NATCA Safety & Tech Update
Week of July 25, 2016

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

Charlotte Metroplex – July 2016

The month of July has been very busy for the Charlotte Metroplex team. As the team worked through a myriad of issues in preparation for conducting a community outreach prior to our July implementation as well as working through the last minute issues for the implementation of nine new procedures, up numbering three procedures, and all associated airspace changes to support.

The public outreach was held in the northeast part of Charlotte. In attendance were twenty-four citizens. This number was considerably less than the 120 plus at our first outreach held in May. Twenty-three were from the Southwest area, (Chapel Cove, Sanctuary, Steele Creek neighborhoods); this area was impacted by the Oct 2015 implementation. The attendees were very passionate but all remained civil. No local council or congressional members attended. Four NATCA members participated, as SME's to answer any technical questions the community members.

July 21st implementation of the above procedures and airspace was executed with only minor issues. PSA airlines had some flight planning issues and some of the aircraft did not have the current database however their lead dispatcher was very responsive and issues are being handled quickly. Automation issues have been relatively minor with the majority of the issues being within CLT TRACON, and are being addressed. The TFMS system requiring update prior to the ERAM build continues to be an issue with each implementation.

Submitted by Ron Myers - CLT Metroplex NATCA Article 48 Lead

Florida Metroplex - July 2016

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 preliminary work is complete and now we are planning a HITL to evaluate the designs.

Met with Atlantic Coast Route Project (ACRP) Co-lead to discuss how to integrate Q-routes and Y-routes from the Florida Metroplex project to ACRP.

Submitted by Greg Harris - Florida Metroplex NATCA Article 48 Lead

Atlanta Metroplex – July 2016

The Atlanta Metroplex team is continuing work towards our 9/15/16 changes and our 11/15/16 STARs implementation.

The Team met with ZTL and A80 on 6/28 to discuss our 11/15/16 STAR Implementation. During the meeting we came up with a plan for usage of the OPDs. Our plan is to use the OPDs for 4 hours on day one and to steadily increase that usage to full time. Delta is concerned about reduction of throughput during implementation, so we believe this plan will allow for no throughput reduction. During implementation we will have Delta representatives at A80 and ZTL to help us monitor and to ensure everything is going well.

On 7/20 we met with Delta, also included was A80, ZTL, and SWA. This meeting was to go over our plan and make sure they were on board. There was a lot of discussion revolving OPDs and if they increase delay in the system. ZTL said that with their experiences with the CLT Metroplex implementations, you could still run an efficient operation while using OPDs. We plan on continuing to keep Delta involved in our implementation plans and our planning another meeting with Delta the week of 9/5.

Our future activities include an ESC Director Briefing on 8/2, an NCF Briefing on 8/10 and a CNS Taskforce Briefing on 8/18.

Submitted by Joey Tinsley - ATL Metroplex NATCA Article 48 Lead

Cleveland/Detroit Metroplex – July 2016
Followed up on issues from Last month's industry week. We incorporated many of the changes that we worked so closely with Delta and United as the lead carriers. This will go back to the groups in early August.
Worked with Great Lakes regional office and administrator on our Customer Involvement plan. Headquarters has agreed on Congressional briefing in the beginning of august. Two weeks later we will present our plan to the public at a board meeting in Cleveland on the 16th and an airport board meeting in Detroit on the 17th. The communications office will be doing a press release for both events. Currently we are estimating that we are going to be about 13 to 15 months behind schedule because of this added requirement.
Met with several offices in the Central Service area on various issue to include but not limited to: D21 Sector moves, Customer involvement plans and public meetings, Nov 10th Chart, OKC production issue, Airway removal, MTC, frequencies and numerous others.
Submitted by Don Ossinger - CLE/DTW Metroplex NATCA Article 48 Lead

Southern California Metroplex – July 2016
The SoCal Metroplex legal and environmental specialists have completed review of all but five comments to the EA. The five comments in question require additional input from Headquarters, AEE or other legal divisions to be completed.

