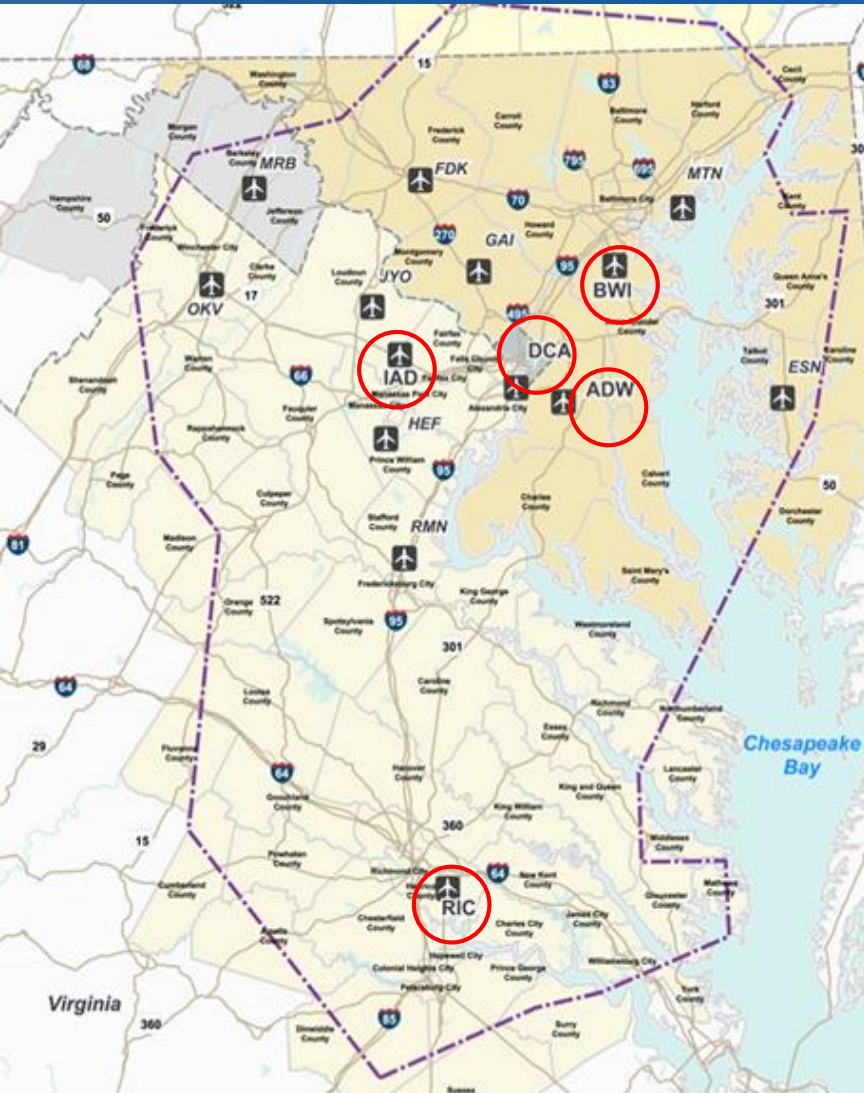




DCA CWG

**Nov 17, 2021
Mike Rioux**

BACKGROUND



- DCA Metroplex
- DCA and IAD - Federal Gov't
- MWAA established and contracted to manage both airports

DCA	Ronald Reagan Washington National
IAD	Washington Dulles International
BWI	Baltimore Washington International
ADW	Andrews Air Force Base
RIC	Richmond International
MTN	Martin State
ESN	Easton/Newnam Field
FDK	Frederick Municipal
GAI	Montgomery County Airpark
RMN	Stafford Regional
JYO	Leesburg Executive
HEF	Manassas Regional
OKV	Winchester Regional
MRB	Eastern West Virginia Regional

Background



- CWG started Oct 2015 – started 7th year

intended to advance the noise discussion beyond past forums, which have centered on the airing of specific individual and neighborhood concerns, toward identifying and recommending practical noise-mitigation initiatives for the entire Reagan National area by the summer of 2016.

