designations of airspace in the vicinity of New York City
- Defines the Hudson River and East River Special Flight Rules Area (SFRA)

Types of Operations in the Hudson River Exclusion

To accommodate the varying needs of airspace users over the Hudson River, the FAA has defined and segregated two types of operations to provide an appropriate operating environment for each. The operations are:

- Transient operations, defined in 14 CFR 93.350(b), which apply to aircraft transiting the Hudson River Exclusion from end to end without intending to significantly change heading, altitude, or airspeed. Note that this does not preclude aircraft from taking evasive action as needed to avoid other aircraft.
- Local operations, defined in 14 CFR 93.350(a), which apply to any aircraft within the Hudson River Exclusion that is conducting an operation other than overflying (i.e., transient). Local operations include aircraft:
 - Landing and departing from the heliports and seaplane bases within the SFRA
 - That require significant changes in altitude, airspeed, and heading

Examples include, but are not limited to, operations for:

- Sightseeing
- Electronic news gathering
- Law enforcement

The purpose of segregating these operations is to:

- Enhance safety by standardizing the types of operations pilots will encounter

- Provide a buffer between dissimilar types of operations (e.g., aircraft flying straight and level versus aircraft climbing and descending, circling, or making significant airspeed changes)

Airspace In and Around the Hudson River

The type of operation you wish to conduct will help you determine the appropriate airspace to use when operating in and around the Hudson River. The table below summarizes the airspace options for north-to-south or south-to-north flights over the Hudson River.

If you are conducting:	And:	Then:
Transient operations	Wish to fly 1,300 feet mean sea level (MSL) or higher	You must request air traffic control clearance to operate in Class B airspace. This is known as the Skyline Route.
Transient operations	Wish to fly between 1,000 and 1,299 feet MSL	You are operating in the Hudson River Exclusion and are subject to the requirements in 14 CFR 93.351 and 93.352, which are covered in the next module.
Local area operations	Wish to fly between the surface and up to, but not including, 1,000 feet MSL	You are operating in the Hudson River Exclusion and are subject to the requirements in 14 CFR 93.351 and 93.352, which are covered in the next module.

Let's take a closer look at the Hudson River Exclusion.

The Hudson River Exclusion

If you wish to conduct a flight under VFR in or around the Hudson River, your flight may take you into the Hudson River Class B exclusion.

The FAA has identified three airspace designations for VFR flights conducted over the Hudson River:

- The first designation describes operations being provided separation services by air traffic control at thirteen hundred feet above mean sea level – or MSL – and higher. This is Class B airspace and is not part of the Hudson River Exclusion.
- The second designation is transient operations that are conducted between one thousand and up to, but not including, thirteen hundred feet MSL.
- The third designation describes local operations, which are flights conducted between the surface and up to, but not including, one thousand feet MSL.

If your planned flight is a local operation or a transient operation between the surface and up to but not including thirteen hundred feet, you are operating in the Hudson River Exclusion.

The boundaries of the Hudson River Exclusion are defined in 14 CFR 93.350.

- The Hudson River Exclusion starts at the North near the Alpine Tower.
- It continues to the South to the Verrazano-Narrows Bridge.
- For the most part, the width of the Exclusion is the width of the Hudson River.

To minimize the risk of mid-air collisions in this airspace, the FAA has established operational requirements that you must follow. You will learn more about these in the next module.

Airspace of the East River

Unlike the Hudson River airspace, the FAA does not distinguish between transient and local operations over the East River. Instead, operations conducted between the surface of the East River and the base of Class B airspace are in the East River Exclusion.

If you wish to conduct a flight under VFR in or around the East River, your flight may take you into the East River Exclusion.

The FAA has identified two airspace designations for VFR flights conducted over the East River:

- The first designation describes operations conducted in Class B airspace and is not part of the East River Exclusion.
- The second designation describes operations conducted between the surface and up to but not including the floor of Class B.

If your planned flight falls in this designation, you are operating in the East River Exclusion. The boundaries of the East River Exclusion are defined in 14 CFR 93.350.

