AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS

(111–58)

HEARING

BEFORE THE

SUBCOMMITTEE ON
AVIATION

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

SEPTEMBER 16, 2009

Printed for the use of the
Committee on Transportation and Infrastructure

U.S. GOVERNMENT PRINTING OFFICE

52–279 PDF WASHINGTON : 2009

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

JAMES L. OBERSTAR, Minnesota, *Chairman*

NICK J. RAHALL, II, West Virginia, *Vice Chair*
PETER A. DEFAZIO, Oregon
JERRY F. COSTELLO, Illinois
ELEANOR HOLMES NORTON, District of Columbia
JERROLD NADLER, New York
CORRINE BROWN, Florida
BOB FILNER, California
EDDIE BERNICE JOHNSON, Texas
GENE TAYLOR, Mississippi
ELIJAH E. CUMMINGS, Maryland
LEONARD L. BOSWELL, Iowa
TIM HOLDEN, Pennsylvania
BRIAN BAIRD, Washington
RICK LARSEN, Washington
MICHAEL E. CAPUANO, Massachusetts
TIMOTHY H. BISHOP, New York
MICHAEL H. MICHAUD, Maine
RUSS CARNAHAN, Missouri
GRACE F. NAPOLITANO, California
DANIEL LIPINSKI, Illinois
MAZIE K. HIRONO, Hawaii
JASON ALTMIRE, Pennsylvania
TIMOTHY J. WALZ, Minnesota
HEATH SHULER, North Carolina
MICHAEL A. ARCURI, New York
HARRY E. MITCHELL, Arizona
CHRISTOPHER P. CARNEY, Pennsylvania
JOHN J. HALL, New York
STEVE KAGEN, Wisconsin
STEVE COHEN, Tennessee
LAURA A. RICHARDSON, California
ALBIO SIRES, New Jersey
DONNA F. EDWARDS, Maryland
SOLOMON P. ORTIZ, Texas
PHIL HARE, Illinois
JOHN A. BOCCIERI, Ohio
MARK H. SCHAUER, Michigan
BETSY MARKEY, Colorado
PARKER GRIFFITH, Alabama
MICHAEL E. MCMAHON, New York
THOMAS S. P. PERRIELLO, Virginia
DINA TITUS, Nevada
HARRY TEAGUE, New Mexico
VACANCY

JOHN L. MICA, Florida
DON YOUNG, Alaska
THOMAS E. PETRI, Wisconsin
HOWARD COBLE, North Carolina
JOHN J. DUNCAN, JR., Tennessee
VERNON J. EHLERS, Michigan
FRANK A. LOBIONDO, New Jersey
JERRY MORAN, Kansas
GARY G. MILLER, California
HENRY E. BROWN, JR., South Carolina
TIMOTHY V. JOHNSON, Illinois
TODD RUSSELL PLATTS, Pennsylvania
SAM GRAVES, Missouri
BILL SHUSTER, Pennsylvania
JOHN BOOZMAN, Arkansas
SHELLEY MOORE CAPITO, West Virginia
JIM GERLACH, Pennsylvania
MARIO DIAZ-BALART, Florida
CHARLES W. DENT, Pennsylvania
CONNIE MACK, Florida
LYNN A WESTMORELAND, Georgia
JEAN SCHMIDT, Ohio
CANDICE S. MILLER, Michigan
MARY FALLIN, Oklahoma
VERN BUCHANAN, Florida
ROBERT E. LATTA, Ohio
BRETT GUTHRIE, Kentucky
ANH "JOSEPH" CAO, Louisiana
AARON SCHOCK, Illinois
PETE OLSON, Texas

SUBCOMMITTEE ON AVIATION

JERRY F. COSTELLO, Illinois, *Chairman*

RUSS CARNAHAN, Missouri
PARKER GRIFFITH, Alabama
MICHAEL E. MCMAHON, New York
PETER A. DEFAZIO, Oregon
ELEANOR HOLMES NORTON, District of Columbia
BOB FILNER, California
EDDIE BERNICE JOHNSON, Texas
LEONARD L. BOSWELL, Iowa
TIM HOLDEN, Pennsylvania
MICHAEL E. CAPUANO, Massachusetts
DANIEL LIPINSKI, Illinois
MAZIE K. HIRONO, Hawaii
HARRY E. MITCHELL, Arizona
JOHN J. HALL, New York
STEVE COHEN, Tennessee
LAURA A. RICHARDSON, California
JOHN A. BOCCIERI, Ohio
NICK J. RAHALL, II, West Virginia
CORRINE BROWN, Florida
ELIJAH E. CUMMINGS, Maryland
JASON ALTMIRE, Pennsylvania
SOLOMON P. ORTIZ, Texas
MARK H. SCHAUER, Michigan
VACANCY
JAMES L. OBERSTAR, Minnesota
(Ex Officio)

THOMAS E. PETRI, Wisconsin
HOWARD COBLE, North Carolina
JOHN J. DUNCAN, JR., Tennessee
VERNON J. EHLERS, Michigan
FRANK A. LOBIONDO, New Jersey
JERRY MORAN, Kansas
SAM GRAVES, Missouri
JOHN BOOZMAN, Arkansas
SHELLEY MOORE CAPITO, West Virginia
JIM GERLACH, Pennsylvania
CHARLES W. DENT, Pennsylvania
CONNIE MACK, Florida
LYNN A. WESTMORELAND, Georgia
JEAN SCHMIDT, Ohio
MARY FALLIN, Oklahoma
VERN BUCHANAN, Florida
BRETT GUTHRIE, Kentucky

CONTENTS

Page

Summary of Subject Matter vii

TESTIMONY

Coyne, James K., President, National Air Transportation Association 8
Fuller, Craig, President, Aircraft Owners and Pilots Association 8
Hersman, Honorable Deborah A.P., Chairman, National Transportation Safety Board 8
Kragh, Edward, Certified Professional Controller - Newark Tower, Adjunct to FAA New York VFR Airspace Task Force, National Air Traffic Controllers Association 8
Krakowski, Hank, Chief Operating Officer, Air Traffic Organization, Federal Aviation Administration 8
Zuccaro, Matthew S., President, Helicopter Association International 8

PREPARED STATEMENTS SUBMITTED BY MEMBERS OF CONGRESS

Carnahan, Hon. Russ, of Missouri 46
Cohen, Hon. Steve, of Tennessee 47
Costello, Hon. Jerry F., of Illinois 48
Graves, Hon. Sam, of Missouri 53
Johnson. Hon. Eddie Bernice, of Texas 55
Mica, Hon. John L., of Florida 58
Mitchell, Hon. Harry E., of Arizona 64
Oberstar, Hon. James L., of Minnesota 65
Petri, Hon. Thomas E., of Wisconsin 70
Richardson, Hon. Laura, of California 75

PREPARED STATEMENTS SUBMITTED BY WITNESSES

Coyne, James K. 81
Fuller, Craig 88
Hersman, Honorable Deborah A.P. 97
Kragh, Edward 109
Krakowski, Hank 129
Zuccaro, Matthew S. 151

SUBMISSIONS FOR THE RECORD

Hersman, Honorable Deborah A.P., Chairman, National Transportation Safety Board: .....
Animation 10
Response to question from Rep. Hall, a Representative in Congress from the State of New York 105
Krakowski, Hank, Chief Operating Officer, Air Traffic Organization, Federal Aviation Administration: .....
Response to question from Rep. Carnahan, a Representative in Congress from the State of Missouri 38
Responses to questions from Rep. Costello, a Representative in Congress from the State of Illinois 136
Response to question from Rep. Hall, a Representative in Congress from the State of New York 146

ADDITIONS TO THE RECORD

National Business Aviation Association, Ed Bolen, President and CEO: .....
Written testimony 155
Letter to Administrator Blakey 160

Page
New York City Council, Christine Quinn, Speaker, written testimony 173

U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

September 14, 2009

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Aviation

FROM: Subcommittee on Aviation Staff

SUBJECT: Hearing on "The Hudson River Airspace and Management of Uncontrolled Airspace Corridors"

PURPOSE OF HEARING

The Subcommittee on Aviation will meet on Wednesday, September 16, 2009, at 10:00 a.m., in room 2167 of the Rayburn House Office Building to receive testimony regarding the Hudson River airspace and management of uncontrolled airspace corridors.

BACKGROUND

According to the National Transportation Safety Board (NTSB), on August 8, 2009, at about 11:53 a.m. EST, a Piper PA-32R-300 airplane and a Eurocopter AS350 BA helicopter operated by Liberty Helicopters, collided in midair over the Hudson River, near Hoboken, New Jersey.[1] The Liberty Helicopter, conducting a sightseeing tour, was piloted by a certificated commercial pilot and had five passengers aboard. The airplane was piloted by a certificated private pilot and had two passengers aboard. There were no survivors of the crash.

The areas surrounding the three major airports of LaGuardia Airport (LGA), Newark Liberty International Airport (EWR), and John F. Kennedy International Airport (JFK) are designated as class B airspace, which is controlled airspace. Controlled airspace means that air traffic control (ATC) provides clearance for aircraft to enter the airspace and separation between aircraft within the airspace. Around major airports, the class B airspace is oftentimes described as the shape

[1] Safety Recommendation Letter A-09-82 through -86 from Chairman Deborah A.P. Hersman, NTSB, to the Honorable J. Randolph Babbitt, Administrator, Federal Aviation Administration (FAA) (Aug. 27, 2009).

of an inverted wedding cake, with smaller layered circles closer to the airport and larger layered circles stacked on top, increasing in diameter as altitude increases.

The collision occurred in an area that is known as a class B airspace exclusion area, which is a section of uncontrolled airspace. According to the FAA, many urban areas, including New York City-metropolitan area, have "exclusion areas" that permit aircraft to operate in the designated area without ATC communication or control.[2] To operate without ATC control, pilots must operate according to Visual Flight Rules (VFR), which means the pilot relies solely on his/her visual cues to avoid other aircraft; this is commonly known as "see and avoid." "Exclusion areas" are sometimes also called "VFR routes," "VFR flyways," and "VFR transition areas." Exclusion areas are defined on airspace charts as a specified area, below or within a certain altitude, where a pilot can operate without being subject to class B airspace restrictions.[3] They are primarily designed to accommodate access for general aviation pilots to transit through or under areas of class B airspace.

The airplane involved in the Hudson River collision was operating under title 14 Code of Federal Regulations (C.F.R.) part 91. Part 91 sets basic operating requirements for any user of the national airspace. The helicopter was operating under 14 C.F.R. parts 135 and 136. Part 135 is a stricter set of regulatory requirements, imposed when a passenger is paying for the flight; it is designed for commuter and on-demand air transportation. Part 136, established by the FAA in 2007, is the set of operating requirements for commercial air tours. Neither aircraft filed a flight plan (information on the intended flight of an aircraft, that is filed orally or in writing with ATC), nor were they required to do so.

In its August 27, 2009 safety recommendations letter to Administrator Babbitt, the NTSB stated it is "concerned about the safety of flight in the Hudson River class B exclusion area and the performance of the air traffic controllers at the [Teterboro Airport] TEB ATC tower."[4] As a result, the NTSB issued five recommendations to the FAA to make changes to the ATC and flight operations procedures, education and training, and to improve the safety of this Hudson River class B exclusion area. In addition, the FAA convened a task force to issue recommendations to the agency on how to improve the safety of the airspace.

I. Facts of the Accident

The NTSB's preliminary accident report indicates that the pilot of the airplane contacted the TEB ATC tower at about 11:40 a.m., requesting departure clearance and VFR radar traffic advisory service en route to Ocean City, New Jersey at 3,500 feet.[5] This altitude and flight path required that the pilot enter class B airspace. The TEB local controller asked the pilot if he wanted to depart TEB straight out or over the Hudson River; the pilot elected the Hudson River route of the exclusion area. The airplane departed TEB in Teterboro, New Jersey, at about 11:49 a.m. As the airplane flew southbound, the controller instructed the pilot to turn left (southeast) to join the Hudson River exclusion area.

---

[2] FAA, *Background: Air Traffic Procedures in the Hudson River Corridor* (Aug. 11, 2009).
[3] *Id.*
[4] NTSB, *supra* note 1.
[5] NTSB, *supra* note 1.

If an aircraft operating under VFR wishes to travel in class B airspace, as the pilot of this airplane did, clearance from an air traffic controller must be provided. Until that clearance is provided, the pilot must remain outside of the class B airspace. The accident aircraft's requested route required the pilot to enter class B airspace controlled by EWR ATC. Since the aircraft departed TEB, the TEB controller was not authorized to clear the aircraft into the class B airspace, which is above 1,100 feet in this area. Therefore, the pilot needed to switch from the control of TEB ATC to EWR ATC.

The TEB controller contacted the EWR controller to initiate the handoff, the EWR controller accepted the handoff, the TEB controller instructed the pilot to switch to EWR's frequency, and the pilot acknowledged the instruction at 11:52:20. However, preliminary transcripts reveal that part of the airplane pilot's read-back of the TEB controller's frequency instruction was "unintelligible."[6] The pilot was then supposed to switch to the EWR frequency and contact EWR ATC. At that time, the accident helicopter was not visible to the TEB controller. According to the NTSB, at the time of the hand off, "the TEB local controller could not have detected the impending conflict between the accident airplane and the accident helicopter or issued a warning to the airplane pilot about the helicopter."[7] However, NTSB notes that there was other traffic in the vicinity that the TEB controller could have advised the airplane pilot about with a general advisory.

The helicopter departed the West 30th Street Heliport in New York City, at about 11:52 a.m. for a 12-minute tour. Since the helicopter pilot was departing inside the exclusion area and was to remain inside the exclusion area for the beginning part of the tour, the pilot did not contact ATC, nor was he required to do so. However, it is reported that the pilot voluntarily announced his position on the common traffic advisory frequency (CTAF). At about 11:52:27, the helicopter was west of the heliport, approximately mid-river and climbing through 400 feet when it was first detected by EWR radar.

At the time of the attempted handoff, at 11:52:19, the EWR tower controller observed the traffic in the area and he called the TEB controller to ask that he instruct the airplane pilot to turn toward the southwest to de-conflict the accident airplane from the accident helicopter.[8] However, the EWR call overlapped with the airplane pilot's acknowledgement to the TEB controller that he would change frequencies to EWR. The TEB controller asked the EWR controller to repeat the instruction, heard it, and then attempted to contact the pilot of the airplane. However, according to the NTSB, the airplane pilot had likely already switched his frequency and the TEB controller unsuccessfully attempted to reach the airplane twice more to switch him to the EWR frequency.[9]

Meanwhile, the helicopter continued to climb to 1,100 feet going southbound. The airplane and the helicopter collided at 1,100 feet at about 11:53:14. The accident airplane was traveling at about 150 knots (172.6 mph) and the helicopter was at about 93 knots (107 mph) at the time of impact. This was about 26 seconds after the TEB controller attempted to contact the pilot, and about 54 seconds after the attempted handoff.[10] According to media reports, just before the

---

[6] FAA, *Draft Transcript of TEB ATC.*
[7] NTSB, *supra* note 1, at 5.
[8] FAA, *Partial Transcript of Aircraft Accident, N71MC/N401LH Hoboken, NJ*, Aug. 8, 2009 (Aug. 13, 2009). This transcript covers the EWR ATC Tower.
[9] NTSB, *supra* note 1, at 5-6; FAA, Draft Transcript of TEB ATC.
[10] NTSB, *supra* note 1, at 6.

accident, a pilot of another Liberty Tours helicopter that was refueling on the ground radioed the accident helicopter pilot to warn him of the approaching accident airplane.

The NTSB notes that the TEB local controller initiated a non-pertinent telephone conversation unrelated to his work from about 11:50:31 to 11:53:13, which prevented him from being "fully engaged in his duties." The FAA's draft transcript from TEB ATC shows that the TEB controller was issuing instructions to two aircraft during this timeframe, including the accident airplane, and was also communicating with the EWR ATC Tower.

Had the airplane pilot contacted EWR, he would have been issued a clearance to enter EWR's class B airspace. Upon initial contact, EWR could have authorized the accident airplane to climb into the class B airspace, bringing the airplane above the exclusion area, thereby removing the potential for conflict with other aircraft. Unfortunately, the airplane pilot was not able to establish contact with EWR, and therefore was unable to receive either the clearance necessary to enter the class B airspace or instructions to avoid the accident helicopter. At the time of the collision, the airplane pilot was not in communication with ATC at EWR or TEB, nor was he transmitting over CTAF.

II. Uncontrolled Airspace

A. The Hudson River Exclusion Area

In 1971, class B airspace exclusion areas were established in the Hudson River and East River airspace to provide an operating area for VFR aircraft over the rivers to depart, land, and transit through. The exclusion area has a ceiling of 1,100 feet, going up to 1,500 feet in some areas. Prior to 1971, the floor of the class B airspace went to the surface of the rivers.[11] According to the FAA, operations in the Hudson River class B exclusion area include: high level helicopter activity and sightseeing tours arriving and departing three Manhattan heliports, and general aviation airplanes transiting through the area or sightseeing. The exclusion area airspace is busy; the FAA estimates that there are 600 aircraft occupying the Hudson exclusion area on a typical good weather day, which includes both helicopter and airplane traffic. However, traffic is variable based on weather and demand.

Currently, there are voluntary safety procedures for pilots to follow when operating in this airspace.[12] Pilots are advised to monitor and announce their position on the common radio frequency, CTAF, of 123.05 for the Hudson River. Pilots use their radios to communicate and coordinate with other pilots on CTAF to maintain self-separation. In addition, pilots are supposed to turn on the aircraft's lights and are not to exceed a speed of 140 knots. Also, pilots are recommended to fly northbound along the East bank of the Hudson River and southbound along the West bank.

A similar exclusion area existed in New York's East River until October 2006. On October 11, 2006, a general aviation airplane crashed into a Manhattan apartment building about 333 feet above street level as the pilot attempted a 180-degree downwind turn in the narrower East River

[11] NTSB Safety Recommendation A-07-38 (May 24, 2007).
[12] FAA, New York Terminal Area Chart.

exclusion area. As a result of the accident, on October 13, 2006, the FAA issued a Notice to Airmen (NOTAM) that temporarily restricted airplane operations in the East River, unless the operation was authorized and controlled by ATC.[13] The NTSB supported the FAA's temporary restriction, but recommended that the prohibition be made permanent. The FAA intended to permanently implement the restriction by including this change with the New York and New Jersey airspace redesign proposal.

B. Exclusion Areas and Special Flight Rule Areas

There are established class B airspace exclusion areas for transitioning around, under, and through class B airspace, which were developed through a number of FAA and industry initiatives.

The NTSB reviewed the 31 Terminal Area Charts, or aeronautical charts that illustrate navigation around major airports, for the national airspace system. The NTSB found that, of these, 30 have class B airspace. Ten of those 30 have some type of VFR exclusion area associated with the airspace, which include: Detroit, Houston, Las Vegas, Los Angeles, New Orleans, New York, Phoenix, Salt Lake City, San Diego and Seattle.

There are also Special Flight Rules Areas (SFRAs), where the normal regulations that govern the airspace do not apply. An SFRA is airspace with defined vertical and lateral dimensions where the FAA has special operational rules and restrictions. SFRAs include the airspace vicinities of Los Angeles International Airport, the Grand Canyon National Park in Arizona, and the Washington, DC Metropolitan Area. FAA regulations for SFRAs are established by 14 C.F.R. part 93. The FAA oftentimes requires pilots who operate in SFRAs to undergo special training.

III. ATC Management and Procedures for Uncontrolled Airspace

An aircraft, if equipped with at least a mode C transponder (which reports an aircraft's altitude information), operating under VFR in uncontrolled airspace may appear on a controller's radar scope with information limited to the aircraft's altitude. The FAA has indicated that in general, radar cannot detect all aircraft below 1,100 feet. Radar coverage in the Hudson exclusion area below 1,100 feet is incomplete because buildings and other "clutter" do not allow detection in some areas. The accident helicopter was first detected at 400 feet within the exclusion area; and the accident airplane was detected at about 300 feet at TEB.

A pilot of a VFR aircraft can request "flight following" services by ATC to receive traffic advisories and surveillance, if the aircraft is outside of class B airspace. If a pilot requests flight following, ATC can provide the aircraft with basic radar services depending on the controller's workload. According to the FAA's Air Traffic Control Order JO 7110.65S, the manual for all ATC operations and procedures, basic radar services for VFR aircraft shall include: (1) safety alerts; (2) traffic advisories; (3) limited radar vectoring when requested by the pilot; and (4) sequencing at locations where procedures have been established for this purpose and/or when covered by a letter of agreement. These flight following services can only be performed if the pilot continues to monitor the appropriate ATC radio frequency. The pilot is still responsible for maintaining aircraft

[13] NOTAM ZNY 6/3495. Amphibious fixed wing aircraft landing or departing New York Skyports Inc. Seaplane Base were excluded from this restriction.

separation under VFR "see-and-avoid" procedures. To receive flight following, the pilot provides ATC with additional identifying information on the aircraft, which is then entered into the controller's computer system. This enables the controller's computer screen to show the unique information on that aircraft.

Aircraft departing TEB must be in contact with ATC since the airspace is controlled.[14] If a departing aircraft requests flight following, as the pilot of the airplane in the Hudson accident did, a controller provides basic radar services, workload permitting. If the pilot had established contact with EWR ATC, he would have likely continued to climb in altitude from the Hudson exclusion area into class B airspace. In class B airspace, it would have been the responsibility of ATC to ensure separation of the aircraft. However, while in the exclusion area, it is the responsibility of the pilot to maintain self-separation.

IV. Recommendations and Actions to Improve the Hudson River Airspace

On August 14, 2009, the FAA chartered the New York VFR Airspace Task Force (VFR Task Force) to assess current procedures for VFR operations in the metropolitan New York City area, and to identify safety enhancements to flight operations in the Hudson River area. The VFR Task Force consisted of various representatives from the FAA, air traffic controllers, airplane and helicopter operators and the Port Authority of New York and New Jersey.

On August 27, 2009, the NTSB released preliminary findings on the accident and the following recommendations to the FAA:[15]

(1) Revise standard operating ATC procedures for the Hudson River class B exclusion area by: (a) coordinating among ATC facilities so that aircraft operating in the exclusion area and requesting entry into class B airspace receive faster clearance to do so; (b) requiring controllers to instruct pilots in the exclusion area to be on the CTAF and to self-announce before entering; (c) advising pilots on the Automatic Terminal Information Service broadcast of this; and (d) ensuring controllers provide pilots with traffic advisories and safety alerts until exiting the area.

(2) Brief air traffic controllers and supervisors about the circumstances of this accident, emphasizing the requirement to remain attentive when on duty.

(3) Establish a SFRA for the class B airspace exclusion areas near New York City (including the Hudson River an East River exclusion areas, Ellis Island, and the Statue of Liberty), define pilot operating procedures in these areas, and require pilots to complete training on the SFRA requirements before flying in the area.

(4) In the newly established SFRA, require vertical separation between helicopters and airplanes, with helicopters operating at a lower altitude to better assist pilots to see and avoid other traffic.

---

[14] The airspace surrounding TEB airport is classified as class D. Class D airspace requires communication with ATC for departure and landing.
[15] NTSB, *supra* note 1.

(5) Conduct a review of other airspace configurations where specific pilot training and familiarization would improve safety, and as appropriate, develop SFRAs and associated training.

On August 28, 2009, the VFR Task Force issued eight recommendations to the FAA on the issues of airspace revision, ATC procedures, flight procedures, charting, training, and educational outreach.[16] While the VFR Task Force's recommendations were not formulated in response to the NTSB's recommendations, both sets of recommendations are similar in intent and purpose. The FAA is planning to act on the VFR Task Force's recommendations, and to complete and publish any changes to take effect by November 19, 2009.[17]

ISSUE AREA	FAA NEW YORK AIRSPACE VFR TASK FORCE RECOMMENDATION	FAA PROPOSED ACTION
Airspace	Modify the class B airspace to allow aircraft stratification in the exclusion area by mission profile for transient versus local aircraft.	Standardize the ceiling of the exclusion area at 1,300' (making the floor of the class B airspace at 1,300'); between 1,300'-2,000' will be class B airspace where pilots must be in communication with ATC; separate aircraft by stratifying transient aircraft above 1,000' and local aircraft (mostly sightseeing helicopters) below 1,000'.
	Review airspace delegated to local ATC towers adjacent to the Hudson River exclusion area.	Revise current Letters of Agreement among the New York air traffic facilities to resolve discrepancies and clearly delineate controller responsibilities.
ATC Procedures	Revise procedures at TEB ATC Tower for VFR fixed-wing departures.	Create VFR departure route on the aeronautical chart for aircraft going from TEB into class B airspace. The route will begin at the George Washington Bridge to eliminate mid-exclusion area entries and to allow aircraft to reach class B airspace sooner by climbing to a higher altitude.
	Develop a class B VFR transition route over the Hudson River.	May develop a VFR transition route over the Hudson River at 1,500' and 2,000' so aircraft can be in contact with ATC.
Flight Procedures	Mandate pilot standard operating practices while operating in the exclusion area.	FAA will issue a SFAR to mandate current voluntary standard operating practices: ➢ Maintain airspeed no greater than 140 knots; ➢ Turn on anti-collision, position/navigation, and/or landing lights; ➢ Self announce on 123.075 for the East River and 123.05 for the Hudson River; ➢ Establish mandatory reporting points; ➢ Pilots must carry current Terminal Area Chart or Helicopter Route Chart; and ➢ Fly along West shoreline when southbound and East shoreline when northbound.

[16] FAA Air Traffic Organization, *Review of New York Visual Flight Rules Airspace: Task Force Report* (Aug. 28, 2009).
[17] *Id.*; *see also* Press Release, FAA, FAA Announces Plan to Enhance Safety for the New York Airspace (Sept. 2, 2009).

ISSUE AREA	FAA NEW YORK AIRSPACE VFR TASK FORCE RECOMMENDATION	FAA PROPOSED ACTION
	Enhance pilot communications capability and reduce frequency congestion on the Hudson River CTAF.	Aircraft operating between 1,000'-1,300' will be on one frequency and aircraft operating below 1,000' will be on another frequency.
Charting	Standardize and enhance multiple NY Area Aeronautical Charts to assist pilot navigation.	Review and enhance the existing Helicopter Route Chart and New York Terminal Area Chart to standardize information used by pilots flying within the exclusion area. Develop additional information on the charts to include standardized communication procedures, reporting points, and operating procedures.
Education and Training	Develop FAA and industry standardized training and education plans for pilots, fixed base operators, and controllers.	Working with industry, FAA will develop and make available training for pilots and controllers on flying the Hudson River exclusion area.

Source: VFR Task Force and FAA.

V. Technology

To operate in class B airspace and in exclusion areas, an aircraft must be equipped with a two-way radio and an operating transponder. A transponder transmits information on the aircraft's altitude, position, and whether operating under VFR or Instrument Flight Rules (IFR).

A number of technology options have been discussed as potential ways to enhance safety of aircraft operating in the Hudson River exclusion area. Below is a summary of each.

Traffic Information Services (TIS): TIS provides information to the cockpit via data link that provides an automatic display that informs the pilot of nearby traffic and potential conflict situations. The traffic display is intended to assist the pilot in his/her "see and avoid" responsibility in visual meteorological conditions. However, it is not intended to be used as a collision avoidance system and pilots are not advised to maneuver to avoid an aircraft due to a TIS alert or display. It is reported that there is also a delay of several seconds between the TIS system and real life. To equip with TIS, the aircraft must have a mode S transponder (est. $4,000-$5,000) and a multifunction display (est. $11,000-$13,000). Also, other aircraft must have a transponder for TIS to "see" them. The helicopter involved in the Hudson River accident was equipped with a mode S transponder and TIS. TIS operates off of radar systems that the FAA will be phasing out over the next few years; the new radars will not effectively support the TIS system.[18]

Traffic Collision Avoidance System (TCAS): TCAS is an aircraft collision avoidance system designed to mitigate a mid-air collision with another aircraft, independent of ATC. According to the FAA, TCAS increases the pilot's awareness of aircraft in close proximity and serves as a "last line of defense" for the prevention of mid-air collisions. TCAS is required for all

[18] Press Release, Airline Operators and Pilots Association (AOPA), *FAA Clarifies Position on TIS, Provides Revised Decommission Schedule* (Nov. 1, 2005). AOPA estimates that as many as 10,000 aircraft are equipped with TIS.

aircraft with ten or more seats. It is reported that in areas of high-density traffic, such as the Hudson River exclusion area, TCAS may be more of a distraction to pilots than a safety benefit. Due to the parameters of the system, the pilot could be distracted easily by the number of traffic warnings (commonly referred to as a "nuisance alerts"); which can distract the pilot from his/her responsibility to see and avoid other aircraft. The system could cause the pilot to make a sudden altitude change resulting in an unexpected violation of controlled airspace without ATC clearance. TCAS could also be cost prohibitive for private pilots, at around $37,000-53,000.

Automatic Dependent Surveillance-Broadcast (ADS-B): According to the FAA, ADS-B will greatly improve safety in the Hudson River exclusion area and other similar areas by providing pilots with greater situational awareness and by providing ATC coverage of areas where radar cannot currently reach.[19] ADS-B is a component of the Next Generation Air Transportation System, which replaces radar with satellite-based Global Positioning System detection. "ADS-B In" technology enables aircraft to "see" other aircraft on flight deck displays by receiving another aircraft's "ADS-B Out"[20] information, as well as traffic information transmitted from the ground. However, ADS-B is still many years away from being operational, as FAA's proposed date for mandatory aircraft equipage of ADSB-Out avionics is currently 2020.

Due to the current limitations of each of these technologies, the VFR Task Force, FAA, and NTSB all found that the best approach to improving safety in the Hudson River exclusion area is to change operating procedures, enhance pilot and controller training, and improve communication.

[19] FAA, *supra* note 2.

[20] "ADS-B Out" refers to the broadcast of information by equipped aircraft out to other aircraft equipped to receive the data and ADS-B ground stations.

WITNESSES

The Honorable Deborah A.P. Hersman
Chairman
National Transportation Safety Board

Mr. Hank Krakowski
Chief Operating Officer
Air Traffic Organization
Federal Aviation Administration

Mr. Craig Fuller
President
Aircraft Owners and Pilots Association

Mr. Matthew S. Zuccaro
President
Helicopter Association International

Mr. Edward Kragh
Certified Professional Controller, Newark Tower
Adjunct to FAA New York VFR Airspace Task Force
National Air Traffic Controllers Association

Mr. James K. Coyne
President
National Air Transportation Association

THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS

Wednesday, September 16, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AVIATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 2167, Rayburn House Office Building, Hon. Jerry F. Costello [chairman of the Subcommittee] presiding.

Mr. COSTELLO. The Subcommittee will come to order. The Chair will ask all Members, staff, and everyone to turn all electronic devices off or on vibrate.

The Subcommittee is meeting today to hear testimony on the Hudson River Airspace and Management of Uncontrolled Airspace Corridors. Although the gentlemen from New York, Mr. Nadler and Mr. Bishop, and the gentleman from New Jersey, Mr. Sires, are not Members of the Subcommittee on Aviation, they are Members of the Full Committee; and, therefore, I ask unanimous consent that they be allowed to participate in today's hearing. They have a strong interest in this hearing due to the proximity of their districts to the Hudson River corridor.

Without objection, so ordered.

I will give a very brief opening statement, then call on my Ranking Member, Mr. Petri, for any remarks or opening statements that he may have, and then we will hear from other Members that may have an opening statement or remarks and go right to the witnesses.

I want to welcome everyone to our Subcommittee hearing regarding the Hudson River Airspace and Management of Uncontrolled Airspace Corridors. The recent collision between a private airplane and a sightseeing helicopter over the Hudson River in which nine people died was a tragic accident. The Subcommittee offers our deepest sympathies to those who lost family members on August the 8th. While the National Transportation Safety Board has released preliminary findings on the incident, the investigation is ongoing; and no conclusion can be made at this time.

The purpose of this hearing is to receive testimony from experts in aviation safety, flight operations, and air traffic control procedures that are knowledgeable about the Hudson River airspace known as a Class B airspace exclusion area and similar corridors around the country. The exclusion area is heavily used by heli-

copters and general aviation airplanes transiting through the area or sightseeing.

Currently, there are voluntary procedures for pilots to follow when operating in the exclusion area; and, since 1971, millions of aircraft have flown in the Hudson River exclusion area without a collision occurring. However, there has been many near misses reported. According to the recent FAA estimates, there are oftentimes as many as 600 aircraft operations per day in this corridor.

I commend the NTSB and the FAA for undertaking an immediate safety review of the procedures governing this airspace, including ATC handoff procedures. Similar corridors throughout the national airspace system warrant a review as well.

On August 27th, the NTSB issued five independent recommendations to the FAA to improve the safety of the airspace. I look forward to hearing from the NTSB Chairman, Deborah Hersman, on these recommendations.

I also commend FAA Chief Operating Officer Hank Krakowski for convening the New York Visual Flight Rules Airspace Task Force quickly after the accident to examine procedures for aircraft operations and identify ways to enhance safety in the Hudson River exclusion era. Shortly after the meeting, the task force issued eight recommendations to the FAA pertaining to airspace realignment, ATC and flight procedures, charts for pilots that depict the New York airspace and specific operating procedures within the exclusion area, and training and educational programs for pilots and controllers.

One of the recommendation mandates that pilots follow standard operating practices, which are currently voluntary, within the Hudson River Class B exclusion area. I agree with the FAA's decision to move forward with publishing mandatory operating procedures, and I am pleased that the FAA issued a notice to airmen that temporarily establishes these rules. However, we need to ensure that pilots and air traffic controllers are adequately trained on these new procedures.

I am also interested in hearing how sightseeing helicopters making multiple takeoffs and landings per day will be separated from the path of airplanes transiting through the airspace.

Several of the witnesses testifying today participated in the task force, and I look forward to hearing their recommendations in discussing any issues or concerns the Subcommittee should be aware of before the FAA acts on a rulemaking.

Before I recognize the Ranking Member, Mr. Petri, for his opening statement, I ask unanimous consent to allow 2 weeks for all Members to revise and extend their remarks and to permit the submission of additional statements and material by Members and witnesses.

Without objection, so ordered.

The Chair now recognizes the Ranking Member of the Subcommittee, Mr. Petri.

Mr. PETRI. Thank you, Mr. Chairman, for calling this hearing.

As I have indicated many times, aviation safety is our Subcommittee's top priority; and I know it is the top priority of our Full Committee as well. It is vitally important that we understand

and fully explore any and all safety issues related to the operations in the national airspace system.

Just over a month ago, a Piper airplane and a tourist helicopter collided over the Hudson River, killing all nine people aboard both aircraft. While the specific causes of this tragic accident are still under investigation, it is another reminder that, while we have a very safe system, we cannot let our guard down or become complacent. I look forward to working with the National Transportation Safety Board, the FAA, and industry stakeholders to address all the contributing causal factors in this accident.

Hundreds of flights a day from JFK, La Guardia, Newark, and Teterboro operate in the New York City airspace, making it the busiest on our globe. Maintaining safety in this airspace requires a dedicated, focused effort by air traffic controllers, operators, and regulators alike.

The National Transportation Safety Board has taken an important first step by releasing its recommendations for improving safety in the Hudson River airspace. These recommendations include revising air traffic control procedures as well as creating a special flight rule area in this airspace. I am pleased that Chairman Hersman could join us today and look forward to her testimony as she outlines these recommendations.

The air traffic control challenges posed by this congested airspace should renew our focus on how accelerating air traffic control modernization can help address safety issues. With commercial and general aviation air traffic anticipated to continue to grow, modernizing our Nation's air traffic control system should be a top priority. Ensuring that every aviation operator, general as well as commercial, has the opportunity to obtain satellite positioning technology could go a long way in making aircraft operation safer and more efficient.

Imagine if the pilot of the Piper had access to the air traffic control information right in his own cockpit. He would have been alerted to the presence of other aircraft and could probably have avoided the collision. We simply cannot afford to operate an analog airspace system in a digital world.

I am looking forward to the testimony and discussion of these safety issues; and I actually have, I think, some command and control issues as well, who is in charge. I thank our witnesses for their participation and contributions to this hearing and yield back the balance of my time.

Mr. COSTELLO. I thank the Ranking Member and now recognize the gentleman from New Jersey, Mr. Sires, for any comments or opening statement that he may have.

Mr. SIRES. Thank you, Mr. Chairman. Thank you for allowing me to participate in today's hearing.

The recent tragedy between a small plane and a sightseeing helicopter over the Hudson River highlights the need for improved oversight of aircraft in this area. It is critical that this congested airspace be better regulated.

I represent Hudson County in New Jersey, which borders the Hudson River directly across Manhattan. Ellis Island, Liberty Island, lies entirely within Hudson County waters. The scenic views from New York, New Jersey, as well as the Statue of Liberty, at-

tract large numbers of aircraft through the Hudson River corridor. On any given nice day, upwards of 600 aircraft can be seen passing over the Hudson River. While the vast majority of aircraft travels safely through the area, it does not alleviate our responsibility to address safety concerns.

For years, the FAA insisted that it lacked statutory authority to regulate airspace below 1,100 feet. While I am encouraged to see that FAA has reversed its position, I am concerned whether the recent accommodations go far enough to prevent further tragedies—fromensuring better handling of aircraft between control towers to a comprehensive system for regulating flights over 1,000 feet, and improving safety standards for commercial sightseeing tour operations.

In addition to safety concerns, I am also concerned about the noise associated with low-flying aircraft. I am sure you have received some of my letters regarding the concerns of the residents in our area regarding the noise.

The task force included recommendations on helicopters over the Hudson River must fly below 1,000 feet. In the past, the number of sightseeing helicopters has exceeded 20,000 a year. Having that many aircraft flying at lower altitude creates a constant noise nuisance for those in New Jersey living along the Hudson River. From my perspective, the FAA's recommendation for helicopters seems to simply trade one problem for another.

Thank you, Chairman, for holding this important hearing and allowing me to participate. I look forward to the discussion on this issue.