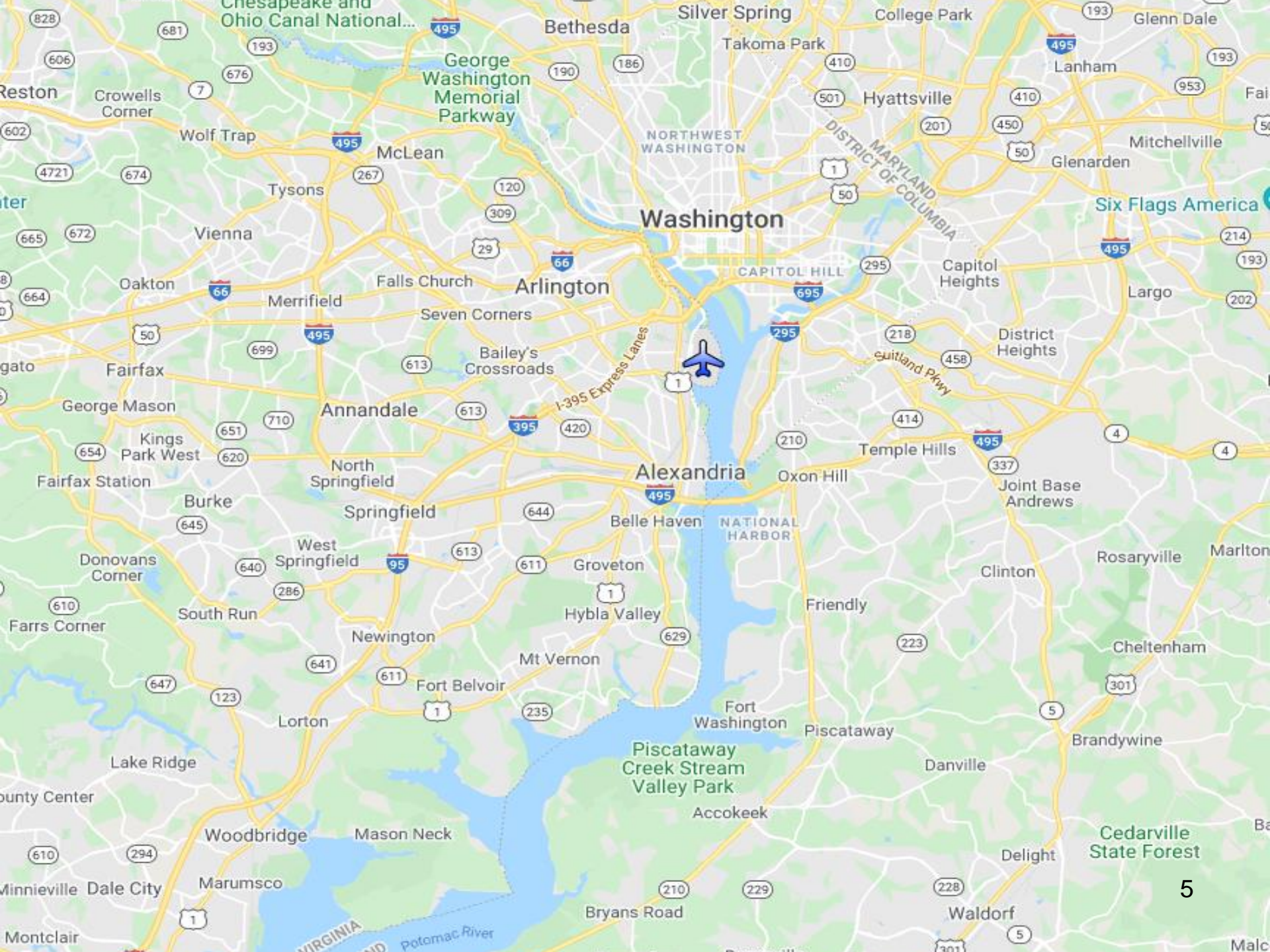
- DCA Hub Airport
- Slot control
- Beyond Perimeter Rule – 20+ flights/day



