MEMORANDUM

October 3, 2016

TO: Transportation, Infrastructure, Energy and Environment (T&E) Committee

FROM: Keith Levchenko, Senior Legislative Analyst

SUBJECT: Briefing: FAA NextGEN, and LAZIR-B Proposal – Flight Patterns

List of Participants/Attendees

- Ken Hartman, Director, Bethesda Regional Services Center and County Representative on the Reagan National Airport Community Noise Working Group
- William Liebman, Alternate County Representative on the Reagan National Airport Community Noise Working Group
- Melanie Wenger, Director, Office of Intergovernmental Relations
- Stan Edwards, Chief, Division of Environmental Policy and Compliance, Department of Environmental Protection
- Elizabeth Lynn Ray, Vice President, Mission Support Services, U.S. Department of Transportation, Federal Aviation Administration (FAA) (invited)
- Margaret E. McKeough, Executive Vice President and Chief Operating Officer, Metropolitan Washington Airports Authority (MWAA) (invited)
- Elected Officials
  - Congressman Chris Van Hollen (invited)
  - State Senator Susan Lee (invited)
  - State Delegate Bill Frick (invited)
  - State Delegate Ariana Kelly (invited)
  - State Delegate Marc Korman (invited)
- State of Maryland Representatives on the MWAA Board of Directors
  - Earl Adams, Jr. (invited)
  - Michael A. Curto (invited)
  - A. Bradley Mims (invited)

Councilmember Berliner requested a briefing for the T&E Committee from Federal Aviation Administration (FAA) and Metropolitan Washington Airports Authority (MWAA) officials and from Montgomery County officials regarding ongoing concerns from residents in
the southwestern portion of Montgomery County who are experiencing constant and loud aircraft noise from planes departing from and arriving to Ronald Reagan Washington National Airport (RNA). Residents noted a major increase in aircraft noise late last year, coinciding with changes in aircraft flight patterns as a result of the FAA’s national efforts to implement its “NextGEN” system. The FAA is currently considering additional changes in flight patterns (LAZIR-B) that could further increase aircraft noise impacts for some Montgomery County households.

Next Generation Air Transportation System (NextGEN)

NextGEN is a nationwide program of the FAA to transition (in stages from 2012 to 2025) from a radar-based traffic control system to a satellite-based one. The intent is to use GPS technology to shorten flight routes, save time and fuel, reduce delays, increase capacity, and improve safety.

One of the byproducts of NextGEN nationwide is that flightpaths have become more concentrated, resulting in increased noise impacts over neighborhoods that may previously have experienced much less or even no aircraft noise.

With regard to Reagan National Airport, NextGEN implementation resulted in much thinner “flight rails” beginning in December 2015. Flight noise is more focused and planes are turning sooner, lower, and louder than before implementation. Mr. Hartman will be available at the meeting to summarize these concerns and present slides highlighting these issues (see ©22-29).

LAZIR-B and Reagan National Community Noise Working Group (DCA Working Group)

The DCA Working Group was formed in October 2015 to “engage broad-based community participation to identify practical aircraft noise solutions and recommendations to the FAA through MWAA.” One immediate task for the group was to review three notional alternatives for the LAZIR Five SID (standard instrument departure). The alternative designs would revise north flow SIDs by moving the first three waypoints: ADAXE, BEBLE and COVTO. During the December 2015 DCA Working Group meeting, MWAA facilitated a vote by the DCA Working Group representatives to endorse one of three LAZIR FIVE SID alternatives. LAZIR-B was recommended by the group.

One major concern for Montgomery County is that representation from Maryland (and specifically Montgomery County) was not sought until after the October 2015 DCA Working Group meeting and no Montgomery County representative was present during the December vote recommending LAZIR-B. It was not until the February meeting that a Montgomery County representative (Ken Hartman) was present. However, even if a Montgomery County representative had been present, it is not clear it would have made a difference. Montgomery County’s representation on the Working Group is significantly diluted (only one member plus an alternate member). The District of Columbia has five members, Northern Virginia has four members, Prince George’s County has one member, and the airlines have two members.

Complicating the membership concerns is that the community representatives are not
subject matter experts on airport operations (and impacts such as noise) and must rely on MWAA and FAA staff for most information. In prior iterations of this Working Group, the Metropolitan Washington Council of Governments (MWCOG) has provided additional expertise and sometimes differing perspectives to those of MWAA and the FAA.

Apart from the County’s concern regarding representation, Mr. Hartman and other DCA Working Group members have expressed concern regarding the Group’s mandate. After the most recent meeting on September 29, one Virginia resident who attended the meeting noted that there is “No clear budget. No clear timeframes. No measurable goals for reducing noise. No credible work plan. No agreed upon criteria for equitable distribution of noise impacts…”

However, despite its shortcomings, the DCA Working Group is currently the only formal vehicle for discussion of RNA-related noise issues. At the Working Group’s most recent meeting (September 29), Mr. Hartman presented Montgomery County’s suggestions for work to be done by the FAA and MWAA moving forward (see ©30-31). These recommendations would reverse some of the NextGEN changes as well as revise changes assumed in LAZIR-B. Mr. Hartman will be available at the T&E meeting to discuss these recommendations.

FAA September 15, 2016 Community Workshop in Bethesda

The FAA and MWAA held a community workshop on September 15 at the Bethesda-Chevy Chase Regional Services Center to discuss the LAZIR-B recommendation and the NextGEN initiative and to receive public comments. The meeting was well attended by Montgomery County residents, many of whom noted how their neighborhoods were harshly affected by aircraft noise resulting from NextGEN. The meeting was covered by NBC4 news (see [http://www.nbcsanfrancisco.com/news/local/Maryland-Residents-Upset-by-Plan-Alter-Flight-Paths-393646511.html](http://www.nbcsanfrancisco.com/news/local/Maryland-Residents-Upset-by-Plan-Alter-Flight-Paths-393646511.html)).

The FAA is also seeking formal comments on LAZIR-B from local jurisdictions by October 15. In a recent letter to the FAA, the Arlington County Board Chair expressed similar concerns to those raised by Montgomery County residents and officials in recent months, arguing that a robust community engagement process with regard to NextGEN is needed, as well as additional noise analysis work and a review of noise abatement strategies (©5-10). Montgomery County should also send its formal comments to the FAA. The Committee can discuss with Executive staff the form and content for Montgomery County’s response.

Prior Correspondence with the FAA

In response to the aircraft noise concerns expressed by many Montgomery County residents this year, Congressman Chris Van Hollen and County Executive Leggett sent a letter on July 13, 2016 to Michael P. Huerta, FAA Administrator, asking the FAA to take immediate action to address unacceptable noise impacts by returning to pre NextGEN flight patterns (see ©11). A follow-up statement (©1) signed by Congressman Van Hollen, County Executive Leggett, and Councilmember Berliner was made available at the FAA’s community workshop, noting that the LAZIR-B changes being discussed at the workshop would make things even
worse for Montgomery County and that the FAA should not be looking at tweaks to a failed system

A letter from the Town of Glen Echo to the FAA Administrator is attached on ©2-4, supporting the views expressed by Councilmember Berliner, County Executive Leggett, and Congressman Van Hollen.

Prior correspondence received from FAA and MWAA officials is attached (©12-21).

