



National Air Traffic Controllers Association
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SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week Ending February 26, 2016

AIR TRAFFIC REQUIREMENTS (AJV-7): James Keith (D10) is NATCA's Article 48 Representative to the AJV-7 Office. His update for this report is below.

- The majority of the last 4 weeks has been spent working with TRACON Evolution. Attended a stakeholders meeting on 2/2.
 - The team completed the compiling of data obtained from the virtual sessions from October. The effort to prioritize that data began 2/24. A group has been put together of NATCA members to rank the data (prioritize) from TRACON Evolution.
 - The ranking process will help us develop terminal work package 1. NATCA being involved at this level will assist the agency in making wise investments into tools for the controller workforce utilize making the job of air traffic more efficient and reducing workload. One key component to remember is the finance piece. NATCA does not assign money to the prioritization that is the role of the agency. Mr. Keith will keep everyone posted in the upcoming weeks.
- Mr. Keith has been working with AJV-7 and linking them with TAMR lead Mitch Herrick in order to look at QWERTY keyboards for STARS. AJV-7 and TAMR SME's will look at two possible options in March. More to come.
- Another addition to Terminal Work package 1 is ATPA phase II. AJV-7 will be adding ATPA phase II to terminal work package 1.
- It was learned in an AJV-7 managers meeting of a budding new program called Key Strategy Surveillance. The program is to take a look at what a backup system will look like in 2025 once we are 100% ADS-B.
 - A few questions to be answered:
 - Do we keep primary and how many?
 - Do we keep beacon and how many?
- AJV-7 will be conducting an Operational Safety Assessment OSA March 16-17. NATCA is participating with 3 SME's attending.
- They have four site visits scheduled in March and April. D10, ZFW, N90 and ZNY. Thank you to the FacReps for the help in scheduling and providing POC's for each visit.

- The purpose of the visit is to observe TMU in order to better understand the roles/responsibilities and how they utilize current equipment.
- The visit will help build a shortfall analysis and concept of operations for a future program called Advanced Methods.
- Mr. Keith attended ERAW meetings 2/8-11. AJV-7 took an action item to prepare a briefing for next ERAW meeting March 8-10.

AIRSPACE: Jim Davis (PCT) leads NATCA's Airspace Team. Below are reports from Mr. Davis and various Airspace Team Leads.

- **Cleveland/Detroit Metroplex Design & Implementation**
 - Conducted our fourth official Outreach meeting on the project. We started with the Airport Division office and then with the Cleveland Airport Systems. The Great Lakes Regional Administrator has been with us helping us locally with the two meetings at Detroit and Cleveland. Still awaiting direction nationally for leadership as to not interfere with the NEPA process and jeopardize the project.
 - We continue to evaluate, justify and/or amend procedures identified to be outside of criteria. There have been a series of Video meetings with the affected facilities and we are planning a meeting in mid-march to close all of the items with all of the affected parties. The justification comes because we have to work within our boundaries set for Metroplex. This can be affected by but not limited to: Class B, Service to surrounding airports, surrounding facilities and limitations of regulations/criteria. All agreements will be documented to the 100% design packages.
 - We briefed externally to National Collaborative forum at the command center on the project and our work to start TBFM for the Detroit Wayne airport in late 2016. There are issues still unresolved TBFM nationally that will affect its roll out. We also meet with DoD air traffic controllers and base staff on transferring airspace from ZOB to Selfridge ANGB for their Approach Control. There is a south portion and a north portion and adjustments would be made between D21 for the change in arrival paths in DTW. We are moving ahead on the Southern portion/D21 in April 2017 and they need to resolve resource issues for the northern airspace prior to setting a date.
 - Report submitted by Don Ossinger (ZBW), CLE/DTW Article 48 D & I liaison
- **Florida Metroplex Outreach**