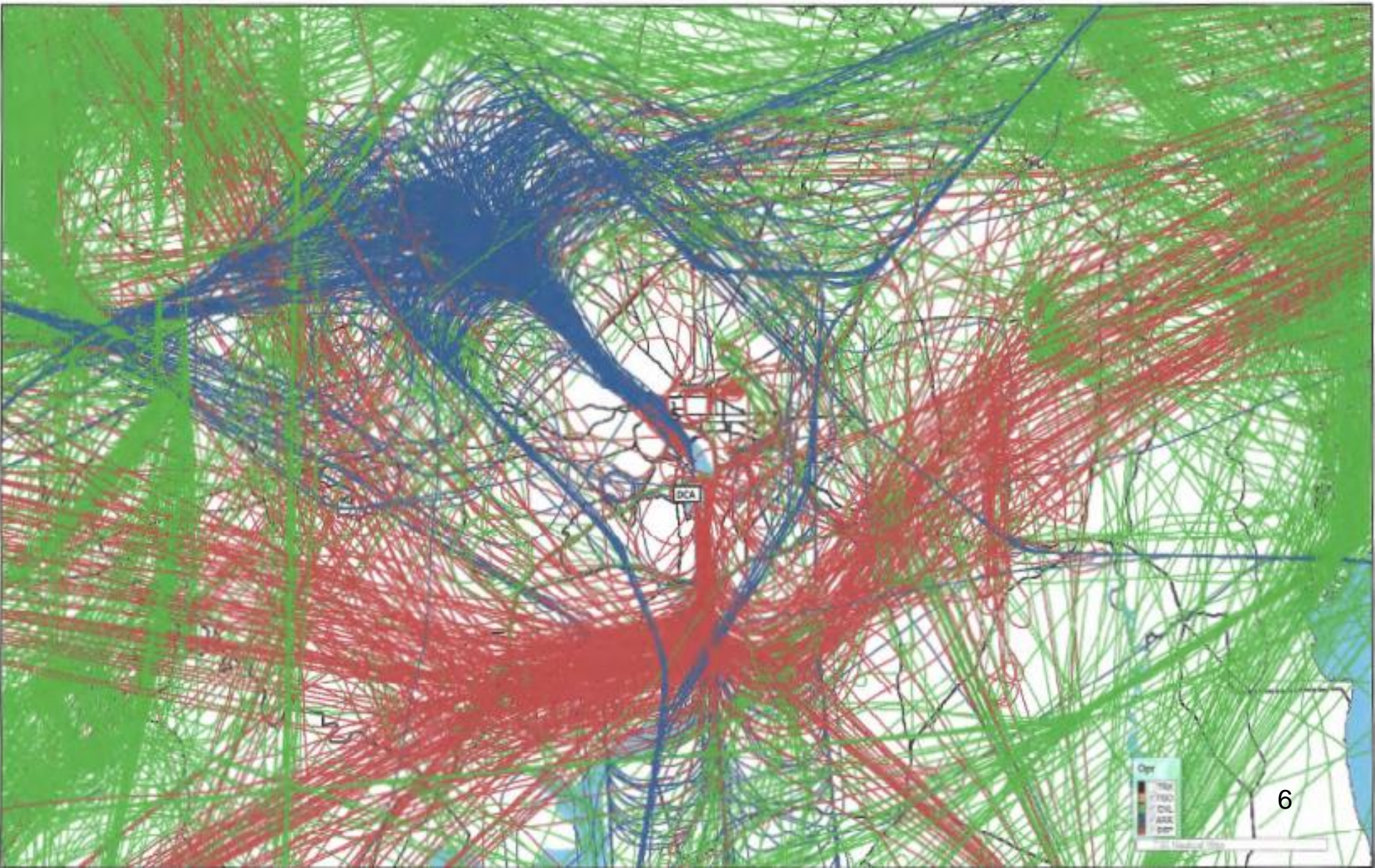
Challenges



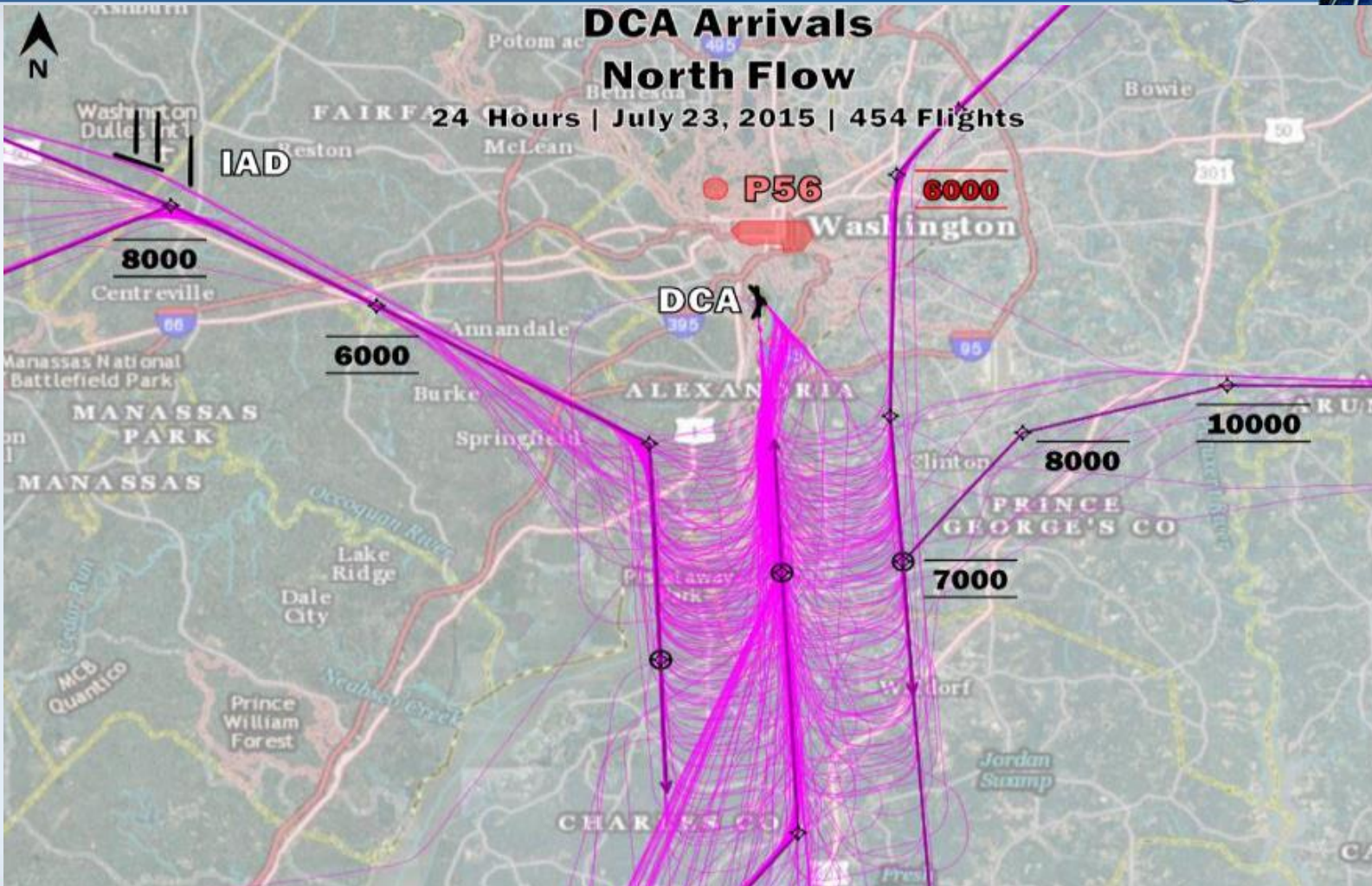
- DCA 24x7 Ops
- Essentially single Rwy Ops 01/19
- Congressional influence
- DCA flights increasing while IAD stagnant
- P56
- Dense population north and south DCA
- FAA reluctant to flight procedure changes
- Heavy rotorcraft traffic - Pentagon. Bolling AFB, Fort Belvoir, EMS, Police



