Meeting Minutes

DCA Design Group-- 5th Meeting
January 6, 2021

Prepared By: Emily Tranter, Primacy Strategy Group

Location: **Zoom Virtual**

PURPOSE OF MEETING: Consensus-Driven Notional Designs for North Flow

RNAV Departures and South Flow RNAV Approaches.

ATTENDEES:

Name	Organization
Allerdice, Jim	ABCx2
Schwartz, Jason	ABCx2
Tim Chambers	ABCx2
Ken Hartman	Montgomery
Janelle Wright	Montgomery
Bill Noonan	Montgomery
Susan Shipp	Montgomery
Rich Roisman	Arlington
James Phelps	Fairfax
Richard Hinds	DC
Ken Buckley	DC
Stavros Sidiropoulos	Vianair
Dimitrios Terzopoulos	Vianair

- Jim: Let's go ahead and start with review of session 4 minutes. We will kick it over to Emily and see if we have any amendments to those and then get into the rest of the agenda without objection.

- Emily: Let me know when you can see my screen. This meeting was December 12, 2020 by zoom. I just amended the participants this morning so if there is any I missed or need to be added please let me know.

- [Emily read the Minutes from DCA Design Group Session 4.]

- Jim: There is one thing in the minutes where we did the transition from the East SIDS. That paragraph needs to be broken up.

- Emily: I can go back and listen to get that a little clearer.

- Jim: Other than the typos, are there are any other substantive changes?

- Jim: That is good. For Ken and Rich, once we get final drafts on all of these minutes, we will get your approval and then post them. My intent is to put all of these into appendices the design report.

- Jim: Are we good with the minutes. [Hearing no objections]. We will go to Dimitri with the updated preliminary noise analysis that we did over the break. We want to go over that with you guys. We went back over all the procedures we did and did some criteria tweaking. I will turn it over to Dimitri and he can pull up that report.

- Dimitri: I have shared my screen. I am showing the first result. A very minor observation is that the dots are of noise changes. They are DELTA between the existing and the new GPS we have designed in previous discussions. I just want to comment on why we see here. This is only what is perceptible. You can see the LDA-Z is running straight in and with our GPS procedure this has been displaced toward the south to the south to run closer to the path of the river, there is a distinct different between where the path has been translated.

- Discussion surrounding impact on Arlington of moving this track—after discussion there is understanding and consensus.

- Richard Hinds: Would like to see a comparison with the river visual.

- Jim Allerdice: I don't think we did a comparison to the river visual, but we did a comparison to the RNP, which as you say, is a very similar thing. And what you surmise there is absolutely correct, there is virtually no change.

- Richard Hinds: There is no change from the river visual to what we see here, in terms of impact with the LDA-Z?

- Jim: There is no change on the RNP in close from what you are experiencing today on the RNP and/or the river visual. It is going to be the same.

- Richard: Ok, well you understand the issue. It would be helpful to know compared to the standard approach, that this is essentially no change.

- Jim: Let's just go through this and see if it answers your question.

- Ken Buckley: When you do look at the LDA-Z, I think it is important to look at two factors. The amount of traffic that day and the time of day that they use LDA-Z. There was a situation last weekend with American Airlines landing at 1:30am in the morning when they had to make a last-minute turn because the control tower at DCA waved them off. So, they made a low-level turn and then came back and used the LDA-Z again. It was like a freight train going over the Palisades.

- Ken Hartman: That was clear skies that night so they shouldn't have been on the LDA-Z?
- Ken Buckley: Right
- Tim: Can you give me an approximate time of that?
- Ken Buckley: Yes, I will look through my emails and get everything for you.
- Jim: While he is doing that Dimitri, why don't you go on to the next comparison?
- Dimitri: Shares the same comparison but with the RNP. The RNP is highlighted in red. It has a track that is approximately the same as the RNAV GPS so it was the same purpose to make it run over the river as much as possible so that noise can be equally distributed between the two sides of the river.
- Dimitri: Shows the differences and noted that the important thing to note here is that this curve here, the LDA produces a straight line of contours.
- Long discussion of important factors and impacts changes.
- Janelle Wrights asks if these were these maps sent out previously- Or will we have access to these?
- Jim will resend
- Richard Hinds does not understand why the shift to the new RNAV should result in increased noise over Georgetown over the existing.
- Jim explained that this is the RNAV GPS, the new one compared to the existing RNP, and the reason that is-is because the segment that comes down just to northeast of Rosslyn, the segment length is what we have to deal with, criteria wise, to be able to make that turn. It will be a fly by turn so it will be close to where the RNP is flying, but not exactly. But there is a shift up to the north east on that GPS vs RNP. To make the RNAV GPS work with criteria, they have to grant multiple wavers, which they [FAA] planned on doing. They have to create a runway that really isn't there [in the software] to make criteria work. So, we did not move CULNA. If you compare the aircraft flying the GPS versus the aircraft flying the RNP, the GPS aircraft will be slightly further northeast than the RNP track.
- Ken Buckley noted that it looks like the GPS comes close to the restricted area. Will that give secret service issues?
- Jim noted that is another reason why we didn't change [the segment from CULNA to the runway.]
- Ken Buckley: Notes that it would be good to provide some relief for Rosslyn, would be interested if you talk to Matt if there is concern.

