SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending September 18, 2015

AIR TRAFFIC REQUIREMENTS (AJV-7): James Keith (D10) represents NATCA as the Article 48 Representative to AJV-7. This is the office that works air traffic requirements. Mr. Keith's summary for this week is below.

- Mr. Keith worked on getting more names for the Terminal Work Package 1 virtual session.
    - We are up to 8 names and will go with this group of NATCA volunteers beginning September 23 and running for 6 weeks.
- Traveled to the NextGen facility in Daytona Beach Monday and returned Thursday.
    - Mr. Keith was in Daytona Beach to view the next gen concept for 4D Trajectory Concept.
    - The concept takes three current programs Interval management, Dynamic RNP, and DataComm. The overall concept is sound.
    - NextGen is researching the operational and technical visibility. Over the next few months more demonstrations will be conducted. NATCA is engaged in all phases and will continue to provide valuable feedback.

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

- **DC Metroplex**
    - DC Metroplex team working high priority issue concerning displacement of HOIST waypoint affecting the ANTHM STAR to KBWI. Jeppesen charting has relocated HOIST in the near term that does not take effect until 10/15/15. Metroplex teamed developed internal procedures at PCT that will allow continued use of ANTHM through the provision of radar vectors after ANTHM waypoint.
    - DC Metroplex team continuing refinements to ARTS/ERAM regarding automation and route coding (ADRs, ADARs, AARs, CDRs) associated with August 20 implementation
    - DC Metroplex team October 15th implementation training in progress, no issues expected.

- o DC Metroplex team currently in evaluation phase of automation and preferred routes associated with December 10th implementation.
- o DC Metroplex team processing record of Change Control Sheets (CCS) for 5 SIDs from Refinement to Procedures Meeting (RPM) involving April/June implementations.
- o DC Metroplex coordination and discussions continue with Eastern Service Center and Program office concerning appropriate course of action from a programmatic Metroplex Post Implementation strategy and the implementation of refined procedures in identified chart cycles.
- o DC Metroplex continued coordination with ESC Environmental Specialist and noise modeling for Post Implementation procedures. Issues with AEDT2B software and ability to run model on FAA computers resolved. Presently awaiting modeler to run scenarios with preliminary results due 09/17/15. MITRE also running identical scenarios with results to be compared for validity of modeling.
- o Participated in several teleconferences (Metroplex, ATIS PBN Approach Initiative, Guided Visual Approaches, and Top Altitudes).
- o Coordinated with AJV-14 regarding Oklahoma Flight Simulation Runs regarding DCA SIDS.
- o Submitted a request AeroNav for the creation of a waypoint at the intersection of Q40 and J22 to allow ERAM to process flight plan routes correctly and be in compliance with Data Comm.
- o DC Metroplex coordinated with the PCT Training and Airspace/ Procedures Managers concerning training regarding future implementations.
- o Submitted by Bennie Hutto Article 48 Rep, DC Metroplex
- **Atlanta Metroplex**
  - o Reviewed and Updated MSProject
  - o Meeting with ZTL530 about 2 waypoint names to replace VORs
  - o ESC Director Briefing
  - o Regional Administrator Briefing
  - o Telcon regarding the ZTL/A80 LOA for 12/10/2015
  - o AJV-5 Telcon regarding the JRAMM v JRAMS
  - o **Issues:**
    - ▪ N/A
  - o **Milestone/Activity — Completions:**
    - ▪ 06252015 Airspace Implementation
    - ▪ ZTL began full time ATL metering August 2, 2015
  - o **Projected Milestone/Activity Completions and Risks**
    - ▪ 9/18/15 – ATL City Airport Manager Briefing
    - ▪ 9/28/15 – Meeting with ATL City Airport Mngr

- o Submitted by Joey Tinsley Atlanta Metroplex Co-Lead
- **Denver Metroplex Design & Implementation**
  - o September 14 - 17, 2015 – 25% Validation Preparation at D01
  - o Last week, September 7 – 11, the Denver Metroplex Team did not meet as a group.
  - o This week the Core Team met with facility POCs from ZDV, D01, and DEN to begin preparation for our upcoming 25% Validation to Industry and other interested parties on Tuesday, September 29.
  - o We also began initial SID discussions with D01 and DEN. The SID design will begin officially on Wednesday, September 30 with POCs and SMEs from each facility. Mr. Thomas expects the SID discussions will be just as contentious between the facilities as the STAR 8 vs. 16 design was.
    - Currently Denver has a hybrid system of RNAV off the ground SIDs and they also issue Radar Vectors to a lot of aircraft during certain configurations. The contention will be on how to move away from the hybrid system as much as possible and develop SIDs that can be utilized in all situations.
    - DEN tower has expressed interest in developing a Radar Vector model and D01 wants to develop a RNAV off the ground system.
    - Industry needs to weigh in to see which system will be more beneficial for them and begin our design.
  - o **Upcoming Schedule**
    - September 21 – 25 – No meetings scheduled
    - September 29 – Validation Day at ZDV
    - September 30 – October 1 – SID design at ZDV
  - o Submitted by Chris Thomas Article 48 Co-Lead Denver D&I
- **Phoenix OAPM Design and Implementation**
  - o American Airlines Training Center, Phoenix AZ
  - o Design package review with Phoenix TRACON (P50) and environmental support
  - o Airspace package creation and review with P50
  - o RNP package creation
  - o Review of current lawsuit status between the city of Phoenix and the FAA with environmental support
  - o Meeting coordination with Tucson TRACON (U90) POC's and Phoenix Tower (PHX) POC's
  - o Meeting with Dave Surridge, American Airlines Tech Pilot
  - o Executive summary development
  - o Conventional STAR and SID discussion
  - o Project review of open issues
  - o Evaluation HITL objective development