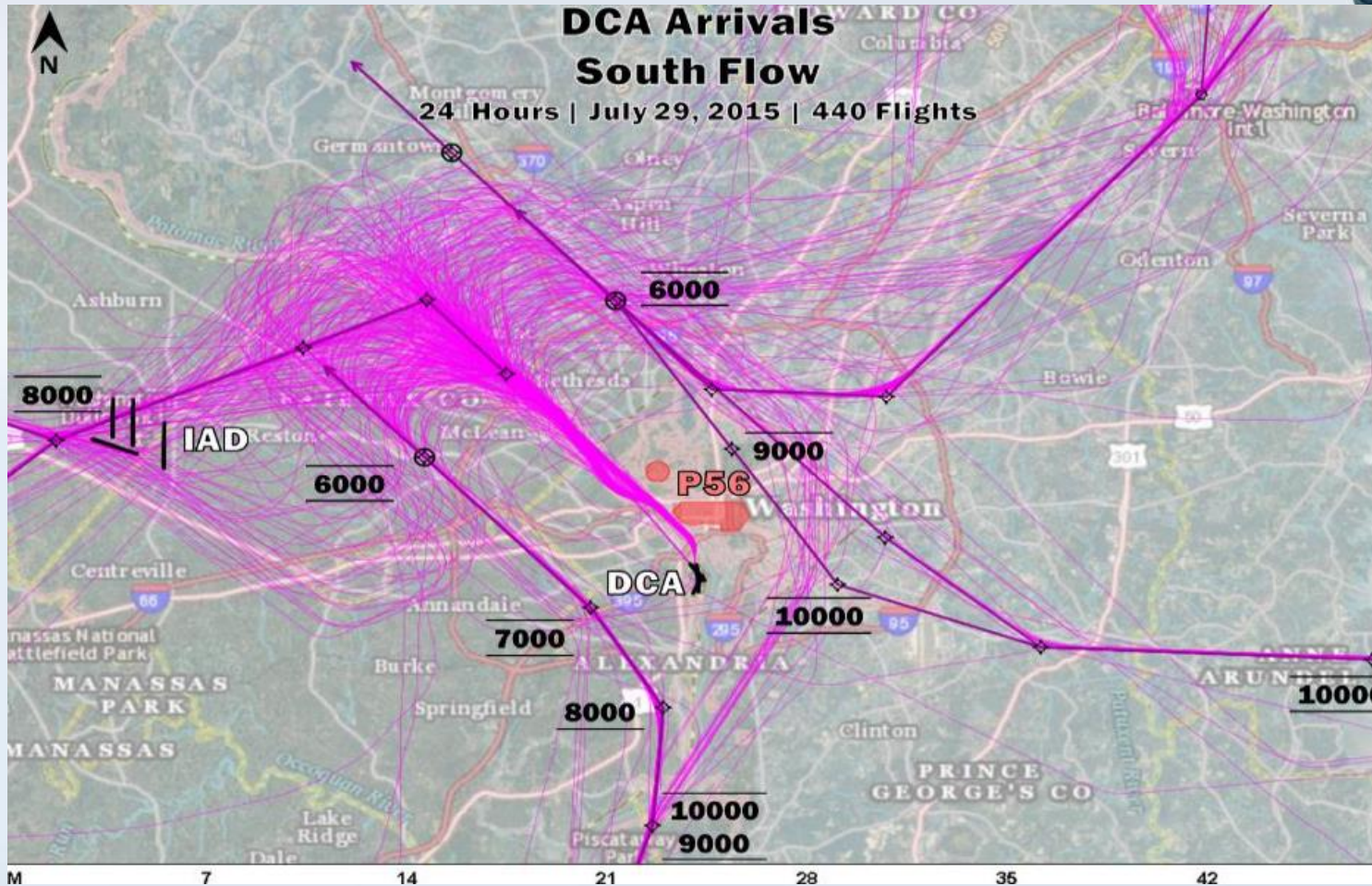
Typical 24 Hour DC Metroplex – 4300 tracks