14 topical responses to EA comments have been reviewed and edited by legal. The core team will review and consider these amendments. They will then be included in Appendix F of the EA.
A draft FONSI/ROD and VP draft briefing document has been submitted to the core team for review and approval.
An initial "storyboard" for a SAN area podcast of Metroplex procedures has been submitted to AJV-1, at his request, for planned use prior to implementation. The podcast will be used to inform the public of how procedures interact with other procedures and airspace within the NAS.
The Core Team began to update the SoCal Playbook and began the process of developing a contingency plan for all three implementations. The plans require SME input, and a meeting is scheduled for the week of August 1, 2016.
The SoCal procedures have been delivered to the Flight Check team. Coordination has begun to schedule the flight checks.
SRM panels have been scheduled for both facilities the week of September 19. ZLA has scheduled an additional SRM panel the week August 22 to complete LOA and SOPs.
The planned meeting with our SENEAM partners for the week of August 8th will have to be rescheduled. Dates for a meeting in Mexico City and a second meeting in the US are being negotiated.
ZLA POCs have been working with the training department and the SMEs to schedule cadre training, validation of TTL scenarios, TTL classroom training and materials.
SCT POCs and SMEs have reviewed and approved FIGs for all procedures. The SMEs have been working with the automation team to review and validate fix pairs for training scenarios.
Submitted by Jose Gonzalez - SoCal Metroplex NATCA Article 48 Lead

Denver Metroplex – July 2016

The Denver Metroplex core team has been heavily engaged with the Western Service Center, the Regional Administrator, and Headquarters to lie out the upcoming outreach activities. The initial engagement with select officials will tentatively begin late August. Further refinement of who will all be engaged, to what degree, and the exact details of what is to be shared are still being decided.
In late June, the Denver Metroplex team completed a very successful TBFM HITL at MITRE. The team was able to both find adequate solutions to issues identified for the proposed redesign and to also identify further modifications to their current TBFM adaptation to allow for a better flow in the current state.
Meetings were held in July with representatives from the satellite airports in the Denver area on concerns they had with the proposed procedures. The POC's and SME's from ZDV, D01, and DIA did an exemplary job explaining the design rational along with the intended use of the proposed procedures to

the representatives. After much dialogue with these representatives, the POC's and SME's made further design modifications that were recommend by these representatives.
Submitted by Mark Ostronic – Denver Metroplex NATCA Article 48 Lead

National Route Structure Program; Atlantic Coast Route Plan (ACRP) – June 2016

The notional design work has been completed for ZBW, ZNY, ZDC, ZJX, and MIA.

We are still in the process of merging the programs with Fl. Metroplex from the ZJX boundary to ZSU. The two programs will continue to run with close coordination between the two programs.

- The Targets files have been merged for ACRP and FL Metroplex at ZMA. This allows us all to be on the same page and each program to maintain an accurate working file.
- WE spent the last 2 weeks working with ZJX/ZMA refining the routes and adding waypoints where needed.
- ACRP is currently maintaining 2 files to accommodate the different criteria's in design. Metroplex uses 3 miles from SUAs. ACRP is mandated to use 4 miles from SUAs. We are hoping that Metroplex can provide us with a document, waiver or something that will allow us to use 3 mile for publication.
- The leads of both programs will 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.
- The G448 corridor and the Cuba piece is also on second file because of different Criteria that was used in development inn Metroplex design.

Upcoming Activities
ACRP will finalize the design process with modeling of the routes with ISIM 2 weeks at ZMA. ZJX and ZMA will be complete with design after modeling

ACRP will be going to ZSU at the end of the month for modeling of the Y routes designed by Metroplex.

ACRP will be designing ZSU routes to help PBN routes from Piarco and other surrounding foreign FIRs as part of the Caribbean initiative study program

Submitted by Jorge Rivera - National Route Structure Program/ACRP NATCA Article 48 Rep/Lead

CSC OSG PBN – July 2016

MSP Post-Implementation Noise Screen Results have been returned and are undergoing final insertion into usable maps for upcoming briefing materials and dissemination to interested parties. The impact report generated by TARGETS AEDT Environmental Plug-in shows no change in noise exposure between the baseline and alternative scenarios. Our goal is to have these materials ready for upcoming MSP Project POC briefings to the MAC and NOC. The PBN structure that was developed to help mitigate the decommissioning of the BRD VOR is awaiting any other changes needed by the Western Service Area Facilities. ZMP is heavily impacted by the BRD Decom because the VOR MON project hasn't given much thought to the effects on surveillance when navaids are removed. Inquiries made to AJV-14 concerning potential land lease extensions haven't been reported back as successful and this project seems as if it will move forward and continue to have negative impacts to FAA facility operations as well as restrict under-equipped users in the immediate area. NAVAIDS provide needed surveillance structure in large areas of Non-Radar operations. In areas without VOR coverage, aircraft without the proper GPS or RNAV equipment may not be able to join the GPS based navigation system. Unless radar monitored, these aircraft will not be able to receive ATC services.