- The East River Exclusion starts at the southwestern tip of Governor's Island and continues to the north tip of Roosevelt Island.
- The width of the East River Exclusion is the width of the river.

Air operations conducted in the East River Exclusion are predominantly helicopters and seaplanes landing and departing.

Although other operators may be authorized to conduct flights in the East River Exclusion, to minimize the risk of mid-air collisions in this airspace, the FAA has established operational requirements that you must follow. You will learn more about these in the next module.

Knowledge Check

A pilot is planning a flight from White Plains, NY to Linden, NJ in a Cessna 172 under VFR. His planned routing takes him over the Hudson River in New York City. He is not planning to be positively controlled during the flight.

Which of the following best describes the airspace the pilot will be operating in when he flies over the Hudson in New York City?

- A. Hudson River Class B airspace
- B. Hudson River Exclusion
- C. The Skyline Route
- D. New York City Class C airspace

Answer:

The correct answer is B. The pilot will be operating in the Hudson River Exclusion. While operating in this airspace, he must comply with the requirements in 14 CFR part 93. To operate in Class B airspace over the Hudson River, the pilot must receive clearance from air traffic control

(i.e., be positively controlled) and would then be operating on the Skyline Route. There is no Class C airspace over the Hudson River in the vicinity of New York City.

Knowledge Check

A helicopter pilot is planning to conduct a flight along the East River as part of an air tour. During the tour, she plans to operate between 500 and 1000 feet MSL.

This flight will be operated in the:

- A. Hudson River Exclusion
- B. LaGuardia-controlled Class B airspace
- C. New York City Congested airspace zone
- D. East River Exclusion

Answer:

The correct answer is D. The East River Exclusion extends between Governor's Island to the north tip of Roosevelt Island and from the surface of the river up to the base of Class B. While operating in this Exclusion, the pilot is subject to the requirements in 14 CFR part 93.

Operations conducted over the East River above the Exclusion are in Class B airspace. The Hudson River Exclusion extends along the Hudson River between Alpine Tower and the Verrazano-Narrows Bridge. Although the airspace over the vicinity of New York City is considered congested, the term "congested airspace zone" is not used.

Module Summary

In this module, you learned about the:

- Designations of airspace in the vicinity of New York City
- Boundaries of the SFRA, specifically the:
 - Hudson River Exclusion
 - East River Exclusion

In addition to understanding the airspace, you must also be aware of the operational procedures for conducting flights in the SFRA. This is covered in the next module.

Module 3: Pilot Operational Procedures

Overview of Pilot Operational Procedures

In the previous module you learned how the FAA has redefined the airspace over the Hudson River and East River as one way to mitigate the risk of mid-air collisions in the area. In addition, the FAA has established operational requirements in 14 CFR part 93 with which you must comply if you are planning to operate in the SFRA.

These operational requirements are defined in subpart W and include:

- General requirements for operating in the SFRA
- Specific procedures for operating in the Hudson River Exclusion
- Specific procedures for operating in the East River Exclusion

This module covers each of these in more detail, starting with the general requirements on the next screen.

General Operating Requirements for the Hudson River and East River Exclusions

If you plan to operate in either the Hudson River Exclusion or the East River Exclusion, 14 CFR 93.351 requires that you:

- Maintain an indicated airspeed not to exceed 140 knots
- Turn on anticollision and position/navigation lights, if equipped. The use of landing lights is also recommended.
- Self announce your position on the appropriate radio frequency for the East River or Hudson River as depicted on the New York VFR Terminal Area Chart (TAC) and/or New York Helicopter Route Chart
 - When operating in the East River Exclusion, there are no required reporting points. However, it is recommended that you report at the Williamsburg Bridge and Governor's Island at a minimum. To report at these locations, the appropriate common traffic advisory frequency (CTAF) is 123.075.
 - When operating In the Hudson River Exclusion, the required reporting points are:
 - Alpine Tower, reported as "Alpine Tower"
 - George Washington Bridge, reported as "GWB"
 - Intrepid Sea Air Museum, reported as "Intrepid"
 - The clock on the west bank of the river, reported as "Clock"
 - Statue of Liberty, reported as "Statue of Liberty"
 - Verrazano-Narrows Bridge, reported as "VZ"

To report at these points, the appropriate CTAF is 123.05

Note that this information is subject to change. You should rely on the most current TAC and/or New York Helicopter Route Chart for the most accurate and up-to-date information and/or sign up to receive automatic email notifications when the requirements change.

