NextGen Advisory Committee
February 28, 2023 Meeting Summary

The NextGen Advisory Committee (NAC) convened in a hybrid format on February 28, 2023 with in-person attendees convening at Federal Aviation Administration (FAA) Headquarters in Washington, DC. The meeting discussions are summarized below. Reference the attachments for additional contextual information.

List of attachments:

- Attachment 1: NAC Presentation Deck
- Attachment 2: Attendance List
- Attachment 3: Public Statements

Opening of Meeting

NAC Chair, Mr. Chip Childs (SkyWest, Inc.), opened the meeting and welcomed in-person and virtual attendees. He began by providing some housekeeping notes. Mr. Childs then handed off to the NAC Committee Manager, Ms. Kimberly Noonan (FAA), for administrative announcements.

After reading the public meeting announcement and providing administrative housekeeping notes, Ms. Kimberly Noonan invited the three pre-approved public speakers to make their respective public statements. Before handing off to the speakers, she explained that the NAC Committee Management Team received six request to make an oral statement, however the number of registration requesting to make a public statement was greater than what could be reasonable accommodated at today's meeting. Ms. Noonan then descried that the FAA conducted a lottery to determine the three speakers as noted in the Federal Register notice for this meeting. Requestors who were not selected to speak were offered the opportunity to submit their comments as written statements.

Reference Attachment 3 for the full text of the following public statements:

- Ms. Cindy Christiansen – Aviation-Impacted Communities Alliance (AICA)
- Mr. David Goebel – Vashon Island Fair Skies
- Ms. Deb Jung – District 4 Councilmember for the Howard County Council in Maryland and Howard County Council's representative on the BWI Roundtable

Chair's Report

Mr. Childs began the Chair's Report by thanking the NAC Designated Federal Officer and FAA Deputy Administrator, Bradly Mims for hosting the NAC and that it was great to be with many attendees in person. He started by asking for approval of the meeting minutes for the August 30, 2022 NAC meeting.

Mr. Childs then called for motions to approve the August 30, 2022 NAC Meeting Summary Packages.

Outcome: The NAC passed motions to approve the August 30, 2022 NAC Meeting Summary Packages.

Mr. Childs went on to provide an overview of the three letters the NAC received from the FAA since the August 2022 NAC meeting. The first letter revised the due date for MCL Annual Review (NAC Tasking 21-1) to Spring 2023 and extended the focus area activity (NAC Tasking 18-4 and 18-5) through calendar year 2024. The second letter was NAC Tasking 23-1: National Airspace System (NAS) Airspace Efficiencies (also referenced as, NAC Task 23-1). Mr. Childs went on to explain that this task asks for advice on achieving greater airspace efficiencies while reducing reliance on and divesting from legacy systems and procedures with an overarching goal of moving to a more modernized NAS. He views this tasking as an excellent opportunity for the NAC to make progress in this challenging budgetary environment. Mr. Childs asked Mr. Warren Christie (JetBlue Airways), NAC member and Subcommittee Chair, to have the Subcommittee analyze this tasking and develop an approach for responding. The last letter received identified six airspace portfolios for airspace modernization that the FAA selected using the airspace modernization roadmap strategy.

He concluded the Chair Report section by thanking everyone for being at the meeting and provided some housekeeping notes. Mr. Childs then handed off to the Mr. Bradley Mims (FAA) for the FAA report.

FAA Report

Mr. Bradley Mims began by thanking the NAC Chair and the NAC members for their leadership and dedication to assuring the safety of the United States aerospace system. He said because of the collaboration between industry and the FAA, we are experiencing the safest period in aviation history; however, recent events remind us that we must not become complacent. Mr. Mims then highlighted that the FAA will be holding a Safety Summit in March 2023. He said the NAC's partnership will continue to be crucial in the work to enable the future of the NAS. He said we understand that our aerospace system has many types of users, investment decisions on current and future needs affect many stakeholders. This challenge of constant change requires all of us to be agile and continue to work together on sharing priorities. He said Safety will always be the FAA's first priority, but innovation and safety can comfortably coexist when it comes to new technologies.

Mr. Mims continued by saying the FAA is managing three airspace systems to serve the diverse set of users in the NAS. He said the first is the classic, legacy system that man users still count on. He said the second is the system that relies on the next generation of technology for improved communication, navigation, and surveillance. Mr. Mims said the FAA has operationalized the foundational pieces of the system, and we continue to develop services as operator equipage and federal resources allow. Mr. Mims said the third is the future system, a future that has already arrived. He continued by saying it is the system that must accommodate new entrants in all their forms, including drones, advanced air mobility aircraft, commercial spacecraft, and other new aircraft yet to be imagined.

Mr. Mims said for the FAA to sustain, implement, and plan for all of these airspace systems, we have a lot of work ahead. He said we have made great strides in our shared NextGen priorities and these are the real benefits for users of the NAS. The Multiple Runway Operations working group assisted in satellite-guided approaches and departures. There is more efficiency in the Northeast Corridor (NEC). We are particularly excited about recent success on our Data Communication (Data Comm) and the rollout of Terminal Flight Data Manager (TFDM) which will be briefed later in this meeting.

Mr. Mims shared that the FAA is appreciative of the NAC's advice and inputs on Section 547 (also referenced as NAC Tasking 19-2: Enhanced Air Traffic Services). This effort continues to show promise

and the NAC's engagement has been critical. We are also focused on airspace and airport projects that will benefit our stakeholders most.

He said the FAA's airspace Modernization Roadmap Strategy has identified six potential projects for airspace modernization. He continued by listing the six airspace portfolios which are: Dallas Fort Worth and Dallas Love Field, Austin Bergstrom at Jacksonville Air Route Traffic Control Center (ARTCC), Charlotte/Douglas International, Honolulu Control Facility, and Salt Lake City ARTCC.

Lastly, he continued, in January (2023) I asked the NAC to take on a task to assess how we improve NAS Airspace Efficiencies. This includes how we can reduce reliance on, and divest from, legacy systems and move on a reliance on a more modernized NAS.

Mr. Mims concluded the FAA report by saying, we know collaboration with each other has been key to the FAA's success. He thanked Mr. Childs for the time.

NAC Subcommittee (SC) Chair's Report - NAC Taskings Status

Mr. Childs thanked Mr. Mims, then introduced Mr. Warren Christie to walk the NAC through the NAC Subcommittee Chair report. Mr. Christie started by saying the NAC SC has had a productive six months since the August 30, 2022 NAC meeting. He welcomed Mr. Chris Oswald from Airports Council International – North America (ACI-NA) as the Surface and Data Sharing NextGen Integration Working Group (NIWG) co-chair and Mr. Eric Silverman from American Airlines and the industry Joint Analysis Team (JAT) co-lead.

Mr. Christie then proceeded to say as Mr. Childs mentioned earlier, we have a new NAC tasking to discuss. This request from the FAA comes at a time where we are balancing efficiency with fiscal constraints. As part of the NAC SC meetings throughout the summer and fall we have been discussing Section 547 operational trials and the airspace modernization roadmap and we look forward to the FAA sharing more on these efforts later in the agenda. Mr. Christie continues, at the SC-level, we continue to concentrate on the remaining tasking for the Minimum Capabilities List (MCL) and the focus areas (NEC, Performance Based Navigation (PBN), Surface and Data Sharing, and Data Comm).

NAC Tasking 23-1: National Airspace System Airspace Efficiencies

Mr. Christie proceed by providing a status update of NAC Task 23-1. Mr. Christie starts this section by saying that performance based procedures are central to modernizing the NAS and is a clear gain from the NAS Navigation Strategy, which industry and the FAA have agreed upon. He continues, we have a significant increase in number of procedures and both the FAA and operators have seen the cost associated with developing and maintaining them significantly increase. However, as we look at approach usage, the numbers still align with conventional ILS approaches. While there may be acceptable explanations there is a disconnect between what we have built and what we are using. He continued, we are missing opportunities for added efficiency and using additional resources at the same time. Mr. Christie explained that the new tasking is targeted at the disconnect between strategy and reality and that we have a combined responsibility to make sure that we move to a modernized NAS and get to the benefits. This tasking offers the opportunity to look at what procedures we are using and why, what procedures need to be changed to increase utilization, and what procedures we need to sunset. Along with efficiency, resiliency is an important consideration as evident by recent events in Colorado and Texas.

Mr. Christie continued with confirming this tasking will be worked at the NAC Subcommittee-level and will included members from the major and regional airlines, business and general aviation, planners, pilots, controllers and maintenance, airport operators, and other subject matter experts as needed. Mr. Christie identified Mr. Ron Renk (United Airlines) and Ms. Lee Brown (JetBlue Airways) as the co-leads for this tasking. He said the scope of this tasking may seem broad, however, the plan is to use site specific case studies that can then be up-leveled to support more overarching recommendations. The timeline for the tasking is relatively short. The target is to have a least two case studies completed by the late spring and five case studies completed to support any broader recommendations. This team will meet frequently to meet the aggressive goals. He continues, this group held an initial organizational meeting with the operators and expect to have a full kick-off meeting in March. We are working with the FAA to get background information to determine initial site selection. Mr. Christie instructed the NAC that if anyone has questions to feel free to contact him, Mr. Renk and Ms. Brown.

NAC Tasking 21-1: Minimum Capabilities List Annual Review

Mr. Christie handed off to Mr. Renk to provide an update on the MCL teams recent efforts

Mr. Renk began by walking through the MCL annual report to highlight a few areas and to make sure the NAC didn't miss any of the more salient points that were made in the final report. There were three main topics for the group to hit on over the last year. The first item the group looked at was the assumptions that needed reevaluation. The group looked at the baseline capabilities. Industry's overarching goals for the MCL are: to support safety, schedule, reliability, delay reduction, improved capacity and airport access. As they reviewed the items on the baseline capabilities and supplemental capabilities, they all fit into the overarching goals. The group felt that they could actually use some of the goals to help prioritize implementation of these capabilities as we go forward.

Next, the group looked at new entrants into the NAS, such as supersonic jets, electric aircraft, and Unmanned Aircraft Systems (UAS) and how those entrants would fit into the MCL. Using the Navigation Service Groups (NSG) for the scope for airports continued to be the model the MCL team used. Any of the new entrants that want to fly into NSG-1 and NSG-2 airports will need to be required to equip with the MCL equipment.

The group has identified small electric powered aircraft, such as the air taxi, to warrant additional studies in the future. The MCL team was not able to get a detailed briefing from this new segment prior to final MCL report, but there is interest since this aircraft is coming in and out of the same shared airspace as traditional aircraft.

The last focus item for this topic is NAS sustainability and the MCL relationship with alternative fuels, ATC routing efficiencies, emissions and noise mitigations. The group didn't spend a lot of time of this topic, but came to the conclusion that really all the technologies that the MCL encompasses does work towards NAS sustainability. If the FAA and NAC felt the need for it, more work could be done on this topic in the future.

The next topic the MCL team focused on is a refresher of available technologies, or OpsSpec. There were five technologies the team reviewed:

1. Required Navigation Performance Authorization Required (RNP-AR) and Advanced RNP – The MCL team looked to see if there was a need for any changes in the baseline capabilities.

In the original matrix there was an "or" statement for the two capabilities. The team analyzed if technology has come far enough to get rid of the "or" statement and pick or the other. Unfortunately, this will remain an "or" statement in the updated matrix.

2. Automatic Dependent Surveillance – Broadcast (ADS-B) Out – The group reviewed if this capability should continue to be a baseline capability since it is a FAA mandate. Ultimately, the group decided to continue to highlight the ADS-B Out capability and keep it a part of the MCL.
3. ADS-B In – The NAC tasking 21-2 (NAC Task 21-2: ADS-B In Commercial Application Technologies) looked at 13 different ADS-B In applications and that report suggested that ADS-B In Cockpit Display of Traffic Information (CDTI) Assisted Visual Separation (CAVS) was a top interest to industry. From that light, the team looked at making this a baseline capability, however, there was also a NAC tasking 22-1 (NAC Task 22-1: Prioritize NextGen Programs for Implementation) where ADS-B In ranked lowest of the five technologies to implement. For that reason, the MCL group added a separate line item for CAVS in the supplemental list.
4. Satellite Communications (SATCOM) – SATCOM offers the ability to maintain voice and data communications basically anywhere in the world and specifically for activities in remote areas, such as water areas and oceanic areas. This capability will reduce spacing and the MCL team felt that it should be included on the supplemental capabilities list.
5. Distance Measuring Equipment (DME) Navigation – The MCL team highly wanted to add DME to the baseline item last year, however, there weren't enough minimum operational performance standards [MOPS] and other things to get it on the list. There has been significant progress and there are now MOPS available. However, the original equipment manufacturers (OEMs) have not had enough time to make a capability that is orderable on their aircraft. So even though this continues to be a hot item, it will remain on the supplemental list.

Next the group reviewed updates to the cost benefits data. The MCL group has come away from the review with the need to come up with standardized formulas which will allow operators to plug in their individual numbers to get an idea of the benefit dollars they would save if they equipped with these technologies. Coming up with these formulas, was more difficult that originally assumed and the group was unable to complete this ask. However, they believe this should be a focus for future MCL activities.

The group ended this year with mixed feelings. There is still a lot of enthusiasm from industry and FAA SMEs. They believe aircraft are being order with the right equipment for NextGen to be successful. We are seeing industry continuing to make investments in new aircraft purchases and purchasing MCL equipment, we also know the FAA has had a bunch of shortfalls, which is scaling back some implementation of these capabilities.

Mr. Renk concluded that shifts are common, but we need to ensure that collaboration continues in a way to guarantee that the right investments made both by industry and FAA will achieve the benefits that we all deserve. Mr. Renk closed by thanking the MCL team members and the amount of work that went to developing the final report for the NAC.

Mr. Christie recommended that the NAC approve the MCL final report. Mr. Childs called for a motion to approve the MCL final report as advice to the FAA, which the NAC passed.

Outcome: The NAC passed a motion to approve the MCL Final report.

NAC Subcommittee (SC) Chair's Report – NIWG Status

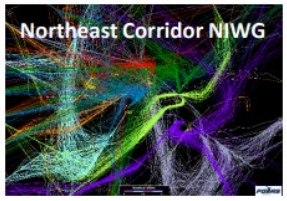
Before handing off to the NextGen Integrated Working Groups (NIWGs), Mr. Christie highlighted some progress from the NIWGs since the August 30, 2022 NAC meeting. Mr. Christie began by saying that the FAA and industry have implemented initial Terminal Flight Data Manager (TFDM) capabilities and including new procedures and time periods. The FAA has completed a TFDM program in Cleveland, OH going operational with electronic flight strips last fall. Also last fall, Washing Center implemented a new high altitude sector that complements the Atlantic Coast project at the New York Airports.

Mr. Christie continued, the Port Authority of New York and New Jersey started the GBAS development for JFK and LGA.

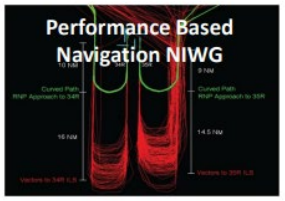
Northeast Corridor (NEC) and Performance Based Navigation (PBN)

Mr. Christie handed off to Ms. Lee Brown (JetBlue Airways) for the joint Northeast Corridor (NEC) and Performance Based Navigation (PBN) briefing.

Ms. Lee Brown reviewed an outlook overview of NEC and PBN commitments detailed in the following graphic:



- GBAS projects for JFK and LGA have both started
- PANYNJ initiated Fly Quiet Programs for JFK, LGA EWR
- 20 Q-Routes to be implemented in April
- Atlantic Coast Routes completion milestone shifted to Q4 CY2023; Industry milestone to shift in kind



- "Implement select iTBO capabilities in Denver" – milestone completed with Metroplex, IDAC and Extended Metering implementation

- Collaborative efforts of both NIWGs on common TBO/TBFM milestone for the NEC
- Continued discussion of schedule and scope consequences as FAA resource planning continues

Mr. Patrick Burns (Delta Air Lines), NAC Member, asked the NEC team for updated trajectory for GBAS in the Northeast Corridor procedures. Mr. Ralph Tamburro (Port Authority New York and New Jersey) responded that we don't know the percentage of the fleet but it is somewhere around 400 – 500 aircraft that are capable when GBAS installation will be completed in JFK and LaGuardia.

Surface and Data Sharing

Next, Mr. Christie handed off to Mr. Doug Swol (FAA) and Mr. Robert Goldman (Delta Air Lines) for and update on Surface and Data Sharing. Mr. Swol reviewed the following key TFDM program accomplishments:

- Key site Cleveland goes operational with Electronic Flight Strips (EFS)
    - Two NAC milestones completed Fall 2022
- Remaining 2023 and 2024 program milestones are on track
    - EFS In-Service decision and three additional EFS sites (IND, PHY, RDU + CMH, LAS 2023)
    - CLT Surface Metering Key Site
- Waterfall Implementation in 2025+ subject to funding availability
    - May impact additional surface metering implementation

Mr. Goldman provided the update on FAA and industry's need to continue collaboration to continue delivering necessary capabilities. Mr. Goldman requested to revise/add the following industry milestone:

- FAA and industry will review current and subsequent changes of the TFDM waterfall to ensure industry alignment throughout the TFDM waterfall
    -

Mr. Goldman also commented that industry will participate and provide input at SWIFT, CDM, and similar forums to stay informed on integrated flow management capabilities in support of executing the FAA's Automation Evolution Strategy and leveraging an info-centric NAS

Data Communications (Data Comm)

Next, Mr. Christie handed off to Ms. Kathy Torrence (FAA) and Mr. Chris Collings (L3Harris) for an update on Data Comm.

