NATCA Safety & Tech Update
Week of September 11, 2017

AIR TRAFFIC PROCEDURES (AJV-8): Andy Marosvari (BOI) is the Article 114 Representative in the AJV-8 Office. Mr. Marosvari forwarded the summary below for this update.

It's been a relatively quiet month for Procedures. There are several changes that are in the SRM process and slated for publication in either October or March of 2018.

- A change for 7110.65, 2-1-13, FORMATION FLIGHTS, will be paneled the week of September 12. The change will clarify controller responsibilities during formation join up and clearances for formation splits. This change, if approved, will replace the memo that was issued last year requiring all clearances to be issued through the flight lead. Additionally, the 65 provided very little guidance for ATC on joining individual aircraft into a formation, which will be included in this change.
- In response to an interpretation request from the Western Service Area, AJV-8, in collaboration with NATCA, worked on guidance for Special VFR operations and Class E extension areas. These Class E extensions are not widely understood and additional guidance will be developed to clarify the different functions that Class E airspace serves in the NAS.
- Many facilities, especially in the west, have low altitude airways with artificially high MEAs due to poor signal reception from the ground-based NAVAIDS. Working with AJV-8 and Flight Standards, NATCA proposed and was successful in changing the guidance for the use of Minimum Obstruction Clearance Altitudes (MOCA) along published airways. The use of the MOCA will now be permitted without restriction provided the aircraft has a properly IFR certified GPS. AOPA enthusiastically promoted the change to allow the general aviation community the ability to take advantage of previously unusable altitudes to enhance the safety of flight

Please don't hesitate to contact me with any questions or concerns at procedures@natca.net or 208-870-1621.

Airport Capacity Decision Support Tool (ADEST): Kristen Laubach represents the membership as the Article 114 Representative for ADEST. Her report is below.

> Not much happened with Airport Capacity Decision Support Tool (ADEST) in the past month. The programmers worked on implementing an update in the background of ADEST. This change allows ADEST to continue to receive data on flight schedules and aircraft types. The update shouldn't impact how the program runs but testing is being completed to verify no inadvertent changes were made.

AIRSPACE: Jim Davis (PCT) is the National Airspace Representative for NATCA. Below are reports from the various airspace team leads and Mr. Davis.

> **Denver Metroplex Update – 09/07/17**
> The Denver Metroplex Team has completed the Design Phase of the project and has begun the transition to the Evaluation Phase. The team updated and finalized the TARGET's file along with the design packages for handoff to Environmental and Flight Procedures Teams. The individual facilities have begun to develop implementation and training plans. The team has also started to organize the required resources needed within the local facilities. In-depth discussions with local NATCA and facility leadership, POC's, and National TBFM representatives on the need to work on updating Denver's traffic management plan and adaptations.
> Over eight hundred comments were received and reviewed by the Metroplex Team from the Community Involvement effort. Design modifications were considered and evaluated based upon these comments.
> **Mark Ostronic Denver Metroplex Article 114 NATCA Lead**
>
> **Las Vegas Metroplex**
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> Started the month preparing for the ZLA Admin Week held later in the month.
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> The Metroplex Leads, as well as, the POCs from L30, traveled to OKC to simulate the RNAV approaches we developed earlier this year. This was a VERY productive week! I would recommend anyone that is developing new approaches reach out to AWP-220 (All Weather Ops Team) and see if they can simulate their designs. They spent the entire week working with us and it was very valuable, unbiased feedback.
>
> We attended the Metroplex Leads meeting in Denver.

Finally, the week of August 28 through September 1 was spent in Palmdale. The Core Team had prepared an Admin week for the ZLA SMEs and we gave those briefings.

Design work is scheduled to begin with all facilities on September 19th.