- The outreach effort will begin in early March with the Regional Administrator meeting with the impacted Core 30 airport directors for a high level discussion on Next-Gen. This will lay the groundwork for the Outreach Team to come in and begin to discuss the proposed changes in detail. The Outreach Team is continuing to familiarize themselves with the current and proposed procedures for all impacted airports. Additionally, some team resources are being utilized to help the Southern Florida teams further mature their designs.
- Mark Ostronic (S46), NATCA Metroplex Team
- **Florida Metroplex**
 - The majority of the design was done in the southern part of the project. Miami Approach, Miami Center and Palm Beach Approach continued to work the challenges of the complex airspace of south Florida.
 - ISIM scenarios were completed and displayed at the following facilities. (DAB, FMY and ZSU). Additional ISIM scenarios continue to be developed for future displays with most if not all facilities in the Florida Metroplex project.
 - Mr. Harris briefed Terry Locke on the status of Florida Metroplex. Mr. Harris also attended a round table discussion held by the Regional Administrator on outreach of the Florida Metroplex project. Attended two of the three ISIM displays in the aforementioned facilities.
 - Submitted by Greg Harris, Florida Metroplex NATCA Art 48 rep
- **Washington DC Metroplex**
 - The DC Metroplex successfully implemented "Post Implementation" procedures for Baltimore Washington Thurgood Washington International Airport (KBWI), Washington Dulles International Airport (KIAD), and Richmond International Airport (KRIC) on February 4, 2016. There were no issues associated with the implementation, however there has been some issues with Industry pilots not understanding the meaning of "Climb Via the TERPZ SIX Departure or Climb Via the CONLE THREE Departure" for KBWI. We have been trying to work with those carriers, in which some have produced bulletins to their pilots emphasizing what is expected and required. We will continue to monitor the departures to see if the bulletins have corrected the issue.
 - The team has been preparing for the last set of "Post Implementation" procedures, which is scheduled for March 31, 2016. This work includes amending Letter of Agreements, Standard

Operating Procedures, Automation (ERAM/ARTS), Video Maps, NFDC Routes, Coded Departure Routes, SWAP Routes, and executing the required training. The airports affected with these procedures are Washington National Airport (KDCA), Washington Dulles International Airport (KIAD), Manassas (KHEF), Baltimore Washington Thurgood Marshall International Airport (KBWI), Leesburg Executive Airport (KJYO), Winchester Regional Airport (KOKV), Eastern West Virginia Regional Airport (KMRB), and Davison Army Airfield (KDAA). For KIAD, the BULRN RNAV SID is being canceled and replaced with the SCRAM, JDUBB, and CLTCH RNAV SIDS; KBWI has minor changes on the ANTHM and TRISH RNAV STARS where the FINNS waypoint is being changed from a FLYOVER (FO) to a FLYBY (FB) and the waypoint RAAYY was added with a crossing restriction of 4000 feet for aircraft landing Martin State; KDCA amended three RNAV SIDS to allow KIAD, KJYO, KMRB, KOKV, and KDAA to tie into them as well as added a runway four transition to three eastbound RNAV SIDS since the Metropolitan Washington Airport Authority (MWAA) extended runway four to 5000 feet long making it feasible for more jet aircraft to request it. We also amended two westbound RNAV SIDS, which will provide divergence sooner allowing the se aircraft to climb without being restricted.

- Since the procedures on March 31, 2016 will be the last ones produced by the DC Metroplex team, we have been preparing for the “DC Metroplex Close Out Meeting”, in which we will brief the Facility Representatives and Air Traffic Managers from Washington Air Route Traffic Control Center and Potomac TRACON on what has transpired over the last few years and officially transfer responsibility for any further changes to them using the FAA 7110.41. The meeting is scheduled to be held at Potomac TRACON on March 14, 2016 at 1:00 PM.
- Submitted by Bennie Hutto Article 48 Rep, DC Metroplex
- **ATL Metroplex**
 - The Atlanta Metroplex project has been working toward our SID implementation on 4/12/16 along with making sure our STARS are still usable when they are implemented on 11/15/16.
 - We have been working on an issue regarding the ATL SID implementation for 4/12/16. We have had an implementation plan in place since March 2015 and have shown ZDC making airspace changes on 3/31/16, then the new SIDs being implemented on 4/12/16. ZDC has always preferred that the procedures and

airspace be turned on at the same time, but due to automation concerns, training concerns and the Masters Golf Tournament this 12-day delay is a necessity. The ATL Metroplex team has agreed to fund additional OT in order to mitigate any concerns for this 12-day delay.

- Recently Delta and SWA flew the ATL STARs again just to make sure everything was still flyable since they haven't been flown since design in 2012. These results were very positive on all the STARs except the Northeast OPDs (PECHY and WINNG). The only restrictions on all the STARs are 'At or Above' and 'At' restrictions, except the Northeast corner. The Northeast corner OPDs have windows to miss Airspace and Traffic flows. During design the team looked at moving these boundaries and traffic flows, but there is just too much overflight traffic. Delta and SWA have recently told us these Windows create an issue for pilots and the 737s may delete the second Top altitude window. We are still researching this issue to see if anyone else is having this issue. The plan for the ATL STARs is not to implement until 11/15/16, even though we are planning publication for 9/15/16. If the Windows are an issue we may have to push publication of the PECHY and WINNG STARs back to 11/10/16
- Joey Tinsley ATL Metroplex Article 48
- **Charlotte Metroplex**
 - The Charlotte Metroplex Project continues to work post-implementation issues and prepare for the 2016 implementations. The team worked at Atlanta Center, Eastern Service Center (ESC), home facilities and via GoTo Meeting. The Leads attended a national Metroplex meeting the last week of January.
 - We worked with all facilities on post implementation issues. A TELCON was held with CLT to discuss the northwest corner and the issue of traffic being high on a south operation. ZTL is working to educate the workforce on the importance of being on profile for the operation at CLT. They have started briefing this during team training. As a fallback position the Metroplex team will develop a procedure for the south operation that ensures aircraft are at a manageable altitude for the TRACON. JQF tower advised the team that the SID wording was confusing pilots. We worked JQF and OKC to find wording that would solve the issue. Overflights at CLT have become a challenge with the introduction of OPDs and we are working with CLT and the surrounding Centers to identify routes to mitigate the issue.