The Regional Administrators remain committed to providing support for efforts in Minneapolis, San Antonio, and Austin. All project scheduling in Central has been adapted to include additional time between the finalization of proposed changes and submission to the Flight Procedures Team. This additional time is necessary to have initial noise information available and to have additional time for communication as necessary. Workgroup meetings were held in San Antonio to work on the proposed changes and a database is being made available for SWA to run SIM evaluations on. SWA will bring back any suggested adjustments.

FAA HQ provided Formal Training for our Environmental Specialists concerning Community Engagement as well as a session where the Handbook of best practices was read to the Metroplex Leads. There hasn't been any additional training specifically for PBN Co-Leads.

Projects at SAT and AUS were strategically slipped in the production pipeline because of recent changes to STAR Termination criteria that have had negative consequences affecting our designs. Co-Leads also feel it is best to allow more time for Community Engagement pieces to be completed. Internal project timelines have been adjusted to allow for more environmental information to be shared with each Airport Authority before designs are finalized and sent to the Flight Procedures Team (FPT).

A Post Implementation Telcon was held in support of the new LUCIT STAR implementing at KGYY. No areas of concern were raised. All procedures published on the 7/21/2016 chart date were reported on and all implementations seemed to run smoothly.

Of particular concern this month, AIS notified us that our post-implementation amendments for the KIND project are going to be slipped by one chart cycle because not all of the work was delivered to Flight Check by the deadline. We understand that AIS has been advertising that they are not able to keep up with their current workload. We held a TelCon with the affected facilities as well as AJV-14, OSG, and AIS to discuss. The facilities are put in a very difficult predicament when chart dates slip very late in the process because of facility training requirements and the automation adjustments that have to be made months in advance. The conversation was productive and the facilities remained very professional and collected. This TelCon helped keep AJV-14, the OSG, and AIS aware of the significance of these types of amendments and just how much the facilities are relying on the process to work for them.

Additional research has been done in support of the ATKNN SID request off of KELP. This information will be shared with the facilities when I return from leave.

AJV-14 has begun a review process with all of the Co-Leads to check and make final adjustments to the new 7100.41A Order rewrite.

Finally, The FacReps from D10, KDFW, KDAL, and ZFW joined Mr. McKelligan and myself at the Joint Analysis Team meeting (JAT). The JAT is focusing on data analysis regarding the North Texas Metroplex project and Terry Donaldson, Andreas Sanchez, Nick Valadez, and Nick Daniels provided excellent insight and valuable perceptions to what was being collected and how beneficial it might prove to be. They were also able to speak to the many additional challenges that the local NAS has had to adjust to and absorb. These complicating factors include the effects of CRO at KDFW, the re-banking of AAL's scheduling, and the elimination of the Wright Amendment, which has increased the number of flights as well as cities served by Southwest Airlines. These guys did an excellent job as they made the JAT aware of how complex the system in North Texas is and how dynamic their facilities are at adjusting to the latest challenges.

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 its size (cost) and complexity…but we are hoping for attention to it soon.

Submitted by Brent Luna - CSC OSG PBN NATCA Article 48 Lead

ESC OSG PBN - July 2016

The ESA report contains information from June and July.

The ESA PBN team continues to monitor the post implementations for three BOS STARs. The original implementation of the ROBUC1, QUABN3 and OOSHN3 as Optimized Descent Procedures (OPD) generated over 80 ATSAPs and multiple ASAPs. The redesign of the procedures to the ROBUC2, JFUND1 (QUABN replacement) and the OOSHN4 seems to have resolved many of the issues. We are working issues with TBFM, an affected parachute area near