- o National Metroplex Telcon
- o Mark Ostronic Phoenix Metroplex NATCA D&I Lead
- **Las Vegas Metroplex Study Team (LASST)**
    - o LASST met at MITRE McLean, Virginia.
    - o Team spent entire week preparing powerpoints and briefings for
    - o Second Outreaches to be held next week.
    - o 29 conceptual procedures designed by LASST and approximately
    - o 98 issues addressed currently.
    - o Next week LASST will conduct Outreaches for Facilities
    - o (ZLA, L30, LSV, LAS, VGT, and HND) on Tuesday and Wednesday and then Industry on Thursday.
    - o Outreaches will be held in Las Vegas, Nevada.
    - o **Upcoming Activities:**
        - ▪ Las Vegas Study Team Second Outreach Meeting – September 22-24, 2015
        - ▪ Las Vegas Study Team Analysis – Mitre – September 29-October 23, 2015
        - ▪ Las Vegas Study Team Final Facilities Outreach Meeting – October 27-29, 2015
        - ▪ Las Vegas Study Team Final Industry Outreach Meeting – Nov 2, 2015
        - ▪ Las Vegas Study Team Documentation Development – November 3-19, 2015
        - ▪ Las Vegas Study Team Report Due – November 20, 2015
    - o Submitted by Las Vegas Metroplex Study Team Lead Art. 48 Ron Myers
- **SoCal Metroplex**
    - o The core team along with Ryan Weller , FAA Environmental Specialist and Mishon Powell, FAA Headquarters Environmental met at the Regional Office.
    - o A notice advising of the additional 30-day extension was placed in local newspapers along with an email blast to local elected officials and airports. A Spanish version of the notice was also sent out.
    - o The project website was also updated with the information.
    - o The team is coordinating with the WSD Flight Procedures Team to revise the publication cycle dates.
    - o The team responded to 5 news media inquiries, vetted through both Environmental and Legal offices.
    - o The team began to "bucket" public comments and began the process of wording topical responses to the comments and or questions.
    - o To date the team has received at least 500 unique questions from email, website or letters.

- o The SMO CHANGE.ORG petition has 959 signatures with at least 350 unique comments or questions.
- o The Culver City CHANGE.ORG petition has 1,016 signatures with at least 329 unique comments or questions.
- o LOA discussions were begun with ZLC and ZDV.
- o SCT LAA and BUR SMEs corrected maps due to upcoming MagVar changes.
- o Rob Henry (SCT OPAM FAA Co-Lead) and Mr. Gonzalez participated in a telcon with Mark Dowd, Senior Advisor to the Secretary of Transportation, along with the Regional Administrator and Headquarters representatives to discuss the PR firm that the FAA retained for the SoCal Project. The concern by the FAA Administrator for more in depth public outreach in Environmental Justice Communities was discussed.
- o The team is still waiting for approval from Headquarters to allow ATAC to run a new analysis of traffic for 2016 and 2021 due to the publication program changes.
- o Submitted by Jose Gonzalez Article 48 Rep, SoCal Metroplex
- **Charlotte Metroplex**
  - o Leads worked at ZTL and the Eastern Service Center
  - o Updated budget items and performed various administrative functions
  - o Briefed ESC Director and ZTL Leadership
  - o Follow-up on several LOA issues
  - o Updated RNAV STAR Design Packages for the removal of the satellite airports
  - o Contractors updated TARGETS and requisite forms for the removal of satellite airports from RNAV STARS
  - o Met with ZTL POFM. There was an issue with poorly written AIMs tickets for TBFM. All parties met and the issue is resolved. TBFM adaptation will be ready for the Implementation
  - o Met with the MTO to discuss TMIs and what the Team's fallback position is in the event of a failure of the OPDs to function as design
  - o Briefed Regional Administrator
  - o **Issues:**
    - ▪ SWA has raised concerns about the PARQR and FILPZ STARs. We are gathering information and will follow up with SWA. They have agreed to attend the September 21, 2015, meeting
    - ▪ Possible Government shutdown
  - o **Upcoming:**
    - ▪ 9/21/15 – At MITRE
    - ▪ 9/28/15 – At CLT TRACON
  - o Submitted by Bob Szymkiewicz, Charlotte Metroplex Team Lead

- **CLE/DTW Metroplex**
    - Small team worked to get a better understanding of Metroplex traffic transfers between ZAU and ZOB.
    - Met with ZOB POCs to talk about several upcoming issues and timetable for working on aspects that are not tied to the environmental process.
    - Met with ZOB POFM on project timelines and work completion cut-offs.
    - Conducted an SMS with ZOB on Tuesday for the modification of their internal airspace adjustments and the raising of the upper altitudes of D21 and CLE.
    - Conducted an SMS with CLE on Wednesday for the modification of their internal airspace adjustments and surrounding approach controls of MFD, CAK, D21, ZOB and TOL.
    - Conducted an SMS with D21 on Thursday for the modification of their internal airspace adjustments and surrounding approach controls of DTW, TOL, FNT, MTC and ZOB
    - Met with Selfridge Approach (DoD) on upcoming changes to their airspace and some additional airspace under the northeast arrival tracks. Spectrum and radar coverage areas where discussed. There is additional airspace to the north that also needs some work and coordination between the two departments that needs to be completed.
    - Week's ahead: 9/21-24 Final paperwork week, 9/28 –FY16? ZOB 100% work, 10/5-8 100% work DTW, 100% design due 10/16
    - Submitted by Don Ossinger Article 48 Rep, CLE/DTW Metroplex
- **Florida Metroplex week of 9/14/15**
    - Activities this week (Miami , ZMA)
    - Week 2 (Validation week) for Florida Metroplex in South
    - (ZMA,ZJX,F11,TPA,DAB,RSW,MCO,JAX,FLL PBI,MIA) Teams discussed and designed the following SIDS, STARS, holding patterns and procedures all in support of the Florida Metroplex project. American Airlines was present.
    - This was the 75% briefing for the Florida Metroplex project.
    - The teams briefed on all notional designs in the project including:
    - 51 Airports served by RNAV procedures
    - Flow dependent STARS are bi-directional
    - 113 SIAPS proposed (11 airports)
    - MIA, FLL FXE, PBI and satellites, RSW and satellites, TPA and satellites, MCO and satellites, Conventional procedures were discussed.
    - Q development
    - Spectrum/Airspace changes are occurring in numerous facilities. These include airspace exchanges between and within facilities.