- The Team has started bi-weekly TELCONs for the March and May implementations. We are assisting the facilities with LOA negotiations and have advised the ZTL and ZDC teams that we are prepared to use the Metroplex MOU to get an LOA complete. Facility POCs have briefed their teams. We have a TELCON schedule for next week and will bring the parties together for a face-to-face meeting prior to using the MOU.
- The Leads briefed the Director of Air Traffic Operations and the Southern Regional Administrator on the project. We work closely with the all POCs as needed and maintain contact with facility FACREPs and Managers as we work the project.
- Bob Szymkiewicz CLT Metroplex Article 48 lead
- **Denver Metroplex Design & Implementation**
 - The Denver Metroplex Team completed design work this month. We began work on our Design Packages and completed naming our new procedures.
 - The Core Team traveled to the Western Service Area in Seattle to continue outreach with OSG and Environmental. During our week there we were able to brief the Deputy Director of Airspace Services, as well as, the Regional Administrator on our project. George Peurifoy (FAA) and Mark McKelligan (NATCA OAPM) joined us for our briefing with the Regional Administrator.
 - The Denver Metroplex Team had a briefing from Bobby Klutz, MITRE, to explain the upcoming TBFM HITLs.
 - We finished out the month giving our 75% Validation Briefing to 3 satellite airports that weren't able to attend our original briefing in January.
 - Mark Phipps (FAA Co-Lead) and Mr. Thomas worked a request from the Administrators office reference concerns from Southwest Airlines. All questions that were asked we successfully answered. We also addressed an issue that came from ZDV TMU concerning their issues with the design and how they are going to manage the new STARS. We are still developing a plan to help support ZDV TMU and hopefully will be able to fully address their issues with the upcoming HITLs at MITRE, as well as, spending more time with the ZDV TMU SMEs.
 - This updated represents the work and status of the Denver Metroplex D&I for the month of February 2016.
 - Submitted by Chris Thomas Article 48 Co-Lead Denver D&I
- **SoCal Metroplex**

- The SoCal Metroplex Core met with our Industry representatives to provide them with a status update of the project. Glen Martin, Regional Administrator, provided them a presentation of the political climate and the effect it is having on our process. Ryan Weller, FAA Environmentalist, provided an update on the EA process and ATAC provided a demonstration of the EA website.
- The week was spent reviewing changes to procedures that were required by criteria, items that were overlooked, or made at the request of FAA Leadership. Industry concurred with all of the changes. Discussion was held about holding future design meetings for Curved Departures at SNA & BUR. These designs would not be part of the SoCal project.
- The Core Team continues to reply to Air Traffic specific comments for the EA. The team along with Ryan Weller and AWP Legal have been reviewing and answering environmental comments to the EA. Approximately 50% of the 4,000 comments received have been responded to.
- The Core team and Glen Martin briefed representatives from Congresswoman Bass, District 37, Culver City representatives, Councilman Bonin representatives and Senator Holly Mitchell. They still believe flight paths have changed over the districts. An in depth legacy noise analysis from October and December for 2013, 2014 and 2015 was provided along with a project update.
- The Core team and Glen Martin briefed representatives from Congresswoman Napolitano, District 32, Congresswoman Norma Torres, District 35, Congresswoman Judy Chu, District 27, along with representatives for the cities of La Puente, Monterey Park, Rosemead, Alhambra and El Monte. We provided them with a Metroplex 101 briefing, status of the project and list of procedures that overfly the district. Explained that the procedures that were of a concern are only used during East Operations at LAX which is less than 5% of the time.
- Provided a short notice "white paper" on the SoCal project for FAA Headquarters VP Tim Arel and his visit to SCT and LAX Tower.
- Preparing a briefing with the Regional Administrator on the status and way forward for the SoCal project to the Director of LAWA and AWP Senior Leadership.
- The ZLA and SCT POCs have been working on revising the Procedure Publication list.
- A presentation is being prepared for the next step in coordination with SENEAM, our partners in Mexico.