Mr. COSTELLO. The Chair thanks the gentleman from New Jersey and now recognizes the Ranking Member of the Full Committee, Mr. Mica.

Mr. MICA. Well, thank you; and I want to thank Mr. Costello for convening this hearing.

I do want to start out first, before I comment on the topic at hand, to express my sincere condolences to the family of Bill DeCota. Bill DeCota was among hundreds of our Nation's great aviation directors; and Bill was the New York Port Authority Director of all of the airports in New York City, including a recently acquired Stewart facility.

I have known him for about a decade. I worked with him when I was Chairman of this Subcommittee. He passed away last Friday, September 11. The irony of that day and that passing is something that I just—I can't believe.

When I became Chairman in early 2001, Neil Levin, who Levin who had been the Legislative Director of Senator Al D'Amato when I was Chief of Staff for Senator Hawkins from Florida, a good friend, they invited me to come up to New York as the Chairman to look at the airspace and the congestion and problems they faced. The New York Port Authority controlled all of the airports. So Neil was the Director. The Director of the airports was Bill DeCota.

And I went up about 7 weeks before. It was in August of 2001. I spent about a half a day at each airport.

On the Monday after that weekend, we had about a dozen Members of Congress who came up to the New York Port Authority headquarters. We were in the World Trade Center. The Port Au-

thority owned the World Trade Center. We conducted a hearing; and, afterwards, several of us were invited by Bill DeCota and Neil Levin to have lunch in a conference room which was adjacent to the Windows of the World restaurant that the Port Authority kept for meetings and their own purposes.

On that day, on that Monday, we left Bill DeCota, we left Neil Levin, many who helped us. Unfortunately, on the morning of September 11, Neil Levin and many who helped us, with the exception of Bill DeCota, were all in that same room; and they were all killed in the attack. Bill DeCota, ironically, was in Montreal for an aviation conference; and he did not die on that day. But some 8 years later, the good Lord took him away from us. It just an incredible irony of fate.

He was one of the finest human beings that I knew in the whole industry, dedicated day and night to his job and safety of operations and efficient operations in probably the most difficult setting of any aviation operations in the world. So we will miss him and, again, our condolences.

Again, I appreciate a moment to speak about Bill and remember him in the record; and I am going to put a statement in the record today.

This hearing is apropos. It is important oversight. That was a tragedy. We were very fortunate we did not have a tragedy earlier in the year with the U.S. Air flight that landed safely in the Hudson.

As the Ranking Member has brought up, our Ranking Member and Mr. Costello, and you will hear also from Mr. Coyne and others, we need 21st century technology. Those who may have not functioned well—and this is still under investigation, so we don't want to jump the gun—but if people did not operate properly or were inattentive to duty or complacent in their work, they need to be held accountable. The investigation will reveal that.

My final concern is that New York airspace has been under redesign. I was up there 8 years ago to look at the congestion, the problems. The New York airspace accounts for about 80 percent of all our chronically delayed flights. The corridor that is in question here isn't exactly part of that redesign, but it is affected by the redesign, and we should have good rules in place for operation in that corridor of small aircraft or charter aircraft. So we have got to get resolved problems that have emanated from the New York airspace and that corridor in the best interests of safety of the public and move forward. That is our chief responsibility in this Subcommittee and Committee, so I look forward to working with you.

And, again, I appreciate the extra time to remember Bill DeCota at this hearing this morning. Thank you.

Mr. COSTELLO. The Chair thanks the Ranking Member and now recognizes the gentleman from New York, Mr. Nadler.

Mr. NADLER. Thank you, Chairman Costello and Ranking Member Petri, for holding this hearing and for allowing me to participate in today's proceedings.

As you know, the Hudson River corridor is partly in my district. I share it with Mr. Sires. So this is an issue that I have been working on for a very long time, and it is of great concern to me and to many New Yorkers.

After many years of pleading, I am pleased to see the FAA finally take action to regulate—begin to regulate this congested airspace, but I fear that the steps being taken are simply not enough. For at least 10 years, I have been demanding regulation of the helicopter industry in New York.

In 1999, after receiving numerous complaints from constituents about helicopter traffic, I called on the FAA to regulate our airspace. The FAA responded they lacked the statutory authority to regulate airspace below 1,100 feet. Subsequently, we got a study authorized to analyze the impacts of helicopter traffic, but the events of 9/11 put the topic of helicopters temporarily on hold.

Over the last 2 years, we have redoubled our efforts to get the FAA to regulate our increasingly crowded airspace. We in fact met with the FAA to discuss this issue as recently as July and then a follow-up meeting scheduled for late August, when it was scheduled well before the terrible crash. Throughout this entire time, including in July, the FAA insisted to us that it lacked the statutory authority to regulate the airspace in the New York City corridor below 1,100 feet.

Obviously, this claim was not true, as we kept telling them it was not true.

I am gratified that, after the crash, the FAA has finally reversed its position and now agrees that it has statutory authority to regulate this airspace. It is tragic and absolutely unacceptable that it took nine deaths to produce this belated concession on the matter of clear law. The midair collision has provided the impetus for action, but the congestion in New York airspace is a widespread problem beyond this one incident.

I support the measures FAA has proposed to improve operating procedures for pilots in the area, but they are simply not enough. For example, the FAA will develop and make available training for pilots and controllers in the Hudson River exclusion area. But why is this training voluntary? We require training for pilots in the Washington, D.C., area. Why isn't the FAA mandating training for anyone that flies in the New York area, especially given the density, security sensitivity and complexity of New York's airspace?

More importantly, why has the FAA not taken action to address the main problem of congestion? By the FAA's own estimates, there are about 600 aircraft occupying this airspace on a typical good weather day. Why doesn't the FAA limit the number of flights, at least until satellite-based technology is available to track and manage traffic?

The FAA has proposed stratifying airspace, with local aircraft like air tours all flying below 1,000, essentially allowing the same number of flights but shrinking the space that they are allowed to fly in. I have referred to the Hudson River as the Wild West because of the appearance that this heavily used and the congested airspace is a free-for-all without any regulation or control whatsoever and too much uncontrolled traffic to be able to operate safely in the corridor. Under the FAA plan, it will would still be the Wild West, just in a more constrained geographic area. I fear this could actually make the situation worse, and it will certainly exacerbate noise and safety concerns.

If there is any good news in all of this, it is that there is technology out there which could allow better management of aircraft such as the ADS-B system, a component of NextGen that is a satellite-based GTS detection system. ADS B is not yet operational, but the FAA should give priority to congested areas and potentially use New York as a test area for earlier implementation than its proposed 2010 deadline.

In the meantime, the FAA should consider limiting, if not banning, flights below 1,100 feet, certainly tourist flights, which serve no real function except for commercial profit. And, contrary to the Mayor, I do not believe that any substantial number of tourists are not going to come to New York and harm the tourism industry because of a lack of helicopter flights. But certainly there should be a limit or perhaps a ban on flights below 1,100 feet until these radar systems are available to track them.

Thank you again for holding this hearing and for permitting me to participate. I look forward to hearing from the witnesses and to working with all of you to improve the safety of New York's overcongested airspace.

I yield back.

Mr. COSTELLO. The Chair thanks the gentleman from New York and now recognizes the other gentleman from New York, Mr. Hall.

Mr. HALL. Thank you, Chairman Costello and Ranking Member Petri, and thank you to all of our witnesses for being here today to discuss this important topic.

I also would like to offer my condolences to the families of those who died in the August 8th crash over the Hudson.

My district spans the Hudson River north of where the accident took place, but many of my constituents work in New York and commute to New York, and some of them use air service in the process of doing so.

I am pleased that the FAA responded quickly to the crash, convening a panel of stakeholders together with the NTSB to devise some changes to the management of the Hudson River corridor airspace to improve safety. I am still reviewing the proposals put forward by the task force, but I am optimistic that positive changes will result from this process.

My foremost concern is why does it always seem to take a fatal accident to motivate the FAA to implement the NTSB recommendations? This Committee's transcripts are filled with instances where an accident occurs, we hold a hearing and then determine what happened and how it could have been prevented, only to learn that the NTSB has already made recommendations, in some cases several years prior, that if implemented would have saved lives.

I should note that this phenomenon is not limited to the FAA. This summer's Metro crash here in D.C. showed that there is no monopoly in failure to heed NTSB's warnings and recommendations.

So, once again, thank you to the Chairman for holding this hearing. Thank you to all of our witnesses. I look forward to your testimony, to working together to make the skies of New York and the entire country safer.

I yield back.

Mr. COSTELLO. The Chair thanks the gentleman and would ask, any other Member wanting to make an opening statement or comments?

If not, the Chair will recognize the panel of witnesses at this time: the Honorable Deborah Hersman, who is the Chairperson of the National Transportation Safety Board; Mr. Hank Krakowski, who is the Chief Operating Officer of ATO with the FAA; Mr. Craig Fuller, who is President of the Aircraft Owners and Pilots Association; Mr. Matthew Zuccaro, who is President of the Helicopter Association International; Mr. Edward Kragh, who is a Certified Professional Controller, Newark tower; and Mr. James Coyne, who is the President of the National Air Transportation Association.

I would advise all witnesses that we would ask you to adhere as closely as possible to the 5-minute rule.

TESTIMONY OF THE HONORABLE DEBORAH A.P. HERSMAN, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD; HANK KRAKOWSKI, CHIEF OPERATING OFFICER, AIR TRAFFIC ORGANIZATION, FEDERAL AVIATION ADMINISTRATION; CRAIG FULLER, PRESIDENT, AIRCRAFT OWNERS AND PILOTS ASSOCIATION; MATTHEW S. ZUCCARO, PRESIDENT, HELICOPTER ASSOCIATION INTERNATIONAL; EDWARD KRAGH, CERTIFIED PROFESSIONAL CONTROLLER - NEWARK TOWER, ADJUNCT TO FAA NEW YORK VFR AIRSPACE TASK FORCE, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION; AND JAMES K. COYNE, PRESIDENT NATIONAL AIR TRANSPORTATION ASSOCIATION

Mr. COSTELLO. At this time, the Chair recognizes the Chairperson of the NTSB, the Honorable Deborah Hersman.

Ms. HERSMAN. Good morning, Mr. Chairman, Ranking Member Petri, and Members of the Committee. On behalf of the NTSB, I would like to extend our condolences to all those who lost loved ones in this accident.

And, Mr. Chairman, with your concurrence, I would like to show an animation today during my testimony. I will go over the 5-minute time limit, but I think the Committee will find it of interest. This animation shows the events leading up to the August 8th, 2009, midair collision of a Piper Lance and Eurocopter AS350.

The collision occurred in the Class B exclusion area over the Hudson River. There were three fatalities on the private aircraft and six fatalities on the helicopter. Neither aircraft was equipped with a cockpit voice recorder, a flight data recorder, nor were they required to be equipped. I would like to emphasize that this is still an ongoing investigation and that there is significant work to be done by our staff.

My testimony today will be limited to the factual information that we found thus far. I will not provide any analysis, draw any conclusions, or establish the cause of this accident today.

We have already identified some early issues of concern. They prompted us to issue a number of safety recommendations which you all have referenced, and I discuss those in more detail in my written presentation.

I would like to restate that we have not determined the cause of the accident, the role of any individuals, mechanisms, or organizations who might have been involved.

The animation that I am about to show has been created by our staff using preliminary radar data and air traffic control tapes from the FAA. Our staff are represented today by Ms. Alice Park and Ms. Christy Spangler, and I would like to recognize them.

This is a major effort for our team. They have worked the last few weekends to be able to complete this animation in time for today's hearing. On the animation you are going to see some transmissions that are attributed to the pilot of the accident aircraft. The accident airplane, you will see that reflected as mike charlie, the Teterboro controller and the Newark controller. However, the audio track is only from the Teterboro Tower.

A witness reported that the accident helicopter made position reports over the common traffic advisory frequency, but that frequency is not recorded. Also noted on the animation is a nonpertinent call that was made on a landline by the Teterboro controller to operations at Teterboro.

The animation begins after the Piper takes off from Teterboro and appears on radar. The Teterboro Airport is going to be at the top left on the screen, and it will be highlighted by a white ring.

Can you please start the animation?

[Animation is shown.]

The animation consists of a two-dimensional (2-D) depiction of preliminary radar flight path information of the September 16, 2009 mid-air collision of a Piper 32 aircraft with a Eurocopter helicopter. The animation begins after the Piper's departure from Teterboro airport, and continues until the collision. The radar ground tracks for both aircraft are displayed on a satellite photo illustration of the area. The 2-D animation is followed by a three-dimensional (3-D) representation of the collision. The 3-D animation is a thirty second, chase view of the Piper 32 depicting the closure of the helicopter with the Piper, ending at the collision. After the 3-D representation, post-collision photographs obtained from witnesses are shown as still images.. The animation does not depict the weather or visibility conditions at the time of the accident. This document contains selected still images from the complete animation.

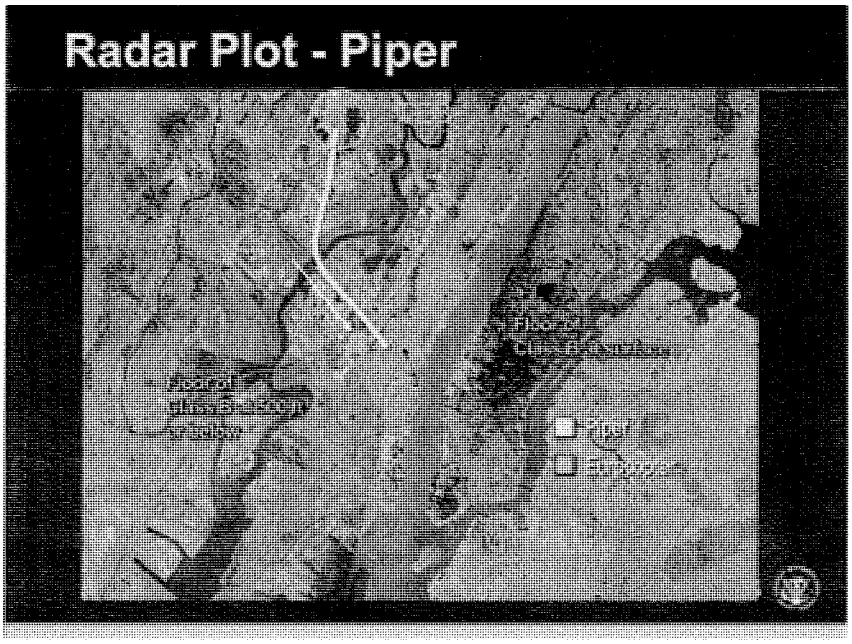


Figure 1 – FAA Radar ground track of Piper aircraft following departure from Teterboro Airport, prior to helicopter appearing on radar, with local class B airspace denoted.

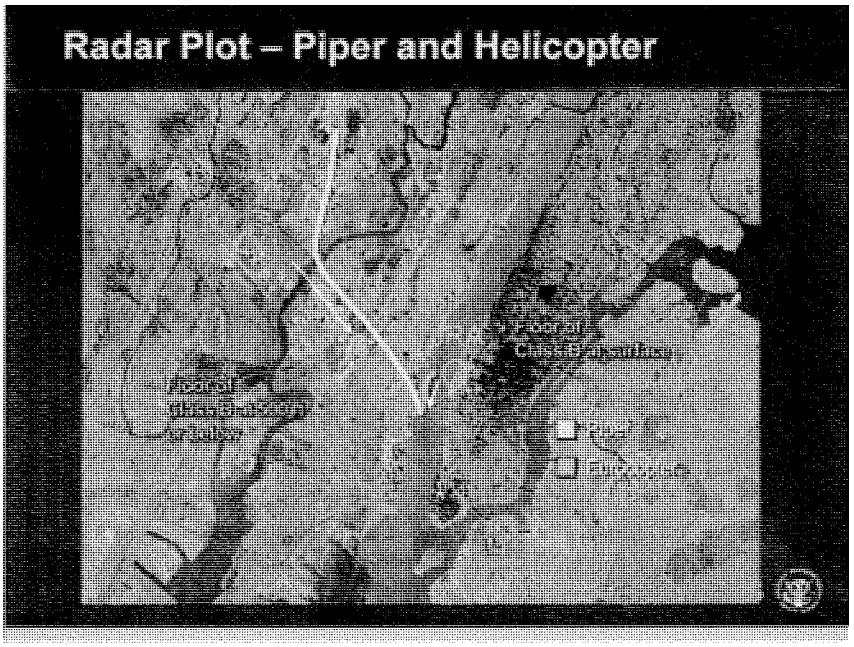


Figure 2 – FAA Radar ground track of Piper aircraft and helicopter following the helicopter's departure from the heliport (JRA).

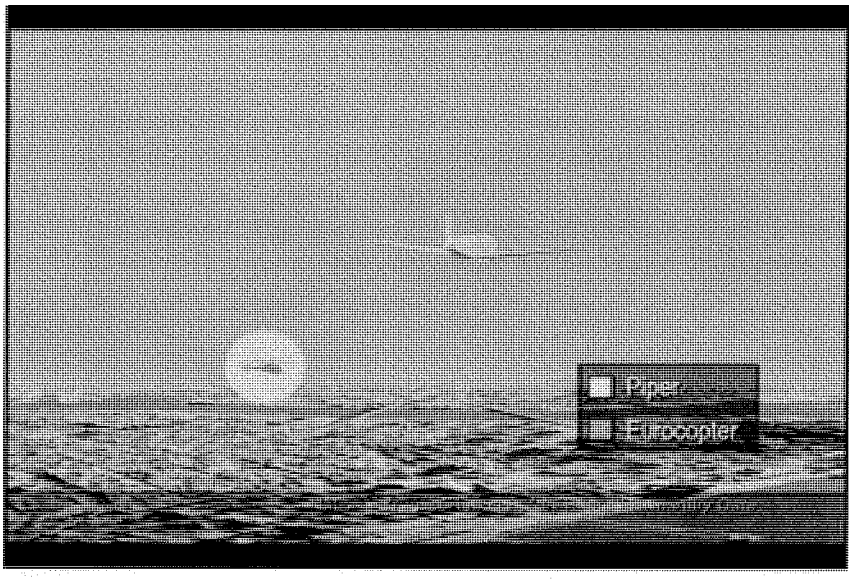


Figure 3 – Animation depiction of the relative positions of the Piper aircraft prior to the collision, viewed from behind the Piper aircraft as it approached the helicopter.

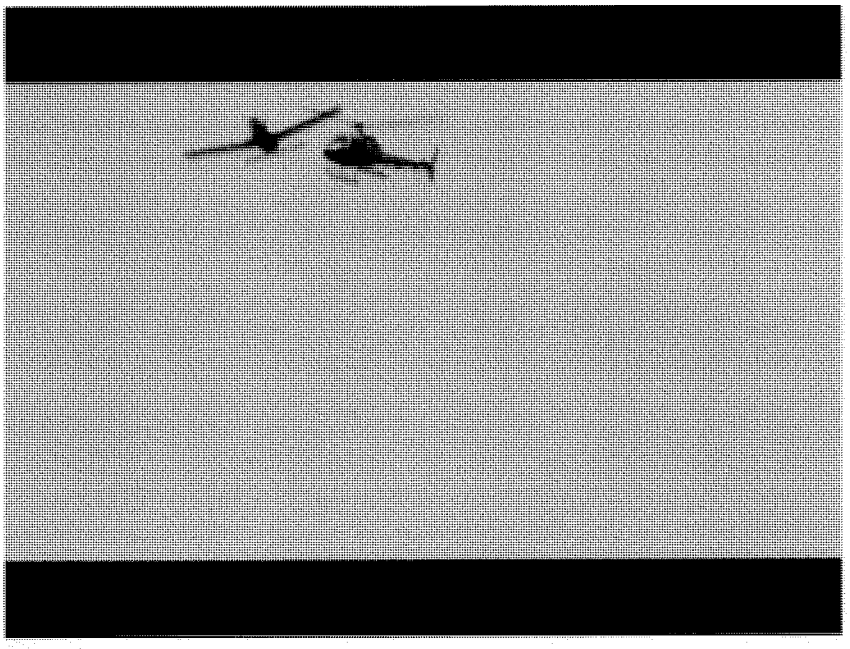


Figure 4 – Witness photograph of both aircraft immediately before collision, showing the relative positions of the Piper and the helicopter.

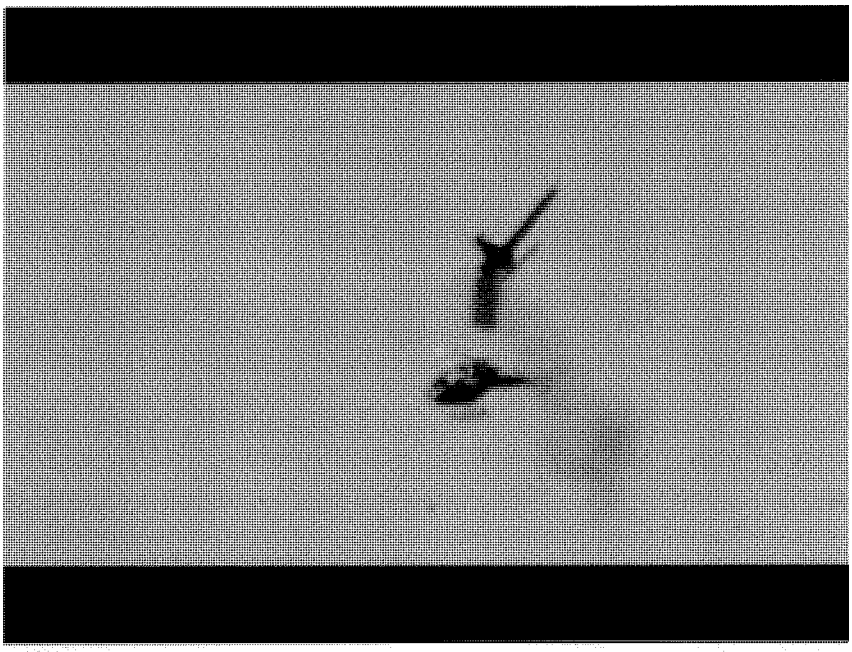


Figure 5 – Witness photograph of both aircraft immediately after the collision, showing the structural failure of the Piper aircraft, and rotor damage of the helicopter.

The exclusion area provides a passageway through the Class B airspace permitting aircraft to fly north and south along the Hudson River between approximately the George Washington Bridge to the north and the Verrazano-Narrows Bridge to the south without authorization from air traffic controllers. The exclusion area extends from the surface of the Hudson River up to 1,100 feet.

As seen in the animation, the airplane flew southbound until the local controller instructed the pilot to turn left or southeast and join the Hudson River.

In a moment, the Teterboro controller will instruct the Piper to change frequencies and contact the Newark controller.

Our review of other tapes indicate the pilot read back an incorrect frequency and did not contact Newark before the accident. The accident helicopter departed from the West 30th Street heliport about 11:52 for a 12-minute tour. The first radar target for the accident helicopter was detected by the Newark radar when the helicopter was west of the heliport.

The following is an animation of the final flight path of the two aircraft based on radar data. The accident helicopter appears on the lower left side and is highlighted by a white circle. The helicopter continues climbing southbound until the collision occurred at about 1,100 feet.

These images were taken by ground witnesses.

Mr. Chairman, this concludes my testimony, and I would be pleased to answer any questions.

Mr. COSTELLO. The Chair thanks you and the members of your staff for pulling this together.

The Chair now recognizes Mr. Krakowski.

Mr. KRAKOWSKI. Thank you, Mr. Chairman, Ranking Member Petri. Thank you for inviting us to testify about what FAA has done since the accident on August 8.

We would also like to say that we also grieve over the loss of the family members on that airplane and also of Bill DeCota as well, who was clearly someone we worked with at FAA quite a bit.

I think the best way to describe my testimony is to also use some visual aids, and you have all been provided a packet of information.

The first two pages are the eight specific recommendations that came out of the task force which was convened a week after the accident. Once we looked at the data, we saw are we saw a clear need to get the stakeholders involved, including the NATCA controllers, to help us sort out what improvements are appropriate for the airspace.

So if we could go to Chart 1, which is the third document in your package. This is not quite as detailed a representation, but it shows you approximately where the accident occurred over the Hudson River, and this happened at 1,100 feet.

So keeping that in mind, if we go to Chart 2, this is a side view, looking from the west side of the Hudson River looking east toward Manhattan. This is a side view of the airspace and how it is organized in its current configuration, a configuration that has basically been this way since 1971. The most important thing to know about is Class B airspace, which is positive controlled airspace, all aircraft in that airspace has to be under positive control of a controller and radar. The primary purpose of Class B airspace is to

protect airliners at the three large airliner airports. And that is what the purpose of Class B airspace always was. It was never set up to control general aviation traffic, other than keeping them properly separated from the airliners.

A couple of things that you will notice about the Class B airspace is that it has different altitudes at different parts in the river. At some points, it is 1,100 feet; at other points, it is 1,500 feet. One of the things we found out is that for aircraft that transitions, in and out of the airspace, there is some frequency confusion: What frequency should I be on, talking to the controller? Or should I be talking to the other airplanes on the common frequency? So we saw that as an opportunity.

This has been regulated airspace, by the way. Even though the term ″uncontrolled″ is used a lot, it is "uncontrolled" in terms of a controller actually controlling the airspace. It is regulated with procedures and regulations and has been regulated basically forever. But you do see a lot of mixing of traffic, helicopters doing their sightseeing tours or medical evacuation or police missions, aircraft flying through the area, changing altitudes, seaplanes even landing up and down the Hudson.

And I think what is notable is that you will notice that the air speeds and ground speeds of the aircraft are significantly different. An airplane that is maneuvering will typically be going slower over the ground or a helicopter for sure would be going slower, with faster moving transient aircraft going up and down the river. So we found that interesting.

So if we go to the next chart, which is an overhead view, again, of the current configuration, we also saw something interesting looking at the radar data: that aircraft coming off of Teterboro, airplanes flying south down the river, airplanes flying north up the river, all mixed with the helicopter, seaplane, and local traffic. And what was interesting when we looked at the radar data is many of the aircraft were at 1,100 feet, which is the highest they can go in the area.

So we thought that that was an area of opportunity. Could we do something altitude-wise to separate the different operations better?

So over a 2-week period the task force went to work. Three of the organizations that served on the task force are with us today; and the recommendations are as follows, if we could go to Chart 4.

One of the things that we thought was important is to create consistency of the Class B airspace. If you recall, it was 1,100 feet or 1,500 feet. We flattened it out to 1,300 feet so aircraft will know which frequency to be on, when you are talking to a controller, when you are not talking to a controller, which results in a lot less handoff problems for the controllers, a lot less workload for the pilots.

Of course, aircraft above 1,300 feet would be under positive control of the controllers. Aircraft under 1,300 feet would still be in visual flight rules, but we are also mandating a separation of overflight traffic, which is typically faster-moving traffic from local operations doing the tour business or photo shoots or police missions, whatever. So there was a general feeling that by segregating the

aircraft speed types of the different operations was the right approach.

The other thing is all aircraft under 1,300 feet would be on one common frequency making position reports to each other at specified places along the river, which should increase situational awareness for all traffic.

I would like to point out that many of these procedures are the very procedures we use at places like the Oshkosh Air Show, which has over 3,000 flights a day; and these are the same techniques we use to create a safe operation up there every year.

And, finally, the last chart, Chart 5, is an overhead view of the changes we are recommending.

First, you will note that aircraft traveling south on the river, we are going to ask them to favor the west side of the river. Aircraft traveling north favor the right side. And you will also notice that those airplanes overfly the local aircraft as well, lights on, talking to each other, good situational awareness. And we think that these regulated changes and the two regulatory changes that are necessary are the Class B airspace change and the pilot procedures, all scheduled to come together and be in effect on November 19.

I look forward to your questions. Thank you for allowing me to testify.

Mr. COSTELLO. The Chair thanks you, Mr. Krakowski, and now recognizes Mr. Fuller.

Mr. FULLER. Mr. Chairman, good morning, and Ranking Member Petri and Members of the Committee. It is a pleasure for me to be here on behalf of AOPA and our 415,000 members.

I privately expressed our concern to the families who were lost in this accident. We had one of our members who was lost. I publicly would do so again today. It is a tragedy that brings us together.

But I also think it is important to recognize the good work of NTSB and particularly the FAA. We were pleased to be part of the process of immediately evaluating the circumstances in New York and the situation around this accident. We had one of our people sequestered for a couple of weeks to intensely look at this with others in the aviation community.

And I think it is great that this oversight session is taking place, but I think we should recognize that the FAA really gave us all a forum to take a very hard look at the traffic in that area, how it is utilizing this airspace, and what we can do to enhance and improve safety.

I am not going to repeat the remarks I submitted. I thought I would try to be responsive to some of the comments that have been made.

We had an interesting session last night with our AOPA Air Safety Foundation which immediately, upon receiving the recommendation, structured a flight training program, if you will, and went to Newark where 350 pilots were at the session. Another 200 people were online. I think it probably is a prelude to some of the comments we will hear. It was a very constructive dialogue.

I don't need to tell the members from the area that pilots in that area are passionate about flying in that airspace to see the incredible views, to transit the area; and they desperately want, as do I,

to keep that airspace open and available. I think the recommendations do that, and I think they do enhance the certainty of where you should be flying if you are in the airspace.

I know the airspace is referred to as ″uncontrolled.″ That is kind of a technical term, and that was explained a little bit ago.

Frankly, this airspace for pilots—and I have flown for 42 years—is one of the most heavily regulated sections of airspace in the U.S. The fact that we have Class Bravo airspace around the heavily used airports to ensure that instrument aircraft and commercial aircraft are separated from aircraft flying visual flight rules does not mean the aircraft flying visual flight rules are not regulated. They are flying safely through corridors, through passageways that keep them separated from other aircraft.

Pilots train regularly. We have to get reviewed every 2 years. Pilots who fly in this area review this airspace.

The improvements in the charts I think that have been referred to will make a big difference. I used to fly through and live under the corridor in Los Angeles, and I used it all the time quite safely.

Honestly, when I fly in New York, I typically fly IFR, and that provides for separation. But I think the choices that many pilots make are the right choices for them to transit that area.

I would also caution against the problem of the unintended consequence, the problem of saying, well, let's close down this airspace because we don't like the way it is being used because it will send hundreds of people around the Class Bravo airspace. It may not be a concern that it uses more fuel, but it will put other aircraft in areas where they are not now flying when in fact for decades this airspace has been used safely.

Also, I want to say a word about the controllers. I do fly in the airspace a great deal. Probably the most challenging of the alternatives, if I was taking off from Teterboro tomorrow morning on instrument flight rules, I know I would have separation. If I took off intending to fly the corridor and the weather permitted it, because you have to have certain requirements before you can use that flyway or corridor, I would have a certain plan, and I would know what frequency to be on and when to talk. If I chose the alternative, which is a good alternative used hundreds of times, of taking off and hoping to get cleared through Class Bravo airspace, I would know the controllers would make every effort to accept me and give me an altitude and monitor my flight.

But the plans can change. It is the one course of action where plans can change. Because you might be sent into the corridor. You might be cleared into the airspace. They might not be able to take you.

And I just want to say that my experience flying in that area, I think we have some of the best-trained controllers and the most accommodating that we work with; and that is very helpful, too.

We do stand ready to continue our efforts to enhance the training and to support these recommendations.

I look forward to any questions you may have.

Mr. COSTELLO. The Chair thanks you, Mr. Fuller, and now recognizes Mr. Zuccaro.

Mr. ZUCCARO. Good morning, Chairman Costello and Mr. Petri, Ranking Member, and Chairman Oberstar.

I am here today in my capacity as President of the Helicopter Association International, whose 3,000 members, inclusive of 1,600 member companies, fly 5,500 helicopters 2.5 million flight hours a year.

On a more personal note, I am also here as a professional career pilot and flight instructor for both helicopters and airplanes who has spent almost 30 years flying and managing aircraft operations within the New York City airspace, to include tour operations, scheduled helicopter airline service, airborne law enforcement, and charter and corporate, as well as New York City heliport and airport management responsibilities. During this period, I also represented the local affiliated organization, Eastern Region Helicopter Council.

Make no mistake about it. There was a tragic accident on Saturday, August 8, in which nine people lost their lives. Our heartfelt sorrow and deepest sympathy goes out to those involved.

One of those aircraft, a helicopter, was operated by one of our members. On that day, a member of our family within the helicopter community, Captain Jeremy Clark, a professional, dedicated helicopter pilot, departed the Manhattan West 30th Street heliport just as he had done so many times before, with the intent, as always, to provide a safe, inspiring aerial tour and display the majesty of New York City to his passengers.

On that same day, Steven Altman, a businessman, an aircraft owner, general aviation private pilot, had taken off from Teterboro Airport in his personal aircraft accompanied by family members for I am sure what he envisioned would be an enjoyable flight on a beautiful day to Ocean City, New Jersey. As you know, neither of these pilots completed their respective flight. A tragedy indeed.

As I have testified before the Committee previously, my sincere belief is that one accident anywhere of any kind is one accident too many. And in the memory of those who died, we can and should strive to make operations in the Hudson River corridor even safer than they currently are.

In an effort to accomplish this, I believe we must first look at the history associated with the environment. I would note that I served on a previous airspace task force group in 1983. The recommendations of that task force enhanced over the years formed the basis of the current practices and procedures that are utilized to this date in the corridor. We have provided a safe and operational efficient environment that accommodated millions of flights over that 26-year period since that study. Accordingly, I believe we should be cautious of an overreaction and should respond with a reasoned, well-thought-out approach that will actually enhance the safety. I sincerely believe that the FAA recommendations are well-reasoned and sound in nature and will do that.

I am honored to have served on the airspace task force committee that was just established by the FAA. I am not going to repeat the details, because those will be covered by others and have been already. And I would say that they are sound and sensible and would enhance safety.

I am also pleased to report that the resulting FAA recommendations are supported by HAI, other associations, and are very similar to the NTSB-issued recommendations.

In coordination with the FAA, the NTSB, and other associations, HAI stands ready to develop and promote an extensive educational training program relative to this airspace. It is crucial for the pilots to know not only the airspace options but what is expected of them when they are in that airspace.

Admittedly, none of these recommendations on its own is a silver bullet. There are no silver bullets, and I wish there were. However, each of these recommendations is a sensible, rational, well-thought-out element and, when considered in a package, they will make a real difference.

Mr. Chairman, Members of the Committee, I can assure you I don't consider myself a cowboy, and I don't view that airspace as Wild west. I would not have spent the majority of my adult life flying and managing operations in that airspace if I thought for one second it was truly unsafe. Nor do I believe the thousands of other pilots that operate there would fly in it if they thought it was not safe.

In closing, I would be remiss if I did not acknowledge the high-priority fast track initiative and excellent work by the FAA which will result in these new procedures being in place by November. We applaud and support their efforts. I anxiously await the investigative work and associated final recommendations to be delivered by the professional and dedicated staff of the NTSB.

This is how the system is supposed to work, and we are honored and pleased to be part of this initiative. HAI and our affiliate, the Eastern Region Helicopter Council, look forward to working with the Subcommittee, the agencies, and other interested parties to ensure that the highest level of safety within this airspace is achieved.

Thank you very much, and I am prepared to answer any questions.

Mr. COSTELLO. The Chair thanks you Mr. Zuccaro and now recognizes Mr. Kragh.

Mr. KRAGH. Good morning, Chairman Costello, Ranking Member Petri, Chairman Oberstar, and distinguished Members of the Subcommittee. Thank you for the invitation to appear before you today.

My name is Edward Kragh. I have been an air traffic controller for 22 years, and for the last 16 years I have been at Newark Liberty Airport. I would like to echo the sentiments of the Chairman and several others who have offered their condolences to the families of those departed on August 8 and also echo the sentiments of Congressman Mica on the passing of the much-beloved Mr. DeCota of the Port Authority.

I am here today as NATCA's representative on the FAA's VFR flight rules task force. We were charged with examining the procedures in airspace surrounding Manhattan in order to recommend changes that would help make the airspace safer. My role in that task force was to serve as a subject matter expert on air traffic control procedures in airspace.

The FAA invited NATCA to be a part of the task force and worked collaboratively with the union throughout. It is NATCA's hope that the agency will continue to follow through with its commitment to include us in the completion of this project and in any future changes.

The August 8 incident occurred under visual flight rules outside of Class Bravo airspace in the Class B exclusion corridor, what we commonly refer to as the exclusion, during a handoff between air traffic control facilities. Aircraft in Class B airspace is permitted to use visual flight rules in clear weather, but separation in Class B airspace remains a controller's responsibility. No aircraft is permitted to enter Class B without first receiving clearance from ATC; and, once inside, pilots are then required to closely follow ATC instructions.

In the exclusion, VFR aircraft are permitted to fly without being required to communicate with air traffic control. The exclusion is Class G or uncontrolled air space. As such, air traffic controllers do not have jurisdiction over aircraft in this airspace. The burden of separation there is entirely upon the pilots using VFRC and avoid procedures.

Pilots flying in Class G airspace are currently urged to monitor and broadcast their positions over the common frequency, and they are expected to do so in order to effectively coordinate the use of that airspace.

Climbs from ATC is required to enter and operate within Class B airspace, and under the current procedures Teterboro controllers do not have the authority to climb VFR aircraft into Class B airspace. Therefore, that transition into Class B requires a handoff of control from Teterboro to Newark.

When the Newark controller accepts that handoff, that controller climbs the VFR aircraft into Class B; and if he is unable to accept the handoff, the aircraft must remain outside Class B airspace until receiving air traffic control clearance.

That—just to divert from the statement for a moment—is what we discovered in the task force, that that loophole, which is also echoed in the recommendations—preliminary recommendations from the NTSB turns out to be a flawed procedure, which I will address now.

On August 8, the Teterboro controller did initiate a timely handoff, which the Newark controller accepted. The Newark controller was expecting radio contact from the Piper, which never came. Although controllers at both Teterboro and Newark attempted to reestablish radio communication with the pilot, they were unable to contact him; and at the time of the collision, the pilot was not in communication with air traffic control at either Teterboro or Newark.