the new RWY 15R transition on the JFUND and closing out the ATSAP reports through the ERC.
We have traveled to ZNY on several occasions to develop new PBN SIDs and STARs for Bermuda. The Oceanic Area at ZNY controls the airspace around Bermuda and they have requested satellite-based procedures as they prepare to host the America Cup yacht race in June 2017. The NAVAID has been unreliable in the past and we are working with AJV-8 and the International office to develop procedures that will be used in Radar or Non-Radar situations. ZNY ran simulations on the procedures and seem to be pleased with the designs.
Our team has been working with New York TRACON (N90) to make changes to the RUUDY SID at Teterboro (TEB). The procedure is designed to separate the TEB departures from the Newark (EWR) RWY 33 arrivals. There are well over 100 pilot deviations that have been attributed to these procedures. A new simplified design was developed in a collaborative meeting and the initial SIM runs from Flight Safety International found no procedural issues.
This past week we traveled to Potomac TRACON (PCT) to work on procedures effected by the shut down and future decommissioning of the Patuxent VOR (PXT). The VORMON project effects procedures into primary airports such as; PHL, EWR, LGA, multiple satellite airports in the NY & PHL airspace, DOV and the lose of the Victor airway system between the DCA TFR and the PXT restricted areas. PCT, PHL, ZDC, the ESC and US NAVY participated in the design meeting. N90 was not able to attend because of staffing issues. We developed notional RNAV designs for the extension of three current T-routes and the development of five new T-routes. We created three new RNAV STARs into the New York metro area and modified three current RNAV STARs. The RNAV PAATS STAR feeding PHL was also amended. ZDC and PHL controllers made every effort at developing the PAATS as an OPD but with airspace and human factor complexities, along with criteria issues and time constraints, the group decided to continue to work with industry but not pursue an OPD STAR at this time. The next PXT meeting is scheduled for the week of August 15 and DOV, ORF, ACY, ROA and the US Air Force will be invited to join the group. A meeting will be scheduled in October or November to bring N90 and the full group together to finalize the designs.
Designs have been completed and are under development by AJV-5 that include RNPs at ORF, BDL, BVT, eleven SIDs and one STAR at MEM.
Five amended STARs published this past week at SDF to solve safety issues. There have been no issues reported from ZID or SDF at this time as we move to post implementation and close the project.
ACRP has request fourteen STARs be amended to coincide with their project publication expected in October of 2016. We will continue to coordinate efforts with ACRP and Florida metroplex to accomplish this goal.
Other projects of significance being worked in the ESA; RDU RNPs were designed with waivers which several FMS can't process and the STARs will be amended to meet criteria. JAX MARQO STAR does not meet ATC needs and

Headquarters has requested we look at the BWI TERPZ RNAV SID due to noise issues. ZME requested to amend their Q-routes and FEDEX has requested amendments to the STARs and RNPs at MEM, along with the development of three RNPs at ROA.
Submitted by Bill Wise – ESC OSG PBN NATCA Article 48 Lead

WSC OSG PBN – July 2016

6/28 Conducted two telcons, one for the LAS SITTEE STAR and one for the HND SIDs. These were follow-up telcons to finalize designs and gain workgroup concurrence to declare pencils down. Both procedures have been forwarded to FPT and environmental. A CATEX has been issued for the SITEE STAR and the procedure has been forwarded to OKC for publication in January of 17. The HND SID amendments did not pass initial environmental review at the service center and is being sent to DC for environmental processing at HQ. These procedure amendments are slotted for publication in June with an August back up. The Henderson SIDs is high visibility with Lynn Ray in support of NBAA's request for these designs.

6/28 Conducted a telcon with NCT and ZOA to finalize T-route designs for Northern California. This project involves amending 4 existing T's and creating 3 new routes. This project supports NCT in their need for new routes in the wake of Metroplex as well as the decommissioning of Maxwell and Manteca VORs. These procedures have been forwarded to environmental for review and have been placed on the docket for the rule making process.

6/29 Held a meeting of the full work group to design new SIDs for Boeing Field. These procedures will satisfy two needs. For RWY 13R, the new procedure will correct a safety issue with the legacy SID where flight crews are misreading the current procedure and turning towards the SEA VOR just to the south of BFI instead of continuing straight out. This causes a loss of separation with arrivals on the Seattle final landing Seatac. The benefit of the 31L SID will be to help decouple Seatac Airport departures (north flow) and BFI airport north departures through the use of altitude restrictions. This will increase efficiency for both airports during certain weather conditions when visual separation cannot be applied. Currently looking for a volunteer air carrier to SIM the procedures as the "lead operator" has balked.

7/12-14 Participated in a meeting at D10 TRACON at DFW with the NEXTGEN office for EoR. The purpose of this meeting was to introduce the concept of TF EoR to the facility. Facility NATCA, Management and representatives from American Airlines were present. A briefing was provided to describe what EoR is and how it has been utilized in Denver. The facility then briefed the EoR team on how operations work at DFW to familiarize the EoR team. Both NATCA and management expressed interest

in moving forward in the futures with design and implementation of TF RNPs and EoR.

7/18-22 Participated in a full work group kick-off meeting to design and implement three new RNAV STARs. Two serving Elmendorf AFB and one serving Eielson AFB. The existing legacy STARs are combined RNAV and Conventional procedures, which are out of criteria. Participants in this kick-off included ZAN/A11 NATCA and Management, Air force C-17 pilots, Air force F-22 pilots, Air force TERPS, FPT, AJV-14 and the co-leads. Workgroup consensus was reached for all procedures and a follow up meeting will be conducted within the next few weeks to discuss potential changes to IAPs at the airports to support connectivity with the STARs. Also, during this trip a telcon was conducted with Fairbanks TRACON and Alaska Airlines to kick-off amendments to RNP procedures at the Fairbanks airport. Due to criteria and connectivity issues, these procedures have been N/A'd. The workgroup was able to reach consensus for the needed changes to the IAPs to bring them into criteria as well as amendments to the RNAV STARs to fix the connectivity issues.