- Submitted by Jose Gonzalez Article 48 Rep, SoCal Metroplex
- **Eastern Service Area (ESA) PBN Report**
 - The following ESA projects are with AJV-5 for development and are on track for publication.
 - The **BOS** STARs are scheduled for Flight Check and will publish on May 26 2016. We will travel to ZBW/A90 the week of April 18 for training, review automation and begin planning for implementation in May.
 - The **BVT** RNP RWY33 and SDF STARs are scheduled to publish July 21, 2016.
 - **SDF**-The SDF project was the result of a National CAR (Corrective Action Report) on conflicting altitude constraint on procedures. We resolved the CAR but due to conflicting agendas between UPS and SWA on the industry side and ZID, SDF and LEX on the FAA side our solution was a very limited design. UPS, SDF, ZID and the Service Center are continuing to look at possible airspace changes to resolve some of these issues and intend to request changes to all of their procedures at a later date.
 - **RDU**-ESA Co-leads have put the RDU project on hold for the next several months. There are two significant issues that drove this decision. The first is the request to amend the RNP approaches. The request came from AAL but the Lead Carrier is SWA. They cannot agree on any of the six designs we have proposed. The second issue was the confliction with CLT Metroplex. The MALNR STAR into RDU needs to tie into the amended RNP's but is part of the Metroplex project and is scheduled to publish Jan 2017. We consulted with the Metroplex to determine the risks involved with the environmental process. The current environmental climate nationally would preclude us from moving forward until sometime closer to or after that date. RDU will also be involved with the VORMON because several of their procedures are connected to FKN and CLB, which are slated for decommissioning. ZDC and RDU are also discussing an airspace swap that will affect our designs. We will continue to evaluate RDU and hope to keep it as one project in 2017.
 - **BNA**-We received a request from SWA to redesign the SID's at BNA, which we have recommended not to pursue. Management and NATCA at the facility feel their current procedures serve them better than the requested changes. The Co-Leads agree with the facility. The old BNA SID's were designed on what is today's "Open SID" design criteria. They were first published before the criteria was in

place and AFS made BNA change the design in 2012-13. BNA's experience with the original Open SID designs and slight changes to the criteria help support our stance. The proponent (SWA) has not commented on the decision but we expect some feedback.

- **CVG**-Atlas Air requested OPD STARs into CVG in 2015 and we will tie the current or amended RNP to the STARs during the redesign. The facility requested the satellite airport LUK be added to the RNAV SIDs. This project should kick-off in May 2016.
- **VORMON**-The first major NAVAID to be decommissioned in the ESA under the VORMON will be PXT. There have been a few coordination issues that have put the PBN .41 process behind amending and/or designing replacement procedures in the decommissioning process. The PXT NAVAID will be shut down in MAY 2016 and decommissioned sometime in 2017. We are working to mitigate the loss of PXT until our current target dates of March and April 2017 to publish new PBN RNAV procedures to replace the conventional procedures. The major facilities affect by PXT are ZDC, PCT, PHL, N90 (EWR, LGA, TEB) and DOV. The Co-Leads are working with the Eastern Service Center's FPT, Support Specialist, Tetra Tech and Flight Standards for the best solution. PCT and N90 both have STARS implementation through May and ZDC is preparing for a CLT/ATL Metroplex implementation in May. We are planning work groups at N90 and PCT in June to meet the 2017 pub dates.
- **Bermuda**-TXKF is an International initiative that the PBN office has been tasked to help. Bermuda is hosting the America Cup in May 2017 and they have requested RNAV SIDs and STARs for TXKF. We have been asked to help develop Non-Radar PBN procedures in ZNY airspace for TXKF.
- **8260.43B**-AFS and AJV have been working to rewrite this order since early 2015. AFS and AJV-5 have had several set backs in the rewrite due to their lack of collaboration with NATCA. The PBN Team was invited to the table in September 2015 because of AJV-5's misconception of the 7100.41 process and its affect on the 8260.43b. We then identified changes that may affect our brothers in the FPT in Region X. Region X will now have representation on the team when we restart the process March 29.
 - Submitted by Bill Wise, ESA PBN Rep
- **CSA PBN**
 - The first week of February brought with it the VORMON meetings in DC as well as a Chart Date on the 4th. VORMON has been well communicated down to the FPT levels of the OSGs, but facility

coordination is still lacking. The published plan lacks true structure but we plan to use that to our advantage and try and look forward for discontinuances that we can tie into our .41 workgroup projects. The MON seems to be in place a few years early as in every project we touch, we are able to significantly reduce reliance on traditional nav aids and pave the way for the VORMON to work discontinuance and decommissioning. This is an important distinction...discontinuance is the elimination of the VOR but DME functionality remains. Decommissioning is the actual destruction of the site altogether. Publications on Feb 4th included a large scale redesign of the SID products for all of the North Texas Metroplex procedures as well as procedures at KMKE. Implementation was challenged because of a large number of carriers and pilots switching FMS databases early on the evening of the 3rd. D10 and ZFW had an extraordinary increase in workload that evening to correct airborne pilots who had errantly loaded the incorrect procedure. Mr. Luna has discussed this with our other PBN reps but the charts only list dates of effectiveness and not actual times that he is aware of. We also have to think about local FAST and Tech Ops to see if setting a firmer time for Users to switchover isn't feasible for our facilities to adhere to. KMKE published with an incorrect Top Altitude and the correction is scheduled to chart on the May 26th cycle.