There was an unfortunate rush to judgment regarding the underlying causes of the August 8 tragedy which, as several Members have stated, is still under investigation. But the controllers on duty utilized the procedures that they had been trained to use and that they were required to use by FAA orders. The first day the task force met it was unanimously agreed upon and recognized that those current procedures were flawed and that under those flawed procedures the August 8 accident could not have been prevented.

Since the incident, a number of elected official have advocated for full control for airspace around Manhattan, in other words, eliminate the Class B exclusion and require that all aircraft flying in this region be under the direction of ATC. NATCA and the task force both recognized that this drastic change would require signifi-

cant new resources because present infrastructure is insufficient to handle those changes, and there simply aren't enough air traffic controllers to handle the increased workload that would result.

The geography of that area with densely packed skyscrapers prevents effective radar and radio coverage currently. You might recall that when my colleague Patrick Harten testified regarding U.S. Air flight 1549 he described having lost radio and radar contact with that aircraft as it lost altitude. Additional radar and radio sites would be a necessity to safely provide ATC services to that corridor or some other form of enhanced surveillance.

The FAA's task force recommended several changes to training procedures and airspace structure, and the union supports these recommendations. We agree that their implementation will make this historically safe corridor even safer.

However, like the task force, we recognize that further analysis is required before the recommendations can be implemented. For instance, we agree with the recommendation that encourages pilots to transition the Hudson using Class B airspace above the exclusion so they are under ATC control. But an influx of VFR aircraft into Class B airspace may significantly increase controller workload and generate a need for increased staffing to meet those increased demands.

Lastly, the FAA and controllers certainly work best when we work together. I implore the agency to continue to use this approach on behalf of the safety of the flying public.

That concludes my testimony. I look forward to answering your questions.

Mr. COSTELLO. The Chair thanks you, Mr. Kragh, and now recognizes Mr. Coyne.

Mr. COYNE. Well, thank you very much, Mr. Chairman, Ranking Member Petri, Chairman Oberstar, and other Members of the Committee.

I would first like to echo the comments of Mr. Mica about our good friend, Bill DeCota. It has a special relevance here. Bill DeCota and I served as original members of what we called the Teterboro Task Force, which was a group put together to deal with the safety of aircraft operations in and around Teterboro Airport; and, of course, since Teterboro Airport was managed by the Port Authority of New York, it was an official responsibility of Chairman DeCota.

And I wanted to echo the remarks of Mr. Mica. His sudden death is going to be a great blow to many of his friends in aviation, and we look forward to making further comments reflecting upon his career.

I would also like to join all the rest in extending our sympathies to the victims of this accident. The small Piper Lance departed from Teterboro Airport just a few minutes before the accident. Its last location was at one of our members, Meridian Aviation at Teterboro Airport. Our members were the last people to see that pilot and his passengers, and it is always a great personal tragedy for us when situations like this happen.

I, of course, serve as the President of the National Air Transportation Association; and we represent the businesses like the charter operators and FBOs and others who support aviation services

around the country. And I am also on the board of the Flight Safety Foundation and the President and founder of the Air Charter Safety Foundation. So I have a real commitment to air charter safety and aviation safety.

This accident provides us with an opportunity not only to address the specific concerns of this accident in the Hudson corridor and how to change, as has already been said, the procedures that need to be changed there—and I should point out that NATA strongly supports the recommendations of the FAA Task Force and the NTSB as the preliminary recommendations we have already seen.

But I think in a situation like this there is also an opportunity for us to look at the bigger picture, the national picture. What can the entire country and all pilots and all the people involved in safety and regulation learn from this accident? What can we do to make the skies better for everyone? These are what I call the bigger lessons from this accident.

The first one that comes to me is clear to those of us who were listening to the reenactment of this accident, and that is the communication challenges faced by controllers and by pilots alike in circumstances like this. You can't help but listen to that reenactment to conclude that there is something wrong with our communications procedures, especially in densely controlled airspace.

We have, of course, the best air communication system the world could put together in 1959. We can do better in 2009. It doesn't take—everyone has the experience of driving in their car and talking on a cell phone perhaps and seeing how seamlessly we move from one control tower, if you will, to another and our communications is entirely uninterrupted. We can get digital information, texting anywhere in the country without any hesitation, regardless of where we are and where we are moving; and yet we have a communication device in aircraft which is, in fact, archaic.

NextGen and the technologies embraced by it, we have been talking about for a long time. In fact, it was almost exactly 15 years ago today that I was in this room. I think Chairman Oberstar was at that same hearing. It was called by Collin Peterson, and it was the first hearing of this Committee to talk about modernization of air traffic to take advantage of GPS and digital communication and data link. And we said in 1994 we have got to do this. We have got to move in this direction.

And here we are 15 years later. And although we are closer and I know millions of dollars and a lot of man hours have been put to move us in this direction, it is really time for us to modernize our air traffic control, especially the communications.

The clear indication from this accident is that information that is not at the right place at the right time is worthless information. And the information that was needed by those two pilots was not in their cockpits because of the lack of NextGen capability of ADS-B and data link digital communication. So I hope that this Committee takes from this tragedy a renewed commitment to modernize our air traffic control system so that in the next few years we can say to any pilot and any citizen that this accident will never happen again.

Thank you very much.

Mr. COSTELLO. The Chair thanks you, Mr. Coyne.

And now the Chair recognizes the distinguished Chairman of the Full Committee, Chairman Oberstar.

Mr. OBERSTAR. Thank you, Mr. Chairman.

I want to express my appreciation to you for your continued vigilance over aviation safety and Mr. Petri for participating in and establishing this very, very important hearing and all the witnesses contributing their respective and special expertise.

I join, as all of the witnesses have done, in expressing our condolences to the families of the victims and our sadness over loss in aviation. It is always dramatic. It is always painful. It hits us very hard, those of us who care so deeply about aviation.

But I wanted to, at the outset of this hearing, to express my personal sense of loss at another, and some of the witnesses have mentioned that Mr. Mica apparently was here earlier and did as well, about the loss of Bill DeCota.

Mr. OBERSTAR. For me it is particularly painful. I was with him just 2 weeks before he died, and our colleague, Mr. Crowley, who represents the district which encompasses LaGuardia Airport—we were doing a tour of the land side and the terminal facilities on the air side, followed with a meeting with neighbors of LaGuardia concerned about noise.

Bill DeCota was an encyclopedia of information about aviation in general, but also about the three airports for which he was aviation director for the Port Authority of New York and New Jersey. He lived, breathed, slept aviation. He was there from early in the morning to late at night. He did not marry, did not have a personal family of his own, but his family, his love, his life was aviation.

We discussed the various changes that needed to be made in the terminal of things that were in progress, actions that were in progress on the land side at LaGuardia. We walked through the terminal. He showed how these things hadn't been changed since Fiorello LaGuardia in 1939. And with great excitement he pointed out the changes that would be made inside to accommodate passengers, showed me where people are sitting in the corridors—that is not acceptable, we can't have this—you know, with great energy and enthusiasm.

Then, on the air side where aircraft were parked there just wasn't enough room. If we make these changes, which he discussed, some consolidation of services, we will have fewer aircraft, more passengers, fewer arrivals and departures, less impact on airport neighbors.

And we went through this whole morning of Bill being really enthused and excited. I just couldn't imagine a person more alive and more excited about his work dying so suddenly, just like the victims of this crash.

So I offer to all his friends, associates, his colleagues and the neighbors of airports that he served so enthusiastically and with such vision and direction, and sense of direction that the airport authority needed to move, my heartfelt condolence, which is an inadequate word for the deep sense of loss that I feel personally about Bill DeCota. Aviation has lost a great advocate and enthusiastic friend, one who had the best interest of the traveling public, the airlines, the personnel who worked at that airport, and the airport neighbors as well.

The subject of this hearing, to me is reminiscent of the tragedy over Cerritos, California. For several years I had held hearings. And, Mr. Coyne, you may have been in Congress at the time that we conducted these hearings; I know that Mr. Costello was. Great resistance over installing on or requiring installation on aircraft of Mode C transponders and TCAS.

The FAA said, Oh, technology isn't ready yet, TCAS-I, there is something else in the works; there will be TCAS-II, there will be something better than that. We kept saying the perfect is becoming the enemy of the good.

And then that tragedy occurred over Cerritos. And it was Mr. Packard on the Republican side who represented that district—himself, I think, a pilot and enthusiast for aviation—who said, We have to require TCAS onboard aircraft by act of Congress.

I said, Ron, you introduce the bill; I will join you as cosponsor.

He did and we did. We had the hearing, reported the bill and moved it through the House and the Senate; and it became law. And then suddenly all the opposition of the airlines melted away.

But do we have to have fatalities? Do we have to have tragedy in the air before we act? Again and again and again, is that what it takes to mobilize? Doesn't the wisdom of the NTSB, the wisdom of the air traffic controllers, the wisdom of the FAA suffice to say, This is what we need to do; look ahead and do it now before there are fatalities?

I question the classification of airspace in the way it has been structured in this busiest of all air traffic facilities in the world. The New York TRACON handles as much air traffic as all of Europe combined, responsible for 16 airports, 1,200,000 operations last year. Charles de Gaulle, London Heathrow, Frankfurt, Amsterdam, Madrid, all together handle 1 million—2,100,000 operations a year.

This is New York-New Jersey Port Authority. Why don't we have at least Mode C transponders on aircraft? That is not going to break the bank. A TCAS-II is in the range of $200,000. That could be very expensive for a small aircraft. And from the standpoint of air traffic controllers that may be too much traffic, too much signalization in that airspace, too much ″clutter,″ as you call it. But somehow if you are going to operate in this busy airspace then you ought to have on board the aircraft the equipment you need to let others know when ″see and avoid″ fails. That has been my position for years. I think that is where we need to go.

I will stop at that point. Thank you, Mr. Chairman.

Mr. COSTELLO. The Chair thanks you, and now recognizes the Ranking Member of the Subcommittee, Mr. Petri.

Mr. PETRI. Thank you very much, Mr. Chairman.

Thank you all for your testimony. And I appreciate the investigations ongoing. But I just would be curious to know, it seems listening to this and reading some of the transcripts and one thing and another that one of the key contributing factors to this accident was the loss of contact between the airplane and, I guess, it was Newark following what was supposed to be a handoff, and suddenly the person has disappeared. And that was due to a miscommunication of—the controller gave the correct frequency for Newark, the person repeated a slightly different frequency and

suddenly logged on to a station in Connecticut or somewhere, and they were out of contact.

If that is true—I mean, my daughter, everyone else, has BlackBerrys; they are texting, they are very good at it. Can't you just figure out—there is voice recognition equipment these days in cars where people—you say the number, and it prints it out. This doesn't seem to me to be rocket science in this day and age. For a couple hundred bucks you could not just say it, you could print it out on any little device, BlackBerry, in a cockpit or something.

Am I missing something? I mean, all the redesign and talk about the space, it seems to be a communication problem. It is human error. We are never going to eliminate that. But we need to have backup systems and give people opportunities to verify quickly in real time how they are communicating. Would any of you comment on that?

And the second question, I didn't understand really very well: Mr. Fuller was talking about the one area of variable, when you are entering into it, you hit various precertified or predictable possibilities, and there was one where people had to make real-time choices, and if that was this and the communication contributed to that, or how that all worked.

Mr. FULLER. Well, let me just start with the first point you make. And I am not trying to avoid the question, and I will respond to it; but we obviously don't know exactly, or I sure don't know exactly, what happened in that aircraft.

I think that while technology can solve a lot of things, there is always going to be some human error. One of the procedures that we follow when we fly aircraft is—all aircraft, whether it is by single-engine Bonanza or a jet aircraft—when a controller gives us an assigned frequency, we read that frequency back with our aircraft identification number. It is the single best way to assure the controller, as well as the pilot, that you are going to enter the frequency that you were assigned.

I don't know why, if the frequency was read back and either not understood or was read back incorrectly, it wasn't corrected. It happens to us who fly, not often, 125.52 sometimes sounds like 125.25. In the amount of time—that happens to be a Potomac clearance frequency, approach frequency—in the time it takes to read it back, you don't switch over, so you wait to make sure that if there is any question, the communication between the controller and the pilot straightens that out.

I think that is a procedure that works well for us. I don't know how foolproof the technology is for voice recognition with the many voices we have and the many kinds of equipment we have, and I would be a little hesitant to think that would be a solution.

That is about all I can say on the question of the communication and how we verify the correct frequencies, because as I said, I don't know what happens.

I will say one other thing. One of the—and I have flown for 42 years. I have seldom seen an accident where there was one clear-cut reason why the accident occurred. Every aircraft has strengths and weaknesses, every aircraft has blind spots and good visibility.

I fly a low-wing Bonanza aircraft. One of my blind spots is obviously under those two wings on either side of the plane. One of the

realities is, our radio is in the center of the console, so by definition, if you are working on your radio, you are looking to the right. And obviously the helicopter was coming up on the left in a blind spot. I think that had to be part of the—one of the things that was going on.

To the point I was making about Teterboro today, or even Teterboro with the new regulations, as an instrument-rated pilot, I could file an instrument flight plan from Teterboro to Atlantic City, let's say. I would not be released from Teterboro until I could enter the air space. I would be under positive control, talking to the controller. That is one alternative.

I could also decide to leave Teterboro knowing that I was intending to fly on a clear day, if the rules were appropriate, fly that flyway. And I would know exactly what altitude I had to be at, and I would be looking for traffic, monitoring the frequency.

The point I was making was—the third alternative is to take off from Teterboro VFR and able to fly visual flight rules and expect that handoff, request clearance into the Class Bravo airspace for positive control. Those clearances, those requests are accepted hundreds of times a day, maybe even more, but hundreds of times a day, but it is not certain I would get it.

So of the three alternatives available—the taking off VFR, requesting a clearance request Bravo airspace is the one alternative that leaves a degree of uncertainty as to whether I am going to get cleared into positive controller space or to actually be steered into the corridor until they can take me. Personally, this is personally speaking, that is the most complicated, because I now have alternatives I am not certain about, and I would rather have a plan and execute the plan.

Flying in New York air controlled airspace always means there is some uncertainty. You are always given different clearances. But it further complicates the workload on a pilot who may have thought he was going to get to 3,500 feet talking to controllers, but actually was sent to 1,100 feet until he could get their clearance.

Mr. COSTELLO. The Chair thanks the Ranking Member and now recognizes the gentleman from New Jersey, Mr. Sires.

Mr. SIRES. Thank you, Mr. Chairman.

As I listen to some of the comments that were with your testimony, I think this could have been avoided. Mr. Krakowski, you make a comment regarding how some of the regulations will implement to someplace else in an air show. What was that air show you talked about?

Mr. KRAKOWSKI. Oshkosh.

Mr. SIRES. Oshkosh, 3,000 hours or whatever it was. Now we are going to use it here.

The controller said, right from the beginning that they realized that that could have been avoided.

I just don't know what it takes. Sometimes we implement these things before it happens. These regulations, I assume that you think this is going to work to make it more safe.

Mr. KRAKOWSKI. We absolutely are confident they are going to work, because they are techniques that are used in high-volume airspaces like the Oshkosh Air Show.

The difference is, these were recommended procedures over the Hudson for many, many years. They weren't charted very clearly. We talked about the frequency confusion issue, and even the hand-off confusion issue from the Teterboro tower to aircraft transitioning out of there. All of these are accounted for in our recommendations.

Mr. SIRES. Are there any new recommendations for flights underneath 1,000 feet? Do you have new guidelines for regulating? Because 1,000 feet is not very high, especially where I live, and especially where Congressman Nadler lives.

And how far in are these corridors? I mean, I stand on my balcony and it looks like Ming City in Flash Gordon, with all these planes flying in and out. I mean, I just think that something has to be done, especially those flights that are low. Sometimes I wave to them on my balcony.

Mr. KRAKOWSKI. I am going to ask Mr. Zuccaro to help me out because he has flown in that airspace quite a bit. There has always been traffic at different altitudes in that airspace, low altitudes, doing their missions, and the high altitudes as well.

What the new regulations are intended to do is to better separate faster-moving traffic from maneuvering around slower-moving traffic, and you do that by altitude, by keeping the slower aircraft low. A typical technique you use at air shows and military training fields, we use this technique; it was one of the strong recommendations that I think Mr. Kragh was pretty fervent on during the——

Mr. SIRES. Mr. Krakowski, with all due respect, in air shows they don't have millions of people underneath them, and they don't have high-rises that you look from the balcony and you see almost at eye level. I mean, we have to—there is also the fact that people live underneath where these people are going by. And the noise factor and the safety factor.

I mean, we were very fortunate that these two planes fell in the river. Had they deviated somewhat they could have hit another high-rise in New York City or in my district.

Have you ever considered limiting? I mean, sooner or later it is going to reach a saturation point where you cannot have so many flights over this area. Is there any consideration for that?

Mr. KRAKOWSKI. The task force was not considering any limitations. In fact, if you look at the task force recommendations, we didn't think it was appropriate.

We thought the first step was to take the traffic that exists and put a little more order into it, which is exactly what the regulations do. We believe access to the national airspace is a public right for those who want to use it.

Mr. SIRES. But sooner or later public right infringes on the public safety, and a decision has to be made. I mean, this is not a very large corridor for the amount of flights that are going through there.

Mr. KRAKOWSKI. We are making decisions to put more order in it. Very similar to the Los Angeles flyway that was referred to earlier, those techniques have been used for many, many years. We think they are appropriate here. And we think the safety equation is increased by putting these into effect on November 19th.

Mr. SIRES. How about flights from 1,000 or 1,100 feet, any regulations? How low can they go, some of these flights?

Mr. KRAKOWSKI. Well, seaplanes can go to the surface.

Mr. SIRES. What does that mean? I am not a pilot.

Mr. KRAKOWSKI. Seaplanes land on the surface, and there is some of that.

Matt, would you like to try to help out?

Mr. ZUCCARO. Maybe I can try to give an overview.

But basically the traffic right now, as a point of information, is actually less than it has been in previous years. There have been higher levels of traffic when the activity and the economy was better.

In 9/11/2001 the traffic dropped off, obviously, to almost a stop immediately following the event; and it took several years to build back up. It did not really achieve the level that we had in the late 1980s and in the 1990s. And now, with the economic downturn, the traffic level actually has gone down.

In terms of the ability to operate within the corridor, I have to remind people that nobody is more motivated for safety than the pilots and the operators. We are in the helicopters, we are in the airplanes. It is our lives at stake, so we are motivated to do everything we can to make it as safe as possible.

I don't think we can ignore the fact that that area has operated for over 25 years without an incident like this. But I will repeat my statement; one accident is too many; and we have to do everything possible to enhance safety. The difference that you will see is that the procedures that were previously voluntary, which in fact created that environment that gave us a safe, efficient operating place, are now transitioning from voluntary to mandatory. It is not an option for a pilot anymore to comply with the recommended procedures and things on the charts and in the literature that is put out. You have to do it now under these new recommendations.

That is going to enhance greatly the aircraft stratification, by mission; and what we mean by that is, the pilots that are transitioning the area—and that is all they are doing is going from A to B; a case in point would be going from the George Washington Bridge to the Verrazano Bridge, and you have no intention of landing in a heliport, you have no local mission that you have to perform—that traffic will remain in that higher-altitude corridor and just go through rather than having an option of ″Which altitude do I go through at?″

The helicopters predominantly will be in the lower altitudes just by the sheer mission of the fact that they are coming and going from heliports and have a need to reach that facility. So they will be at the lower altitudes to get to and from that facility. When they are operating and transitioning in and out of the area, they too will be up. And helicopters actually operate within the controlled airspace on a fair amount of the flights that they conduct, even the tour operations. Only a portion of the tour is done in the uncontrolled airspace below the 1,100 feet that currently exists. They go up into the controlled airspace for a part of that tour.

And helicopters that don't do tours—corporations, on-demand charter, police, electronic news gathering; on many flights they have no need to go in the corridor—they will be at the higher alti-

tude. So we are very conscious of safety. We are the most motivated people to be safe.

Mr. SIRES. Thank you very much.

Thank you, Mr. Chairman.

Mr. COSTELLO. The Chair thanks the gentleman from New Jersey and now recognizes the gentleman from North Carolina, Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman.

Mr. Fuller responded to Mr. Petri's question. Mr. Krakowski, let me extend that line of questioning with you.

Based on the transcripts and the air traffic control tapes, it appears that air traffic control may have lost contact with the pilot due to an alleged failed handoff. How did the working group address the alleged deficiency of the verbal handoff that seems to have played a pivotal role in the accident?

Mr. KRAKOWSKI. That is an excellent question, sir.

One of the things that the task force did is—and I think Mr. Kragh would be probably useful to respond as well—the handoff procedure, we don't think, was as good and robust as it could be, particularly when you are transitioning aircraft out of Teterboro to Newark where there is an uncertainty whether Newark is going to take the handoff; there is a frequency ambiguity because of the way the airspace is parceled out.

And the task force recognized this and are recommending procedures for Newark to actually authorize that prior to the takeoff in Teterboro, plus other handoff procedures in the area, which will assure a more positive control of what frequency should airplanes be on during these operations.

I don't know if Mr. Kragh would like to speak to that.

Mr. KRAGH. Thank you, yes.

Congressman Coble, this could answer the question that Ranking Member Petri posed and some of the concerns that Congressman Sires also expressed.

The task force recognized almost immediately, and I have to say as a matter of personal frustration for me, to have brought forth so many other safety issues, not to have seen this loophole coming, it is agonizing to have lost these lives and not been able to have the foresight to correct this flawed procedure.

But there aren't a whole lot of flights that do what one mike charlie did that day, and come out of Teterboro and get a handoff to Newark. So we were able to recognize the flawed procedures and correct them by taking a whole bunch of steps in the recommendations.

First of all, going back to Mr. Fuller's remarks, a pilot shouldn't be given a whole bunch of options while he is flying or while he is taxiing. There should be a definite plan, what action am I going to take to exit this busy airspace; and that plan should happen probably before that pilot starts moving that aircraft even away from the ramp.

Unfortunately, controllers are trained in a very linear fashion, and the first controller that that pilot spoke with that day is only checked out or certified to work that clearance delivery position. They don't really know yet what a pilot's options are. They might not even be familiar with all the procedures that the other con-

troller in the tower is going to use because they haven't yet been trained on that.

So recognizing that, recognizing that there were so many options to get out of that airspace, the recommendations that we came up with were, one, require the Teterboro controllers to contact Newark prior to that aircraft ever departing and request approval to allow it to depart. That way the controller in Newark can say yea or nay, and they can hold that aircraft on the ground. I think, as Mr. Fuller described, it happened to him in the past.

And then there is a training element for less experienced controllers, those who have just certified on those first positions may have only months, literally, of experience talking to airplanes. And it may not be private pilots either, which is also—you know, just doesn't give them the foresight to make a plan, to help a pilot make a good plan as he is leaving that busy airspace.

A more experienced controller, in fact, hearing a pilot make that initial request—I would like to depart, and go—I think this gentleman requested to depart to Ocean City at 3,500 feet. That, to an experienced controller like myself, is a very vague request. I would have the experience and knowledge to offer him all the options available and nail that down before he ever gets that plane moving. Unfortunately, that younger controller hasn't had that experience and may not yet be trained on those elements of the system.

So we are going to develop in conjunction with the agency—and I hope I get to participate in the development of that—we are going to develop a training module for controllers. There is also another recommendation to develop training for pilots, so that we can all be singing from the same page, so to speak, before he ever gets the aircraft moving.

Mr. COBLE. I thank you for that.

I have one more question, if I may. I think on balance, Mr. Chairman, the controllers and the entire aviation industry has done an excellent job in promoting and nurturing safety; but as one of you pointed out, one accident is one too many. If I may, Mr. Chairman, one more question.

Mr. Krakowski, what is the FAA's policy regarding personal phone calls while on duty, A? And B, is there anything in the manual, FAA orders, that specifically lays out this policy?

Mr. KRAKOWSKI. Yes, indeed, when you are on duty and position, those types of calls are not permitted. And one of the things we did immediately after the accident is mandate all of our facility managers reinforce that to every operating controller across the country by no later than September 15th and sign off that they had that conversation to remind them of that responsibility.

Controllers get breaks just like everybody does during work, and those types of calls are appropriate during those break periods.

Mr. COBLE. Thank you all for being with us.

Thank you, Mr. Chairman.

Mr. COSTELLO. The Chair thanks you, and now recognizes the gentleman from New York, Mr. Nadler.

Mr. NADLER. Thank you, Mr. Chairman.

Mr. Fuller said that the corridor is a very safe corridor. And yet in Ms. Hersman's testimony, she stated that the Near Midair Collision database and the NASA Aviation Safety Reporting System

database revealed 11 reports of near midair collisions between aircraft in the exclusion area since 1990. So that says to me that we have been lucky and that it isn't quite as safe as we may suspect.

Now, due to the current limitations of each of the various technologies——

Mr. OBERSTAR. Mr. Chairman—would the gentleman yield?

We have to get the gentleman's microphone corrected here. What the gentleman is saying is very important and the static from that microphone may obliterate his comments.

Mr. NADLER. Thank you, Mr. Chairman.

Due to the current limitations of each of the various technologies, the FAA seems to have determined that the best approach to improving safety in the corridor in the exclusion area is to change operating procedures, enhance training and improve communications. But given that this is such a congested area—by the FAA's estimates, about 600 aircraft in the exclusion area on a typical good-weather day—why hasn't the FAA given any consideration to limiting the number of flights at least until satellite-based technology is available to track and manage traffic?

And I was disturbed to hear a moment ago Mr. Krakowski's off-hand remark that unlimited access is a right. I don't think unlimited access is a right. It may be consonant with safety, it may not be. But that attitude, frankly, is a very disturbing one.

Mr. KRAKOWSKI. Well, again, Congressman, what reinforces my belief that these procedures——

Mr. NADLER. I can't hear you.

Mr. KRAKOWSKI. There we go.

What reinforces both my and the task force's belief that these procedures and these changes will take the existing flights in the area and continue to make them safe are the experiences that we have across other parts of the country.

And I keep referring back to Oshkosh because it is important. We don't have controllers looking at radarscopes separating 3,000 airplanes per day during an almost 9-day period every year. We use these very types of procedures to take a many-times-greater even saturation of traffic and manage it correctly going in and out of that huge general aviation air show, with a mix of traffic, by the way, that we don't even have in this corridor—military aircraft, gyrocopters, hot air balloons, I think, at one time. But it is probably the most dynamic mix of aircraft you ever saw.

So the pilots, who know what frequencies to be on, know what route to fly, where to check in and tell each other where you are at, I think these have been well demonstrated as good safety practices, which we mandate for some of the high-volume areas. So we think it is the right step here.

Mr. NADLER. I am not sure I understand what you are saying.

You are saying that mandating these, which presumably should have been mandated a long time ago in New York, is safe enough that you don't have to consider limiting the volume?

Mr. KRAKOWSKI. We believe these procedures will. You are going to vertically separate different airplanes, horizontally separate them as well, make sure the airplanes are more visible to each other——

Mr. NADLER. And that is sufficient, even given the level of traffic?

Mr. KRAKOWSKI. We believe so.

Mr. NADLER. At what level of traffic would it not be sufficient?

Mr. KRAKOWSKI. I have no opinion on that.

Mr. NADLER. An infinite amount of traffic would be okay under this?

Mr. KRAKOWSKI. I am sorry.

Mr. NADLER. An infinite amount of traffic what be okay under this?

Mr. KRAKOWSKI. I have no opinion.

Mr. NADLER. You have no opinion on an infinite amount of traffic.

Mr. KRAKOWSKI. I don't know what that means, really.

Mr. NADLER. Forty thousand flights.

Mr. KRAKOWSKI. Obviously, that would be a problem.

Mr. NADLER. Okay. So where would you— where might you draw a line?

Mr. KRAKOWSKI. It would take some analysis for me to come to a conclusion like that.

Mr. NADLER. But without doing that analysis, 600 is fine?

Mr. KRAKOWSKI. Well, it is actually more like 200 in the corridor. I think the 600 number is in the New York area overall. Our analysis, the FAA analysis, is that in that corridor it is about 200 operations per day.

Mr. NADLER. We keep hearing from the FAA that it is 600 in that corridor.

Mr. KRAKOWSKI. No, it is not 600 in the corridor.

Mr. ZUCCARO. I think some of the confusion coming is the way that the heliports report operations. They report a landing and a takeoff. It is really the same helicopter. It is one operation.

So you would have that. It is one aircraft coming in and going back.

Mr. NADLER. Thank you. My time is running out.

Has the FAA given any consideration to the fact that under the proposed plan to stratify the airspace, you will have the same number of flights with pilots operating under visual flight rules, but condensed into an even smaller geographic area?

Mr. KRAKOWSKI. The geographic area is not changed at all. What we are doing is putting more order into it by having the altitude separation and the horizontal separation along with the visibility rules and reporting rules.

Mr. NADLER. And have you given any consideration to accelerating implementation of NexGen in New York?

Mr. KRAKOWSKI. Absolutely. ADS-B, which is probably the best technology to address the New York issue long term, the actual ground infrastructure network, will be in place in that area by the end of next year.

Mr. NADLER. And finally, because my time is running out, the FAA requires certain training measures for pilots who fly in the Washington, D.C., area. Why are you not recommending making that training mandatory for pilots that fly in the New York area? Why only recommend it?

Mr. KRAKOWSKI. It actually is mandatory, because every pilot is mandated by law to be familiar with the flight rules, have the charts available and fly the procedures as specified. Every pilot, before they take off, is mandated under law to do something called preflight action, which means that the review of the operating procedures in that area——

Mr. NADLER. But in Washington you mandate, I am told, that these pilots take certain classes; and you are not mandating that in New York. Why is that?

Mr. KRAKOWSKI. Because the rules around Washington are hypersensitive because of security requirements in the area. And that is what drove this entire zone around Washington, DC.

We don't have those same security considerations up there.

Mr. NADLER. You mean they are more complicated in Washington?

Mr. KRAKOWSKI. No. I think it is a higher security concern. The issues around the Washington airspace are more around security versus aircraft diversion.

Mr. NADLER. They are not more complicated, they are simply more important? That is what you are saying, in effect.

Because of security related they are more important because they are safety related in New York? That is the implication of what you are saying.

Mr. ZUCCARO. If you would allow me, can I just enlighten on which is the majority of the operations in terms of pilot population, the tour operators?

They are actually regulated by three sets of regulations. Their training is mandatory. All of the pilots that fly tours have to comply with Part 95, FAR Part 135 and FAR Part 136. 135 and 136 actually mandate training that they have to take.

Mr. NADLER. So your testimony is that they are mandated to take equal training to that mandated in Washington, including those classes?

Mr. ZUCCARO. It is way above that training.

Mr. NADLER. Way above that training?

Mr. ZUCCARO. Way above that training. They have to get local area orientation, they have to get aircraft qualification. If they change type aircraft they are trained. If they even fly the same model of aircraft, and it has a different button in a different place, they have to take differences training. And they do this as a minimum every year and some 6 months.

Mr. NADLER. Thank you.

Mr. COSTELLO. The Chair thanks the gentleman from New York, and now recognizes the gentleman from Michigan, Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

I have fewer questions than comments at this point because a lot of the good questions have already been asked and answered. But I commend the FAA and their response to this particular incident. And the new plan you have laid out, I believe, is considerably better than what you have had, and I think you will be successful in maintaining the safety record that you like.

My question, Mr. Krakowski, is do you regularly review all the different areas in the United States and try to find problem areas like this. I mean, I suspect if you had really carefully personally

examined the procedures in Teterboro a year ago, you would have said, Hey, you've got some holes here that we ought to plug.

Do you routinely do that across the United States at all these particular locations, and not you personally, but instruct the staff there, try to find out what could possibly go wrong and see what you can do to correct it?

Mr. KRAKOWSKI. It is a good question, and we typically have not been in a mode of looking at visual flight rule traffic areas. Most of our concentration of our risk in the system is around airliners and business jets and everything that we are actually positively controlling. And it is a combination of not just air traffic, but Flight Standards and the Safety Division of the FAA to collectively look at this larger picture that you are suggesting.

One of the follow-on actions that is going to happen from this effort that we are doing is, after the task force recommendations have been adopted, we actually put them in place in New York, we want to see how they operate, we want to evaluate if they are effective or not. But the other thing we are going to do with Flight Standards and Safety, like we did after the Comair accident in Lexington, where the jet took off on the wrong runway, is look for similar-type risks in other areas. We have an idea of where those may be.

We want to put the same high-performing team on looking at some of these other areas in the country. And we will be doing that going into next year, but we want to make sure that they stay focused on making the New York situation better.

Mr. EHLERS. Thank you. And I would encourage you to continue doing that as much as you can.

But a comment also. I just want to make it clear to the public and the media who are here, I am a would-be pilot, and I am a member of AOPA. Mr. Fuller is the president of that, and I have been a member off and on for more than 50 years now.

I am struck every time I read that magazine, plus the other five aviation magazines I get and try to read—while I am flying, by the way, not while I am piloting; but every magazine, there is just so much emphasis on safety in all the aviation magazines. And it is there for a reason, because we want a safe air transportation system.

But also they are being read because every pilot wants to be a safe pilot—and not just as a matter of preserving their own lives, but this is a great sin if you cause an accident, and particularly if you cause a death. Pilots really, really take safety seriously, and I think we should recognize that and commend them for it.

I also want to give my annual diatribe against public attitudes on flying, and some of you have heard this before in various other accidents. But this was a terrible accident and no one wants to have something like that happen. On that same day, I would guess that at least 100 more people were killed in the State of New York and hundreds more were killed across the Nation than were killed in that particular accident. None of them made national news; some made local news and that is it.

This preoccupation with aviation as somehow being dangerous or not operating appropriately is just dead wrong. There is a great deal of concern about safety among pilots, among passengers, ev-

eryone in aviation, and it has been very successful. When you look at Jim Coyne's outfit, the flight records, they are just astounding on a passenger-mile basis, just absolutely astounding, and much, much safer than getting into an automobile and driving that same distance—also much safer than most other countries' aviation systems.

So I think instead of—you know, it is good to have these reviews and find out what went wrong and correct it. But let's always keep this in mind: 45,000 people every year die in automobile accidents. The aviation accidents don't even get into the hundreds, generally less than 100 per year, with a lot of miles flown—not quite as many as the automobile; it has been a lot.

So I think it is important for us on this Committee, it is important for the public, it is important for the media to recognize that. The very fact that this is national news is because it occurs so rarely. And always keep that in mind and commend the pilots for their care and thoughtfulness in their flying. It is just absolutely remarkable.

Thank you.

Mr. COSTELLO. The gentleman makes an excellent point.

And now the Chair recognizes the gentleman from Missouri, Mr. Carnahan.

Mr. CARNAHAN. I want to thank the Chairman and Ranking Member for putting this hearing together, all of you on the panel for being a part of addressing these safety issues and add my voice and condolence to the people who were lost and their families.

The question I had had to do with the type of aircraft involved in this August 8th crash being an on-demand aircraft. According to a report issued by the DOT inspector general in July, on-demand aircraft receive less FAA oversight and have more fatalities than commercial aircraft. The FAA's rule for on-demand aircraft has not been updated for more than 30 years.

What steps do you think need to be taken to improve FAA's oversight of on-demand aircraft? And I wanted to start with Mr. Krakowski.

Mr. KRAKOWSKI. Congressman, I run the air traffic organization, so I don't have the oversight of the Aviation Safety Organization as part of my portfolio so I am really ill-equipped to speak to your question.

I would be happy to make sure that the Office of Aviation Safety would get with you and answer your questions.

Mr. CARNAHAN. I would ask that you do that, and ask any other of the panelists to take a shot at that.

[Information follows:]

Insert for the record, page 75, line 1794:

The FAA is taking several steps to improve the safety of on-demand air carriers. They include:

- Work on a Notice of Proposed Rulemaking (NPRM) for air ambulance and commercial helicopter operations that will have language addressing part 135 flight and duty time. We anticipate completion of the NPRM in January 2010 with publication following clearance from the DOT and the OMB.

- Several changes to various documents that specifically recommend certificate holder's training curricula include aircraft type-specific techniques for use by the flight crew and other personnel for recognizing contamination on aircraft surfaces. These also state the flight crew and other personnel should use these type-specific techniques while conducting preflight aircraft icing checks, pre-takeoff checks, and pre-takeoff contamination checks. It is recommended to all pilots to ensure that the aircraft's lift-generating surfaces are completely free of contamination before flight through a tactile check of the critical surfaces when feasible.

- Issuance on May 1, 2009, of a Notice of Proposed Rulemaking (NPRM), Crew Resource Management Training for Crewmembers in Part 135 Operations (74 FR 20263). The NPRM proposes a requirement for all part 135 certificate holders, both single pilot and dual pilot operations, to implement FAA-approved crew resource management training for crewmembers. We expect the final rule to be published in 2010.

- Issuance of Safety Alert For Operators (SAFO) 08004 to remind operators that a seatbelt must be visible and accessible to support compliance with the regulations. We also revised inspector guidance for surveillance of cabin interiors to include a check of passenger seatbelts to verify they are visible and accessible to passengers. This effort resulted in revisions to three sections of FAA Order 8900.1.

- The FAA issued Part 136, *Commercial Air Tours and National Parks Air Tour Management*, which includes requirements for additional emergency equipment for over water operations, including life preservers and helicopter floats for all single-engine helicopters and certain multi-engine helicopters. The FAA also published Operations Specifications to address this issue.

Mr. Zuccaro.

Mr. ZUCCARO. I would like to take it, speaking specifically about the helicopter industry in New York. There is a large population of 135 on-demand aircraft there.

A number of years ago the city of New York's Economic Development Corporation published a heliport master plan, and as part of that plan, they analyzed the operations within the New York City heliport structure. The helicopters, including the on-demand traffic that operated at those heliports was found to be six times safer than the national average operating in and out of there. One of the reasons that contributed to that is because of the fact they were on-demand, and they had higher training, higher equipment in the aircraft and a more formalized methodology of operating the aircraft in the New York metro area.

So I would solicit that, in fact, the on-demand environment where there is a high surveillance oversight of the helicopter industry, certainly in New York, actually contributed to an enhanced environment operating at those heliports.