Ms. Torrence began by providing the following update on the deployment of En Route Data Comm:

- 8 centers are operational 24/7
- Plan for 12 centers to be operational by Summer 2023
- En Route Full Services activation has started
- En Route deployment delated due to funding constraints

Mr. Collings provided the following update on the avionics performance:

- Avionics updates continue to gain momentum into 2023 with open items having plans for completion
- Multiple avionics updates delivered as planned in 2022 by manufacturers
- Some fleets do not have planned update commitments by manufacturers

Ms. Torrence concluded this update with the comments that we have a lot of collaboration with the operators in the OEM and CSP. Data Comm is a program where we're all working together to achieve a common goal. The Data Comm program is rolling out across the country with a lot of energy and enthusiasm from pilots and controllers.

To conclude the NAC Subcommittee Chair Report, Mr. Christie recommended that the NAC approve the NEC and Surface and Data Sharing recommended industry milestones update. Mr. Childs called for a motion to approve the update as advice to the FAA, which the NAC passed.

Outcome: The NAC passed a motion to approve the NEC and Surface and Data Sharing NIWG's recommended NJIP industry milestones update

- Northeast Corridor NIWG
    - Shifted joint ACR implementation milestone
    - Reworded Industry GBAS milestones
- Surface and Data Sharing NIWG milestone
    - Revised joint TFDM waterfall pre-implementation milestone

FAA Topics

Next, Mr. Childs handed off to Mr. Mims to introduce the speakers for the FAA Topics agenda item.

Section 547 Pilot Program: Preliminary Analysis Results

Mr. Mims first handed off to Mr. Juan Narvid (FAA) and Ms. Torrence for a Section 547 Pilot Program update.

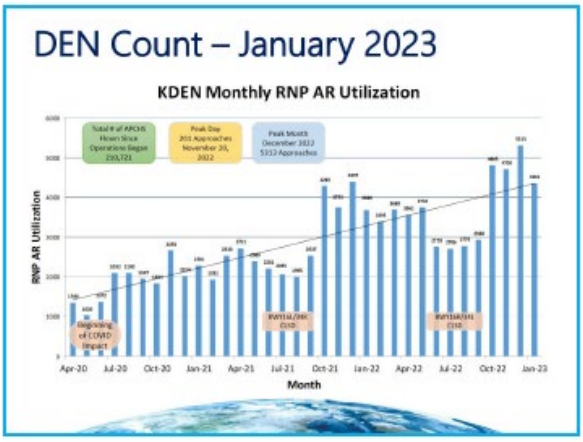
Mr. Narvid began by providing an overview of the following selected Section 547 initiatives:

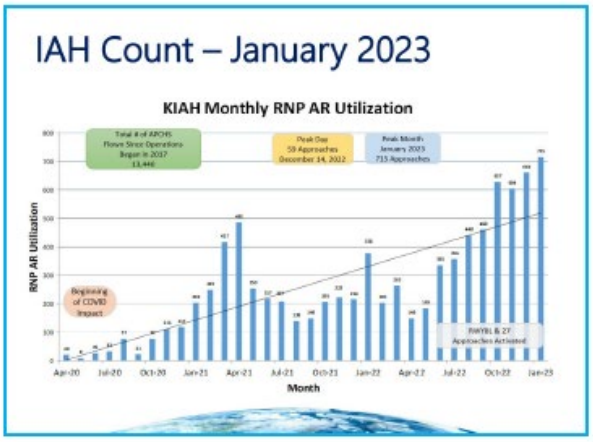
- Simultaneous independent established on RNP (EoR) at Los Angeles International Airport (LAX)
    - PBN RNP means reduced flight distance and flight time
- CPDLC Departure Clearance (DCL) capabilities at Orlando International Airport (MCO)
    - Data Comm Equipage means an earlier departure during rerouting events and overall system efficiency
- Automatic Dependent Surveillance-Broadcast (ADS-B) Out enabling 3 nautical mile (NM) in En Route airspace (below FL230) for Oakland Air Route Traffic Control Center (ZOA)
    - ADS-B Out equipage means reduced spacing/distance flown from 5NM to 3NM

Mr. Narvid continued by explaining since start of the pilot program in September 2021, RNP at LAX has totaled over 9000 curved RNP (RF) approaches. When comparing the equipped (RNP RF) to the non-equipped (Non-RNP approach operations), you can see the savings in both VMC and IMV. With VMC you are saving 2.5NM and with IMC you are saving 6.6NM in distance flown.

Mr. Narvid shared the following graphic showing the snapshot of Denver and Houston using curved RNP approaches.

Other Locations Using Curved RNP Approaches





This graphic shows that since Denver started using RNP AR there have been over 200,000 approaches and they are averaging over 4,000 approaches a month. Where at Houston, it is around 500 approaches a month.

Next, Mr. Narvid discussed the Oakland initiative where ADS-B Out is being used to reduce the separation from five to three nautical miles (NM). He shared the following graphic which shows what spacing looked like prior to the use of ADS-B Out and what it looks now since adapting 3NM separation.

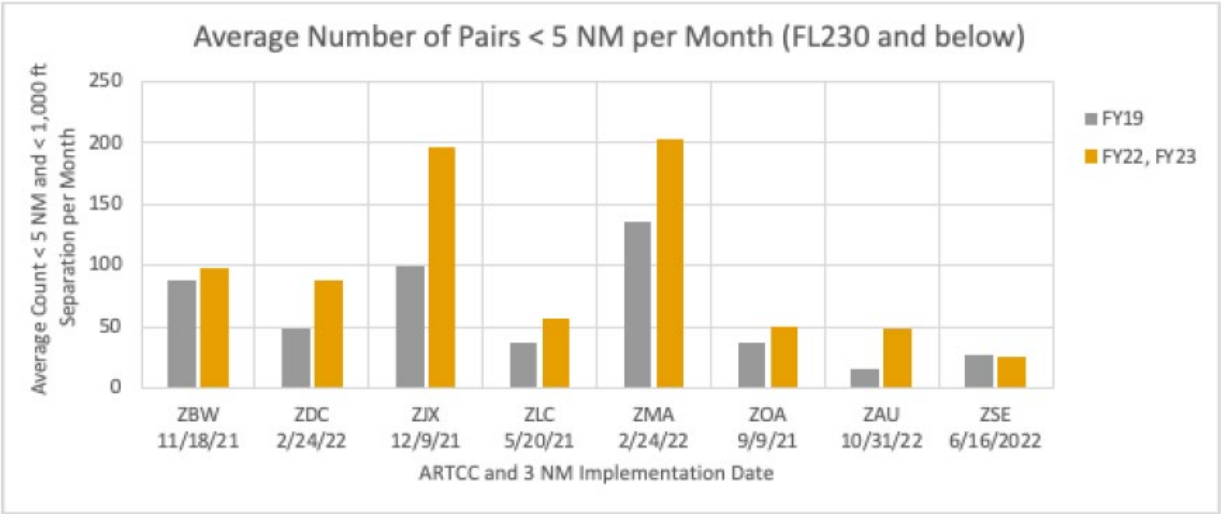
Operational Context ZOA – All Reduced Alert Criteria (RAC) Aircraft Alert Volumes (AAVs)

Automation changes enabled more consistent use of 3NM separation at low altitudes within ZOA.

He goes on to share, some of the primary benefits of ADS-B is the safety impacts enhanced position display accuracy. For the controller, it is the refresh rate of ADS-B Out and consistency of having the ability to use 3NM separation. The majority of the traffic in this area is either climbing or descending and so it doesn't use lateral separation from traffic. The opportunity is there, but it not as much as we originally thought it would be. However, as discussed during the August 30 NAC meeting, we said we implemented this at other locations and the NAC asked us to explore the benefits at those locations.

Mr. Narvid shared the below graphic which shows the eight ARTCCs that 3NM separation implemented and the average count of separation per month.

All ARTCCs with 3NM Separation Implemented



Note: Includes some VFR aircraft

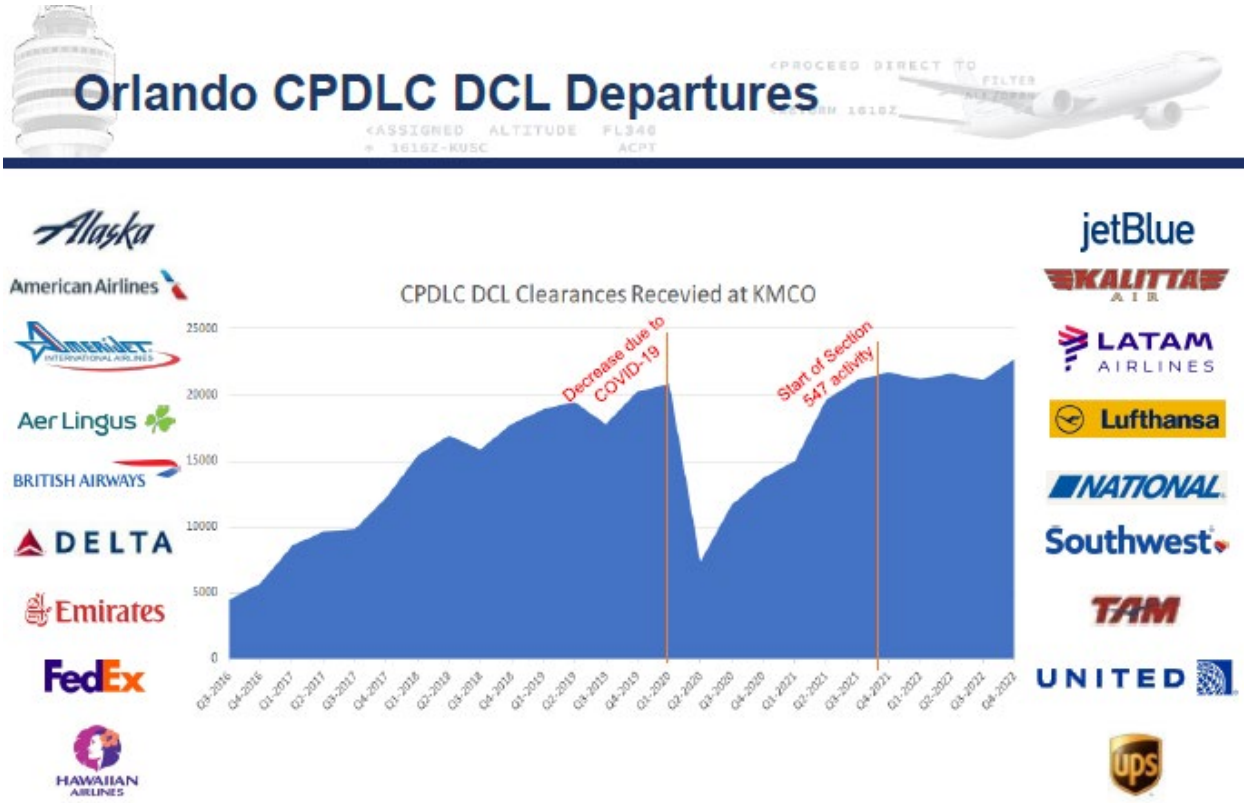
He noted that there were two spikes at Jacksonville and Miami that represents a doubling of opportunities at Jacksonville and almost double that in Miami. ADS-B Out comes into play when you're using lateral separation and provides a lot of benefits.

Mr. Narvid hands off to Ms. Kathy Torrence to cover the Orlando Data Comm initiative.

Ms. Torrence began by providing the following description of the Orlando Data Comm initiative:

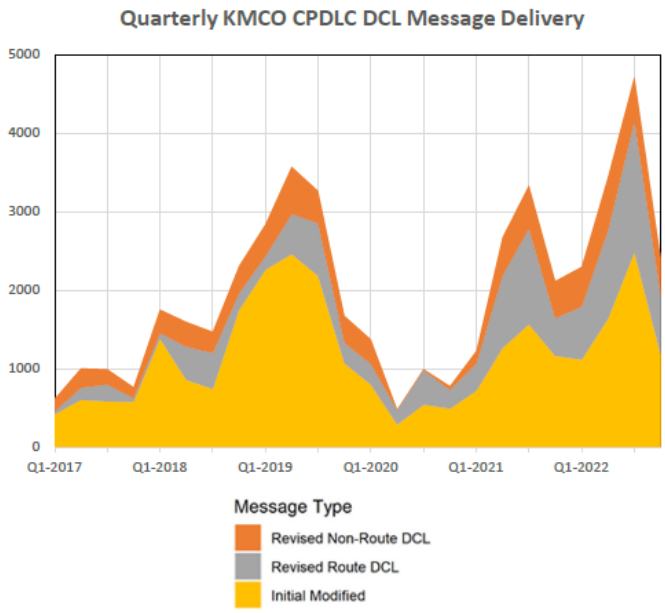
- CPDLC Departure Clearance (DCL) capabilities at Orlando International Airport (MCO)
- Overview – use of DCL can provide CPDLC equipped operators revised departure clearances in a more time-efficient manner compared to unequipped operators. This is especially beneficial when reroutes are necessary due to weather or other air traffic disruptions.
- Anticipated Benefits – minutes of airspace user time saved and kilograms of CO_2 Emissions prevented
- Start Date – focused data collection and metric tracking beginning 9/1/2021

Ms. Torrence shared the following graphic which shows the CPDLC DCL clearances received at MCO and the airlines that are primarily using these clearances. This graphic also shows the dip in clearances used during COVID and since September 2021 the benefits are back up to where it was pre-COVID.



To calculate the benefits, we have correlate our FANS or DPDLC data together with the performance data. This data is available in 60 days at the end of the month. So for this report that we pulled together in January 2023 we had to use data from November 2022. The data showed that the largest operators that request CPDLC DCL clearances is Southwest Airlines and Delta Air Lines and the most frequently used aircraft clearances were Boeing 737. The team did a comparison of the data from November 2022 and the advanced data for January 2023 and you don't see much change.

Ms. Torrence shared that the real benefits come from revisions. She then shared the following graphic which gives an idea of the types of revision that we generally see. We have the cleared as filed, initial modified, revised route DCL, and revised non-route DCL. The biggest takeaway from the below chart is the number of increased DCL clearances that were provided.



Cleared as Filed	The participating flight receives no changes/modifications to their original/intended route of flight filed in their flight plan.
Initial Modified	The participating flight receives a change to their original/intended route of flight on the filed flight plan, this change could be a route or non-route change.
Revised Route DCL	The participating flight receives a change/modification to their original/intended route of flight on the filed flight plan that resulted in a route change from air traffic control.
Revised Non-Route DCL	The participating flight receives a change to their original/intended route of flight on the filed flight plan. This change/modification only affected non-route information such as, but not limited to, squawk code or departure frequency.

Ms. Torrence shared the following graphic shows the MCO CPDLC DCL benefits since January 2021 and in November 2022.

**Benefits are derived using ASPM data which is verified 3 months after the month closes.*

Ms. Torrence concluded her presentation saying that the time for collecting data and doing all of the final analysis is September 2023. The report to the Hill will be essentially the slides that were reviewed today.

Mr. Childs made a recommendation to shift the timeline to present this information to the Hill quicker.

Airspace Modernization Roadmap

Next, Mr. Mims handed off to Ms. Michele Merkle (FAA) for an update on the Airspace Modernization Roadmap (AMR) as well as an update on the RTA-IM ConOps which is a recommendation from the NAC's ADS-B In advice in 2021.

Ms. Merkle began by discussing the six sites that were initial sections for future airspace modernization project. In October 2022, we published the Airspace Modernization Roadmap strategy. You can think of this as a replacement for the Metroplex and how we selected modernization projects in the past. With the new strategy we take data-drives approach based on past recommendations from the NAC with the intent to collect metrics to that drive the selection of all of our modernization programs. Those metrics are based on priorities from the NAC such as the Minimum Capabilities List, PBN Clarification task, the NAS Navigation Strategy document, and Navigation Service Groups (NSG) one and two.

Ms. Merkle continued by saying that they have implemented a new governance structure which has senior area leadership teams (SALT) that include senior executives from across the ATO service units, as well as other lines of business, airports, and Regional Administrators. The idea is to apply both quantitative and qualitative metrics that will benefit our stakeholders and balance the FAA's resources. Those metrics look across safety, efficiency and operations.

There are two site selections per service area.

Eastern Service Area

- Charlotte-Douglas International Airport (CLT)
- Jacksonville ARTCC Airspace (ZJX)

Central Service Area

- Austin-Bergstrom Internal Airport (AUS)
- Dallas/Ft. Worth International Airport (DFW)

Western Service Area

- Honolulu Control Facility Airspace (HCF)
- Salt Lake ARTCC Airspace (ZLC)

She continued next steps right now are to analyze the different projects and resource loading them to balance the budget that we have, the cost of the programs and the resources. Depending on the analysis, we are going to begin scoping at least of if not more of these airspace projects this calendar year.

Ms. Merkle concluded the AMR update saying that they look forward to engaging industry this Fall 2023 to review the criteria to see if there are any recommendations for future consideration, in particular the work that comes out of the NAC Task 23-1.

RTA-IM ConOps

Ms. Merkle began by providing a background on RTA-IM ConOps response which was a recommendation from the NAC ad hoc Tasking 20-1, which was to develop a concept of operations and describes the use of flight deck management with other time based management initiatives such as time of arrival control. The integrated RTA IM ConOps describes efficient use of these flight deck

capabilities as an integrated operational concept. There have been questions about how different capabilities are going to work together. The RTA-IM Conpos document received final approval from within the FAA and is in the process of being transmitted to the NAC.

Ms. Merkle concluded that we look forward to leveraging this report to inform future conversations that we have with the NAC/Industry on these application.

Ms. Merkle hands off to Mr. Mims who hands off to Mr. Childs.

Closing Comments and Adjourn

Mr. Childs thanked the briefers. He then handed off to Mr. Mims for closing comments.