Procedures processed by co-leads during this period: Seattle RNAV project, HND SIDs, LAS SITEE STAR, IAH EoR, FAI RNPs/STARs, PAED/PAEI STARs, BFI RNAV SIDs, LAX RNAV SIDs, SUU RNAV STAR, TUS RNAV SIDs/STARs, NCT T's, ZSE T's, ZLC T's, KSLC SID amendment, SLC STAR/SID BAR Completed, SDF EoR Briefing, ANC WITTI STAR, KBLI MADEE STAR, PHNL RNAV Project, GPI RNAV SIDs, DFW EoR

Submitted by Phil Hargarten – WSC OSG PBN NATCA Article 48 Lead & National EoR Rep

Metroplex Study Team – July 2016

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 Fall 2016 timeframe after a determination of what the airport and community outreach will look like and finalizing funding issues. 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. Pre-design coordination involving community involvement has already commenced.

We continue to work with the VOR MON program to determine the most efficient way to integrate the ongoing work being done by VOR MON with the need to replace procedures through the current PBN processes. There are ongoing talks with AJV-14 to add additional co-lead support in each of the Service Centers to do this extra procedure design and development. We also continue to work with AJV-14 to improve the PBN Dashboard by finding ways to validate the accuracy of the Dashboard data along with efforts to examine the consistency of the data. The PBN Dashboard is the main support tool used by the OSG PBN Co-Leads to produce the Baseline Analysis Reviews (BAR) for PBN project requests through the 7100.41A process.
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) although work may soon commence on a prioritization plan with AJV-14 in the near future. No future meeting dates for the 8260.43 re-write workgroup have been scheduled at this time. I am currently the NATCA POC for the SFO CAR (Corrective Action Report). The CAR is reference the DYAMD and SERFR STARs into SFO and an issue with the descent profile leaving the confines of the Class B airspace with speeds higher than allowed in the FARs. The POCs have sent forth a final response to the Director of Airspace Services and VP of Mission Support. The deadline was July 25, 2016 to have a response to the CAR signed. After review and signature, it will go to the ATSAP Analysis Team (AAT) for final concurrence or non-concurrence. We are also re-examining the lead operator roles and responsibilities as it relates to the ongoing Metroplex teams and the single site OSG PBN work. We expect to have a telcon with A4A and other industry representatives in the near future to discuss.
Submitted by Ed Hulsey - Metroplex Study Team NATCA Article 48 Lead

National Design and implementation – July 2016
Metroplex:

1. The Funding issue for FY17, caused mainly by community outreach should be taken care of by the end of the month. After discussion with Josh Gustin (PBN Manager) the belief is NextGen will provide the additional funding for this year.
2. Community Outreach continues to be challenging in developing and implementing PBN in the NAS. Metroplex has developed Community Outreach plans for the sites, however funding for all the activities has become a roadblock. If the FAA wants Outreach to be part of all PBN projects, whether Metroplex or 7100.41 projects it is incumbent upon them to find the funding. Additionally issues have arisen from the Office of Environmental and Energy (AEE) briefing "policy" guidelines to non-FAA entities ie. Airports/Noise Committees and not briefing the OSG Co-leads nor have they been willing to send the guide handbook to them, because it has not been signed off by congress, you can't make this stuff up. In addition the Agency still has several groups working this issue with little or no coordination between them. There

has been very little discussion about Outreach and .41a projects, which is leading to confusion on how our Co-leads need to proceed with their respective projects.

3. National Prioritization: Although PBN/7100.41a has a defined process for PBN development, there is also OSG FPT's that send conventional procedures down the pipeline and WAS works directly with AIS (AJV-5), this leads to allot of projects building up in the queue or missing timelines, postponing them. The plan going forward is to put a team together, made up of the entire LOB that work procedure development, gather all data and determine a prioritization of projects. The initial though is to have an "open" period of time ie. Jan1-Apri1 for anyone to put requests in the IFP gateway, so that you have an actual number of projects and be able to prioritize them, if a project does not make the cut it will be sent back to the proponent to resubmit at a later date.