Chris Thomas Las Vegas Metroplex NATCA Lead

ATLANTA METROPLEX PROJECT UPDATE
Waivers should be approved by now, and procedures have been shipped to charting.
Provided Pref Routes to multiple people and organizations for October implementation.
We have been invited to brief at the DAL ATM Symposium on September 26, 2017. Briefed at CNS Task Force Meeting. Answered quite a few questions on what happened for the November 15, 2016 implementation and what we are doing different for the October 17, 2017 implementation.
Provided Draft FIGs to Jeppesen and Lufthansa.
Held Post Implementation Planning Meeting and updated document.
Attended Leads Meeting and provided Lessons Learned from several activities and provided an updated status.
Briefed Flight Plan Filers on telcon for September.
Briefed Delta Flight Dispatchers recurrent training classes
Christian Karns Atlanta Metroplex NATCA Lead

CLT Metroplex
Completed our final implementation on August 17th, very successful no issues.
Attended leads meeting in Denver the week of Aug 21st-25th.
All procedures in the CLT project are now complete.
I have been working on close out with MITRE and ATAC. Reviewed post implementation analysis with MITRE, all number are much better than predicted by the study team.
CLT close out is September 19th in CLT and September 21st at ZTL.

Jim Williams CLT NATCA Co-lead

CSA PBN 2017-09-07
Attended the CNS Taskforce and PARC Steering Group meetings in Seattle. This is a large group of aviation system manufacturers, airline and pilot representatives, numerous FAA offices, and other NAS and domestic aviation interests. Future NAS strategies for navigation and surveillance were introduced and discussed. Numerous FAA programs, including Atlanta Metroplex briefed the group.

Attended meetings in Tucson, AZ for Josh Haviland (Eastern PBN NATCA Co-Lead). The Tucson Airport Authority (TAA) received a procedural overview from the Western OSG. The Western Co-Leads and OSG worked with the TAA on the initial plans for the Community Engagement Plan for Tucson.
Major work in Central this month continues to revolve around waivers to mitigate new criteria that is causing many problems with procedure design and managing high level of tasks and workload to support community engagement activities
We continue to discuss and develop strategies and tools to help prioritize and quantify costs for each PBN project. As demands from VORMON increase, some PBN projects might be put on hold. Obviously, facilities that discover safety concerns will continue to be high priority.
The Austin-Bergstrom Airport project has been slipped yet again to the December 7, 2017 Chart Cycle. There are two procedures at Austin Executive Airport and the ZEEKK STAR (KIAH) that are also being worked for December. All procedures for the three airports have been flown by Flight Check and all were satisfactory (passed). The Waivers and Letters of Authorization have been reviewed by the Procedure Review Board, but several items have been returned to us for rework. We met with AIS to fully understand what the PRB is looking for but Flight Standards was not able to participate. We hope to have resolution on all items in time to not delay the publication. There are numerous items in the new criteria, which need to be re-evaluated, and until these items are corrected, PBN development at many sites will be more difficult. Our Industry partners have also expressed their concern with recent criteria changes. On a more positive note, Community Engagement activities for the Austin post-implementation amendments continue to meet the local needs and are on track to support the new publication date.
More sites are starting the decom process under VORMON. ZKC and ZID will be briefed by several Operational Support Group personnel in September and October. For each facility, the existing waterfall of navaids impacted will be identified. We are currently preparing for the following VOR decoms in FY17: BRD, BTL, DDD, ENW, HRK, HUW, RIS, STE, & SYO. ZMP is also participating in discussions regarding potential Q-Route development that may involve ZDV, ZMP, ZAU, and ZID in the future.
Preparation for Community Engagement for the KSAT and KCMH projects is being planned and executed: In Central, the Community Involvement Team (CIT) has been stood up and includes the Co-Leads, OSG Environmental Specialists, and Airspace Redesign Manager. This team is working with Great Lakes and Southwest Regional Administrators, their Staff, local FAA facilities, and FAA Office of Communications. All involved are giving tremendous support for every level of this growing activity.
The public comment period for the Columbus Airport will be completed in a few weeks. Meetings in Columbus are planned for October to evaluate any public comments and develop the initial VNAV and speed constraints prior to Industry SIM activities.

