



National Air Traffic Controllers Association
1325 Massachusetts Avenue NW, Washington, DC 20005
Safety and Technology Department
Office: 202-220-9818
Fax: 202-628-7286

SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending April 29, 2016

AIRSPACE: Jim Davis (PCT) is the National Airspace Lead for NATCA. Below are reports from various Airspace Team Leads.

- **Florida Metroplex**
 - Florida Metroplex continued to work 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.
 - The Florida Metroplex team (North and South) met to finalize the development all Q-routes and T-routes.
 - Submitted by Greg Harris, Florida Metroplex NATCA Art 48 rep
- **Washington DC Metroplex**
 - On March 31, 2016, DC Metroplex implemented their last procedures under the "Post Implementation" process, which affected Washington National Airport (KDCA), Washington Dulles International Airport (KIAD), 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). Everything went smoothly and no issues were reported, so on April 4, 2016, the DC Metroplex was officially closed.
 - Submitted by Bennie Hutto Article 48 Rep, DC Metroplex
- **National Route Structure Program; Atlantic Coast Route Plan(ACRP)**
 - With exception of only minor tweaks; most of the notional design work has been completed for ZBW, ZNY, ZDC, and ZJX along the east coast. We are now in the process of modeling the new designs with ISIM HITL simulated problems at the lab we have set up in ZNY. Early in April we visited PCT and briefed them on ACRP, some minor coordination took place between PCT and ZDC POCs on the effects of Q route design that may impact PCT FL180-FL230. No major issues identified and it was a successful trip. The second week was spent with IPT and ATC conferences preparing for the ISIM lab work at ZNY. The lab is set up and the first round of Hits ready to be scrubbed and run. The next week we traveled to ZTL and spent the week designing connector Q routes that join the work from ZDC through ZTL and then connect on the south boundaries with ZJX. Very successful meeting, all the facilities accomplished the flows and designs they needed to improve their airspace and get the connectivity of the Q routes.
 - This past week we traveled to ZNY and completed the first week of ISIM HITL modeling between ZNY and ZDC. The lab worked well and results for

both facilities were good. Unfortunately, ACRP and So FL Metroplex have not been able to schedule a meeting yet.

- ACRP is ready to proceed south but is now awaiting the progress of So Fla Metroplex Q Route design. Much coordination between ACRP and Metroplex will need to take place in order for ACRP to continue development while Metroplex is on stand down.
- The leads of both programs will attempt to coordinate the progress of the “Q” route development. The increase of over 110 flights daily in and out of Cuba will require ACRP to expedite work at the FIR boundaries to handle the increase in traffic. Without it expect delays throughout the NAS.
- **Upcoming Activities**
- ACRP briefing to Co leads in Chicago on May 17th. The rest of the month will be spent at ZNY modeling with ISIM to complete final design for ZBW, ZNY, ZDC, ZJX at the new ATAC ISIM lab.
- Submitted by Jorge Rivera Article 48 Rep National Route Structure Program/ ACRP Co-lead
- **Denver Metroplex Design & Implementation**
 - April 4, 2016 marked the 90% milestone for the Denver D&I.
 - We began April meeting with the working group at Denver Center and conducted our 90% validation week. This included a validation day for Industry and ATC and a second day that was an outreach briefing for our airports and RMNP (Rocky Mountain National Park). We managed to accomplish all of our airports except for FNL who we will catch up at a later date. After the validation meeting the Core Team had a detailed briefing and discussion from Jeff Davis and Dawn Ramirez on Outreach planning activities. We also had an opportunity to meet with our ATAC EA contractor and OSG Environmental personnel.
 - In addition to the 90% validation meetings, the Core Team was asked by the Program Office to prepare a detailed presentation for an Industry Meeting that took place at Denver TRACON on Thursday, April 21st. The primary focus for this meeting was to address concerns presented to FAA HQ concerning Southwest Airlines disapproval of the Denver Metroplex and the Design work that has been completed thus far. This meeting was well attended by Industry to include representatives from Southwest, United, American, and Frontier. We also had very good participation from the Metroplex Program Office, as well as, representatives from FAA HQ, FSIDO, and facility POCs. This meeting had the potential of being very contentious, however, I believe the Denver Metroplex D&I Team did an excellent job presenting our design to Southwest and answering most of their concerns.
 - The Core Team did not meet the last week of April due to the FAA holding a FAA Management Leads meeting in D.C.
 - The Denver Team has begun preparation for upcoming Community Involvement meetings and is finalizing Design Packages for signatures. We

did get information this week that Bill Payne, a representative for the General Aviation community in the Denver area, is upset with the proposed Satellite airport arrivals the Team designed from the north. Mark Phipps (FAA Co-Lead) has spoke to Bill about these issues and the Core Team plans to meet with Bill as soon as possible to listen to his concerns and help explain the designs.

