

## [DCA SoA Committee Design Team Meeting #3](#)

### Summary

- **Meeting agenda and summary feedback. [3:20](#)**
  - Jim Allerdice (Jim) seeks feedback on November 1 meeting summary, receives no feedback.
- **Design philosophy and points of interest. [5:17](#)**
  - Jim and Bob Meier (Bob) discuss misspelled names on a guest list, with Jim correcting them.
  - Discussion on final design philosophy, with minor editing suggested and approved.
- **Noise monitoring locations in Fairfax County. [11:15](#)**
  - Mount Vernon Estate and Hollin Hills are historical sites in Fairfax County that could be included in virtual noise monitors.
  - Bob mentions the waterfront area as a critical location for density, with 90% of all points located along the riverfront corridor.
  - Jim indicated that additional points will be provided and displayed on the grid next time but did not have them ready for the meeting due to Garry Hill's absence.
- **Noise contour analysis for airport expansion. [16:20](#)**
  - Jim explains that the standard grid size for noise contour analysis is not fixed and depends on the project's requirements and client preferences.
  - Bob states that fine grid points are not necessary near the airport due to the small gradients and noise levels, while Bill Parker (Bill) advocates for a higher concentration of grid points along the waterfront to accurately represent the impact on nearby residents.
  - Bob suggests using specific locations to validate coverage, while Bill agrees to provide an IOU for adequate coverage and will provide Lat/Long for existing noise monitor.
  - Jim explains that the grid they created has 325 data points, but they're trying to find a balance between density and calculation complexity.
  - Jim discusses using a rectangle instead of a square grid to represent the area affected by flight procedures, taking into account county boundaries and aircraft turn points.
  - Filipe Ip (Filipe) suggests adjusting the number of grid points based on the need for computations, with more points for areas that require more detailed analysis.
- **Airport noise reduction strategies and analysis. [25:36](#)**
  - Jason Schwartz (Jason) discusses tailoring virtual monitors for a project, eliminating those that don't provide value, and using La Max, DNL, SEL, and Number Above metrics at 55db, 65db, and 75db at each VNM to measure noise levels.
  - Jim also explains how to compare noise levels between existing and new designs using a delta method, with red indicating bad noise and green indicating good noise.
  - Filipe asks if there is a specific noise reduction target or goal.
  - Jim explains that the goal of the noise reduction project is to move airplanes further away from residential areas, which may not result in significant noise reduction but can make people feel better.
  - Jim highlights the importance of subjective opinions and perceptions in addition to measurable sound differences in the noise reduction process.
- **Flight path modifications for aircraft. [34:44](#)**

- Jim analyzes recent traffic data to address recommendation 8.
- Jim explains modifications made to the flight path to the center of the river, potentially reducing sound difference in Alexandria.
- Jim seeks confirmation on their proposed flight path near the Potomac River.
- Jim explains flight procedure and tracks in blue line, red line, and green curve.
- **Flight path optimization for noise reduction. [41:09](#)**
  - Jim explains that the short segment of the flight path causes the FMS to be less accurate in capturing the westbound turn and subsequent southwest turn.
  - Jim discusses the trade-offs involved in moving the waypoint to the southeast, including the impact on the noise distribution and the flight path.
  - Bob discusses the impact of plane turn on noise propagation, with potential effects on both land and water.
  - Mike Rioux (Mike) suggests alternative splitting the west SIDs into two main flight paths for more equitable distribution of noise between the currently impacted communities from westbound aircraft and the new flight path for southwest bound aircraft that would be overflying the Mount Vernon area.
- **Aircraft flight paths and noise concerns. [49:11](#)**
  - Jim explains that airplanes climb faster in cooler temperatures, but the concern is that moving their track further south could cause them to level off and cross under the star at a lower altitude.
  - Jim believes the airplanes should be kept climbing to avoid leveling off and crossing under the star at a lower altitude, potentially causing them to miss their turn west.
  - Bill expresses concerns about proposed changes to air traffic, citing potential impact on residents in Accokeek and Katrin.
- **Improving air traffic flow at Washington Dulles Airport. [54:50](#)**
  - Jim proposes alternative holding pattern for arrivals, using right turns instead of left turns.
  - Jim proposes moving the CAPSS STAR further east to reduce the likelihood for departing airplanes to level off on the new notional southwest bound SID flight path.
  - Jim seeks at least marginal improvements in noise distribution for airport arrivals and departures. Discusses possible trade-offs to achieve more equitable noise distribution.
- **Airport departure routes and potential conflicts. [1:02:04](#)**
  - Jim considers alternative routes for AMEEE SID, focusing on potential overflight of interstates, industrial areas, and areas with less population density.
  - Jim highlights the issue of overflowed areas due to the new track's divergence from the existing one, specifically mentioning residential development in the area.
  - Jim acknowledges the problem and notes that the new track must be at least 10 degrees east of the existing one to accommodate airport throughput.
  - Jim suggests moving the departure track south of Andrews Airforce Base to avoid conflict with air traffic.
  - Mike provides data on the percentage of departures that fly over a specific area, with 65-70% flying over the darker green area versus the remaining departures.
- **Airport noise management and equitable distribution. [1:10:08](#)**
  - Bob expresses concern about equity in noise distribution for departures and states that it's a bit early in the process to be discussing without first considering arrivals as well.

- Jim discusses the use of virtual noise monitors (VNM) to provide a granular look at impacts using the NA metric at 55, 65, 75db to determine the number of times each VNM overflows above each of the noise thresholds.
- Bob references a design philosophy to ensure decisions align with group's definition of success and refer back to it often for guidance.
- Bob asks why 10-degree separation is important for airport efficiency and departure capacity.
- Jim explains the importance of 10-degree divergence in air traffic control, allowing for back-to-back departures and increased efficiency.
- **Air traffic management and overflights in Fairfax County.** [1:15:38](#)
  - Bill and Bob discuss slot rules and limitations at airports, with a focus on how they impact flight departures.
- **Air traffic control procedures at DCA airport.** [1:21:46](#)
  - Several people point out that aircraft are turning on the final approach at various altitudes, including below 2000 feet.
  - Jim explains flight path changes for northbound and southbound aircraft.
  - Travis Ludwig (Travis) identifies the track as "iron seven" and notes it's not an RNAV star.
  - Jim will research the flight path and advise the group of how it is used. Travis believes that there is a path direct to KATRN.
  - Jim plans to share cross-section data with the group in two weeks.
- **Website design and approval process.** [1:27:20](#)
  - The team is working on a public engagement website for government documents, with staff approval for content.

## Attendance

<b>Name</b>	<b>Organization/County</b>	<b>Role</b>
James Allerdice	Vianair	Consultant
Bill Parker	Prince Georges County	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