- Have a current New York TAC and/or New York Helicopter Route Chart in the aircraft and be familiar with the information contained therein

These requirements are also included in the notes on the New York TAC and Helicopter Route Chart.

Specific Procedures for the Hudson River Exclusion

In addition to the general requirements in section 93.351, pilots operating in the Hudson River Exclusion are required by 14 CFR 93.352 to:

- Self announce at the charted mandatory reporting points, the following information:
 - Aircraft type
 - Current position
 - Direction of flight
 - Altitude
- Fly within the boundaries along the:
 - West shoreline of the Hudson River when southbound
 - East shoreline of the Hudson River when northbound

In addition, if you are transiting the area within the Hudson River Exclusion, but not conducting any local area operations, you must transit the Hudson River Exclusion at or above an altitude of 1,000 feet MSL up to, but not including, the floor of the overlying Class B airspace (1,300 feet MSL). In this situation, you should:

- Not climb or descend or make significant heading or altitude changes
- Be aware that some aircraft may transit through these altitudes from below in order to enter Class B airspace after receiving a clearance from ATC, most often in the vicinity of the Statue of Liberty

Additional Procedures for Local Area Operations in the Hudson River Exclusion

If you are conducting local area operations in the Hudson River Exclusion, be aware that this is a dynamic environment and you should expect to encounter aircraft that are climbing, descending, transitioning to land, making significant heading changes, or operating at very slow airspeeds.

In addition to the required operational procedures defined in sections 93.351 and 93.352, to ensure your safety and the safety of other aircraft in the area:

- Conduct your entire flight while in the exclusion below 1000 feet MSL
- Follow all other pertinent regulations as required. Examples include:
 - Practice see-and-avoid strategies as stipulated in 14 CFR 91.113(b).
 - When flying in the corridor and applying the right-of-way rules specified in 14 CFR 91.113, passing on the left could put you in the way of oncoming traffic. Consider changing air speed rather than passing.
 - Adhere to the minimum safe altitudes specified in 14 CFR 91.119.
 - Follow the appropriate VFR weather requirements in 14 CFR 91.155.

These regulations stipulate *minimum* requirements. For the highest level of safety, aeronautical decision-making is critical.

Recommended Procedures for Circling the Statue of Liberty

If you wish to circle the Statue of Liberty in an airplane, be aware that the airspace immediately surrounding the Statue presents a particular challenge. This is because:

- It is the most heavily trafficked sightseeing destination in the SFRA
- It is the southernmost turn-around point for all local helicopter tour routes
- Local helicopter tour operators fly an irregular pattern near it at approximately 500 feet MSL
- It is the area where many local helicopter tour operators receive ATC clearance to climb into the Class B airspace for the northbound leg of their tours
- Newark Airport's airspace west of the Statue starts above 500 feet MSL

To circle the Statue of Liberty, follow these recommended procedures:

- If you are entering the Hudson River Exclusion from the north, consider conducting the flight through the Exclusion as a transient operation (i.e., between 1,000 and up to, but not including, 1,300 feet MSL) past the Verrazano-Narrows Bridge. Then re-enter the Exclusion at a lower altitude (i.e., as a local operation) to complete the circle of the Statue. This limits the amount of time you are operating in the local airspace.
- To complete the circle:
 - Do so at the highest practical altitude below 1,000 feet MSL
 - Circle in a counter-clockwise direction

Example: Hudson River Exclusion Reporting

Let's assume you have planned a local operations flight over the Hudson River. In other words, you will be flying below one thousand feet MSL.