- Please Note: Continued review and support of ERAM ER136427 (Proper ERAM SID Functionality) is requested. Sabu Varghese, ZFW NATCA Automation Rep is working and keeping affected facilities updated. Currently, it has been shelved by the NUT (National User Team) but we are hoping for attention to it soon.
- The 2nd week of February was at the RO with emphasis on a final KMSP Post Implementation Forms Review with the Workgroup and more information from the VORMON. We held a Pre-Meeting with Austin WG to prepare for the upcoming meetings later in the month. We also held an internal to OSG meeting concerning the KSAT PBN requests and the upcoming MAGVAR there. A plan is in place to accomplish all necessary amendments over 2-3 chart cycles and we meet in San Antonio with the WG in March.
- During the 3rd week of February, Central hosted a TARGETS class taught by Scott Stoltzfus of CSSI and his staff. Participation was excellent with many from the OSG attending as well as NATCA members and local area 530 shops. Hobby VOR discontinuance

TelCons were attended in support of the VORMON. ZMP has a T-Route project that has been lost since it was originally submitted in 2011. Mr. Luna and others are resurrecting these plans and working to get this moving again through the .41 process.

- This last week of February was spent in Austin working to finalize their Post-Implementation designs. KAUS, KSAT, ZHU, ZFW, SWA, AUS Airport Authority, and the City of Austin all participated. There are a few more items that need to be worked between facilities and deadlines were set 3 weeks out for those discussions to occur and solutions brought to the WG for final of concurrence. Item of specific interest is the Industry preferred chart note to transition to 280 kts on STARs. While this note works well for some projects, it needs to remain as a recommendation and not make it any further into criteria and/or any of our design orders. It continues to be a discussion topic during internal NATCA PBN Rep Weekly TelCons. We also worked with ZMP for solutions for the BRD (Brainerd) VOR Decommissioning. This item needs special attention because of the amount of Non-Radar airspace it affects in ZMP. At this point we are gathering usage data and preliminary designs to allow the Non-Radar operations to be feasible considering the large amount of military activity in IR, AR, and MOAs in the area. This is an excellent example of an area where data suggests low usage and has gotten VORMON attention. The actual cause for this is the loss of the land lease by the FAA. The VOR is critical in supporting the Non-Radar needs of ZMP and a solution is going to be difficult...more on this specific issue as it arises.
- Submitted by CSA PBN NATCA Art. 48, Brent Luna
- **Western PBN and EoR**
 - 2/2-3 Participated in the VORMON Program meetings.
 - **L30 RNAV STAR** Request – A request has been submitted by SWA through the IFP Gateway for an RNAV STAR serving RWY 19s and 25sn at McCarron. Additionally, SWA made a request for multiple RNP's in LAS. The initial reaction by the PBN co-leads was to reject these requests since LAS has an approved Metroplex project. After discussion with facility NATCA, management and AJV-14, the option to proceed with the design of one STAR is being considered. If design proceeds, the new STAR will provide connectivity to special RNAV visual procedures. Facility management is adamant this procedure should proceed (along with SWA). Currently looking to schedule a Telcon with facility NATCA to ensure they want to

- continue with development of this STAR. Also waiting on word from AJV-14 for the go-ahead in spite of an incoming Metroplex project.
- **Seattle “Sleepy-time” SID** – On 2/17 a full work group met at Seattle TRACON to kick-off a new RNAV SID in support of north flow night time noise abatement. The new SID will provide significant benefit to controllers by reducing workload during noise abatement, which currently requires vectoring during single controller operations while also controlling arrivals. The workgroup conducted the meeting collaboratively and initial concurrence was with all stake holders was obtained.
 - **EoR** – A report was prepared for Paul Rinaldi on the status of EoR in Seattle. Currently, EoR is not being conducted on a regular basis due to a connectivity issue with the Special RNPs and the HAWKZ/MARNR arrivals. The required amendments to fix connectivity will be published on 7/21. Additionally, the eastern runway will be closed for approximately 60 days starting in April during which time EoR will not be conducted. The push to conduct EoR will be refreshed with the controller workforce once the runway reopens and the amendments are published fixing connectivity.
 - The **NEXTGEN Office** is currently surveying facilities to find a good location to start conducting the Dual TF EoR Safety Study. Currently, Salt Lake is the number one candidate and collaborative coordination with the facility will be starting likely in April to secure the facilities participation.
 - **NorCal Noise Initiative** – The week 2/27 was spent at Northern California TRACON for the Congressionally initiated NorCal Noise Initiative. The purpose of this meeting was to go through the initiative point by point with subject matter experts to determine if the suggested courses of action in the initiative are feasible and if any amendments could be made to procedures to alleviate noise concerns with various Bay Area Citizen’s Groups. The SME’s were provided with analysis prepared by the Western OSG as it relates to the various concerns and went through a matrix to answer if procedures (IFPs and SOPs) can be changed to appease the citizen groups. Generally, the answer to most questions were that in fact, every request could be accommodated but it would result in massive delays, congestion, increases in noise and lost efficiency. Clearly all of the points in the matrix were developed by groups not familiar with the significantly complex operations in the Bay Area. The workgroup did concur that amendments to the SERFR STAR could be possible without impacts to the operation and will