- o The teams spent the last two days working on a number of Q and T routes that will assist in traffic flows throughout the Florida project and surrounding facilities.
  - o Also in attendance was:
    - USAF MacDill
    - Allied Pilots Association
    - FAA - AJR-11, AJV-E35, ASO-220, AJV-5, Paradise DM and Asst DM, numerous facility managers
    - EOSG, HMMH, Human solutions
    - NATCA Facreps (PBI, DAB, FLL)
  - o Submitted by Greg Harris Article 48 Rep, Florida Metroplex
- **CSA PBN 09/13/15-09/19/15**
  - o Continued Q39/Q67/Q71 Design coordination and transfer to ESA (Eastern Service Area) for ZID requests
  - o CSA Internal discussion of Columbus (KCMH) Meeting results, action items, next steps, etc. Preliminary scope is being worked over the next 6-8 weeks as facilities determine their preferences.
  - o Coordination of KCMH Meeting Minutes with preliminary workgroup
  - o Telcon with AJV-14 Re: meeting minutes and concerns brought by TetraTech
  - o Weekly CSA PBN Team Meeting
  - o Weekly Central OSG Team Manager's Meeting
  - o Weekly NSPP Telcon
  - o Weekly NATCA Service Center Telcon
  - o 2 Days of Meetings with Jeff Richards, TetraTech-National PBN and Mike Hilbert, AJV-14-Technical Coordination Lead. Introductions to CSA PBN Team and several discussions concerning CSA processes and interaction with FAA Contractors.
  - o Coordination with Mark McKelligan, NATCA National D&I Lead and Ed Hulsey, NATCA National Study Team Lead
  - o Upcoming Activities:
  - o Chart Date---October 15, 2015 Central facilities publishing include KSAT, KMDW, KORD, KMSY, and KAUS
  - o NATCA LEAP Class---October 19-21 @ DC
  - o North Texas Meeting---Tentatively October 21, 2015 @ D10….future plans and transfer to .41 publication process
  - o KMSP (Minneapolis)---October 27-29 @ M98….Post Implementation Design Meetings
  - o Submitted by CSA PBN NATCA Art. 48, Brent Luna
- **Eastern Service Area PBN**

- o Working with Lead Carrier (UPS) at SDF on simulation data. Will need to make minor changes to procedures.
- o Working with Lead Carrier (Jet Blue) to verify procedures at BOS are in final form.
- o Attended Telcons; Weekly NATCA Service Center, NSPP, AJV-142 weekly PTT and 7110.65 runway transition phraseology
- o Met with ESA contract analyst support, Tetra Tech, and AJV-141 to review current projects, schedules, and 7100.41 process.
- o Reviewed IFP requests and submitted IRF forms for TEB, DKK, JAX and KW00.
- o Working on BAR for CVG STARs.
- o Meeting between CSA and ESA to determine responsibilities for Q69/Q39/Q71. ESA will take the lead and finish rulemaking requirements for AJV-11.
- o **Upcoming Activities**
  - ▪ BOS telcon scheduled at end of September to review and finalize documentation.
  - ▪ SDF telcon scheduled at end of September to review and finalize documentation.
  - ▪ Service Center Co-Leads will meet in DC at a date to be determined.
  - ▪ 8260.43 Rewrite meetings at the Central Service Center October 20-22 and tentatively in November 17-19.
  - ▪ Projects in ESA; RDU-RNPs, RDU-BLOGS STAR, BVT-RNP, TEB-RUUDY SID, PLB, DKK, OTT and PXT decommissioning-T routes.
- o Submitted by Bill Wise, ESA PBN Rep
- **Metroplex Study Team**
  - o Participated in weekly Metroplex Program Office Staff telcon
  - o Participated in weekly OSG telcon
  - o Participated in telcon with NATCA Metroplex D&I rep and NATCA CSC OSG Rep reference issues concerning PBN work and team dynamics in the Central Service Area OSG
  - o Attended study team meetings on September 15 thru 17, 2015 at Mitre where the team continued to work on conceptual designs for the Las Vegas Valley and also worked on the presentations for next week's facility and industry outreaches in Las Vegas
  - o Met with Mitre study team lead to go over the items pulled from the Facilities and Industry Issues Matrix to determine issues defined as Out-Of-Scope versus issues to be deferred to D&I
  - o Met with Metroplex Program Manager to discuss issues concerning Las Vegas, North Texas, and environmental

- o Met with PBN Group Manager and the PBN Technical Project Coordinator to discuss PBN and OSG issues
- o **Upcoming Activities:**
  - Las Vegas Study Team Second Outreach Meeting – September 22-24, 2015
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  - Las Vegas Study Team Final Outreach Meeting – October 27-29, 2015
  - Las Vegas Study Team Final Industry Outreach Meeting – Nov 2, 2015
  - Las Vegas Study Team Documentation Development – November 3-19, 2015
  - NATCA Art. 48 Tech Rep Meeting – New Orleans – November 17-19, 2015
  - Las Vegas Study Team Report Due – November 20, 2015
- o Submitted by Metroplex Study Team Art. 48 Ed Hulsey
- **National Design and Implementation Rep**
  - o Attended Florida 75% Validation meeting
  - o Participated on Metroplex weekly telcon
  - o Participated on weekly OSG telcon
  - o Had a discussion with Brent Luna (CSA OSG Rep) about issues he was dealing with.
  - o Met with Robert Novia (PBN Lead Coordinator) Josh Gustin (PBN Manager) and Ed Hulsey (National Study Team Lead) we discussed:
    - Tetra Tech issues with taking notes for working groups. We agreed on the notes are not changed without team consensus and nobody reduces meeting notes or adds or subtracts from the notes after they have been agreed to.
    - No team member reaches out to facilities without the Co-leads knowledge and consent.
    - Discussed the issues with the service centers and the management co-leads (not being assigned fulltime to 7100.41 projects) and how if this situation is not corrected many projects will suffer.
    - PBN dashboard is a disaster and agreed to put a team together to be trained on the dashboard, to be briefed on everything in the dashboard and to decide and work with Mitre to make the too more user friendly.
    - Agreed to have an OSG Leads meeting to discuss issues, lessons learned, to receive training , receive briefings on program documentation, budget etc. First meeting will be in the Jan-Feb time frame.