Attachments
- Statement from Berliner, Leggett, and Van Hollen regarding LAZIR-B (©1)
- Letter dated September 30, 2016 from the Town of Glen Echo to the FAA Administrator (©2-4)
- Letter dated September 12, 2016 from Arlington County Board to the FAA Eastern Regional Administrator (5-10)
- Letter dated July 13, 2016 from Congressman Van Hollen and County Executive Leggett to the FAA Administrator (©11)
- Letter dated June 7, 2016 from the FAA Administrator to Congressman Van Hollen (©12-13)
- Letter dated May 9, 2016 from the FAA Eastern Regional Administrator to William Liebman (©14-17)
- Letter dated May 6, 2016 from the President/CEO of MWAA to County Executive Leggett (©18-21)
- NextGEN Community Concerns, Montgomery County slide presentation (©22-29)
- Working Draft Recommendations (Presented by the Montgomery County representative at the September 29 meeting) (©30-31)
- FAA News – September 15, 2016 Public Workshop Handout (©35)
- NextGEN Information Sheets – Roles and Responsibilities, Environmental Fact Sheet, Reagan National Airport Area Navigation (RNAV) History and Analysis (©36-40)
Statement regarding the Federal Aviation Administration proposal to modify flight procedures at Reagan National Airport (LAZIR B)

We understand that aircraft noise is a serious concern in your community. This is the first public meeting the Federal Aviation Administration (FAA) has held for Montgomery County residents and it is important that your voice is heard.

We believe the proposed flight procedure changes discussed tonight ("LAZIR B") will exacerbate conditions for communities already impacted by "NextGEN" flight path changes implemented in 2015.

The effect of the NextGEN flight path changes has been disastrous in those few communities under the new, focused flight paths. Aircraft now turn sooner and lower than previously. The noise impact from the constant stream of aircraft over these neighborhoods is intolerable.

LAZIR B further shifts those flight paths towards, and some cases over, Montgomery County neighborhoods. FAA’s modeling shows that noise will increase in those communities.

We are working closely together to make our concerns known about the impacts of NextGEN and the LAZIR B adjustment. Over the summer, we asked FAA to return to pre-NextGen Flight paths until better solutions can be found.

FAA should not be looking at tweaks to a failed system. Instead, they need to employ their expertise to establish procedures that reverse the current detrimental impacts to County residents.

Congressman Chris Van Hollen

County Executive Isiah Leggett

Councilmember Roger Berliner
September 30, 2016

Michael P. Huerta, Administrator
U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Re: NextGen/LAZIR “B” Flight Path Plan

Dear Mr. Huerta:

The Town of Glen Echo Maryland (the “Town”) hereby expresses its opposition to the NextGen/LAZIR “B” flight plan that will further concentrate airport noise directly over Glen Echo. Over the years, Town residents have learned to live with a certain amount of airport noise. This has worsened substantially over the last year, and the increased frequency of low altitude overflights and noise accompanying them has adversely affected the quality of life of the town’s residents. For instance, many people have lost sleep or can no longer sleep with their windows open. Others have complained that they can no longer enjoy their property outdoors because of an inability to have a conversation when planes fly overhead. As we understand in the Federal Aviation Administration’s (FAA) current proposal, this will only get much worse in that the line of the new flight path is drawn directly over the Town.

The Town, and, indeed, Montgomery County officials, were not given adequate opportunity to comment on the new flight plan in advance of its publication, nor were we even notified of the “hearing” that took place on September 15 at the BCC Regional Services Center. We nevertheless found out about it by accident and were disappointed (to say the least) at the details of the plan.
The Town joins Montgomery County and our Congressman, Chris Van Hollen in requesting that this plan be rejected and that the FAA go back to the drawing board, this time taking the community's concerns into account.

Very truly yours,

TOWN OF GLEN ECHO

Deborah M. Beers, Mayor,

cc: The Honorable Barbara Mikulski
United States Senate
901 S. Bond Street, Ste. 310
Baltimore, MD 21231

The Honorable Ben Cardin
United States Senate
451 Hungerford Drive, Suite 230
Rockville, MD, 20850

The Honorable Chris Van Hollen
United States House of Representatives
51 Monroe Street, Suite 507
Rockville, Maryland 20850

The Honorable Isiah Leggett
County Executive
Executive Office Building (EOB)
101 Monroe Street, 2nd Floor
Rockville, MD 20850
Ike.Leggett@montgomerycountymd.gov

The Honorable Roger Berliner
Montgomery County Council
Council Office Building
100 Maryland Avenue, 6th Floor
Rockville, MD 20850
Councilmember.Berliner@montgomerycountymd.gov
Kenneth Hartman
Regional Services Director
4805 Edgemoor Lane
Bethesda, MD 20814
Kenneth.Hartman@montgomerycountymd.gov

The Honorable Senator Jamin B. (Jamie) Raskin
James Senate Office Building, Room 122
11 Bladen St., Annapolis, MD 21401
jamie.raskin@senate.state.md.us
September 12, 2016

Mr. Carmine Gallo
Eastern Regional Administrator
Federal Aviation Administration
United States Department of Transportation
1 Aviation Plaza
Jamaica, NY 11434-4809

Dear Mr. Gallo:

On behalf of the Arlington County Board and the residents of Arlington County, I am writing to provide comments regarding the impact of flight operations from Ronald Reagan National Airport (DCA) on our community, particularly the impacts that have been felt since the beginning of Next Generation Air Transportation System (NextGen) implementation in the Washington D.C. Metroplex beginning in November of 2014.

Simply, the implementation of NextGen in the Washington D.C. Metroplex airspace has had terrible negative impacts on the quality of life for residents on the ground in Virginia, the District of Columbia and Maryland. Arlington County has significant concerns with how the NextGen procedures were originally implemented, the scope of the current review, the proposed modifications currently under consideration, and mostly, the terrible negative effect it is having on the quality of life of our residents. Further, we believe that the additional modifications being proposed by the Federal Aviation Administration (FAA) would do very little to address them and could potentially exacerbate them for many residents of Arlington County and throughout the region.

According to the U.S. Environmental Protection Agency, noise pollution not only interferes with daily life, it has been shown to adversely affect the lives of millions of people. Studies have demonstrated direct links between noise and adverse health effects, including stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity. Further, the World Health Organization has found excessive and constant noise can cause cardiovascular and psychophysiological effects, reduce performance and provoke annoyance responses and changes in social behavior.

Perhaps most troubling is the fact that our region is not alone – both in experiencing the adverse consequences of NextGen implementation as well as the inability of the FAA and others to reasonably seek to fully understand these impacts through rigorous data analysis and working with communities to identify any and all steps to reduce or mitigate them. The same scenario that is currently playing out in our Metroplex is also happening across the country in San Jose, New York, San Diego, Chicago, Boston, Miami and Minneapolis, among others.
Given the unique constraints that exist and the complexity of operations in our region’s airspace, when discussions began many years ago regarding airspace modernization, Arlington County and other localities were hopeful of the promise of the implementation of a modernized, satellite-based system and all the benefits it would provide. First, the increased safety and efficiency of the airspace that are the main driver of these changes are important achievements that should be the highest priority of any airspace modifications. Additionally, the projected annual benefits of the DC Metroplex changes - namely the reduction of 2.1 million gallons in fuel consumption, 18,000 metric tons of carbon savings, and the $6.1 million in fuel savings – help advance important national environmental and sustainability goals. Further, the effectiveness and efficiency of our nation's airports have important benefits in strengthening our local, state, regional and national economies and to the general flying public, including Arlington residents.

We appreciate the opportunity to share with you our concerns with the process and substance of the proposed changes, outlined below.

1. **Community Engagement Process**

   Arlington County requests that the FAA fully implement the recommendations of the NextGen Advisory Committee on Community Engagement and utilize this outreach process in the review of and any future adjustments to NextGen implementation and procedures in the D.C. Metroplex. Given the severe adverse impacts on local communities as a result of previous actions that had been approved on the assumption that there would be no significant impact, we do not think a Categorical Exclusion is the appropriate method for moving forward with the proposed changes.

   While safety and efficiency of the airspace system are the primary considerations when considering Performance Based Navigation (PBN) implementation, community impacts of aviation noise should also be considered as a crucial part of the calculation that determines the overall benefits of the proposed changes. Experience has shown that successful PBN implementation efforts typically have had well-formed and established outreach long before the initiation of the PBN procedure development process. Doing so would ensure that ground impacts are appropriately understood and considered and appropriately incorporated into airspace changes that will change noise exposure, even if it does not reach the current FAA threshold of “measurable impacts.”