Mr. Mims thanked everyone for taking the time to participate in today's session. Before closing out he provided a brief update on the NAC membership application process. He thanked those who applied and continued by saying we are still in the process of reviewing the applications and materials. Once the internal review is complete, we will recommend candidates for the NAC membership to the Secretary of Transportation for review, approval, and appointment. This is a deliberate process that is expected to take several months further. As mentioned previously, current NAC member terms will automatically extend until new members are appointed.

Mr. Mims concluded that it is because of the collaboration between industry and the agency, we are experiencing the safest period in aviation history. He looks forward to continuing this partnership as we work to continuously improve the safety and efficiency of our national aerospace.

Mr. Mims handed back off to Mr. Childs

Before closing, Mr. Childs said that we made some progress today and before the next NAC meeting, there will be a lot of conversation about priority of the NAC. The work we have to do here is vastly underfunded. What we can do in our own jurisdictions is to make sure we keep the work here a top priority. Without getting into too much detail the investment is outstanding for the progress we made with these programs that we work on. Mr. Childs concluded that if we continue to stay focus and try to prioritize the right things that will still have tremendous return on investment.

Without any objections, the meeting was concluded.

Attachment 1

February 28 NAC Administrative Announcements

Note: Only NAC Members, FAA Executive Participants, and Pre-Approved Presenters and Speakers will have panelist/video/speaking capabilities. All other participants will be view-only without speaking/video capabilities.

- When called upon to speak by the Chairman:
  - Please announce your name and organization
  - If using Zoom computer audio, click the Mute/Unmute button in the bottom left corner
  - If using the phone line audio without a participant ID, dial *6 to unmute, as well as your phone's mute button if enabled
  - If using a phone line and entered a participant ID, click the Zoom Mute/Unmute button, dial *6 to unmute your phone line, as well as your phone's mute button if enabled

In lieu of a roll call, all meeting participants will be captured in the meeting summary.

If you have any issues, please contact Antionette Johnson, via e-mail: Antionette.CTR.Johnson@faa.gov

NAC Meeting

February 28, 2023

Opening of Meeting

Chip Childs, NAC Chair

President & CEO (SkyWest Airlines)

Public Meeting Announcement

NextGen Advisory Committee (NAC)

February 28, 2023

Public Statements

Members of the Public

NAC Chair Report

Chip Childs, NAC Chair

President & CEO (SkyWest Airlines)

Motion for NAC Approval

- August 30, 2022 – NAC Meeting Summary Package Draft

FAA Report

Brad Mims, FAA Deputy Administrator

NAC Designated Federal Officer

NAC Subcommittee (SC) Chair Report

Warren Christie, NAC SC Chair
(JetBlue Airways)

NAC Subcommittee Status Overview

- New workgroup leadership
  - Chris Oswald from ACI-NA as the new second Surface NIWG co-chair, who takes over for Steve Vail
  - Eric Silverman from American Airlines as new industry JAT Co-Lead to support current lead Alex Burnett from United

- New tasking considering how to achieve greater airspace efficiencies in resource constrained environment

- Section 547/Enhanced Air Traffic Services and Airspace Modernization Roadmap updates

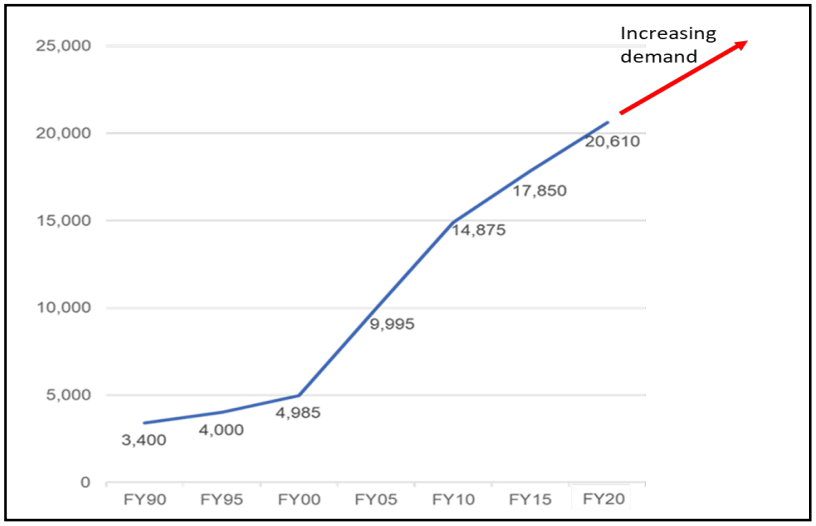
- Minimum Capabilities List annual review report

- Focus area milestone updates

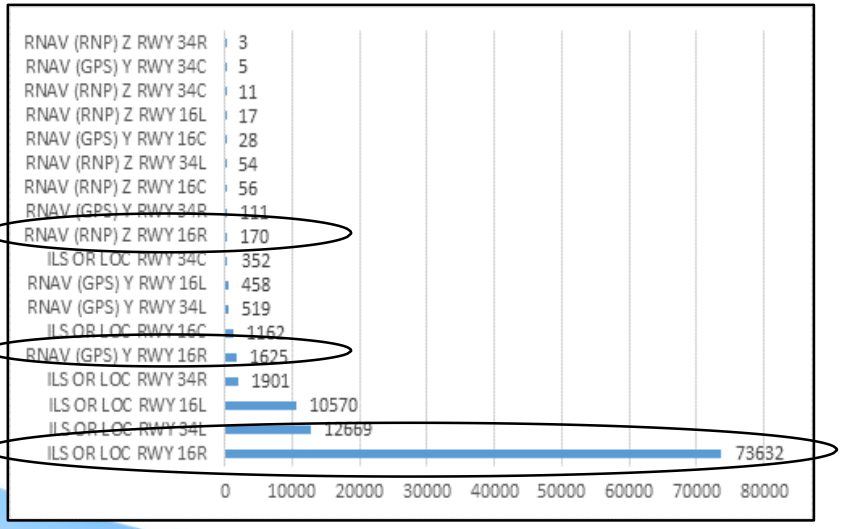
NAC Task 23-1:

NAS Airspace Efficiencies

Motivation for the New Tasking



Modernizing the airspace has increased the number of published approaches – increasing resources need to develop and maintain these procedures…



However, FAA analysis of procedure usage shows preference for conventional approaches.

NAC Task 23-1: NAS Airspace Efficiencies

The FAA requests NAC advice on ways to achieve greater airspace efficiencies as we collaboratively attempt to reduce reliance on and divest from legacy systems and procedures and move to a reliance on a more modernized NAS.

The FAA offers the following suggestions as a way to begin the efficiency discussions:

1. Within the scope of current FAA automation capabilities, explore opportunities for increased utilization of existing Performance Based Navigation (PBN) procedures.
2. Identify opportunities for industry to leverage efficiencies gained from their avionics and dispatch systems investments while simultaneously allowing the FAA to divest from legacy NAS elements that do not contribute to those efficiencies.
3. Identify opportunities for the FAA to remove existing and infrequently used Instrument Flight Procedures (IFPs).
4. Identify opportunities to potentially modify existing IFPs/Standard Instrument Departure Procedures (SIDs)/Standard Terminal Arrival Procedures (STARs) to gain overall airspace efficiencies.
5. Identify a recommended baseline PBN and non-PBN IFP infrastructure to provide the minimum service level and airport access for both non-Global Positioning System/Area Navigation equipped aircraft and aircraft with advanced avionics for each Navigation Services Group Airport Category (1-5).
6. Identify any trends in IFP/SID/STAR inventory suggestions that might be used as a national standard.
7. Explore opportunities for even greater efficiencies with the use of Advanced Required Navigation Performance (A-RNP) as is being pursued by the Performance Based Operations Aviation Rulemaking Committee.
8. Work with the NAC Subcommittee Minimum Capabilities List (MCL) Team to capitalize on any cross-cutting issues that might support both taskings and industry achieving MCL-level of equipage.

Initial Thoughts on Task Execution

- **Team Membership:**
  - At the NAC SC level – like the MCL and 547 "+1" team
  - Focus on operational perspectives, leveraging NAC SC members
    - Airlines, regional and BA/GA operators
    - Planners, pilots, controllers and maintainers
    - Airport operators
  - Other subject matter experts to be included as appropriate

- **Approach**
  - Like MCL, Industry-driven
  - Site specific case studies that can then up-leveled to support broader recommendations

Preliminary Tasking Schedule

- **Milestones**
  - February NAC – initial task update
  - Spring NAC – target review of two NSG case studies
  - Fall NAC – target three more NSG case studies, initial up-level findings

- **Meeting cadence**
  - Organizational call completed last week
  - Initially team will meet more frequently
  - Line up with NAC SC meetings to promote in-person attendance
  - Each NAC SC will have dedicated time to review the work to date

- **Next steps**
  - Full kick-off meeting in March
  - Working with FAA to get background information
  - Site selection for case studies

NAC Task 21-1:

NAS Aircraft Minimum Capabilities List (MCL) Annual Review

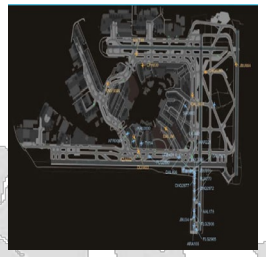
Ron Renk (United Airlines)

Motion for NAC Approval as Advice to the FAA

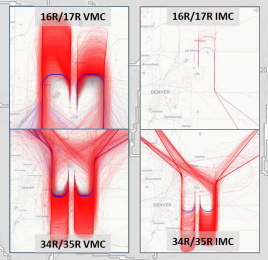
- NAC Task 21-1: NAS Aircraft Minimum Capabilities List (MCL) Annual Review

Tasks 18-4 & 18-5 Focus Area Risks

Overview of Implementation Milestones (since August 2022 NAC)



Cleveland goes operational with Electronic Flight Strips (EFS) – keys site for TFDM



Select TBO capabilities implemented in Denver

GBAS development has started for JFK and LGA

New high altitude sector implemented in Washington Center

Three centers added en route data comm – Seattle, Atlanta, Chicago

Workgroup Presentations

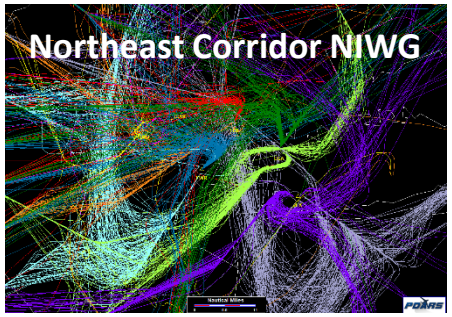
- **Northeast Corridor:**
  - Ralph Tamburro (PANYNJ) & Lee Brown (JetBlue Airways)
  - Aaron Wilkins (FAA), Juan Narvid (FAA), & Patrick Blaser (FAA)

- **Performance Based Navigation:**
  - Eric Morse (Delta Air Lines)
  - Aaron Wilkins (FAA), Juan Narvid (FAA), & Patrick Blaser (FAA)

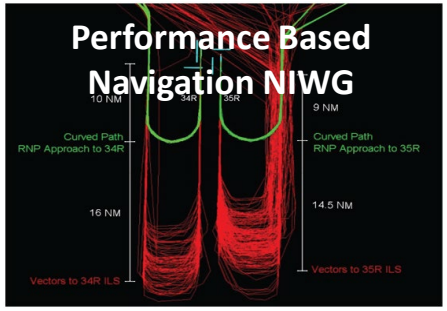
- **Surface and Data Sharing:**
  - Rob Goldman (Delta Air Lines) & Chris Oswald (ACI-NA)
  - Doug Swol (FAA) & Ayaz Kagzi (FAA)

- **Data Communications:**
  - Chris Collings (L3Harris) & Ed Evans (Southwest Airlines)
  - Kathy Torrence (FAA)

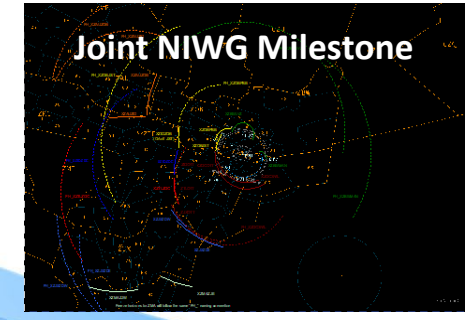
Northeast Corridor & Performance Based Navigation – Status



- GBAS projects for JFK and LGA have both started
- PANYNJ initiated Fly Quiet Programs for JFK, LGA EWR
- 20 Q-Routes to be implemented in April
- Atlantic Coast Routes completion milestone shifted to Q4 CY2023; Industry milestone to shift in kind



- "Implement select iTBO capabilities in Denver" – milestone completed with Metroplex, IDAC and Extended Metering implementation



- Collaborative efforts of both NIWGs on common TBO/TBFM milestone for the NEC
- Continued discussion of schedule and scope consequences as FAA resource planning continues

Surface & Data Sharing – NAC Update

Key TFDM program accomplishments

- Keysite Cleveland goes Operational with Electronic Flight Strips (EFS)
  - Two NAC milestones completed Fall 2022
- Remaining 2023 and 2024 program milestones are on-track
  - EFS In-Service Decision and three additional EFS sites (IND, PHX, RDU + CMH, LAS 2023)
  - CLT Surface Metering Key Site
- Waterfall Implementation in 2025+ subject to funding availability
  - May impact additional surface metering implementation

TFDM EFS in CLE

TFDM Surface Manager in CLE

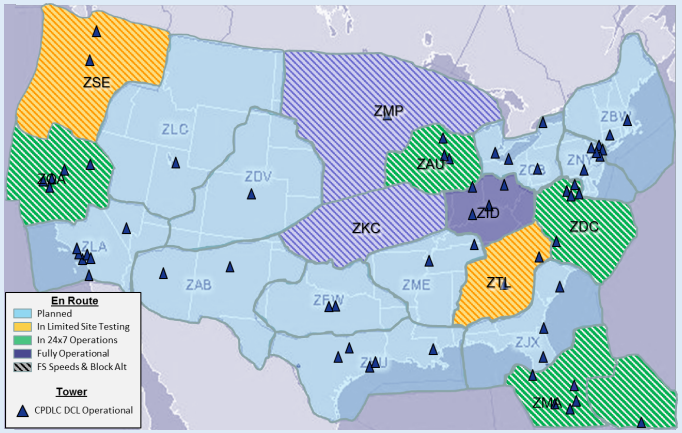
Continued collaboration is needed to deliver necessary capabilities - revise/add Industry milestones:

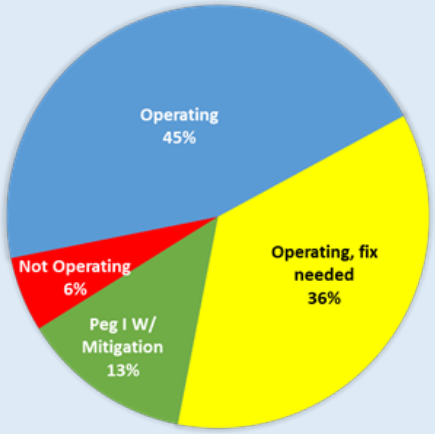
- FAA and industry will review current and subsequent changes of the TFDM waterfall to ensure industry alignment throughout the TFDM waterfall
- Industry will participate and provide input at SWIFT, CDM and similar forums to jointly develop with FAA near-term integrated flow management capabilities in support of executing the FAA's Automation Evolution Strategy and leveraging an info-centric NAS
  - *Seek opportunities to reduce risk on larger programs and benefit the flying public in the near term*

Data Comm NIWG Update

En Route Data Comm Deployment

+ 7 centers operational 24/7
+ Plan for 12 centers operational by summer of 2023
+ En Route Full Services activation started
– En Route deployment delayed due to funding constraints





Avionics Performance Updates

+ Avionics updates continue to gain momentum into 2023 with open items having plans for completion
+ Multiple avionics updates delivered as planned in 2022 by manufacturers
– Some fleets do not have planned update commitments by manufacturers

Motion for NAC Approval

- **Northeast Corridor**
  - Shifted joint ACR implementation milestone
  - Reworded Industry GBAS milestones

- **Surface and Data Sharing**
  - Revised joint TFDM waterfall pre-implementation milestone
  - New Industry collaborative milestone

FAA Topics

FAA Subject Matter Experts (SMEs)

Section 547 Pilot Program:

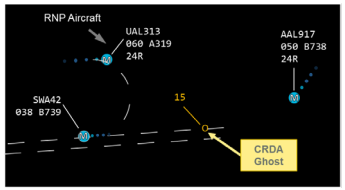
Preliminary Analysis Results

Juan Narvid (FAA) & Kathy Torrence (FAA)

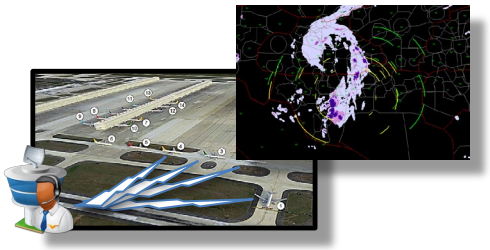
Overview of Selected Section 547 Initiatives

Process: Industry provided FAA a 'short list' of candidate recommendations based on Readiness, Return, & Relevance

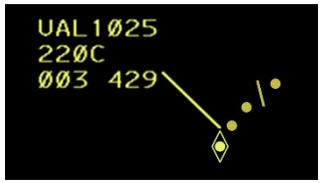
Initiative
Simultaneous Independent Established on RNP (EoR) at Los Angeles International Airport (LAX) *(start date: September 12, 2021)*
CPDLC Departure Clearance (DCL) capabilities at Orlando International Airport (MCO) *(Focused metric tracking September 1, 2021)*
Automatic Dependent Surveillance-Broadcast (ADS-B) Out enabling 3 nautical mile (NM) in en route airspace (below FL230) for Oakland Air Route Traffic Control Center (ZOA) *(start date: September 9, 2021)*