- ▪ Discussed adding FPT NATCA person to the .43 re-write group.
- ▪ Discussed having a "road show" to go out and brief all the service centers on the 7100.41 process and roles and responsibilities.
  - o Submitted by Mark McKelligan (ZBW) National D&I Rep
- **NATCA National Airspace Rep**
  - o Participated on the weekly Telcon with Jodi McCarthy, Director of Airspace Services
  - o Participated on the weekly OSG Telcon
  - o Participated on the weekly Metroplex Telcon
  - o Participated on the weekly Telcon with John Brandt, Mitre Airspace Lead
  - o Coordinated the next NATCA Airspace and Procedures Committee meeting
  - o Submitted by Jim Davis (PCT) NATCA National Airspace Rep

AIRSPACE TECHNOLOGY DEMONSTRATION 2 (ATD-2): Pete Slattery (CLT) is the Article 48 Representative for NATCA on this NASA driven project. Mr. Slattery's report for this week is below.

- Key ATD-2 stakeholders (NASA, NATCA, FAA, airline, and local CLT ramp personnel) met at NASA's North Texas Research facility (NTX) during the week of September 14th to begin the process of identifying what technologies are necessary to implement the vision of Surface Metering that ATD-2 is tasked with addressing.
- The group looked at existing systems currently in use, others that are expected to become available in the immediate future, as well as notional ATD-2 technologies. The group further looked at how these various systems can be utilized to implement the guiding principles of Surface Collaborative Decision Making (S-CDM) in order to achieve effective, relevant ground metering.
- Essentially, ATD-2 will be a system that ingests data from multiple sources, (SWIM, TFMS, TBFM, FDIO, etc) processes it through NASA designed algorithms, and then provides data to air traffic controllers, airport ramp personnel, and other stakeholders to aid in better decision making.
- Much like the arrival meter times that TBFM adds to Center ERAM displays, ATD-2 will add ground meter times, and other Traffic Management Initiative (TMI) info, to Electronic Flight Data (EFD) displays for Terminal controllers in order to provide ground metering advisories.
- The data ATD-2 produces will also be disseminated to other NAS stakeholders in a manner that will inform everyone on how greater efficiency can be achieved.
- The ATD-2 group visited ZFW and viewed the ARTCC side of NASA's Precision Departure Release Capability (PDRC) system. PDRC has two components, one which runs in an ATC tower and another that runs on the ARTCC's TBFM and is

similar to todays EDC function. With PDRC, terminal controllers are able to be much more accurate in their departure release time requests. With ATD-2, departure release times, as well as other TMI information, will eventually be automatically displayed onto terminal controller EFD displays and TMC timelines.
- Visits to DFW tower (to view terminal PDRC) and D10, did not occur due to the brevity of the visit and the vast amount of info NASA had to present.
- Mr. Slattery will accompany NASA to ZTL next month as they introduce the ATD-2 concept to ARTCC personnel. NASA will also present the ATD-2 concept to the SCDM group in Washington next month. He will attend both meetings to show NATCA's support of and involvement in the program.
- Foremost among NATCA's interests in this project is ensuring that the data provided to controllers is presented in the most usable manner possible, and that it does not disrupt the normal flow of traffic or degrade safety to any degree.

COLLABORATIVE DECISION MAKING (CDM): Ron Foley (ZOB) serves as the CDM Article 48 Representative. This week's activities are below.

- Worked to clarify some of the activity on the Flow Evaluation Team (FET) and the tasking of Mexican Air Traffic Routes.
    - o Attempting to develop a route through the northern part of Mexico to allow aircraft to be routed in this area during weather.
    - o Command Center efforts this summer included people from the ATO International Office and there is correspondence indicating the request is still being worked.
    - o Issues with possible lack of radar and/or communications for the Mexican controllers is of course leading to some reluctance to accept this routing.
    - o The initial work has been forwarded up to the FAA and NATCA at the Command Center.
    - o The FET does not have the tasking yet and will more than likely not receive it until there is positive buy-in from the Mexicans.
- There are discussions on how the CDM team can support NASA's tasking. The efforts start really being worked in January.

COMMON AUTOMATION (CARTS): Mickey Vitti (N90) is the Article 48 for CARTS. His report for this week is below.

- Traveled to FAA Tech Center in Atlantic City, NJ for the CARTS R37k, Chicago FMA OT&E.

- 14 Tests were performed along with random key pack entries by the participants. All test passed and AJV-723 Terminal Validations and Requirements has deemed R37k suitable for key site release.
- NATCA concurs with the suitability call.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) is the IDS-R Article 48 Representative. Below is his report for the membership.