   We would like to commend the time, effort and resources that have been assigned by the FAA to the D.C. Metroplex. In particular, Ms. Elizabeth Ray and FAA Mission and Support Services team have been extremely generous with their time in making themselves available to our community and for their efforts working with the Metropolitan Washington Airports Authority (MWAA) DCA Community Noise Working Group (Working Group). While we were disappointed that a similar level of engagement did not occur prior to implementation, we are encouraged by recent efforts and we hope that they represent a commitment to move forward in a collaborative fashion.

2. **Noise Data Analysis**

   Arlington County believes that the analysis of historical noise data has been insufficient and the modeling analysis of the proposed alternatives is flawed, thereby undermining confidence in any proposed solutions that have been developed. While we recognize that the preliminary analysis of the proposed changes has resulted in a finding that none of the alternative designs would cause reportable or significant changes in noise, we note that a similar finding was issued for previous actions that have been shown to have had a very substantial and unacceptable impact.
A preliminary analysis of the noise monitor readings themselves, as seen in the attached, demonstrates that average monthly and annual DNL aircraft readings at noise monitor locations to the north of DCA have substantially increased since 2014. It is our understanding that there have been no adjustments to those waypoints in recent years that would correspond to the increase in noise monitor readings. What is being experienced in our communities is not an increase in one neighborhood due to overflights with a corresponding decrease in noise in another neighborhood that is now not experiencing overflights due to changes in horizontal flight paths.

To the contrary, what the data demonstrates is a substantial increase in the overall noise being experienced on both sides of the Potomac River.

This has led Arlington County and our partner jurisdictions to reasonably ask the question – what is it exactly that is driving these changes and what options exist to address it? After many months of discussions, we still do not have an answer.

3. Alternatives for Noise Reduction & Mitigation
   The nearly sole focus of the discussion at the Working Group and for the upcoming Community Outreach Sessions has been on the adjustment of waypoints along the departure and arrival corridors. The stated goal of this effort has been to "maximize flight time over the Potomac River and minimize flight time over residential areas." We have seen from experience that both the size and meandering nature of the Potomac River make it impossible for most aircraft to remain exclusively over the River itself, particularly on northern departure. We know that there is no perfect solution and that community overflights in our region are a part of our reality moving forward. Therefore, we believe that for those individuals that find themselves under the flight path, particularly given the hours of operation that have been extended due to market conditions and the intensity and concentration of flights made possible by NextGen, that additional steps must be taken.

For example, we understand that in recent years other communities around the country and the world are taking a renewed look at a spreading out or a sharing of noise. While widely criticized several decades ago in our region during a trial phase, it is time to assess the effectiveness of these efforts at other airports and determine whether or not it could address some of the problems experienced in our region. Further, we note efforts in other regions to extend their noise reduction alternatives analysis to include not only where planes are flying, but how they are flying. To our knowledge, noise abatement operational procedures or restrictions have not been identified, discussed or analyzed.

Up until this time, Arlington County has not worked to analyze and develop technical alternatives for consideration by the FAA and others to address this issue. It does not seem reasonable to the County that local communities, who are not experts on the needs, constraints and opportunities with regards to aviation, should be tasked with solving this problem. Rather, we had hoped that through voicing our concerns and providing detailed information regarding the impacts on the ground, through the DCA Community Working Group or other efforts, that all stakeholders would work together to do so.

Conclusion
To date, we regret to say that we do not feel that the appropriate actions have been taken to acknowledge these impacts, to seek a deeper understanding of what is driving them, to fully identify and evaluate any and all options to reduce and mitigate the noise, and
importantly, a commitment to continue to monitor these procedures and their implementation on an ongoing and regular basis to address any issues that present themselves or to take advantages of opportunities that may present themselves in the future.

Arlington County firmly believes that improvements for both those on the ground and the flying public are possible and necessary. It is incumbent upon all of us - local governments, airport operators, the airlines and the FAA to work together to identify solutions that allow for the safe and efficient operations of our air traffic network while also minimizing the adverse impact on surrounding communities. It is our hope that this long overdue community engagement represents a forthright attempt by the FAA to understand the impacts on our community, what specifically is driving the increase in those impacts in recent years and a full and honest attempt to identify and evaluate all actions that can be taken to reduce and mitigate them.

If so, Arlington County looks forward to being your full partner in that effort.

Sincerely,

Libby Garvey
Chair, Arlington County Board

Attachment

Cc: Senator Mark Warner, United States Senate
    Senator Tim Kaine, United States Senate
    Governor Terry McAuliffe, Governor of Virginia
    Representative Don Beyer, United States House of Representatives
    Senator Janet Howell, Senate of Virginia
    Senator Adam Ebbin, Senate of Virginia
    Senator Barbara Favola, Senate of Virginia
    Delegate Patrick Hope, Virginia House of Delegates
    Delegate Alfonso Lopez, Virginia House of Delegates
    Delegate Rip Sullivan, Virginia House of Delegates
    Delegate Mark Levine, Virginia House of Delegates
    Mr. Jack Potter, President and CEO, Metropolitan Washington Airports Authority
## ANNUAL DCA NOISE MONITOR DATA FOR NORTHERN SITES 2010-2016

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* Average DNLac = yearly average of monthly DNLac readings as reported in MWAA Annual Noise Report
** NextGen Implementation for DC Metroplex announced November 24, 2014

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** NextGen Implementation for DC Metroplex announced November 24, 2014
ANNUAL DCA NOISE MONITOR DATA FOR NORTHERN SITES
2010-2016

Rosslyn - Georgetown Palisades Chain Bridge
July 13, 2016

Mr. Michael Huerta
Administrator
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591-0004

Dear Mr. Huerta:

We are writing regarding the unacceptable effects of the recent changes in flight patterns for planes arriving and departing from Ronald Reagan Washington National Airport (“DCA”). We appreciate your June 7, 2016 response to Congressman Van Hollen’s letter dated May 5, 2016 but unfortunately, your response neither acknowledges the devastating effect of the changes on our constituents’ quality of life, nor does it discuss any actions the FAA will take to rectify the problem.

As you know, NextGen technology has concentrated flight paths over specific communities. The cumulative noise from the constant stream of aircraft flying overhead is intolerable. The time between flights in residential zones is frequently fewer than three minutes with planes flying throughout the day from 5:00 a.m. to midnight, without pause. Residents living under these flight paths do not sleep well, they can’t hold conversations in a normal speaking voice, they can’t work from home, they can’t concentrate on homework, and they can’t open their windows. In short, they are being deprived of their right to quiet enjoyment of their property. This is simply not an acceptable or equitable situation.

We understand, as you mention, that the FAA is collaborating with the Metropolitan Washington Airports Authority’s Reagan National Community Noise Working Group. While the Working Group was established to identify practical solutions and recommendations regarding aircraft noise affecting residential areas, no action has yet been taken by the FAA to mitigate the impacts. Residents simply cannot wait any longer for changes to be made.

We call upon the FAA to take immediate action. We urge a return to pre-NextGen flight patterns until a solution can be devised that does not ruin the lives of those who live below the current paths. Residents deserve immediate relief from the intolerable effects of NextGen.

Sincerely,

Chris Van Hollen
Member of Congress

Isiah Leggett
County Executive

www.montgomerycountymd.gov
June 7, 2016

The Honorable Chris Van Hollen
House of Representatives
Washington, DC 20515

Dear Congressman Van Hollen:

Thank you for your May 5 letter regarding your constituents’ concerns on aircraft arrivals and departures at Ronald Reagan Washington National Airport. You requested that the Federal Aviation Administration (FAA) review the impact of procedures and possible mitigations.

As the FAA continues to modernize the National Airspace System, we are incorporating the use of Performance Based Navigation procedures. The flight procedures associated with the Washington DC Metroplex project were coordinated and studied under an Environmental Assessment (EA). The Draft EA document for the DC Metroplex was released and made available for public review and comment on June 20, 2013. Written comments on the Draft EA were accepted by the FAA until July 20, 2013. The Finding of No Significant Impact and Record of Decision (FONSI-ROD) for the project were issued on December 30, 2013. The FONSI-ROD is available for download at the following Web site: http://metroplexenvironmental.com/dc_metroplex/dc_docs.html.