- Richard Hinds: We know there is concern because FAA proposed a new RNAV GPS approach, and it moved the approach further away from the prohibited zone. He indicated he is trying to see if the FAA has tackled this problem and how ABCx2's new RNAV GPS compares to the FAA.

- Ken Hartman: It was departures that was the "Secret Service concerns." It was an opportunity presented. FAA took an opportunity to pursue RNAV GPS arrivals, but the Secret Services expressed concern about departures. That's what we learned through our contacts on Capitol Hill and elsewhere.

- Richard Hinds asked if FAA is taking the same issue and I am just curious how this compares to FAA proposal?

- Ken Hartman noted that the response is that it is identical for approached. Secret Service got what they wanted for their proposal. Rosslyn was already being hit on departures.

- Janelle Wright noted that the original GPS proposal is the same GPS proposal the FAA had been making for almost three years and it's an overlay for the RNP. It wasn't any different from what was already being flow. This is what our group has come up with as a design to improve existing RNP and GPS [utilization] to help communities.

- Jim Allerdice reiterated that from CULNA to the runway, we did not change anything from the proposed RNAV GPS to the FAA. The reason for that was 1) we didn't want to swing to the east because we get too close to Georgetown and the restricted area. Swinging it to the south west to match up with the RNP, that make the angle of the turn to the runway sharper. And this is waver city in here already and we were loathed to increase the turn angle from the final segment to the runway.

- Dimitri showed a final touch to the existing RNP, which seems to be a great procedure, but it is not flown too often. So, this is difference between the RNP now which is not flown often and then GPS that will be able to fly by a larger percentage of fleet. As time goes by the RNP will be used more and more. But it's good to keep in mind this is an improvement but it's not like many aircraft uses that procedure [RNP] at the moment.

- Jim Allerdice noted that this is a good thing for Rosslyn because Rosslyn had to take it with REVGE but once this is published and is being flow, as compared to the RNP it gives them a little relief.

- Jim agrees that some aircraft that currently fly RNP approach will now switch to GPS approach because it will be advertised and there is less briefing they [pilots] will have to do. My guess is that the airplanes will fly the RNP approach when the weather gets bad because it gives them even better minimums than the GPS approach.

- Ken Buckley asked Jim if that infers if it is really bad weather and the plane is not equipped with the technical avionics to fly to the RNP they will defer to LDA ZULU?

- Jim answered that no, it is not likely. The GPS approach has at least as low, if not lower minimums, than the ZULU. Jim is happy to go back and look but thinks there is no advantage to flying ZULU over the GPS then.

- Ken Buckley asked-- But even with this new approach the planes still have the option to use LDA-Z? It would not be dead?

- Jim indicated that he doesn't see the LDA-Z ever going away completely. I think it will still be there for airplanes, if something is broken in the cockpit and they can't fly the GPS for whatever reason, they can still fly LDA-Z.

- Richard Hinds notes that the REVGE change on departure, has essentially made no discernable difference to noise levels in Georgetown and Palisades. Partly that is the result that the change in the shift of the flight path seems to be basically almost irrelevant because of the deviation from the flight path being gather than the shift.

- Jim Noted that our intent on this is to make the river visual start over the CIA as well. That it will follow the same path as the new GPS and RNP.

- Tim: Jim refresh my memory, were we not looking the other day at a couple of flights and what happens when there is an update to the database? Each airplane actually has to go through one of their update stations, or their facilities where they update the [Flight Management Computer] database. Jim and I were looking at some flight tracks the other day and we noticed potentially there were several flights early on that had not been through and had not gotten the update and they were being vectored or flying point to point on the procedure, versus actual flying the procedure. Several of these aircraft do not have advanced avionics so they may be having some issues initially flying the procedure without it actually being programed in the box. Not saying that's the case every time but you can except to see that when you have procedure changes sometimes and it may be several days before all aircraft types and airframes have the procedures [in the database] and actually flying it correctly.

- Jim: Bill, did you get a chance to take a look at the airplanes that were flying yesterday? You looked at it on the 4th but not sure if you got anything yesterday?

- Bill: I didn't, I will take a look this evening.

- Jim: Let me know if it got fixed or if it's still happening.

- Dimitri: Just to give it an answer to the main part of the question, the technical answer, if I understand this correctly, the question is the placement here from ADAXE to REVGE does not produce any difference in noise and what we show here is quite audible. The greatest difference the technical detail sound attenuation is not linear.

- Richard Hinds: In general terms—the arrivals following the river are not a big issue for us, the real issue for us is the LDAZ. It's important to us to know that these red dots are basically a non-issue because we are flying a procedure close to the river visual. We are used to living with it now.