- Submitted by Chris Thomas Article 48 Co-Lead Denver D&I
- **Charlotte Metroplex**
 - The Charlotte Metroplex Project continues to work post-implementation issues and prepare for the May and July 2016 implementations. The team worked at Atlanta Center (ZTL), Eastern Service Center (ESC), Charlotte TRACON and Jacksonville Center (ZJX). We visited Fayetteville, Florence and Jacksonville Towers.
 - The team continues to work on a myriad of issues as the implementations approach. All facilities are on schedule for the May 26 chart date and May 31 implementation date and are working on the July 21 chart date. The POCs at all facilities continue to do the work at the local level and we work with the Plans & Procedures and Training departments as needed.
 - After multiple meetings with the concerned facilities, assistance from the National FAST Manager and NATCA the ADAR issue has been solved. ZTL and ZDC were able to agree on adaptation that will ensure aircraft have proper routes.
 - The northwest corner at CLT is an area that we continue to monitor. We brought in a team of TBFM experts to meet with the CLT controllers and to identify ways to refine the adaption. Additionally, we spent time with the sectors that feed the TRACON and explained some of the issues the TRACON is encountering. We observed a few anomalies with TBFM times and have relayed this to the TBFM team. A tech pilot from AAL has arranged a visit to ZTL to further discuss ways that may help to refine the feed for the TRACON.
 - We've briefed the National Customer Forum in Silver Springs, MD; briefed the ESC Directors and had meetings with the following at Jacksonville Center: Executive Officer, Training Manager, NATCA Facility Representative, FAST Manager and Air Space Manager.
 - Outreach and post implementation are two concerns. The FAST shop at ZTL is under a heavy workload and we now have a plan in place to work with the 530 shop before we schedule dates for up-numbered procedures. This should help to keep the workload manageable. The leads continue to work with the Regional Administrator and the Metroplex office on how to proceed with outreach.
 - Ron Myers is now on the team and will take over as the NATCA Article 48 for the project on May 1, 2016. We started the process of briefing Ron on the scope of the project and the implementation schedule.
 - Bob Szymkiewicz CLT Metroplex Article 48 lead

- **SoCal Metroplex**

- The SoCal Metroplex Core Team has continued to respond to public comments to the Draft EA. The Team will complete responses to 3,797 comments next week. FAA Legal will then begin legal review. During this process several Congressional inquiries about the project have been responded to. Because of this, FAA Legal has recommended that the SoCal Team respond to the 259 public comments that were received after the comment period closed. The response process will begin next week.
- The Core Team met at Western Service Center (WSC) last week. The team updated and received updates on the status of procedure development from the Flight Procedures Team, and the PRG team on the status of the frequency relocation for SCT. The Team met with QCG team to discuss preparations for the SRM panels scheduled at ZLA and SCT the week of May 23, 2016.
- The Team participated in a briefing that Rob Henry presented to Western Service Area Directors, WSC, Western Regional Administrator and the Metroplex Program Office. The briefing consisted of 2 PowerPoints. The first was an update that included a project timeline, military airspace impacts on design procedure, international coordination with SENEAM (Mexico), a listing of the 86 public and elected official outreach meetings the Team has conducted to date, status of EA comments, historical ROD process versus SoCal recommended ROD process and proposed procedure presentations that include historical flight tracks.
- The second PowerPoint addresses several proposed procedures that received additional review based on compilation of feedback from airports, public workshops, Draft EA comments, and elected officials. Each procedure was analyzed by the team to determine whether concerns could be addressed through minor design modification. The review resulted in recommended changes to four proposed procedures and the development of one new proposed procedure.
- The Team has an initial tentative meeting with SENEAM (Mexico) in late May at SCT. Negotiations for additional dates and locations of meetings is still ongoing.
- TBFM HITLS were conducted the week April 4-8, 2016. The initial data shows positive results. Negotiations with adjacent facilities will continue and address any outstanding concerns.
- The SCT and ZLA team members continue working on training scenario development, classroom training plan development, LOAs, SOPs, automation, radar map display information, PowerPoints and any additional documentation required for upcoming SRM panels, automation verification of fix pair postings and preparations of materials to update workforce on project status.
- Submitted by Jose Gonzalez Article 48 Rep, SoCal Metroplex

- **Cleveland/Detroit Metroplex Design & Implementation**
 - Continued Outreach with Great Lakes Regional Administrator Barry Cooper to finalize a look and a plan that several layers in the FAA and DoT want to be presented. The press blitz for the week of April 11 was postponed and expected sometime after June. We completed and forwarded our proposed alternative for the CLE/DTW Metroplex area to the Airline users, along with wind and NAV Databases.
 - Numerous Telecoms with teams and CSA members for multiple issues (ie 3 mile, Nov 10 date, MTC airspace, TBFM, staff study stuff). Magnetic Variation change is going to happen on Nov 10, 2016 for some of Detroit's approach amendments, this was a surprise because when we started there was no change scheduled.
 - Report submitted by Don Ossinger CLE/DTW Article 48 D & I liaison
- **Western PBN and Eor 3/28 – 4/30**
 - On 3/29, at the request of the Eastern PBN rep, Mr. Hargarten attended a Kick-off meeting for an airspace redesign project at Louisville, KY (SDF). This project is being spearheaded by the Eastern OSG and would essentially be a "mini-Metroplex". There is not a process for this project but it is clearly being modeled after Metroplex. Early in the meeting a power-point was shown listing the members of the team. The lead was an OSG manager, with FAA and NATCA co-leads.
 - All of the SME's listed were management. Mr. Hargarten inquired as to how the NATCA co-leads were selected and why all of the SME's were management. The manager giving the presentation immediately began to back pedal and it is my understanding, the OSG has since started the process of formally requesting Reps from NATCA.
 - Another point of interest with regard to this project, there is no funding for rep travel or BFOT. Mr. Hargarten informed the OSG manager that any time he or someone from his group plans to go into a facility for this project, a NATCA lead should also be present. It seems there is funding for the OSG managers to travel but not their NATCA co-leads.
 - The Eastern PBN Co-lead has been briefed.
 - On 3/31 a Telcon was conducted with facility SME's and industry to discuss the HAWKZ STAR in Seattle. A previous discussion to drastically modify the arrival in a North Flow is being abandoned in exchange for ZSE agreeing to rework the TBFM program to allow for greater spacing between arrivals.
 - On 4/6-7 attended a kick-off meeting for a new RNAV SID at Glacier Park International in Montana (GPI). The original design of one SID will be split into two...one for westbound departures and one for southbound/easterly departures. NBAA/Horizon Air/SkyWest were present and all SME's reached concurrence on the procedures.
 - Attended quarterly PBN Leads meeting 4/12-14.