The FAA’s implementation of new air traffic procedures nationwide is governed by the National Environmental Policy Act (NEPA). The FAA conducts environmental reviews of all new air traffic procedures and adheres to all requirements of NEPA when implementing new air traffic procedures. The FAA’s mission is to ensure the safe and efficient use of our Nation’s navigable airspace. The Agency does not have the authority to prohibit aircraft overflights of a particular geographic area unless the operation is unsafe or the aircraft is operated in a manner inconsistent with the Federal Aviation Regulations.

In order for a flight procedure to be modified for noise abatement, there should be a reasonable expectation that a noise benefit of worthwhile magnitude would result and that implementation of the procedure is appropriate and practicable. Factors affecting these determinations include the airport layout and operational characteristics, air traffic safety and efficiency of operation, the amount and location of noise sensitive land around an airport, and whether there are alternate, non-noise-sensitive corridors for accepting greater amounts of noise. Procedural changes usually involve moving noise around rather than eliminating it, and may actually result in noise increases for some people, while reducing noise for others.
In October 2015, a Reagan National Community Noise Working Group was established by the Metropolitan Washington Airports Authority. The goal is to engage broad-based community participation to identify practical solutions and recommendations regarding Reagan National aircraft noise affecting residential areas in the District of Columbia, Maryland, and Virginia. The FAA is committed to full transparency and will continue to work with the Working Group to address community noise concerns. The FAA encourages your constituents to participate in future Working Group meetings. Information about this body and future meetings may be found at http://www.flyreagan.com/dca/community-working-group.

If I can be of further assistance, please contact me or Rachel Milberg, Acting Assistant Administrator for Government and Industry Affairs, at (202) 267-3277.

Sincerely,

Michael P. Huerta
Administrator
Dear Mr. Liebman:

Thank you for your letter dated March 23, 2016, regarding aircraft departing and arriving at Ronald Reagan Washington National Airport (DCA) which are overflying your house and community, contrary to the Federal Aviation Administration’s (FAA) noise abatement procedures at DCA. You stated that up until a few weeks ago, aircraft operating to and from DCA (weather permitting) have followed the “River Visual” route, turning at the 10 Distance Measuring Equipment marker. You requested the FAA’s help to resolve this matter.

Under the DCA Airport Noise Abatement and Prohibited Area (P-56) Avoidance Procedures (copy enclosed), it states that aircraft will depart via an Area Navigation (RNAV) Standard Instrument Departure (SID) procedure contained in that document. The majority of aircraft depart DCA via RNAV procedures. Also, the document describes the procedures and process for arrivals, which states they will fly the “River Visual” route or “Mount Vernon Visual” based on certain weather conditions. When the weather conditions do not permit, they fly Instrument Flight Rules procedures, such as, the Instrument Landing System, Localizer Directional Aid (LDA)-Yankee, LDA-Zulu, etc. For additional information regarding all the instrument procedures you may visit the website: www.skyvector.com, select airports, type KDCA, then scroll down, and you will be able to see all the instrument procedures available for departures and arrivals at DCA.

The flight procedures associated with the Washington, DC Optimization of Airspace and Procedures in the Metroplex were coordinated and studied under an Environmental Assessment (EA). In accordance with the National Environmental Policy Act (NEPA), the FAA released the EA that was prepared to consider the potential environmental impacts associated with the DC Metroplex for public review and comment.

We reviewed radar track data for aircraft landing DCA on several random dates and times. Track information is reliable because the tracks indicate where aircraft are flying and at what altitude; however, it does not provide us with information about aircraft noise. Based on our review of the data, there have been no changes in flight patterns or procedures that would impact your neighborhood.
In order for a flight procedure to be modified for noise abatement, there should be a reasonable expectation that a noise benefit of worthwhile magnitude would result, and that implementation of the procedure is appropriate and practicable. Factors affecting these determinations include the airport layout and operational characteristics, air traffic safety and efficiency of operation, the amount and location of noise sensitive land around an airport, and whether there are alternate, non-noise sensitive corridors for accepting greater amounts of noise. Procedural changes usually involve moving noise around rather than eliminating it, and may actually result in noise increases for some people, while reducing noise for others.

The FAA’s implementation of new air traffic procedures nationwide is governed by the NEPA. The FAA conducts environmental reviews of all new air traffic procedures and adheres to all requirements of the NEPA when implementing new air traffic procedures. The agency does not have the authority to prohibit aircraft overflights of a particular geographic area unless the operation is unsafe, or the aircraft is operated in a manner inconsistent with the Federal Aviation Regulations.

The FAA’s mission is to ensure the safe and efficient use of our nation’s navigable airspace. Despite our best attempts, we acknowledge it is difficult to reduce noise levels in every area. Nevertheless, the FAA is committed to minimizing noise and other negative impacts to the extent possible while ensuring the safety and efficiency of air travel.

Sincerely,

Carmine W. Gallo
Regional Administrator

Enclosure
RONALD REAGAN WASHINGTON NATIONAL AIRPORT
NOISE ABATEMENT & PROHIBITED AREA (P-56)
AVOIDANCE PROCEDURES (Page 1 of 2 pages)

PROHIBITED AREA P-56
AVOID
SURFACE TO 18,000' MSL

LEGEND
ROAD
RAILROAD
BRIDGE

NE, 31 MAR 2016 to 26 MAY 2016
SPECIAL NOTICES
RONALD REAGAN WASHINGTON NATIONAL AIRPORT
NOISE ABATEMENT & PROHIBITED AREA (P-56) AVOIDANCE PROCEDURES
(Page 2 of 2 pages)

P-56 BEGINS APPROXIMATELY 1.5 NM NORTH OF THE DEPARTURE END OF RUNWAY
01-SURFACE TO 18,000’ MSL
REMAIN CLEAR OF P-56 AT ALL TIMES

EXPECT THE PUBLISHED RNAV DEPARTURE PROCEDURE OR ATC INSTRUCTIONS FOR THE
FOLLOWING NON-RNAV PROCEDURES

NORTHWEST: Follow the Potomac River until abeam the Georgetown reservoir or the DCA 4 DME, then join the DCA 328 radial, expect radar vectors at 10 DME. A left turn as soon as practicable, especially with a west wind, is required to maintain a ground track over the Potomac River and remain clear of P-56. If unable to maintain visual reference to the Potomac River, join the DCA 328 radial.

NORTHEAST: Follow the Anacostia River to 5 DME. A right turn as soon as practicable, especially with a east wind, is required to maintain a ground track over the Anacostia River and remain clear of P-56. Expect Radar Vectors at 5 DME. If unable to maintain visual reference to the Anacostia River, then join the DCA 070 radial.

SOUTH: Follow the Potomac River to 5 DME, then expect radar vectors. If unable to maintain visual reference to the Potomac river, then join the DCA 185 radial.

ARRIVAL PROCEDURES

LANDING NORTH: Weather conditions 3000’ or better, expect the Mount Vernon visual approach. Lower weather conditions, expect the advertised instrument approach.

LANDING SOUTH: Weather conditions 3500’ or better, expect the River Visual Approach. Lower weather conditions, expect the advertised instrument approach.

NIGHTTIME NOISE LEVELS

From 2200 to 0700 local time, operation of aircraft type and model which exceed the following noise levels violate Metropolitan Washington Airport Authority Regulation (MWAR) 3.11:

DEPARTURES - 72 dBA as generated on takeoff.

ARRIVALS - 85 dBA as generated on approach, except that aircraft scheduled to arrive before 2200 will be permitted to land if they have received an approach clearance before 2230. Ref. MWAR 3.11 and Advisory Circular 36-3.