Is it possible—I would just like to carry on a little quick comment about Congressman Ehlers about the—and I think it is an important one because it is a personal one.

You spoke in terms of the attention put on aviation accidents and how people have a perception that aviation is a much less safe environment than other modes of transportation or activities in life. From a personal standpoint, there was a very good friend of mine who was a highly motivated safety, I want to say, mentor in the industry.

This gentleman's name was Paul Smith, and he flew helicopters in Vietnam, like I did, and came to the New York area in the early 1970s and spent pretty much his career like mine, different operations. And he flew there for over 25 years.

As part of his last job, he was the pilot for the ABC Eyewitness News helicopter, and in that position he assisted the citizens in reporting traffic or to assist the fire department, and he would—you know, in fire oversight by providing the pictures. And it was a very ironic situation, because I used to go into the neighborhoods and work with the communities, and Paul would accompany me; and people would say, you know, We think the helicopter is unsafe.

Paul made the comment on a repeated basis that he was more worried about driving to work and walking the city of Manhattan than he was flying that helicopter over the city of New York for 25 years.

There is a very sad end to this story. Paul basically got killed on the city of New York streets coming out of a restaurant, hit by an out-of-control cab; and his wife was critically injured.

That man spent 25 years over the city, safe, never had anything happen to him, the airspace treated him safely; but he was killed on a Manhattan street by a cab.

I would purport that we act accordingly when these events occur.

Mr. COSTELLO. The Chair thanks you, and now recognizes the other gentleman from Missouri.

Mr. CARNAHAN. Mr. Chairman, if I could.

Mr. COSTELLO. Sure. Go ahead.

Mr. CARNAHAN. Mr. Coyne.

Mr. COYNE. Well, just very briefly. I want to mention, as the president of the Air Charter Safety Foundation, we strongly support a wide range of safety initiatives in the air charter and on-demand community.

But perhaps the most important thing that has been done in the last 5 years is the rule-making committee, the ARC, which was established for 135 safety, which submitted to the FAA a broad range of recommendations on Part 135 safety, which we have strongly supported. Those recommendations are, I think, very close to being converted into new rules at the FAA; and if someone from the safety part of the FAA had been here, I am sure they could have given you an update on that.

But it is our hope that those ARC rule-making recommendations, which are at the FAA being evaluated, will be turned into new recommendations rules in the near future.

Mr. CARNAHAN. Thank you very much.

Mr. COSTELLO. The Chair thanks the gentleman, and recognizes the other gentleman from Missouri, Mr. Graves.

Mr. GRAVES. Thank you, Mr. Chairman.

I guess more of a comment than anything else, and to kind of build on what Mr. Ehlers has said, and even a little bit on what Mr. Zuccaro has said. You know, this was a tragedy, it was an absolute tragedy. But don't lose sight of the fact that these two pilots involved in this were the two people that had more at stake than anything else, and they wanted to be just as safe as they possibly could. They wanted to go home that night after work, whatever the case may be. And there was a mistake. And it doesn't matter if we ever had more technology in the aircraft or if we had had more safety inspections on the aircraft, there was still a breakdown and a mistake.

There was a handoff procedure that was missed. And they came up on a frequency that obviously wasn't the frequency to come up on. And the bottom line is, it comes down to still visual separation. A pilot is responsible for visual separation from himself and any other aircraft in the air. Period.

And it is a terrible thing that happened, an absolute terrible thing that happened. But let's use a little bit of common sense.

We have—and I am glad we are taking a look at some of these things. Whether it is what Mr. Nadler pointed out, and some of the very busy airspace. I have been in that airspace before. I am a commercial pilot. I don't point that out because I am trying to brag about experience, but I also know what visual separation is.

And flying into Oshkosh is a perfect example, and I have done it before, and I have done it when I have got airplanes on three sides of me that I am trying to maintain a visual separation from with very limited radio contact. You still have to separate yourself from anybody else that is in the air.

And I don't know—we don't know what the distraction was. The pilot may have been messing with his radio trying to figure out why he couldn't bring up Newark, what was going on, and lost contact. The helicopter pilot—you know, the same way, we don't know what it was. But the unfortunate thing was there was an accident.

The same thing can happen to the person that dozes off going down the interstate and crosses the median, the same thing that

can happen in any other transportation accident that takes place. The unfortunate part is, it is aviation that seems to get all of the attention on this; and it is a very, very safe industry. And don't forget the fact that these pilots are the safest people. They want to be safe. It is in their best interest to be safe in the air. But accidents do happen.

I am not trying to diminish it any, I am not trying to downplay it any, but accidents do happen. And it wouldn't have made any difference, as I stated before, if we had had better technology, more technology, more safety, inspections, whatever the case may be. There was still a breakdown when that pilot got the transfer order and didn't make that jump. He didn't make that jump. And those of us who are pilots have been in that situation before, and then you've got to backtrack. But, regardless, there was a mistake.

And, Mr. Chairman, I appreciate the opportunity to say something, but I do get a little bit frustrated. I just want us to use a little bit of common sense when we are looking into these things. And please remember, too, that mistakes happen, unfortunately.

Mr. COSTELLO. The Chair thanks the gentleman, and now recognizes the gentleman from New York, Mr. McMahon.

Mr. MCMAHON. Thank you, Mr. Chairman, and thank you for holding this important hearing—to us from New York, of course, and to our Nation as a whole. I want you to understand that I am a fan like everyone else of the aviation industry, and the men and women who work in it, and I think it is a very safe industry.

Mr. Zuccaro, it is nice to see you again. I hope you remember me from the New York City Council, because I was one of those community—but I have a problem and I want to talk to you about it, and I want you to address it for me if you can.

Mr. ZUCCARO. I will be more than happy to help you.

Mr. MCMAHON. I appreciate that. But the problem is, I have been talking to you about it for about 12 years.

Mr. ZUCCARO. Which?

Mr. MCMAHON. The irony—the north shore of Staten Island. The irony—you all should know that the reason I am sitting here now is because of helicopters flying over Staten Island, New York, because I started as a community activist trying to get them not to fly over residential neighborhoods.

They are still flying over residential neighborhoods, and it is a quality-of-life issue; that is how it got kind of started, because you are sitting in your house and helicopters are buzzing overhead all day long, flying back and forth from Linden or Teterboro or Newark over Staten Island where 500,000 people live.

And I think you will all agree with me that this tragedy—I also agree with my colleagues, it is a terrible tragedy, and we mourn those who were lost. It was human error, and accidents happen, and we are sorry for that; but if that helicopter or that plane had been over land and landed on homes or schools or hospitals, it would have been much worse.

And what people continue to do in New York that drives us crazy is, when you have the option to fly over water, you fly over land. Now, thank God, this accident happened over water; thank God, the 1549 was able to land in water. But I think you all will agree—

if you can just shake your heads—if it happened over land, it would have been much worse, right? You all agree with that?

So in all these plans and all this talk about lowering the airspace, what are you doing in places like New York where you have millions of people living or residential areas, concentrations like Staten Island and Brooklyn, New York, what are you doing to try to make sure that if, God forbid, that accident does happen, people on the ground don't suffer injuries as well? Because right now you are not doing it.

Mr. Zuccaro, why don't you start?

Mr. ZUCCARO. I would like to, Congressman.

The reference to Staten Island routing: Obviously, you are familiar with the fact that the route used to go right across the middle of Staten Island. And I know, I personally came down there, met with you and the industry, voluntarily changed the route and established a route along the shore of the Staten Island, around the water; and that is actually what is printed on the chart.

I am respectful of the fact, if you have an issue now where you are still having helicopter activity—I am serious—we will get reengaged.

The other issue of the water routes: The reason that the helicopter was where it was on the tour is because several years ago the tour industry and the helicopter community got together and established that the routes would go along that shoreline up and down the river. And that is where the helicopter is going to be if it is on those tours. It will be over the water, it won't be over the land. And that is why the routes run up and down on the chart along the river over the water on each shore.

We are very respectful and agree with you completely that we want to minimize flights over land, and we try to use the water to the maximum capability that we can. And if you look at the chart, all of the routes basically take advantage of the rivers and the waterways around New York City, and that is how we fly, over the water.

Mr. MCMAHON. I know. And you and I worked on that. But unfortunately, the industry is not following it. So every day—do you know why I know? Because I live right there where they fly over every day.

Mr. ZUCCARO. I am not going to kid you. I am upset to hear this.

Mr. MCMAHON. I have met with your successor, I have been to the airports, and I have met with the pilots of the small airplanes and the helicopters, and we have asked them to respect that, but it is not happening.

So I am asking the FAA if there is a way that we can put in the rules to mandate where there are—to mandate when there are options to use water, or land where there are not a lot of people, to use it.

And the other thing is, if you are going to bring these flights down to a lower altitude, what about the people on the ground who, from a quality of life, first and foremost—or not first and foremost, but it is important that if you are in your house and there are 20 flights of helicopters per hour going over your house, it is a quality-of-life issue—I think you will grant that—when they are at 500 feet, and also for safety.

Can we mandate in an area like New York that when there are options to stay away from people, that we do it?

Mr. KRAKOWSKI. The task force recommendations are very specific to operations over the river. And a couple of reasons here.

As Mr. Zuccaro pointed out, the accident did occur over the river. And one of the things we saw was a mixing of traffic in a concentrated area. We took the airspace, provided the mandatory change to separate altitudes between faster-moving, slower-moving aircraft, as well as horizontal, and kept that over the river.

It is unusual for light airplanes to fly over the populated areas. We don't see that typically in our radar tracking data unless the aircraft are actually coming out and back to Teterboro for the purpose of landing.

It is inherent in a single-engine airplane pilot to not want to fly over congested areas, because if your engine fails, you don't have any options. So it is a normal practice for light airplane pilots with a single engine to not fly over the congested areas. And we actually see that in the radar area in New York, unless you are going in and out of Teterboro.

Mr. MCMAHON. And what about Linden, Linden Airport?

And I want to be clear, Mr. Zuccaro—I know I am a little passionate about this—I want to thank you publicly, because when you were at the head of Eastern Regional you were very responsive and you did help change the charts.

Unfortunately, they are not being followed. You were great about it.

Mr. ZUCCARO. Can I offer this? I will personally get reengaged and come up and meet with you and ensure that the operators will be there, and we can address this again.

Mr. MCMAHON. I appreciate that. And I know your word is good because you have done it in the past.

But my question then to the FAA is, why can't you mandate that for helicopters as well when there are options, to mandate to not fly over land when you have an option not to, and not to fly over residential areas when you have an option not to, not to fly over schools when you have an option not to, not to fly over hospitals when you have an option not to. Why can't we do that?

And are you taking into account, when you are bringing these aircraft and these helicopters lower, what impact it will have on the residential communities?

Mr. KRAKOWSKI. Again, the lowering of the traffic, particularly the local traffic, is designed to be out over the river; it is not designed to be lowering it over congested areas.

Mr. MCMAHON. I am looking for the word ″mandated″ to be when there is that option. Can you not tell the helicopters to stop flying and the planes not to fly over residential areas, unless it is like an emergency?

Mr. KRAKOWSKI. I mean rule-making——

Mr. MCMAHON. Because, am I correct, in New York I can just get in my helicopter really and just fly wherever I want to, right?

Mr. KRAKOWSKI. Right.

Mr. MCMAHON. Do you think it is safe that if I am, you know, flying somebody to Atlantic City so they can go gambling that I should fly over residential areas when I have an option?

You are not hearing me about what a safety concern this is, and I want to know what you are going to do.

Mr. KRAKOWSKI. I think working with the local community, as Mr. Zuccaro was offering, is the right approach.

I am also aware that some of those operations are lifesaving operations with medical helicopters and things like that.

Mr. MCMAHON. Listen, I am on the ground, I see everyone, I can read their numbers. I know what they are doing. They are taking commuters back and forth and they are not lifesaving.

I know the difference between a Coast Guard or a New York City police helicopter or an ABC News helicopter going back to its airport or back to its hangar. I know the difference.

Mr. MCMAHON. I know the difference.

Mr. KRAGH. Congressman, may I address you, sir?

Thank you.

I am certain that Mr. Zuccaro or perhaps Mr. Krakowski might not be aware of what you are talking about, but in Newark tower I witness it every day. I believe what you are talking about has become an unintended consequence of the airspace redesign off of Newark.

Because when we use those departure headings, helicopters can no longer take what is on the charts as the Linden route where they fly up the train tracks west of Newark Airport and then go over Newark Airport generally at 1,400 feet or above. When we are doing that, they can't be there, because they will be in conflict with planes. So the helicopters have reverted to sort of an old version of the Staten Island route.

I was there when the route was there years ago and when it was removed. But they reverted to using that pattern because they need to get to and from Linden Airport.

Mr. MCMAHON. I appreciate that. I appreciate what you do every day. But they could go over—even within that extended Newark buffer zone, if you will, they could go over the Arthur Kill. They would not be interfering with the Newark airspace, yet they choose in my opinion to go over the land, and that is a terribly unsafe situation.

Mr. KRAGH. Yes, I have family in Staten Island, and they often complain to me, and they live all the way down by the outer bridge.

But we do need to come up with some sort of agreement. Because, actually, if they came out of Linden and went up the Kill, they would get all the way to the Goethals Bridge, which is real close to the Newark Airport; and we would have a lot of conflicts between departing aircraft and landing aircraft, depending on the configuration in those aircraft. So perhaps altitude is part of the situation, getting them higher sooner off of Linden whenever we can.

Mr. MCMAHON. They can also go south of your relatives, Verrazano and over the Verrazano Bridge, safe over water the whole time.

Mr. KRAGH. And as a controller in the area I will take them whatever way they ask to go. I don't have the power to restrict them. That is for the rulemakers to decide, and then I do what I am told to do. But I can definitely vouch for what you are saying.

Mr. MCMAHON. Thank you both. It goes back to my point that the FAA should be looking to make rules that mandates the safer route when there isan option.

Mr. KRAKOWSKI. What I would like to offer, sir, is to get together, get the FAA people who would be appropriate along with Mr. Zuccaro's people, Mr. Kragh, and the NATCA controllers to talk this over with you.

Mr. MCMAHON. Thank you very much and thank you for the allowance of extra time, Mr. Chairman.

Mr. COSTELLO. That is exactly what I was going to suggest, Mr. Krakowski, that you convene a meeting with Mr. Zuccaro and the controllers and others to try and do exactly what Congressman McMahon is trying to address here.

Any Members have any final questions before we conclude the hearing?

If not, let me thank all of the witnesses for appearing here today.

Again, I think many of the Members on the Subcommittee have commended the FAA for acting quickly. It is not something that they have always done in the past. But we commend you, Mr. Krakowski, and the agency for acting quickly.

Also, for the task force, we hope that you, in fact, will get the rulemaking done by the aggressive schedule that you have set out by the middle of November; and we look forward to you looking at other corridors throughout the country as you committed to do and not only the FAA but the task force as well.

So, again, we thank you all for appearing here today, for offering your testimony, and the Subcommittee stands adjourned.

[Whereupon, at 12:05 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT OF
THE HONORABLE RUSS CARNAHAN (MO-03)
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
AVIATION SUBCOMMITTEE

Hearing on
The Hudson River Airspace and Management of Uncontrolled Airspace Corridors
Wednesday, September 16, 2009
2167 Rayburn House Office Building

I would like to thank Chairman Costello and Ranking member Petri for holding this important hearing regarding the Hudson River airspace and management of uncontrolled airspace corridors.

Although, the safety of our air transportation network has improved in recent years the midair collision over the Hudson River in August is a tragic reminder that more must be done to strengthen the safety of our aviation system. We cannot be complacent. It is critical that we continue our work to ensure one level of safety throughout the industry.

This collision highlights a major safety concern that we must work to address that of exclusion areas. It is estimated that there are 200 aircraft occupying the Hudson River exclusion area daily including both helicopter and airplane traffic. Pilots must navigate this congested airspace using a tactic often referred to as see and avoid. This collision very clearly highlights the limitations of this tactic where pilots sometimes cannot see oncoming aircraft when climbing, descending, or level. In fact often even if an aircraft is unobstructed it appears small, motionless, and inconspicuous until it is too late to avoid collision.

Both the National Transportation Safety Board (NTSB) and the New York Airspace VFR Task Force (VFR Task Force) have issues safety recommendations. It is the responsibility of this subcommittee to review these recommendations to determine any action needed to improve safety not only in the Hudson River airspace but also how the lessons learned from this unfortunate collision can be applied to other airspace where a VFR exclusion exists.

Finally, I would like to extend my sympathy to the families of this tragic accident.

In closing, I would like to thank our witnesses for joining us today and I look forward to their testimony and the lessons we can learn to improve aviation safety in the future.



OPENING STATEMENT OF REP. STEVE COHEN

Transportation and Infrastructure Subcommittee on Aviation Hearing

"The Hudson River Airspace and Management of Uncontrolled Airspace Corridors"

September 16, 2009

I thank Chairman Costello and Ranking Member Petri for holding a hearing on this important issue today. Airline safety has been in the forefront recently, as one too many incidents have occurred claiming many innocent lives.

I believe it is our duty to make sure there are proper regulations and oversight in place so that air traffic controllers and pilots are properly trained to avoid and manage these situations.

I look forward to hearing from our panel of witnesses the factors that possibly contributed to this tragic accident and whether the new proposed FAA regulations will prevent something like this from happening again.



OPENING STATEMENT OF
THE HONORABLE JERRY F. COSTELLO
SUBCOMMITTEE ON AVIATION
THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS
SEPTEMBER 16, 2009

- I want to welcome everyone to our Subcommittee hearing regarding the "Hudson River Airspace and Management of Uncontrolled Airspace Corridors."

- The recent collision between a private airplane and a sightseeing helicopter over the Hudson River, in which 9 people died, was a tragic accident. The Subcommittee shares our deepest sympathies with those who lost family members on August 8th.

- While the National Transportation Safety Board (NTSB) has released preliminary findings on the incident, the investigation is ongoing and no conclusions can be made at this time.

- The purpose of this hearing is to receive testimony from experts in aviation safety, flight operations, and air traffic control (ATC) procedures that are knowledgeable about the Hudson River airspace, known as a class B airspace "exclusion area," and similar corridors around the country. The exclusion area is heavily used by helicopters and general aviation airplanes transiting through the area or sightseeing.

- Currently, there are voluntary procedures for pilots to follow when operating in the exclusion area; and since 1971, millions of aircraft have flown in the Hudson River exclusion area without a collision occurring. However, there have been many "near misses" reported. According to recent Federal Aviation Administration (FAA) estimates, there are oftentimes as many as 600 aircraft operations per day in this corridor.

- I would like to commend, the NTSB and the FAA for undertaking an immediate safety review of the procedures governing this airspace, including ATC handoff procedures. However, similar corridors throughout the National Airspace System warrant a review as well.

- On August 27th, the NTSB issued five independent recommendations to the FAA to improve the safety of the airspace. I look forward to hearing from the new NTSB Chairman, Deborah Hersman on these recommendations.

- I also commend FAA Chief Operating Officer, Hank Krakowksi, for convening the New York Visual Flight Rules Airspace Task Force quickly after the incident to examine procedures for aircraft operations and identify ways to enhance safety in the Hudson River exclusion area. Shortly after

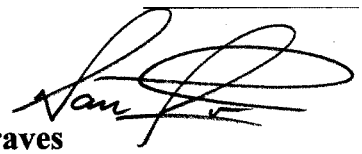
meeting, the Task Force issued eight recommendations to the FAA pertaining to airspace realignment, ATC and flight procedures, charts for pilots that depict the New York airspace and specific operating procedures within the exclusion area, and training and educational programs for pilots and controllers.

- One of the recommendations I would like to highlight mandates that pilots follow standard operating practices, which are currently voluntary, within the Hudson River Class B exclusion area. I agree with the FAA's decision to move forward with publishing mandatory operating procedures, and I am pleased that FAA issued a Notice to Airmen that temporarily establishes these rules. However, we need to ensure that pilots and air traffic controllers are adequately trained on these new procedures. I am also interested to hear how sightseeing helicopters, making multiple takeoffs and landings per day, will

be separated from the path of airplanes transiting through the airspace.

- Several of the witnesses testifying today participated in the Task Force and I look forward to hearing your recommendations and discussing any issues or concerns the Subcommittee should be aware of before the FAA acts on a rulemaking.

- Before I recognize Mr. Petri for his opening statement, I ask unanimous consent to allow 2 weeks for all Members to revise and extend their remarks and to permit the submission of additional statements and materials by Members and witnesses. Without objection, so ordered.



Congressman Sam Graves
Opening Remarks
Aviation Subcommittee Hearing
September 16, 2009
[WHEN RECOGNIZED]

THANK YOU, CHAIRMAN COSTELLO AND RANKING MEMBER PETRI, FOR HOLDING THIS HEARING TODAY, AND THANK YOU TO ALL OUR WITNESSES FOR SHARING YOUR TESTIMONY.

I WOULD FIRST LIKE TO EXTEND MY MOST SINCERE CONDOLENCES TO THE FAMILIES OF THOSE WHO TRAGICALLY LOST THEIR LIVES IN THE FATAL COLLISION OVER THE HUDSON RIVER ON AUGUST 8, 2009. AS SOMEONE WHO HAS LOST CLOSE PERSONAL FRIENDS IN FATAL AVIATION ACCIDENTS, ON SOME LEVEL I CAN RELATE TO WHAT THESE FAMILIES ARE GOING THROUGH RIGHT NOW.

I HAVE BEEN A PILOT FOR MORE THAN 20 YEARS AND A FAN OF AVIATION MOST OF MY LIFE. AS A CHILD, I CAN REMEMBER BARTERING RIDES OFF FOLKS FOR COMPLETING ODD JOBS IN AND AROUND THE LOCAL AIRPORT. NOW, I SPEND THE LITTLE FREE TIME I HAVE ATTENDING AIR SHOWS AND WORKING ON AND FLYING MY PLANE BACK HOME.

I MENTION MY BACKGROUND IN GENERAL AVIATION NOT TO BRAG ABOUT MY EXPERIENCE, BUT RATHER TO MAKE A POINT I THINK MANY PEOPLE IN THIS ROOM MIGHT AGREE WITH. THAT IS, AVIATION ACCIDENTS CAN AND WILL HAPPEN REGARDLESS OF CIRCUMSTANCE. MOST GENERAL AVIATION PILOTS ACCEPT THIS FACT AND HAVE TRAINED FOR IT.

HOWEVER, I WOULD ALSO LIKE TO HIGHLIGHT THAT MANY ACCIDENTS CAN BE AVOIDED. SITUATIONAL AWARENESS, PILOT TRAINING AND COMMUNICATION, AND PROPER ROUTINE MAINTENANCE ARE ALL FACTORS WHICH CAN PREVENT, OR AT THE VERY LEAST, REDUCE AVIATION FATALITIES.

HAVING EXAMINED THE NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) REPORT REGARDING THE COLLISION OF AUGUST 8, 2009, IT APPEARS THIS WAS A TRAGEDY WHICH COULD HAVE BEEN AVERTED. IT IS IMPORTANT WE DISCUSS ALL THE FACTORS WHICH LED TO THIS PARTICULAR CRASH AND DEVELOP COMMON SENSE SOLUTIONS. IN DOING SO, WE MUST INCORPORATE RECOMMENDATIONS AND PROCEDURES WHICH WILL IMPROVE SAFETY WITHOUT IMPLEMENTING THOSE THAT WILL ACTUALLY REDUCE, OR PROVIDE A FALSE SENSE, OF SAFETY.

I TRUST OUR WITNESSES HERE TODAY, ALONG WITH THE MEMBERS OF THIS COMMITTEE, WILL ADDRESS IN DETAIL THE EVENTS OF AUGUST 8, 2009, INCLUDING WHAT WENT WRONG AND WHAT WE CAN DO TO PREVENT A SIMILAR OCCURRENCE.

AGAIN, I WISH TO EXPRESS MY SINCERE CONDOLENCES TO THE FAMILIES OF THOSE WHO LOST LOVED ONES IN THE HUDSON RIVER CRASH. I LOOK FORWARD TO WORKING WITH MY COLLEAGUES, THE NTSB, THE FAA, AND STAKEHOLDERS TO CONTINUE TO IMPROVE AVIATION SAFETY, AND MAINTAINING ITS POSITION AS ONE OF THE SAFEST WAYS TO TRAVEL.

SENIOR DEMOCRATIC WHIP

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
CHAIRWOMAN, SUBCOMMITTEE ON WATER RESOURCES & ENVIRONMENT
SUBCOMMITTEE ON AVIATION
SUBCOMMITTEE ON RAILROADS

COMMITTEE ON SCIENCE AND TECHNOLOGY
SUBCOMMITTEE ON RESEARCH AND SCIENCE EDUCATION
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT

DEMOCRATIC STEERING AND POLICY COMMITTEE

CONGRESSIONAL BLACK CAUCUS
CHAIR, 107TH CONGRESS

Eddie Bernice Johnson
Congress of the United States
30th District, Texas

PLEASE RESPOND TO:
WASHINGTON OFFICE:
1511 LONGWORTH BUILDING
WASHINGTON, DC 20515-4330
(202) 225-8885

DALLAS OFFICE:
3102 MAPLE AVENUE
SUITE 600
DALLAS, TX 75201
(214) 922-8885

WWW.HOUSE.GOV/EBJOHNSON/
REP.E.B.JOHNSON@MAIL.HOUSE.GOV

Eddie Bernice Johnson

STATEMENT
REPRESENTATIVE EDDIE BERNICE JOHNSON

SUBCOMMITTEE ON AVIATION
U.S. HOUSE OF REPRESENTATIVES

"THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS:

WEDNESDAY SEPTEMBER 16, 2009
10 A.M. – 12 P.M.
2167 RAYBURN HOUSE OFFICE BUILDING

- Good morning.
- I want to welcome today's witnesses to this hearing on improving safety in the skies above the Hudson River.
- I also want to thank Chairman Costello and Ranking Member Petri for holding this hearing on such an important issue.

- As we all know, on August 8, 2009, a small airplane carrying a pilot and two passengers collided above the Hudson River with a sightseeing helicopter carrying a pilot and five passengers.

- All nine people tragically lost their lives.

- In light of this unfortunate accident, the National Transportation Safety Board has made recommendations to the Federal Aviation Administration on how to make the airspace above the Hudson River safer.

- In response to the NTSB recommendations, the FAA has announced that it will change the rules governing general aviation aircraft above the Hudson River, and I look forward to hearing all of your views on these recommendations and the changes that must take place.

- I would also like to point out that these recommendations are an end-product based on collaborative efforts between multiple parties.

- I commend everyone for working quickly to find and offer solutions to this problem, and I hope that we will continue to do so to ensure the safety of everyone flying over the Hudson River.

- I believe that all of these recommendations will increase general aviation safety above the Hudson River.

- However, we must make sure that no tragedy like the accident that happened on August 8 occurs again.

- I welcome your comments and suggestions, and I hope you will let us know what we, as Members of Congress, can do to help make this area safer as well.

Statement of the Honorable John L. Mica

Ranking Republican Member

Committee on Transportation and Infrastructure

Subcommittee on Aviation Hearing On:

The Hudson River Airspace and Management of Uncontrolled Airspace Corridors

September 16, 2009 – 10 a.m.

I thank the Chairman for calling this important hearing. Before we turn to the subject matter of the midair accident, I would like to take a moment to recognize the passing of a dedicated public servant, William DeCota. Mr. DeCota served the Port Authority of New York and New Jersey honorably since 1982, working his way up to serve as Director of Aviation for the last ten years. Always dedicated to improving airport and airspace issues under his authority, Mr. DeCota handled the often controversial issues in the New York airspace with a high degree of civility and professionalism. He will certainly be missed.

In the aftermath of any aviation accident, it is this Subcommittee's responsibility to explore all of the facts so that we can work with the FAA, the NTSB and industry, consumer and labor representatives to find the needed solutions to prevent future disasters.

In stark contrast to the heroics of the pilots and crew on board the "Miracle on the Hudson" plane, in the words of the NTSB, this time it appears "complacency" and "inattention to duty" of veteran controllers may have contributed to the "Tragedy on the Hudson" in August. Much has been made in the press about potential causal factors of this tragic accident. Today's hearing offers the Members of this subcommittee the opportunity to review the facts and possible contributing causes of the accident in order to gain a greater understanding of the potential safety issues involved.

I was pleased to see the FAA work with the industry and NATCA to pursue some common-sense reforms to the Hudson River corridor. It is prudent to address near-term issues immediately, though I would ask the panel to elaborate on longer-term initiatives that would increase the safety of the Hudson River corridor, and other airspace like it around the country.

While I applaud the common-sense approach taken to separate traffic within the airspace corridor, I am disappointed to see little emphasis or detail on how to improve air traffic control communications procedures. The communications transition into and out of uncontrolled airspace is critical and seems to have been completely ignored in the aftermath of this accident. The apparent failure of the air traffic controller to properly execute the verbal hand-off should lead us all to ask why, in this day and age, is air traffic control still relying on an old analog voice communication system?

Why isn't the FAA using modern communications technology, such as a data-link in the cockpit, which would eliminate confusion on instructions to pilots and reduce controller workload?

In addition, pilots currently have the option to get weather information in the cockpit through private-sector solutions—why can't they get similar air traffic information in the cockpit? I am interested in hearing from the panelists where they believe the FAA should focus its efforts on modern communications technology and the availability of air traffic information in the cockpit.

As long as I've got Mr. Krakowski, FAA's Chief Operating Officer, here, I would also like to ask about the status of the New York/New Jersey airspace redesign project. This debate has been raging for over 18 years now, and I think a status update is needed.

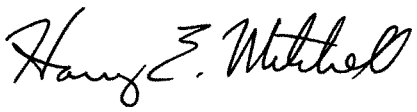
I'm curious to know if the airspace redesign project might affect how the Hudson River Corridor operates? What are the next steps in implementing this long-overdue capacity and safety project in the critical New York City Airspace?

Finally, arbitrators appointed by the Obama Administration and the Controllers' union recently awarded a "settlement agreement" to the controllers union of almost $670 million, giving some controllers as much as $45,000 in pay raises over the next 3 years.

It is a staggering taxpayer-funded arbitration award, especially in this economy. What is of great concern to me is that it appears the FAA has no idea how to pay for it and, what impact it will have on other FAA programs.

Can the FAA ensure that none of the proposed NextGen funding, that is purported to address safety issues, will be diverted to pay for the Arbitration award?

I look forward to exploring these issues today. I thank the witnesses for participating in this important hearing and yield back the balance of my time.



Statement of Rep. Harry Mitchell
House Transportation and Infrastructure Committee
Subcommittee on Aviation
9/16/09

--Thank you Mr. Chairman.

--As you know, unfortunately we are no strangers to mid-air collisions in Arizona. Just last week we witnessed a fatal airplane collision in Coolidge. In 2007, two news helicopters collided while covering a police chase in Phoenix.

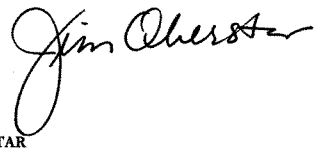
--These were horrible tragedies, as was the one that took place last month over the Hudson River.

--I believe we owe it to the victims to find out what went wrong, and if there are steps we can take to avoid future tragedies.

--The National Transportation Safety Board recently released its preliminary findings on the Hudson River incident as well as recommendations to the Federal Aviation Administration.

--I am eager to hear from our witnesses today about these recommendations, as well as other suggestions for how we can make our airspace safer.

--At this time I yield back.



OPENING STATEMENT OF
THE HONORABLE JAMES L. OBERSTAR
SUBCOMMITTEE ON AVIATION
THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS
SEPTEMBER 16, 2009

I want to thank Chairman Costello for calling today's hearing on "The Hudson River Airspace and Management of Uncontrolled Airspace Corridors." This is an important subject for the Subcommittee on Aviation to explore, in light of the tragic events of August 8, 2009, when nine people perished in the collision of two aircraft over the Hudson River in New York. My deepest sympathies are with the families, and those affected by this disaster.

It is important to maintain safe areas where general aviation and on-demand aircraft can safely operate without being subject to the restrictions of controlled airspace. Unfortunately, this accident must serve as a "wake up call." Although this is the first mid-air collision in the Hudson River exclusion area, it must not be ignored. There have been "near misses" voluntarily reported in this area; and, in the narrower East River exclusion area in 2006, an airplane inadvertently flew into a Manhattan building when trying to make a 180-degree turn. Behind every accident is a breakdown in the overall safety of the National Airspace System.

The recently-confirmed Chairman of the National Transportation Safety Board (NTSB), Deborah Hersman, is here to share what the NTSB has uncovered thus far in its investigation into the accident. The NTSB has moved swiftly to issue five recommendations to the FAA to improve the safety of the Hudson River exclusion area, including requiring: vertical separation of helicopters and airplanes operating in the airspace, enhanced coordination between ATC facilities, and pilots to self-announce their position on the common radio frequency.

The FAA's Chief Operating Officer, Hank Krakowski, is also here to discuss how the FAA plans to address the safety of the Hudson River airspace. Following the accident, the FAA quickly convened the New York Airspace Visual Flight Rules Task Force to look at vulnerabilities in the operating procedures of this airspace. The Task Force's recommendations are similar to the NTSB's, though they were developed independently of one another. I welcome a discussion of both sets of recommendations.

I understand that the FAA has set an ambitious schedule for implementing new procedures and rules for the Hudson River airspace; and I look forward to learning about these plans and how pilots using the airspace will be alerted to these changes. The FAA's vigilance pertaining to safety issues will continue to be closely monitored by this Committee.

The FAA also needs to examine whether air traffic control towers in high-density traffic areas, such as New York, are adequately staffed with certified controllers. There are many newer controllers working in this airspace who are not yet fully-certified. If the FAA implements new operating procedures for the Hudson exclusion area that increase controllers' workload, we must ensure that controllers have the resources to safely control the airspace.

This hearing also underscores the importance of pushing forward with Automatic Dependent Surveillance-Broadcast (ADS-B), the satellite-based aircraft surveillance system that is the cornerstone of the Next Generation Air Transportation System (NextGen). A pilot's first responsibility in controlling an aircraft in any airspace is to "see-and-avoid" other aircraft. The FAA needs to ensure that pilots are actually able to do so when operating in uncontrolled airspace corridors. In airspace like the Hudson River exclusion area, which is dense with traffic, tall buildings, and other clutter, radar coverage is inconsistent. With ADS-B in the cockpit, a pilots' ability to "see-and-avoid" other aircraft, while under visual flight rules, will be greatly enhanced. That said, well-trained pilots and controllers utilizing the best standard operating procedures will always be the most effective defense in accident prevention.

Thank you again, Mr. Chairman, for holding this hearing. I look forward to hearing from our witnesses.

REMARKS OF THE HONORABLE JAMES L. OBERSTAR
REGARDING THE PASSAGE OF BILL DECOTA
DIRECTOR OF AVIATION FOR NEW YORK AND NEW JERSEY PORT AUTHORITY
SEPTEMBER 16, 2009

Mr. Chairman, if I can take a brief moment to acknowledge the passing of Mr. William "Bill" DeCota last Friday, September 11. Mr. DeCota was appointed Director of Aviation for The Port Authority of New York and New Jersey in December 1999. As Director, Mr. DeCota oversaw the management of Kennedy International, Newark Liberty International, LaGuardia and Stewart International Airports -- which together comprise the world's largest aviation system -- as well as Teterboro Airport. In that capacity, Mr. DeCota oversaw the largest airport improvement program in U.S. history as well as a total airport commitment to customer service. In fact, I toured LaGuardia Airport with him and Congressman Crowley just last month.

Mr. DeCota was an active advocate for airport issues on Capitol Hill and in the business community. He was a recognized expert on managing airport congestion through prudent airport expansion, cutting-edge technologies and demand management. Through board leadership positions on major aviation trade associations, including participation in the Policy Review Committee of the American Association of Airport Executives and Airport Council International, Mr. DeCota has developed a reputation for national leadership.

I express my sincere condolences to his family. He will surely be missed in aviation community.

Thank you Mr. Chairman.

STATEMENT OF

REP. THOMAS E. PETRI, Ranking Member

SUBCOMMITTEE ON AVIATION

HEARING ON

The Hudson River Airspace and Management of Uncontrolled Airspace Corridors

September 16, 2009, 10:00 am, 2167 RHOB

I thank the Chairman for calling this important hearing. As I have indicated many times before, aviation safety is the subcommittee's top priority. It is vitally important that we understand and fully explore any and all safety issues related to operations in the National Airspace System.

Just over a month ago, a Piper airplane and a tourist helicopter collided over the Hudson River, killing all nine people aboard both aircraft. While the specific causes of this tragic accident are still under investigation, it is another reminder that while we have a very safe system, we cannot let our guard down or become complacent. I look forward to working with the National Transportation Safety Board (NTSB), the FAA and industry stakeholders to address all the contributing causal factors in this accident.

Hundreds of flights a day from JFK, LaGuardia, Newark and Teterboro operate in the New York City airspace, making it the busiest in the world. Maintaining safety in this airspace requires a dedicated, focused effort by air traffic controllers, operators and regulators alike.

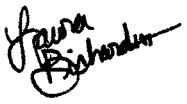
The NTSB has taken an important first step by releasing its recommendations for improving safety in the Hudson River airspace. These recommendations include revising air traffic control procedures as well as creating a special flight rules area in this airspace. I am pleased that Chairman Hersman could join us today and look forward to her testimony as she outlines these recommendations.

The air traffic control challenges posed by this congested airspace should renew our focus on how accelerating air traffic control modernization can help address safety issues. With commercial and general aviation air traffic anticipated to continue to grow, modernizing our nation's air traffic control system should be a top priority.

Ensuring that every aviation operator, general as well as commercial, has the opportunity to obtain satellite positioning technology could go a long way in making aircraft operations safer and more efficient. Imagine if the pilot of the Piper had access to the air traffic control information right in his own cockpit. He would have been alerted to the presence of other aircraft and could probably have avoided the collision.

We simply cannot afford to operate an analog airspace system in a digital world.

I am looking forward to the testimony and discussion of these safety issues. I thank our witnesses for their participation and contributions to this hearing and yield back the balance of my time.