- **NorCal Initiative** – The final draft of the NorCal Noise initiative has been reviewed by FAA legal. Administrator Huerta will be briefed likely in the next week then the document should be pushed to Lynn Ray (AJV-0) for dissemination to the interested congressional and local community groups.
- **EoR:**
 - On 4/21, attended an EoR meeting at CLT TRACON/Tower to introduce the facility to the concept of Duals TF EoR and gain an understanding of the operation. It was determined EoR could help with the operation in certain configurations but the facility is concerned with the availability of resources due to ongoing and upcoming local projects.
 - An amendment to the HAWKZ STAR in Seattle to fix an issue of FMS disconnect with the RNP may be at risk for a 7/21 publication date. Since submitting the procedure for publication, there has been a change in criteria so the “fix” may now cause a “disco”. OKC has provided corrected procedures which comply with the new criteria but Mr. Hargarten is expecting to find out in the next week if the corrected procedures can be published on the original pub date.
 - At the request of the NIWG, the NextGen office is planning to significantly expand EoR development including airports with Dependent Runways. Outreach to the following facilities will start in the next week at the request of the NIWG: PDX/P80, BNA, DAL/DFW/D10 and PHL. For PDX and PHL, a national waiver would need to be generated as Seattle’s waiver is site specific and cannot be used for other operations.
- **Projects worked during this period:** BIL CRAZI STAR amendment, SDF/IAH/SLC/CLT EoR, SJC RNAV STAR Kick-off coordination, PAIE/PAED STARs, L30 RNAV STAR, HAWKZ RNAV STAR, NorCal Initiative, GJT STARs/RNP, MFR RNAV SID, 36U RNAV SID, SLC TWF SID, HND RNAV SID, ZOA/ZLC/ZMP T-routes, RNO RNP’s, Q9 amendment, WVI RNAV SID, PSP RNAV SID, SFO SID amendments, SMF STAR, EAT RNAV SIDs, ZSE T-route extension, TUS PBN Scoping, PANC RNAV STAR, OAK RNAV SID, SLC STAR/SID/RNP request, DEN EPKEE SID, BUR/SNA RNAV RNP SID request.
- **Submitted by Phil Hargarten (S46) Western PBN Co-Lead**
- **CSA PBN 2016-04-23**
 - The CSA PBN Team traveled to San Antonio for preliminary design efforts with SAT, AUS, ZHU, and Southwest Airlines. A follow up Telcon with the same attendees was held April 20th to continue KSAT design work as well as make adjustments to the PINCH STAR serving KAUS. A finalization meeting is planned for May 25th/26th. The CSA Co-Leads also plan to meet with our CSA Environmental Specialist and the KSAT Airport Authority on May 24th to discuss all aspects of the design changes and methods for community involvement.

- This month we also welcomed Nathan Lewis as an additional Management Co-Lead. Nathan comes from ZFW where he was previously an Operations Manager and the QC/QG Manager.
- On April 7th and 8th, we hosted a preliminary design meeting for several gateway requests we have received for KDAL. Attendees included SWA, D10, KDAL, KDFW, and ZFW. Design options were considered to alter the SID structure at KDAL as well as strategies to reduce track miles flown on the SIDs so that Industry would not have to carry unnecessary fuel. KDAL/SWA are the proponents and KDAL desires to have a SID structure that is Bi-directional and removes the need to enter an RM message and amended clearance info whenever flows change at KDAL or KDFW. Potential designs are still being considered and the next meeting is planned for June 13th and 14th. In the interim, D10 and ZFW are discussing adjustments to the delivery fixes from Terminal to Enroute. KDAL also requests 4 new RNAV SID procedures that are able to provide nightly noise abatement. **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 placed in a “future” bucket by the NUT (National User Team) because of it’s size (cost) and complexity...but we are hoping for attention to it soon.**
- This month we have had numerous conversations with AJV-14 at HQ and the VORMON Program Leads regarding the Decommissioning of the BRD VORTAC in ZMP's airspace. This is a heavy non-Radar area and a system of T-Routes is required that will enable controllers to procedurally separate most of the traffic utilizing non-Radar procedures. We have been researching and determining what tools and what structure would provide them the greatest benefit. We are hoping to meet with ZMP in May to put designs onto paper. We plan to also meet with the Noise Oversight Committee (NOC) in Minneapolis and discuss upcoming MSP Post-Implementations designs while we are in town.
- We traveled to DC during the week of April 11th to attend our quarterly PBN Co-Lead Meetings, hosted by AJV-14. During these meetings many FAAO 7100.43 processes were discussed and worked out. We were also briefed on the usage of the Procedure Tracking Tool (PTT). This piece of software is essential for AJV-14 tracking but it has numerous shortcomings and is built on a platform that hasn't been supported for several years. It is very cumbersome and puts an enormous strain on those tasked with data entry. NATCA continues to press for a better solution. At this point it is physically impossible to have all projects entered as desired without additional staff support. We were also briefed by the HQ Environmental Office, as well as conversations with PBN Program Manager, Josh Gustin and the NATCA National D&I and Study Team Leads, Mark McKelligan and Edwardo Hulsey.