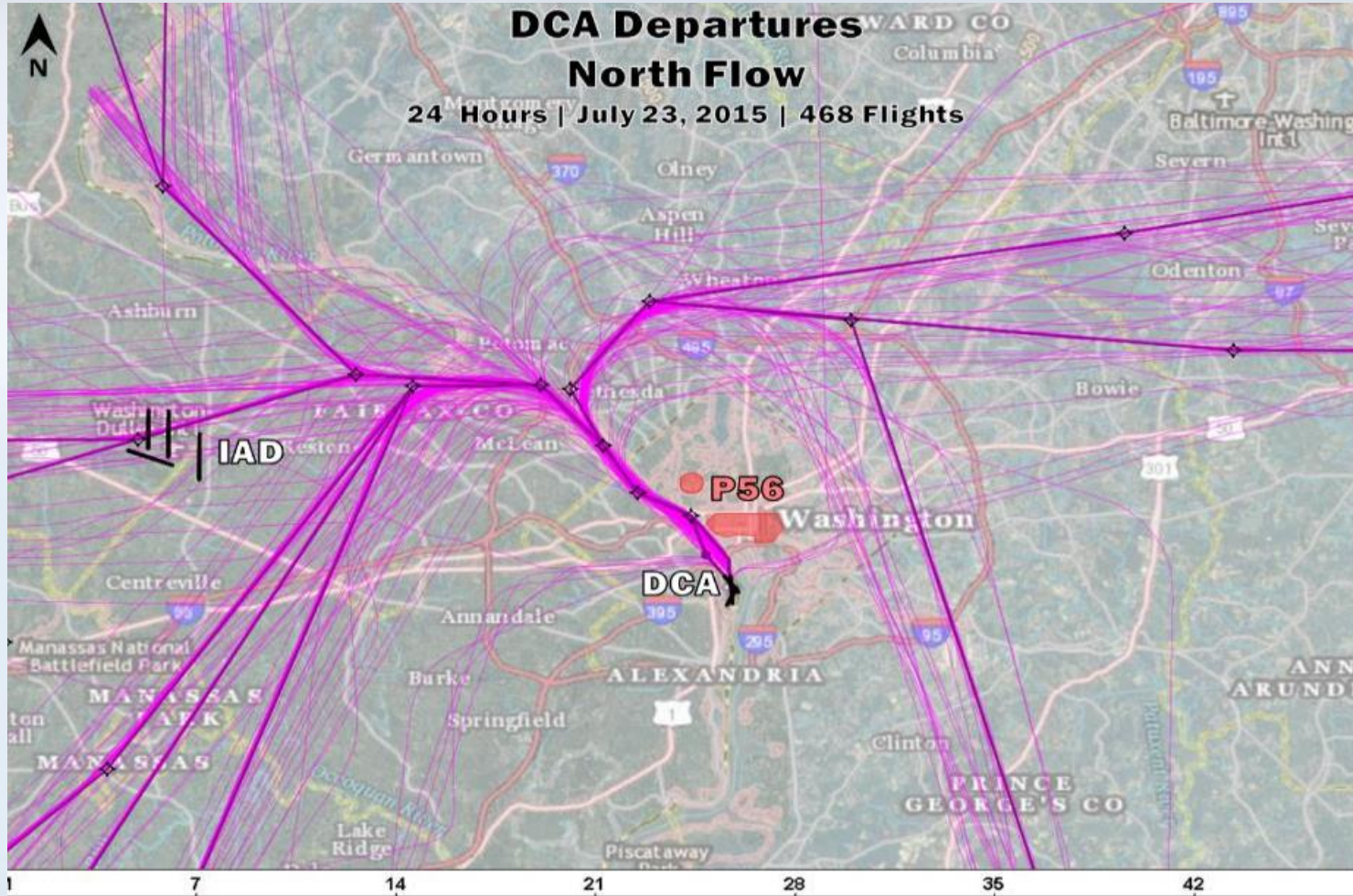
DCA North Arrivals Rwy 01



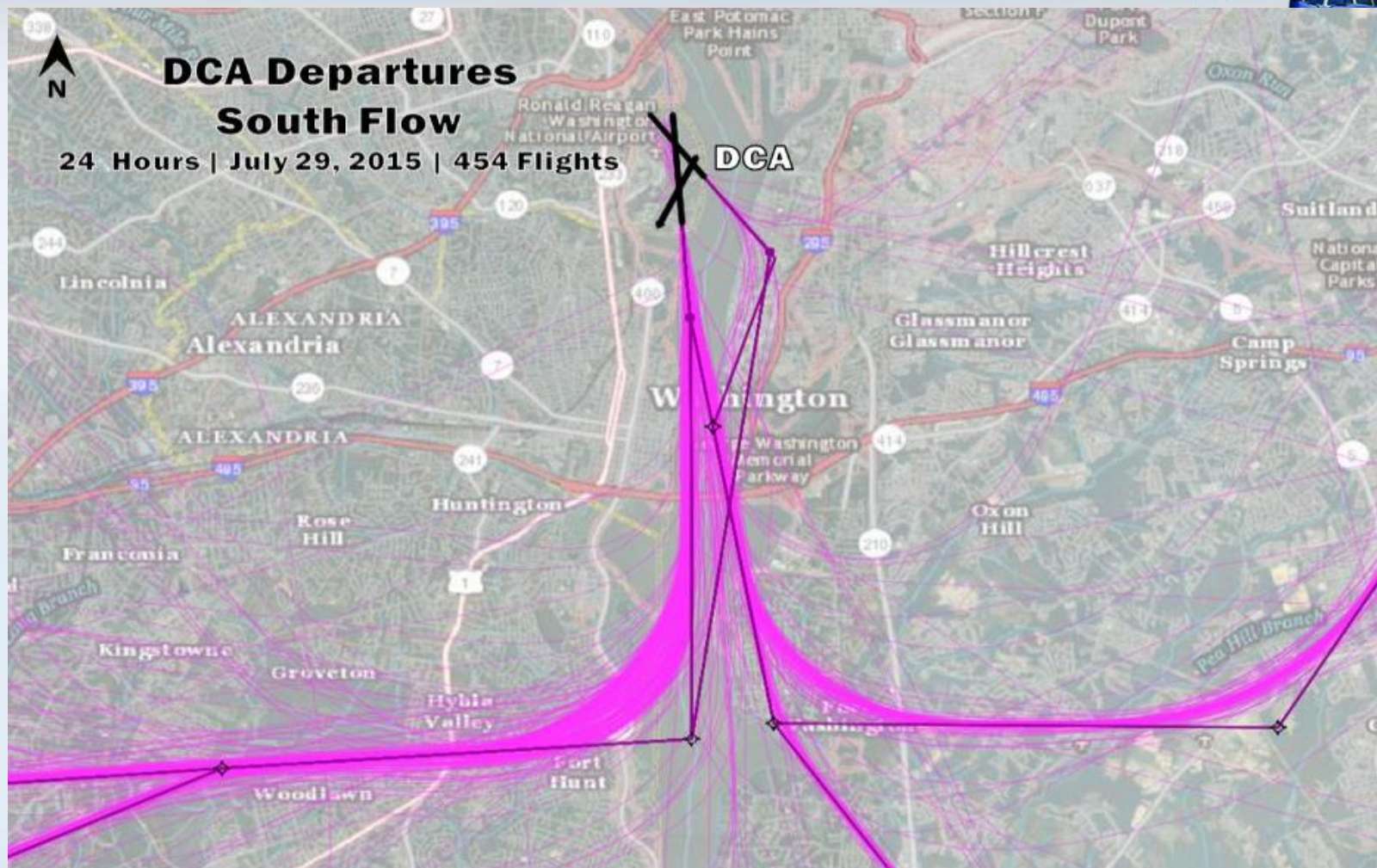
DCA South Arrivals Rwy 19



DCA Departures North Rwy 01



DCA Departures South Rwy 19



Noise Complaints



- ~12,000 / month before COVID
- ~1,800 / month COVID
- ~3000 / month 2021 with increased Ops
- Submitted by mobile app or Web Trak
- No reply to Noise complaints – not practical
- FAA sends boiler plate letter response if contacted

DCA Web Track



<http://webtrak5.bksv.com/dca>

The screenshot displays a map of the Washington, D.C. area with several flight data pop-ups. The map shows major highways like I-495, I-295, and I-66, and landmarks like the National Harbor and the Potomac River. Three flight data pop-ups are visible:

- N136HQ**
 - Tail Number: N136HQ
 - Beacon: 2471
 - Aircraft Type: E170
 - Origin: DCA
 - Speed: 250 kt
 - Altitude: 4,573 ft
- AWI4042**
 - Flight Id: AWI4042
 - Tail Number: N465AW
 - Beacon: 5331
 - Aircraft Type: CL60
 - Origin: DCA
 - Destination: RDU
 - Speed: 171 kt
 - Altitude: 2,264 ft
- N824NN**
 - Tail Number: N824NN
 - Beacon: 7024
 - Aircraft Type: B738
 - Origin: DCA
 - Speed: 227 kt
 - Altitude: 5,092 ft

At the bottom right, there is a "Messages" window with the following text:

DCA WebTrak: Ronald Reagan Washington National Airport Public Portal Announcement
On January 1, 2015, the Metropolitan Washington

12

MWAA DCA CWG



- CWG
 - Charter Oct 2015/2016
 - **Hosted and Facilitated by MWAA**
 - Pre COVID
 - Monthly meetings 1-2 hours
 - COVID - \$ impact to MWAA
 - Quarterly Zoom meetings
 - No \$ to provide outside tech support

MWAA DCA CWG Reps



- 28 Reps – Primary and Alternate
- VA – Alexandria, Fairfax & Arlington County
- DC – DC Wards 2,3,6,7,8
- MD – PG and Montgomery County
- American Airlines
- Wash Metro Airlines Committee
- ID solutions and recommendations for FAA consideration and action.