- investigate options. If changes are made to the SERFR, it would be done under the .41 process.
- Procedures worked during this period with co-lead – PAEI RNAV STAR BAR completed. PAED RNAV STAR BAR completed. KLAX ODO RNAV SID. KLAS RNAV STAR. GJT RNAV STAR BAR completed. GJT RNP/STAR meeting coordination. SLC STAR/RNP/SID request coordination. SFO RNP amendment. ASE SID. DEN RNAV SID amendment.
- **KPAE RNAV STAR** final workgroup review completed and pencils down declared. The procedure will be sent to environmental for review.
- Submitted by Phil Hargarten Western PBN and EOR Rep
- **Metroplex Study Team Lead**
 - The Las Vegas Metroplex Study Team completed all of its conceptual design work by November 6 and then began work on the Study Team Final Report. The Study Team Final Report has now been edited by the team and the Metroplex Program Office Leads and has also finished going through the tech writing process. Also, for the first time in the Metroplex study team process, we established direct communication with the local airport authority and the Airport District Office to discuss potential noise sensitive areas and environmental hot spots. The final report has been signed by the Director of Airspace Services with a D&I phase startup sometime in the Summer/Fall 2016 timeframe after a determination of what the airport and community outreach will look like. The study team analysis of the conceptual designs has determined roughly \$7.5M in potential benefits to the Las Vegas Valley.
 - There continues to be a lot of energy around the issue of community noise. We're currently involved with efforts to address what airport and community outreach looks like for future PBN projects and to look into ways we can enhance our processes to improve the outreach to the local communities and increase awareness of PBN projects throughout the NAS. We are STILL in the process of defining the way forward for projects that are currently underway. It appears the Regional Administrators will take on a bulk of the workload for getting this task accomplished.
 - We are currently in the process of preparing for the Airspace Services Summit (formerly known as the Metroplex Summit) meeting that is currently scheduled to take place on March 1-3, 2016 at Mitre. We have been involved in helping the Western Service Center develop a response to several congressional inquiries in

Northern California stemming from community concerns. In addition, PBN is also looking at ways to coordinate with the VOR MON program and continue to help improve the PBN Dashboard.

- Submitted by Metroplex Study Team Lead Art. 48 Ed Hulsey
- **NATCA National Airspace Rep**
 - Community outreach continues to be discussed at many levels, we are working with the agency to try and reach a position to assist our current teams and have a long-term plan moving forward. Jodi McCarthy, Director of Airspace Services, has agreed to put a small team together to put a plan on paper.
 - The NAS NAV Strategy document has been approved by the RTCA NAC. We are assuming the document will be approved by the administrator in the near future then work can be started on an associated CONOPS and Implementation Plans.
 - We are in discussion with the agency to create a robust and user friendly PBN Lessons Learned site. Our desire is to create a site teams can turn to for answers about PBN design and associated problem areas. This should help areas avoid mistakes we are familiar with in other places of the NAS.
 - Submitted by Jim Davis (PCT) NATCA National Airspace Rep

RNAV and PERFORMANCE BASED NAVIGATION (PBN): Dennis Kelly (PHL) is the Article 48 Representative for RNAV and PBN criteria work. Mr. Kelly's report for the membership is below.