Finally, meetings for the KSAT PBN Project and a number of Chicago Area PBN Requests have been scheduled. In San Antonio, we will meet with the Airport Authority to discuss what an appropriate Community Engagement Plan would be for them. We will also talk to the facility about how criteria changes are impacting the notional design work that has already been done. In Chicago, there are numerous requests. We will meet and determine which requests will be included in the project. This scoping meeting will allow us to develop a clear mission and then reach out and engage the appropriate officials and communities.
Submitted by CSA PBN NATCA Art. 48, Brent Luna

PBN and EoR 8/11-9/7

8/11 Participated in PBN NIWG telcon. Primary discussion centered around ALPA VNAV concerns and the resulting mixed equipage issue if mitigation can't be found. MITRE is tasked with determining equipage levels but in addition to equipage, there is no way for a controller to know if a flight crew is trained to fly an AR procedure.
8/14-17 Attended NATCA Airspace Committee meeting
8/17 Participated in Community Involvement Desk Guide. The guide is intended to assist airspace and procedures workgroups with identifying CI requirements and steps. There have been several issues identified with the guide and PBN reps continue to work to ensure this document actually accomplishes what is intended.
8/21-25 Attended Metroplex Leads meeting.
8/29 Participated in NATCA/AJV-0 collaboration meeting. Topics discussed included Florida Metroplex, Denver Metroplex, NEC, Etc.
8/30-9/5 Annual Leave.
9/6-7 On site in DC at PBN Office

Phil Hargarten, PBN Rep/National EoR Rep

PBN/Metroplex Design and Implementation Lead Monthly Report – 9/7/17
Metroplex: Because of budget and funding concerns, there have been numerous budget drills conducted by the Metroplex program over the last several months. Because of the agency's self-imposed requirements for community involvement, the costs associated with this effort, along with the escalating environmental costs, on a project the size of Florida Metroplex has caused the project to be unsustainable. Several options for re-scoping Florida were presented to Lynn Ray (VP, Mission Support) on March 24. Originally, we were working towards a Summit meeting on September 14 to re-engage facilities and present a strategy for moving forward but, due to Hurricane Irma, this meeting is postponed indefinitely. The Florida re-evaluation work originally scheduled for the week of September 18 has been rescheduled for

the week of October 2. Post-implementation of SoCal Metroplex amendments is scheduled for October 2017, November 2017, and February 2018. The SoCal project is looking at a closeout in late January 2018. Detroit/Cleveland Metroplex is still working towards a May 2018 implementation date but may move to the right due to environmental timelines. Also, there are still ongoing issues with Delta concerning published speeds on the STAR above FL200 and at DTW concerning the use of trips. The CLT project will closeout the week of September 18. Denver Metroplex will be meeting the last week of September to discuss TBFM impacts and options. The Las Vegas Metroplex held an Admin Week at ZLA on August 29-31 to brief out the study team report and kickoff the beginning of design work. Atlanta Metroplex is working towards their final implementation in October with a project closeout scheduled for December 2017. The next Metroplex Leads meeting is scheduled for January 9-11, 2018 in San Diego.

Funding issues has also caused us to look at other PBN projects as well, not just Metroplex. There has been much discussion around what to do with the Atlantic Coast (ACR) Q routes. Part of the current Florida re-scoping options is to incorporate a portion of the AC Q routes from ZJX and ZMA. The northern ACR Q routes (ZDC and north) could possibly be incorporated into the NE Corridor initiative or a stand-alone project with a dedicated set of Co-Leads.

The PBN office is currently working with Flight Standards (AFS), Aeronautical Information Services (AIS), Service Center Operational Support Groups (OSGs), Flight Inspection, and PASS on a workgroup to look at ways to streamline the Instrument Flight Procedures (IFP) development processes to improve the way we validate incoming IFP requests. This workgroup will also look at ways to better prioritize valid requests that aligns better with safety needs and the PBN NAS Nav Strategy. This workgroup kicked off on March 28 with a weeklong meeting in Seattle and will meet again in DC the week of September 18. The timeline for completion of this work is TBD. Also, the document defining Industry roles and responsibilities on PBN workgroups and projects is still currently in draft status and is awaiting final approval. We are also involved with helping the agency create a Community Involvement Plan Desk Guide (CIPDG) to assist the PBN Co-Leads in developing community involvement strategies for their projects.