- Jim: For the report we can go back in and compare this to the river visual. This should address your concerns.

- Dimitri: The rest is for departures-they present the current AMEE and DOCTR and the new SOOKIE proposal. These refer to the eastern SIDs.

- Jim: This is something that we had done prior to our conversation about the east SIDS. We had done the diverging arcs. Can we use the approved ELSO and just do it in the SIDS and see what it would looks like and see if we could make something that we could eventually get approval for? This is just a [guess.] This (the displayed ELSO notional tracks) doesn't represent anything we [had previously] talked about.

- Long discussion about the impacts of this long-term possibility.

- Jim: Next thing on the agenda—I talked to Matt Fischer before the holidays—the feedback that we've gotten from him so far on our designs has been positive. When we moved DARIC to the new [DARIC-ABCx2 location.] This placement solved some problems for Air Traffic. If we can also solve some problems for them, there is more likelihood that we get what we want. Win-Win scenario

- That brings us to the TAA test. Discusses UC Davis talk. Anne Hollander // Beth White. Good opportunity to highlight what we are doing here and get more buy in. Anne is adamant that the test be completed before we recommend that these be implemented. That's her opinion but don't know where that fits in with you all [NOA].

- Looking forward to starting the TAA test in March.

- Still have yet to ask about the RNP and LDA-Z both being on the ATIS—so that request is still out there.

- Richard Hinds: Its part of the agenda for the next CWG meeting.

- Janelle Three questions—at least two stars end at FERGI. Can we end those further up? Jim not sure what Matt would be amenable to. He is going to work on it.

- Further conversation about this and options and implementation. Janelle asked what are the chances Jim could be invited to meetings where they determine this? (FAAO 7100.41A) Jim says it is a really good question. It's not unprecedented—Boston is an example—but we will have to see. We need to have that conversation with Beth White. It takes FAA a while for things to become "their idea."

- Matt Fischer is very likely in the .41A meetings.

- Two more questions from Janelle. What kind of Data will be collected during TAA Test? You mentioned geofencing. Is noise going to be data collected? Jim says he doesn't see why not. Airport may share that with us. Let's ask ahead of time—at CWG this month.

- Final question—thank you for agreeing to the Jan 14th community meeting. Can we get the TAA without the bat wings—and yes, that works. [Referring to asking about noise monitoring at the next CWG Meeting]

- Paul Janes wants to know if you had any conversations with Matt about direct to DARIC?

- Jim answered yes — this will be implemented in the TAA Test in March.

- Paul Janes asked do you think even if the STAR does not get changed, do you think they are amenable to doing that? [Referring to direct DARIC]

- Jim said that yes. This is what we are encouraging them to do.

- Dimitri brought up West SIDS on AIM

- One is TF Version, and we will start with the part from the runway. Shares procedures that are now in effect. Focusing on creating the transitions for Runways 1 and 33.

- New and old versions of Western SIDS are shown.

- Jim noted that we had talked earlier about moving this track further to the south to respect the design philosophy to stay over compatible land as much as we could—so the track was moved slightly south to go from RGIII to CUKLI-ABCx2, which keeps us over compatible land. This won't make a huge change in dB, but it fulfills the request. This would be our TF version that we could get implemented relatively quickly.

- Bill: How does this track get defined after you leave REVGE?

- Jim: It would have new waypoints.

- Janelle asks what is in this for the FAA?

- Jim: They may not be ready to implement yet even though they are intrigued. Hope is that if we could give them all these as a part of the larger package it might work.

- Bill Noonan asked what does TF Stand for?

- Tim: Track to a Fix versus Radius to a fix

- Richard Hinds- My question related to comparing overlaying the existing [TF version] RNAV with the RF version. Can we see that?

- Dmitri shows on screen and explains the two proposals and what the lines represent.

- Jim explains the two proposals TF and RF are two recommendations we take forward to the FAA.

- Jim explained that the next step is to show the approaches. Dimitri pulls up on screen

- WE have consensus on the west SIDS. We need consensus on RNAV GPS Runway 19 and the RNAV RNP Runway 19 as amended.

- Dimitri shows original LDA-Z track. Shows existing situation and changes on screen.

- Richard Hinds asked if Dimitri could take the LDA-Z out and put in the river visual?

- Jim Allerdice - We do not have the river visual yet. It's not a polished procedure [in the software] yet. Closest things is RNP— which Dimitri puts up. Discussions of similarities and differences.

- **We have agreement //consensus on west SIDS, GPS approach the RNP approach and moving initial approach fix on the Zulu to DARIC - everyone is in agreement.**

- Ken Hartman: So, we just need a text of the recommendations make sure everyone sees it.

- Jim asked are we going to present the recommendations at Jan CWG or wait until after the TAA tests? Ken needs to talk more. Discuss offline.

- Ken Buckley-notes that this is a lot of information and asks if Jim will make sure they have a chance to review?

- Ken Hartman says we will have time to review before it is circulated before CWG meeting.

- Continued discussion of RNP vs. RNAV in noise.