CONGRESSWOMAN LAURA RICHARDSON
Committee on Transportation and Infrastructure
Subcommittee on Aviation
Statement at Hearing on "The Hudson River Airspace and Management of Uncontrolled Airspace Corridors"
2167 Rayburn House Office Building
Wednesday, September 16, 2009
10:00 A.M.

Mister Chairman and Ranking Member Petri, thank you for convening this very important hearing regarding the management of uncontrolled airspace corridors and the tragic mid-air collision involving a helicopter and small aircraft over the Hudson River, which claimed the lives of all seven passengers and two pilots.

As the Representative of the 37th Congressional District of California, I fly in and out of Los Angeles International Airport (LAX) nearly

every week. In fact, thousands of passengers fly in and out of LAX every weekend – it is California's busiest airport and one of our nation's busiest.

Like New York and many other urban areas, Los Angeles has Visual Flight Rule (VFR) exclusion areas, which means pilots are responsible for relying on their visual cues to avoid other aircraft. Exclusion areas are generally transition spaces for pilots to move between airspace.

The airspace located around LAX is one of three Special Flight Rule Areas (SFRAs) in the nation. The other areas are in New York City and Washington, D.C. The FAA defines SFRAs by specific vertical and lateral dimensions and they

are governed by special FAA rules and restrictions. Therefore, the lessons that we can learn from the terrible accident in August are of critical importance to my constituents and those that travel to Los Angeles daily.

On August 8th, an airplane carrying two passengers departed from Teterboro, New Jersey at approximately 11:49 a.m. The air traffic controller at Teterboro contacted the Newark air traffic controller, who was authorized to clear aircraft into the Hudson River exclusion area. The pilot acknowledged the instruction to switch to the Newark frequency at 11:52 a.m.; however, the pilot's read-back of instructions was unintelligible. At approximately the same time, a helicopter carrying tourists departed from New

York City with five passengers. Because the helicopter pilot was departing and staying within the exclusion area, the pilot was not required to contact air traffic control and did not do so. Although the investigation is not complete, it appears that both pilots were in compliance with applicable regulations!! Think about that --- a disastrous mid-air collision occurred which took the innocent lives of all nine aboard the airplane and helicopter --- without human or mechanical error. This leads me to conclude that there must be something wrong with the system. We need to find out what that is.

On August 14th, the FAA chartered the New York VFR Airspace Task Force and tasked it with making safety recommendations. The task

force made specific recommendations including: mandating pilot operational rules and developing new educational training for air traffic controllers, helicopter operators, and pilots. Additionally, the Task Force recommended dividing the airspace by altitude corridors.

On August 27th, the National Transportation Safety Board (NTSB) released their recommendations to the FAA which were similar in purpose. The NTSB also recommended requiring vertical separation between helicopters and airplanes.

The latter recommendation is of particular concern to me since the Los Angeles airspace is congested with both aircraft and helicopters. I

look forward to the testimony and follow-up discussion with the witnesses to learn what, if anything, Los Angeles should be doing to prevent an occurrence of the Hudson River tragedy. Like all members sitting on this Committee, I want to learn what we can do to promote safety and avoid future accidents.

I look forward to exploring innovative ways to manage the nation's uncontrolled airspaces with our distinguished panel of witnesses. Thank you, Mister Chairman. I yield back my time.



Statement of the

National Air Transportation Association

before the

Committee on Transportation and Infrastructure

Subcommittee on Aviation

U.S. House of Representatives

Hearing on

The Hudson River Airspace and Management of Uncontrolled Airspace Corridors

September 16, 2009

2167 Rayburn House Office Building
Washington, DC

Appearing for NATA:
James K. Coyne, President
National Air Transportation Association
4226 King Street
Alexandria, Virginia 22302
(703) 845-9000

Chairman Costello, Ranking Member Petri, and Members of the Subcommittee:

Thank you for this opportunity to appear before you today to discuss the Hudson River Corridor and the New York/New Jersey Airspace.

My name is James K. Coyne, and I am president of the National Air Transportation Association (NATA). NATA, the voice of aviation business, is the public policy group representing the interests of aviation businesses before the Congress, federal agencies and state governments. NATA's over 2,000 member companies own, operate and service aircraft and provide for the needs of the traveling public by offering services and products to aircraft operators and others such as fuel sales, aircraft maintenance, parts sales, storage, rental, airline servicing, flight training, Part 135 on-demand air charter, fractional aircraft program management and scheduled commuter operations in smaller aircraft. NATA members are a vital link in the aviation industry providing services to the general public, airlines, general aviation and the military.

I am also a member of the Flight Safety Foundation's Board of Governors. The Flight Safety Foundation was founded 60 years ago to address the problem of how to solve safety issues. The founding members believed that the industry needed a neutral ground where competitors could work together to share information, ideas, and best practices for safety. Today, the Flight Safety Foundation's membership is over 1,100 and crosses into all segments of the aviation industry. The Flight Safety Foundation brings unions and management, regulators and operators, and rival manufacturers to the table to work together to find solutions. The foundation occupies a unique position among the many organizations that strive to improve flight safety standards and practices throughout the world. Effectiveness in bridging cultural and political differences in the common cause of safety has earned the foundation worldwide respect.

In addition, I am the president of the Air Charter Safety Foundation, an initiative that I will discuss in more detail later.

I also appear today as an active pilot with instrument and multi-engine ratings and more than 30 years of experience flying who is acutely aware of many of the ongoing issues with uncontrolled airspace corridors.

While the tragic collision of two small aircraft over the Hudson River was devastating, it is important to note that these occurrences are extremely rare. NATA remains concerned with the intense scrutiny being placed on the airspace in which general aviation aircraft operate in the New York City area. NATA would like to make the following points regarding the Hudson River accident and Class B airspace.

Hudson River "Corridor" and Class B Airspace:
John F. Kennedy International Airport (JFK), Newark Liberty International Airport (EWR), and LaGuardia Airport (LGA) are designated as Class B airspace by the Federal Aviation Administration (FAA). Class B airspace is intended to provide positive control of flight operations near the nation's busiest airports and to separate aircraft operating under visual flight rules (VFR) from aircraft operating in the airport terminal area. Seventy-eight percent of all general aviation flights operate under VFR, without radar control, which makes pilots ultimately responsible for seeing and avoiding other aircraft. Flight under VFR is only permissible when there is sufficient visibility and clearance from clouds.

Pilots may not enter Class B airspace without explicit permission from air traffic control (ATC). Although general aviation VFR flights may request entry to the Class B airspace, such requests are often denied by ATC for various reasons, forcing most VFR traffic in the New York area into the same compact airspace known as the "Class B exclusion airspace."

The FAA estimated that 200 aircraft fly through the Hudson River Class B exclusion area each day. In addition, the Hudson River Class B exclusion area and associated transition procedures have been in use for more than 30 years, and the safety record for operations in the area has been good, according to the National Transportation Safety Board (NTSB). The NTSB has no record of previous collisions between aircraft operating in the Hudson River Class B exclusion area.

NTSB and FAA Recommendations on Hudson River Corridor:
The National Transportation Safety Board has already issued recommendations to the FAA for modifications to how aircraft are operated and managed by ATC in the areas. NATA agrees with the recommendations of the NTSB to revise ATC procedures and the manner in which general aviation traffic is managed in the Hudson River Class B exclusion area.

In addition, the FAA has announced preliminary information on regulatory changes to the airspace that generally coincide with the NTSB recommendations. After reviewing the information made public by the FAA, NATA supports the agency's plan to enhance safety for the NY/NJ airspace in so much as the plan will include restructuring the airspace, establishing pilot operating rules, creating new entry points into the Hudson River airspace from Teterboro, standardizing New York area charts and developing new training for pilots, air traffic controllers and businesses that operate helicopters and aircraft in the area. One of the most significant changes would be dividing the airspace into altitude corridors that separate aircraft flying over the river from those operating to and from local helicopter or seaplane bases.

Modernization
As previously stated, the Hudson River Class B exclusion area and associated transition procedures have been in use for more than 30 years, and according to the NTSB, the safety record for operations in the area have been good. However, with air traffic reaching record levels in both the commercial airline and general aviation sector, NATA believes that modernizing the nation's air traffic control system is essential to keeping this vital

transportation sector of our economy strong. In doing so, it is important to accelerate the implementation of technologies such as Automatic Dependent Surveillance-Broadcast (ADS-B) and ensure those technologies availability to general aviation operators during the upgrade to the Next Generation Air Traffic Control system.

ADS-B is the advanced surveillance technology that combines a satellite positioning service, aircraft avionics, and ground infrastructure to enable more accurate transmission of information between aircraft and Air Traffic Control (ATC). ADS-B uses information from a position service, e.g. Global Positioning System (GPS), to broadcast the aircraft's location, thereby making this information more timely and accurate than the information provided by the conventional radar system. ADS-B can also provide the platform for aircraft to receive various types of information, including ADS-B transmissions from other similarly equipped aircraft or vehicles. ADS-B is automatic because no external interrogation is required, but is "dependent" because it relies on onboard position sources and onboard broadcast transmission systems to provide surveillance information to ATC and ultimately to other users.

While the FAA claims that VFR is the best approach for such airspace as the Hudson River Corridor, every general aviation operator should have the ability to purchase and receive radar positioning via satellite. 21st century technology that is available in the U.S. should be made readily available for general aviation aircraft.

Although the FAA supports modernizing its aging ground-based radar infrastructure with satellite-based navigation on board aircraft, the agency isn't leading the charge to move forward with electronic mediums that general aviation aircraft can access before a complete overhaul of the National Airspace System (NAS) is complete.

Congress should also work with the FAA to make Teterboro Airport (TEB) a priority in several technological improvements the agency is implementing at airports throughout the country. For example, the implementation of a new type of approach system, known as R-NAV, would allow aircraft a more direct approach into the airport, avoiding lengthy circling above the highly populated surrounding.

Teterboro Airport Flight Crew Briefing

Because one of the aircraft involved in this accident departed from TEB, the safety of the airport has come under investigation. NTSB records show that over the last several years nearly every event investigated was related to incursions.

Recognizing this concerning trend, in 2008 TEB became the first in the nation to implement a new airport-specific flight crew training program, produced by NATA's Safety 1st program. Funded by a grant from the FAA, the NATA Safety 1st Teterboro Airport Flight Crew Briefing is a customized online training tool that gives pilots and other flight crew members flying into and out of TEB access to critical safety information about the airport, including its location, layout, operations, regulations, and safety and security procedures. With superb clarity and graphics, the Safety 1st briefing presents pilots views of specific hot spots, scenarios for common pilot errors, aircraft lighting

configurations, take-off procedures, and other information that is critical to safe aircraft operations at the airport.

Since its implementation in June 2008, the Teterboro Airport Flight Crew Briefing Web site has had more than 220,000 visitors. More importantly, there have been no runway incursions at TEB in 2009, which we believe can be partially attributed to the briefing. As a result of the success of the Teterboro Briefing, NATA is developing a similar tool for Newark Liberty International Airport that will be available by the end of this year. This project is being funded by the Port Authority of New York and New Jersey.

Air Charter Safety Foundation

I also have the privilege of serving as president of the Air Charter Safety Foundation. The Air Charter Safety Foundation (ACSF) is a non-profit organization dedicated to enhancing the safety and security of air charter and shared aircraft ownership programs in the United States and worldwide. Through research, collaboration and education, the ACSF advances charter industry standards and best practices, promulgates safety, security and service benchmarks, and promotes the universal acceptance of safety management systems. The ACSF also provides accurate and objective information about air charter providers as one of the most important and versatile public transportation resources. Membership in the ACSF primarily includes Part 135 certificate holders, with the balance to include OEMs, brokers, insurers, customers, airports, and safety professionals. Since inception of the organization in June 2007, the ACSF has already made great strides in improving the safety of operations.

Industry Audit Standard

Earlier this year, the ACSF launched an audit program, the ACSF Industry Audit Standard. The Industry Audit Standard is a revolutionary program built from the ground up by the ACSF to set the standard for the independent evaluation of an air charter operator's and/or shared ownership company's safety and regulatory compliance. The ACSF Industry Audit Standard has been developed with the input and guidance of leading safety auditors, charter operators, shared aircraft ownership companies and charter consumers.

The ACSF Industry Audit Standard is the only audit program that comprehensively evaluates both an operator's Safety Management System (SMS) and its Part 135 regulatory compliance. With the deployment of the ACSF Industry Audit Standard, the charter consumer can be assured that audited and registered operators are compliant with the highest standards of safety and compliance. The ACSF agrees with the NTSB that the adoption of SMS is a key goal to improving safety. It is why the Industry Audit Standard requires operators to adopt, implement and show continuous safety management improvement. Operators and charter consumers are enthusiastic about this independent evaluation. By the end of the year, we will have completed 25 audits, including some of the largest and most active air charter operators in the country.

AVSIS

The ACSF has also released a revolutionary safety event reporting and tracking system known as AVSiS or Aviation Safety Information System. AVSiS is targeted specifically to

the on-demand air charter and shared aircraft ownership program industries. This powerful software program collects detailed safety event data for analysis, response deployment and success measurement, and provides a tool for accounting for the cost savings realized by interventions.

To encourage the wide-spread use of this safety-enhancing tool, the ACSF has made the program available to all Part 135 on-demand operators and Part 91K fractional program managers at no cost. Using AVSiS, or similar tools, to collect safety event information is critical to safety management system development and can also serve as the foundation for an FAA Aviation Safety Action Program (ASAP).

Safety Symposium

The ACSF also hosts an annual Air Charter Safety Symposium. The symposium focuses on academic and scientific research pertaining to aviation safety. The event brings together the leaders of on-demand and fractional ownership operators to learn about new safety programs and emerging safety concerns.

Air Charter Data

The ACSF has initiated a new effort to improve the activity and accident data available in order to analyze Part 135 safety more accurately. A program is being established to more closely collect, analyze and report on Part 135 on-demand accidents and incidents. Today, the industry's safety record is summed up by a single, all encompassing analysis. But, the air charter industry comprises a wide-variety of aircraft, with mission profiles that are almost too numerous to name, including helicopter EMS and off-shore work, single-engine piston-powered tour operations, just-in-time cargo carriers, and long-range international passenger-carrying turbojets, just to list a few mission profiles.

This variation presents a unique challenge when attempting to draw safety conclusions. It is incredibly difficult to identify safety issues, provide targeted recommendations and then measure the success of mitigations if you can't determine the safety record for each of the distinct aircraft types or operational categories.

The ACSF is committed to improving data collection and safety analysis for the Part 135 on-demand air charter industry. The ACSF believes that industry and government must work together to develop enhanced data collection tools that will permit the NTSB to develop a far clearer picture of the industry than is available today.

Conclusion

NATA appreciates the efforts of both the NTSB and the FAA to produce thoughtful and targeted airspace, ATC and operational reforms to enhance the safety margin for operations within the Hudson River Class B exclusion.

Further, we believe that the adoption of new technologies for airspace management will significantly impact safety and efficiency in the national airspace system.

Finally, the efforts of NATA and the Air Charter Safety Foundation to improve upon safety and offer unique training, tracking and system safety programs are possible only because of the significant efforts and commitment to safety of the operating community. We are proud to recognize their work, and our industry looks forward to additional government-industry collaborative programs that can have meaningful impacts on safety.

Thank you for the opportunity to testify, and I will be happy to answer any questions you may have.

AIRCRAFT OWNERS AND PILOTS ASSOCIATION
421 Aviation Way • Frederick, MD 21701-4798
Telephone (301) 695-2000 • FAX (301) 695-2375
www.aopa.org

Statement of Craig L. Fuller, President
Aircraft Owners and Pilots Association

before the

Committee on Transportation and Infrastructure's
Subcommittee on Aviation
U.S. House of Representatives

concerning

The Hudson River Airspace and Management of Uncontrolled Airspace Corridors

September 16, 2009

Good morning. My name is Craig Fuller, and I am President and Chief Executive Officer of the Aircraft Owners and Pilots Association (AOPA), a not-for-profit individual membership organization representing more than 415,000 members, nearly three-quarters of the nation's pilots. AOPA's mission is to effectively represent the interests of its members as aircraft owners and pilots concerning the economy, safety, utility, and popularity of flight in general aviation (GA) aircraft.

Although GA is typically characterized by recreational flying, it encompasses much more. In addition to providing personal, business, and freight transportation, general aviation supports such diverse activities as law enforcement, fire fighting, air ambulance, logging, fish and wildlife management, news gathering, and other vital services.

Each year, 170 million passengers fly using personal aviation, the equivalent of one of the nation's major airlines, contributing more than $150 billion to U.S. economic output, directly or indirectly, and employing nearly 1.3 million people whose collective annual earnings exceed $53 billion. General aviation serves 5,200 public use airports as well as more than 13,000 privately owned landing facilities. In a poll conducted on election night last November, more than 60 percent of American voters said they understood that general aviation (all flying other than military or commercial airlines) is a vital part of America's transportation system.

Controlled and Uncontrolled Airspace

The notion that we have uncontrolled airspace in the United States may, at first blush, seem unusual. Despite official use of the term "uncontrolled", the reality is that all airspace in the United States exists under some degree of control. Those of us who fly in the airspace do so within a complex set of rules and regulations that control where we fly and under what conditions. What is referred to as "uncontrolled airspace" is actually carefully depicted on charts and is available to pilots only when very specific weather and visibility conditions exist.

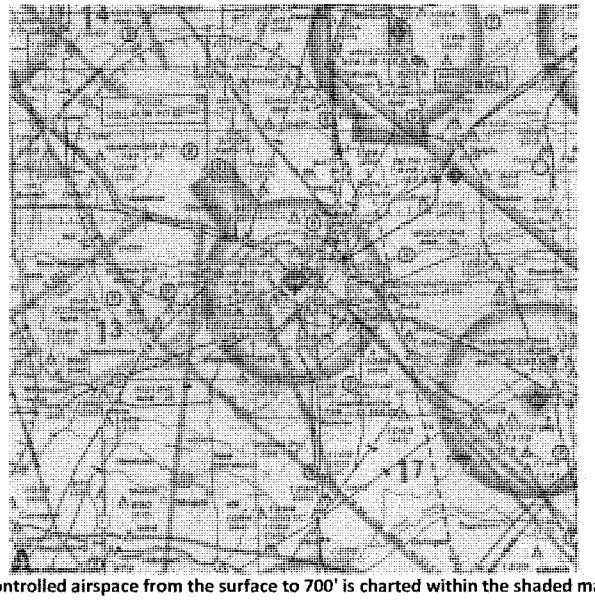


Figure 1: Uncontrolled airspace from the surface to 700' is charted within the shaded magenta areas. Outside these areas uncontrolled airspace exists from the surface to 1200'.

In practice, different groups tend to refer to different types of airspace as "uncontrolled." Air traffic control (ATC) typically considers airspace outside of the areas where controllers provide positive control of all aircraft to be "uncontrolled." This would generally include any airspace that is not designated as Class A, B, C, or D airspace.

The official FAA definition of "uncontrolled" airspace is different, however. According to the FAA, uncontrolled airspace is simply airspace with lower visibility and cloud clearance requirements. It typically exists below 700 feet above the ground in the vicinity of most airports and below 1,200 feet above the ground in most other areas. In the Hudson River corridor, controlled airspace begins at 700 feet, meaning most traffic, including most all fixed-wing traffic, is flying within controlled airspace. Most VFR flyways or "corridors," including the Hudson River corridor, are actually within controlled airspace.

Even though the airspace is technically "controlled", aircraft choosing to operate under IFR are steered clear of such corridors, even when weather is good. This ensures that instrument flights, whether commercial or private, are kept separate from VFR flights operating in designated corridors, flyways, and transition routes.

VFR Flying Is Controlled by Definition

Although they often are characterized as "uncontrolled," flights made under visual flight rules, or VFR, adhere to strict procedures designed to ensure the safety of those in the air and on the ground.

VFR flight is governed by a defined set of FAA regulations and "rules of the road" covering operation of aircraft primarily by visual reference to the horizon for aircraft control and see-and-avoid procedures for traffic separation. VFR is used by more than 70 percent of all flights; it is not, by definition, uncontrolled or out of control.

All pilots, including those who fly exclusively under visual flight rules, are required to undergo extensive training, be tested to established FAA standards, and maintain proficiency at levels determined by the FAA. Pilot qualifications must be reevaluated at least every two years. In addition, pilots must adhere to regulatory requirements for flight planning and follow regulations governing factors including airspeed, direction of flight, altitude, weather minimums, and communication.

The rules that govern visual flight, instrument flight, and operations through airspace corridors are established precisely to maximize operational safety. The rules are taught to all pilots, tested over time, and refined as necessary, as we have recently seen from the process of reviewing and revising the rules for flying in the airspace over the Hudson River in New York.

Hundreds of thousands of safe operations have been conducted year after year in corridors around the nation. They represent consistent, long-term evidence that VFR traffic can be safely and efficiently accommodated even in the busiest airspace.

See and Avoid

Under FAA regulations, all pilots are ultimately responsible for maintaining separation from other aircraft whenever visual conditions permit, as they do at any time aircraft are operating under VFR. Even flights that are being guided by air traffic controllers, either under instrument flight rules (IFR) or VFR, are responsible for visually scanning to see and avoid potential traffic conflicts. The see-and-avoid principle is codified in Federal Aviation Regulation 14 CFR Part 91.113 (b) as follows:

> "When weather conditions permit, regardless of whether an operation is conducted under instrument flight rules or visual flight rules, vigilance shall be maintained by each person operating an aircraft so as to see and avoid other aircraft. When a rule of this section gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under, or ahead of it unless well clear."

With the onus on all pilots to be vigilant for other traffic, midair collisions are rare. For example, in 2007, there were 624,007 pilots in the United States along with 221,943 general aviation aircraft. All told, pilots flew 21.4 million flight hours that year. That same year, general aviation aircraft were involved in 10 midair collisions, four of which were fatal. The accidents included a collision between competitors rounding a pylon in an air race, and a collision between two aircraft conducting a formation landing. Of the remaining accidents, two occurred during flight instruction; three occurred in the traffic pattern, including one at a towered airport; two occurred during formation flight; and one occurred in low-altitude cruising flight.

Corridors, Flyways and Transition Routes

The aviation community utilizes many terms, often in the wrong context, to describe methods of transitioning either through or around the nation's busiest airspace, designated as Class B. Class B airspace surrounds the largest airports in cities like Boston, Chicago, Los Angeles, and New York, among others.

Class B airspace is designed to help manage the flow of high volumes of airline traffic as these aircraft transition from the high-altitude flight levels into the lower altitudes and eventually to the airport itself and in reverse for departing aircraft. The airspace is shaped like an upside-down wedding cake with concentric expanding circles stacked on top of each other. The airspace and corresponding shape funnels aircraft in and out of the main airport.

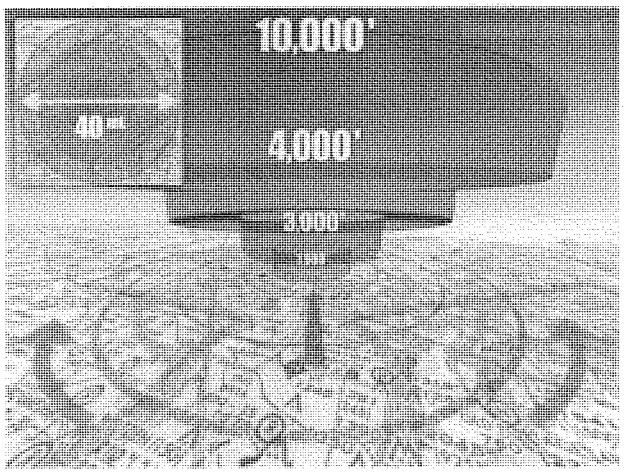


Figure 2: Class B airspace takes the form of an upside down wedding cake, with the largest rings at the highest altitudes.

Most, but not all, Class B airspace extends from the surface to 10,000 feet mean sea level (msl) with the diameter of the largest and highest sections often exceeding 40 nautical miles. Pilots must obtain a clearance from air traffic control before entering Class B airspace and then maintain radio contact with ATC. Aircraft must be equipped with an altitude-encoding transponder.

Published VFR routes for transitioning around, under, and through complex airspace such as Class B airspace were developed through a number of FAA and industry initiatives. The terms "VFR flyway", "VFR corridor", and "Class B airspace VFR transition route" all have been used when referring to such routes or airspace.

Each type of transition airspace is slightly different, although all share the goal of guiding VFR traffic safely in the vicinity of busy, complex airspace.

VFR flyways are general flight paths, not defined as a specific course, for use by pilots in planning flights into, out of, through, or near complex terminal airspace to avoid Class B airspace. An ATC clearance is not required to fly these routes. These routes are not intended to discourage requests for VFR operations within Class B airspace but are designed to assist pilots in planning flights that do not actually enter Class B airspace.

VFR flyways are generally charted on VFR Flyway Charts found on the reverse side of many Terminal Area Charts, but not all flyways are charted. The route commonly referred to as the "Hudson River Corridor" by pilots and the "Hudson River Exclusion" by air traffic controllers is actually an example of an uncharted VFR flyway. (Although it should be noted that the FAA plans to chart this route in the future as part of the revisions planned following the recent Hudson River midair collision.)

It is important to remember that these suggested routes are not sterile of other traffic. The entire Class B airspace, and the airspace underneath it, may be heavily congested with many different types of aircraft. Pilots using flyways must strictly adhere to VFR rules.

VFR corridors are designed into some Class B airspace areas to provide a designated space for the passage of VFR traffic. A VFR corridor is defined as airspace through Class B airspace, with defined vertical and lateral boundaries, in which aircraft may operate without an ATC clearance or communication with air traffic control. A corridor is, in effect, a "hole" through Class B airspace. A corridor is surrounded on all sides by Class B airspace and does not extend down to the surface like a VFR flyway. One example of a corridor can be found

in the San Diego Class B airspace just east of the airport between 3,300 feet and 4,700 feet.

Because of the heavy traffic volume and the procedures necessary to efficiently manage the flow of traffic, it has not been possible to incorporate VFR corridors in the development or modification of Class B airspace in recent years.

To accommodate VFR traffic through certain Class B airspace, such as Seattle, Phoenix and Los Angeles, Class B airspace VFR transition routes were developed. A Class B airspace VFR transition route is defined as a specific flight course depicted on a Terminal Area Chart for transiting specific Class B airspace. These routes include ATC-assigned altitudes, and pilots must obtain an ATC clearance prior to entering Class B airspace on the route.

"Corridors" Are Necessary and Enhance Safety

Since becoming president of AOPA eight months ago, I have flown numerous times into busy airspace around New York, Boston, Houston, Dallas, and Los Angeles. In all cases, I flew using an instrument flight plan. My approaches and departures were handled by air traffic control, keeping me clear of the areas where aircraft could operate under visual flight rules without contacting air traffic control.

Without the VFR corridors, flyways, and transition routes, air traffic controllers would be forced to handle thousands of additional operations in and around some of the busiest airspace in the country. Delays would be inevitable and some aircraft would skirt the areas requiring contact with air traffic control, making their precise locations unpredictable. Corridors, flyways, and transition routes create designated spaces for these VFR flights, easing controller workload, and making it easier for aircraft to avoid one another in crowded skies.

In the days since the Hudson River midair collision, I have heard from many AOPA members who have safely used the Hudson River flyway and similar routes nationwide for many years. Their comments consistently note that such routes are efficient means of safely navigating through busy airspace, adding that if these routes were lost, pilots would be forced to fly many miles out of their way, significantly increasing costs and imposing new safety risks associated with fuel usage and weather considerations.

The Hudson River Corridor Working Group Recommendations

It is understandable that a tragedy like the one we recently witnessed in New York brings calls for major airspace realignments. While these calls are based on the best of intentions, it is important to base action on careful calculations of risks and airspace utilization. Even well-intentioned efforts to realign airspace are likely

to come with unintended consequences that could increase, rather than reduce, hazards in and around busy airspace.

FAA Administrator Randy Babbitt on Sept. 2 announced steps the agency will take to enhance safety in the Hudson River flyway—steps AOPA believes are sensible and likely to have a favorable effect.

The plan is the direct result of a working group convened by Babbitt just two weeks ago that was made up primarily of FAA staff from diverse departments, including the air traffic organization, air traffic controllers, airspace designers, and flight standards. The panel also included AOPA and representatives of two other industry groups to reflect the needs of airspace users. I believe this cooperative effort is an excellent example of how to effectively address safety concerns by considering the needs of all stakeholders.

The FAA is expected to implement the working group's eight recommendations, which align closely with those developed independently by the National Transportation Safety Board (NTSB).

The working group report suggests making current best practices mandatory. These practices including flying with lights on and using two-way air-to-air communication. The recommendations also include developing flight rules and training for operations in the exclusion zone. As noted previously, the FAA plan also goes beyond the NTSB recommendations by adding improved charting to include VFR flyways, which will give pilots more and better information.

Training and education

Pilots are accustomed to making recurring training part of their flying regimen. Pilots engage in both mandatory and voluntary training programs aimed at improving safety. AOPA is actively assisting in making additional training materials and programs available to pilots through the AOPA Air Safety Foundation.

Earlier this week, AOPA Air Safety Foundation President Bruce Landsberg went to New Jersey to host a training seminar focusing on best practices for flying in and around New York. The seminar was available both in person and via Web cast to maximize participation.

In addition, numerous mechanisms already exist to ensure that training on the use of flyways, corridors, and transition routes is integrated into ongoing pilot training. Options include making it an area of emphasis for flight reviews, which are required of all active pilots every two years, and practical tests, which are taken by all new pilots as well as those who are upgrading or adding new certificates or ratings. Information on using corridors can also be added to Flight

instructor renewal courses, which many flight instructors use to renew their certificates every two years. Finally, the aviation industry can be enlisted to communicate key training information through print and electronic media such as magazines and newspapers delivered to pilots. The FAA's FAAST Team provides another possible mechanism for disseminating important safety and training information.

Conclusion and summary

Safety is a top priority for everyone within the aviation community, and history has shown that VFR flyways, corridors, and transition routes are a safe and efficient way of moving traffic through some of the nation's busiest airspace.

Despite the use of the term "uncontrolled", virtually all airspace is controlled to some degree, and pilots who fly in it must strictly adhere to regulations and requirements governing everything from their qualifications and the airworthiness of their aircraft to weather and altitude.

By providing well-known routes through complex and busy airspace, these "corridors" reduce the workload on air traffic controllers and help controllers and other pilots predict the location of VFR traffic. Eliminating such routes could have dangerous unintended consequences.

At the same time, as the recent Hudson River Corridor Working Group demonstrated, there are opportunities to enhance safety while keeping the airspace open by codifying best practices, improving charting, and making additional training materials available to pilots. Identifying such opportunities can be done most effectively when the FAA partners with the aviation industry to identify the needs of stakeholders early in the process.

National Transportation Safety Board

490 L'Enfant Plaza, SW
Washington, D.C. 20594
(202) 314-6000

Deborah A.P. Hersman
Chairman

Testimony of the Honorable Deborah A.P. Hersman
Chairman
National Transportation Safety Board
Before the
Subcommittee on Aviation
Committee on Transportation and Infrastructure
United States House of Representatives

Hearing on the Hudson River Airspace
and Management of Uncontrolled Airspace Corridors
September 16, 2009

Good morning. With your concurrence, Mr. Chairman, I would like to begin my testimony with a short summary of the National Transportation Safety Board's (NTSB) actions to date regarding the investigation of the recent mid-air collision over the Hudson River. I want to emphasize that this is still an ongoing investigation and that there is significant work left for our staff. My testimony today will be limited to those facts that we have identified to date, but I will not provide any analysis or make any conclusions about what we have found so far. Although we have identified some areas of concern that have prompted us to issue safety recommendations, we have not determined the cause of this accident or the role any individual, mechanism or organization may have played in the accident.

On August 8, 2009, about 11:53 eastern daylight time,[1] a Eurocopter AS350 BA helicopter, N401LH, operated by Liberty Helicopters, and a Piper PA-32R-300 airplane, N71MC, operated by a private pilot, collided over the Hudson River near Hoboken, New Jersey. The certificated commercial pilot and five passengers aboard the helicopter and the certificated private pilot and two passengers aboard the airplane were killed. The helicopter flight was a local sightseeing flight conducted under the provisions of 14 *Code of Federal Regulations* (CFR) Parts 135 and 136. The airplane flight was a personal flight conducted under the provisions of 14 CFR Part 91. The airplane departed Teterboro Airport (TEB), Teterboro, New Jersey, about 11:49, destined for Ocean City, New Jersey, and the helicopter lifted off from the West 30th Street Heliport about 3 minutes later, at 11:52. Visual meteorological conditions prevailed and no flight plans were required or filed for either flight. However, the pilot of the airplane requested flight-following services from TEB air traffic control (ATC).[2] Neither aircraft was equipped with a cockpit voice recorder or a flight data recorder, nor were they required to be installed. The accident occurred in a relatively complex airspace where class B airspace meets the Hudson River class B exclusion area.

---

[1] All times in this testimony are eastern daylight time and based on a 24-hour clock.

[2] The preliminary reports for this accident, ERA09MA447A and B, are available online at <http://www.ntsb.gov/ntsb/query.asp>.

New York Terminal Airspace

The Federal Aviation Administration (FAA) has designated the area surrounding John F. Kennedy International Airport (JFK), Newark Liberty International Airport (EWR), and LaGuardia Airport (LGA) as class B airspace. Class B airspace is intended to provide positive control of flight operations near the nation's busiest airports and to separate aircraft operating under visual flight rules (VFR) from aircraft operating in the airport terminal area. According to 14 CFR 91.131, all aircraft operating within class B airspace are required to obtain ATC clearance before entry and to comply with ATC instructions while operating within the airspace. Pilots who do not have ATC clearance to enter must remain outside the class B boundaries. Part of the New York class B airspace extends from the surface to 7,000 feet above mean sea level in 4- to 8-mile radiuses around JFK, EWR, and LGA. Some other parts of the class B airspace begin at higher altitudes. This allows aircraft to arrive and depart from satellite airports, such as TEB, without obtaining class B clearance. For example, the floor of the class B airspace overlying TEB is 1,800 feet. Thus, separation between traffic at TEB and aircraft operating within the class B airspace is maintained by requiring aircraft without class B clearance to remain below 1,800 feet.

The accident occurred in the Hudson River class B exclusion area, which is a combination of class E and class G airspace[3] that provides a passageway through the New York class B airspace. The Hudson River class B exclusion area permits aircraft to fly north and south along the Hudson River between, approximately, the George Washington Bridge to the north and the Verrazano Narrows Bridge to the south without authorization from air traffic controllers. The Hudson River class B exclusion area extends from the surface of the Hudson River up to and including 1,100 feet above mean sea level.

Prior to the accident, the FAA had established voluntary procedures for operating within the Hudson River class B exclusion area that were designed to minimize the risk of collision. These procedures are described on the New York VFR Terminal Area Chart and the New York Helicopter Route Chart. They state that pilots operating within the Hudson River class B exclusion area should fly at 140 knots or less; turn on position lights, anticollision lights, and landing lights; and self-announce their position on the common traffic advisory frequency (CTAF),[4] 123.05 MHz. Another accepted procedure for helicopter operations, published in the New York Helicopter Route Chart, is for northbound helicopter flights to follow along the Manhattan shoreline, and for southbound flights to follow the New Jersey shoreline, providing lateral separation between opposite-direction traffic flows.

Recent FAA traffic estimates indicate that over 200 aircraft a day pass through the Hudson River class B exclusion area. The Hudson River class B exclusion area and associated transition procedures have been in use for more than 30 years, and until the accident, the safety

[3] Class E and Class G airspace each allow pilots to operate under VFR without mandatory service from air traffic controllers. The main practical difference between class E and class G airspace is the minimum ceiling and visibility requirements for flight under VFR. The Hudson River class B exclusion area is class E airspace from 700 feet to 1,100 feet above mean sea level and class G airspace below 700 feet.

[4] CTAFs allow pilots to exchange traffic information while operating near airports without operating control towers. CTAF procedures may also be established in other circumstances where direct pilot-to-pilot communications will contribute to safety.

record for operations in the area had been good. The NTSB has no record of previous collisions between aircraft operating in the Hudson River class B exclusion area. A review of the FAA Near-Midair Collision (NMAC) database and the National Aeronautics and Space Administration Aviation Safety Reporting System (ASRS) database revealed 11 reports of NMACs between aircraft in the area since 1990. Only one report was filed in the past 10 years. Although ASRS reporting is voluntary, the number of reports received is very low relative to the number of flight operations through the Hudson River class B exclusion area.

Previous Recommendation Addressing New York Terminal Airspace

The NTSB previously addressed the conduct of VFR flights in the New York Terminal Airspace following the investigation of the 2006 crash of a Cirrus Design SR20 into an apartment building in Manhattan. The aircraft, with two pilots on board (one of whom was New York Yankees pitcher Cory Lidle), had departed TEB at about 14:29 on October 11, 2006, operating under Part 91 with no flight plan filed. The pilots had acknowledged to ATC that the aircraft would stay out of the New York class B airspace. After takeoff, the aircraft 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 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. The aircraft flew around the Statue of Liberty, then headed northeast to fly over the East River. About a mile north of the Queensboro Bridge, the aircraft made a left turn to reverse its course. The aircraft impacted a 520-foot tall apartment building 333 feet above street level. The NTSB determined that the probable cause of the accident was the pilots' inadequate planning, judgment, and airmanship in the performance of a 180-degree turn maneuver inside the limited turning space over the East River.

Two days following the accident, the FAA published Notice to Airmen (NOTAM) 6/3495 prohibiting fixed-wing operations (except amphibious fixed wing aircraft landing or departing New York Skyports Inc. Seaplane Base) in the East River class B exclusion area from the southwestern tip of Governors Island to the north tip of Roosevelt Island unless authorized and controlled by ATC. The NTSB strongly supported the FAA's quick response and issued a recommendation (A-07-38) that FAA make the NOTAM permanent. In an update to the NTSB in early 2008, the FAA indicated that it was developing a rulemaking project for a redesign for the New York and New Jersey airspace, a rulemaking project it expected to take at least two years. Recommendation A-07-38 is classified "Open—Acceptable Response."