Submitted by PBN/Metroplex Design and Implementation Lead Art. 114 Ed Hulsey.

AIRSPACE TECHNICAL DEMONSTRATION 2 (ATD-2): Pete Slattery (CLT) represents the membership as the Article 114 Representative for ATD-2. His report for is below.

On August 24th I participate in ATD-2 to TBFM connectivity testing at the Tech Center in Atlantic City, NJ. Matt Gammon (ZID), NATCA's new Article 114 TBFM representative, also participated in the testing. Matt and I were

there to ensure that TBFM does not suffer adverse impacts from the ATD-2 interface and that ATD-2 functions in the way we believe it should. Here are the main highlights of what the testing revealed:

One component of the ATD-2 system emulates the FAA's own Integrated Departure Arrival Capability (IDAC) function. IDAC is a feature of the TBFM system that allows adapted air traffic control towers to request releases from ARTCC's through the use of an automated interface. This feature eliminates inefficient and time consuming voice calls over landlines and also provides terminal facilities greater insight into what release times are available for aircraft destined to constrained locations. This greater insight allows both terminals and ARTCCs to be more efficient. Greater efficiency, in this regard, means better planning and execution of throughput at terminal facilities and less deleterious effects on merging departures into established overhead streams for our en-route controllers.

The following issues were identified during testing:

- After swapping two scheduled departures on the TBFM side, STBO required acknowledgement of the swap and displayed two acknowledgement diamonds. However, only the first acknowledgement diamond could be removed after it was clicked. The second could be clicked but remained on the STBO. This was tested for both semi-automatic and automatic APREQ types. NASA to investigate.
- Departure runways between TBFM and STBO were occasionally inconsistent with the current departure runway. TBFM’s default departure configuration for CLT on the ZDC EDC timeline is South (RWY 18L). However, some runways for unscheduled flights matched the STBO, and real world, configuration of North (RWY 36R). After scheduling, some flights would revert to South (RWY18L) as the departure runway, which was incorrect for the settings in the test environment. Actual RWY information is passed from the STBO to TBFM. So further analysis of this inconsistency is required. Proposed workaround at this time would be to verify that TBFM departure runway configuration at ZDC matches CLT's actual configuration (i.e.; North or South).
- If a constraint set by TBFM were high enough to produce all “red space” on the STBO timeline, nothing would show as if the request from TBFM DP did not return the available space. After easing off the constraints and a small amount of departure space (green) was available, then the timeline displayed the proper red space/green space. This may be a graphical issue on the STBO side. NASA to investigate.

  ATD-2 may not have all IDAC-like capabilities ready on the proposed 'go-live' date of September 29th, but these features are expected to become available within a few weeks or months after that. Chief among the features we wish to see implemented are:
- The ability to reschedule aircraft via the NASA ATD-2 STBO interface, and

- The ability to swap two departures going to the same destination via the STBO.
  Both of these features are available through the FAA's IDAC interface and we believe they should be available from within the NASA ATD-2 interface also. This is already high on NASA's list of enhancements to the current baseline system and NASA engineers are working hard to provide them as soon as possible.

  Training of TMCs at CLT is scheduled to be complete by September 28th. It is believed that training of all CLT airport Ramp personnel will be complete by that time also. Training for ZDC TMU personnel on the ATD-2 system will be accomplished during the week of September 18th.

  On September 27th the FAA/Industry Surface Concept Team (SCT) will hold a meeting at the ATCSCC in Warrenton, VA. NASA and the FAA NextGen office are scheduled to provide a briefing on ATD-2 progress during this meeting. I plan on attending this meeting and will be available to provide input about how the program is impacting operations at CLT and how it will affect the way CLT personnel do their job.

  As always, I will continue to look out for the best interests of TMCs and controllers as this research project enters its next phase.

Resiliency Team: Tim Travis (ZID) is the Resiliency Article 114 Representative for NATCA. His update for the membership is below.

