



Federal Aviation Administration

Memorandum

Date: May 25, 2023

To: Office of Government & Industry Affairs (AGI)

From: Air Traffic Organization (ATO)

Subject: Capital Access Alliance: DCA Air Service Analysis (April 2023)

Background:

The FAA uses runway slots to limit scheduled air traffic at certain capacity constrained airports, even when towers, TRACONS and Centers are fully staffed. In the U.S., those airports are John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA), and Ronald Reagan Washington National Airport (DCA). At DCA, slot controls that are equivalent to Level 3¹, are in place pursuant to the High Density Rule (14 CFR part 93 subparts K & S) to govern operations daily, from 6:00 am to 11:59 pm. During slot-controlled hours, regularly scheduled operations are limited to 48 per hour by regulation. Some additional operations are permitted by exemption on a limited basis pursuant to 49 U.S.C. §§ 41714 and 41718.

The report recently received from Capital Access Alliance proposes adding beyond perimeter flights by increasing the scheduling limit (number of slots) at DCA. To assist with responding to Congressional inquiries, this memo provides an assessment of current DCA operational performance, compares modeled delay expectations for the proposed scenarios to current conditions, and provides clarification for several statements made in the report.

Observations:

Beyond-perimeter

There should be no direct operational impact if the flights are operated beyond-perimeter with new long-range narrow bodies and the overall number of flights does not increase. In other words, as long as the total number of flights at DCA remains the same, FAA Air Traffic Organization takes no position on whether flights are within or beyond-perimeter.

¹ Level 3 is assigned where infrastructure is inadequate to meet demand and there is significant potential for delays requiring mandatory slot controls.

Adding 20-25 slot pairs (40-50 new slots)

The report recommends the addition of 20-25 slot pairs (i.e. 40-50 new slots). The report's analysis claiming to show that DCA can support the increase is flawed and does not directly tie to the physical airport capacity. The clarifications below address these concerns.

GDPs and GS for DCA since Jan 2022

DCA has had the 5th largest number of Ground Delay Programs and Ground Stops (GDP and GS) in the NAS. The surrounding airspace, which includes DCA, Baltimore-Washington International Thurgood Marshall Airport (BWI), and Washington Dulles International Airport, is complicated, in part, due to a high volume of VIP and military operations. However, DCA has received 69% more GDPs and GSs than BWI and IAD combined. Additional flights at DCA would likely have a negative impact on operational performance and passenger experience.

Delays at DCA since Jan 2022

In terms of delay, DCA ranks 10th among the most delayed airports in the NAS, but only 19th in terms of operations, indicating that DCA is more delay prone than most other airports. About 20% of departures and 22% of arrivals experience average delays of 67 minutes coming in and out of DCA.

DCA is already in the Top 5 for ground delay program and ground stop counts among the Core 30, or the nation's 30 busiest, airports for January 2022 through April 2023. Most delays at DCA are not attributable to the national airspace and may indicate other challenges at DCA such as gate availability

DCA also has more one loop airborne holds (less than 15 minutes) than all other airports and ranks 3rd in in reportable airborne holding events per arrival (greater than 15 minutes).

Anecdotally, gates do appear to be a significant constraint. The airport authority would be best suited to address this issue and any questions. Adding air traffic controllers to the tower at DCA would likely not have an effect on delays.

Modeled Delays:

Based on Annual Service Volume (ASV) delay analysis, we find that an increase of 20 daily round trip operations would increase delay by 25.9%, and an increase of 25 daily round trip operations would increase delay by 33.2% at DCA.

Note: The ASV Delay Model helps provide information on the present and future needs of the air transportation system. It considers simulation modeling of multiple runway configurations, weighted by the frequency of occurrence, and utilizes an estimation of weather conditions for each configuration. Analysis results are used to estimate the average delay that results at a given level of annual operations. The analysis does not include the impact of gate constraints.

Clarifications:

- The report summary says air traffic volumes are increasing, so more slots are needed. However, slot limits are based on airport capacity, not airport demand. In fact, the FAA imposes slot limits when demand exceeds capacity.

- The report notes that DCA has a minute more padding than peers, which the report cites as evidence that DCA outperforms. DCA having an extra minute of block time buffer compared to other major airports actually suggests underperformance, as airlines need to add padding to ensure 80% on time rate.