Organization



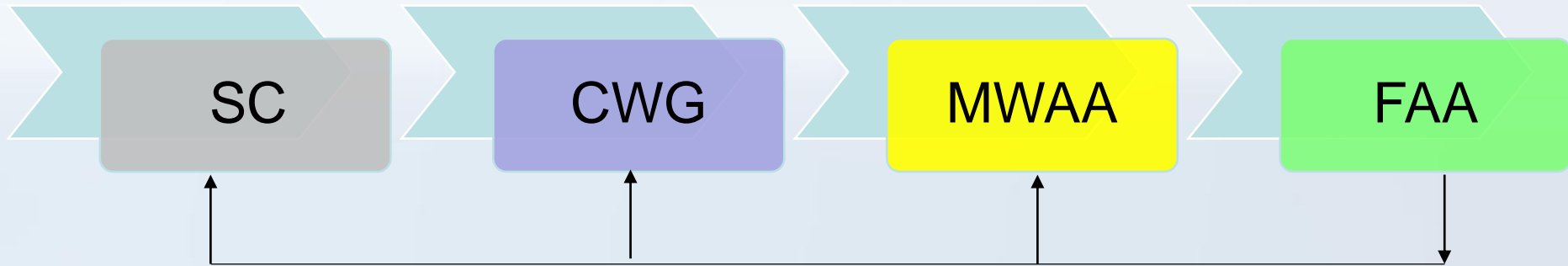
CWVG

NOA SC

FQ SC

SOA SC

Process



FAA Role



- Non Voting member
- Provide SME
 - Operational issues
 - Procedural design
- Evaluate recommendations submitted to MWAA
- First 2-3 years consistent FAA CWG reps
 - variable representation year 4 +

CWG Recommendations



- 22 Recommendations
- Recommendation 1 December 2015
- Recommendation 22 July 2021
- 0 have been fully implemented
- FAA implemented US SS P56 request in 3 months

Flight Procedure Design Philosophy



- Maximize flight over water & compatible land uses
- Avoid overflights of schools, hospitals and/or churches.
- Equitable distribution of noise between populations
- Constant Descent Approach, Terminal Arrival Area, aircraft “marshal” and idle descent.
- Use of flight track variability when practical.

Fly Quiet Benchmark “Study”



Initiative, Procedure or Technology	Airport Noise	Departure Noise	Arrival Noise
Ground Operations	✓		
Automated airplane tug	✓		
Reduced APU use	✓		
Thrust reversal limitations at night	✓		
Taxi speed limits	✓		
Departure Operations			
Departure management collaboration		✓	
Thrust managed climb		✓	
RNAV departures		✓	
Continuous climb operations (CCO)		✓	
Departure path alternation (noise sharing)		✓	
Arrival Operations			
Arrival path alternation (noise sharing)			✓
Arrival management collaboration			✓
Low power/low drag operations			✓
'Quiet' landing gear			✓
Continuous descent operations (CDO)			✓
Optimised profile descent			✓
Two-segment (dual slope) approach			✓
RNAV/RNP approaches			✓
Tailored arrivals			✓
Displaced threshold			✓
Other Considerations			
Preferential runways		✓	✓
Noise constrained operating times		✓	✓
...	✓	✓	✓

FQ SC Recommended



1. CDFA/OPD/CDO
2. NADP, NADP 1, 2, current or Custom
3. Three north flow departure procedures/alternate
4. Runway assignment analysis/recommendations
5. Minimum Downwind Leg Altitude

6. Night Time Flight Limits and Procedures
7. Fly Quiet Air Carrier Assessment
8. Ground-Based Augmentation System
9. Noise Monitor Relocation/additional Noise Monitors
10. FQ Manual

All “rejected”




Factors Affecting CWG Progress



- FAA reactive organization not proactive
- .41 and FAA project priorities and processes
- NEXT GEN Flight Procedure priority
 1. Safety
 2. Efficiency – airplanes to destination faster – less fuel
 3. Noise impact 80/20 “rule”
- FAA - noise = dBa exceedance – does not address repeat/frequent event impact
- NOA SC Consultant
- COVID

Need for Tech Expertise



- CWG requested MWAA fund expert to provide Tech support.
 - MWAA agreed to consider its A&E firm
 - SOW provided to MWAA BOD
 - COVID \$ impact killed tech assist
 - NOA SC (Montgomery and Arlington County funded) own contractor
 - SOA SC considering
- 

DCA Night Time Curfew Not Option



- Curfew Does not exist – Stage 3 -10 PM – 7 AM
- 3 ways to restrict night operations
 1. Airline Agreement
 2. Act of Congress
 3. Complete FAA Part 161 Study.
 - Part 161 is complicated, lengthy and costly
 - Over 20 major airports have attempted Part 161
 - No Part 139 airport has successfully satisfied all 6 requirements.

Ideal Scenario



- Noise “footprint” for RNAV procedures
- NADP 1 OR 2
- Keep departures centered over river
- Increase departure altitude before turn
- Move transition turn points
- Constant Descent Approach
- DCA Fly Quiet program
- Annual Airline report card
- Permanent Advisory Group



Questions?