- Finally, we held a Telcon with the Columbus Airport Authority and discussed their involvement in design work at KCMH. We are incorporating their concepts with the notional design work already done with the workgroup at KCMH. Further meetings are being planned. Meetings and invites for KAUS, KSAT, KMSP, KCMH, KILN, KDAY, ZFW, ZHU, ZMP are under development and will be scheduled for May and June. Our final challenge is working the necessary procedure notes through the system for 4 new STARs into KOKC. Bennie Hutto, our new National Criteria Rep is helping and I'm working with AJV-14 to organize a Telcon for final approval.
- Submitted by CSA PBN NATCA Art. 48, Brent Luna
- **Metroplex Study Team**
 - 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 likely D&I phase kickoff sometime in the Summer/Fall 2016 timeframe after a determination of what the airport and community outreach will look like. Also, the tower/TRACON move into their new facility sometime in August. The study team analysis of the conceptual designs has determined roughly \$7.5M in potential benefits to the Las Vegas Valley with an \$11 cost to the agency.
 - We continue to assist the Western Service Center (WSC) in understanding what collaboration should look like while conducting their data analysis and feasibility assessment associated with the NorCal Initiative. The NorCal Initiative is a result of Northern California community concerns relayed through their congressional representatives. NATCA is working to ensure the local facilities (ZOA, NCT, SFO) are included in the feasibility assessment and validation of the WSC data analysis. The document is currently in draft form and has been through legal review. It will go back out to facilities and others for comment. As the energy surrounding community noise and outreach grows, we suspect we will continue to repeat these types of efforts around the NAS.
 - We are also engaged in the rewrite of the 8260.43 order that governs the scheduling and prioritization of procedure development in AJV-5 (Aeronautical Information Services). After several meetings in Ft. Worth, the .43 is continues to be in draft status. We continue to try and insert ourselves into the process so our PBN teams can be involved in the discussion involving procedure development prioritization and scheduling

on a consistent basis. No future meeting dates have been scheduled at this time.

- Submitted by Metroplex Study Team Lead Art. 48 Ed Hulsey
- **National Design and implementation**
 - We continue to meet with the Agency about community outreach and developing action plans for current and future Metroplex teams. The Florida D&I team is the most troubling to the FAA because of it's size, however last week we developed an action plan that should cover most concerns, however we are waiting for Lyn Ray (VP of mission support) to sign off on the plan. The impediment to any outreach plan at this time is funding, Jim Davis (NATCA National Airspace Rep), Ed Hulsey (National Study Team Rep) and I will meet with Lyn on 5/5/2016 to discuss further. There has not been any discussion on community outreach for any of the 7100.41 projects.
 - NATCA received a VORMON briefing that left more questions than answers, the agency is looking for SRM paperwork as well as procedure development paperwork on the first 35 VOR's to be decommissioned (these are not covered under the VORMON program). We are concerned that the agency did not do their due diligence and these will need to be reworked.
 - We have had numerous discussions with the agency on additional OSG reps needed to complete this and normal .41 activities. Management agrees that this is needed and discussions between NATCA National and the FAA has started. Jim Davis, Ed Hulsey, Jeff Woods and myself met with Jim Ullman to work out a plan forward for these additional reps.
 - Submitted by Mark McKelligan (ZBW) National D&I Rep
- **NATCA National Airspace Rep**
 - Meetings continue with the agency to work through all the community outreach issues surrounding PBN implementation. Our last meeting in April was productive and we are waiting for the FAA to work out the associated funding issues.
 - Mr. Davis has spoken to multiple managers trying to explain the importance of a lessons learned data base. The managers seem to agree that we need a user friendly data base but they have taken no action at this point. Mr. Davis will continue to pursue this activity because we believe it will be a valuable tool for the design and implementation teams.
 - We are working to establish a process and resources concerning the VOR MON and integration projects. The VOR MON will create a lot of work for our service center co-leads and we will need to give them additional bodies to meet the desired timelines. We have our first drafts setup for the integration projects and continue to work with the FAA to finalize the process.
 - Submitted by Jim Davis (PCT) NATCA National Airspace Rep

COLLABORATIVE DECISION MAKING (CDM): Ron Foley (ZOB) is the Article 48 Representative for CDM. Mr. Foley attended the CDM Spring Session and forwarded the information below.