NE, 31 MAR 2016 to 26 MAY 2016
May 6, 2016

The Honorable Isiah "Ike" Leggett  
County Executive  
Montgomery County  
101 Monroe Street, 2nd Floor  
Rockville, MD 20850

Dear County Executive Leggett:

Thank you again for Montgomery County’s appointment of a representative from your community to the Reagan National Airport Community Working Group (Working Group), which has been busy since last fall providing input to the Federal Aviation Administration (FAA) and airline representatives. Since the FAA’s implementation of “NextGen” throughout the Washington, D.C., region, we have generally seen an increase in some community complaints regarding aircraft noise. The purpose of this letter is to provide you with a snapshot of the Working Group’s progress to date and of related efforts currently underway at the Metropolitan Washington Airports Authority (Airports Authority).

It is a fact of our everyday lives that airplane overflights make noise. Flight paths, altitudes and other activities of commercial planes in the air are under the jurisdiction of the FAA and its Air Traffic Control function. The FAA’s system-wide transition to NextGen technology, designed to make the national airspace more safe and efficient, reduce flight delays and improve environmental performance nationally, has moved airplanes into narrower flight paths as they approach and leave airports, including Ronald Reagan Washington National Airport (Reagan National). This has eased the noise impact for many communities, but has increased noise concerns in some communities that are closer to the narrower flight paths.

While the Airports Authority does not have regulatory authority over airplanes in flight or airline schedules, we are quite mindful of community noise concerns. In response to concerns we have heard from local residents, the Airports Authority organized the Working Group, facilitated by our Chief Operating Officer, which brings community representatives together with the FAA and airline officials, to identify potential flight procedure adjustments in an effort to mitigate the impact of aircraft noise on our neighbors. For your reference, I have enclosed with this letter a copy of the Working Group’s Charter.

I can assure you that your appointee to this Working Group is ably representing your community, and is hard at work toward making a meaningful difference. The Working Group
has made considerable progress regarding aircraft operations north of Reagan National and it is now actively considering alternatives for operations to the south.

Last December, our Government Affairs team had advised you that the Working Group issued its first recommendation, requesting that the FAA adjust waypoints along the current “Lazir” flight path to the north of Reagan National, with the goal of maximizing the time aircraft spend flying directly over the Potomac River and minimizing the time aircraft spend flying over land, especially residential neighborhoods, as a way to mitigate aircraft noise impacts on residents. At its most recent meeting, the Working Group endorsed the concept of the FAA modifying flight paths south of Reagan National to keep aircraft more centered over the Potomac River on departures, as well as modifying waypoints to move departing aircraft farther down the Potomac River before turning.

As you can imagine, every suggestion considered has both regional proponents and regional opponents. The Working Group’s objective is to collaboratively identify practical solutions and recommend those solutions to the FAA, which ultimately must approve any changes that would apply to aircraft flight noise abatement regulations and procedures. The actual implementation of FAA accepted Working Group recommendations may require several months.

Beyond the Working Group, please be advised that the Airports Authority also operates a Noise Information Office (Office) that can provide flight tracks and other noise-related data to help residents better understand this issue. Mr. Mike Jeck, Manager of the Office, has been in contact with many area residents to answer questions and to provide current information. While our Noise Information Office does not speak for the FAA or comment on its policies or practices, the Office does provide online tools for persons interested in tracking local flight activity, and our Noise Information staff is engaged with individuals and groups who contact us, serving as an information resource regarding aircraft overflights and associated noise.

In addition to these activities, the Airports Authority is actively working with airlines serving Reagan National, reminding those airlines of community noise concerns and urging them to follow noise-abatement procedures whenever practical. The Airports Authority has asked airlines to limit their use of MD-80 aircraft, which are considered among the loudest commercial airliners currently in service at Reagan National, particularly during the early morning and nighttime hours. The airlines have cooperatively responded by either eliminating or greatly reducing the use of this particular type of aircraft in their flight operations at Reagan National.

Further, the Airports Authority actively enforces a Nighttime Noise Rule (Rule), which restricts certain types of aircraft from taking off or landing at Reagan National between 10 p.m. and 7 a.m. It is important to note, however, that this Rule is not a “curfew” or prohibition on flights. While Reagan National remains a 24/7 airport operation, the Rule places limitations on the type of plane, its engine configuration, and its weight. We have found that
most planes serving Reagan National are in compliance with the Rule and may fly during the overnight hours.

Mr. Jeck and his colleagues in the Noise Information Office would be pleased to talk with your constituents further about the complex issue of aircraft noise and the Airport’s role in addressing community concerns. The Noise Information Office can be reached at (703) 417-1204. Additional information on aircraft noise issues and the Community Working Group can be found on the Airports Authority’s web page at: www.flyreagan.com/dca/reagan-national-aircraft-noise-information.

Thank you again for allowing me this opportunity to provide you an update on this important work. We hope there will be continued progress made by the Working Group as more recommendations to the FAA are considered during upcoming meetings. In the meantime, please accept the Airports Authority’s appreciation for the thoughtful contributions made by the representative of Montgomery County, whom you have appointed to this Working Group.

Please feel free to contact me if you have any questions, and kindly consider sharing this letter with your local government colleagues or any others in your community.

Sincerely,

[Signature]

John E. Potter
President and Chief Executive Officer

JEPMC

Enclosure
Reagan National Airport Community Working Group
Organizational Charter

The Metropolitan Washington Airports Authority is establishing the Reagan National Airport Community Working Group in response to increasing community concerns regarding aircraft noise affecting residential areas in the District of Columbia and Virginia along the Potomac and Anacostia rivers.

The Working Group is comprised of community representatives from Wards 2, 3, 6, 7 and 8 of Washington, D.C., and representatives from the Virginia jurisdictions of Arlington County, the City of Alexandria and the Dranesville and Mount Vernon Supervisor Districts of Fairfax County. An elected official representing each community selects citizens to represent the jurisdiction in the Working Group.

The Working Group is designed to inject broad-based community input into noise-related discussions, and to move the noise discussion beyond the airing of individual and neighborhood complaints toward a cooperative effort to identify practical solutions and recommend those solutions to the Federal Aviation Administration, which must approve most changes that would apply to aircraft noise abatement regulations and procedures. Therefore, the Working Group’s meetings will be technically focused working sessions rather than public discussion forums.

The Working Group will be joined at its meetings by representatives of the Federal Aviation Administration and airlines operating at Reagan National, as well as representatives of the Metropolitan Washington Airports Authority and its Noise Information Office. Elected officials who selected the Working Group members, as well as members of the elected official’s staff, also are welcome to attend Working Group meetings.

The Airports Authority will convene the Working Group and serve as facilitator for the group’s meetings and its formulation of recommendations. The Airports Authority anticipates that the Working Group will meet quarterly to share ideas, discuss potential strategies and evaluate potential solutions in consultation with the FAA, airlines and other participants. Recommendations approved and endorsed by the Working Group will be forwarded periodically to the Federal Aviation Administration for consideration.

Topics considered by the Working Group could include air safety requirements, current operating conditions affecting air traffic patterns occurring at Reagan National, existing and emerging technologies that affect aircraft movements and performance, roles and responsibilities of government and business entities related to aircraft noise, and experiences of other airport communities in addressing noise issues.

The Working Group would complete its work by the summer of 2016 by presenting its final recommendations to the Federal Aviation Administration.
NextGEN
Community Concerns
MONTGOMERY COUNTY, MD
NextGEN

Establishment of thin "flight rails" in December 2015.
NextGEN

Impacts:

Flight noise is focused.

Aircraft are now turning sooner, lower, and louder than before.