- This past week two facilities declared IOC for NIDS- MLI and DAB. Congratulations go out to them and also thanks for all of their work in getting there. The program office attended pre-IOC visits to four facilities last week (DAB, MLI, CLE, JAX) and while NATCAs IDSR lead, Mr. Smith, was invited to attend all of them along with the ATS Integration Manager (aka the Program Manager's boss) he could only get to CLE and JAX. It is purely a coincidence that the two facilities that Richie attended will not be declaring IOC on their proposed dates.
- MLI had a technical issue that would have prevented them from declaring IOC fixed quickly but CLE and JAX have other outstanding issues. CLE cannot declare IOC until the new tower is commissioned. So while that is delayed, so is NIDS. JAX is the victim of poor communication and coordination efforts and has been for months. The communications that took place at these meetings were invaluable to the future workings of the program. Thanks go out to the facility reps and POCs for their unfiltered feedback at these meetings. It's really what we needed to hear.
- The program office this week cancelled the weekly national telcon. Where as it's happened before, this week's telcon was especially important in regard to the distribution schedule of ER4 that was due to be announced. Needless to say, the ER4 release has been postponed until September 23. It has been said that the SSM will be available via "electronic means" on the 23rd, while a CD will be overnighted to each impacted facility on the same day.
- There is still no waterfall news worth sharing.
    - No budget news = no waterfall news.
    - It would not be beneficial to any facility to try to project the next FY schedule and try to guess at what may happen.

NAS VOICE SYSTEM (NVS): Jon Shedden (ZFW) represents the membership on the NVS project. Mr. Shedden forwarded the information below for this week's update.

- **Meetings this week:**
    - NVS Leads Meeting
    - NVS Program Tracking Report (PTR) Review

- o NVS Human Factors Working Group (HFWG) meeting; Discussions regarding the upcoming Air Traffic Early User Involvement Event (EUIE) at the WJHTC in ACY
  - o NVS Remote Radio Node (RRN) Preliminary Design Review (PDR)
  - o NVS Demo Configuration Control Board (CCB)
- **Other issues worked:**
  - o Headset modification issue
  - o NVS Call Forward function button
  - o Coordination with PHL on controller headsets and agency purchasing process
  - o NVS User Team release coordination for the upcoming EUIE

NEXTGEN: Mel Davis (SCT) in accordance with Article 114 of the Collective Bargaining Agreement is the NATCA NextGen Lead. Mr. Davis' activities for the week are listed below.

- Four dimensional trajectory (4-DT) planning meetings
- Interval Management meeting preparation
- Time-Based Flow Management and ADS-B In harmonization strategies
- Remote Tower Services planning meetings
- Aviation Cyber Security Conference planning activities
- FAA Verification and Validation Conference panel preparation

PROJECT MANAGEMENT OFFICE (PMO): Jeff Woods (I90) serves NATCA as the Article 48 Representative to the PMO. Mr. Woods' update for this week is below.

- Surface Viewing Tool (SVT) Meeting Tuesday and Wednesday at SCT
  - o C90, I90, ZNY, ZLA, A90, PCT, DCC, and NCT where present
- Multiple telcons about AEFS with DSP for EWR
  - o Talked with Tom Adcock and Matt Baugh about training for AEFS
- Telcon with Lou Caggiano (EWR), Ray Adams (EWR), Matt Baugh (TFDM Rep), and Pat Gallagher (ZNY) about AEFS with DSP and ARMT at EWR
- Met with Rebecca Guy (PMO) to talk AEFS with Departure Spacing Program (DSP) and the Airport Resource Management Tool (ARMT).
- Met with Kris Burnham (PMO Deputy) to talk about transparency between program managers and Article 48 representatives.

REMOTE TOWER – LEESBURG (JYO): Kieron Heflin (IAD) is the Leesburg Remote Tower Article 48 Representative. Mr. Heflin's report for this week's activity is below.

- Passive data collecting continued at the Leesburg temporary remote tower on the days of September 11th, 12th and 13th. Robert Utley (S&T) attended the session on the 11th in Mr. Heflin's place due to a scheduling conflict.
    - This was the first weekend that data was collected and the hope was to have more targets of opportunity as Leesburg was rumored to be busier on weekends due to the nature of the Leesburg airport.
    - On Saturday the 12th of September, the weather was IFR for most of the day and traffic was very light. On Sunday, the 13th, there was considerably more traffic, but Mr. Heflin believes it was still less than expected.
- The controllers in attendance this week were Joshua Waters (DWH) and Scott Alexander (HEF) and both maintained the professionalism we have come to expect.
    - Both of the SME's really liked the system and had very little negative to say.
    - Mr. Heflin will include the reports/verbal survey questions asked by Jerry McDaniel (SAAB Contractor).
- The dynamic from each session is significantly different. Some sessions the SME's chat about the equipment and offer up lots of opinions and other weeks they do not.
- Mr. Heflin has asked the controllers each week to give him a small synopsis/report each week either during the week or when they get back and most have been pretty good about doing so.

SECTOR DESIGN ANALYSIS TOOL (SDAT): Don Ossinger (ZBW) is the NATCA Article 48 Representative on the SDAT initiative. His report for this week is next:

- Most of the training has been conducted and the classes where split between terminal and enroute options to avoid un-necessary time for training.
- Talked about Computer based training besides the OKC addition to the airspace class.
- Plans are underway to start the development of Phase two of SDAT to perform its namesake function of Designing airspace.
    - The goal would be similar to the older program based designs and it would be easily transferrable to our NAS databases.
    - More to come on this and NATCA will be requesting volunteers for this work.

SURVEILLANCE and BROADCAST SERVICES (SBS) OFFICE: Eric Labardini (ZHU) is the Article 48 Representative to the SBS Office. Mr. Labardini and the members of the SBS Article 48 Team have forwarded the reports below for this week.