Joint Anaylsis Team (JAT): The team met this week in Dallas to discuss NTexas Metroplex and the analysis to be used in evaluating the project. Industry is looking at block times (which is skewed in my opinion), Metroplex metrics have remained the same from the beginning of the project OPD's/Reduce track miles/ CO2 emission reductions, not time. Nick Daniels (ZFW FACREP), Brent Luna (OSG Co-lead/NTexas Co-Lead), Terry Donaldson (D-10 FACREP), Andreas Sanchez (DFW FACREP) and Nick Valadez (DAL) attended the meeting and were invaluable discussing the Metroplex designs and operation.

Submitted by Mark McKelligan (ZBW) – NATCA Article 48 National D&I Rep

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

The Tower Data Link Services (TDLS) Version 12 has been deployed to 42 sites and only 30 remain. 34 of those sites are Controller Pilot Data Link Communication (CPDLC) capable and only 21 remain. Across the country, approximately 1300 CPDLC clearances are being sent everyday with that number increasing as more sites become operational and additional aircraft begin to participate.

This update will discuss how a Pre Departure Clearance (PDC) works. For an aircraft to receive a PDC clearance, the pilot or airline must enter information into a Subscriber Database. This database is managed by the FAA organization known as IFCET (Inter-facility Communication Engineering Team). They are also the organization that manages TDLS. This database maintains the addresses for where a PDC will be sent.

A PDC contains information that is cut and pasted off of a flight strip along with the information that the controller selects in the option fields. The TDLS

system formats flight plan information and appends controller selections from the option fields. When a PDC is sent, the pilot will eventually see the same information that a controller did. This includes any truncation of routing or remarks.
When the flight plan prints, the system will look to see if the call sign is in the subscriber database, if it is, it will put the flight ID onto the Pick List for controller processing. Once the controller selects the information from the option fields and presses send, the PDC is sent through Rockwell Collins (formerly known as ARINC) and then forwarded on to the Communication Service Provider (CSP). In many cases the CSP is actually the Airlines Operations Center (AOC). Once the AOC receives the message, they will respond back to TDLS with a gate response message. This message advises the controller that the aircraft will participate in PDC or are Not Participating. Again the response you see is not from the pilot, but from the AOC. The AOC then decides how to get this clearance to the pilot. It can be delivered in many ways. The message can be delivered to the flight deck via ACARS, it can be delivered to the gate printer, and in some cases it is picked up at the operations center. There are even new companies that are forming to send a PDC in an email to pilots.
The reason that the TDLS system can only send the initial clearances and not revisions is because of the lack of information available to be sent from a regular flight strip and also because there is no way for the AOC's to ensure delivery to pilots.

ENROUTE AUTOMATION MODERNIZATION (ERAM): Julio Henriques (ZNY) leads the ERAM efforts for NATCA. This update is provided by Dan Mullen (ZID).

ERAM 8-1-1 Tabletop site visits have been ongoing and this month the national team held the exercise at ZME and ZKC. The purpose of these meetings is to make sure the site teams are aware of the resources available when there is a problem with ERAM that could disrupt services. The Help Desk at the Tech Center, Second Level Engineering, Lockheed Martin and the ERAM National Air Traffic reps are all-available to help resolve issues. The tabletop exercise uses actual scenarios to lead the local team to develop SOPs for dealing with outages. These meetings have been completed at 7 of the 20 ARTCCs.

The National Packaging Team has just about finished determining the contents of the nest two major ERAM releases. There is still a little time and budget left for smaller fixes, but all of the large fixes are set. The Contingency Flight Data Manager (CFDM) emergency flight data tool has been deferred until after EAD700, which is due in the first half of next year, to allow more time to define the requirements and develop the tool.

The ERAM EAD510 release Site Test has begun this week at ZSE and ZLC. This is a smaller "delta" release containing fixes for Airborne Re-Route (ABRR) and Datacomm. Assuming testing goes well at the keysites, it will be available nationally in early September.

We held meetings the week of July 11 to update the ERAM 8-1-1 document, and held an SRM involving the document changes for the Multiple Flight Plan issue. I also attended a demo of Path Stretch along with TBFM SMEs and some Facility Tech Reps. Path Stretch is an advanced metering tool in the early stages of development.

The national ERAM team has been working closely with other tech programs to help their integration into ERAM. We met at length last week with the Pre-Departure and Airborne Re-route (PDRR/ABRR) team, the Datacomm workgroup and AJV-7 (Requirements). These groups are at different stages of developing and deploying new functionality, so we've been working with them regularly to make sure all the teams are aligned.

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 IDS Replacement program has suffered a few setbacks over the past month. A problem with the FDIO software coding in the latest software release (3.5) was discovered early in July. The impact was that facilities that have configured their FDIO feeds of SIGMETS and AIRMETS had to go back to using paper off the printer while a fix was created. A new software bundle (3.5.1) has been tested and will be released on August 8th with fixes for the FDIO issues.