Neighborhoods that once saw few flights, now bear all of the impact.
South-Flow Arrivals

Elimination of South approach, adjusted arrival waypoints in December 2015

More arrivals are now focused in thin rail over neighborhoods – and are lower and louder - exacerbating NextGen concerns.
South-Flow Arrivals
Impacts - County DEP Noise measurement
Point of measurement

08.04.2016 11:31:50 PM
## South-Flow Arrivals

Impacts - County DEP Noise Measurement

Select Sample - 6900 Broxburn Drive

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Montgomery County Request
July 13, 2016 letter to FAA Administrator Huerta

As you know, NextGen technology has concentrated flight paths over specific communities. The cumulative noise from the constant stream of aircraft flying overheard is intolerable. The time between flights in residential zones is frequently fewer than three minutes with planes flying throughout the day from 5:00 a.m. to midnight, without pause. Residents living under these flight paths do not sleep well, they can’t hold conversations in a normal speaking voice, they can’t work from home, they can’t concentrate on homework, and they can’t open their windows. In short, they are being deprived of their right to quiet enjoyment of their property. This is simply not an acceptable or equitable situation.

We call upon the FAA to take immediate action. We urge a return to pre-NextGen flight patterns until a solution can be devised that does not ruin the lives of those who live below the current paths. Residents deserve immediate relief from the intolerable effects of NextGen.

Sincerely,

Chris Van Hollen
Member of Congress

Isiah Leggett
County Executive
Departures

- Departing flights turn at the 10 DMA, west-bound flights turn over Potomac River.
- Develop dispersal plan for east-bound flights.
- Establish minimum altitudes.

Arrivals

- Adjust arrivals to avoid channelization over residential areas - disperse impacts of arriving flights.

LAZIR-B

- Request that FAA drop consideration of relocation of waypoint COVTO.
Reagan National Airport
Community Working Group
DRAFT Recommendation #

The Reagan National Airport Community Working Group recommends that:

1. For north flow departures from DCA, the FAA is requested to develop a departure procedure—including appropriate waypoint adjustments and establishment of minimum waypoint altitudes—that centers aircraft over the Potomac River, from the Maryland State line to at least the American Legion Bridge, maximizing altitudes before aircraft are permitted to make turns heading east or west, thus minimizing the amount of time aircraft overfly communities located adjacent or near to the Potomac River, as a way to mitigate existing aircraft noise impacts on residents.

2. For south flow arrivals to DCA, the FAA is requested to develop an approach procedure—including appropriate waypoint adjustments and establishment of minimum waypoint altitudes—that centers aircraft over the Potomac River from at least the American Legion Bridge to the Maryland state line, thus minimizing the amount of time aircraft overfly communities located adjacent or near to the Potomac River, as a way to mitigate existing aircraft noise impacts on residents. ¹

3. The FAA is requested to modify departure procedures, North and South of DCA—including waypoint adjustments and establishment of minimum altitudes—to avoid channelization over noise sensitive areas, including residential communities, as a way of equitably mitigating the impact of aircraft noise.

¹ This recommendation 2 is supported by, and is consistent with, Working Group Recommendation #2 (Feb. 25, 2016), which requested the FAA to develop a new RNAV approach procedure for DCA Runway 19, “with the goal of maximizing the time aircraft spend flying directly over the Potomac River and minimizing the time aircraft spend flying over land.”
4. In regards to LAZIR-B, the Working Group requests that the FAA not make adjustments to waypoint COVTO as depicted in the LAZIR-B proposal and instead consider other adjustments—including appropriate waypoint adjustments and establishment of minimum waypoint altitudes—that avoid flying over noise sensitive areas, including residential neighborhoods, as a way of mitigating the impact of aircraft noise.
DCA Standard Instrument Departure Procedures


The FAA is responding to a recommendation from the DCA Working Group. The DCA Working Group was established in October 2015 to engage broad-based community participation to identify practical aircraft noise solutions and recommendations to the FAA.

The DCA Working Group voting stakeholders include community members appointed by elected officials from local jurisdictions, and two airline representatives:

- **Airlines**: American Airlines, Metropolitan Washington Airlines Committee
- **D.C.**: Wards 2, 3, 6, 7, 8
- **Maryland**: Montgomery County - District 1, Prince George's County - District 8
- **Virginia**: Arlington County, City of Alexandria, Fairfax County - Dranesville, Fairfax County - Mount Vernon

The Airports Authority serves as the host and facilitator for DCA Working Group meetings and recommendations. The Airports Authority and FAA serve as non-voting, advisory DCA Working Group members. The Airports Authority will forward recommendations approved and endorsed by the DCA Working Group to the FAA for consideration and action.

In January 2015 the FAA, NATCA, Industry and the Metropolitan Washington Airport Authority (MWAA) began initial discussions regarding how the LAZIR FIVE Standard Instrument Departure (SID) could be revised in order to satisfy two goals. One, increase flight time over the Potomac River to mitigate noise complaints and two, increase the distance between aircraft and Prohibited Area 56 (P-56). A working group was formed to research and analyze the possibilities to revise the LAZIR FIVE. Simultaneously, FAA’s Mission Support VP collaborative discussions with MWAA, led to the development of the DCA Working Group (Reagan National Community Noise Working Group) that was established in October 2015. The roles and responsibilities of the DCA Working Group is engage broad-based community participation to identify practical aircraft noise solutions and recommendations to the FAA through MWAA.

**FAA’s NextGen:**

The Federal Aviation Administration’s Next Generation Air Transportation System, or NextGen, is the ongoing transformation of air traffic control technologies and procedures in the United States. You might think of this transition as similar to moving from paper maps to GPS when you drive your car.

In addition to improving navigation, NextGen brings other expected benefits:

- NextGen enhances aviation safety, reduces carbon emissions and modernizes procedures to today’s standards.
DCA Standard Instrument Departure Procedures

- A key NextGen goal is to safely improve the way aircraft navigate complex, metropolitan areas, which we call Metroplexes, to make flight routes and airports more efficient.

- Use of NextGen procedures in these areas could improve on-time performance, which would benefit the region and the entire national airspace system.

**Proposed Procedure Changes:**

During the November, 2015, DCA Working Group Meeting, FAA and NATCA representatives presented to the working group representatives three notional alternatives for the LAZIR Five SID. The alternative designs would revise north flow SIDs by moving the first three way points ADAAXE, BEBLE and COVTO. During the December, 2015, DCA Working Group Meeting, MWAA facilitated a vote by the DCA Working Group representatives to endorse one of three LAZIR FIVE SID alternatives. Subsequently, MWAA shared the DCA Working Group recommendation to endorse alternative LAZIR “B”. The FAA committed to publishing the noise abatement procedure within a year and has continued to provide the DCA Working Group with monthly updates. On January 27, 2016 the nine SID designs were finalized and ready for further development and are tentatively scheduled to be republished January 5, 2017.

The FAA issued a Finding of No Significant Impact and Record of Decision (FONSI/ROD) for the Washington D.C. Optimization of the Airspace and Procedures in the Metroplex (DC OAPM) in December 2015. The FONSI/ROD was based on a Final Environmental Assessment (Final EA) issued concurrently which included a detailed noise analysis. The DC OAPM resulted in the establishment of 41 new and modified flight procedures in the larger Washington, D.C. area.

**Environmental Actions Needed:**

The Federal Aviation Administration complies with environmental regulations by conducting environmental reviews in accordance with the National Environmental Policy Act (NEPA). The FAA is conducting an environmental review of the proposed procedure changes. FAA would like to issue the environmental decision this year to meet its commitment to the DCA Working Group.

The FAA completed an Initial Environmental Review form to gather all the information needed for an Environmental Specialist to complete an environmental review. Based on this review, the FAA determined that a more thorough review of the proposed procedures should be completed.

The FAA then evaluated the nine proposed departure procedures in a noise screening analysis using the TARGETS Aviation Environmental Design Tool (AEDT) Plug-in. The noise analysis indicates no significant or reportable changes in noise exposure with the implementation of the nine proposed procedures and the results are presented in a report dated May 23, 2016. The noise modeling of the proposed procedures on May 23, 2016 preliminarily determined there would be no significant noise impact.
DCA Standard Instrument Departure Procedures

The FAA will next contact the State Historic Preservation Office (SHPO) to note the FAA’s determination of “No Effect” to resources protected under Section 106 of the National Historic Preservation Act (NHPA). The FAA will request SHPO’s comments, feedback, and concurrence. The SHPO has 30 days to respond.