- **CDM Spring session** - April 18 - 21- American airlines Dallas Fort Worth. Spring session is a midpoint briefing for CDM where the sub groups brief on closed and current taskings.
 - FET - Flight Evaluation Team notes - ATD2
 - ATD2 airspace technology demonstration IADS metroplex traffic management.
 - 3 Ts TBFM, TFDM-terminal flight data management, TFMS
 - Surface CDM
 - SARDA Spot and runway advisor
 - PDRC precision departure release capability
 - All need AEFS electronic flight strips to work efficiently and in harmony.
 - Talked again about future taskings including iPad communications in TMU, AOC, Towers etc
 - FCT – Flow Constraint Team
 - Presentation of 4DT (4 dimensional trajectories)
 - Cog walk (cognitive walk through)
 - En route to terminal transition
 - Mr. Foley reminded the presenter of some of these products that every facility has there own mechanisms, ever sector/area within the facility has its own MO and every controller has or her own controlling personality therefore human factors should always be a consideration during design phase and post analysis.
 - How to improve data communication flow between AT and TMU. Might be as simple as TSD at the d-sides, to bridge TMU tools to air traffic functions.
 - Interval management - almost RTA like except keeping interval (spacing/separation) between aircraft. Could be and designed to used with TBFM.
 - Dynamic RNP would allow the controller to draw or input a wanted RNP to avoid a constraint for example dynamically. In its infancy and will most likely be the next tasking for FCT. Similarities between SFMA though.
- **Spring session subgroup briefings** - Wednesday April 20
 - CAT CDM automation team - data quality with the surface team.
 - Flight initiation lead time metric - how far in advance industry sends info about prior to planned departure time.
 - Off block time accuracy - accuracy of EOBT
 - Timely provision of actual off block time AOBT

- Data comprehensiveness
- TMA release times (TMA-RT) will be in the TFMS in May so industry can see release times on TSD-C
- SCT - Surface
 - Should airport authority be CDM members? Yes
 - TBFM scheduling early based highly predictable EOBT
 - ATD-2 tied in with surface and how to more efficiently get aircraft in the overhead stream.
- WET - Weather
 - Operational Bridging (OB) - bridging different weather products to design a more high resolute forecast.
 - CAWS - Collaborative aviation weather
- FCT - Flow Constraint
 - Space operations and unmanned aircraft systems NAS study.
 - AAtS - Aircraft access to SWIM
 - Strategic flow management application (SFMA)
 - Advanced methods - operational response development suggest TMI strategies based on historical events, constraint predictions monitoring and alerting.
 - 4DT - 4 dimensional trajectory
 - A-IM automated interim management
 - DRNP - dynamic RNP
- FET - Flow Evaluation
 - IDM integrated demand management NASA concept using RTAs and CTOPs to help smooth out TBFM times prior to the freeze horizons.
 - Mark Novak - www.faaindustryforum.com
 - PDRR/ABRR - timeline December 2016
 - Departure viewer sort via departure fix
 - TBFM times being put on TFMS and FSM.
 - Tech refresh 2018
 - TSAS - terminal spacing and sequencing 2019
- FAA - Acquisition Management System (AMS)
- PERTI - Plan Execute Review Train Improve -
- **NCF** meeting - April 21 - American Airlines
 - Air traffic organization update
 - Tracking industry concerns
 - NAS vision roadshow summary
 - LGA construction modeling
 - metroplex/TBFM
 - West coast update LAX/SEA
 - Florida operation on April 2 review
 - Snowbird review
 - CSG update

DATACOMM: Chad Geyer (ZLA) is the Article 48 Representative for DataComm. Below is his update.

- The Controller Pilot Data Link Communications (CPDLC) Service has been deployed to 20 sites and an additional 4 sites are running the enhanced version of PDC.
 - The system is very stable and several sites are now running Auto Mode that previously could not. One of the issues that we are finding is the lack of understanding on the flight deck side. We all know that pilot training is not always as thorough as it should be. The program is experiencing this right now.
 - There has been some confusion from those on the flight deck on how to load the route information. The FAA has a contract with Harris to reach out to the operators and work with them on any flight deck issues.
- The program office is also working with the avionics manufacturers on fixing issues with their different types of FMS's. Even though the Future Air Navigation System (FANS) is supposed to work the same on all aircraft, we are finding that they don't.
 - These issues are being brought forward to the manufacturers to fix.
 - Depending on the issue and the amount of aircraft that use that platform, fixes can be made relatively quickly or in some cases can take years. The program office is working with Net Jets, Executive Jet, other small private operators and even the military to include them in CPDLC operations and identify any issues with their system.
- International carriers are slowly beginning to subscribe to CPDLC as well. Just recently British Airways, Emirates, Singapore and China Air have begun to participate. Foreign Air Carriers must follow a process within their own version of the FAA to allow them to participate. US carriers must gain approval through the FAA's Operational Specifications and foreign air carriers must do the same in their country for each type of air frame.

ELECTRONIC FLIGHT STRIP TRANSFER SYSTEM (EFSTS): Below is a report from Pete Slattery (CLT) who is represented NATCA this past week in an EFSTS key-site activity at Nashville (BNA).