PBN RNP Equipage= Reduced Flight Distance and Flight Time



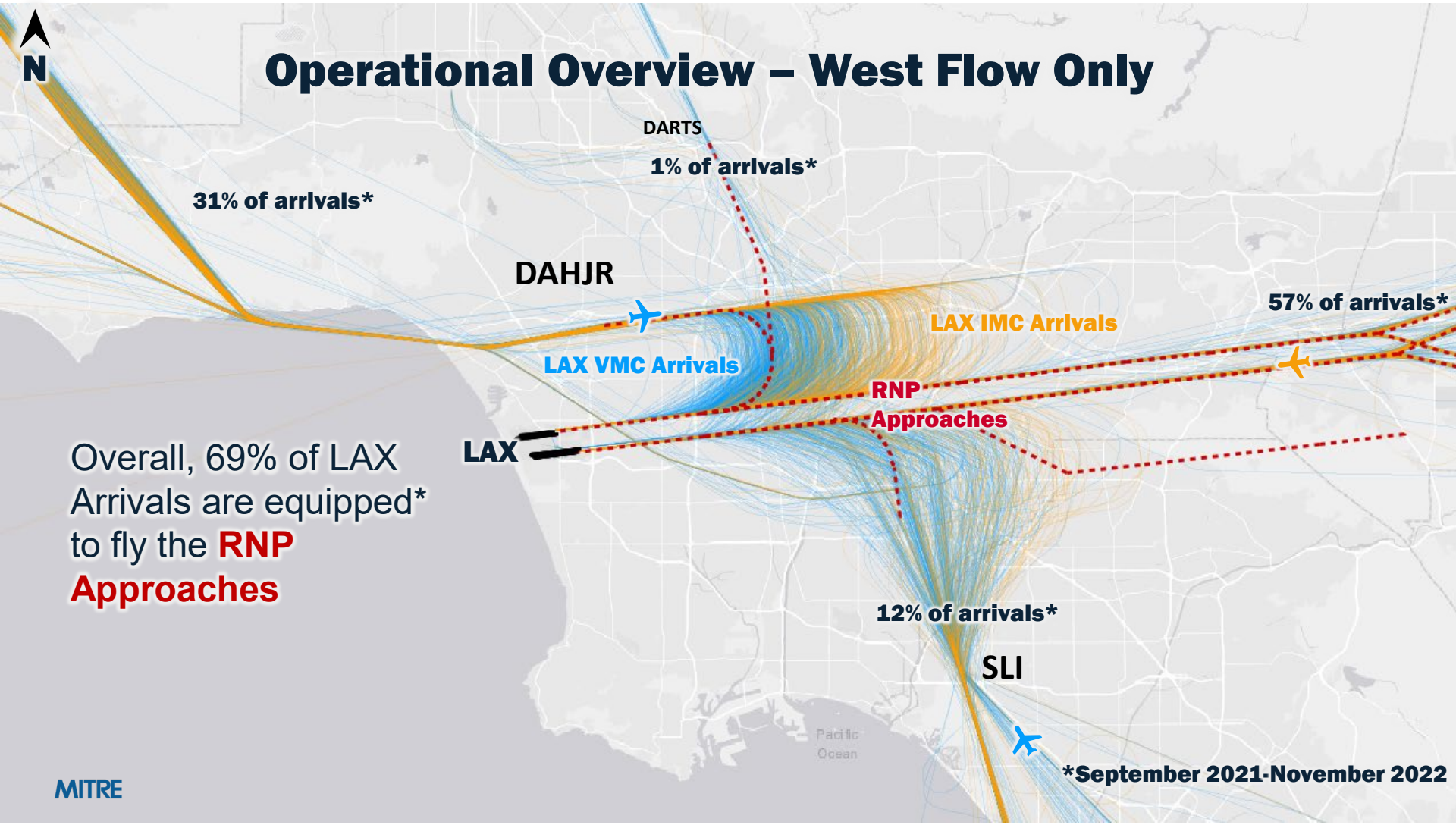
Data Communication Equipage= Earlier Departure During Rerouting Events, and overall system efficiency



ADS-B Out Equipage= Reduced spacing/distance flown

LAX INITIATIVE

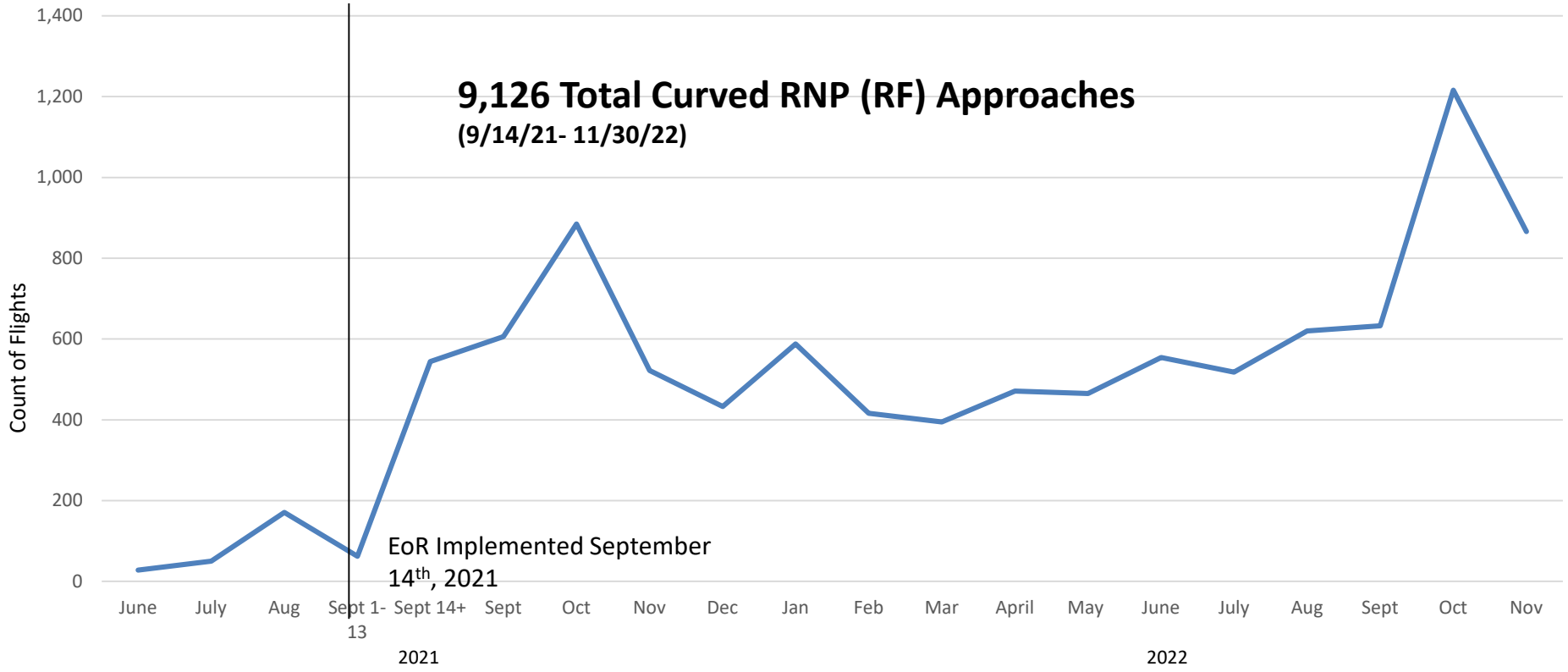
Operational Overview – West Flow Only



Overall, 69% of LAX Arrivals are equipped* to fly the **RNP Approaches**

MITRE

Monthly Curved RNP (RF) Usage – West Configuration Only



RNP RF Benefits – West Flow

Flight Efficiency Improvements for RNP RF vs Non-RNP Approach Operations

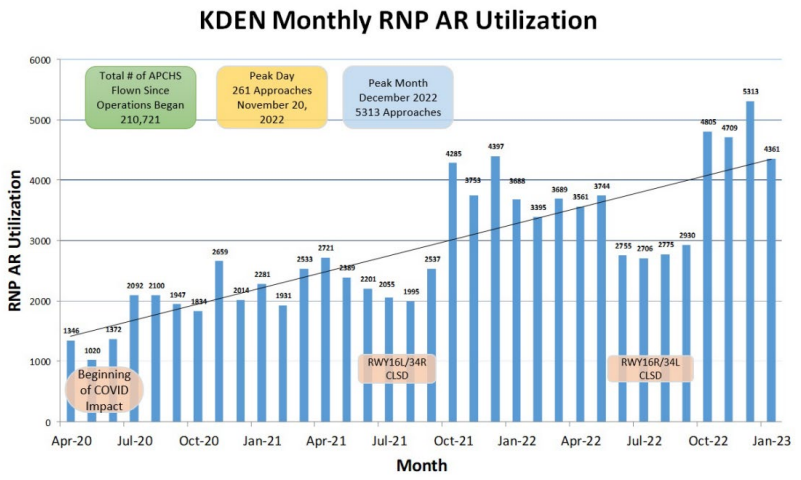
	Per Flight		
VMC/IMC	**Distance Flown (NM)**	**Time Flown (Minutes)**	**Fuel Burn (Gallons)***
VMC	**2.5**	**0.7**	**9.1**
IMC	**6.6**	**2.1**	**19.9**

- From 9/14/2021 through 11/30/2022
  - ✓ Saved 29,776 NM distance flown
  - ✓ Saved 8,893 minutes of flying time

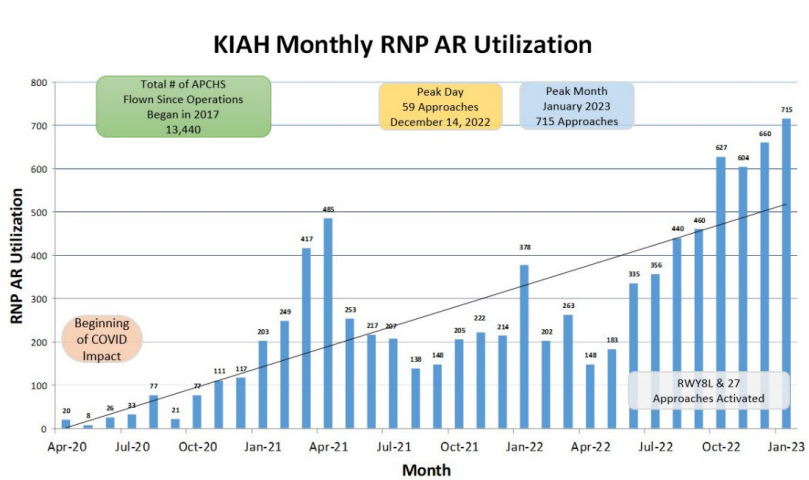
*Based on fuel burn for a B738

Other Locations Using Curved RNP Approaches

DEN Count – January 2023



IAH Count – January 2023

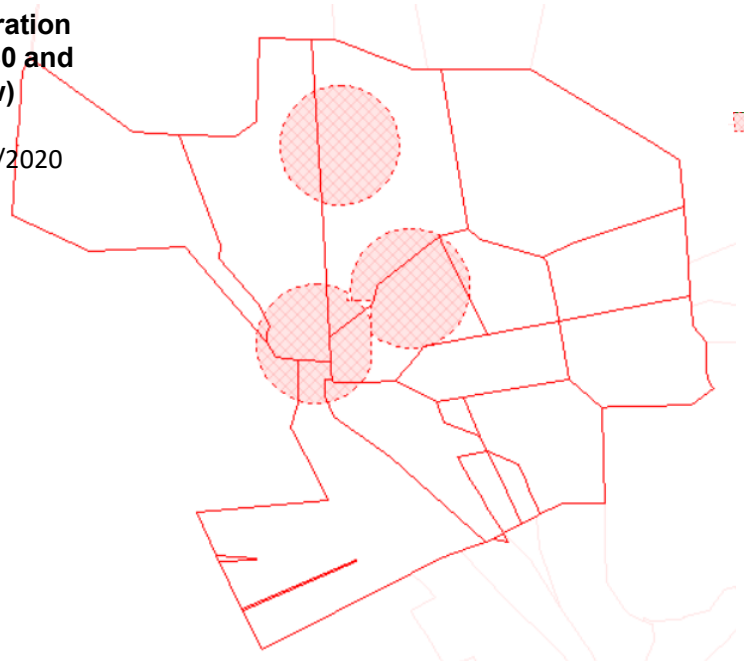


ZOA INITIATIVE

Operational Context ZOA – All Reduced Alert Criteria (RAC) Aircraft Alert Volumes (AAVs)

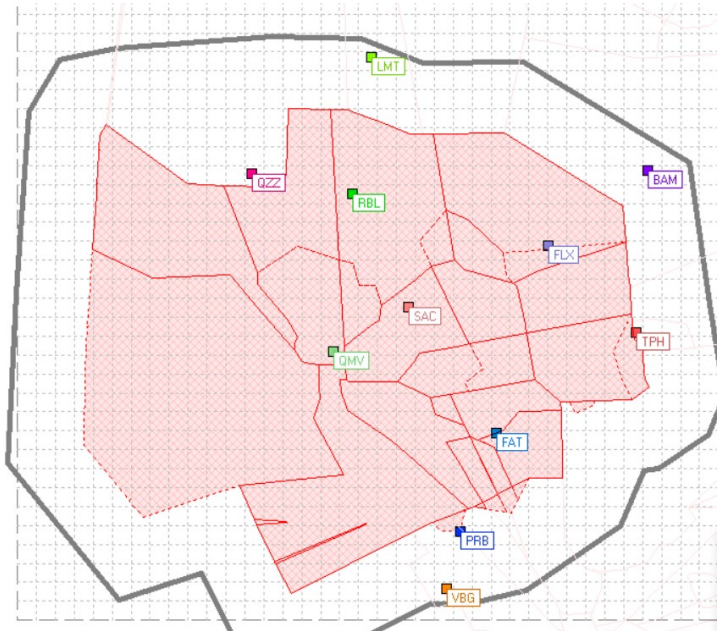
Adapted for 3NM Separation (FL230 and below)

12/31/2020



Adapted for 3NM Separation (FL230 and below)

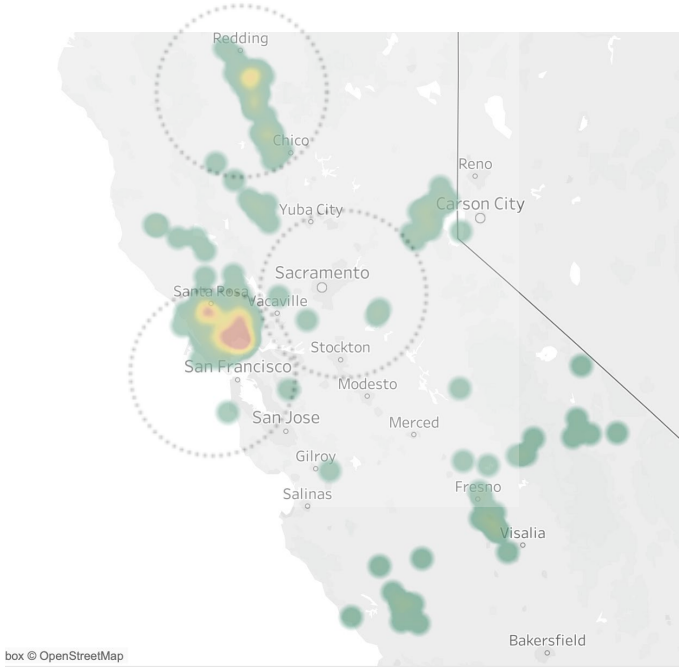
10/12/2021



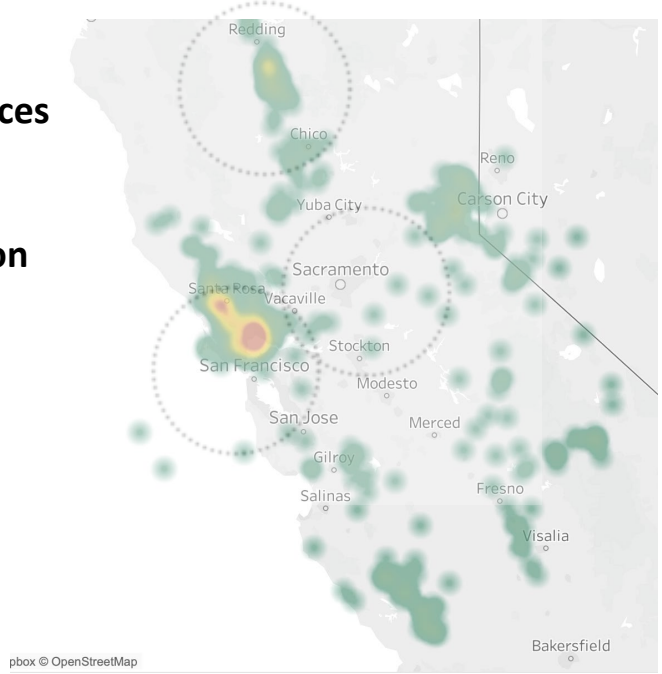
Automation changes enabled more consistent use of 3NM separation at low altitudes within ZOA.