Resiliency is mainly a Tech Ops function. As of now the only Air Traffic function is the coordination with ATOC. I have been on those weekly Telcons. The Tech Ops people and Contractors have been doing virtual equipment assessments on Facilities even though they know most of the answers already.
I will be traveling to Washington, D.C. at the end of this month for a team meeting.

RNAV and PERFORMANCE BASED NAVIGATION (PBN): Bennie Hutto (PCT) is the Article 114 Representative for RNAV and PBN criteria work. Mr. Hutto's report for the membership is below**.**

<u>Standard Terminal Arrival (STAR) Criteria WG</u>
Participated via telcon regarding criteria to shift two portions of STAR criteria from a "Waiver Required" to an "Approval Required". These two issues deal with 1) No Terminus altitude and/or no common route altitude (possibly stipulated published lost communications in lieu of, and 2) Deceleration Leg minimum length from a fix with an at/below (and no

airspeed restriction) to a fix with a block altitude, at/above, or at altitude, if the multi-segment evaluation provides sufficient length. (Two consecutive maximum)

Departure Working Group Criteria

Helicopter Point in Space Departure Criteria

The last time that there was substantial changes to the helicopter Departure criteria in Appendix F of the FAA Order 8260.46 was in 2012. At that time, the principal of the Point in Space departure criteria was implemented into the .46. There were two basic types, the "Depart VFR" and "Depart Visually". The Depart VFR, like the "Proceed VFR" on the approaches was to allow the helicopter to depart and proceed by own navigation to the IDF, by whatever track the pilot determines, and where the pilot is responsible for their own obstacle separation. There is also the Depart Visually type of departure where the pilot flies a specific track to the IDF from the heliport/departure area, and about which a visual segment evaluation has been conducted to identify any potential obstacles within a degree vertically of the helicopter departure climb (Visual Slope Climb Area VSCA) to the IDF. In 2012, the concept was that the aircraft was visual to the IDF, and then would enter IMC and proceed on the IFR portion of the departure. Since that time there have been many requests for the operator to be able to enter IMC prior to the IDF. This has been approved if the aircraft is on positive course guidance to the IDF with either a Direct to Fix or Course to Fix leg, and the helicopter exceeds a climb gradient for the Visual Segment Climb Angle, which provides for a margin of safety above obstacles in the visual segment. This has been approved many times, but there is no documented guidance on what is required. The Visual Segment evaluation allows the procedure to be treated as a "Depart Visually" departure, which allows the pilot to use the published visibility and ceiling on the chart for departure. On the Depart VFR procedures the pilot has to have the VFR weather for his operating rule that he is flying under (i.e. FAR 135 Helicopter Air Ambulance), which may impose more restrictive departure minimums on the pilot. The key difference between the two types of departure with a visual segment is that with only the track and visual segment evaluation, the pilot can depart visually, but must remain visual contact with the ground and be clear of clouds. If the pilot has positive course guidance and meets the climb gradient of the VSCA then the pilot may enter IMC prior to crossing the IDF.

There are still many questions that need to be answered before any changes occur within the FAA 8260.46, so it remains an open item for future discussions.

Pilot Controller Procedures & Systems Integration (PCPSI)

There will be a Safety Risk Management Panel (SRMP) held on December 6th-7th discussing the upcoming Document Change Proposal for the FAA 7110.65 regarding paragraph 4-7-1.

The background on this change is for Standard Terminal Arrival Routes (STARS) that provide course guidance to multiple runway transitions, pilots

must be provided with runway transition information along with the descend via clearance. This allows pilots to program the Flight Management System (FMS) and fly the proper decent profile associated with the runway transition that was issued. On March 1, 2013, a memorandum was issued clarifying FAA JO 7110.65, Paragraph 4-7-1. The memorandum stated that Air Route Traffic Control Centers (ARTCC) should issue a landing direction and Terminal facilities should issue the runway transition to be flown. In limited situations when the procedures are covered in a letter of agreement, ARTCCs may issue the runway transition in lieu of Terminal. Once the aircraft is established on the runway transition, due to the behavior of some FMSs, runway changes and certain route changes become problematic for pilots. Prior to this change, controllers were required to vector aircraft to the final approach course when any runway change was issued once the aircraft past the point ten miles prior to the runway transition waypoint. This change provides limited relief from that requirement.