- There are approximately 80 sites that use the Electronic Flight Strip Transfer System (EFSTS) throughout the NAS. Commonly called the "scanner system", EFSTS users barcode scanners to send (transfer) departure strips from a control tower to a TRACON.
- Approximately 45 of the 80 EFSTS sites have keypads associated with the scanners. Keypads can be used by tower controllers to transfer control information (commonly known as Automated Information Transfer or AIT) along

with the flight strip. Sites that do not currently use keypads are not scheduled to receive the EFSTS Replacement Keypad (ERK).

- Unfortunately the keypads used by EFSTS since its inception are Commercial-off-the-Shelf (COTS) items that are no longer being produced. Replacement units (spares) and spare parts for repairs, are in short supply and expected to no longer be available in the very near future.
- Fortunately, EFSTS engineers at the Tech Center in Atlantic City have developed a replacement for the COTS keypads in the form of a touchscreen keypad. It is known as the EFSTS Replacement Keypad, or ERK. Extensive development and testing of the ERK has occurred over the last 18 months. NATCA has been involved in every aspect of this activity to ensure acceptability by the workforce.
- Two key sites were selected to field test the ERK; Nashville tower TRACON/ (BNA) and Philadelphia tower/TRACON (PHL). The tests will run more or less concurrently and last approximately 21 day. Installation is staggered by one week due to having just one engineering team performing both keysite installs. The units were installed at BNA the week of April 25th and will be installed at PHL the week of May 2nd.
- At the conclusion of the test period, a determination will be made on the fitness of the units for use at the remaining facilities. A tentative waterfall deployment schedule has already been developed and will be followed upon successful conclusion of the test. The ERK units will be shipped to the remaining facilities in kit form for installation by local TechOps personnel.
- Controller training on the new devices is via PowerPoint instruction and hands-on demonstration. A concerted effort was made to replicate each facilities current keypad layout and functionality in order to flatten the learning curve as much as possible.
- Mr. Slattery met with Nashville FacRep, Jonathan Grimes, on Monday, April 25th and discussed the coming week's activities. Mr. Grimes introduced Mr. Slattery to his ERK Point of Contact, Chad Joins, and facility Support Specialist Kenneth Edwards. They discussed the importance of the upcoming test and the fact that we would seek to minimize disruptions as much as possible. Largely, they succeeded.
- Mr. Slattery participated in all of the activities at BNA during this past week. Mr. Joins attended day one and Ken Edwards attended all 3 days. Controllers had previously been presented with the PowerPoint presentation, which provided an overview of the new units. A simulation lab was set up in the conference room and controllers were given a hands-on demonstration on all aspects of the new units. Generally this period of instruction lasted between five to 10 minutes. They were then afforded the opportunity to make as many entries as they wished until they were comfortable using the ERK.
- One ERK was installed at a seldom used controller position in the tower cab on Tuesday.

- It was tested for correct functionality and then disconnected from the live EFSTS system. Until all controllers are trained on the system, the new ERK will remain disconnected from the live EFSTS. It will be available for practice entries until all training is complete.
 - Once everyone is trained on the ERK, it will be reconnected to the live EFSTS system and testing will begin. This expected to occur sometime early next week.
- Controller acceptance of the ERK seemed to be high. It appeared that the general feeling was that the ERK was superior to the old keypads in every respect.
 - The older keypads have physical buttons that can wear out after years of repeated pressing. Also, the characters on the buttons can fade and become illegible over time due to normal wear-and-tear as well as exposure to direct sunlight.
 - Since the new ERK is an eight inch touchscreen display with variable brightness controls, it is much easier to see and read in any lighting condition. Life expectancy of the new units is unknown at this point, but the displays have a very high Mean Time Between Failure (MTBF) rating and are expected to last several years before requiring replacement.
- The week concluded with an out-briefing to facility personnel on Thursday. TechOps, Air Traffic, and NATCA were all in attendance and given a final opportunity to ask questions and provide input. Everyone seemed to agree that this necessary upgrade went better than expected. There are still a few minor issues that the EFSTS engineering team indicated they would address in the next release of the software. These issues do not affect the stability or functionality of the ERK in any manner, but are more along the lines of, 'it would be nice if it could do this' type of issues.
- Overall, a very successful keysite activity.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) leads NATCA's efforts on the IDS-R project as the Article 48 Representative. Below is Mr. Smith's report.

- The latest NIDS software release (Maintenance Release 1) is being retested after a few of its components failed the last round of testing. The time period for the release of MR1 is still slated for late spring or early summer. Additional upgrades and fixes are being packaged into the next operating system release (OS3) which is projected to be released in the fall of this year.
- There are a few networks that are getting close to IOC but work at all of them has uncovered technical issues.
 - Some of these issues are minor but a few are important enough to potentially delay IOC. One "fix" needs a Requirement to be written validating its functionality and others needs to be tested in the lab in Atlantic City.

- The IDSR lab is presently inundated with testing because of the MR1 retest and because the transition to a new tower at TUL requires new procedures to be written and tested.
- The next large network to be visited by the program office and NATCA is SCT. This series of visits is being called "pre-IOC meetings" and is intended to uncover issues before they impact the schedule set for moving forward. Due to the size of the network, only SCT and five towers will be visited during this week. The rest of the towers will, if requested, be visited before IOC.