- **NextGen Integration Work group (NIWG) PBN - DEN EOR**
 - Much of the talk was the need for the waiver and eventual rule to be extended for IMC operations. Things are working fine VMC. There was also discussion of not pursuing Track to Fix (TF) options even though they have a fairly high RJ fleet who cannot do the RNP ARs with the RF turns. They think they can compensate like they do now and that the fleet mix will convert more to PBN centric. This is the key sticking point. SWA continues to push for all RF.
 - Current status:
 - RF Duals Safety Analysis Report – 9 months
 - Triples (TF) Safety Analysis Report – 6 months
 - Triples (both TF and RF) Safety Analysis Report – 12 months
 - XLS Transition Safety Analysis Report – 12 months (AFS ops group still determining if a HITL is needed which would extend this time)

- Considerations
 - In order to complete Triples (TF and RF), RF Duals analysis must be completed first
 - RF Duals and Triples (both TF and RF) can be combined into 1 report to satisfy all of paragraph 5-9-7 of the 7110.65 (Air Traffic Control Handbook)
 - This full report would take approximately 18 months, saving 3 months of review coordination when compared to completing 2 separate reports.
 - DCP still required before operations can be enabled (18 months)
- RNP AR is a subset of RNP EOR. They mentioned a possible mandate (more of a goal according to the new PBN NAS strategy) of requiring RNP AR and/or RF by 2021, which NBAA, possibly Delta and Regional operators would have a problem with due to equipage especially in the East. United, SWA are carriers that are supporting this. This has been the battle for the last few years as TF works for everybody and can be easily converted to RF legs later but does slow the progress to a PBN centric world. Users will not equip if they don't have to or at least sooner than later. The FAA is supporting mixed equipage. The focus may need to go to an airport type mandate instead of a system wide mandate. Operational approval for RNP AR at most airports is below 50% and well below at a lot of them, which may be more important than the lateral path issue. This is because of cost of training and availability of approaches. You don't have to be RNP AR to use an RF leg but a lot of approaches that have RF legs are RNP AR, so procedures need to be developed to accommodate this to bridge the gap between RF equipped capable and approved for RF (RNP AR).
- SWA pushed hard to increase usage of EOR at DEN instead of a long range FAA plan of developing use of EOR everywhere, which will take too long so the waivers can be extended to other airports. They said it is working extremely well there. Mr. Kelly pointed out that although it is working well, the controllers are will also be working very hard to put aircraft in a position to use RNP AR and the RF legs because of mixed equipage, which will happen at other airports if they are set up to take advantage of it. The FAA wants to minimize waivers and make rule changes (long range plan).
- **National Procedure Assessment (NPA):** There was discussion on what the FAA actually spends on maintaining procedures and what the actual cost

per procedure is a big variable. Average cost per procedure does not necessarily reflect costs for any individual procedure as it depends on the type and complexity among other variables. In Fiscal Year 2015, the FAA spent approximately \$41.2 million on procedure maintenance according to the FAA's Aeronautical Information Services (AJV-5). Maintenance costs include reviewing procedure impact based on proposed obstacles, issuing Notice to Airmen (NOTAMs) as needed for procedures as well as periodic, scheduled procedure review. This cost does not include flight inspection, which is approximately \$15 million more. The FAA bears a significant cost for maintenance of procedures, so any reduction of unnecessary procedures would contribute a meaningful cost savings to the maintenance of the NAS.

- AFS had an issue that circling approaches should be separated from lines of circling minimum because getting rid of just lines of minimum doesn't save any work, they are just lines that are associated with a circling approach. This skews the statistics that claim savings when lines of minimum are reduced. The circling approaches still need to be maintained, so actual reduction of circling approaches where not needed, will accomplish the proper savings.
- **NSPP - Metroplex Procedures:** DC will have their last 15 procedures published on 3/31 and this project will be done. Congratulations Bennie Hutto (PCT).
 - DEN gets 110 procedure slots for publication and post implementation in 4 different publication cycles in 2018.
 - NY/NJ Metro procedures: These were added recently to include JFK, EWR, LGA and TEB to include RNAV procedures and 9 GLSs at JFK. TEB has an approach called quiet visual RWY 19 being published 3/31 that is a pending Cat Ex test to collect data for 180 days. This should be interesting. Publish it, use it and see who complains.
- **PCPSI:** The latest meeting focused more on pilot issues. On VNAV and Operational Complexities pilots choose when to use VNAV and it requires setup and monitoring and they don't always understand it as much as they think due to the numerous variables. There are a lot of manual interventions and mistrust by pilots. There is even more distrust on VNAV climbs because full up VNAV on climb does not compute the path like on descent, it just manages speed/thrust control efficiency. Mental math is very variable on whether the pilots used it to verify the FMS behavior. Handling constraints on STARs didn't seem to be directly impacted by the type of VNAV and there are too many variables to see a

pattern. Windows cause the most problems with the wider ones being the worst according to the crews they talked to. Vertical paths are much more problematic to visualize than laterals so are harder to maintain.