34

Locations of < 5 NM, < 1,000 ft Separation within ZOA at or below FL230



- **Increase in instances of aircraft experiencing reduced separation compared to baseline periods**

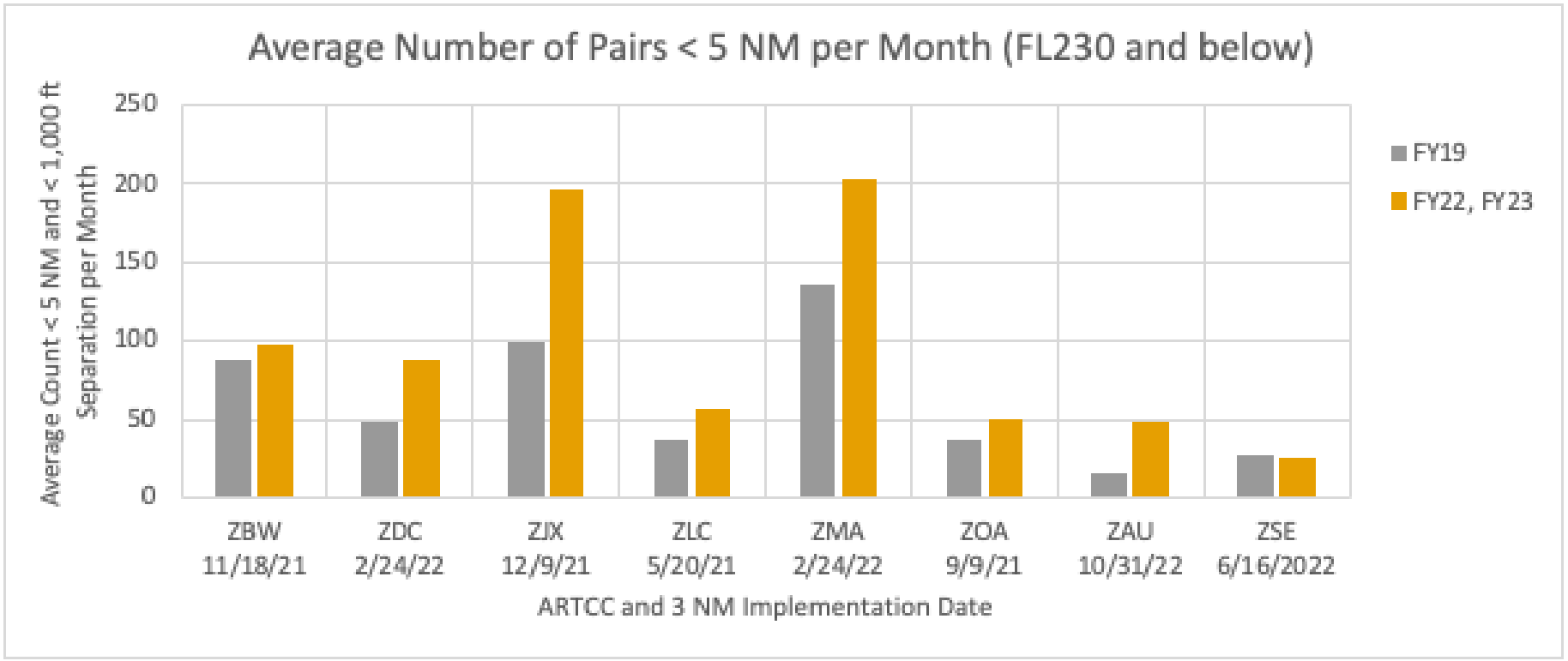


216 instances between 9/9/2018 and 4/15/2019

487 instances between 9/9/2021 and 4/15/2022

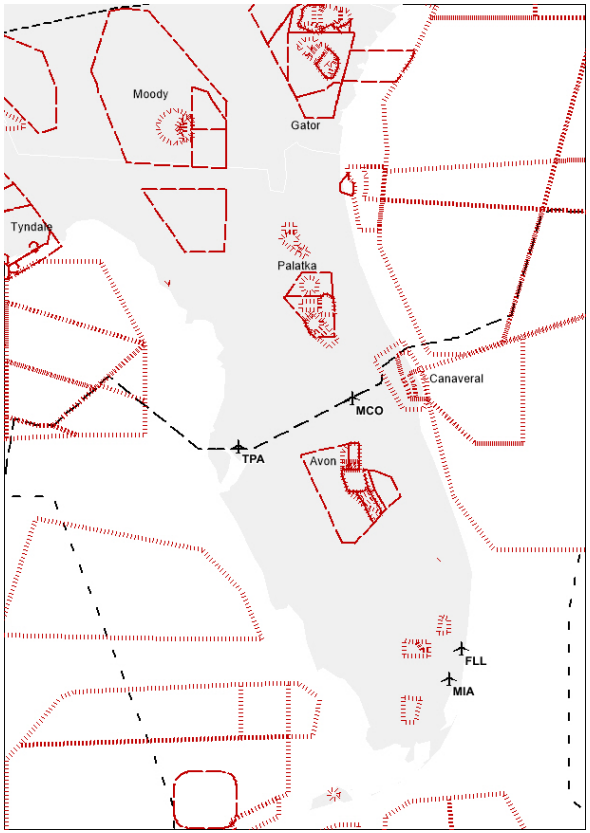
*Counts include pre-existing 3 NM areas

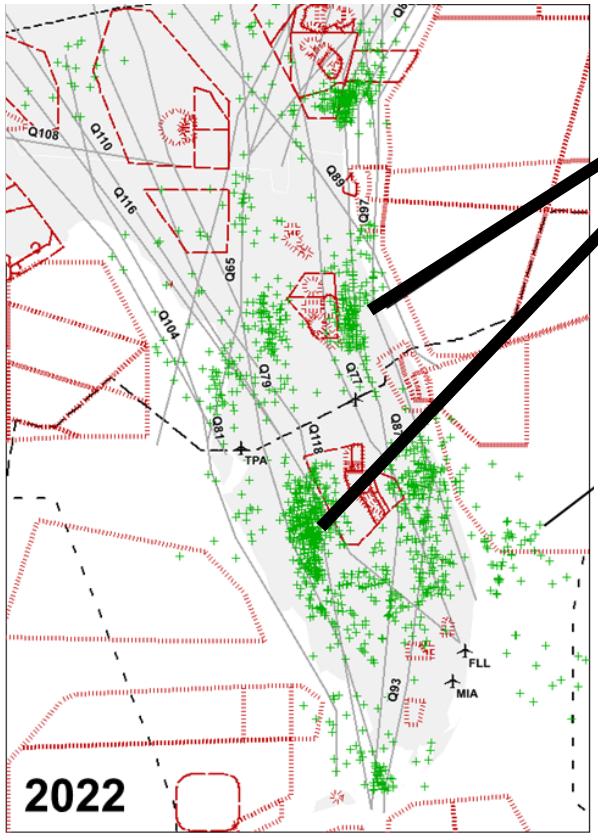
All ARTCCs with 3NM Separation Implemented



Note: Includes some VFR aircraft

Summary of ZMA/ZJX Findings





- **Opportunities increased where capacity of airspace constrains flow and lateral separation is used more frequently**

Section 547 Data Comm: Orlando Metrics

January 2023

L3HARRIS

Federal Aviation Administration

Initiative Description

CPDLC Departure Clearance (DCL) **capabilities at Orlando International Airport** (MCO)

- **Overview**

  Use of DCL can provide CPDLC equipped operators revised departure clearances in a more time-efficient manner compared to unequipped operators. This is especially beneficial when reroutes are necessary due to weather or other air traffic disruptions.