The change requires controllers utilizing descend via clearances on STARs with multiple runway transitions to issue the runway transition or landing direction in conjunction with the descend via clearance. After the aircraft has passed the point 10nm prior to the runway transition waypoint, an additional change relieves controllers from the requirement to vector aircraft to the final approach course. With strict qualifiers when certain runway or course changes are made.

PARC NAV WG

The PARC NAV WG recently held a meeting in Seattle, WA as well as with some additional telcons where the main topics of discussions have resolved around the following:

RNP AR - 50 second Rule

Mike Cramer (MITRE) introduced the discussion, turning to Barry Miller (FAA) for an update on the European perspective and examples. This topic is under discussion at the ICAO PBN Study Group as well. Barry noted the following:

1. Airbus does NOT support less than 50 seconds. However, this is not an aircraft requirement but a pilot requirement in their discussions.
    a. After the original minutes were published, Patrice Rouquette of Airbus provided the following expansion of the Airbus position:
    b. Patrice: "I think this statement (#1 above) is not reflecting exactly the Airbus position. Indeed, Airbus is not against decreasing the "50s" requirement, but Airbus states that:
        i. For Airbus aircraft without "TOGA to LNAV" option, guidance laws (i.e. aircraft requirement) meet the requirement to "establish a track during go-around that is within 1 degree of the published track following the DA (H)" provided a 50s long straight segment is published before the DA/H (with the entry data I had provided in my previous email)

ii. The ops and human aspects are of paramount importance (i.e. pilot requirement). Therefore, procedure design for "normal" instrument approach operations should be based on a sufficient time where the aircraft is established on a constant track prior to DA/H."

2. There are "some" aircraft issues but none really require 50 seconds. Not all aircraft have TOGA/LNAV; however, this masks the issues since the go-around function in the aircraft is not necessary to abandon an RNP AR APCH. That is, some concern exists for pilot spatial disorientation during the transition to landing after completing a turn in the FAS; yet, potentially, use of the go-around function, which may be combined with the auto-throttle or pilot power selection of max climb thrust, can be a real source of pilot spatial disorientation. Most ops manuals for RNP approach ops address this issue and offer an alternative to abandon an instrument approach (e.g. use of flight-level change in lieu of the go-around function).
3. AIR supports 15 seconds (1 to ½ mile before DA) when pilot procedures and training address the means to abandon an RNP AR IAP in lieu of using the TOGA function. This should mitigate the Airbus concern.
4. The ICAO PBN Study Group also discussed this issue as part of their coordination with the ICAO Instrument Flight Procedures Panel (IFPP) New Criteria WG. Currently, the PBN SG plenary believes data should support the application of less than a 50-second straight segment in an RNBP AR IAP's FAS.
5. An open question appears to: What is an acceptable length of a straight segment leading to the DA (H), which allows the pilot-flying to successfully transition to land? To answer this question, an organization needs to develop test scenarios for a data collection effort resulting in the answer. Another question is: Can altering the means by which the pilot conducts a go-around mitigate the use of less than 50 seconds (e.g. use a technique that does not involve use of TOGA)? If yes, how short can the straight segment be? This again point to the need for a data collection effort.

To help resolve this question (especially number 4) the Nav WG will get FOQA (track) data from cooperating airlines and MITRE will analyze same. In particular we will look at JFK, ABQ, DCA, BUR, etc. flown in IMC to successful landings. All the operators present agreed to help with the data collection, Mike has the action to coordinate the activity.

Barry Miller (AIR-6B1) suggested another potential data source would be the 2008 AFS-400 DA-in-a-Turn sim trials. He believes the most benign DA-in-a-Turn profiles demonstrated in the sim trials included completing a turn in the FAS coincident with arrival at the DA (H); & there may be data for an even more benign FAS with a short straight segment leading to the DA. Barry will review the FAA documentation of the trials and provide the WG any practical, available data.