SURVEILLANCE BROADCAST SERVICES (SBS): The NATCA Surveillance and Broadcast Services (SBS) team includes: **Eric Labardini (ZHU)**, National SBS Article 48 Rep, **Craig Bielek (A90)**, **Dan Hamilton (SFO)**, National Airport Surface Surveillance Capability (ASSC) Rep, **Andrew Stachowiak (I90)**, and **Tom Zarick (ZDV)**, National Interval Management Rep

- **ADS-B:**
 - As of this update, 22,392 aircraft are equipped to broadcast with ADS-B Rule compliant avionics in the NAS. The SBS PO rough estimate of avionics installation capacity nationwide is 50,000 aircraft per year. With the January 1, 2020 deadline to equip quickly approaching, concern is high that equipage levels will fall short of the estimated total NAS fleet (100,000-160,000). Users that wait too close to 2020 may find that the availability of installers falls short of demand. The DOD recently announced that they will fall short of the deadline to equip their fleet.
 - ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities.
 - 75 of 155 Terminal sites have reached their ADS-B IOC and 71 are operating on Fusion. The remaining Terminal sites are ARTS 2E sites awaiting an upgrade to the ELITE (STARS) build. The Terminal ADS-B/Fusion transition proceeds in this order: Kickoff meeting, ADS-B Flight Inspection, ADS-B IOC, Fusion Operational Suitability Demonstration (OSD) and Fusion Operations. The most recent and upcoming Terminal events:
 - Fargo (FAR) ADS-B/Fusion Kickoff, April 14
 - Evansville (EVV) started Fusion Operations, April 20
- **ASDE-X Tech Refresh:**
 - Dan Hamilton attended a TIM/PMR the week of April 11th In Oklahoma City.
 - NASE Engineering continues to work on potential system enhancements as they support the 35 ASDE-X sites.
 - Discussion with the program office has started on options for the current SMR's (Surface Movement Radar's) in the NAS. The ASDE-X Program office is waiting to see what develops with ASSC and the NCS (non-cooperative surveillance) discussions that are starting to develop.
- **ASSC:**

- Dan Hamilton attended a TIM/PMR the week of April 18th.
- SAT (Site Acceptance Testing) takes place the week of May 2nd at SFO. OT&E (Operational Testing and Evaluation) will take place in July. Everything is still on track to IOC ASSC in coordination with the new tower opening at SFO in October.
- In light of the SMR (Surface Movement Radar) which was added to the ASSC baseline, the agency is planning on sending out a market survey for NCS (Non Cooperative Surveillance) which is a new program in the development phase. Dan Hamilton will be an active participant with NCS.
- The JRC would like the program office to conduct an SRMP this summer to evaluate the year 2020 ADS-B mandate and how that will affect transponder compliance in regards to surface movement.
- **CLT WAM:**
 - A successful regression WAM Flight Inspection took place April 5-6. The issues observed earlier with acquisition of ATCRBS targets was resolved through an adaptation change within the SBS network. Coverage was very good in the CLT airspace. All Discrepancy Reports (trouble tickets) were closed during the event. CLT Fusion was evaluated in degraded modes, including shutting off all radars; WAM proved more than capable of continuing in Fusion without radar support.
 - The technical issues appear to be largely closed. The remaining hurdle to reaching the targeted May 24 IOC date is acquiring all the necessary Agency approvals. Timelines remain tight but achievable.
 - CLT Air Traffic training started on April 18 and is on track for the IOC date of May 23.
- **FIM-S**
 - Three IM/TSAS concept evaluation events scheduled for May and June at Mitre IDEA lab.
- **FMA and Fusion:**
 - The SBS Article 48 work group determined that both Atlanta (A80) and Chicago (C90) will be key sites for operational start to combined use of FMA and Fusion, currently planned for June 2017.
 - The first FMA/Fusion SRMP was held April 26-27. The panel worked its way down to one possible minor risk, and that one may be eliminated with further discussion. Much work remains in Separation Standards analysis, completing the draft SMRD, and of course the lengthy approval process.
- **GIM-S:**
 - ZLC - On-site evaluation of adaptation complete. Awaiting on ZLA departure scheduling before IOC.
 - ZDV - Working on second arrival stream into DEN. Southwest stream IOC scheduled for mid-May.
 - ZSE - On-site adaptation testing complete. Controller training in progress. IOC delayed one week. New date is May 23rd.