- **Eric Labardini (ZHU) – Article 48 Lead**
  - Monday, traveled to DC
  - Tuesday, participated in the quarterly Equip 2020 meeting. The group is consists of representatives from the Agency, commercial aviation, corporate aviation, general aviation, manufacturers, and NATCA working together to resolve challenges in meeting the January 2020 deadline to equip with ADS-B. Many issues have been resolved but significant obstacles remain. For one, the Agency's certification process is quite lengthy for aircraft and many aircraft types, primarily commercial and rotocraft, still do not have a certified ADS-B solution available. Corporate concerns with privacy still remain as well. NATCA participated in a breakout session on benefits where we pointed out that ADS-B Out provides significant improved surveillance coverage; this means that advisory services are now available in more areas. The NextGen office has developed an ADS-B equipage website with educational information on the topic: www.faa.gov/go/equipADSB
  - Wednesday, met with SBS Ops Support and AJT representatives to discuss concerns surrounding the lengthy SRMD and Notice approval process. The SRMD process is lengthy enough, but the Agency is often requiring Notice approval on the same topic to recirculate through the same approvers before a project can move forward. This duplication of approvals adds significantly to the overall timeline for any project. Traveled back to Houston afterward.
  - Thursday, participated in a Gulf of Mexico ADS-B expansion kickoff meeting. Three additional ADS-B Radios and a new VHF RCAG site based in Mexico are expected to be operational by April 2016 or earlier. Group discussed plans for the flight inspection planned for January.
  - Led our NATCA SBS weekly telcon. Discussed SBS ongoing and upcoming activities.
  - Friday, participated in the weekly SBS Hot Topics telcon. Discussed SBS activities with Agency Co-Leader. Participated in an agenda prep meeting for next week's SBS Article 48 work group meeting.
- **Craig Bielek (A90)**
  - Monday participated in the SBS Implementation, SBS Weekly and TSLE telcons.
  - Tuesday participated in the Indianapolis ADS-B Only, South Bend status update, the Fusion Pre-Op, and the Fresno ADS-B status update telcons.
  - Thursday participated in the Rochester ADS-B only and the NATCA SBS weekly telcons.
  - Worked for currency other days.

- **Dan Hamilton (SFO),** National Airport Surface Surveillance Capability (ASSC) Rep
    - o ASSC: Still no forward movement on this program as we continue to wait for direction from the agency.
    - o Vehicle ADS-B: Due to the continued lack of collaboration by the Spectrum Office, elevated this issue to NATCA National for some assistance. As a result, had a very positive conversation with the Agency's Air Traffic Office. They were extremely receptive to the concerns and promised to follow up.
    - o ASDE-X Refresh: Continues to move forward smoothly.
- **Andrew Stachowiak (I90)**
    - o Participated in the Implementation, SBS Weekly, Fusion Pre Operation, and our NATCA SBS weekly teleconferences.
    - o Traveled to Austin Approach to evaluate their Fusion presentation. The Fusion display looked very good, and the support from the facility was outstanding. Tech Ops and OSF worked with us to analyze issues. There is a need to raise the vertical ADS-B drop filter around satellite airports to 200 feet; this would prevent an ADS-B aircraft from staying on a controller's scope after landing. Austin successfully transitioned to operational use of Fusion on Thursday.
- **Tom Zarick (ZDV),** National Interval Management Rep
    - o Spent the week at MITRE in support of the ZHU Adaptation Demo. Conducted 16 runs during the three day visit. Observed traffic flows from all four corner posts, assessed the impact to MIT settings for extended metered points and coupled meter points. The location of the meter points in the current adaptation was also discussed.
    - o Although ZHU seemed optimistic regarding GIM-S, the outstanding TBFM issues will still need to be resolved prior to installation in the ZHU Support String.

TEMPORARY OPERATIONAL CONTINGENCY OFFICE (TOCO): Tammy Norman (ZTL) is the TOCO Article 48 Representative. This is a one year detail at the Eastern Service Center to work on this project. Ms. Norman's report for this week is below.

- The TOCO team attended a **demo of the SMART tool** September 15-17 in Oklahoma City. SMART is an Air Traffic Control simulation system dedicated to the training of Air Traffic Controllers at all levels. ATSI demonstrated that SMART is capable of simulating complex scenarios for tower and enroute facilities for training purposes.

- o The purpose of attending a presentation of the capabilities of the Simulation Model for ATC R&D and Training (SMART) to provide Operational Contingency Planning (OCP) support.
- o At the invitation of Leon Stinson of ATSI, we were provided with a Power Point presentation of the Operational Contingency Planning capabilities of SMART using a simulation of the Chicago Center (ZAU) ATC Zero event from September 26, 2014 and a typical generic ATC Zero scenario. The first simulation incorporated historical flight data collected during the ZAU event and air traffic control specialist and ghost pilots worked air traffic from stations that are replicas of those that would be found at the ZAU, Minneapolis Center (ZMP), C90 control rooms and the RFD, MLI and KORD tower cabs. The TOCO team was able to observe the responses of the air traffic control specialists to the historical events and the movement of flights through the affected air space. TOCO also requested a simulation that would mimic a typical ATC Zero event in which the NAS equipment would fail gradually and then come back on line.
- o ATSI hopes to assist the FAA achieve the goal set by the administrator with need to make sure air traffic controllers are receiving the best training possible with the highest quality and cost effectiveness.
- o SMART interacts with many aeronautical databases allowing the system to generate scenarios with efficiency and accuracy. SMART has the ability to replicate and optimize airspace configuration based on changing needs.
- o SMART can be controlled from a smart phone or iPad from anywhere and the ghost pilots will be located at a remote facility that will service all positions in each facility. This will allow the staffing of our current training to be drastically reduced.
- **Tech Center Meetings:** The TOCO is hosting meetings for contingency teams from the CONUS ARTCCs and San Juan to reach OCP agreements with divesting airspace in ATC Zero events.
    - o September 21-25:Eastern Meeting: ZAU, ZOB, ZBW, ZID, ZME, ZTL, ZDC, ZMA, ZJX, ZHU, ZNY, ZSU
    - o The meeting will start on Tuesday with a welcome from Deputy COO, Randy Parks.
    - o The facility contingency teams will spend the remainder of the week meeting face-to-face in breakout groups to create workable operational contingency agreements.

o Tech Center tech ops will facilitate the meetings and assist in answering questions concerning the limitations of systems and communications.
o Each facility's local tech ops will be on call to answer any other questions, as needed, via telcon.