The Flights in the Hudson River Accident

The pilot of the accident airplane contacted the clearance delivery controller in the ATC tower at TEB about 11:40:01, requesting departure clearance and VFR radar traffic advisory service en route to Ocean City, New Jersey, at 3,500 feet. The pilot's requested route and altitude required that the flight enter the class B airspace overlying TEB. The clearance delivery controller issued the pilot a discrete transponder code. While the airplane was taxiing to the runway, the TEB ground/local controller offered the pilot the option of departing TEB over the river. The pilot elected to fly down the Hudson River, which necessitated eventual coordination

with controllers at EWR for authorization to climb into the class B airspace. Existing procedures did not require TEB controllers to coordinate for class B clearance for the pilot, and the local controller did not do so.

The accident airplane departed TEB about 11:49 and was issued a traffic advisory for a helicopter arriving at the airport. The pilot acknowledged the traffic call. The local controller instructed the pilot to remain at or below 1,100 feet, which is the "top" of the exclusion airspace in that area. The airplane flew southbound until the local controller instructed the pilot to turn left (southeast) and join the Hudson River. About 11:52:20, the pilot acknowledged an instruction from the TEB local controller to change frequencies and contact controllers at EWR. The pilot read back to the controller an incorrect frequency; ATC recordings do not indicate that the incorrect read-back was heard or corrected by any air traffic controller. A preliminary review of recorded ATC communications showed that the pilot did not contact EWR before the accident. We are reviewing ATC tapes for other frequencies to see if the pilot was attempting to contact EWR on the incorrect frequency. In any case, about 11:53:17, approximately the time of the accident, the TEB local controller contacted the EWR controller to ask about the airplane and was told that the pilot had not called. There are no known additional ATC contacts with the airplane.

The accident helicopter departed from the West 30th Street Heliport, which is in the Hudson River class B exclusion area, about 11:52, for a 12-minute tour. The initial part of the tour was to be flown below class B airspace, so the pilot was not required to contact ATC. Although the nature of any transmissions made by aircraft on the CTAF is not known because the CTAF is not recorded, a Liberty Helicopters pilot waiting to depart from the West 30th Street Heliport reported that the pilot of the accident helicopter made a position report on the CTAF just before the collision. The first radar target for the accident helicopter was detected by the FAA's EWR radar about 11:52:27, when the helicopter was west of the heliport, approximately mid-river, and climbing through 400 feet. According to recorded radar data, the helicopter flew to the west side of the river and then turned south to follow the Hudson River. The accident helicopter continued climbing southbound until about 11:53:14, when the collision occurred at about 1,100 feet.

ATC Procedures

After the accident airplane departed from TEB, the local controller instructed the pilot to remain at or below 1,100 feet and to turn east toward the Hudson River (to avoid the final approach course for runway 22 at EWR). A review of radar data shows that the accident airplane was level at about 1,100 feet for about 2 minutes before the accident, and that, at the time the airplane turned toward the Hudson River, there were no apparent traffic conflicts that would have precluded the airplane from climbing into the class B airspace. Because there was no coordination between TEB and EWR controllers regarding the pilot's request to climb to 3,500 feet, the airplane could not expeditiously enter the class B airspace. Instead, the airplane continued toward the Hudson River class B exclusion area at about 1,100 feet. About 11:52:19, almost 4 minutes after departure, when the TEB local controller instructed the pilot to contact EWR ATC, the airplane was about 2 miles away from the point of collision with the helicopter.

Aircraft operating in the Hudson River class B exclusion area depend on CTAF reports to maintain traffic awareness. However, because the pilot of the accident airplane was in contact with TEB ATC awaiting further instructions and was then instructed to contact EWR, the pilot may not have been making and monitoring the CTAF position reports. Instead, the pilot likely expected to continue to receive flight-following services from ATC. Making and monitoring CTAF reports while remaining in contact with ATC would have required the pilot to be actively transmitting and receiving on two different radios at the same time, which is especially difficult in a busy ATC environment such as the New York area. Even if the pilot had attempted it, his monitoring of CTAF would likely have been hindered by his simultaneous monitoring of ATC communications. Consequently, it is likely that the pilot did not hear any transmissions from the accident helicopter, including the helicopter pilot's self-announcement that the other Liberty Helicopters pilot reported hearing. In addition, the pilot was not advised to use the CTAF as he entered the Hudson River class B exclusion area, nor were such advisories required.

Before departure, the pilot of the airplane had requested radar traffic advisories and was advised of "radar contact" by TEB after departure, indicating that, workload permitting, the service was being provided. According to FAA Order 7110.65, *Air Traffic Control*, providing traffic advisories to VFR aircraft is an additional service that, as the FAA order states, "is required when the work situation permits." After the initial post-departure traffic call, ATC did not advise the accident airplane pilot of potential conflicts with other aircraft ahead in the vicinity of the Hudson River class B exclusion area. Because the first radar target for the accident helicopter was detected about 11:52:27, the helicopter was not yet visible on radar when the TEB local controller issued the frequency change to the airplane's pilot. Therefore, before the frequency change, the TEB local controller could not have detected the impending conflict between the accident airplane and the accident helicopter or issued a warning to the airplane pilot about the accident helicopter. However, radar had detected other aircraft in the vicinity of the Hudson River class B exclusion area that were potential conflicts at that time. The TEB local controller did not advise the airplane pilot of the other traffic ahead. The EWR tower controller observed the existing traffic in the vicinity of the Hudson River class B exclusion area and called the TEB local controller to ask that he instruct the airplane pilot to turn toward the southwest to resolve the situation. The call may have overlapped the pilot's acknowledgment of the radio frequency change instruction from the TEB local controller. The TEB controller did not hear the EWR controller's instruction clearly and requested that it be repeated. The TEB controller then attempted to contact the airplane, but the pilot did not respond. The collision occurred about 1 minute after the frequency change instruction and 26 seconds after the TEB local controller's last attempt to contact the pilot.

Prior to the accident, there were no procedures or instructions directing controllers to prevent, where possible, aircraft from entering the Hudson River class B exclusion area while remaining in communication with ATC or to ensure, traffic permitting, that aircraft requesting class B clearances receive approval to climb before entering the Hudson River class B exclusion area. Effective communication on the CTAF is a fundamental component of the safety procedures established for VFR operations in the Hudson River class B exclusion area. The NTSB believes that New York area ATC facilities must account for the importance of CTAF communications and ensure that aircraft operating near the Hudson River class B exclusion area are either cleared into class B airspace before reaching the Hudson River class B exclusion area

or are directed to switch to the CTAF in time to engage in effective communications with other pilots operating in the Hudson River class B exclusion area. Further, if circumstances require that an aircraft in communication with ATC enters the Hudson River class B exclusion area, controllers should place a high priority on providing the pilot with timely traffic advisories and safety alerts, as required by FAA Order 7110.65, *Air Traffic Control*, because the pilot is less likely to be communicating on CTAF and receiving traffic information directly from other pilots.

On the day of the accident, the TEB tower was staffed with five controllers. At the time of the accident, there were two controllers in the tower cab: one controller was working the ground control, local control, and arrival radar positions and also acting as the controller in charge of the facility; a second controller was working the flight data and clearance delivery position. The two other controllers were on a break, and the frontline manager had left the facility temporarily on a personal errand about 11:45. The local controller initiated a telephone conversation unrelated to his work about 11:50:31, about 2 minutes after he cleared the accident airplane for takeoff. The conversation continued until 11:53:13.

NTSB Recommendations

Based on the data collected thus far in the investigation, on August 27, 2009, the Safety Board issued five safety recommendations to the Federal Aviation Administration:

> Revise standard operating procedures for all air traffic control (ATC) facilities, including those at Teterboro airport, LaGuardia airport, and Newark Liberty International airport, adjoining the Hudson River class B exclusion area in the following ways:
>
> a) establish procedures for coordination among ATC facilities so that aircraft operating under visual flight rules and requesting a route that would require entry into class B airspace receive ATC clearance to enter the airspace as soon as traffic permits,
>
> b) require controllers to instruct pilots with whom they are communicating and whose flight will operate in the Hudson River class B exclusion area to switch from ATC communications to the common traffic advisory frequency (CTAF) and to self-announce before entering the area,
>
> c) add an advisory to the Automatic Terminal Information Service broadcast, reminding pilots of the need to use the CTAF while operating in the Hudson River class B exclusion area and to self-announce before entering the area, and
>
> d) in any situation where, despite the above procedures, controllers are in contact with an aircraft operating within or approaching the Hudson River class B exclusion area, ensure that the pilot is provided with traffic advisories and safety alerts at least until exiting the area. (A-09-82)

Brief all air traffic controllers and supervisors on the air traffic control (ATC) performance deficiencies evident in the circumstances of this accident and emphasize the requirement to be attentive and conscientious when performing ATC duties. (A-09-83)

Amend 14 *Code of Federal Regulations* Part 93 to establish a special flight rules area (SFRA) including the Hudson River class B exclusion area, the East River class B exclusion area, and the area surrounding Ellis Island and the Statue of Liberty; define operational procedures for use within the SFRA; and require that pilots complete specific training on the SFRA requirements before flight within the area. (A-09-84)

As part of the special flight rules area procedures requested in Safety Recommendation A-09-84, require vertical separation between helicopters and airplanes by requiring that helicopters operate at a lower altitude than airplanes do, thus minimizing the effect of performance differences between helicopters and airplanes on the ability of pilots to see and avoid other traffic. (A-09-85)

Conduct a review of all class B airspace to identify any other airspace configurations where specific pilot training and familiarization would improve safety, and, as appropriate, develop special flight rules areas and associated training for pilots operating within those areas. (A-09-86).

On September 2, 2009, the FAA announced plans to modify the airspace over the Hudson River. The NTSB will review the changes, once they are completed and published, and determine if they meet the intent of our recommendations.

Mr. Chairman, this concludes my presentation, and I would be pleased to answer any questions.

U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

September 22, 2009

The Honorable Deborah A.P. Hersman
Chairman
National Transportation Safety Board
490 L'Enfant Plaza East
Washington, D.C. 20594

Dear Chairman Hersman:

On September 16, 2009, the Subcommittee on Aviation held a hearing on **"The Hudson River Airspace and Management of Uncontrolled Airspace Corridors."**

Attached is question to answer for the record submitted by Rep. John J. Hall. I would appreciate receiving your written response to this question within 14 days so that they may be made a part of the hearing record.

Sincerely,

Jerry F. Costello
Chairman
Subcommittee on Aviation

JFC:pk
Attachment

SEPTEMBER 16, 2009
SUBCOMMITTEE ON AVIATION
HEARING ON
"THE HUDSON RIVER AIRSPACE AND MANAGEMENT
OF UNCONTROLLED AIRSPACE CORRIDORS"

QUESTION FOR THE RECORD
TO:
THE HONORABLE DEBORAH A.P. HERSMAN
CHAIRMAN
NATIONAL TRANSPORTATION SAFETY BOARD

CHAIRMAN HERSMAN, WHAT CAN THIS COMMITTEE DO TO SEE THAT THE WORK THAT YOUR ORGANIZATION DOES IS HEEDED BY FEDERAL, STATE, AND LOCAL AGENCIES?

National Transportation Safety Board
Washington, D.C. 20594

October 6, 2009

The Honorable Jerry F. Costello
Chairman
Subcommittee on Aviation
Committee on Transportation and Infrastructure
U.S. House of Representatives
2251 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed please find the response of Chairman Deborah A.P. Hersman to a question submitted for the record by Rep. John J. Hall following the September 16, 2009, hearing on "The Hudson River Airspace and Management of Uncontrolled Airspace Corridors." If I may be of further assistance to you in this matter, please do not hesitate to contact me at 202-314-6215.

Sincerely,

Nancy L. Lewis
Director
Office of Government Affairs

Enclosure

Question for the Record
Following House Aviation Subcommittee Hearing
on Hudson River Airspace and Management of
Uncontrolled Airspace Corridors

September 16, 2009

Question: Chairman Hersman, what can this Committee do to see that the work that your organization does is heeded by Federal, State, and local agencies?

Response: While the NTSB has no regulatory authority and no grant-making authority, we do have the attention of the public, as well as the opportunity to educate federal, state and local leaders, such as yourself, about the circumstances of the accidents we investigate. While it is true that we cannot mandate changes, the NTSB can be the catalyst for safety improvements by encouraging others to take action. We routinely provide information to the Congress, state legislative bodies, local government officials, as well as the media about safety issues on our Most Wanted List of Safety Improvements, both Federal and State. The Congress has provided direction to Federal agencies in recent years by requiring those agencies to provide responses or status updates to our Most Wanted List of Safety Recommendations. This is a good start in helping to advance the Safety Board's recommendations; however, sometimes requiring an agency to provide a response or a status update is not enough to spur full action on a recommendation. The Congress has, on occasion, required the implementation of NTSB recommendations, as they did last year in the Rail Safety Improvement Act in which they revised the decades-old hours of service law and required Positive Train Control implementation by 2015 for certain high risk corridors (passenger and Toxic by Inhalation routes). We always appreciate the Congress' attention to our safety recommendations and the assistance Congress can lend in seeing that these recommendations are implemented.

Testimony of

Edward Kragh, Certified Professional Controller
Adjunct to FAA NY VFR Airspace Task Force
National Air Traffic Controllers Association

Before the House Transportation and Infrastructure Committee
Subcommittee on Aviation
Wednesday, September 17, 2009

Hudson River Airspace and Management of Uncontrolled Airspace Corridors



National Air Traffic Controllers Association
The National Air Traffic Controllers Association (NATCA) is the exclusive representative of more than 15,000 air traffic controllers serving the Federal Aviation Administration (FAA), the Department of Defense and the private sector. In addition, NATCA represents approximately 1,200 FAA engineers, 600 traffic management coordinators, 500 aircraft certification professionals, agency operational support staff, regional personnel from FAA logistics, budget, finance and computer specialist divisions, and agency occupational health specialists, nurses and medical program specialists. NATCA's mission is to preserve, promote and improve the safety of air travel within the United States, and to serve as an advocate for air traffic controllers and other aviation safety professionals. NATCA has a long history of working together with the NTSB, other government agencies and aviation industry experts to make the National Airspace System (NAS) the safest in the world.

August 8, 2009: Aftermath
On August 8, 2009, a Eurocopter AS350 helicopter collided with a Piper PA-32R over the Hudson River. Nine people died in the collision. This accident and loss of life has caused many aviation safety experts, including NATCA, to examine the circumstances surrounding the incident and search for ways to prevent the situation from repeating itself in the future. To this end, NATCA was an active participant in the New York Airspace Task Force which was chartered by the FAA in response to this incident in order to recommend safety enhancements for the affected airspace.

The incident occurred under a particular set of aviation rules and procedures; both aircraft were operating under Visual Flight Rules (VFR) in the Class B Exclusion Corridor, and the incident occurred in the midst of a handoff between air traffic control facilities. Although we believe that procedures were properly adhered to, the incident forces us to examine the procedures themselves so that we may prevent future incidents of this type. As an organization that prides itself on its air traffic control expertise, NATCA has examined and will testify about several aspects of aviation operations and procedures in effect at the time of the incident.

Visual Flight Rules: See and Avoid
Both the aircraft involved in the August 8 incident were operating under Visual Flight Rules (VFR).

VFR rules are a set of specifications governing the operation of aircraft under clear meteorological conditions. The basic premise of VFR is that pilots maintain a safe distance from terrain and other aircraft using a simple "see-and-avoid" standard.

> Conduct of VFR Flight: In the conduct of VFR flight, the prevention of collisions (safe separation from other aircraft) is solely the responsibility of the pilot-in-command (PIC) to see and avoid.[1]

[1] FAA Order 8900.1 Flight Standards Information Management System Volume IV: Aircraft Equipment on Operational Authorization, Chapter 1 Air Navigation Communication and Surveillance

A pilot choosing to operate under VFR has a variety of tools at his disposal to assist him in maintaining situational awareness. Perhaps the most important of those tools is the Common Traffic Advisory Frequency (CTAF). Using CTAF, pilots communicate via two-way radio to announce their position and intentions to other pilots in order avoid conflict.

Air Traffic Control flight following can be another tool for VFR pilots. While the onus of separation remains on the pilot, an Air Traffic Controller can help the pilot to see and avoid (See section on flight following for more information). In congested VFR airspace like the Hudson River corridor, communication over CTAF is considered preferable to communication with air traffic control. The high volume of VFR traffic combined with the unreliability of Radar coverage in the area makes CTAF the more effective option.

Seeing and Avoiding: August 8, 2009

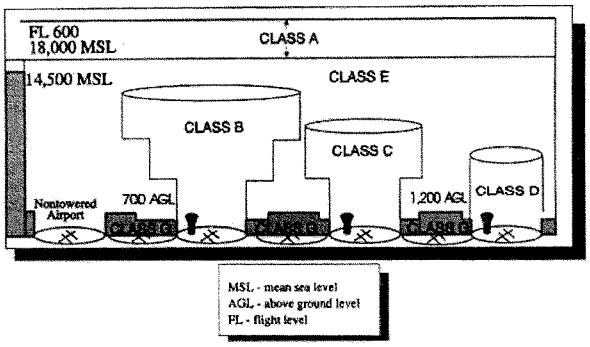
The incident on August 8 was an example of one of the most common types of VFR incidents: a high-wing, low-wing collision. A Piper 32A has a low-wing design; the wings are positioned low relative to the fuselage, making it difficult for the pilot to see aircraft flying at a lower altitude. Conversely, helicopter rotors are positioned above the fuselage, making it more difficult for the pilot to see aircraft flying above. Therefore, if a helicopter flies below a Piper and ascends; each aircraft may be in the other's blind spot.

This situation was a tragic illustration of the limitations of see-and-avoid separation. Simply put, if pilots are unable to see approaching aircraft it is extremely difficult to avoid them. Tools like CTAF can save lives in these cases; they can make a pilot aware of hazards outside of his immediate ability to see. In congested corridors like the one in which the incident occurred pilots should be particularly cognizant of the availability of CTAF and be required to monitor that frequency and broadcast their position and intentions.

Airspace Classes

As previously stated, both of the aircraft involved were operating under VFR, but the specific procedures governing proper utilization of VFR are not fixed. They vary depending on the class of airspace in which the aircraft is operating. The FAA breaks the National Airspace System (NAS) into different classes of airspace; Classes A, B, C, D, and E are all designations of controlled airspace, and Class G is uncontrolled (Class F does not exist in domestic airspace). These classes of airspace differ in the rules that govern them, the obligations of air traffic controllers, the responsibility of pilots, and the flexibility of aircraft operation.

Figure I[2]



The most stringent rules apply to class A, the airspace typically designated from 18,000 ft above Mean Sea Level (MSL) to Flight Level 600. All aircraft operating in Class A airspace must utilize Instrument Flight Rules (IFR); pilots must be equipped and trained to rely on their instruments for navigational purposes. It is the responsibility of air traffic controllers to maintain separation between aircraft in Class A airspace.

The next most stringent class is Class B, which typically surrounds the nation's largest airports. The main purpose of class B airspace is to protect the area around a major airport so that larger passenger aircraft can operate safely. As such, aircraft in Class B airspace are permitted to use VFR in clear meteorological conditions, but it remains the controller's responsibility to ensure separation according to FAA regulations. No aircraft is permitted to enter Class B airspace without first receiving a clearance from air traffic control. Once inside, pilots are required to closely follow air traffic control instructions.

In airspace classes C, D and E, air traffic controllers are responsible for maintaining separation between IFR aircraft, but VFR aircraft are allowed to freely travel through the airspace without receiving clearances from air traffic control. In these cases, it is the VFR pilots' responsibility to maintain separation by utilizing the see-and-avoid method that is standard for VFR.

Class G, or uncontrolled airspace, operates entirely according to VFR standards. Air traffic controllers do not have jurisdiction over aircraft operating in class G airspace, and the burden of separation is entirely on the pilots. Pilots flying in Class G airspace are urged to monitor and broadcast their position over CTAF in order to effectively coordinate use of airspace and uncontrolled runways.

Class B Exclusion Areas:
Class B airspace is designed to protect large passenger aircraft in the areas surrounding major airports by providing positive air traffic control separation. However, many of these areas also

[2] Federal Aviation Administration *Aeronautical Information Manual: Official Guide to Basic Flight Information and ATC Procedures* 2008 (with changes for 2009). Figure 3-2-1

have a high volume of VFR traffic. As a result, VFR aircraft would have had to fly all the way around this class B airspace, as it would be difficult for an air traffic controller to safely handle such a high volume of VFR traffic in addition to the IFR traffic that is their first duty priority without imposing restrictions on the flow of traffic.

Rather than require these VFR users to travel all the way around the Class B airspace, The FAA implemented an alternative in several metropolitan areas including New York, Los Angeles and San Diego. In these areas there is a small corridor carved out of the Class B airspace where VFR aircraft are permitted to fly without communicating with Air Traffic Control. These corridors are considered Class G or uncontrolled airspace. VFR pilots who wish to coordinate with air traffic control may still request permission to enter Class B airspace.

The Aeronautical Information Manual (AIM) advises pilots in these corridors as follows: "Pilots operating in VFR corridors are urged to use [the CTAF frequency] for the exchange of aircraft position information." Pilots are therefore expected to communicate and coordinate with other pilots in order to maintain self-separation. Pilots monitoring that frequency are not in contact with air traffic control and therefore do not receive flight following services.

Flight Following

VFR pilots who are operating in controlled airspace may request flight following service. According to the Air Traffic Control Order JO 7110.65S, the manual for all air traffic control operations and procedures, Radar Flight Following is defined as follows:

> RADAR FLIGHT FOLLOWING- The observation of the progress of radar identified aircraft, whose primary navigation is being provided by the pilot, wherein the controller retains and correlates the aircraft identity with the appropriate target or target symbol displayed on the radar scope.

An aircraft operating under Visual Flight Rules (VFR) appears on a controller's radar scope with minimal information. Essentially, the controller knows only that there is a VFR aircraft present and its altitude (if the aircraft is properly equipped). He does not know aircraft type, call sign, or flight plan. When a pilot requests flight following, the pilot provides that additional information to the controller, who then enters the flight data. The controller has his computer automatically generate an identifier, which he instructs the pilot to enter into his transponder – enabling a data block to appear on the scope with all of the relevant information. This simple tracking assists in the event that search and rescue services are needed.

If a pilot operating in Airspace Classes C, D or E requests flight following the controller will provide basic radar service to the VFR pilot, workload permitting. According to the JO7110.65S

> Basic radar services for VFR aircraft shall include:
> 1. Safety Alerts
> 2. Traffic Advisories
> 3. Limited radar vectoring when requested by the pilot.

4. Sequencing at locations where procedures have been established for this purpose and/or when covered by a LOA [letter of agreement].

These services can only be performed if the pilot continues to monitor the appropriate air traffic control frequency. Under these circumstances, the controller does not assume responsibility for ensuring separation, nor does he give instructions to the pilot. He simply acts as an "eye in the sky" providing surveillance and advisories, workload permitting. It remains the pilot's responsibility to maintain separation under VFR. A controller's first duty priority is to the aircraft receiving full radar service. A controller must only provide flight following service to VFR pilots if his workload permits

Flight following in Class B is markedly different from that in other airspace classes. An air traffic control clearance is required to enter and operate within Class B airspace. Therefore, when a pilot requests flight following from a controller responsible for Class B airspace, it is understood that they are requesting permission to enter the airspace, and that, if granted, they will be provided with full radar service until they leave that airspace. The controller will only grant the clearance to enter the Class B airspace if his workload permits.

ATC Service for VFR Aircraft: Teterboro (TEB)
An aircraft departing TEB flies through Class D airspace. The AIM describes the procedural requirements for aircraft departing an airport with an operating control tower in Class D airspace as follows:

> Two-way radio communications must be established and maintained with the control tower, and thereafter as instructed by ATC while operating in the Class D airspace.

The AIM goes on to say that "No separation services are provided to VFR aircraft," although a pilot may request flight following services.

Because TEB is located in such close proximity to the larger New York Area Airports that service passenger airlines, the Class D airspace is located immediately adjacent to Class B airspace controlled by Newark (EWR) and the Class B Exclusion Corridor along the Hudson River. An aircraft departing from TEB and heading in the direction of the Hudson River therefore has the option of entering uncontrolled airspace, or requesting to enter Class B. Controllers at TEB do not have the authority to climb VFR aircraft into the EWR Class B airspace, only EWR controllers can give them such permission. Therefore, the transition into Class B airspace requires a handoff of control from TEB to EWR.

ATC Service for VFR Aircraft: Newark (EWR)
If a pilot leaving TEB airspace wishes to remain in communication with air traffic control as he continues southwest along the Hudson River, control must be transferred to EWR. If the EWR controller accepts the handoff, he will climb the VFR aircraft into Class B; if he does not accept the handoff, the aircraft must remain outside class B airspace and utilize the Exclusion Corridor.

In EWR there are several different air traffic control positions responsible for different aspects of the aviation operation around the airport. These positions include a ground controller

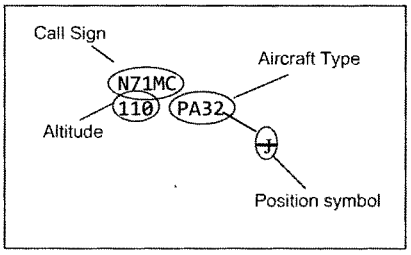
responsible for taxiing to the runways, a local controller responsible for take-off and landing, and a Class B Airspace (also known as Terminal Control Area) Controller.

The Class B Airspace controller is responsible for the VFR aircraft traversing Newark's Airspace, including those flying in the Class B airspace above the exclusion zone. Unlike the local controller who works mostly with large passenger aircraft, the Class B Airspace controller is responsible mainly for helicopters, small fixed-wing planes, and occasional military aircraft. Part of his job is to coordinate airspace usage with the local controller in order to maintain safe separation as he guides VFR aircraft through designated VFR routes in the Class B airspace.

Handoff Procedure:
A handoff occurs prior to an aircraft crossing an airspace boundary when control of that aircraft must be transferred from one air traffic controller to another. It consists of a radar transfer and a communications transfer. In most cases, the radar transfer occurs via Automated Information Transfer (AIT). For the purpose of this description, Controller 1 will refer to the controller in control at the beginning of the handoff and Controller 2 will refer to the controller responsible at the end of the handoff.

Each air traffic control position has a position symbol, a letter that appears superimposed on the radar target to indicate which controller is responsible. The TEB position symbol is J and the EWR position symbol is B (See Figure ii).

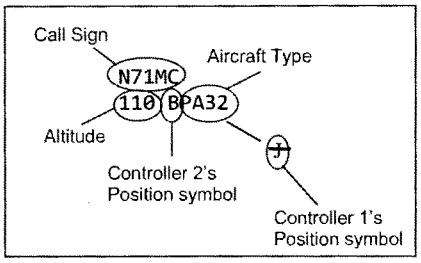
Figure ii



When an aircraft is approaching an airspace boundary, Controller 1 initiates a radar handoff by pressing a button on his console. By pressing that button, Controller 1 causes a data block to flash on the scope of Controller 2. Because of this, initiating a radar handoff is colloquially referred to as "flashing" by controllers.

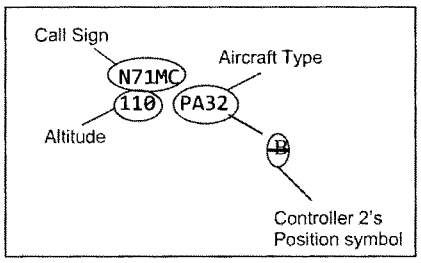
As Controller 1 "flashes" the aircraft to Controller 2, Controller 2's position symbol appears in the second line of the data block. Controller 1 remains responsible for the aircraft, but the presence of this symbol means that the handoff has been initiated.

Figure iii



Controller 2 sees the flashing data block and hits "Enter" on his keypad to accept the transfer, effectively completing the radar handoff. Controller 2 has acknowledged that he sees the aircraft, its identifier, altitude, and other relevant data and accepts responsibility. By hitting enter, Controller 2 causes the corresponding data block to flash on Controller 1's console, attracting Controller 1's attention. At this point, Controller 2's position symbol appears above the target, confirming completion of the handoff.

Figure iv



Controller 1 than contacts the pilot and instructs him to contract Controller 2 and provides him with the appropriate frequency. Once the pilot has accurately read back the new frequency, the handoff is fully complete, and controller 2 assumes primary responsibility for the aircraft.

Handoff: TEB to EWR

The Current air traffic control procedure *does not* require TEB controllers to pre-coordinate a transition for VFR aircraft wishing to travel through the EWR Class B airspace. The TEB controller simply flashes the aircraft to EWR, where the controller can choose either to accept him or request that the TEB controller instruct him to enter the exclusion corridor.

In some instances, a pilot would have to change his plans if controller workload did not permit him to enter Class B Airspace. The pilot must therefore be ready to enter the exclusion zone, and should be prepared to switch to CTAF and announce himself, should it be necessary.

However, we do not believe that this occurred on August 8. It is our understanding that the TEB controller initiated a timely handoff, which the EWR controller accepted. The EWR controller was expecting radio contact from the N71MC, which never came. Although controllers at both TEB and EWR attempted to re-establish radio communication with the pilot, they were unable to contact him. At the time of the collision, the pilot was not in communication with air traffic control at TEB or EWR, nor was he transmitting over CTAF.

Had the pilot contacted EWR as instructed, the EWR controller would have issued climb instructions that would have taken N71MC above the exclusion zone and into the Class B airspace. Because N71MC did not successfully establish radio communication with EWR he was unable to receive that clearance; instead N71MC continued eastbound, where it collided with the helicopter in the exclusion area.

This incident caused us to examine the procedures governing this airspace including handoff procedure. NATCA believes that coordination between TEB and EWR prior to take-off would reduce confusion at the airspace boundaries and make it less likely that a pilot would unknowingly enter the exclusion zone and therefore fail to switch to CTAF frequency. This will also allow EWR to notify TEB in advance that the workload is too great to allow Class B entry so the TEB controller may provide alternate routing options to the aircraft prior to the departure.

Is Controlled Airspace A Viable Option?
In recent weeks there has been some discussion about eliminating the Hudson River exclusion area and converting the airspace entirely into Class B. Current infrastructure is unable to support the conversion of this type. Before any such change can be implemented the following infrastructure improvements would need to be made.

1. **Comprehensive Surveillance** – with the current radar infrastructure, radar coverage over the Hudson River is unreliable. In much of that corridor, the height and density of the New York City skyline prevents radar from reaching the low altitude airspace, and information on aircraft flying in this area often does not appear on a controller's scope. For example, when flight 1549 lost the use of its engines, the aircraft disappeared off controller Patrick Harten's scope after it lost enough altitude to be obscured by the buildings. If the airspace were to be converted into Class B airspace, this spotty radar coverage would not be sufficient enough to ensure the safety of the users. Additional radar sites would need to be placed in such a way so as to ensure continuous comprehensive coverage of the area.

2. **Comprehensive Radio Coverage** – Just as the radar coverage is obscured by the terrain of New York City, radio coverage is similarly unreliable. The skyline often blocks radio signals, and communication between controller and pilot might be compromised. This

3. **Air Traffic Control** – The Air Traffic Control facilities that would have jurisdiction over this airspace would need to be restructured to accommodate control of new airspace. A new control position would have to be added to each of the affected facilities: EWR, John F. Kennedy International Airport Tower (JFK), LaGuardia Airport Tower (LGA), and New York Terminal Approach Control (N90).

4. **Air Traffic Controller Staffing** – Additional controllers would need to be hired at each of the effected facilities so as to ensure proper staffing for each of the new positions.

5. **Effect on General Aviation** – The elimination of the exclusion corridor would severely restrict access to this area by general aviation. An air traffic controller is naturally constrained in the number of aircraft he can safely monitor and communicate with, and even a properly staffed position would restrict the number of aircraft that could utilize the Class B space. General Aviation pilots who do not wish to coordinate with air traffic control would be required to go around the Class B airspace, without an option to cut through.

Is the Hudson River Class B Exclusion Zone Safe?
Following an incident of this severity, it is natural to question the safety of the airspace. The fact that such an incident occurred appears to be proof that the airspace is unsafe and needs to be fixed. But one must also retain the appropriate perspective and regard this incident in context.

According to the NTSB, the incident on August 8, 2009 was the first midair collision in the Hudson River Class B Exclusion Area. The NTSB further noted that "a review of the FAA's Near Midair Collision (NMAC) database and the National Aeronautics and Space Administration (NASA) Aviation Safety Reporting System (ASRS) database revealed 11 reports of NMACs between aircraft in the area since 1990. Only one report was filed in the past 10 years." This safety record is considered very good; there are far fewer NMAC reports than one would predict given that over 200 aircraft utilize this airspace per day.

Yet this incident did occur, and it has served to highlight the week points in the system. The incident has caused the aviation safety community to scrutinize the procedures in place at that time and devise ways of improving safety.

The New York Airspace Task Force
On August 14, the FAA charted a task force and charged it with the duty of making recommendations to enhance the safety of the Hudson River airspace area. NATCA was very pleased to be included as active participants in this taskforce as we believe that our subject matter expertise on air traffic control contributed substantially to the task force.

The Task Force is recommending several changes to operations, procedures, training and airspace structure. In general, NATCA supports these recommendations, but we believe that the FAA must fully consider the impact that these changes will have on other aspects of operation.

For example we agree with the task force that encouraging VFR use of Class B positively-controlled airspace would improve safety, but the large influx of VFR aircraft into Class B airspace would significantly increase controller workload and generate a need for increased staffing to meet the increased demands on the Class B Area position.
The task force made the following recommendations:

1. **Modify Class B airspace to allow aircraft stratification in the exclusion by mission profile for overflight versus local operations** – This recommends the creation of a uniform floor to the class B airspace at 1,300 ft to allow aircraft operating in the exclusion to stratify by altitude. Transient traffic would operate above 1,000 ft and local operators would remain below 1,000 ft. Under the current airspace structure the floor of the Class B airspace is 1,100 in some places. NATCA is concerned that raising the floor in these areas will cause VFR aircraft receiving Class B services above the exclusion zone to interfere with passenger jets landing at LaGuardia (LGA). In some runway configurations, aircraft landing at LGA Runway 13 pass through this airspace at 1,500 ft. NATCA recommends that the FAA examine this and other unintended consequences of this recommendation carefully prior to implementation.

2. **Review airspace delegated by New York TRACON (N90) to local air traffic control towers adjacent to the Hudson River** – In its current state, there is some confusion about which tower has jurisdiction over which airspace. The FAA has admitted that there are overlapping airspace boundaries and airspace that, though controlled by a tower, has not been officially delegated. This recommendation would rectify this problem and clarify the roles and delegated responsibility of air traffic controllers in each facility. NATCA fully supports this recommendation.

3. **Revise procedures at TEB for VFR fixed-wing departures** – This recommendation would require air traffic controllers at TEB to coordinate with controllers at EWR for aircraft wishing to utilize Class B services. If workload at EWR is such that he can extend Class B services to the aircraft, TEB would be authorized to climb the aircraft to 1,500 ft and into Class B airspace. This recommendation also would establish a standardized route for aircraft departing from TEB and intending to enter the exclusion that would limit the mergers at the current point of entry. NATCA supports this recommendation.

4. **Develop a Class B VFR transition route over the Hudson River** – This would publicize and promote the use of Class B services among VFR pilots traveling in the area. While NATCA agrees that positively controlled airspace is safer than uncontrolled airspace, we have concerns about the effects of this change. If this measure is successful in increasing the use of Class B services among VFR pilots it will represent a significant increase in controller workload. At present, the Class B Airspace controller position described earlier is often combined with the local control position, particularly during weekends. If this change is to be implemented, NATCA requires a commitment from the FAA to provide the additional air traffic control staffing necessary to fully staff this position at all times, as this position should not be combined with other positions while we determine the effects of the changes on VFR traffic patterns.

5. **Mandate pilot operating practices while operating in the Exclusion** – this would codify the voluntary procedures currently recommended for pilots in the exclusion. This includes maximum airspeed restrictions, announcing altitude and intensions on CTAF, and flying along the west shoreline of the Hudson River when southbound along the eastern shoreline when heading northbound. NATCA fully supports this recommendation.

6. **Enhance pilot communication and capability and reduce frequency congestion on Hudson River CTAF** – This would create defined areas which would utilize different frequencies and decrease frequency congestion. It would also standardize phraseology to reduce confusion. NATCA fully supports this recommendation.

7. **Standardize and enhance multiple NY Area Aeronautical Charts to assist pilot navigation** – Currently there are several charts covering the area, each of which contain different information on the airspace. This would create a single chart with standardized information. This recommendation also supports recommendation four in that it would publicize the Class B services available to VFR pilots. As previously stated, NATCA requires full staffing of the Class B position, as changing or clarifying the charts is intended to increase the usage of Class B air traffic control services for VFR pilots.

8. **Develop FAA and industry standardized training and education plans for pilots, fixed-base operators, and air traffic controllers** – NATCA believes that comprehensive and effective training of pilots, controllers and other aviation safety professionals is integral to maintaining the safety of the airspace. In the case of air traffic controllers giving clearances to pilots in this airspace, we believe that training can be improved. It is important for controllers to fully understand the intentions of the pilot so that they can issue clearances that do not need to be altered later. Again, training requires proper staffing levels at the facilities. We must be able to fully cover operations during the training itself.

Air Traffic Controller Staffing at NY Area Facilities

Several of the recommendations offered by the taskforce and other changes that have been considered will represent an increase in controller workload at the facilities in the New York Area. Currently the controller workforces at the facilities in this area are understaffed, inexperienced, and operating with a potentially dangerous ratio of trainees to fully certified controllers. TEB is operating with a number of certified controllers 42 percent below the staffing rate jointly agreed to by NATCA and the FAA in 1998 and N90, JFK, LGA and EWR are 42 percent, 35 percent, 36 percent, and 32 percent below respectively. Additionally N90, JFK and TEB have a trainee ratio of over 35 percent, which had been considered the safe upper-limit by the FAA. LGA is not far behind, with a trainee ratio of 34 percent[3]. If the safety of this area is to improve, and particularly if more VFR pilots are to be encouraged to utilize Class B services,

[3] Staffing statistics are based on payroll data provided to NATCA by the FAA. They are current as of March 31, 2009.

it will require that the Class B Airspace control position be opened at all times. In order to do so, the facilities must be properly staffed.