- There is a difference between chart complexity and procedure complexity. More advanced FMSs have no problem navigating complex procedures and/or complex charting but pilots can. The IPAD expanding the procedure view has proved problematic as pilots miss information in the margins that are no longer being displayed.
- In March, some simulator work will be done in Houston to test the flexibility of pilots being able to change the runway transition after the 10 mile mark, which would help both sides. We are trying to build this flexibility in the .65 landing runway changes on STAR DCPs. SWA has abstained from the testing.
- There was also talk of trying to harmonize our climb via/descend via phraseology with the new international proposed changes.
- **PBNRS:** This was Route Structure CONOPs briefing. This supports the VOR MON and addresses reliance on J-routes and V-routes and replaced with Q and T routes where necessary. Promotes point-to-point navigation where structure is not necessary. The current Q-routes (114) that have been implemented show very low usage and connectivity and there was no overall comprehensive plan. The T-routes (99) are mostly concentrated in the NE, ATL and Dakotas. Equipage rate is 80-90% to fly T-routes. The background to all this is the North American Route Plan (NRP), Non-restrictive Routing (NRR) and Navigation Reference System (NRS). Each of these has issues with use. The current operations are any combination of route segments, NAVAIDs and waypoints when not restricted by automation.
 - PBNRS requirements include high altitude point-to-point navigation infrastructure. The objective is to establish requirements and alternative analysis for efficient useable point-to-point system. Benefits include:
 - Increased # of parallel route options through high density airspace
 - Reduced separation between centerlines of published routes (8nm)
 - Reduction in the number of chokepoints in the system
 - Establishing operational independence between air traffic flows
 - Enhanced sector throughput

- Reduced propagation of delay caused by high-density airspace constraints
 - Reduces controller and pilot/crew task complexity
 - More optimal climbs to, descents from, and transitions through the established route structure by segregating traffic across multiple flows
 - Circumnavigate Special Activity Airspace (SAAs)
 - Optimally define playbook routes, CDRs, and preferred IFR routes
 - Greater predictability (less variability) with block times
- **VOR MON:** This meeting was about coordinating and combining the various programs that the VOR MON affects and develop a process. Discontinue approximately 30% (308) of VORs by 2025, in accordance with FAA Order 7400.2 and established policies.
 - Phase 1 includes 74 to be removed by 2020. 2016 and 2017 has already been determined. The 2016 ones are being de-commissioned based on other issues such as being already out of service and not necessarily part of the VOR MON plan.
 - The biggest issue is fitting the procedures that need to be replaced in the production plan. The SRM process also needs to be addressed. A national SRM has already been done.
 - Local SRMs will be done as necessary. Over 2000 RNAV GPS approaches, 1630 SID/STAR/ODPs and 1000 ILSs need to be amended due to putting a waypoint or DME fix to replace the VOR fix. So far, 35 VORs have been approved for discontinuance but not all are in phase 1.
 - The facilities that are involved in the 2017 plan need to be contacted to verify that they knew that PBN procedures are available to replace the ones they're losing if they are necessary. The current 2018 plan will need to be scrapped and a new one made considering current PBN projects. Total number of Proposed NAVAID Decommissions: 455 (not just VORs) (Western/Central/Eastern).
 - Total approximate cost to decommission 455 NAVAIDs, utilizing the costs for "Medium VOR Project", which most likely will be the majority of the projects, the total cost would be: \$336,080,290. One example:
 - The approximate cost for decommissioning OTT VORTAC: \$738,638.00
 - Operations Support Group: \$16,720

- Flight Procedures Team: \$45,728
- Terminal/EnRoute: \$410,000
- Flight Check: \$266,190
- Incredible.

UNIVERSAL INTERLOCK CONTROLLER (UIC): Corrie Conrad (PDX) is the UIC Article 48 Representative. Below is her report for this week.

- The Agency is once again planning to install the UIC interfaces in the current tower at SFO as discussed before so that controllers will have practice using them before moving to the new tower in October.
 - There is some connecting and testing that needs to be done, but they are hoping to bring the new interface online in May.
 - Training for everyone would need to take place in April to meet this goal. We have not pinned down the dates yet but Ms. Conrad is coordinating with Sylvester Ivory, the FAA UIC lead out of OKC, and Fred Naujoks, SFW FacRep, to coordinate this schedule.
 - Ms. Conrad will attend the training or part of it to help ensure that it is effective and controller friendly as requested by Tom Adcock, NATCA's National Training Representative.
 - There will be simulators for controllers to practice and interact with.
- Vaughn Turner, FAA Tech Ops from Headquarters is in OKC and is stopping by to take a look at UIC.
 - Mr. Turner will be briefed on the progress of UIC.
 - Mr. Ivory is hoping they will be given the go ahead to update the current UICs that are installed to include the RVR and the lighted NAVAIDS. However, Mr. Ivory was very clear the Agency has not been given the "go ahead" to do so and wanted to know NATCA's position on updating the existing UIC systems.



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