Public Workshops:

The FAA is also holding a series of community workshops to provide more information about the proposed procedures changes and receive comments about the proposed procedure changes.

- The FAA will hold a series of community workshops, which will be held locally in September. Three public workshops held in DC, in Virginia, and in Maryland.

  o Washington Lee High School (Arlington, VA)
    • September 13, 2016
    • 6:30pm to 9:30pm
    • 1301 N Stafford St - 1301 N Stafford St - Arlington, VA 22201
    • (703) 228-6200
  
  o Georgetown Neighborhood Library (DC)
    • September 14, 2016
    • Meeting: 5:30pm – 8:30pm
    • 3260R St. NW - Washington, DC 20007
    • (202) 727-0232
  
  o Regional Services Center-B-CC (Bethesda, MD)
    • September 15, 2016
    • Meeting: 5:30pm – 8:30pm
    • 4805 Edgemoor Lane – Bethesda, MD 20814
    • (240) 777-8200

- The FAA encourages residents to attend the most convenient public workshop. They will be able to talk to experts one-to-one to learn how these proposed air traffic procedure changes may affect their communities.

- Residents also can make comments at these community workshops.

- The FAA will review all comments before it makes a final determination, scheduled for Fall 2016.

For up-to-date information you are encouraged to visit the following website:
www.faa.gov/nextgen/metroplex_public_engagement/
Why are we here?

• The FAA is here to discuss a proposed new departure route from Ronald Reagan Washington National Airport (DCA).

• This Workshop consists of interactive stations where you may ask questions of Subject Matter Experts.

• The proposed route is referred to as Alternative B (LAZIR-B) and was modified to increase aircraft time over water and to avoid P56 (a restricted area of airspace over the White House and surrounding monuments).

• The proposed route is the option selected by the Reagan National Community Noise Working Group (Working Group).

• The Working Group voting stakeholders include community members appointed by elected officials from Washington, D.C., Maryland, Virginia, and airline representatives.

• The FAA attends Working Group meetings regularly and supports the Working Group with technical input and information. The FAA is not a voting member on the Working Group.

• The FAA is here to inform the public of the proposal and collect comments/concerns to determine the appropriate level of environmental review. The FAA will collect comments tonight and for 30 days following this meeting on the FAA web site at http://www.faa.gov/nextgen/communityengagement/dc/
Roles and Responsibilities

**FAA**

The Federal Aviation Administration is responsible for the safety of civil aviation, and the steward of the National Airspace System. This includes:

- Regulating civil aviation to promote safety
- Encouraging and developing civil aeronautics, including new aviation technology
- Developing and operating a system of air traffic control and navigation for both civil and military aircraft
- Researching and developing the National Airspace System and civil aeronautics
- Developing and carrying out programs to control aircraft noise and other environmental effects of civil aviation
- Regulating U.S. Commercial Space Transportation

[faa.gov/about/mission/activities](http://faa.gov/about/mission/activities)

**MWAA**

The Airports Authority operates a two-airport system that provides domestic and international air service for the mid-Atlantic region. The organization consists of more than 1,400 employees in a structure that includes central administration, airports management and operations, and police and fire departments. In addition to operating Reagan National and Dulles, the Airports Authority is responsible for capital improvements at both airports.

[mwaa.com/about/mwaa-history-and-facts](http://mwaa.com/about/mwaa-history-and-facts)

**DCA Working Group**

A Reagan National Community Noise Working Group was established in October 2015 to engage broad-based community participation to identify practical aircraft noise solutions and provide recommendations to the FAA.

**Working Group voting stakeholders include community members appointed by elected officials from local jurisdictions, and two airline representatives:**

- Airlines: American Airlines, Metropolitan Washington Airlines Committee
- D.C.: Wards 2, 3, 6, 7, 8
- Maryland: Montgomery County - District 1, Prince George’s County - District 8
- Virginia: Arlington County, City of Alexandria, Fairfax County - Dranesville,
- Fairfax County - Mount Vernon

The Airports Authority serves as the facilitator for Working Group meetings and recommendations. The Airports Authority and FAA serve as non-voting, advisory Working Group members. The Airports Authority will forward recommendations approved and endorsed by the Working Group to the FAA for consideration and action.

**Topics considered by the Working Group include issues related to:**

- D.C. Metroplex - Standard Arrival and Standard Instrument Departure Procedures
- North and South Flow Operating Conditions
- Early-morning and Late-night Airline Schedules
- DCA Nighttime Noise Rule History and Enforcement
- Airline Fleet Mix
- Noise Monitoring System

[flyreagan.com/dca/community-working-group](http://flyreagan.com/dca/community-working-group)
Environmental Fact Sheet

National Environmental Policy Act (NEPA)

The National Environmental Policy Act of 1969 (NEPA), together with the Council on Environmental Quality (CEQ) implementing regulations, establish a broad national policy to protect and enhance the quality of the human environment by requiring Federal agencies to consider the potential environmental consequences of their proposed actions. More specifically, NEPA and the CEQ regulations require preparation of an environmental impact statement when, after a careful and delineated process of review has been conducted, it is determined that a proposed action significantly affect the quality of the human environment. As with other Federal agencies, the FAA has developed its own policies and procedures for complying with NEPA and the CEQ regulations as outlined in FAA Order 1050.1F: Environmental Impacts: Policies and Procedures.

For additional information, visit:

FAA Order 1050.1F: Environmental Impacts: Policies and Procedures
http://www.faa.gov/about/office_org/headquarters_offices/apl/environmental_policy_guidance/policy/1050_1f/npa

National Environmental Policy Act Council on Environmental Quality Regulations and Guidance
https://ceq.doe.gov/ceq_regulations/regulations.html

FAA NEPA Noise Metric and Noise Significance Criteria

When evaluating noise during an environmental review, the Day-Night Average Sound Level (DNL) is used by the FAA as the standard metric for purposes of NEPA and is the primary noise metric used by the FAA to determine levels of significance on and around the airport environs.

DNL has been continually recommended by technical experts as the best available metric for evaluating long-term noise exposure, and is the only noise metric supported by a substantial body of scientific survey data focused on community reaction to aircraft noise exposure.

Key characteristics of the DNL metric include:

- DNL level increases with both the loudness and duration of noise events
- DNL takes into account the number of noise events during a 24-hour day
- DNL calculations take into account the increased sensitivity to noise

The FAA uses thresholds that serve as indicators of significant impacts for some environmental impact categories and has identified the following as a significance threshold for noise:

- The action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.

NEPA Process

NEPA requires Federal agencies to use an interdisciplinary approach in planning and decision-making for proposed actions that may adversely impact the environment. NEPA also requires that a process be established for incorporating public involvement and integrating the requirements of other applicable environmental laws and regulations into the Federal decision-making and planning process. This requires the FAA evaluate the environmental and related social and economic effects of a proposed action and provide opportunities for public involvement, where appropriate.

For Air Traffic procedure actions, FAA first conducts an internal, preliminary review of any potential environmental impacts, including a noise screening assessment. For the DCA alternative LAZIR “B” procedure proposed action, a Noise Screening Report was prepared (see TARGETS AEDT Environmental Plug-in Report for Ronald Reagan Washington National Airport KDDA Arlington, VA).

The FAA is currently seeking public input into the DCA alternative “B” procedure as part of the scoping process under NEPA. Input from the public will be used to assist the FAA in determining the appropriate level of NEPA review.
Based on the preliminary screening, the FAA then determines the appropriate level of NEPA review. The three levels of NEPA review are:

**Categorical Exclusion (CATEX)**

- A CATEX may apply to categories of actions that normally do not individually or cumulatively have significant adverse effects on the human environment. A CATEX must, however, take into account any extraordinary circumstances, as defined in Paragraph 5-2 of FAA Order 1050.1F, in which a normally categorically excluded action may have a significant environmental effect.