A-RNP Team Status

Mike Cramer (MITRE) asked the group to join in a brainstorming session to identify history, and possible ways forward to eliminate the bank angle restriction on RF in RNP<1 and the minimum radius of 3 x RNP. Regarding the bank limit, the following discussion points were raised:

- The historical reason for the limit was that some aircraft were limited to 20 degrees maximum control authority when coupled to the AP. However, the FAA received to RNP AR ops approval requests from an operator with this limiting aircraft performance. No other historical reasons seem to exist.
- We may need to investigate whether departures might be different from approach limits in some avionics.
- FAA restricted bank angle in procedure design to 18^0; but, to align the criteria with the new airworthiness requirements (e.g. RNP MASPS and MOPS), a recent update makes the limit 25^0.
- MITRE has done bank limit surveys; this information table should provide a basis for any decision / recommendation,
    - MITRE and Nav WG should revisit the table with OEMs for accuracy
    - Low speeds and altitude limits may apply
    - Need to identify any differences between defined arc or flyby turns
    - Update for business/GA aircraft e.g., Honeywell NZ FMS
- Current system requirements (DO-236C and ACs) command bank angles up to 30^0, supporting procedure design criteria using a max bank of 25^0, which provides a 5^0 margin for correcting to path.

Discussion of the 3xRNP minimum limit on RF radius began with Wes Combs and Gary Petty showing the computational problems with evaluating OEAs for turns where the RNP value changes to demonstrate the origin of the limitation. A wide-ranging discussion followed which led to ideas on how to merge A-RNP and RNP AR criteria. During this discussion Barry Miller (AIR-6B1) suggested the A-RNP criteria uses a 3xRNP OEA (2xRNP primary with 1xRNP secondary), but he explained the design assurance levels (e.g. protect for major failure conditions) and the means to control the aircraft (FD or AP) are the same for A-RNP as they are for RNP AR ops limited to using a RNP value of RNP 0.3. During RNP AR ops requiring RNP<0.3, the aircraft eligibility requirements raise the design assurance requirement to protect against hazardous failure conditions, a very distinct and often limiting requirement. Thus, Barry suggested we may be penalizing A-RNP procedure design application since, technically, the secondary lateral OCS is providing unnecessary protection, penalizing development of some A-RNP paths.

Barry Miller (FAA) offered to research this further and provide the WG direct references from FAA ACs showing identical design assurance levels for application of RNP values down to RNP 0.3. Given the potential benefit, the WG agreed to have the chair ask the PARC SG for permission to formally add this effort to the WG's current work plan.

RF.TF Concurrent Ops Action Review

Mike Cramer (MITRE) had made some changes to the matrix of pros and cons based on Jeppesen and NBAA inputs. The group reviewed the options tree

and matrix once more, discussion led to the conclusion that the two documents need a third to help in understanding them. The third part will be a write-up that states the end result of each path through the options tree in terms of procedures charting, database production and the resulting operations. Mike was tasked with drafting the material by August 11. The team agreed that Mike will submit all the material (with the third section) to the SG as final document for their review during the next "Face-to-Face" meeting. In a follow-on telcon, TF overlays flown to 10-degree intercept with minimum leg length in 737 Max sim with no issues. Data being provided by Boeing and MITRE will provide results report in Sept/Oct.

RNP to xLS

RNP to xLS implementation at FAA was brought up for information by Barry Miller (FAA). His basic point is that the FAA may require some constraints to implement the RNP-to-ILS operations based on the current PARC recommendation should an application of the new criteria require a final approach segment (FAS) length less than 5 NM. The WG's recommendation included support for a FAS as short as 3 NM, but the recommendation included the surety of "AFS discretion" since consistent aircraft performance inside 5 NM became problematic for "legacy" aircraft and their FGS control laws. The WG recommended a 5 NM FAS for applications of RNP-to-ILS criteria. For RNP-to-GLS and RNP-to-LPV, installed with new avionics and new software, the shorter FAS (i.e. a FAS shorter than 5 NM) final provides nominal performance.

