

[DCA SoA Committee Design Team Meeting #5](#)

This meeting was held virtually and recorded by Otter.AI on 1/24/2024.

Summary

- **Airport noise reports and runway usage.** [5:07](#)
 - Jim Allerdice provides an overview of runway operations at DCA, including arrivals and departures, and runway usage in November.
 - Jim Allerdice mentions a small percentage of aircraft at DCA could be helicopters, while Eric Woods mentions concerns about nationwide legislation affecting airport operations.
 - Eric Woods questions whether the airport has enough runway length for larger aircraft.
- **Airplane sizes and noise exposure at Dulles Airport.** [14:04](#)
 - Travis Ludwig explains that the 753-300 will be coming in January, but it's not possible to take off from DCA with a full load due to braking distance issues.
 - Eric Woods clarifies that the airport doesn't have enough runway to safely accommodate larger aircraft like the 740, 777, or 787.
 - Jim Allerdice explains noise exposure and virtual monitors in a grid area, with most impact near airport.
- **Noise exposure analysis.** [19:25](#)
 - Jim Allerdice highlights the noise exposure levels at various sites along the waterfront, with a higher number of events (240-312) observed near Alexandria compared to other areas.
 - The number of events at 65 decibels and above is significantly lower than the number of events at 55 decibels and above, indicating a decrease in noise levels as you move further away from the waterfront.
 - Jim Allerdice highlights the concentration of noise events along the waterfront, with few above 65 decibels in surrounding areas.
 - Gary believes the daily average is the correct way to analyze the month's data.
- **Noise levels near an airport.** [27:18](#)
 - Jim Allerdice explains that the DNL noise exposure contour map shows hundreds of times per day when noise levels exceed 75 decibels near the airport.
 - Jim Allerdice explains the arrival and departure contours at the airport, highlighting the impact of the river on the contours.
 - Speaker 6 highlights the risk of violating FAA regulations by exceeding 65 DNL levels near the airport.
- **Noise contours and flight procedures at DCA airport.** [34:27](#)
 - Jim Allerdice explains that DNL contours are done on an annual basis, while their analysis is done on a monthly basis, providing a more detailed view of noise impacts over time.
 - The analysis gives an idea of the impacts of flight procedure changes and the potential effects of new aircraft, such as the 757-300, on noise levels.

- Jim Allerdice discusses changes in flight operations and the importance of baseline data for comparison.
- **Airport noise levels and locations.** [39:20](#)
 - Jim Allerdice discusses daily average of 300-370 airplane events near runway, with some variation in volume.
 - Jim Allerdice notes a decrease in the number of events hitting above 65°F along the shore, with a few events per day still occurring.
 - Jim Allerdice identifies specific locations with noise levels above 75 decibels and shows an area with no readings above 75dB.
- **Aircraft noise analysis and modeling.** [46:09](#)
 - Jim Allerdice discusses flight paths and monitor locations for a 757-300 model, with locations in the high 50s and low 60s.
 - Jim Allerdice explains differences between LA Max, L Max, and discusses how the model estimated the Rolls Royce engines for the B757-300.
 - Garry Hill explains how the Special Report for Travis was done and the noise level modeling and decibel levels at the departure end of Runway 19.
- **Aircraft noise analysis and metrics.** [52:58](#)
 - Bob Meier asks what noise metrics were used in the Special Report for Travis.
 - Jim Allerdice explains the two metrics used to measure aircraft noise: instantaneous noise level (La max) and DNL.
 - Garry Hill explains the rest of the report and Jim Allerdice explains the difference in noise levels between departures and arrivals at the Runway 1 threshold.
- **Review of Meeting #4 Minutes Aircraft and Discussions with FAA.** [58:24](#)
 - Jim presents a summary of meeting minutes, with feedback from Mike Rioux.
 - Jim Allerdice explains that departure noise is louder than arrival noise due to throttle settings and airframe noise.
 - Jim Allerdice reviews Design Philosophy.
- **Improving air traffic flow in the Washington, D.C. area.** [1:04:23](#)
 - Jim Allerdice discusses changes to departure procedures for a flight path, including new climb gradient requirements.
 - Jim Allerdice discussed preliminary design with *Matt Fisher, including reducing noise over sensitive areas.
 - Jim Allerdice explains that the FAA wants departing aircraft to diverge by 10 degrees or more to improve separation and increase throughput.
 - Jim Allerdice explains that the FAA may have differing opinions on how to interpret the Equivalent Lateral Spacing Operations (ELSO) rule, leading to a discussion on the best way to design SIDs to accommodate the FAA's requirements.
 - Jim Allerdice seeks input on diverging orange and yellow lines for traffic flow.
- **Flight paths and traffic management.** [1:12:27](#)
 - Mike Rioux is concerned about the impact of traffic going east-northeast on the orange flight track and wants to know if there are any waypoints that could be used to direct this traffic to the northeast.
 - Jim Allerdice explains that initially, the traffic would go beyond the orange flight track and then turn to the northeast at some point, depending on criteria and decision-making.