TERMINAL AUTOMATION MODERNIZATION REPLACEMENT (TAMR): Mitch Herrick (MIA) leads the TAMR Team as the Article 48 Representative. Below are reports from Mr. Herrick and various TAMR Team Leads.

- This week Mr. Herrick was in Washington, DC for meetings with Section 804 as well as TAMR.
  o On Monday Mr. Herrick briefed the large TRACON FacReps on TAMR and Section 804 activities.
  o He also had a meeting with representatives of an LLC hired by Grant County, WA where they proffered twelve letters from stakeholders speaking in opposition to any potential realignment of the MWH approach control.
  o Mr. Herrick also participated in several planning meetings with TAMR program management as well as participated in two days of Year Three planning for section 804 activities into 2016.
- **STARS/TAMR OSF/Multi Unit update submitted by Candy Barr-NEOSF**
  o Monday – Thursday: Matt Thomas and Greg Jahn traveled to Southeast OSF to provide yearly MSAW refresher training.
  o Monday: Mr. Barr attended the TAMR weekly staff meeting
  o Tuesday: Mr. Barr attended the MDM Telecom
  o Wednesday: Ms. Barr attended the S6R4 DSF & Remote TCW OT&E Telecom Lab upgrades to meet the future needs of OT&E were discussed
  o Thursday: All OSF specialists attended the weekly Technical Telecom
  o Steve Sims and Ms. Barr attended the PTRWG Telecom to rank PTR Of interest to the OSF's 44 site rules have been ranked and funded to be included in software in the S6R6 time frame.
  o Friday: Ms. Barr attended the TAMR TAGUP Telecom
    ▪ Steve Sims and Ms. Barr attended the Site Rules Telecom. The goal of the group is to streamline the process in all areas and have a tracking system in place that will allow specialist to see where their requests are in the process.
  o Thursday – Monday: Randy Garcia and Todd Rhea traveling to M98 for an IOC Event. Michael Tate remains at Denver OSF to provide testing support to Mr. Garcia and Mr. Rhea.
- **STARS/TAMR Phase 3 Segment 1 Update submitted by Doug Peterson-D10**

- o Start with the good news. The Minneapolis TRACON (M98) STARS IOC transition completed on schedule Friday night and now six of the eleven ARTS3E TRACONS have achieved IOC. The first 30 seconds of the transition was more exciting than we had anticipated, as a hardware switch failed and a transition that is expected to take 500 milliseconds ended up taking about a minute, but the rest of the first IOC event at M98 was essentially flawless. Three minor adaptation adjustments were identified and will be loaded in time for IOC event 2 on Monday evening.
- o Continuous STARS operations at SoCal have not been as smooth. SCT has continued to be the most challenging and troubled transition we have faced.
    - ▪ Added to the ongoing tracking discrepancies, SCT encountered a significant software failure this week that caused the loss of a radar display for about a minute and a half. The failure was triggered by a keyboard entry that has been done thousands of times, but in this case the exact right circumstances existed to cause a display reset. The cause of the failure has been identified and will be fixed in the next software delivery, due for field implementation in November.
    - ▪ An interim fix will be delivered next week that will prevent the error at all 24 sites running this version of software. The November software delivery, R3aD1, is hugely significant for our operations.
    - ▪ This software is expected to modify performance and correct a significant percentage of the radar tracking discrepancy reports that have been observed at SCT. If a significant performance improvement is not perceived at SCT, they are preparing contingency plans for a potential fallback to CARTS while further corrections can be made.
    - ▪ This is a very serious decision with substantial impact to our Southern California members.
- o Other activity this week included a monthly PTR Prioritization meeting and a cross-platform networking and training event at Dallas. The Dallas Fort Worth TRACON (D10), the first Segment 1 TAMR site, hosted a group of 17 Segment 2 controllers from all across the country for three days of training and familiarization in how STARS works, what TAMR does and why we are able to be so successful in this program. It was an outstanding example of the extremely positive results of the collaborative environment that we have built in TAMR.
- **STARS/TAMR Phase 3 Segment 2 Update submitted by Scott Robillard-K90**
    - o September 14, 2015, Frank Stahler and Joe Yannone (region X) dialed into the Digitizer Program Implemtation Meeting.

- o September 15, 2015, Jim VanZee (GRR) dialed into the CAE Joint Site Survey (JSS).
- o September 15, 2015, Joe Yannone (Region X) attended the ROA Joint Site Survey (JSS). ROA is the Key Site for the CTD on an ASR8 with a Mode-S.
- o September 15, 2015, Richard Thomas (GEG) dialed into the OSF Site Adaptation Kick Off meeting.
- o September 15, 2015, Tim Poer (ABI) dialed into the AMA Site Implemtation review telcon.
- o September 15, 2015, Facility Representative from COS, FAI, FWA, HSV, ROW, TLH and AVP joined Scott Robillard (K90) and Bill Spence (BTV) for a two day class on STARS and the TAMR program as a whole. This class is intended to give site and advanced look at how IOC will be achieved, how their training should look, and what they need to do to be prepared for transition from ARTS IIE to STARS.
- o September 16, 2015, Frank Stahler (Region X) dialed into the CTD bi-weekly meeting.
- o September 16, 2015, Bill Spence (BTV) Dialed into the last EVV IOC planning telcon.
- o September 17, 2015, Jim VanZee (GRR) dialed into the PTR Prioritization meeting. This meeting prioritizes which software fixes will get fixed when by ranking them in level of importance.
- o September 17, 2015, Facility Representative from AVL, CID, CRW, EUG LEX, MGM and ROA joined Scott Robillard (K90) and Bill Spence (BTV) for a two day class on STARS and the TAMR program as a whole. This class is intended to give site and advanced look at how IOC will be achieved, how their training should look, and what they need to do to be prepared for transition from ARTS IIE to STARS.
- o September 17, 2015, Tim Poer dialed into a telcon with GGG to resolve a Parrot issue in preparation for STARS.
- o September 18, 2015, at 5:57am CST, EVV became the newest facility to join the STARS G4 ELITE family.
  - ▪ It has been a long road for EVV and the TAMR program went above and beyond to correct an historically poor performing radar which, in the end, enabled the site to transition.
  - ▪ On site for the transition to assist the facility were Chris Hilbert (PHL), Scott Trafton (A90) and Bill Spence (BTV).
  - ▪ Over the seven months, the entire SEG2 has helped lift EVV from a failed transition to STARS based on a failing ASR8 in March 2015 to a successful transition on Friday, September 18, 2015.
  - ▪ Congratulation to EVV.
- • **STARS/TAMR Phase 1 Update Submitted by Jimmie White-PHL**