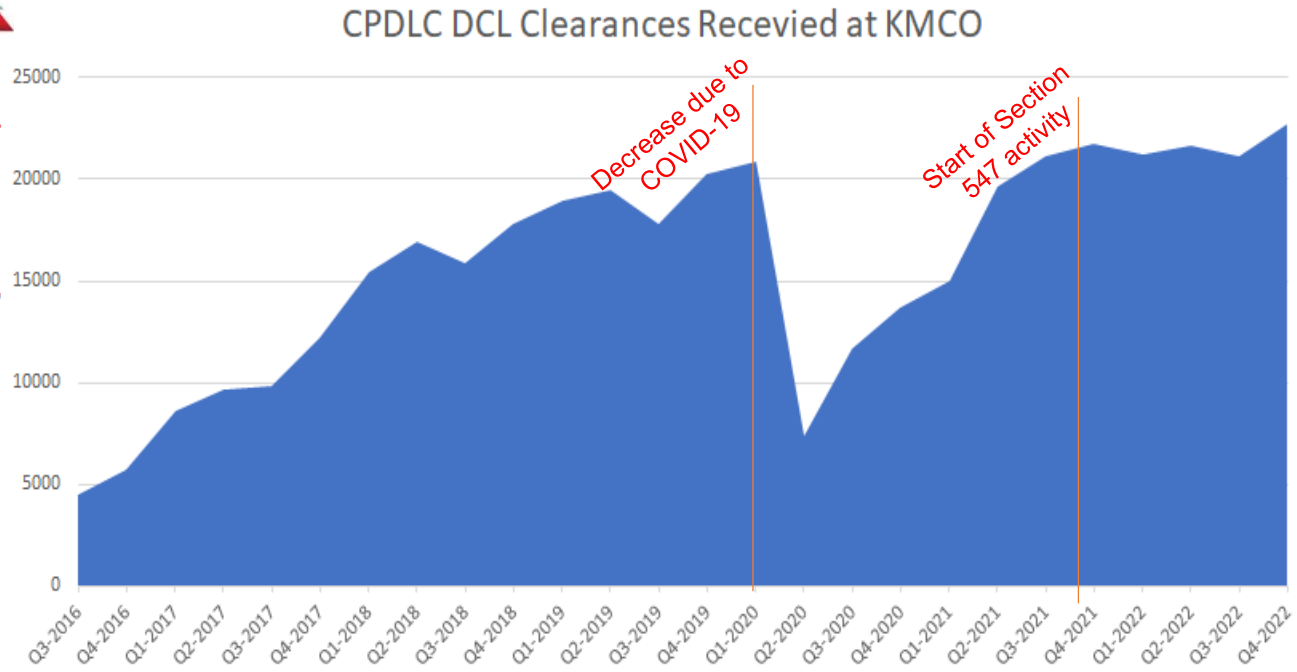
- **Anticipated Benefits**

  Minutes of Airspace User Time Saved and kilograms of CO_2 Emissions Prevented

- **Start Date**

  Focused data collection and metric tracking beginning 9/1/2021

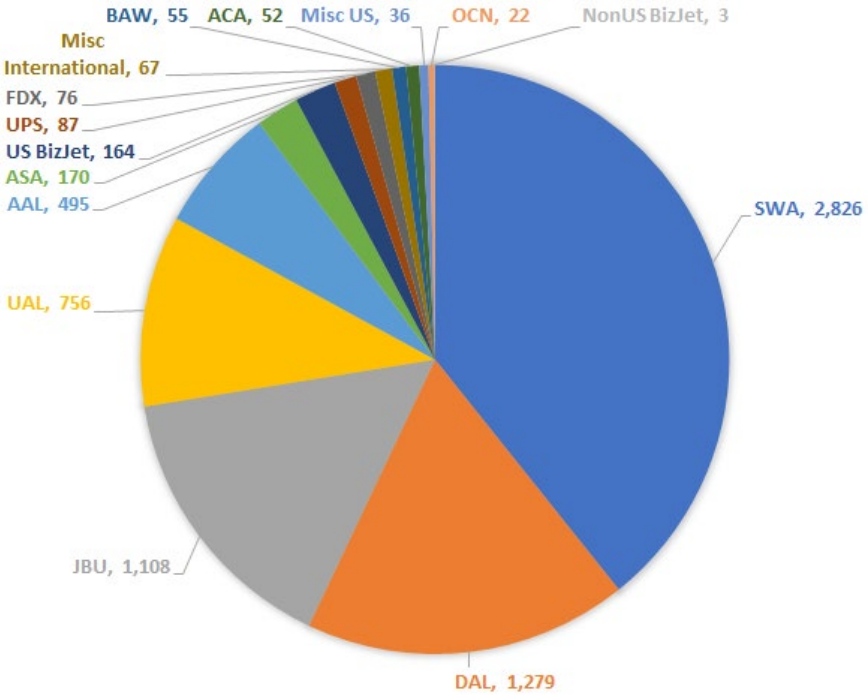
Orlando CPDLC DCL Departures



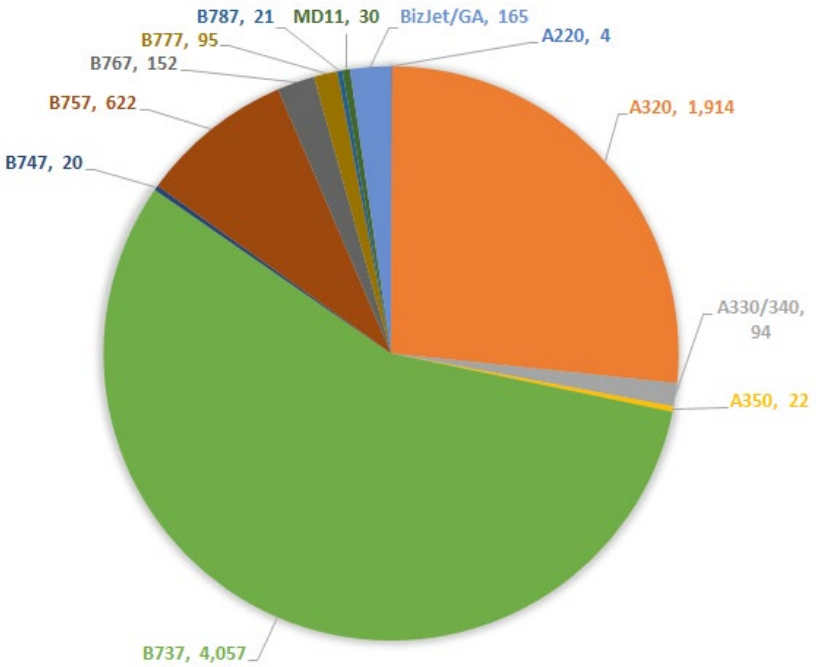
Orlando CPDLC DCL Clearances

November 2022

By Operator



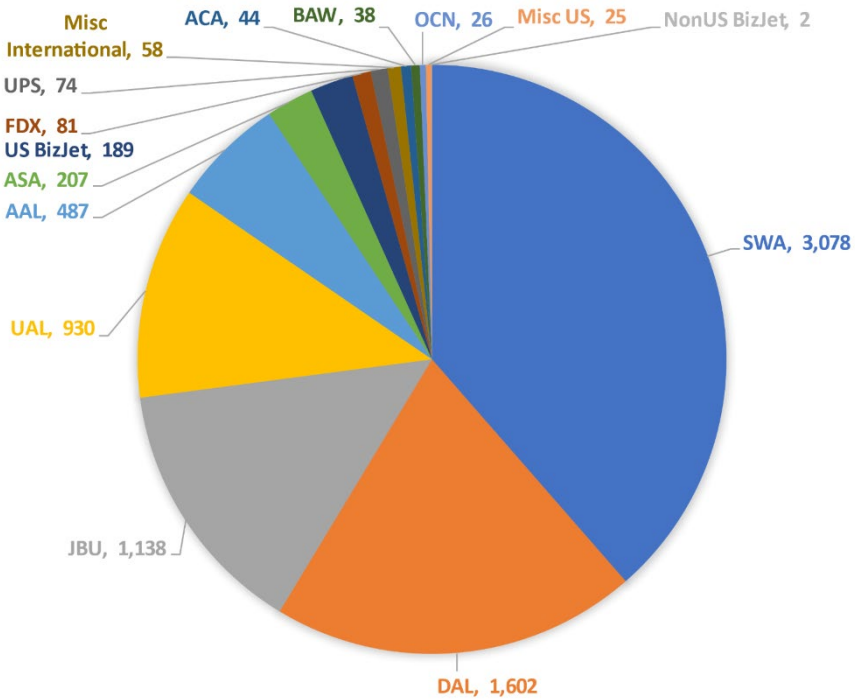
By Aircraft Type



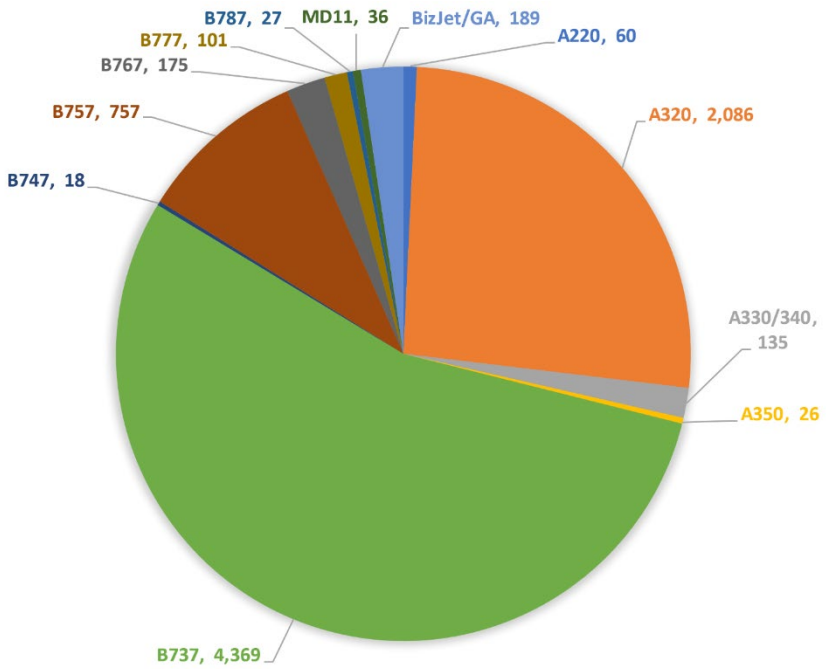
Orlando CPDLC DCL Clearances

January 2023

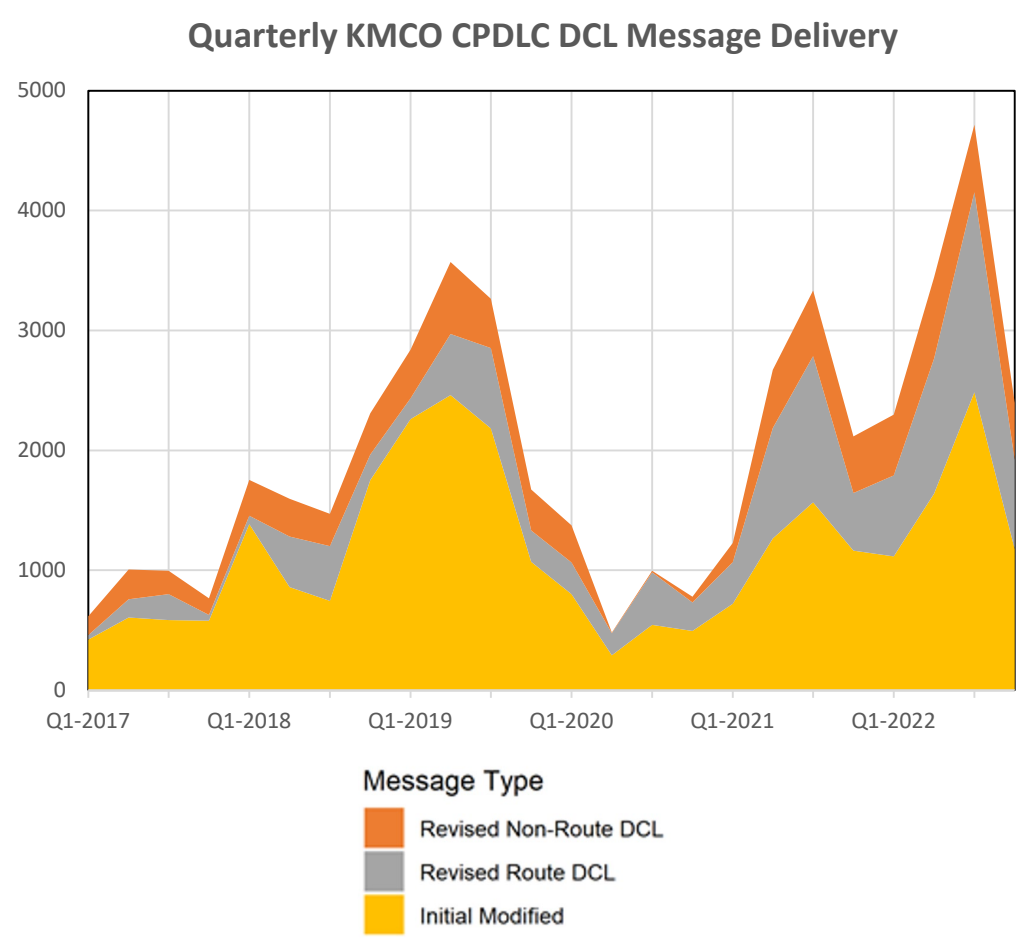
By Operator



By Aircraft Type



Orlando CPDLC DCL Messages Delivered



Cleared as Filed	The participating flight receives no changes/modifications to their original/intended route of flight filed in their flight plan.
Initial Modified	The participating flight receives a change to their original/intended route of flight on the filed flight plan, this change could be a route or non-route change.
Revised Route DCL	The participating flight receives a change/modification to their original/intended route of flight on the filed flight plan that resulted in a route change from air traffic control.
Revised Non-Route DCL	The participating flight receives a change to their original/intended route of flight on the filed flight plan. This change/modification only affected non-route information such as, but not limited to, squawk code or departure frequency.

Orlando CPDLC DCL Benefits

Since January 2021

- Cleared 146,835 flights
- Saved 30,369 minutes of airspace user time (gate and taxi)
- Prevented 835,751 kgs of CO_2 Emissions

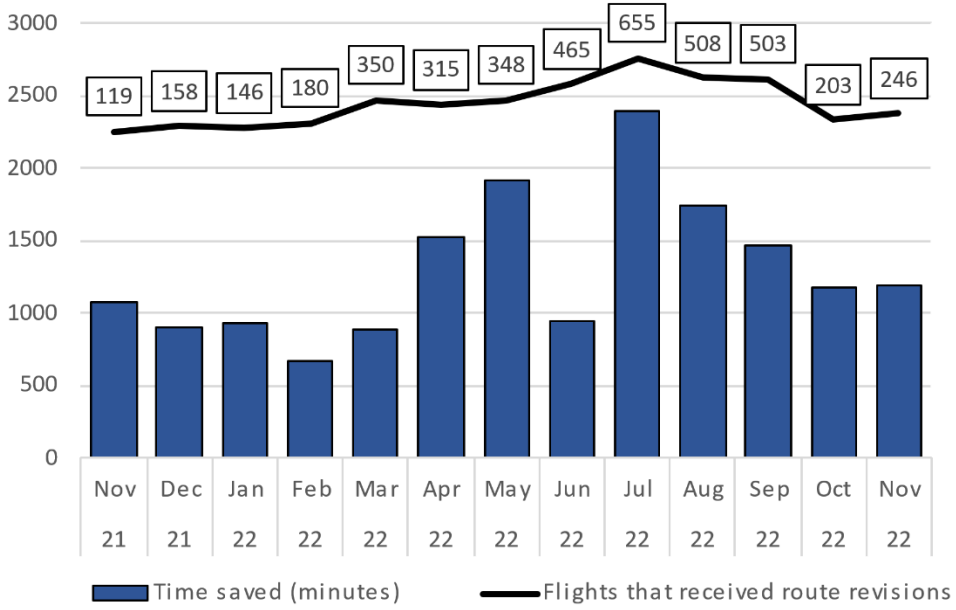
In November 2022

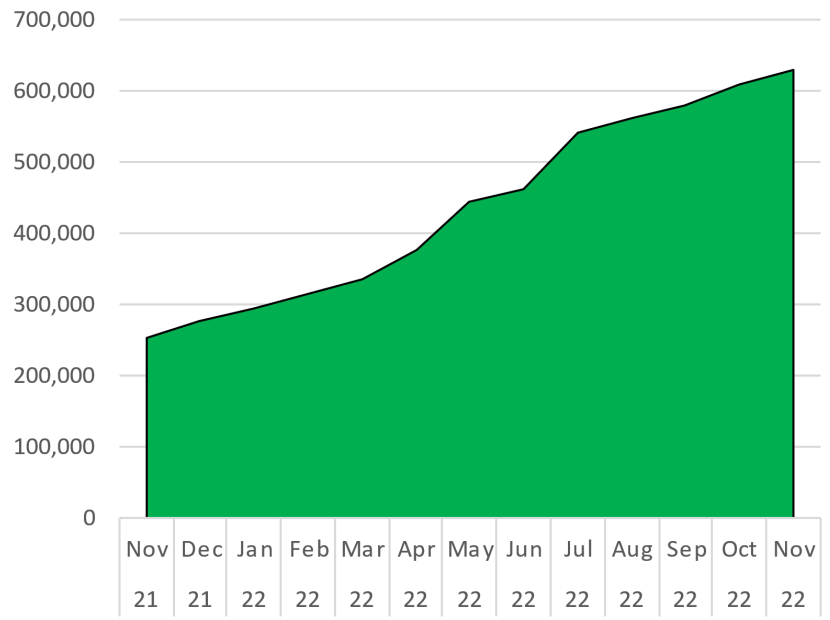
- Cleared 7,196 flights
- Saved 1,282 minutes of airspace user time (gate and taxi)
- Prevented 20,900 kgs of CO_2 Emissions

**Benefits are derived using ASPM data which is verified 3 months after the month closes.*

Orlando CPDLC DCL Benefits Trend

Time Savings and Emission Reductions





**Benefits are derived using ASPM data which is verified 3 months after the month closes.*

Airspace Modernization Update

Michele Merkle (FAA)

Airspace Modernization – Update

- **Airspace Modernization Roadmap (AMR) Strategy**
  - Uses a data-driven strategy based on past recommendations from the NAC

- **Integrates priorities from the NAC**
  - MCL, PBN Clarification, PBN NAS Navigation Strategy, NSG 1 and 2

- **Implements a new executive leadership governance structure**
  - Service Area Leadership Teams (SALT) of ATO Service Unit and LOB Directors

- **Applied both quantitative and qualitative metrics**
  - Safety, Efficiency and Operations;

Airspace Modernization – Initial Site Selections

- **Eastern Service Area**
  - Charlotte-Douglas International Airport (CLT)
  - Jacksonville ARTCC Airspace (ZJX)

- **Central Service Area**
  - Austin-Bergstrom International Airport (AUS)
  - Dallas/Ft. Worth International Airport (DFW)

- **Western Service Area**
  - Honolulu Control Facility Airspace (HCF)
  - Salt Lake ARTCC Airspace (ZLC)

RTA-IM ConOps

Michele Merkle (FAA)

Review of Action Items & Other Business

Kimberly Noonan, NAC Committee Manager (FAA)

Upcoming Meetings

- **NextGen Advisory Committee (NAC) Meeting:**
  - Summer 2023
  - Fall 2023

DFO Comments

Brad Mims, FAA Deputy Administrator

NAC Designated Federal Officer

Closing Comments & Adjourn

Chip Childs, NAC Chair

President & CEO (SkyWest Airlines)

Attachment 2

NextGen Advisory Committee (NAC)
February 28, 2023 Attendance List

Last Name	First Name	Affiliation
Adcock	Tom	NATCA
Aguirre	Carlos	Professional Aviation Safety Specialist
Allen	David	FedEx Express
Ambrosi	Jason	Air Line Pilots Association
Andrews	Malcolm	Federal Aviation Administration
Arel	Tim	Federal Aviation Administration
Armstrong	Jazz	Federal Aviation Administration
Arrighi	James	Federal Aviation Administration
Baker	Jodi	Federal Aviation Administration
Baker	Jodi	Federal Aviation Administration
Baker	Mark	Aircraft Owners and Pilots Association
Batchelor	David	SESAR 3 Joint Undertaking
Bechdolt	Anne	FedEx Express
Bee	Lisa	Inmarsat
Berlucchi	Robert	American Airlines
Bertapelle	Joseph	Joe Bertapelle, LLC
Blaser	Patrick	Federal Aviation Administration
Bolen	Ed	NBAA
Boschen	Andreas	SESAR 3 Joint Undertaking
Braxton	Keisha	Federal Aviation Administration
Breitenfeldt	Rick	Federal Aviation Administration
Brown	Steven	NBAA

Last Name	First Name	Affiliation
Brown	Lee	JetBlue Airways
Bruckbauer	Brian	Air Traffic Control Association
Buckley	Kerry	MITRE
Bunce	Peter	GAMA
Burke	Gregory	Federal Aviation Administration
Burkett	Alex	GAMA
Burns	Patrick	Delta Air Lines
Butler	Steven	Concept Solutions
Carver	Mike	IATA
Cebula	Andrew	Airlines for America
Challan	Peter	L3Harris
Childs	Russell	SkyWest Airlines
Christiansen	Cindy	Aviation-Impacted Communities Alliance
Christie	Warren	JetBlue Airways
Collings	Chris	L3Harris
Cook	Charles	JetBlue Airways
Covell	Jennifer	Member of the Public
Crandall	Kathy	L3Harris Technologies
Cunha	Jason	Concept Solutions
Dalton	Rick	Southwest Airlines Co
Dao	Vince	Federal Aviation Administration
Dehart	Scott	Southwest Airlines
Dillman	Donald	FedEx Express
Dodgen	Joey	Delta Air Lines
Donohue	Denis	Raytheon Intelligence & Space
Drew	John	Arizona State University

Last Name	First Name	Affiliation
Duffy	Kent	Federal Aviation Administration
Durkins	Natasha	Federal Aviation Administration
Eck	Jim	L3Harris Technologies
Element	Wyatt	Federal Aviation Administration
Evans	Edward	Southwest Airlines
Farmer	Kenley	Airlines for America
Fontaine	Paul	Federal Aviation Administration
Goebel	David	Vashon Island Fair Skies
Goldman	Robert	Delta Air Lines
Gomez	Pamela	Federal Aviation Administration
Govender	Shereen	Southwest Airlines Co
Green	June	Federal Aviation Administration
Gupta	Vipul	Honeywell Aerospace
Gusky	Amy	Federal Aviation Administration
Hargreaves	Cody	Alaska Airlines
Hennig	Jens	General Aviation Manufacturers Association
Hicok	Dan	Federal Aviation Administration
Hope	Chris	Federal Aviation Administration
Hoskins	Craig	Airbus
Hunt	Rob	Federal Aviation Administration
Ivers	Benjamin	Boeing Commercial Airplanes
Iversen	Jennifer	Regional Airline Association
Johnson	Antionette	Federal Aviation Administration
Joly	Pascal	Airbus
Jones	Tammy	Federal Aviation Administration
Jung	Deb	Councilmember, Howard County, MD

Last Name	First Name	Affiliation
Kagzi	Ayaz	Federal Aviation Administration
Kamyab	Ahmad	Federal Aviation Administration
Kasher	Alan	Southwest Airlines Co
Keegan	Charles	Aviation Management Associates, Inc.
Knorr	Dave	Federal Aviation Administration
Kovalcik	Luanne	Leidos
Kozica	Shawn	Federal Aviation Administration
Landesmann	Jennifer	Member of the Public
Landon	Joe	Lockheed Martin
Lee	Marlene	Federal Aviation Administration
Loring	Christopher	Federal Aviation Administration
Lozano	Jana	Delta Air Lines
Maffei	John	Federal Aviation Administration
Matthews	Suzette	Washington Progress Group, LLC
McClay	James	AOPA
McCullough	Angela	Federal Aviation Administration
McDowell	Michael	Collins
McGraw	Candace	CVG Airports
McLean	Drew	Southwest Airlines
Merkle	Michele	Federal Aviation Administration
Mets	David	Alaska Airlines
Militello	Anthony	Department of Defense
Mims	Brad	Federal Aviation Administration
Morse	Eric	Delta Air Lines
Morse	Glenn	Member of the Public
Mueller	Andrew	Federal Aviation Administration

Last Name	First Name	Affiliation
Mulligan	Jessica	SkyWest Airlines
Narvid	Juan	Federal Aviation Administration
Newman	Philip	American Airlines
Noonan	Kimberly	Federal Aviation Administration
O'Kelly	Caitlin	Federal Aviation Administration
Olson	Lee	NASA
Oswald	Chris	Airport Council International - North America
Pearce	Robert	NASA
Pennington	Darrell	Air Line Pilots Association
Peyton	Bret	Alaska Airlines
Pfingstler	Susan	United Airlines
Pierce	Brad	NOISE
Pinkerton	Sharon	Airlines for America
Quinn	Cheryl	NASA
Rehaluk	Jeff	Airlines for America
Renk	Ron	United Airlines
Ruehl, Sr.	Steven	Department of Defense
Santa	Rich	NATCA
Santos	Philip	FedEx Express
Suarez	Brandon	Reliable Robotics
Schwab	Gregory	Federal Aviation Administration
Silverman	Eric	American Airlines
Sinnett	Michael	Boeing Commercial Airplanes
Smith	Elly	MITRE
Snow	Marissa	SkyWest Airlines
Spero	Dave	Professional Aviation Safety Specialist

Last Name	First Name	Affiliation
Spurio	Kip	Raytheon Technologies
Stevenson	Dawn	Evans Incorporated
Sultan	Akbar	NASA
Surridge	David	American Airlines
Swol	Doug	Federal Aviation Administration
Sypniewski	Jessica	Federal Aviation Administration
Tamburro	Ralph	Port Authority of New York and New Jersey
Torrence	Kathy	Federal Aviation Administration
Tranter	Emily	NOISE
Turner	Lawrence	Southwest Airlines
Tyler	Jessica	American Airlines
Walker	Cornell	Federal Aviation Administration
Whitney	Chantee	Airlines for America
Willey	Doug	ALPA
Williams	Heidi	NBAA
Yaplee	Darlene	Aviation-Impacted Communities Alliance
Yates	Vaughn	Federal Aviation Administration
Zimmerman	Roberta	United Airlines

Attachment 3

February 28, 2023
NextGen Advisory Committee (NAC)

Public Speaker Comments

1. Cindy Christiansen, Aviation-Impacted Communities Alliance
2. David Goebel, Vashon Island Fair Skies
3. Deb Jung, Howard County Maryland Council member and County Council Representative to the BWI Roundtable

Written Remarks

4. Suzette Matthews, Washington Progress Group, LLC
5. Mary Reese, DC Metroplex BWI Community Roundtable
6. Darlene Yaplee, Aviation-Impacted Communities Alliance

Comment to NextGen Advisory Committee (NAC)

Friday, February 10, 2023

For the public speak agenda item for the NAC meeting on **February 28, 2023**

The FAA uses the graphic in **Figure 1** to show a steep decline in the number of people exposed to significant aviation noise while over the same time, the number of passenger enplanements has skyrocketed.

The graphic is misleading for several reasons.

1. The outdated DNL65 is used to define significant aviation noise and to count the number exposed. From the FAA's Neighborhood Environmental Survey (NES) study we now have scientific evidence that significant exposure to aviation noise occurs at approximately the DNL45 threshold, not 65.
2. The reported exposure covers 45 years – 17 FAA Administrators ago or about the number of years since the first female airline pilots were hired by US airlines.
3. Since 2010, the year that NAC was established, there has been an upward trend in the number exposed, a 39% increase over the last 10 pre-Covid years. See **Figure 2**.
4. FAA's graphic (Figure 1.) is misleading. It does nothing to help remedy the health and quality of life consequences created by NextGen.

The FAA and the NAC can do better than this. Major societal problems, like exposure to excessive aviation noise, will not be solved without accurate information that is reported scientifically and objectively.