- Mike Rioux expresses concern about the altitude of a flight path over Prince George's County.
- Mike Rioux and Jim Allerdice discuss the flight path and its intersection with the AMEEE, with Mike Rioux asks for more information on the proposed altitudes.
- **Airport design and flight paths. [1:18:22](#)**
 - Jim Allerdice proposes modifying the design to increase air traffic capacity.
 - Jim asks if the group is good with the notional design for airplane routes to the northeast, initially overflying the casino. No objections were noted. The SIDs currently overfly Andrews Air Force Base but it is not necessary to route airplanes directly over the base for separation from Andrews traffic.
 - Travis Ludwig discusses the possibility of modifying the flight path to cross over a water treatment plant and the feasibility of pushing the JAREL waypoint to the east.
 - Jim Allerdice advised that moving JAREL to the east would violate criteria.
- **Flight path redesign for noise reduction. [1:25:43](#)**
 - Bob Meier asks why aircraft departing north can turn sooner.
 - Jim Allerdice explains that the north side of airport requires a steep climb gradient to allow aircraft to turn earlier to avoid prohibited airspace.
 - Bob Meier observes that the new flight path design reduces exposure to noise over populated areas.
 - Jim Allerdice asks for consensus on the proposed flight path for east departures.
 - No objections noted.
 - Travis Ludwig asks if JAREL must be the divergence point.
 - Jim Allerdice explains that Mark has been working on the criteria for determining the leg length of the initial leg, which is based on minimum climb gradient to clear obstructions.
- **Flight standards and procedure changes. [1:33:07](#)**
 - Mark Dillon explains FAA's new flight standards, prioritizing safety over arbitrary altitude restrictions.
 - ATC must have an operational necessity to increase climb gradient and shorten VA or VI legs. They do because ATC requires aircraft to diverge within 2NM of DER.
 - Travis and Mark discuss adjusting waypoint to avoid shaving western shore of river.
 - Jim Allerdice also raises concerns about minimum climb gradients and operational reasons for shorter initial legs.
- **Flight path for aircraft. [1:46:19](#)**
 - Jim Allerdice proposes a new route to avoid Alexandria, with a turn towards the middle of the river.
 - Jim Allerdice suggests adding a waypoint to keep aircraft on a straight path, avoiding potential turns towards the eastern shore of Alexandria.
 - The group discusses options for the turn, including staying over the river or pushing a waypoint further south.
 - Bill Parker suggests a better sales pitch for the affected area, citing the blue line's migration towards KATRN and the guys on the approach getting wiped out.
 - Jim Allerdice provides altitude information for the airport arrival, including SIDs climbing to 7000 feet and the CAPSS STAR descending to 8000 feet.



- **Noise reduction for aircraft departing Reagan National Airport. [1:54:26](#)**
 - Bob Meier expresses approval of the process so far and suggests moving the flight path further over the river will reduce noise exposure to nearby populations.
 - Jim Allerdice agrees, noting that this will significantly cut down on the number of aircraft turning west and going up to the northwest, but the difference in noise level will be minimal.
 - Mike Rioux expresses concern that Mount Vernon residents may object to the new flightpath.
 - Speakers debate potential impact of new flight path on Mount Vernon noise perception.
- **Noise reduction design for airport. [1:59:59](#)**
 - Jim Allerdice explains how Vianair will compare noise levels in a grid display, showing increases in red and decreases in green.
 - Jim Allerdice emphasizes the importance of Design Philosophy.
 - Bob Meier provides empirical evidence to support the reduction in noise levels with the new design.
- **Airport noise reduction plan. [2:05:23](#)**
 - Bob Meier suggests that this plan provides an equitable distribution of noise from the proposed flight path changes.
 - Mike Rioux cautions that there will still be people, especially from the Mount Vernon area, who will disapprove of the new designs and that we must be prepared to defend our position.
 - Jason will coordinate with the Steering Committee for a meeting date on the project timeline and website.
 - Jim Allerdice proposes a meeting on February 28 to showcase design progress and gather feedback.
 - Jim Allerdice updates the team on Matt's absence and the design review process.
- **Question From Alexandria – Initial Flight Path**
 - Q: Filipe Ip asked - Is it possible to deflect the two south-heading flight paths out of Reagan to the east for the portion of the paths north of the Woodrow Wilson bridge, and they can return to their existing paths once they are south of the bridge? That way, the paths will be further away from Alexandria city. Across the water is just the DC Blue Plains wastewater treatment plant and no residences should be affected.
 - A: Jim Allerdice advised that because of the divergence rule for initial departure separation, runway heading must be maintained for between 1-2 NM and then aircraft must diverge by at least 15-degrees (10-degrees if using ELSO rules). This precludes west departures from initially turning east prior to diverging from the east departures. The divergence rule can be used on the south departures to increase throughput whereas on the northside of the airport, the divergence rule cannot be used due to the requirement to avoid the P-56 Airspace. The northside departures also have a waiver that allows early turns to avoid P-56.



Attendance

Name	Organization/County	Role
James Allerdice	Vianair	Consultant
Mark Dillon	Vianair	Consultant
Garry Hill	Vianair	Consultant
Bill Parker	Prince Georges County-Accoek	SoA Committee
Travis Ludwig	Alexandria	SoA Committee
Filipe Ip	Alexandria	Staff
William Skrabak	Alexandria	Staff
Mike Rioux	Fairfax County	SoA Committee
Bob Meier	Fairfax County	SoA Committee
Jason Schwartz	Vianair	Consultant
Joseph Gorney	Fairfax County	Staff
Dawn Hawkins-Nixon	Prince Georges County	Staff
Melissa Atwood	Alexandria	Staff
Eric Woods	Prince Georges County	SoA Committee

*Matt Fisher is a Support Specialist at Potomac TRACON (FAA).