**Environmental Assessment (EA)**

- An EA is a concise document which evaluates the expected environmental effects of a proposed action to determine if there is a potential for significant impacts. An EA summarizes the most important facts and conclusions surrounding the proposed action and its reasonable alternatives, as well as document all technical and supporting materials and make this information available for public comment. If, at the conclusion of an EA, it is determined that there are no significant impacts, a Finding of No Significant Impacts (FONSI) is prepared. The FAA may also decide to prepare a formal decision document called a Record of Decision (ROD). When combined with the FONSI it may be referred to as a FONSI/ROD.

**Environmental Impact Statement (EIS)**

- An EIS is a detailed written statement that must be prepared for proposed actions that have significant impacts. The EIS allows the FAA to evaluate the environmental impacts that the no action, the proposed action, and its reasonable alternatives would cause. The EIS must fully document all technical and supporting materials and make them available for public comment. At the conclusion of the EIS, the FAA prepares a ROD that explains what is being proposed and why, identifies actions the FAA or any other Federal agencies must take, explains the alternatives analyzed and which one is environmentally preferred, and identifies required mitigation measures.

Introduction

This document was prepared in response to questions regarding development of LAZIR procedures at DCA, including how and when these procedures have periodically been utilized.

Background

This is an historical overview of RNAV north-flow departure procedure development at DCA and an analysis of the operations flown.

The NATIONAL is a conventional navigation departure procedure that has been used at DCA for more than 20 years. When DCA is in a north-flow operation using runways 01 and 33, pilots on northwest departures are instructed to comply with a noise abatement procedure. The instruction reads, “Follow the Potomac River until abeam the Georgetown reservoir or the DCA VOR D4.0 [DME], then join the DCA VOR R-328.”

On March 10, 2011, the LAZIR RNAV departure serving runways 01 and 33 was published. The LAZIR defined a route of flight that generally guides aircraft along the Potomac River to reduce noise exposure to surrounding communities. The initial waypoints include ADAXE, BEBLE, and COVTO. For reference, COVTO is approximately seven nautical miles (NM) northwest of the airport.

Soon after implementation, the Federal Aviation Administration observed several navigation system irregularities that were unacceptable to Air Traffic Control (ATC). This included the possibility of a pilot violating Prohibited Area-56 (P-56) airspace, which encompasses airspace around the U.S. Capitol and White House, when LAZIR was flown. As a result, LAZIR was seldom used in the first four years after its publication until technical and procedural solutions were found.

Minor changes were made to LAZIR (e.g., LAZIR 2, LAZIR 3, LAZIR 4, LAZIR 5) over the next few years in an attempt to address navigation system compatibility issues and to revise chart notes. In March 2015, the FAA began flight validation activities using the published LAZIR 5. During flight validation, data was collected for revising the north flow RNAV departure procedures by (1) increasing flight time over the Potomac River to mitigate noise and (2) increasing the distance between aircraft and Prohibited Area-56 (P-56). The list of participating operators was captured in a Letter of Understanding (LoU) kept on file with DCA Tower. The LoU has been updated periodically as airlines were granted approval, or voluntarily declined, to use the LAZIR procedure. Pilots of aircraft participating in the flight validation accepted the LAZIR RNAV departure clearances in lieu of the normally issued NATIONAL conventional departure. Non-participating aircraft continued to fly NATIONAL.

On April 30, 2015, three new DCA RNAV departures were published for multiple runways, including 01 and 33. Nearly two months later, on June 25, six more RNAV departures, serving all runways, were published for DCA. This publication brought the total number of northbound RNAV departures serving runways 01 and 33 at DCA to 10. Each of these RNAV departures share the same initial routing for the respective runway transitions until waypoint COVTO. This initial routing through COVTO is identical to the LAZIR 5 routing. Each procedure then diverges to different terminal airspace exit points.

The final version of LAZIR 5 was removed from the procedure inventory on October 15, 2015. The other nine RNAV departures remained and retain common initial routing from runways 01 and 33. These nine procedures have the following names: "CLTCH," "JDUBB," "HORTO," "REBLL," "SCRAM," "WYNGS," "BOOCK," "DOCTR," and "SOOKI.”

The vast majority of all turbojet departure operations in a north-flow configuration at DCA are assigned either the sole conventional departure (NATIONAL) or an RNAV departure. Between March 2011 and April 2015, the only available RNAV departure was LAZIR. From May 2015 through June 2015, aircraft proceeding eastbound received the RNAV Standard Instrument Departure (SID) associated with their destination, while westbound aircraft received the LAZIR. From July 2015 onward, aircraft were assigned a published RNAV departure corresponding to the filed route of flight.

Methodology

The data used for this analysis includes radar tracks spanning five years between March 1, 2011 and January 1, 2016. Due to missing or corrupt data, 78 days of the 1,767 days of data was not used.

A computational algorithm was used to assess conformance of flight tracks to RNAV departure procedures off runways 01 and 33. Flight tracks that conformed closely to the initial charted route common to all ten RNAV departures were categorized as RNAV operations. Per DCA operational practices described above, all non-conforming aircraft were considered conventional operations flying the NATIONAL departure. This track level analysis was required since the SID information is not consistently available in the filed flight plan.

This algorithm measures cross-track distance along each leg in the procedure and cross-track thresholds were computed. Thresholds were then validated using a visual inspection of 25 weeks of RNAV tracks, which is detailed in the validation section below. Once a threshold was chosen, each track point was considered “on” the leg if its cross track distance fell under this threshold.

The total amount of time below the cross track threshold compared to the total time on each leg was used as a second parameter to determine conformance to that leg. This parameter was also selected with the aid of the same 25 weeks of visually identified RNAV departures. A flight was only considered to be on a RNAV procedure if the conformance thresholds were met for all three legs in question. The parameters are shown in Table 1.
Table 1: Algorithm Parameters

<table>
<thead>
<tr>
<th>Leg Type</th>
<th>Leg Name</th>
<th>Cross Track Threshold (NM)</th>
<th>Ratio of Time Conforming</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>To ADAXE</td>
<td>0.234</td>
<td>0.436</td>
</tr>
<tr>
<td>TF</td>
<td>ADAXE-BEBLE</td>
<td>0.205</td>
<td>0.782</td>
</tr>
<tr>
<td>TF</td>
<td>BEBLE-CVTO</td>
<td>0.362</td>
<td>0.085</td>
</tr>
</tbody>
</table>

Validation

The counts of flights identified by the algorithm were compared against the visually identified RNAV departures. The counts over the 25 week period from March 16, 2015 to September 5, 2015 were found to be within one percent difference. The average difference over each week was less than six percent for the entire date range. Random samples outside of this validation period were also visually examined and were found to correctly identify flights on the RNAV procedure.

Results

A count of the number of departures from runway 01 or 33 by month is shown in the following figure. The total number of operations, as well as the RNAV operations, are included.

The last four months of 2015 (indicated by a dotted vertical line in Figure 1) demonstrate high RNAV usage that is expected to continue. In this period, 27,518 out of 32,207 flights (85 percent) departing from runway 01 or 33 flew the RNAV procedure.

A summary of the yearly counts (March 1, 2011 through the end of 2015) is shown in Table 2 below.

Table 2: Yearly Departure Counts

<table>
<thead>
<tr>
<th>Year</th>
<th>Total RWY 01/33</th>
<th>Conventional</th>
<th>RNAV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 (Mar. – Dec.)</td>
<td>60,957</td>
<td>49,711</td>
<td>11,246</td>
</tr>
<tr>
<td>2012</td>
<td>85,091</td>
<td>71,447</td>
<td>13,644</td>
</tr>
<tr>
<td>2013</td>
<td>84,312</td>
<td>81,344</td>
<td>2,968</td>
</tr>
<tr>
<td>2014</td>
<td>90,410</td>
<td>87,542</td>
<td>2,768</td>
</tr>
<tr>
<td>2015</td>
<td>91,403</td>
<td>40,070</td>
<td>51,333</td>
</tr>
</tbody>
</table>