NATCA Recommendations

1. **The FAA Must Thoroughly Examine** the recommendations offered by the task force to determine their effect on the broader operation and air traffic controller workload. This must be done in full collaboration with NATCA. Only after this examination is completed and any risks mitigated should these recommendations be implemented.

2. **The FAA Must Collaborate With NATCA** to continue investigating ways to improve operations, airspace and procedures. The FAA must formally and thoroughly include NATCA in all stages of reforming the New York area airspace, from development through implementation. NATCA's members are subject matter experts who deal with the realities of this airspace on the front line and in real time each day. As such our union should be regarded as a subject matter expert and be fully engaged in developing and implementing any and all changes.

3. **Proper Staffing to Cover Additional ATC Duties** –Any change operations, procedure or airspace structure must be evaluated as to its effect on air traffic controller workload. Even small changes may have a significant effect and must be evaluated cumulatively and multiplied by the large volume of aircraft controllers handle at a given time. It is imperative that all affected air traffic control facilities and positions be properly staffed, including the radar associate position when appropriate.

NEW YORK VFR AIRSPACE TASK FORCE RECOMMENDATIONS

1. Modify the Class B Airspace to allow aircraft stratification in the Exclusion by mission profile for overflight versus local operations

2. Review airspace delegated by New York TRACON to local air traffic control towers adjacent to the Hudson River Exclusion

3. Revise procedures at Teterboro Airport Traffic Control Tower for VFR fixed-wing departures

4. Develop a Class B VFR transition route over the Hudson River

NEW YORK VFR AIRSPACE TASK FORCE RECOMMENDATIONS (continued)

5. Mandate pilot operating practices while operating in the Exclusion

6. Enhance pilot communication capability and reduce frequency congestion on the Hudson River Common Traffic Advisory Frequency (CTAF)

7. Standardize and enhance multiple NY area aeronautical charts to assist pilot navigation

8. Develop FAA and industry standardized training and education plans for pilots, fixed base operators and air traffic controllers

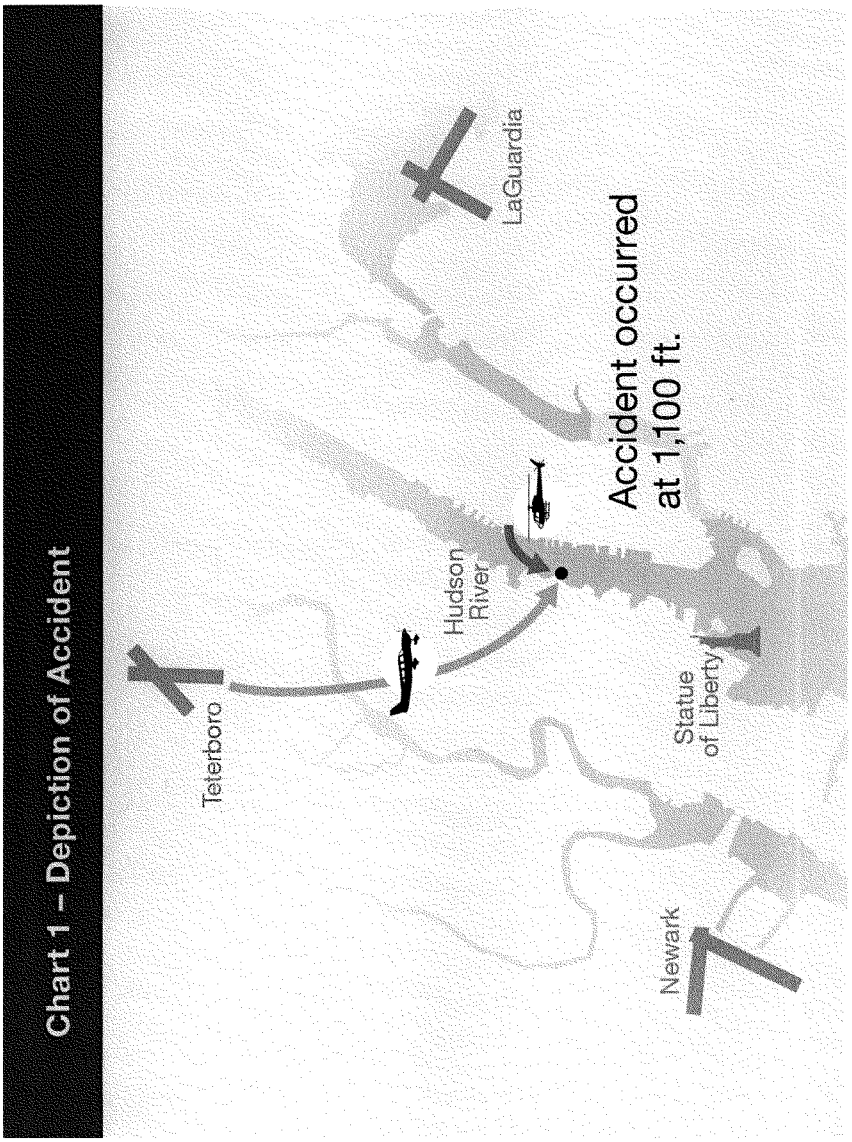

Chart 1 – Depiction of Accident
Teterboro
Hudson River
LaGuardia
Accident occurred at 1,100 ft.
Statue of Liberty
Newark

Chart 2 – Side View of Current Airspace and Operations

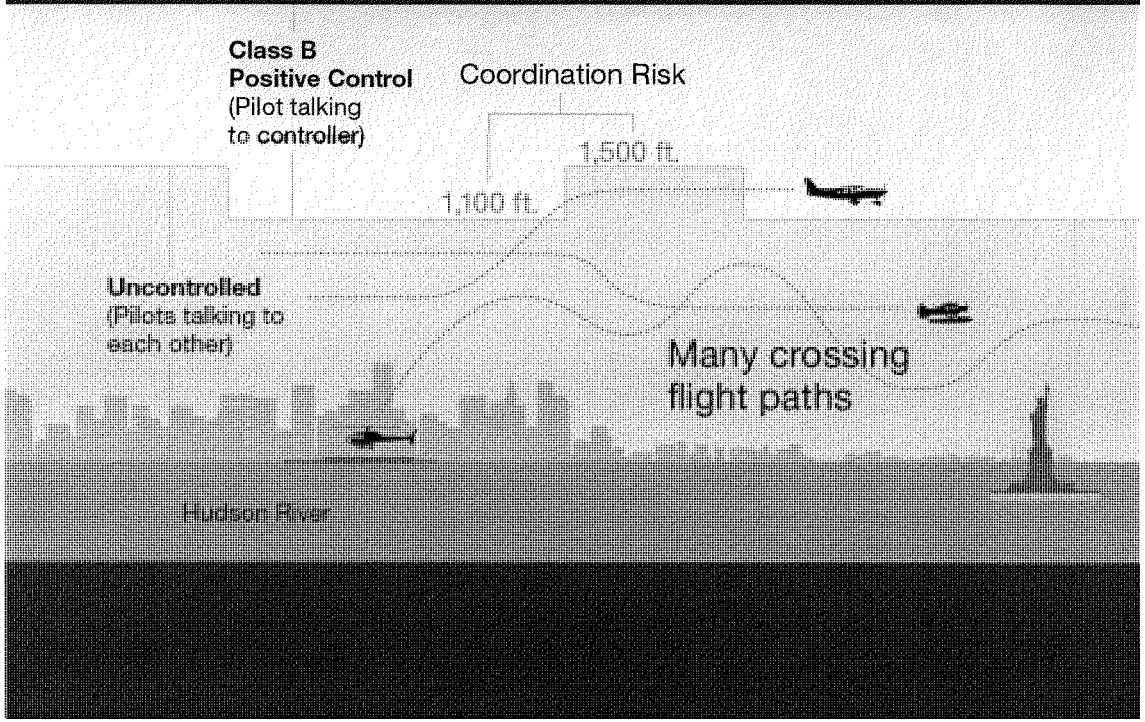


Chart 3 – Top View of Current Airspace and Operations

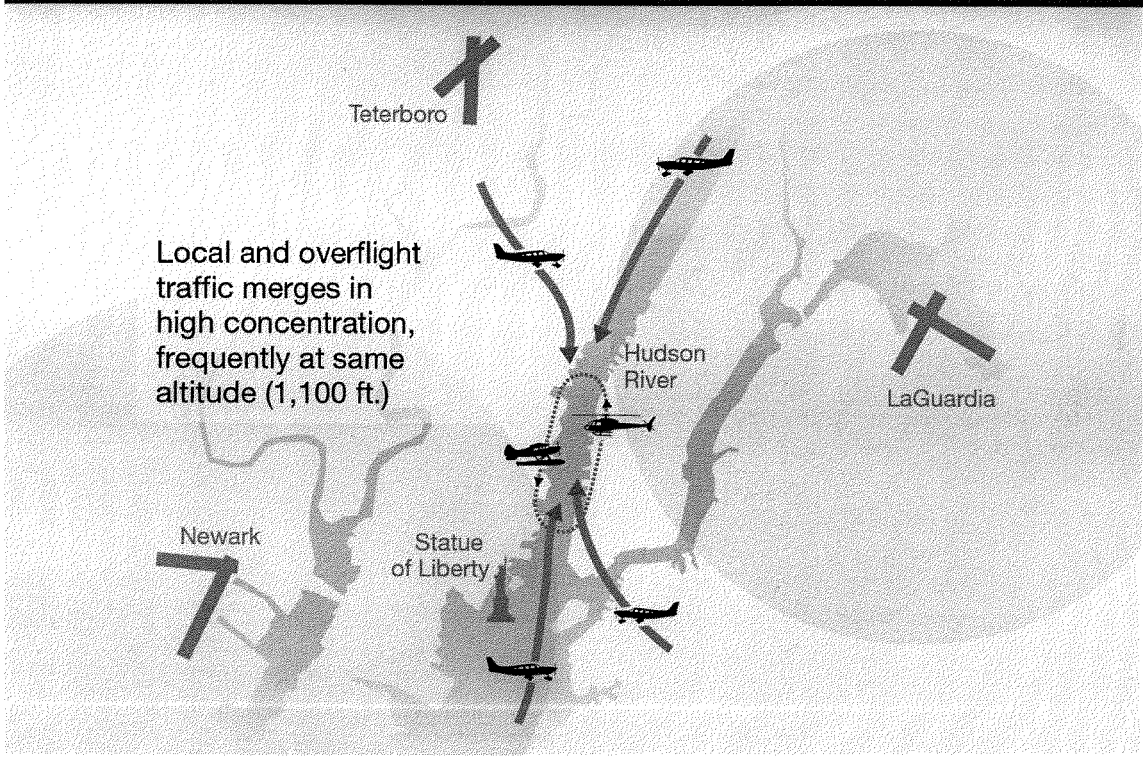


Chart 4 – Side View of Proposed Changes

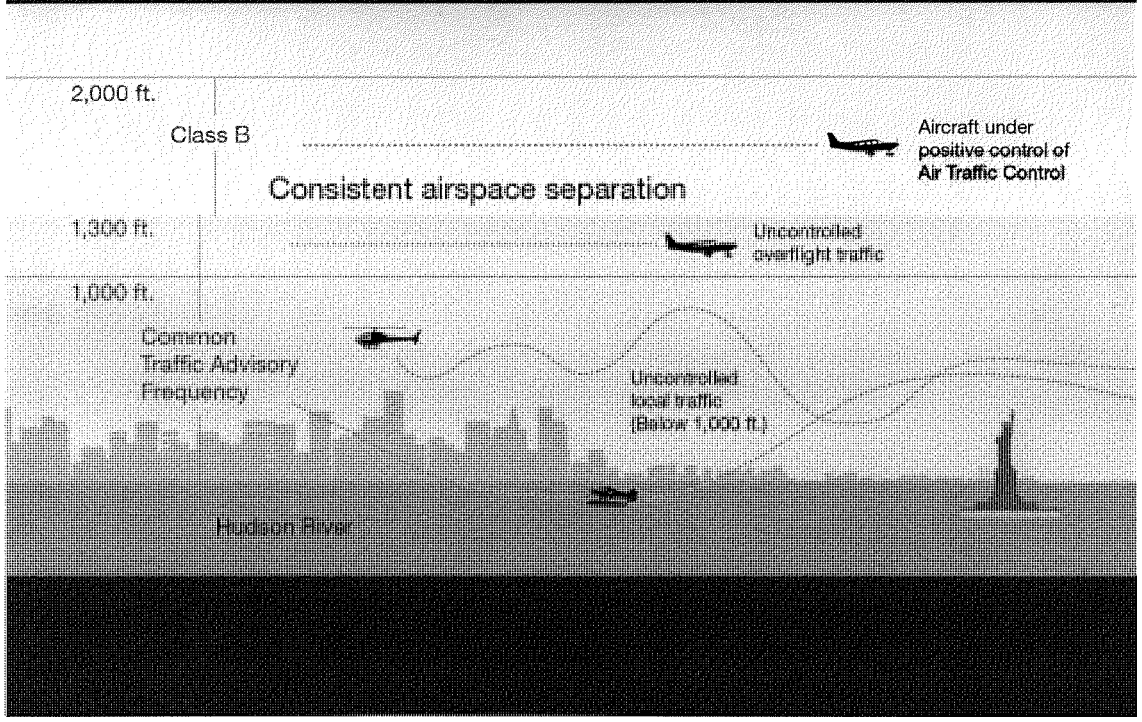
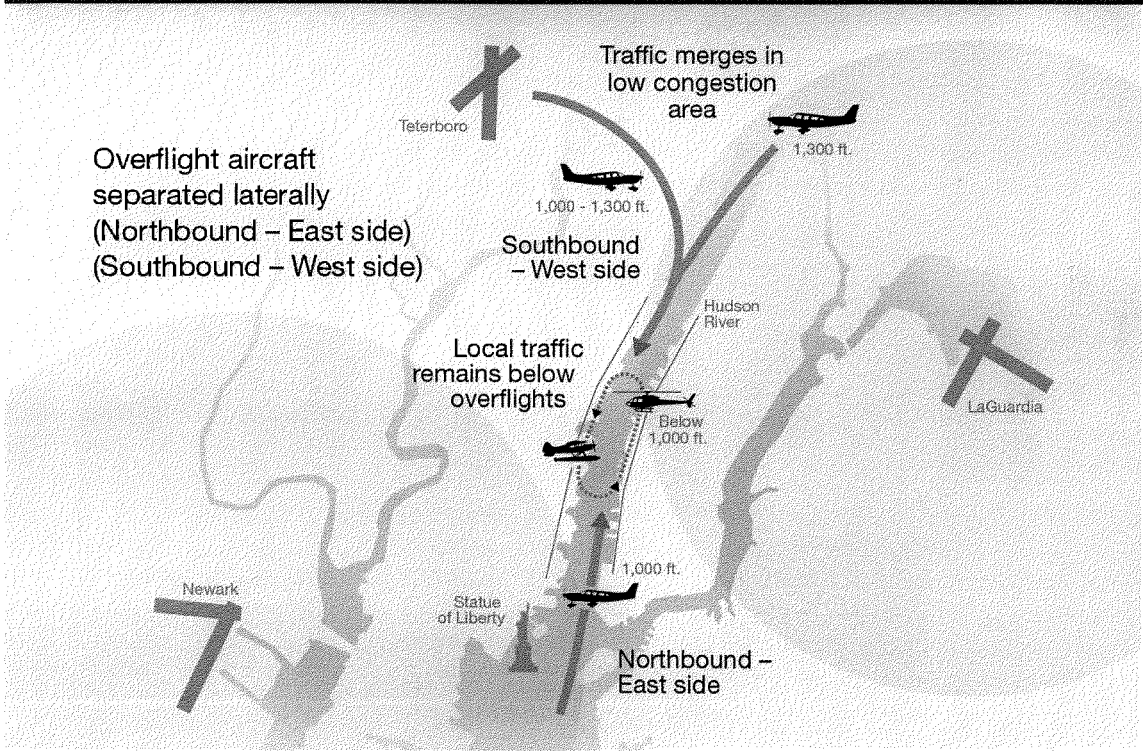


Chart 5 – Top View of Proposed Changes



STATEMENT OF HANK KRAKOWSKI, CHIEF OPERATING OFFICER, AIR TRAFFIC ORGANIZATION, FEDERAL AVIATION ADMINISTRATION, ON THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS, BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON AVIATION, SEPTEMBER 16, 2009.

Chairman Costello, Congressman Petri, and Members of the Subcommittee:

Thank you for inviting me here today to discuss the very sad events of August 8, 2009, and what FAA is doing to create a safer operating environment over the Hudson River. Everyone at FAA grieves with the families over the loss of life that occurred that day. When such events do occur, we redouble our efforts to make the skies safer. My colleagues at FAA and throughout the aviation industry approach this work with seriousness and urgency.

Since the investigation of the accident remains under the formal processes of the National Transportation Safety Board (NTSB), I will not be commenting on the specifics of the accident. I will, however, share with you the immediate actions we have taken, as well as discuss some of our longer-range plans to improve safety.

The FAA's first action was taken on August 11. We issued a Notice to Airmen (NOTAM) that reiterated our recommended best practices for conduct of flight in the airspace of the Hudson River corridor. New York airspace is very restricted by a large volume of "Class B" airspace, which is designed to provide positive protection of airliners using LaGuardia, John F. Kennedy International, and Newark Liberty

International Airports. All aircraft within Class B airspace must be under positive control by air traffic controllers.

There are areas known as "VFR flyways," where we permit aircraft operating under Visual Flight Rules (VFR) to fly within a defined corridor and below certain altitudes without being under positive air traffic control. These VFR flyways use "see and be seen rules," where pilots are responsible for maintaining safe distance from other aircraft. In New York, this VFR flyway is commonly called the "exclusion area," which has existed in some form since 1971, and is bounded by the Hudson River and has a ceiling of either 1,100 feet or 1,500 feet. (See Figures 1.)

The August 11 NOTAM reiterated long-recommended practices for this VFR flyway, including speed limitations (not exceeding 140 knots) and taking precautionary measures (turning on anti-collision, position/navigation, and/or landing lights and self-announcing their position on the Hudson River frequency for all other aircraft to hear).

We recognized this was only the first step to assess and enhance the safety of Visual Flight in this area. On August 14, 2009, we chartered a New York Airspace Task Force to review the current procedures for Hudson River operations, specifically with regard to safety of flight, operations, and regulatory compliance and make recommendations to Administrator Babbitt no later than August 28 – just two weeks later. The Task Force consisted of FAA air traffic and aviation safety experts, as well as air traffic controllers representing the National Air Traffic Controllers Association (NATCA) who work in this area. We also had input from key stakeholders – such as Helicopter Association

International, the Aircraft Owners and Pilots Association, and the Port Authority of New York/New Jersey. The group delivered these recommendations to Administrator Babbitt on time on August 28. We thank the Task Force members for their efforts, particularly given the short timeline. Because we believe that their recommendations will enhance the safety of this airspace, we intend to implement their recommendations via expedited rulemaking and revised letters of agreement with the area airports and operators.

The Task Force recommended eight specific safety and operational enhancements that would restructure the airspace, mandate pilot operating rules, create a new entry point into the Hudson River airspace from Teterboro, and standardize New York area charts and maps. They also recommended developing new training for pilots, air traffic controllers, and helicopter operators so they will be fully trained and ready for implementation of the new rules. One of the most significant changes would divide the airspace into altitude corridors that separate aircraft flying over the river from those operating to and from local heliports or seaplane bases. (See Figure 2.)

This new exclusionary zone would be comprised of three components:

- It would establish a uniform "floor" for the Class B airspace over the Hudson River at 1,300 feet, which would also serve as the "ceiling" for the exclusionary zone. This removes some confusing complexity that currently exists.

- Between 1,300-2,000 feet, aircraft will operate in the Class B airspace under visual flight rules but under positive air traffic control and communicate with controllers on the appropriate air traffic frequency.

- Below1,300 feet, aircraft must use a single common radio frequency. Mandatory routes for aircraft flying up and down the river will require them to favor the "right side" of the river (i.e. the east side for northbound traffic and the west side for southbound traffic) to provide horizontal separation as well.

- Coordination of traffic and handoffs between Air Traffic Controllers at the Teterboro tower, Newark tower, and radar control will be improved.

The new rules will mandate that pilots use two specific radio frequencies – one for the Hudson River and the other for the East River. It mandates speeds of 140 knots or less and the use of anti-collision lights and landing lights in the VFR routes. The rules would also require pilots to announce their position when they reach various points up and down the river. Pilots would also be required to have charts available in the aircraft and to be familiar with and comply with the airspace rules.

The FAA also intends to propose standardized procedures for fixed-wing aircraft leaving Teterboro to enter either the Class B airspace or the exclusionary zone. The proposal would require that before an aircraft planning to enter the Class B airspace takes off, Teterboro controllers would request approval from the Newark tower for the aircraft to climb to 1,500 feet. Aircraft from Teterboro that want to enter the VFR flyway would be

directed by air traffic control to fly a special route over the George Washington Bridge, which would allow them to enter the Hudson River airspace in a much less congested area.

The FAA expects the expedited rulemaking covering these issues to be completed, and have all pilot and controller training completed in time for publication of new charts and new rules by November 19th.

The effort with New York airspace has wider implications for the national airspace system. As we implement these changes in the New York airspace and have an opportunity to analyze their effectiveness, the FAA intends to examine the other major metropolitan areas and congested corridors for similar airspace and operational risks to see if such procedures would be appropriate elsewhere. We expect this larger effort to carry well into next year.

Mr. Chairman, Ranking Member Petri, Members of the Subcommittee, this concludes my prepared remarks. I look forward to answering any questions that you may have.

Figure 1 - Side View of Current Airspace and Operations

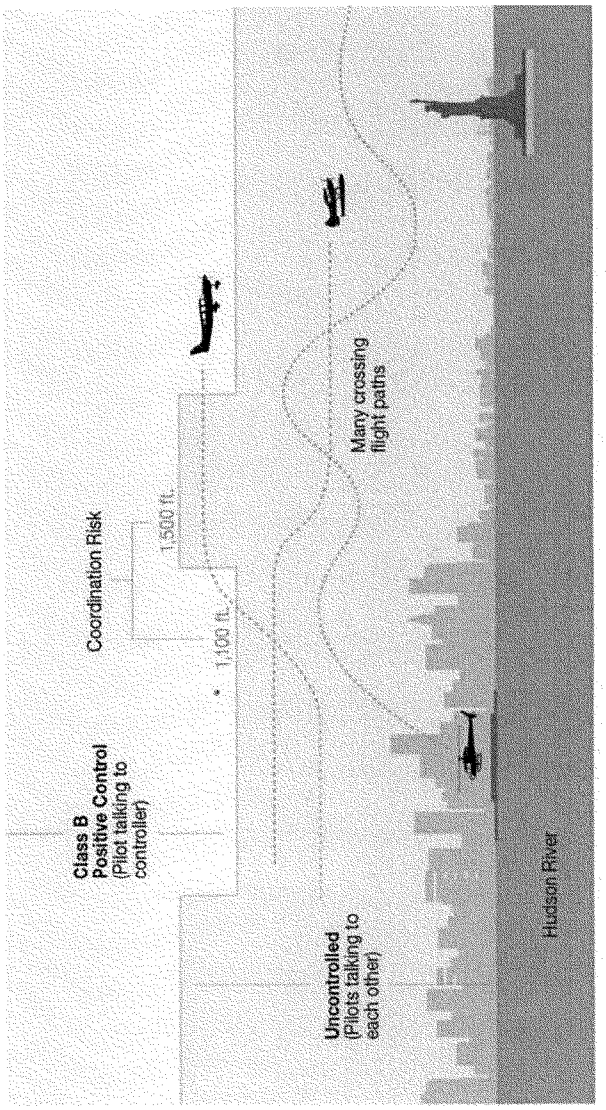
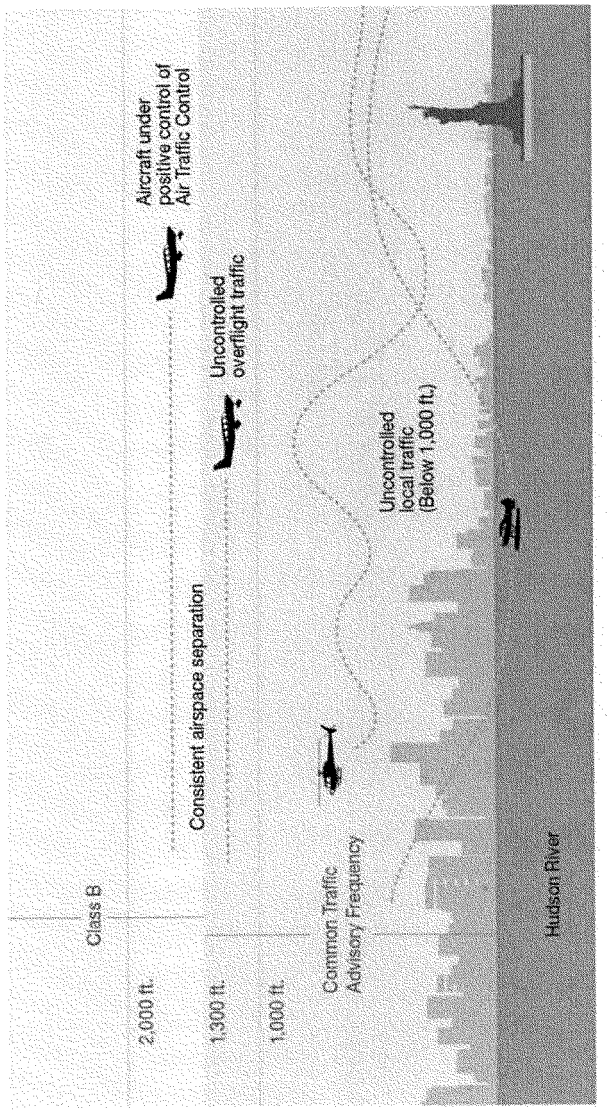


Figure 2 – Side View of Proposed Changes



U.S. House of Representatives
Committee on Transportation and Infrastructure

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

Washington, DC 20515

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

October 1, 2009

Mr. Hank Krakowski
Chief Operating Officer
Air Traffic Organization
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Dear Mr. Krakowski:

On September 16, 2009, the Subcommittee on Aviation held a hearing on **"The Hudson River Airspace and Management of Uncontrolled Airspace Corridors."**

Attached are questions that I would like you to answer for the hearing record. I would appreciate receiving your written response to these questions within 14 days so that they may be made a part of the hearing record.

Sincerely,

Jerry F. Costello
Chairman
Subcommittee on Aviation

JFC:pk
Attachment

SEPTEMBER 16, 2009
SUBCOMMITTEE ON AVIATION
HEARING ON
"THE HUDSON RIVER AIRSPACE AND MANAGEMENT
OF UNCONTROLLED AIRSPACE CORRIDORS"

QUESTIONS FOR THE RECORD
TO:
MR. HANK KRAKOWSKI
CHIEF OPERATING OFFICER
AIR TRAFFIC ORGANIZATION
FEDERAL AVIATION ADMINISTRATION

1) Has the Hudson River class B exclusion area been affected by the New York-area airspace redesign?

2) What is the amount of traffic that travels through the Hudson River class B exclusion area on a typical, good weather day? What is the overall average amount of traffic?

3) In your testimony you state that FAA will be starting a larger examination into other metropolitan areas and congested corridors for operational risks similar to the Hudson River corridor. Specifically, which metropolitan or other areas will the FAA review? What is the timeframe for this review?

4) How will the FAA educate pilots and controllers on the proposed changes to the Hudson and East River exclusion areas?

5) Pilots operating in the Washington, DC metropolitan area must undergo mandatory Special Awareness Training under 14 C.F.R. § 91.161. Is special online training required in any other areas with special flight rules? Will a similar mandatory training program be required for pilots operating in the Hudson and East River class B exclusion areas? If not, why not?

6) Is there an indication that the proposed changes to the Hudson and East River exclusion areas, including developing a visual flight rules (VFR) transition route between 1,500-2,000 feet where pilots may communicate with air traffic control (ATC), may increase controller workload? If so, what is the FAA doing to address this?

7) The National Air Traffic Controllers Association (NATCA) testified that it was concerned that raising the floor for transient air traffic in the Hudson River exclusion area may cause the traffic to interfere with passenger jets landing at LaGuardia Airport (LGA). NATCA stated that aircraft landing at LGA Runway 13 pass through the airspace at 1,500 feet. How is the FAA addressing this concern?

SEPTEMBER 16, 2009
SUBCOMMITTEE ON AVIATION
HEARING ON
"THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS"

RESPONSE TO
QUESTION FOR THE RECORD FROM
CHAIRMAN JERRY F. COSTELLO TO:
MR. HANK KRAKOWSKI
CHIEF OPERATING OFFICER
AIR TRAFFIC ORGANIZATION
FEDERAL AVIATION ADMINISTRATION

Question 1. Has the Hudson River Class B exclusion been affected by the New York-area airspace redesign?

Response:

The proposed Hudson River changes to the Class B airspace do not affect the airspace redesign. The New York/New Jersey airspace redesign is focused on higher altitudes and not the low altitude airspace along the Hudson River.

Question 2. What is the amount of traffic that travels through the Hudson River Class B exclusion area on a typical, good weather day? What is the overall average amount of traffic?

Response:

Complete records on actual air traffic operations in the Hudson River Exclusion are not available. We are in the process of determining if there are verifiable means to estimate the activity using radar and other reliable data. Aircraft in the Exclusion operate under visual flight rules, are not required to file flight plans, and do not routinely communicate with Air Traffic Control. Traffic consists of local operations that originate and end within the Exclusion and helicopter and fixed-wing aircraft that are primarily transiting the area but may also conduct sightseeing or other local operations. Based on our preliminary review, the Manhattan heliports can total 400 operations (arrivals and departures) on a good weather day. The totals for the exclusion other than these helicopter operations may include 50 aircraft per day.

Question 3. In your testimony you state that the FAA will be starting a larger examination into other metropolitan areas congested corridors for operational risks similar to the Hudson River corridor. Specifically, which metropolitan or other areas will the FAA review? What is the timeframe for this review?

Response:

We are developing criteria to determine whether operations below controlled airspace in other areas may affect safety of flight operations and potentially pose similar risks to the Hudson River Exclusion. We are working to quickly implement procedures for the Hudson River and are developing a monitoring plan to verify our actions represent a template for similar areas. We expect to complete a study of potential metropolitan areas and a timeframe for action by December.

Question 4. How will the FAA educate pilots and controllers on the proposed changes to the Hudson and East River exclusion areas?

Response:

The FAA plans extensive education to reach pilots planning to operate in the Hudson River and East River Exclusions. Controller training will highlight the final rule and changes that controllers may expect from pilots. FAA Flight Standards and theAir Traffic Organization are developing training and educational materials that will explain FAA rules and identify best operating practices. We are working closely with national and local operator groups including the Aircraft Owners and Pilots Association, Eastern Region Helicopter Council, and Helicopter Association International. Those organizations plan their own educational outreach for their members.

The specifics of the FAA training module for pilots and operators are:

- Presented through narration, graphics and animation
- Web-based training at www.faasafety.gov with industry weblinks to this site
- New airspace and operational requirements
- Reinforces material through knowledge checks
- Delivers a printable kneeboard guide for flight
- Provides links to supplemental material like "see and avoid" techniques and operating in congested airspace
- Availability of training advertised in *FAA Aviation News* magazine, FAAst Blast e-mail to more than 300,000 subscribers, and industry publications and notices

Question 5. Pilots operating in the Washington DC metropolitan area must undergo mandatory Special Awareness Training under 14 C.F.R. 91.161. Is special online training required in any other areas with special flight rules? Will a similar mandatory training program be required for pilots operating in the Hudson and East River class B exclusion areas? If not, why not?

Response:

Currently, Special Flight Rules Areas (SFRA) and/or Special Air Traffic rules have been established under Title14, Code of Federal Regulations (CFR), Part 93, *Special Air Traffic Rules*, at eight locations, listed below. Only Washington, DC has a specific mandatory training requirement which is warranted due to national security purposes.

The FAA did not propose specific mandatory pilot training for the Hudson and East River Exclusions because what is being mandated is not complicated or outside the scope of normal flight procedures used frequently during flight operations (lights on, position reporting, altitude and course requirements). Pilots are mandated by Federal Air Regulations as part of their pre-flight action to be fully aware of any specific procedures in areas they fly, have the proper and current charts for that operation and review any written notices regarding operational changes. They do this every time they fly so they can be familiar and compliant with airspace changes such as Temporary Flight Restrictions. These new procedures will be well documented for review on charts, in Notices to Airmen and Flight Service briefings, all of which are mandatory prior to flight.

Current Part 93 SFRA/Special Air Traffic Rule locations:

- Anchorage, AK Terminal Area
- Niagara Falls, NY
- Valparaiso, FL Terminal Area
- Lorain County Regional Airport, OH
- Los Angeles International Airport, CA
- Ketchikan International Airport, AK
- Grand Canyon National Park
- Washington, DC Metropolitan Area

Question 6. Is there an indication that the proposed changes to the Hudson and East River exclusion areas including developing a visual flight rules (VFR) transition route between 1,500 – 2,000 feet where pilots may communicate with air traffic control (ATC) may increase controller workload? If so, what is the FAA doing to address this?

Response:

The possibility exists that the use of the VFR transition route will increase operations handled by controllers. Currently, ATC provides clearances for VFR aircraft when permitted by workload. The FAA will monitor the activity associated with the changes in the exclusion areas, particularly with the new VFR transition route, to address any workload issues at our facilities.

Question 7. The National Air Traffic Controllers Association (NATCA) testified that it was concerned that raising the floor for transient air traffic in the Hudson River exclusion area may cause the traffic to interfere with passenger jets landing at La Guardia Airport (LGA). NATCA stated that aircraft landing at LGA Runway 13 pass through the airspace at 1,500 feet. How is the FAA addressing this concern?

Response:

The New York VFR Airspace Task Force conducted an initial review for operations to EWR via arrivals to Runway 29 and LGA via the river visual approach but the data covered a short timeframe. We are working with the MITRE Corporation's Center for Advanced Aviation System Development to conduct a more extensive review. In the event the review reveals potential issues, we will address them.

U.S. House of Representatives
Committee on Transportation and Infrastructure

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

Washington, DC 20515

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

September 22, 2009

Mr. Hank Krakowski
Chief Operating Officer
Air Traffic Organization
Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591

Dear Mr. Krakowski:

On September 16, 2009, the Subcommittee on Aviation held a hearing on **"The Hudson River Airspace and Management of Uncontrolled Airspace Corridors."**

Attached is question to answer for the record submitted by Rep. John J. Hall. I would appreciate receiving your written response to this question within 14 days so that they may be made a part of the hearing record.

Sincerely,

Jerry F. Costello
Chairman
Subcommittee on Aviation

JFC:pk
Attachment

SEPTEMBER 16, 2009
SUBCOMMITTEE ON AVIATION
HEARING ON
"THE HUDSON RIVER AIRSPACE AND MANAGEMENT
OF UNCONTROLLED AIRSPACE CORRIDORS"

QUESTION FOR THE RECORD
TO:
MR. HANK KRAKOWSKI
CHIEF OPERATING OFFICER
AIR TRAFFIC ORGANIZATION
FEDERAL AVIATION ADMINISTRATION

MR. KRAKOWSKI, HOW MANY OTHER NATIONAL TRANSPORTATION SAFETY BOARD RECOMMENDATIONS ARE SITTING ON THE FEDERAL AVIATION ADMINISTRATION'S SHELF, AND WHAT, IF ANY, ARE THE PLANS FOR IMPLEMENTING THOSE RECOMMENDATIONS.

SEPTEMBER 16, 2009
SUBCOMMITTEE ON AVIATION
HEARING ON
"THE HUDSON RIVER AIRSPACE AND MANAGEMENT OF UNCONTROLLED AIRSPACE CORRIDORS"

RESPONSE TO
QUESTION FOR THE RECORD FROM
REPRESENTATIVE JOHN J. HALL TO:
MR. HANK KRAKOWSKI
CHIEF OPERATING OFFICER
AIR TRAFFIC ORGANIZATION
FEDERAL AVIATION ADMINISTRATION

Mr. Krakowski, how many other National Transportation Safety Board recommendations are sitting on the Federal Aviation Administration's shelf, and what, if any, are the plans for implementing those recommendations.

RESPONSE:

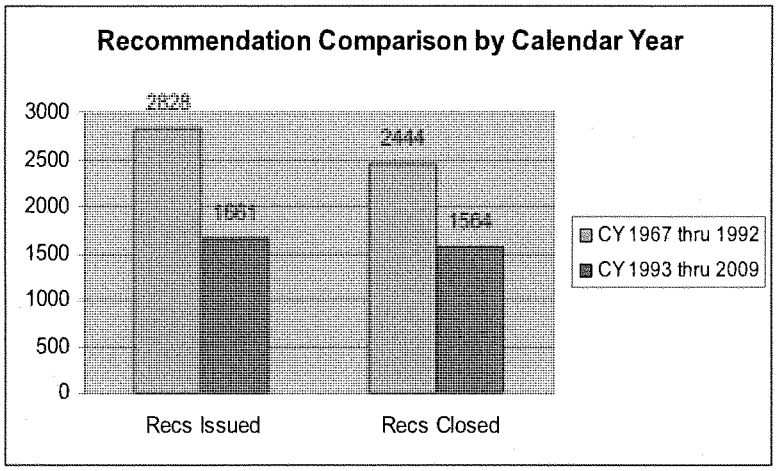
I want to take this opportunity to provide you with some additional information related to FAA's responsiveness to NTSB recommendations. I would like to begin by providing you with a brief overview of the NTSB process and then providing you with the status of open NTSB recommendations.