Established on Departure Operations (EDO)

The EDO Safety WG will be meeting on September 26th and 27th at the FAA in Washington, DC to receive briefings on the HITLS and Fast-Time Simulations that were conducted at the Tech Center in Atlantic Center. We hope that at the conclusion of these meetings a decision will be made to move the information forward to a Safety Risk Management Panel (SRMP) and its accepted, so changes to the FAA 7110.65 can be accomplished allowing this new concept to be introduced into the NAS.

Washington National Airport (DCA) and Baltimore Washington International (BWI) Full Working Group Meeting based on Roundtable Recommendations

There was a Full Working Group (FWG) that was conducted at PCT on August 22nd-24th with additional meetings schedule for September 26th-28th and October 17th-19th. These meetings deal with recommendation made by both Roundtables regarding community concerns with current Standard Instrument Departures (SIDS) as well as some Instrument Approach Procedures (IAPs). During the initial three-day meeting, a lot of information was discussed and some initial designs were created, but there is a lot more work required before any of the designs would be considered as a final design and presented to each Roundtable for consideration.

UNMANNED AIRCRAFT SYSTEMS (UAS): Steve Weidner (ZMP) is the NATCA Article 114 Representative for UAS. Jeff Richards (ZAU) is assisting Mr. Weidner on this project due to the workload and activity associated with it. Below is the update for the membership.

NATCA/FAA WORKGROUPS

The NATCA/FAA Lost Link Standardization sub-workgroup will hold its first meeting in Washington DC on September 12-14. Five NATCA SME's (2 enroute, 2 terminal, and 1 oceanic) were selected to participate in this activity. The SME's are Danny Watson (ZAB), Jeremy McGinty (ZAU), Jamie Sanders (COS), Joe Klimes (TRI), and Abigail Anderson (ZOA). This workgroup will formulate recommendations to the FAA on standardized UAS lost link procedures. Jeff Richards will be heading the group for NATCA along with Randy Willis (AJV-115) for the FAA. Our thanks to all who volunteered to participate in this workgroup.

CHANGES TO UAS FACILITY MAPS (UASFM)

A recent change to the 7200.23A has prompted Air Traffic Services (AJT-22) to send out requests to some facilities to make changes to their UAS Facility Maps. These requests are being sent to the facility manager. Please remember that the development of the UASFM for your facility was intended to be a collaborative effort. Any changes made to the map should also be done in a collaborative fashion.

LOW ALTITUDE AUTHORIZATION AND NOTIFICATION CAPABILITY (LAANC)

The vast majority of Mr. Richards and Mr. Weidner's time this past month has been spent on the development of LAANC. The project continues to move forward. Mr. Richards and Mr. Weidner participated in a SMS panel regarding LAANC deployment. The 3-day panel was unable to complete its work and subsequent panel meetings will be required before a full safety assessment can be completed. As a reminder, LAANC will automate the UAS authorization (for Part 107) and notification (Part 101/Hobbyist) process. The initial test version of LAANC will only include Part 107 authorizations. It is expected that Part 101 notification capability will be added within a few months of the initial site deployment.

The Agency is working with several industry partners who will provide this service to the various UAS proponents. The Agency will provide UAS facility map data to the industry partners. The partners will, in turn, develop tools that will provide authorization and notification services to the proponents, on a real-time basis, based on the UAS facility map data. The authorizations and notifications will be instantly transmitted back to the facility for which the authorization/notification was made.

The agency will be deploying the LAANC tool in the following facilities by the end of CY2017 - MIA, CVG, ZMP, LNK, RNO, SJC, PHX, ANC/LHD and MRI. Initial training has been scheduled at these sites primarily for the month of October. Provided all goes well at the initial sites, the LAANC tool will be deployed in facilities across the NAS throughout CY2018. The initial deployment will simply replace the manual process in which notifications are accepted and authorizations are approved. The tool itself will be used solely by staff support/management during the initial phase. It is envisioned the future iterations will be incorporated into operations.

UAS QUESTIONS

As a reminder, any UAS related questions can be addressed to Mr. Weidner and Mr. Richards at UAS@natca.net.