- ZHU - Resuming GIM-S implementation testing on site. IOC not scheduled yet.
- ZKC and ZFW – Site Kickoff meetings are being coordinated for end of June.
- **MEARTS Fusion:**
 - SBS Article 48 work group is pursuing a change to increase the update rate of the Juneau WAM configuration. Currently at 12 seconds, the system would initially be sped up to 6 seconds provided it passes an Operational Eval. ZAN currently operates in an EnRoute Fused display mode with a 3 second skip scan function. With a faster update rate from WAM, the display rate would also increase.
 - Unrelated to Fusion, ZAN has reported numerous Call Sign Mismatch issues. Flight Standards has found that 99% of these are attributed to 7 carriers, and they are reaching out to those operators. Changes to MEARTS to disable the alerts are being pursued.
- **Space Based ADS-B:**
 - April 6, Eric Labardini participated with representatives from FedEx, JetBlue, American Airlines, United, ALPA in meetings with Senator Schuster's office and the Senate Appropriations Committee on Space Based ADS-B. All participants shared the same message, that the Agency's two-phased approach to implementing Space Based ADS-B and Reduced Oceanic Separation is lengthening the time lines unnecessarily to 2021 or later, adding cost, and causing serious operational concern. If the approach were more like that of other countries that plan to have a reduced oceanic separation standard in 2018, then these issues could be avoided. The US controlled oceanic airspace could become a bottleneck compared to surrounding countries if the approach is not modified quickly.
- **Terminal Fusion:**
 - Several STARS ELITE sites have found that the Tower Display Workstation (TDW) has a problem with the Fused display target symbol when ranged out to 60nm or more. This is a hardware limitation and options are few except to try and address through software changes. The SBS Article 48 work group has asked TSLE to investigate reducing the pixel size adaptation parameter and plans on a limited operational eval to determine acceptability. Testing begins soon.
 - The Surveillance Automation Analysis TeamS (SAAT) continues its work analyzing long term solutions for SCT TRACON airspace. The current focus of the team is on the impact of the stadium to be built in Inglewood and its impact on the surveillance systems in the LA basin. The stadium is proposed just two miles from LAX and its two radars. There are likely to be significant radar reflection issues in an already congested and challenging with similar problems. The planning stage for the stadium is

nearing its final stage and any mitigation proposals from the Agency need to be completed quickly.

- **Vehicle ADS-B:**

- The vehicle ADS-B team is currently working on finalizing transmit maps for HOU, STL and FLL.
- An upcoming outreach will take place at PDX the week of June, 13th.

TERMINAL FLIGHT DATA MANAGER (TFDM): Matt Baugh (IAH) is the TFDM Article 48 Representative. He forwarded the information below for this week's update.

- On Saturday, 4/30 during the midnight shift, EWR will be going IOC.
 - Mr. Baugh participated in a meeting with EWR ATM Russ Halleran, OM Bob Gibney, their AEFS lead Louis Cagianno, AEFS contract lead Joe Longo, and Surface Manager Bob Varcadipane to discuss their plans for the next few days as well as the next few weeks after going IOC.
- Mr. Baugh was very impressed with all of the work they have done over the last week to get this plan finished and implemented. Although the FacRep Ray Adams wasn't on the phone, the ATM spoke very highly of him and their combined ability to maintain the facilities focus on the task at hand.
 - They have been running shadow ops in their facility for a little over 3 weeks now, meaning, extra people in the cab mirroring what the local/ground controllers are doing with strips. This process was initially being handled by the EWR team and some of our team who have been up there as support.
 - Gradually, over that time, additional BUE's have been brought up to take over the shadow ops. Over the last two days however, live ops have been underway a few rotations at a time with those who are the most comfortable with the system. During those runs, shadow ops with their paper strips were being done in case of a failure.
 - There have been no failures and everything has been running smoothly. It is the facilities plan to continue these mini-trials with as many people as possible until they go IOC later this weekend. To help accomplish this, the ATM has started calling in OT to backfill for any sick hits to ensure the facility is in full strength. In addition to the OT, we have had someone up there as support this week and he will remain there through next week.
 - Mr. Baugh will be at EWR Monday through Wednesday and we will be bringing someone else in on Tuesday.
- The main hang up right now is EWR's requested screen covers so that if they have a failure and have to revert to paper, they can have a place to put those strips since the counters they normally use will now have AEFS monitors. They are going to get the second attempt of these covers later this week so that is looking promising.

- For AEFS in general, the team is continuing to work with SFO to get as many of their requests for adaptation in the next build, due out June 10, and we think we have everything captured.
 - PHX will be brought up to the most recent build by June 20.
 - CLE had a major failure on Tuesday morning, 3 of the positions (Supervisor, TM, and Ground) all froze and the thin clients had to be reset. Because of this, they had to revert to using paper for a short time. Tracking was turned off on their thin clients because they hadn't had freezes since we gave them the emergency build.
 - They have since turned on the tracking in order to try and capture what is happening with their freeze ups and hope to have a solution by next week. They have unofficially closed the wish list for the next build so that we can maintain our schedule, but if they can easily find a fix for the CLE issues, the work on that list will continue.
- As for TFDM, the team has finished our meetings with IP&A to discuss them zeroing out their runway balancing benefits.
 - Those 5 meetings with NATCA and management from DEN, DTW, MIA, MSP, and PHX all went well and have scheduled another meeting with the TFDM team and IP&A to go over the notes.
 - Something to be aware of though, IP&A said yesterday during the meetings that they would support an electronic flight strip system, even with a negative cost/benefits ratio. From a NATCA stand-point this wouldn't be a total loss because we'd get some form of EFD. However, this, in the eyes of the bean counters and the airlines, would give no savings and would probably piss off most of them.
 - Mr. Baugh found out this week that there was a meeting last week with quite a few people, mainly Teri Bristol (FAA COO) and the TFDM Program Manager Mike Huffman.
 - Ms. Bristol found out the team had slid 3 years and s asked why. When the PM told her because the Agency had cut \$90M out of the program Ms. Bristol spoke of her support of TFDM and committed to help out the program get back on track. This was good news for the program.

Dale Wright
Director, Safety and Technology