Cindy L. Christiansen, PhD
Aviation-Impacted Communities Alliance

Figure 1. FAA's Misleading Exposure Graphic

Back to page 1

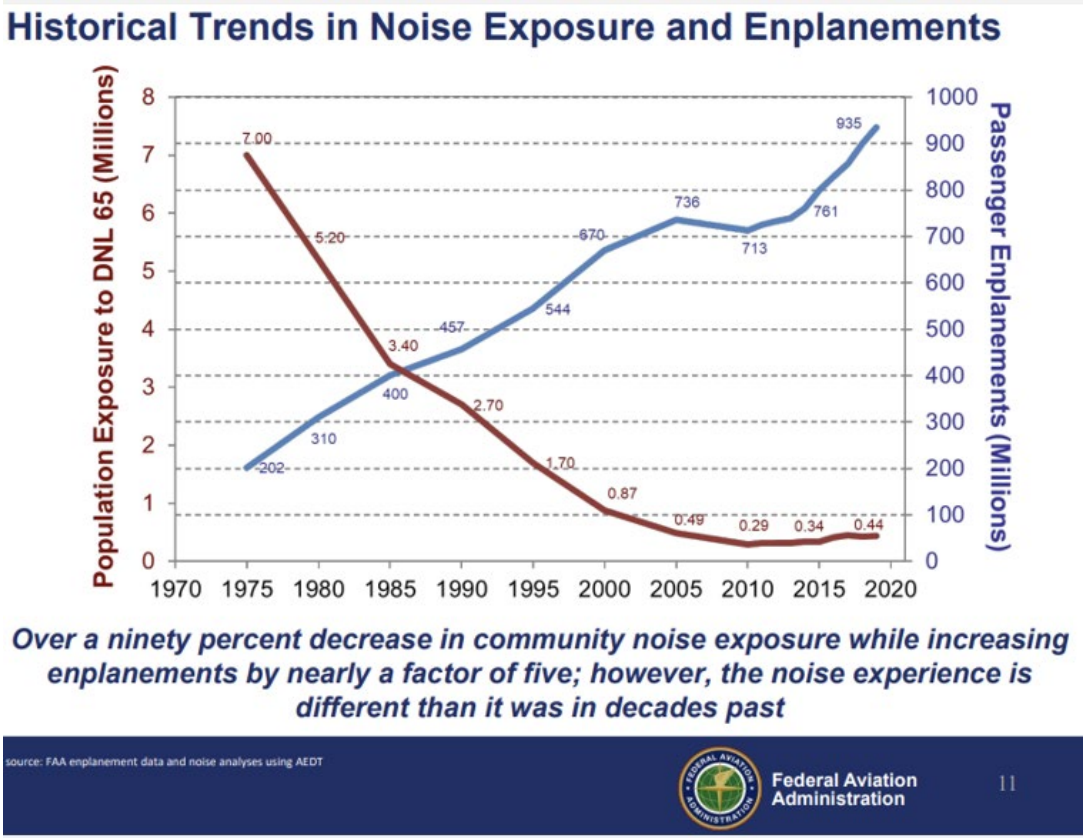
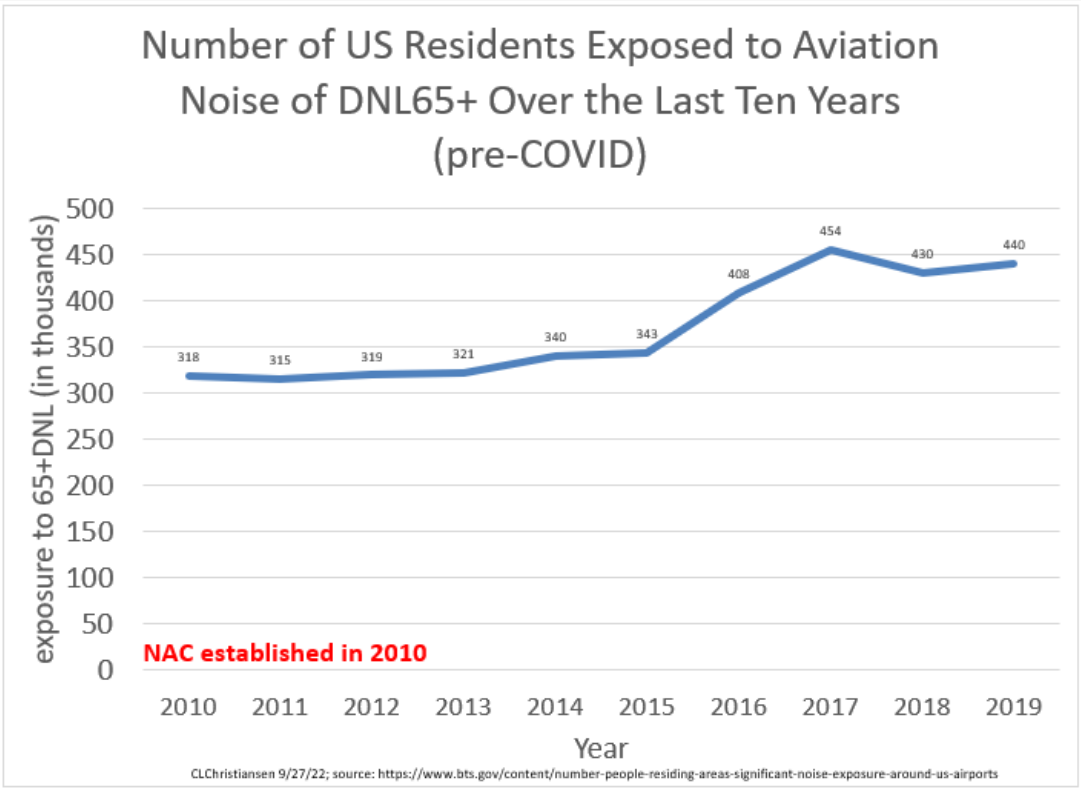


Figure 2. Uses the Same Exposure Data as in Figure 1

Back to page 1



David Goebel public comment to NextGen Advisory Committee meeting on 28 February 2023

Thank you for this opportunity to present comment. My name is David Goebel and I'm the president of Vashon Island Fair Skies, a 501(c)3 formed in the wake of PBN implementation at KSEA as part of the Greener Skies project.

While I did not win the lottery to present spoken comments at the March 2022 meeting, I trust you all read my written submission concerning the impact of lacking VNAV on the OPD procedure implemented at KSEA, namely that the OPD backfired and increased the length of level flight per arrival by ~40% instead of decreasing it. This happened due to not taking into account the impact of extended downwind legs due to congestion, i.e. the idealized arrival trajectories that were modeled rarely happen in practice. As a result, flights get low prematurely and then are forced to fly low and level for extended distances. Before the OPD, level-offs were shorter and generally happened above 10,000 feet.

I remind you of my previous comments not just because they are important, which they are, but to highlight a significant deficiency in the representation provided by the NAC membership and allay potential concerns about correcting that deficiency.

Currently there is a single NAC member representing community and environmental concerns. The N.O.I.S.E. organization currently hold that seat, and they do a reasonable job of representing large city governments, which is natural as those are the entities providing its funding. This was appropriate in a pre-NextGen world where airport environmental impacts were almost exclusively concentrated near the airport, however NextGen in general, and PBN in specific, has created airport level impacts for communities far from the airport. Due to the arbitrary nature of who found themselves under a PBN one day, those impacted represent a cross section of society. Some of them will be scientific and engineering professionals who have highly developed skills that allow them to understand, and meaningfully contribute to, technical discussions of NextGen technologies, especially as implemented – which can starkly differ from their design and modeling.

Circling back to my opening comments on VLAN, by way of example, this is the kind of real-world, as implemented, insight that is lacking in the NAC membership today. I would encourage upcoming NAC membership considerations to take this into account and add members from this group. Not as people to complain, but as people who can provide critical "on the ground" insight into technical details of NextGen technologies, as implemented, that this committee is currently lacking.

Thank You

Howard County Council

Deb Jung
Councilmember

District 4

George Howard Building
3430 Court House Drive
Ellicott City, Maryland 21043-4392

February 28, 2023

Dear Members of the NextGen Advisory Committee:

My name is Deb Jung, and I am the District 4 Councilmember for the Howard County Council in Maryland, as well as the County Council's representative on the BWI Roundtable, a volunteer position that I have held for more than four years. I came before this group last August to express the frustrations that the hundreds of thousands of people feel from the noise generated at all hours of the day and night by the "NextGen superhighway in the sky" emanating from BWI-Marshall airport.

Since I was last here, a state-funded study titled "Projecting the Health and Economic Burden of Aircraft Noise," authored by Dr. Zafar Zafari and Jeong-eun Park at the University of Maryland's School of Pharmacy, calculated that the health costs suffered by communities living under the concentrated flight paths at BWI-Marshall airport would be more than $40 million per year over the next 30 years. These public health costs (based on hospitalizations, medical care, and lessening of life outcomes) significantly impacts the industry's economic advantages to the region and warrants immediate noise mitigation.

These health concerns and associated costs have not been a part of the conversation at the Federal Aviation Administration (FAA) or at this public meeting. Yet there are millions of people nationwide who, through a variety of Roundtables, are pleading with this agency, the airlines, and associated industries to reexamine the technology, flight paths, and flight procedures and to take into account the health and well-being of all of the residents in this country who live under NextGen flight paths.

Unfortunately, I am in the position where I have to repeat my ask from the last meeting when I addressed you: Please take all steps possible to speed up the PBN process, not only at BWI-Marshall airport but throughout the country. The BWI Roundtable has been engaged in this process for five years. We sent our request for technical changes to the FAA in December 2019. It is now February 2023, more than three years since we submitted the Roundtable's PBN. We are the first in the nation to get to this point and if this process is what other Roundtables should expect, then the system for addressing the noise problem is not working. We all need to work together to keep our passengers and airline employees safe, support the business of flying people and cargo throughout the country, and protect the health of the people who live under Next Gen flight paths.

Thank you for your consideration and attention to this critical issue.

Sincerely,

Deb Jung

Deb Jung
Councilmember
District 4

(410) 313-2001 fax: (410) 313-3297
http://cc.howardcountymd.gov

Washington Progress Group LLC

5649 John Barton Payne Road
Marshall, Virginia 20115-2529
540 364 3470
www.safeaccess4uas.com

February 13, 2023

NextGen Advisory Committee (NAC)
c/o Federal Aviation Administration
800 Independence Avenue SW
Washington DC 20005

Re: FAA Docket Number FAA–2023–0306, Comments of Washington Progress Group to NAC Meeting February 28, 2023

Gentlepersons:

The Washington Progress Group LLC (WPG) hereby requests that the attached paper "NAS Transformation: The Whole is Greater than the Sum of Its Parts," published in the Fall 2022 Issue of the Air Traffic Control Association *Journal of Air Traffic Control*, be distributed to members of the NAC in advance, and for consideration of and discussion by the Committee in its February 28, 2023 public meeting. This paper was prepared by WPG principals Frank Frisbie and Suzette Matthews.

This paper, which discusses insufficiency of the current FAA approach to integrating UAS and other advanced innovative vehicles into the NAS, advocates for a comprehensive gap analysis and comparative evaluation of alternative NAS-wide ATC infrastructure and operating paradigms that could provide safe, fair, and equal access for all users and vehicles. WPG submits that issues discussed in this paper are directly relevant to the Committee's deliberations, and moreover that the technologies discussed therein have the potential to prevent near misses such as those recently experienced at JFK and Austin airports.

Respectfully,

Suzette Matthews
Principal

NAS Transformation: The Whole is Greater than the Sum of Its Parts

by Frank L. Frisbie and Suzette Matthews[1]

A tidal wave of unprecedented new entrant aircraft is threatening to overwhelm the National Airspace System (NAS) as we know it. FAA predicts explosive growth in UAS operations, even in the near term.[2] The global commercial drone marketplace is predicted to grow at a 23.7% compound annual rate, to $21.69 billion by 2030.[3] Revenue of $319 billion globally was attributable to the commercial space industry in 2019.[4] Even today commercial space launches are contributing to troublesome localized airspace congestion, and their number is predicted to double as soon as 2025.[5] Aerospace industry innovators are already manufacturing an entirely new category of Jetson-like personal flying cars—Vertical Takeoff and Landing (VTOL)-capable, electric-powered, and automated for non-pilot operations--that could flood the skies with garage-to-destination itineraries.[6]

Today's NAS is unprepared to accommodate this volume and diversity of new traffic. Look skyward on any day, even in suburban localities, and wide-open airspace can be seen in all directions. Human operated--especially passenger carrying--aircraft are routed into fixed or ATC approved flight paths, and any other air vehicles which might cross their paths are either forced into positive ATC control, or prohibited from flying altogether. The largest volume of airspace is completely unoccupied, and going to waste. UAVs and automated personal aircraft, which could take advantage of this open space, are relegated to specific altitudes or segregated airspace, subjected to unique restrictions (no flying over people), and burdened or foreclosed by certification regimes and flight rules designed for licensed pilots only.

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[1] Frank Frisbie and Suzette Matthews are Principals of Washington Progress Group LLC (WPG), https://www.safeaccess4uas.com/policy-and-government-relations.html. WPG is twice the recipient of the Air Traffic Control Association Small and Disadvantaged Business Award, 2016 and 2020.

[2] *See* FAA Aviation Forecasts Years 2021-2040, Unmanned Aircraft Systems, https://www.faa.gov/sites/faa.gov/files/data_research/aviation/aerospace_forecasts/Unmanned_Aircraft_Systems.pdf

[3] https://www.bloomberg.com/press-releases/2022-02-24/commercial-drones-market-to-reach-21-69-billion-globally-by-2030-at-23-7-cagr-allied-market-research

[4] https://www.euroconsult-ec.com/press-release/space-economy-valued-at-385-billion-in-2020-with-commercial-space-revenues-totaling-over-310-billion/

[5] Space launches and private jet operations are already causing troublesome congestion in Florida airspace. *See* Hetzner, "Private jets and billionaire space launches are crippling Florida airspace" (2022), *https://fortune.com/2022/05/04/private-jets-and-billionaire-space-launches-are-crippling-florida-airspace/. See* also FAA Aviation Forecasts Years 2021-2040, https://www.faa.gov/sites/faa.gov/files/data_research/aviation/aerospace_forecasts/Commercial_Space.pdf

[6] "The global flying cars market is expected to grow from $52.2 million in 2021 to $84.39 million in 2022 at a compound annual growth rate (CAGR) of 61.7%. The market is expected to grow to $488.56 million in 2026 at a compound annual growth rate (CAGR) of 55.1%," "Flying Cars Global Market Report 2022," https://www.reportlinker.com/p06280935/Flying-Cars-Global-Market-Report.html . *See* also https://simpleflying.com/flying-cars-2022/; https://www.reuters.com/business/autos-transportation/joby-receives-faa-nod-start-air-taxi-services-commercially-2022-05-26/; *Cf*, Goldstein, "It's 2022: Where are the Flying Cars We Were Promised?", https://www.forbes.com/sites/michaelgoldstein/2021/12/30/its-2022-where-are-the-flying-cars/?sh=1fca59483f7b

Nor does anything in today's NextGen future planning take us where we need to go. What is on the books in the NextGen architecture[7] perpetuates the current approach of applying technical and operational patches, often only in segregated airspace, to address the complaints of operator constituencies.[8] Or it simply polishes decades old "innovations" whose potential are pretty much already exhausted.[9] The fundamental weakness of this approach is that it embraces, and even enhances, balkanization of the airspace without any real construct for resolving incompatibility and performance issues at the boundaries, or for integrating the various airspace puzzle pieces into a seamless, cohesive continuum.

There is a chasm between the well-documented requirements of the growing number and increasing sophistication of new aircraft, versus what can be safely handled by today's ATC system, even assuming improvements underway and on the boards of NextGen. Despite endlessly iterative testing projects, analyses, proposed rulemakings, and individual authorizations by exception, *we simply are not getting there from here*. Mere motion should not be confused with real progress. We need to be honest with ourselves, and with new entrant proponents. There cannot be universal accommodation of large numbers of new and innovative aircraft types without a complete transformation of the existing air traffic system, not only its equipment and procedures, but its foundational operational paradigm.