- The FAA has 90 days upon initial receipt of an NTSB safety recommendation to provide a response with its proposed action.
- Once the FAA has provided its initial response to a recommendation, the NTSB reviews the response and usually classifies it as acceptable or unacceptable. The NTSB may wait for further information before classifying a recommendation. On average the NTSB provides a response within 6 months of receiving the FAA's response.
  - Standard practice is to provide an update to the recommendations annually, until the NTSB classifies a recommendation as closed.
- The FAA and the NTSB staff meet regularly to address individual safety recommendations and program management issues. FAA and NTSB senior managers meet annually for a formal program review.

Statistical data for the years 1967 to present

The FAA works diligently in responding to NTSB recommendations. Figure 1 shows the work of the FAA in responding to NTSB safety recommendations.

Figure 1 Recommendation Comparison by Calendar Year



89 percent of all recommendations issued from 1967 to present have been closed
82 percent of all closed recommendations have been closed acceptable

Status of Open Recommendations as of September 22, 2009

NTSB Classification	Number of Recommendations
Open Acceptable/Open Acceptable Alternate • Actions completed and awaiting closure (74) • Actions in regulatory process (43) • Actions other than regulatory (186)	303
Open Unacceptable Response	88
Open Awaiting Response*-The Board has asked for more information	1
Open Response Received-Has not been classified by the NTSB yet	56
Open Awaiting Response-Initial 90-day cycle	33

Total Open Recommendations: 481

*The NTSB received the FAA's initial response but asked for additional information before they classify the recommendation.

Even though there are 481 open recommendations, the chart shows that well over half are in process and acceptable to the Board. An example of an open and acceptable recommendation is the NTSB asked the FAA to incorporate pertinent information from the

Helicopter Association International's Electronic News Gathering (ENG) Aviation Safety Manual into an advisory circular (AC) detailing best practices for ENG operations. We are in the process of developing an AC that will incorporate this information, which the NTSB has found to be acceptable action. Another example is the NTSB asked us to require GE Aviation to revise the CF34-1/-3 engine manual to clearly specify the aft actuator rod hose elbow orientation and the requirement for adequate slack in the hose. We advised the NTSB that GE was revising those manuals, which they found to be acceptable action. GE has since completed the revisions. There are almost 90 recommendations that are awaiting response from the Board and 88 are classified as open unacceptable. I can assure you FAA will continue to work hard to meet the intent of the NTSB recommendations.

With regard to the 88 that are classified as open unacceptable, I would like to clarify some background to that. FAA reviews and seriously considers each recommendation in determining the appropriate action based on the safety implications. For those recommendations the NTSB has classified as "open unacceptable," this classification is generally due to the case where 1) the recommendation "requires" a specific action, and FAA has determined that mandatory action is not appropriate but that the issuance of guidance material meets the intent of the recommendation, or 2) our actions are in accordance with the recommendation but the completion of the actions have taken a long time to achieve. There are many issues that require long-term efforts with significant research and deliberation before the FAA can fully implement the recommendation. In these latter situations, the NTSB has classified the recommendation as "open unacceptable" based on the length of time to complete the action. For example, the NTSB recommended that FAA develop and implement design or operational changes to reduce flammability of fuel tanks. It took 8 years of research, and it was FAA engineers who ultimately developed a technical solution to address this risk. Rulemaking to require implementation took almost 3 years. Thus, although we have met the specific NTSB recommendation, it is still classified as "open unacceptable."



1635 Prince Street, Alexandria, Virginia 22314-2818 Telephone: (703) 683-4646 Fax: (703) 683-4745

HELICOPTER ASSOCIATION INTERNATIONAL

TESTIMONY ON

Hudson River Airspace
and
Management of Uncontrolled Airspace Corridors

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON AVIATION
UNITED STATES HOUSE OF REPRESENTATIVES

September 16, 2009

Matthew Zuccaro
President

Dedicated to the advancement of the international helicopter community
www.rotor.com

HELICOPTER ASSOCIATION INTERNATIONAL

TESTIMONY ON

Hudson River Airspace and Management of Uncontrolled Airspace Corridors

HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
SUBCOMMITTEE ON AVIATION
UNITED STATES HOUSE OF REPRESENTATIVES

September 16, 2009

HAI sincerely appreciates the opportunity to speak with you today regarding issues related to the Hudson River airspace and management of Uncontrolled Airspace Corridors."

I am here today in my capacity as President of the Helicopter Association International, a not-for-profit, professional trade association which represents the interests of the civil helicopter community. HAI has approximately 3,000 members, inclusive of 1,600 member companies in more than 74 nations. Our members fly over 5,500 helicopters approximately 2.5 million flight hours per year.

On a more personal note, I am also here today as a pilot and instructor for both helicopters and airplanes, who has spent nearly 30 years flying and managing aircraft operations, within the New York City airspace we are speaking about today. My background, training and experience within the New York City airspace includes air tour operations, scheduled helicopter airline service, on demand charter, corporate, and airborne law enforcement operations, as well as New York City heliport and airport management.

I can promise you that I would not have spent almost three decades flying and managing operations in this environment, if I did not believe it was safe.

I also add the fact that I have served on a number of study groups and task force efforts, involving this airspace to include the Task Force study of the East River Corridor which was formed to study the only previous helicopter / airplane mid-air collision in this airspace, which occurred back in 1983, some 26 years ago. The recommendations of that task force formed the basis of the current practices and procedures utilized to this date, which have provided a safe and operationally efficient environment over that 26 year period.

Yes, there was a tragic accident on Saturday, August 8, in which 9 people died.

Make no mistake about it. Our heartfelt sorrow goes out to those who died and our deepest sympathy goes to the families who suffered such terrible loss. One of the aircraft involved, was a helicopter operated by one of our HAI member companies---and the pilot of that aircraft was part of our family. It was tragic.

However, I wish to emphasize again that this is the first accident of this kind within this airspace within the past 26 years, and millions of flights. Accordingly, we should avoid overreaction, and respond with a reasoned, well thought out approach, that will in fact enhance safety.

We recognize that one accident, anywhere, of any kind, is one accident too many. And, in the memory of those who died, we can, and should strive to, make operations in the Hudson River Corridor even safer than they currently are. I believe that the FAA proposed recommendations are well-reasoned and sound in nature, which would do just that.

I was honored to serve on the New York Airspace Task Force established by the FAA, in August, to review current operating practices and procedures in the Hudson River corridor, with an eye towards enhancing safety. I am pleased to note that the resultant FAA recommendations, which are supported by HAI and other industry associations, are closely aligned with those of the independent NTSB investigation.

I will not repeat all of details relating to FAA and NTSB recommendations since those agencies will cover them in depth, other than to say they are sound and sensible, with the following benefits.

Making mandatory, the existing voluntary practices, which have been used safely for the past 26 years, the FAA would eliminate any ambiguity, and standardize procedures within the airspace.

The FAA's proposal to establish three tiers of airspace in the exclusionary area would facilitate stratification of aircraft by mission, which would enhance separation of transiting aircraft and those conducting local operations and heliport approaches / departures.

The FAA's airspace recommendation also standardizes the floor of the Class B controlled airspace at 1,300 feet, which simplifies the airspace structure.

The FAA also intends to establish a dedicated VFR transition route within the Class B controlled airspace which will encourage more pilots who are transiting the area to exercise the option of avoiding the exclusionary zone altogether, entering Class B airspace at altitudes between 1,300 and 2,000, while operating under visual flight rules, but remaining under positive air traffic control.

The FAA also intends to propose standardized procedures for fixed- wing aircraft leaving Teterboro to enter Class B airspace over the Hudson River or the exclusionary zone, which will relocate the entry point to a less congested area.

The FAA is currently enhancing and standardizing the three primary aeronautical maps that depict the New York airspace and specific aircraft operating procedures within the New York Class B excluded airspace.

The FAA has also recommended a reallocation of the available Unicom frequencies utilized at the New York City heliports, which will reduce frequency congestion and enhance pilot communications capability.

Equally important, in its recommendations, the FAA has not overlooked training. Training is and always will be one of the primary cornerstones of any effort to reduce accidents and improve safety. Under its proposal, the FAA intends "to develop training programs specifically tailored for pilots, air traffic controllers and fixed-base operators to increase awareness of the procedures and options available when operating in the New York Class B excluded airspace.

At HAI, we stand ready to work with the FAA, and other aviation organizations, to develop and promote this kind of training program within our segment of the industry. It is crucial for pilots to know, not only the airspace options available to them in the NY Class B excluded airspace, but also to know what is expected of them while operating there as well.

Admittedly, none of these recommendations, on its own, is a silver bullet, there are no silver bullets. We wish there were. However, each of these recommendations is a sensible, rational, well thought out element, and, when considered as a package, they will make a real difference to the betterment of safety.

Mr. Chairman and members of the Subcommittee, the Hudson River Corridor is a safe place to fly. I would not have spent almost thirty years flying and managing operations there if it were not. The FAA recommendations, which in most material aspects are in consensus with those of the NTSB, and are supported by industry, will enhance safety and efficiency.

HAI and I look forward to working with the Subcommittee and other interested parties to insure the highest level of safety within the New York Class B excluded airspace, and similar such environments throughout the National Airspace System.

We would be remiss if we did not acknowledge the high priority and fast track initiative by the FAA, which will result in these new procedures being put in place by the end of November this year. We applaud and support their plan.

Again thank you for this opportunity to submit our thoughts.

STATEMENT OF ED BOLEN

PRESIDENT AND CEO

NATIONAL BUSINESS AVIATION ASSOCIATION

SUBMITTED TO THE

SUBCOMMITTEE ON AVIATION

COMMITTEE ON

TRANSPORTATION AND INFRASTRUCUTURE

U.S. HOUSE OF REPRESENTATIVES

SEPTEMBER 16, 2009

STATEMENT OF ED BOLEN
PRESIDENT AND CEO
NATIONAL BUSINESS AVIATION ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON AVIATION

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

U.S. HOUSE OF REPRESENTATIVES

The National Business Aviation Association (NBAA) represents the interests of over 8,000 member companies who rely on the use of general aviation aircraft for a business purpose. General Aviation includes diverse operations, with business uses that range from agriculture, law enforcement, fire and medevac services, to varied government, educational, nonprofit and business organizations. NBAA's members operate in every type of airspace and airport across the nation. We appreciate the opportunity to provide the Aviation Subcommittee with our views for the hearing today on the Hudson River Airspace.

Aviation remains the safest mode of transportation, bar none. The number of safely completed operations continues to rise each year. This impressive record is in large part due to the continued partnership between the aviation community and the government to pursue new technologies, enhanced procedures and implement new safety-based requirements that further improve aviation's already impressive safety record.

As we all know—tragically--aviation accidents do happen. When they occur, the entire aviation community feels a sense of loss and pain. Every accident investigation provides insight and lessons as to how we can improve aviation safety. However, it is important to note that each incident involves a unique set of situations, causal elements and factors. In this area, the National Transportation Safety Board is tasked with analyzing accidents and determining the cause.

Long History of Safety Partnership

NBAA and its member companies have a long, demonstrated history of partnering with the FAA to address safety issues and mitigate risks. It has been shown repeatedly, and again following the recent tragic midair collision over the New York City-Hudson River, that engaging affected parties to assist with the development of safety solutions produces better results. We commend FAA Administrator Randy Babbitt for reaching out to the aviation community in the days immediately following this accident to identify cooperative steps that could be taken to enhance air safety in this busy and vital air corridor.

Specifically, the airspace and radio frequency changes proposed by the FAA will standardize existing procedures, provide greater knowledge of those local procedures to transient aircraft, and increase communication between FAA controllers overseeing those operations.

While we do not yet know all the facts relating to the causes of the August 8, accident, NBAA believes that the actions proposed by the FAA will further enhance aviation safety in the New York City-Hudson River airspace. These announced steps take advantage of established industry practices already in place and well known to pilots that regularly operate within that busy airspace. The new safety procedures in the low-level airspace over the Hudson River are reasonable and workable and our members are committed to these efforts.

In addition to the important analysis work done on aviation accidents and incidents, it is also vital that we continue to maximize the vast operational data collected by the FAA, NTSB, aviation manufacturers and operators to drive future safety enhancements and improve accident prevention. This analytical data often contains trends which are important in identifying risks and capturing behaviors which can contribute to aviation accidents. This knowledge is vital in assisting industry and government efforts to improve aviation safety.

Action Key to Improved Safety

The FAA will soon issue a detailed rulemaking proposal to incorporate these airspace safety proposals into regulation. We look forward to reviewing the proposed rulemaking and being an active and constructive stakeholder in the regulatory process.

NBAA would also like to take this opportunity to urge FAA to implement several pending proposals that we believe would further enhance aviation safety.

Nearly five years ago, an industry working group (The Part 135 and 125 Aviation Rulemaking Committee) chartered by the FAA--and which I chaired--submitted extensive recommendations for regulatory changes that would update and strengthen safety for FAR Part 135/125 industry. These recommendations covered a multitude of subjects including basic requirements for flying commercially, updates to pilot duty and rest requirements, enhanced training for commercial pilots, revised aircraft maintenance requirements and role of very light jets (VLJ's) in on-demand charter operations--all of which that would significantly improve safety. Unfortunately, the Agency has not acted on those recommendations to date. A copy of those recommendations and the transmittal letter are attached to my testimony.

Over the years, NBAA has consistently welcomed the opportunity to support FAA efforts that seek to improve aviation safety. We have committed significant time, energy and resources to these projects only to have the products of our effort languish with no improvements in safety. While we understand that the FAA faces resource limitations like the rest of us, it is frustrating to continue to support these FAA projects without any clear understanding whether the agency will implement the final recommendations.

In the interest of continued improvement in aviation safety, NBAA and our members will always strive to lead, not follow. We look forward to working with this Subcommittee, and the other government and industry stakeholders to keep safety as our number one priority. NBAA appreciates the opportunity to provide our comments to the Subcommittee today. Thank you.

Part 135 and 125 Aviation Rulemaking Committee
c/o J. Hennig (GAMA)
1400 K Street, NW Suite 801
Washington, DC 20005
Phone (202) 393-1500

September 7, 2005

The Honorable Marion C. Blakey
Office of the Administrator
Federal Aviation Administration
800 Independence Ave., SW, Suite 1010
Washington, DC 20591

Dear Administrator Blakey:

I am writing you as the Chair of the Part 135/125 Aviation Rulemaking Committee (ARC) and as the representative of the diverse group of close to 200 participants from the operator community, unions, trade associations, government, and manufacturers who supported the ARC. With this letter and the accompanying electronic material, the ARC submits its recommendations to you.

During the 27 months which the ARC worked we came to recognize the breadth of operations that are included in Parts 135 and 125 ranging from traditional passenger charter flights, to operators that support rural Alaska with fuel, those who transport professional sports teams, all-cargo carriers, aeromedical flights, and more. Each of these operations represents an important segment of the air transportation industry, but also unique needs and requirements from a safety and regulatory perspective. When reviewing the ARC's recommendations you will see that we have accommodated all communities and provided targeted safety improvements tailored to their operating structure, aircraft, size and environment.

We also looked at the possible future operating environments. For Part 135 this includes the entry into service of very light jets (VLJ), use of advanced cockpit equipment to improve safety and enhance aircraft utility, and the use of airships for transportation of cargo. Our recommendations address the operation and certification requirements to support the scenarios that are envisioned.

The ARC was also tasked with streamlining regulations. Our biggest initiative in this area focused on training regulations. Our recommendations provide an opportunity for the FAA to propose a new process for timely updates of training standards to make them applicable to current and future operations.

The ARC additionally provides a complete rewrite of subpart F, which covers crewmember flight time and duty periods as well as rest requirements. Unlike the scheduled environment, Parts 135 and 125 include dynamic operations with unique requirements to ensure the safety of crews and passengers. We believe that our majority-endorsed recommendation will accomplish our goal of improving the safety of on-demand operations while providing both the operator and crew opportunity to proactively manage fatigue.

Included with this letter you will find a CD which contains over 140 recommendation documents addressing Parts 1, 23, 25, 61, 91, 119, 125, and 135. These documents capture group discussion and decisions on key issues affecting this industry. Additionally, the CD contains draft NPRM documents which include preamble and proposed rule language to support the recommendations.

I would also like to recognize the hard work and leadership of the workgroup chairs. The groups and workgroup chairs are:

- Aero Medical Workgroup, Ken Javorski of CJ Systems Aviation
- Airships Workgroup, Ron Hochstetler
- Airworthiness Workgroup, Walter Desrosier of GAMA, and Brian Finnegan of PAMA
- Equipment and Technology, Dick Solar of Honeywell
- Flight Duty and Rest Subgroup to Operation, Doug Carr of NBAA
- Operations Workgroup, Dave Hewitt of NetJets, Inc
- Rotorcraft Workgroup, Mike Hurst of Petroleum Helicopters
- Training Workgroup, Bill Campbell of CAE SimuFlite

Finally, I want to communicate that the members of the ARC are available to assist you and your staff as you consider the material. I would also like to thank you for again showing leadership in creating this Aviation Rulemaking Committee to conduct a regulatory review of Parts 135 and 125.

Sincerely,



Ed Bolen
President and CEO, NBAA

Enclosures (provided electronically):
Executive Summary
Recommendation Documents
Draft NPRM Documents

Cc: Nicholas A. Sabatini, Associate Administrator for Aviation Safety, AVS-1
James J. Ballough, Director, Flight Standards Service, AFS-1
Anthony F. Fazio, Director, Office of Rulemaking, ARM-1
Katherine Perfetti, National Resource Specialist Part 135
Jens C. Hennig, ARC Coordinator/Manger of Operations, GAMA

Part 135/125 Aviation Rulemaking Committee

Overview of ARC Process and Activities

The Part 135/125 Aviation Rulemaking Committee (ARC) was chartered by the Federal Aviation Administration (FAA) on February 3, 2003 when the agency issued a Notice of Regulatory Review. The notice solicited membership and also requested comments to be submitted to the docket by June 3, 2003. In response to the first request for comments and requests for membership 97 issue documents were submitted by the public. On July 17, 2003 the FAA reissued the request for comment with a deadline of November 18, 2003 for submission of comments to be considered by the Aviation Rulemaking Committee.

The issues submitted to the docket were divided up among eight workgroups organized around aeromedical operations (AER), airworthiness and maintenance (AWG), applicability (APP), airships (AIR), equipment and technology (EQU), operations (OPS), rotorcraft operations (ROT), and training (TRA).

The ARC met as a full committee three times in 2003 and four times in 2004. Each meeting lasted three days and took place in the Washington, DC area. In addition to the full ARC meetings, a number of the workgroups also held separate meetings. These meetings included multiple meetings of the operations committee's subgroup on flight, duty and rest; meetings by the airworthiness group addressing certification standards for high-performance part 23 airplanes; and extra meetings by the applicability group to look at large airplane operations in parts 135 and 125.

The aviation rulemaking committee's work was facilitated by using an on-line Knowledge Sharing Network (KSN) that enabled all ARC participants to review and comment work performed by the ARC both within its own group and in other group.

In addition to holding meetings in concurrence with each full ARC meeting, the Steering Committee held a three-day meeting in February 2005. Following the final Steering Committee meeting, the workgroup chairs coordinated the final document during the spring and early summer 2005 using E-mail and the KSN. The final documents were circulated to the full ARC using the KSN and then submitted to the FAA on September 7, 2005. The final recommendation included a letter of submission from the ARC Chair and accompanying CD-ROM with the ARC Recommendations and draft NPRM material.

ARC Tasking and Decisions

The tasking from the FAA to the ARC was to:

(a) Resolve current issues affecting this part of the industry.

(b) Enable new aircraft types, size and design and new technologies in air transportation operations.

(c) Provide safety and applicability standards that reflect the current industry, industry trends and emerging technologies and operations.

(d) Address international harmonization and ICAO standards.

(e) Potentially rescind part 125 from 14 Code of Federal Regulations.

Each workgroup submitted recommendations to the FAA which were coordinated through the Steering Committee, which had final approval on each document. Each recommendation received a vote which resulted in one of the following recommendations:

(1) full consensus recommendation: All committee members approved of the recommendation;

(2) a general consensus: All committee members approved or could live with the recommendation;

(3) no consensus: One or several committee members disagreed with the recommendations and these committee members were given an opportunity to provide a dissenting opinion to the recommendation. All dissenting opinions were the responsibility of the individual dissenting committee member to draft and provide for inclusion in the final recommendation to the FAA.

Prior to the final submission to the FAA, the complete recommendation package was distributed to the full Part 135/125 Aviation Rulemaking Committee for comment to ensure that all issues had been properly captured and that all dissenting opinions had been submitted.

A summary of each workgroups set of recommendations follows. *However, all decisions and discussions should be referenced to the Recommendation Documents which hold the final and complete recommendation.* In this Executive Summary, the workgroups are listed in order: Applicability, Aeromedical, Airships, Airworthiness, Equipment and Technology, Operations, Rotorcraft, and Training:

Applicability Workgroup

The applicability workgroup was made up of over 60 active participants. The committee's main focus was the proposal to rescind part 125 and respond to issues concerning the type of operation permitted in parts 135 and 91.

One of the main tasks given to the ARC by the FAA was to determine whether to rescind part 125. The committee started by familiarizing itself with the type of operators that currently reside within Part 125. These include private operations of large airplanes (which often operate under an exemption under 91), corporations flying large airplanes for sports teams, companies that transport parts for automotive manufacturers, fuel haulers in Alaska, and several other unique communities. The applicability group determined that this diverse group of operators does not fit into any other operating part, which is similar to statements made in the preamble to the original part 125 rulemaking in 1978. Therefore, the applicability group recommended, and the steering committee agreed, that it would not be appropriate to rescind part 125, but instead the applicability group should define the applicability of 125 and improve the safety regulations that apply. The resulting recommendation defines applicability of part 125 by providing set economic and scope limits to *private carriage for hire operations* and provides changes to 91 subpart F to accommodate completely private operation of large airplanes and also provides targeted safety improvements for both sections.

The group also considered a proposal for increasing the payload capacity of part 135 *cargo-only* operations from the current 7,500 pounds to 18,000 pounds, which would enable moving certain current operators from part 125 into 135. A recommendation was developed for increased payload capacity and is being submitted to the FAA *without* full consensus.

The applicability group also considered the expected emergence of very light jets (VLJs) as an important segment within the part 135 on-demand community and possibly even the part 135 scheduled operator community. Based on these two possible market entries, the applicability group felt it important that it follow FAA's guidance to the ARC and "[e]nable new aircraft types, size and design and new technologies in air transportation operations." The applicability group provided a consensus proposal for the introduction of scheduled turbojet operations by aircraft with less than 9 seats under part 135. However, there was no consensus on whether scheduled operations under part 135 in turbojet airplanes should by with a single or dual crew, but a majority proposal was provided. The group did provide extensive recommendations on how on-demand operations in very light jets should be conducted single pilot, which is currently permitted

under 135.105 regulations. Additional recommendations were provided by the Airworthiness group on certification standards for part 23 jets and high performance airplanes.

The applicability group also worked to address the issue of brokers acting as charter operators and define scheduled operations. The group worked closely with the Department of Transportation (DOT) and based on early recommendations by the ARC, the DOT issued broker guidance titled "Notice on the Role of Air Charter Brokers in Arranging Air Transportation" on October 18, 2004.

Aero-medical Workgroup

The aero-medical workgroup defined the status of medical crew during operations. The proper definition of medical crew is critical, since one of the most common scenarios in aero-medical operations is the transportation of patients from outlying hospitals to higher care facilities for which helipads the industry has developed several hundred private GPS approaches. With the exception of two of these pads, none are served by an approved weather source. The generally accepted method of accessing these facilities is for an air-ambulance to depart the metropolitan area under part 91 and conduct the GPS approach to the hospital pad. (Part 91 does not require weather reporting at the destination.) The air-ambulance then departs the helipad with a patient under Part 135 utilizing exemption 6175 (permitting the departure to be made under IFR provided the pilot's observations indicate the prevailing weather is above VFR minima). The approach to the metropolitan area may be conducted to an airport with approved weather reporting or more likely to a hospital helipad within the class D airspace of an airport with weather reporting and for which the operation is approved by operations specification.

There are several current interpretations that require the outbound leg to be conducted under Part 135 and thereby preclude the inherently safer IFR operation. The aero-medical group's proposal would modify 119.4 to exclude from Part 135 air-ambulance operations without a patient on board by changing the status of medical crew.

The group also expanded the applicability of *eligible on-demand*, making it applicable to more air-ambulance operations, since most do not support two-pilot crews. By the current definition, a single pilot crew may not be considered as "eligible". For the same reasons as stated above, the workgroup proposed to allow, under certain

circumstances, a single-pilot air-ambulance crew to be included in the 135.4 definition of eligible on-demand crew.

The committee also believes that increased use Night Vision Goggles (NVGs) in aero-medical operations will provide a significant benefit to safety. Part 61 does not recognize "aided" as a condition of flight nor does it impose any currency requirements on these operations. The aero-medical group's proposal incorporates in Part 61 currency requirements for the use of NVGs and defines in Part 135 the conditions under which they may be used to meet the requirements of 135.207 (helicopter lighted surface reference) and 135.229 (lighted helipad requirement).

Finally, the aero-medical group proposed a clarification to 135.128 for approved child restraint systems specifically applicable to air-ambulance patients under the age of two.

Airships Workgroup

The airship working group provided a proposal for how airships can better be integrated into the NAS and how those types of operations, especially those by possible future large cargo airships should be regulated by the FAA. The airship workgroup provided a complete set of recommendations to part 1, 61, 91 135 to enable these types of operations.

Airworthiness and Maintenance Workgroup

The Airworthiness and Maintenance workgroup (AWG) was tasked to review the maintenance regulations and airworthiness certification requirements as related to parts 125 and 135 for currency, applicability, safety, and adequacy for "large" airplane operations such as intercontinental business jets and airplanes with modified payload capacity. It was also tasked to look at new airplane operations proposed by the ARC such as all-cargo airplanes with payload in excess of 7,500lbs and turbine-powered airplanes in commuter scheduled service.

When reviewing current maintenance requirements, the AWG determined that part 125 and part 135.411(a)(2) continuous airworthiness maintenance program (CAMP) requirements for large aircraft are appropriate and adequate based on their technical merit and the overall safety record. However, the group determined that airplane passenger seating configuration is no longer an appropriate method of differentiating between complex and less complex airplanes. Current business airplanes are not

configured with the maximum passenger seating potential and the correlation between aircraft size and aircraft complexity is not likely to hold true as new technologies and performance capabilities are introduced into a broader range of general aviation airplanes. In addition, 135 accident data raises questions regarding the adequacy of maintenance requirements for piston and turboprop airplanes which are nearly all small "less-complex" airplanes. From a strategic perspective and considering the entire Part 135 regulation and scope of current and future operations, the AWG recommends that a single flexible maintenance program standard for Part 135 be established which could address the multiple of levels and factors that comprise aircraft complexity as well as operational complexity. Since the membership of the 135ARC and AWG did not include operators of small piston and turboprop airplanes, the AWG recommends that FAA form a 135 Maintenance Aviation Rulemaking Committee (135MARC) with the appropriate membership required to develop a new 135 maintenance program standard.

From a tactical perspective and to address the specific tasking to consider maintenance and inspection program requirements appropriate for "large" airplanes as well as new airplane operations proposed by the ARC, the AWG recommends that all aircraft with a maximum take-off weight (MTOW) of 50,000lbs or more be maintained in accordance with a CAMP. The AWG also recommends that the two new types of operations that the ARC proposes to introduce into part 135; all-cargo airplanes with a payload in excess of 7,500lbs and turbine-powered airplanes in commuter scheduled service; be maintained in accordance with a 135.411(a)(2) CAMP which is consistent with the requirements of equivalent operations currently conducted under part 121.

Regarding Maintenance Training Requirements – Part 135 operators with a CAMP currently "have a training program" for persons performing maintenance functions. However, current regulations and guidance do not adequately establish the minimum standards for maintenance training programs which have resulted in significant variations in the level of training provided among operators. The NTSB has repeatedly recommended that air carrier maintenance training programs be approved by FAA to ensure that they are appropriate for the type of aircraft and type of operation. The AWG recommends that all part 135 air carriers have a maintenance training program and that operators with a CAMP must have an FAA approved training program. This would be consistent with the recent re-write of part 145 which requires all repair stations to have an employee training program approved by the FAA. In fact, a recent report supporting the new part 145 training requirement which discusses changes in the quality and

background of mechanics, changes in industry, changing technology and inconsistency in FAA oversight would be equally applicable to part 135 operations.

Finally, the group recognized that existing part 23 regulations do not contain adequate or appropriate safety standards for turbojet airplanes which, up until now, have been addressed through special conditions, exemptions, and equivalent levels of safety. The AWG therefore recommends changes to part 23 airworthiness standards appropriate for turbojet airplanes with consideration of operation in part 135 commuter service and Very Light Jets.

Equipment and Technology Workgroup:

The Equipment and Technology workgroup was tasked with making recommendations regarding part 135 and 125 equipment issues. The group made recommendations in the following areas:

Regarding Mode S – The workgroup reviewed whether Mode S requirement was still needed for efficient air traffic management. The workgroup agreed that the FAA continues to make slow, but nonetheless, steady progress regarding the use of Mode S in the future Air Traffic Network. The workgroup initially considered eliminating the requirement for Mode S in aircraft not required to be equipped with TCAS II, however, it felt this position ignored the fact that the FAA is continuing to make progress integrating Mode S into the ATN. The workgroup reached a consensus that the current rules pertaining to Mode S should remain as written. The FAA should continue to provide exemptions to operators of aircraft not required to be equipped with TCAS II until such time that Mode S/ADS-B is integrated into the ATN and can offer safety and operational benefits to operators and the FAA.

The Equipment and Technology also group worked closely with the Rotorcraft and Aero-medical groups to mature a recommendation on Night Vision Goggles resulting in the consensus recommendation submitted by the Aero-medical working group.

The committee was also asked to review a request for use of combination recorders CVR-FDR in rotorcraft instead of the current requirement for dedicated (individual) CVR and FDR units. The workgroup provided a proposal for permitting the use of combi-recorders on rotorcraft.

The workgroup also conducted a thorough review of terminology. This review showed that some of the terminology needed to be updated to reflect current technology

and operations. The Equipment and Technology workgroup reviewed parts 23, 25, 27, 29, 91, 121, 125, and 135 and recommended changes as described in the recommendation document.

Finally, the Equipment and Technology workgroup was asked by the Airworthiness workgroup to look into the feasibility of permitting datalink weather information in place of traditional weather radar and thunderstorm detection systems. Datalink weather is a rapidly growing technology and in the future may offer the same level and quality of weather information to the pilot as traditional weather radar and thunderstorm detection systems. The workgroup proposed enabling language in a recommendation item that would permit the use of datalink weather systems in place of traditional weather radar and thunderstorm detection systems.

Operations Workgroup:

The Operations workgroup (OPS) was comprised of approximately 70 members at the beginning of the process and was well represented from all facets of industry and also included several FAA personnel. The workgroup considered 80 issue papers during its meetings and all but one were resolved in some manner.

Regarding Flight, Duty, and Rest Requirements – This subject required the development of a subgroup which held four meetings and reaching majority approval of draft language to replace Subpart F of Part 135. The proposed language permits three options to ensure that crewmembers are provided adequate opportunity for sleep.

Option one is a prescriptive set of rules similar to those currently in force. However, significant effort was made to modify those rules, generally to be more restrictive in nature, and to recognize the latest fatigue science and to close "loopholes" in the current rules.

Option two is a rule set that permits the certificate holder to vary when a duty assignment may be made but ensures that crewmembers are given an opportunity for sleep at the same time every day. The subgroup believes this is a significant breakthrough in how to treat fatigue in a business that is by definition "on-demand".

Option three is an allowance for a certificate holder to develop and implement an "Alertness Management Program" in lieu of the requirements of Subpart F. The subgroup recognizes that no guidance material exists to describe the requirements of this type of program and recommends that a separate ARC be convened specifically for that issue as it applies to Part 135 operations.

A minority opinion was provided to the flight duty and rest proposal. The minority believes the proposal would unacceptably increase the hours of availability and the hours of work assignable to pilots employed by on-demand operators resulting in a degradation of safety compared to the existing rule. The minority position is that additional training on fatigue dangers provided to flight crews through mechanisms such as "Alertness Management Initiatives" has the potential to increase safety, provided that information and any such procedures are used only as a supplement to prescriptive limits and not as a replacement or means to extend or circumvent quantitative maximum regulatory limits. The minority offered an alternative proposal for Subpart F.

Regarding Part 135 Flight Attendants – The operations workgroup recognized that the current Part 135 rules do not address current practice by industry of the use of flight attendants (nomenclature varies) in aircraft that are not required to have a flight attendant per the rule. This has created a significant void on how to treat these individuals from a regulatory perspective and has lead to diverse interpretation by the FAA at the field level. To address this issue, and to recognize the unique nature of the Part 135 industry and the individuals involved, the operations workgroup proposes to create two categories of crewmembers that are assigned duties in the cabin. The first is a Cabin Safety Crewmember (CSC), a position that is analogous to a flight attendant but specifically recognizes that individual's safety contribution to a flight. The CSC must be trained and tested per an approved training program. The second is a Passenger Service Specialist (PSS). This individual would not be permitted to perform safety related functions and training would be specific to the duties assigned. The passenger briefing requirements of Part 135 would be modified to require that the briefing include the status of a CSC or PSS.

Regarding the Use of Child Restraints – With dissenting opinions, the operations workgroup provided a recommendation that, for infants under 24 months of age not provided a passenger seat, the parent or guardian may utilize any kind of restraint (except the use of the same seat belt) to assist in protecting the child. A great deal of quality research was done regarding this issue and it is seen as an incremental increase in safety with minimal cost. In short, some protection, while not perfect, is far better than no protection at all. The workgroup reviewed previous FAA positions on this issue, specifically the "diversion principle" and finds that this is not applicable to Part 135 operations. The necessity to restrain an infant will not result in the child being

transported by a less safe means (automobile) due to the nature and expense of typical Part 135 operations.

The operations workgroup was asked to review an NTSB recommendation regarding Part 135 activity reporting and provide a recommendation to the FAA for its implementation. The primary barrier to resolution was the detail required to be reported. Industry was quite concerned that the requirements to report would become overly burdensome and result in "guesstimates" rather than useful data. Others felt that very detailed data was required to produce a meaningful picture of Part 135 activity. All did agree on one thing – the level of detail proposed by NTSB was overly onerous and reflected limited knowledge of the Part 135 industry. Therefore, the committee recommended, with one dissenting opinion, that the FAA require that operators provide total hours flown to the FAA at a frequency of one time per year with some additional fidelity of the type of operation.

Regarding the requirements for the "*exclusive use*" of an aircraft currently prescribed in the regulations, the operations workgroup recommended that this requirement be modified to allow an aircraft management or lease agreement to meet the requirements of "exclusive use" of an aircraft. The current rule was designed to inhibit new certificate holders and is based on the business model of the 1970's wherein certificate holders typically owned or exclusively leased their aircraft. That is the exception to the rule in the current business environment where most aircraft are owned by other companies and leased to a Part 135 certificate holder for Part 135 flights.

Finally, regarding pilot oxygen requirements the workgroup recommended that this rule be modified to bring it into harmony with Part 91 and Part 121 requirements.

Testimony to the U.S. House of Representatives Committee on Transportation and Infrastructure, Subcommittee on Aviation
September 16, 2009

My name is Christine Quinn and I am the Speaker of the New York City Council. I would like to thank Committee Chairperson James Oberstar, Subcommittee Chairperson Jerry Costello and the members of the subcommittee for holding this important hearing on "The Hudson River Airspace and the Management of Uncontrolled Airspace Corridors."

This hearing was prompted by the tragic collision of a small airplane and tour helicopter on August 8, 2009. While this horrible accident struck a chord in all New Yorkers, it was of particular significance to me because the helicopter involved took off from a heliport in my council district. The airspace in and around New York City is probably the busiest in the world. There are three major airports in the tri-state area, generating a tremendous amount of commercial traffic, which shares the airspace with irregularly scheduled flights including private charters, recreational flyers and aerial tour companies, which mainly use helicopters.

There is a two-tiered regulatory system for aircraft flying over New York City. Air traffic controllers track aircraft using the three major airports, clearing them to enter the airspace and ensuring separation within the airspace, which the FAA has deemed class B airspace. The area over Hudson River is an exclusion zone where aircraft fly unregulated using Visual Flight Rules, which means pilots rely on their eyes, and not instruments, to avoid other aircraft. The FAA estimates that 600 aircraft use the Hudson River exclusion on a typical good weather day.

Since the accident, the FAA has proposed rules and the NTSB has made recommendations on how to improve safety in the Hudson River exclusion. While these proposals have helped to initiate the discussion on how to improve air safety, I do not believe they go far enough protect those in the air and on the ground. Improving coordination between the area airports and providing pilots using the uncontrolled Hudson River airspace with better traffic advisories and safety alerts are essential steps that must be taken. But, simply reconfiguring the airspace stops short of addressing the unique challenges presented by the Hudson River exclusion.

For example, aircraft flying over the Hudson River would still be allowed to approach each other at close to 300 mph uncontrolled. I understand that an overwhelming majority of aircraft flying under Visual Flight Rules in the United States everyday is uncontrolled and remains relatively safe. However, I do not believe that we can apply the same cookie-cutter standards to one of the most densely trafficked corridors in the world.

I therefore urge the FAA and NTSB to give due consideration to Congressmember Jerrold Nadler's August 12, 2009 letter to FAA Administrator Randolph Babbitt, signed by 14 of his House colleagues, requesting certain regulatory changes to improve air safety over New York City. I also urge the FAA and NTSB to expound upon their previous recommendations by considering the disproportionately large number of aircraft that fly over the Hudson River every day and the sheer size of the population on the ground. Without fully exploring developing technology, such as satellite-based tracking, which may allow lower flying aircraft to be tracked, the FAA and the NTSB are failing to recognize the complexities of this unique flying environment.

I thank you for the opportunity to testify.

○