Your planned route is to fly over the Hudson River from the south to the north. Because your flight will be conducted below one thousand feet MSL, it is considered a local operation and your flight takes you into the Hudson River Exclusion. This means you must follow the operational procedures described in 14 CFR 93.351 and 93.352.

To follow these procedures, your airspeed must not exceed 140 knots and you must turn on your anti-collision, position/navigation lights, and landing lights if you have them.

As you approach the Hudson River Exclusion, you must self announce your position at required reporting points, as identified in the New York terminal area chart or New York Helicopter Route Chart, which you must have in the aircraft and be familiar with.

Your position announcement should be brief, and must include your aircraft type, your current position, the direction of flight, and your altitude.

When flying from the south to the north, the first reporting point is the Verrazano-Narrows bridge, which should be reported as VZ. Thus, for example, your report should be, "Piper, VZ, 900 feet, northbound."

Note that on south-to-north flights, you should fly along the east shore of the river.

As you continue northbound, the next reporting point is the Statue of Liberty (e.g., "Piper, Statue of Liberty, 900 feet, northbound.").

Continuing north in the Hudson River Exclusion, you must announce yourself at:

- The clock on the west bank of the river, reported as "Clock"
- The Intrepid Sea Air Museum, reported as "Intrepid"
- The George Washington Bridge, reported as "GWB,"
- And Alpine Tower, reported as "Alpine Tower"

Once you are clear of the Hudson River Exclusion, continue your flight as normal, following all applicable requirements.

Knowledge Check

A pilot's self-announcement is as follows:

"Cessna, George Washington Bridge, 900 feet."

From the list below, identify the self-announcing requirements that this pilot correctly followed.

The pilot:

Check All That Apply:

- 1. Announced at a charted mandatory reporting point
- 2. Stated his current position
- 3. Provided the aircraft type
- 4. Stated the direction of the flight
- 5. Stated the altitude
- 6. Used the appropriate terminology when stating his position

Answer

The correct answers are 1, 2, 3, and 5.

The pilot announced his current position at the George Washington Bridge, which is a mandatory reporting point. He also provided the aircraft type and the altitude. However, the pilot neglected to state the direction of the flight. In addition, the charts indicate the correct terminology to use at this reporting point is the acronym "GWB," not "the George Washington Bridge."

Specific Procedures for the East River Exclusion

If you wish to fly an airplane over the East River, you must receive authorization from ATC whether you wish to fly in the SFRA or in Class B airspace.

To conduct a flight in the East River Exclusion, in accordance with 14 CFR 93.353, you are prohibited from operating fixed wing aircraft under VFR in the East River Exclusion unless authorized by ATC. To obtain authorization, you must contact LaGuardia Airport Traffic Control Tower prior to Governor's Island on 126.05.

Seaplane fixed wing aircraft landing or departing the New York Skyports, Inc. seaplane base are excluded from section 93.353.

Keep in mind:

- ATC grants authorization based on their workload and feasibility
- Other operators in the East River Exclusion may be communicating on CTAF 123.075 to announce their positions, so it is important to also monitor this frequency
- You must also comply with the general operational requirement in section 93.351
- Flight over the Hudson River prior to entering the East River Exclusion is likely in the Hudson River Exclusion. During this portion of the flight, you must comply with the Hudson River Exclusion procedures in section 93.352.

Knowledge Check

A pilot of an airplane not landing on the water must contact LaGuardia Airport Traffic Control Tower to obtain authorization to enter the East River Exclusion.

- A. True
- B. False

Answer:

The correct answer is A. Section 93.353 prohibits pilots of fixed wing aircraft from operating in the East River Exclusion unless authorized by ATC. To obtain authorization, pilots must contact LaGuardia Airport Traffic Control Tower prior to Governor's Island.

Course Summary

This course provided information for pilots who conduct flights in the vicinity of New York City. You learned about:

- The SFRA, composed of the Hudson River and East River Exclusions
- The operational procedures for operating in this airspace

If you are planning a flight that takes you into either of the Exclusions, keep in mind that you are operating in a congested area that has specific rules associated with it. Following the procedures you learned about in this course is vitally important to help you safely conduct your flight.