This transformational new paradigm must encompass the entire volume of National airspace. It must open equal access for all operators, both legacy and newcomers, without discrimination by class of aircraft. And it must be capable of maximizing utilization of airspace, while still safely separating (deconflicting) those aircraft, in real time (not just strategically), in a fair, economic, and efficient way. This expansive role is a tall order, and certainly not one into which the legacy ATC system can gracefully evolve and grow, which seems to be the current collective delusion.[10]

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[7] https://www.faa.gov/nextgen/programs/; *see*, e.g., FAA's version of NextGen TBO, https://www.faa.gov/air_traffic/technology/tbo/

[8] For example, the UAS con ops provides a construct for widespread operations, but only under 400 feet. https://www.nasa.gov/sites/default/files/atoms/files/2020-03-faa-nextgen-utm_conops_v2-508_1.pdf. Similarly, although the commercial space con ops call for regular integration into the NAS, current operations accommodate those aircraft only by sanitizing airspace in TFOs, and nothing on the books in the NextGen architecture changes that. https://www.faa.gov/space/airspace_integration/media/Final_CSINAS_ConOps.pdf; https://www.faa.gov/space/airspace_integration/ As noted above, fn. 4 herein, this approach is already eliciting complaints from commercial carriers that space launches are becoming frequent enough to cause congestion and delays for regular air service. And improvements suggested in NASA's Urban Air Mobility con ops are still only in the "visioning" stage, and have not yet made their way into the NextGen Architecture, even though many such vehicles are beyond the conceptual stage into manufacturing and certification. https://ntrs.nasa.gov/api/citations/20205011091/downloads/UAM%20Vision%20Concept%20of%20Operations%20UML-4%20v1.0.pdf. ; [cite press releases showing personal cars]

[9] E.g., Data Comm, https://www.faa.gov/newsroom/data-communications-data-comm-0?newsId=21994; Collabortive Decision Making CDM), https://cdm.fly.faa.gov/

[10] "The AAM [Advanced Air Mobility] market is here and growing. The complexity, scope, and dynamic nature of operations forecast will stress the ATC system beyond anything seen in ATC history. The FAA's NextGen efforts offering the foundation to support his new market are well underway. However, technology still has *at least a decade to go* before it is mature enough to allow the more robust sub-set of AAM, UAM to truly 'take flight.'" [Emphasis added]. Johnson, "ATC in

The good news is that the FAA Acquisition Management System (AMS) does articulate a policy, and establishes a procedure for identifying, analyzing, and addressing just such *whole-NAS* deficiencies. FAA's Service Analysis and Strategic Planning (SASP) process[11] begins with a "Shortfall Analysis and Report", which describes both the shortfall and the legacy case,[12] and defines "the difference between future service need and current capability."[13]

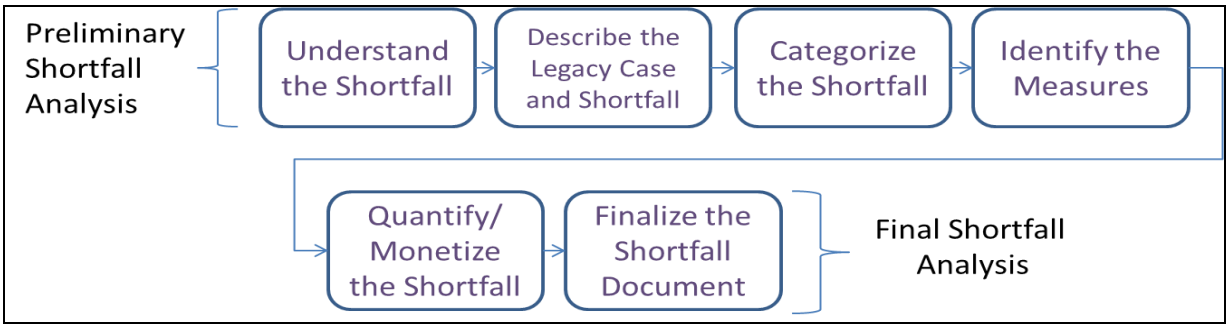

Figure 1: Shortfall Analysis Process

Source: FAA Shortfall Analysis Report Guide, v.2, March 2022, p. 4, download at https://fast.faa.gov/NFFCA_ServiceAnalysis_StrategicPlanning.cfm .

Once a shortfall is identified and described, the benefits of various alternatives for improving NAS performance are competitively analyzed and quantified:

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the Era of Advanced Mobility," Air Traffic Control Association Journal of Air Traffic Control, p. 24, Summer 2022, http://lesterfiles.com/pubs/ATCA/journal/2022/summer/#p=26.

[11] SASP [Service Analysis and Strategic Planning] is the evaluation of how well FAA legacy assets satisfy existing needs and emerging demands for new services." FAA Guidelines for Service Analysis & Strategic Planning (SASP) and Concept & Requirements Definition (CRD), March 2022, p.7, download at https://fast.faa.gov/NFFCA_ServiceAnalysis_StrategicPlanning.cfm

[12] "The legacy case description *does not* include any additional investment (e.g., technology refreshment) beyond what is already included in its investment segment baseline as approved by the Joint Resources Council." Shortfall Analysis Report Guide, March 2022, p. 8, download at https://fast.faa.gov/NFFCA_ServiceAnalysis_StrategicPlanning.cfm

[13] "A key step in the AMS lifecycle management process is understanding and articulating the service shortfall. This step is part of Service Analysis and Strategic Planning (SASP) (terminology and context found in FAST section 2.3) as well as Concept and Requirements Definition (CRD) (terminology and context found in FAST section 2.4). At a high level, Service Analysis and Strategic Planning determine what capabilities must be in place now and in the future to meet Agency goals and the service needs of customers. Concept and Requirements definition, among other things, quantifies the service shortfall in sufficient detail for the definition of realistic preliminary requirements and the estimation of potential costs and benefits during Investment Analysis.
FAST section 2.3.1 states 'The shortfall is the difference between future service need and current capability. A service shortfall is usually addressed by a sustainment action for existing assets or a new service delivery idea, including cloud services, for predicted gaps. A new idea or concept should deliver existing services more efficiently or provide new services of value to the FAA and aviation industry.'" FAA Shortfall Analysis Report Guide, p. 2, *ibid*.

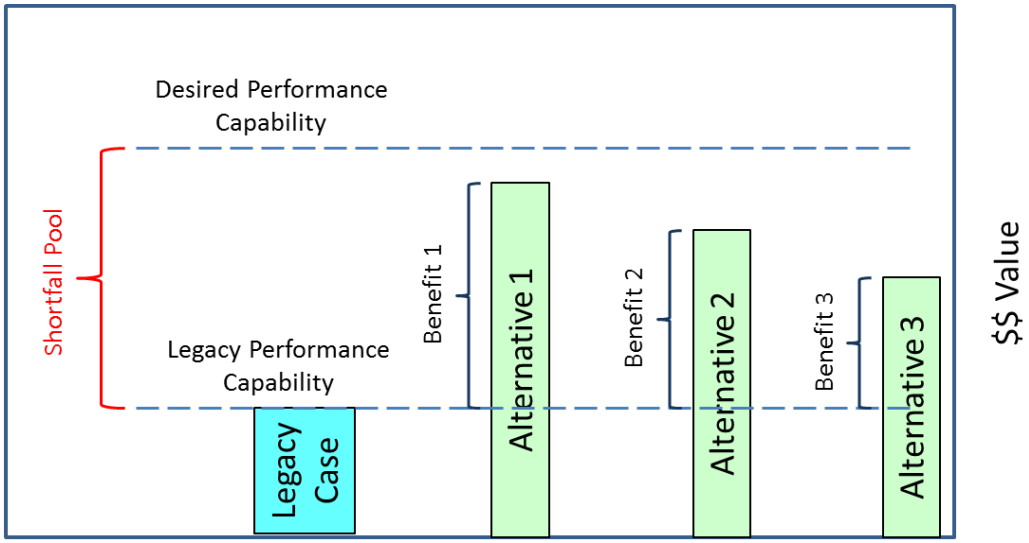
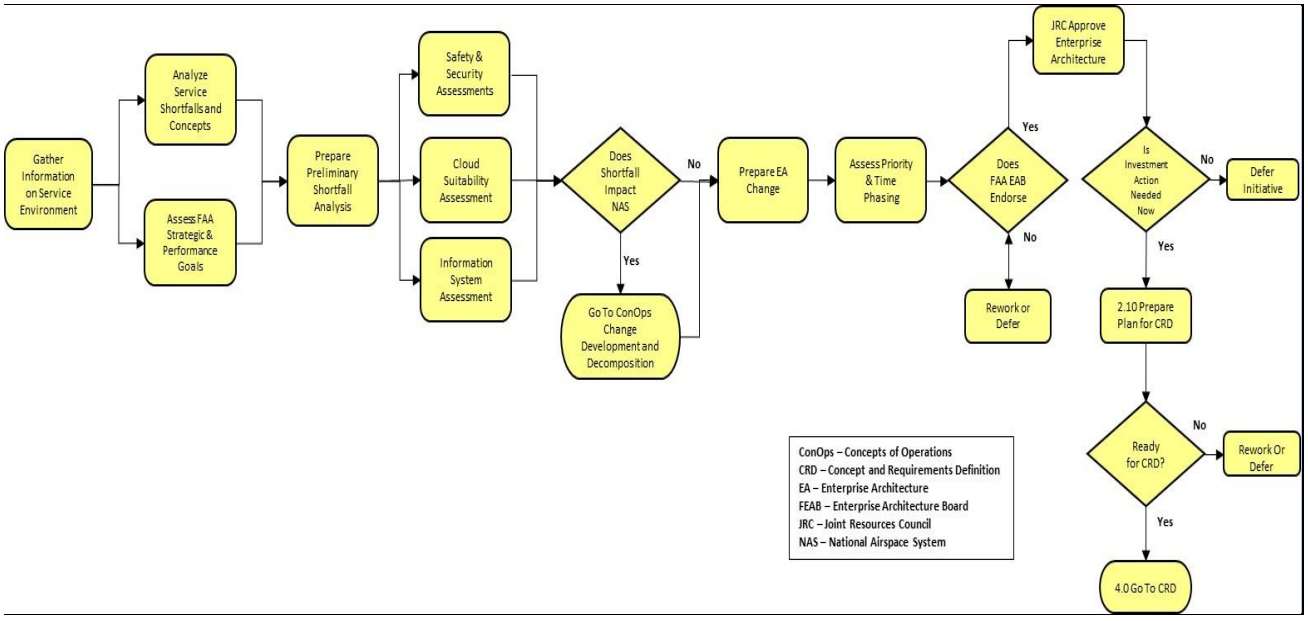


Figure 2: Shortfall vs. Benefits

(Notional, not to scale)

Source: FAA Shortfall Analysis Report Guide, p. 5, *ibid*.

The SASP analysis then proceeds to additional phases:



Source: FAA Guidelines for Service Analysis & Strategic Planning (SASP) and Concept & Requirements Definition (CRD) v.9, March 2022, p.9, download at https://fast.faa.gov/NFFCA_ServiceAnalysis_StrategicPlanning.cfm

The authors assert that the herein recommended entire-NAS shortfall analysis should be unbounded and wide ranging. Too often, NextGen future planning begins by setting boundaries and narrowing the scope of inquiry by accepting pre-existing assumptions, many of which are artificial or unwarranted. For example, the whole of navigable airspace, not just selected volumes or altitudes, should be considered for transformation. Existing limitations on aircraft or ATC performance, or historic reservations of airspace according to aircraft class or mission, should not be allowed to limit our thinking about what volumes of airspace can or should be shared. Assumptions about government budget "realities", or aircraft operators' financial ability or willingness to retrofit or upgrade their aircraft should not be allowed to contract the range of technical options under consideration.[14] And revolutionary change-out of the entire legacy NAS ATC operating system, versus evolutionary upgrade only, should be considered within the realm of the possible.

There are at least three potential alternative operating constructs that should be considered for resolving the shortfall: Free Flight (universal self-separation), universal Four Dimension Trajectory (4DT) air traffic control, and a hybrid version[15] of those constructs. The authors have previously discussed the comparative merits and drawbacks of Free Flight versus universal 4DT.[16] Without prejudging the outcome of a comprehensive shortfall analysis, universal 4DT seems most likely of all alternatives to meet future needs, safely, with least cost and disruption to operators and the system.

Although analyses of the costs and financial feasibility of performance-enhancing improvements are properly the province of later phases in NextGen planning, it is fair to say that whatever the cost of a comprehensive new NextGen paradigm, it will be dwarfed by the opportunity costs of delaying or denying access to new and future entrants rushing at the floodgates of the NAS. Granted, there are myriads of people and companies, including legacy aircraft operators, who are financially and professionally invested in the NAS status quo and its "measured" evolution. But to achieve a necessary and true transformation that can fully exploit the navigable airspace and open access to everyone, some institutionalized projects will have to be scrapped, not just revised, "re-baselined", and perpetuated.

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[14]An increased cost burden on operators is not necessarily fatal to NAS transformation. Whatever the approach, it might make sense for the government to incentivize or subsidize aircraft equipage, and there are ways to do that. *See* Frisbie and Matthews, "The second time around there ought to be a law…", https://www.safeaccess4uas.com/paper-avionics-equipage--second-time-around.html.

[15] This appears to be the path we are on, by default. Whether this hybrid approach can evolve technically to the point of being able to fully and economically satisfy the operational and business objectives of all aircraft operations, and at what cost to them as well as to the ATC system, has yet to be systematically and fully explored and analyzed. To be considered an acceptable alternative to Free Flight or universal 4DT, the hybrid construct would have to include a fully matured architecture for providing safe and equal access to all volumes of airspace, to all operators, and a realistic way for ATC to provide seamless operations across diverse airspace boundaries.

[16]For a comparative analysis of the advantages and drawbacks of Free Flight (self-separation) versus universal 4DT ATC, *see* Frisbie and Matthews, "To 4DT or Not 4DT, is there Really a Question?"(2021), https://www.safeaccess4uas.com/paper-to-4dt-or-not-4dt.html ; Frisbie and Matthews, "FAA: Tear Down That Airspace Wall!" (2022), https://www.safeaccess4uas.com/paper-faa---tear-down-airspace-walls.html .

It is almost *thirty years* since FAA Administrator J. Lynn Helms introduced the NAS Modernization Plan featuring the Advanced Automation System, the first version of systemwide 4DT air traffic management. And yet we're still here, waiting for real modernization to start. It's way past time to venture forward into today's understanding of what the future will be, not what we envisioned three decades ago. We have no choice. Let's get on with it.

The authors:

Frank L Frisbie, Aviation consultant, former FAA and industry NAS Senior Executive. Frank has 55 years of experience in ATC/ATM spanning the full design, development, implementation, sustainment and replacement cycle of all NAS infrastructure elements, including a professional career in FAA culminating in the position of NAS Program Director and Acting Associate Administrator of Development and Logistics. Frank also served as a senior executive of Northrop Grumman. Frank holds a Bachelor's Degree in Electrical Engineering (BEE) from Manhattan College, NY and a Master's Degree in Business Administration from American University, DC. An Honorary Member of ATCA and recipient of the Glen Gilbert Award, Mr. Frisbie is a frequent contributor to the Journal of Air Traffic Control.

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*The forgoing paper first appeared in the Fall 2022 Issue of the Air Traffic Control Association, Inc.'s *Journal of Air Traffic Control.*

Mary Reese
D.C. Metroplex BWI Community Roundtable
Representative from District 30

Oral Remarks for February 28, 2023 NextGen Advisory Committee Meeting

I have served on the BWI Community Roundtable for six years and wish to convey to you the importance of the FAA's meaningful engagement with communities as it continues to make changes to the national airspace with the continued implementation and refinement of NextGen technologies.

The BWI Roundtable has been the only community group to achieve acceptance into the PBN design process for an airport authority, which is the Maryland Aviation Administration in our case. I believe this was a noteworthy and very important first for the FAA. It effectively exemplified that communities can be formally recognized and included as productive, positive stakeholders in the design and governance of the national airspace.

This is such an important accomplishment to recognize because aviation interests have been pitted against community concerns from the earliest stages of civil aviation's establishment and growth. For many decades the FAA had a dual mandate to both promote and regulate civil aviation and while the promotion of aviation was relatively recently rescinded from the Administration's charter, the current body of aviation regulation and policy was crafted with that mandate in place. For example, the Airport Noise and Capacity Act of 1990 effectively prohibits airports from reaching compromises with surrounding communities by prohibiting them from restricting aircraft operations in any meaningful way.

This current reality is unsustainable. Federal aviation interests should not be pitted against local and state aviation interests. It may be convenient for industry to shrug and suggest that local governments should lobby congress, as they do, but I believe that this indifference will only hurt aviation industry and business interests in the long run. Further, we have shown that immediate opportunity for smart planning and growth is possible now.

I encourage this body to recommend the adoption of what I will refer to as our 'BWI Thurgood Marshall model' which is the formal attendance of local community expertise at the PBN process and that this model be adopted at every metroplex at which the PBN is convened moving forward. This is the right thing to do and it will be a watershed moment for smart design and growth of civil aviation in this country.

Comment to NextGen Advisory Committee (NAC)

February 15, 2023

For the public speak agenda item for the NAC meeting on February 28, 2023

The January 2021 FAA Neighborhood Environmental Study results showed that a significant number of people (12.3%) are highly annoyed at a much lower DNL (about 46 DNL) instead of the outdated "Schultz Curve", which estimated 12.3% highly annoyed at 65 DNL.

- 4 months after the NES results, FAA Administrator Dickson announced the FAA/FMCS agreement for a noise policy review.
    - "We are bringing on board the Federal Mediation and Conciliation Service (FMCS) to assist with designing an inclusive and participatory policy review framework and process that prioritizes input from substantially affected stakeholders, including local communities. The FMCS will also facilitate these internal and external stakeholder dialogues. This will not be a short, simple, or superficial undertaking. It will be robust, data-driven, and inclusive. We can provide update briefings as the review gets underway."
- Unfortunately, our experience has been the opposite of this.
- One year after finalizing the FAA/FMCS agreement and to our knowledge there had been no noise-policy update nor inclusion of local communities.
- Therefore, for FAA transparency and accountability, the Aviation-Impacted Communities Alliance (AICA) obtained a copy of the Interagency agreement and an update through 2 sequential FOIA requests.
- What did we uncover?
    - ~Half the project, Task 1 and most of Task 2 were completed by September 1, 2022 which means local communities were excluded from:
        - background research or interviews, and
        - identifying and prioritizing goals, concerns and considerations.
    - Although Task 1 states including "key external stakeholders", local communities were excluded.
    - The agreement requires monthly status reports, but according to the FAA the FMCS has only provided reports verbally
    - Overall– deeply impacted, local communities have been excluded which highlights a flawed engagement process and which distorts all subsequent tasks in the agreement.
- Please support the Quiet Skies Caucus request for FAA to be inclusive and establish a national committee of impacted communities to best represent communities in the noise policy review process and in the realities of NextGen aviation impacts.
- "It is the FAA's responsibility to serve not only the aviation industry but also everyday Americans who are harmed by collateral impacts of the aviation industry".

Darlene Yaplee

Aviation-Impacted Communities Alliance