In parallel a build was being bundled with fixes to the "IP storm" that caused SCT's System Acceptance Testing to fail. This same issue was uncovered in the I90 network and the impact was mitigated by increasing the bandwidth on local FTI lines. Testing for this software (3.6) was set for the week of July 18th bit was cancelled on the Sunday before testing was to begin because the vendor (All Weather Inc) found code errors in the software that would cause the test to fail. At this time a new build is being tested internally by AWI and an official test and release plan is not set.

SCT has been waiting a long time for NIDS and they are facing a further, self-imposed, push back because Metroplex is coming in the door during the

winter. They understandably do not want any overlap of the two projects and there is a strong possibility that NIDS will push into late spring of 2017.

The NIDS waterfall was supposed to end in spring of 2017 but there are a few facilities that are not ORD because of technical issues. PHL is experiencing drop outs of data on their network that the program office has many ideas about but to this point, nothing has been fixed.

NAS VOICE SWITCH (NVS): Jon Shedden (ZFW) represents the NATCA membership as their Article 48 Representative to the NVS project. His report is below:

NAS Voice System (NVS) demo labs are currently running on Build 11.07, which is a stability build. Harris focused on eliminating as many known bugs as possible. The FAA test teams are currently evaluating this latest build. Build 12 is still in development (these are still beta builds), but should be deployed in the next couple of months. Factory Acceptance Testing (FAT) was scheduled to begin in November 2016, but it has been delayed until February of 2017. Harris continues to work on defect resolution and feature integration.

Chris Lloyd (ZDC), NVS Training Lead, is currently participating in Task And Skills Analysis (TASA) for the controller, supervisor, and configuration specialist user roles on NVS. He participated in the initial review of the ATC TASA on July 13th. He will begin participating in weekly meetings beginning this Wednesday, July 27th.

Next Generation Air-Ground Communication (NEXCOM) continues deployment of new CM300/350 V2 radios to terminal facilities across the country. Deployment is going well. 6 new radios are in work or are going operational in July/August at various sites across the NAS.

Testing of a new RCAG at **Houston Center (ZHU)** has begun. This RCAG will replace the ARINC's VHF Extended Range Network (VERN) in Cancun. The FAA successfully replaced the Key West VERN last summer.

These RCAG/VERN radios provide long-range directional radio coverage in the Gulf of Mexico. The area rep, Shawn Sharpless, indicates that initial testing shows the site works as well as the VERN in regards to signal strength and coverage. However, there is an ongoing issue where the controllers hear bleed over from Mexican ATC during incoming transmissions. The RCAG testing will begin again when that issue is resolved.

NAS Voice Recorder Program (NVRP) is the replacement for existing NAS voice recorders (DALR, DALR2, DVRS, DVR2). The NVRP Integrated Requirements Team met on March 24th to begin validating and shaping the requirements for the initial Program Requirements (iPR) document. Key site for NVRP will be Seattle Center in the 2018 time frame.

Plantronics was awarded the **Headset** contract so almost everything will remain the same. There will be a few headset models that will no longer be available under the new contract due to obsolescence. Mr. Shedden is working with the program office and LR to develop a briefing on the changes.

The **Headset Splitter** final design has been completed. The splitter which is designed to allow three or four headsets to be connected to existing voice switches should be produced and deployed later this year. Air Traffic Services is currently looking at the quantity necessary to address the ATSAP CAR (CAR 2012-001). A SRM Panel was completed on July 19th and 20th. Chris Bakke (SLC) was in attendance representing terminal controllers. The splitter will also be a part of the headset contract and may be ordered in the same manner as headsets.

Grand Rapids Tower/TRACON (GRR) is reporting multiple issues with their aging voice switch. The Voice Switching Team in Oklahoma City (AJW-173) is working closely with GRR to resolve their issues. There's also a radio coverage/spectrum issue being worked. The controllers have presented a list of issues to Tech Ops and AJW-173. Air Traffic and Tech Ops met last week to develop a plan to address the outstanding issues.

Waterloo Tower/TRACON (ALO) is reporting issues with the phone system used operationally in the tower. One of the issues has been resolved (inaudible phone) while the second one remains in work.

SURVEILLANCE BROADCAST SERVICES (SBS) OFFICE: Eric Labardini (ZHU) is the Article 48 Representative to the SBS Office. Below is the update for 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 25,611 aircraft (roughly 15% of the NAS) 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.
    - SBS and Flight Standards have been working to standardize how they count ADS-B traffic. The number above is a total of all ADS-

B operators. However, it's been noted by AFS that the number includes a couple thousand that are double counted due to registration changes. In addition, the number of non-compliant operations may be around 4,000. Most of these non-compliant operators are filtered today via automation that reads the accuracy of their reports and rejects the ones that do not meet standards.

- ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities.
- 76 of 155 Terminal sites have reached their ADS-B IOC and 72 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:
    - Knoxville (TYS) ADS-B Flight Inspection was completed June 28
    - Amarillo (AMA) ADS-B/Fusion kick off meeting took place July 6
    - Spokane (GEG) ADS-B/Fusion kick off meeting took place July 7
    - Green Bay GRB ADS-B/Fusion kick off meeting took place July 12
    - Fargo (FAR) ADS-B Flight Inspection took place July 13
    - Chattanooga (CHA) Fusion Cadre instructor training took place the week of July 18

- NATCA SBS continues to work with the Agency toward a more proactive approach to ADS-B avionics issues. Though these issues are rare, the Agency's approach to date has been hampered by a lack of resources devoted to investigating flagged issues within the SBS Compliance Monitor. These issues occur when standards for installation or configuration within aircraft or ground systems are not met. ADS-B is a cooperative surveillance source relying on the position information determined onboard the aircraft. In order to reduce or prevent the number of safety compromising events in the NAS we need a proactive, timely response.
- SCT received a briefing from the SAAT team on July 20. Though many of the recommendations remain unfunded, this was an important step in creating a priority list of how to address the surveillance problems at SCT in the LA Basin as well as the problems the new stadium will create. Some of the recommendations include:
    - Raising the tower height of the LGB radar to improve both coverage on the LAX final and reduce the reflections from adjacent buildings

- Pursuing a WAM surveillance source for the LA Basin
- Continuing to work in enhancements to the Fusion tracker to optimize performance
- Continue to work on radar optimization within the ASR9 software to help filter bad returns at the source

Advanced IM/FIM-S

- SC-286 /WG 4 meeting to be held in Buffalo the week of July 25th

ASDE-X Tech Refresh:

- Training meetings will start the end of August for the next round of system enhancements that have been incorporated into the system. Deployment of tech refresh continues to run smoothly.

ASSC:

- OT&E (Operational testing & evaluation) was successfully completed on July 21st at SFO. The results yielded a few minor issues that can all be resolved prior to SFO field familiarization, which starts on August 16th.
- The team is planning to IOC the system prior to the October 15th commissioning date of the new tower at SFO.
- The ASSC team will be at CLE the week of August 1st to familiarize them with the operation and prepare for initial training, which is scheduled to start at CLE later this year.

FMA in Fusion:

- Completed formal Ops eval the week of July 18. There were controllers and FLMs from C90, CLT, A80 and D01. The testing went well, and should support the safety case for FMA in Fusion.

GIM-S:

- ZSE hopeful to resume GIM-S operations by end of July.
- ZKC successfully hosted GIM-S Kickoff meeting. Next event will be an Adaptation Demo to be held at MITRE the week of Sept 12th.
- ZDV has postponed turning on GIM-S on a second arrival to due to personnel availability. New date now August 8th.

MEARTS Fusion:

- Discussions with HCF on the path forward to an operational start of Fusion have begun. There are numerous resource concerns to be worked out before a final schedule can be determined. 3nm Fusion in MEARTS also presents unique challenges to contingency planning.

Terminal Fusion:

- Greensboro did not transition to fusion as expected on July 6. Early on in testing, an area of persistent stitching was identified along the southern portions of the airspace. This problem continued to grow in area and consistency, and began to be accompanied by some indications of split tracks in other areas. The problem was deemed serious enough to warrant the facility holding off on fusion, and investigation further. That led to the discovery of a bad antenna on

the BI5 radar. The part will need to be replaced and then the facility can re-evaluate fusion and determine a new transition date. This goes to reinforce the idea that controllers need to remain persistent in their monitoring of equipment that this radar problem was not a parameter normally monitored by tech ops, and would have continued to get worse if not for the controller workforce speaking up.

- There will be an important meeting involving AJV-7 and others to determine whether any other safety analysis (SRMD) will be needed for the TDW pixel-setting fix to proceed nationally.
- P31 disabled the weather input from their main ASR 11 SRR until a part (on order) is replaced

Vehicle ADS-B:

- 845 Equipped and operational vehicles at 16 airports.
- Discussions have started regarding how to best monitor the operation and compliance of Vehicle Transponders. There is currently no compliance monitoring of any sort. The team has determined this is a significant issue and will focus on a solution.

Possible outreach briefings later this year could include SAN and MCO.