- o Monday 9/14**:** Consolidated TAMR Weekly Staff Meeting. Risk Mitigation for "Merge" build (6R4D1b) is in test starting 9/1 - 10/8. This is the second risk mitigation event following the ELITE test. AT SMEs will be testing on 9/22. Software for the MDM3 (V2.02) will be replace by V2.03. V2.03 will allow more data to be received from the maintenance laptop, in an effort to root out the causes of the system wide anomalies. V2.03 has been delayed but will be delivered on 9/25. The Risk Mitigation Test Team has not given a green light to run V2.03 during the event. They didn't want any prototyping during the test. Cleveland I.O.C. (originally 9/19) has been pushed back approximately 10 days, due to HVAC issues in the new building, according to the NATCA P.O.C. L30/LAS site implementation review (SIR) 9/23. R27 (R27D7) will be nationally released 9/29-12/9. This will allow Legacy STARS sites to upgrade to TAMR STARS. LAF I.O.C. 10/9.
- o Tuesday 9/15: Daytona Beach Joint Site Survey begins today through 9/17. MDM meeting. AZO Keysite begins for MDM4 in the G4 configuration. MDM3 issues still mount. TSLE still wants to keep turning off LCD Flicker Control (LFC) on the table. Both Esterline (formerly BARCO) and TSLE believe the creation of LFC has degraded the inter workings of the display. Mr. White re-iterated NATCAs position to leave LFC in play. Turning off LFC creates a far less desirable condition than the current MDM complaints for fused sites. They will be requesting a meeting with NATCA to discuss other alternatives.
- o Wednesday 9/16**:** TAMR Readout Telcon. Phase 1 items above were covered, but no additions. Report from F11, controllers are not happy with the MDM3s performance in their lighting configuration. MDM install is ongoing, once done they will attempt to raise the lighting to change the mood according to F11 NATCA P.O.C., Teah Lord. Controllers do not feel they should have to change their lighting as a trade off to receiving a display that should work in all lighting configurations. This is a recurring theme at sites with recessed lighting (Tampa, M98, A90 are others).
- o Thursday 9/17: RDO. Terminal Sequencing and Spacing (TSAS) training meeting with NATCA, Raytheon, Lockheed and the program office. Aaron Rose (NCT), Article 48 workgroup Lead for NATCA was in attendance. AT Coach expectations were discussed. The group agreed, having 6 available TSAS training scenarios, would be sufficient for sites with the largest training strings, while allowing for future growth. TSLE software, OSF, and PASS not represented. Mr. Rose conveyed the importance of making sure the OSF will be given proper training and involvement in the process of development. In addition, he wanted to

make sure, TSAS would work for sites dealing with closely spaced parallels such as SFO, which is in first 10 sites to receive this tool.

- o Friday 9/18: RDO**.** Tag up meeting between NATCA and the program office. Phase 1 raised the concern from F11. We are trying to get ahead of this growing disdain for the monitor, as controllers are on the verge of filing ATSAP reports, citing the blue-ish tint is a distraction from them doing their jobs.

TERMINAL FLIGHT DATA MANAGER (TFDM): Matt Baugh (IAH) is the TFDM Article 48 Representative. This project includes the Advanced Electronic Flight Strips (AEFS) and the Electronic Flight Strip Transfer System (EFSTS). Mr. Baugh's update for this week is below.

- **TFDM:** No Change.
- **AEFS:** We are in the process of reviewing the AEFS training class in order to make a baseline for future sites.
  - o The new build, 5.3.0.2, should be ready to be installed in CLE in late OCT. This build will have a couple of safety issues fixed, as well as some bug fixes and usability upgrades.
  - o The current ASUS computers running AEFS, have been discontinued, so future sites will have to get a suitable replacement.
  - o The Requirements Office has yet to make the official call on what the new computers will be.
  - o The AEFS group is planning a site visit to SFO in early October in order to determine their cab layout and how many screens they will need.
- **EFSTS:** For Keypad Replacement, the project is in the process of gathering information from the facilities we have narrowed down for key sites. Once the key sites are selected, they can begin adapting the new keypads for those facilities needs and continue with the Phase 1 waterfall. Phase 2 will begin sometime in late 2016 or early 2017.

TIME BASED FLOW MANAGEMENT (TBFM): Eric Owens (I90) is the TBFM Article 48 Representative. Mr. Owens' report for the week is below.

- Last week the TBFM Ops Team provided Integrated Departure/Arrival Capability (IDAC) training at LAS and ZID. The training went well.
  - o At LAS the team trained all but one TMC and two FLMs. Hopefully, the facilities will begin using IDAC within the next thirty days.
  - o The Ops Team will continue to provide support for Southern California facilities and LAS until MOUs are signed and the system is in full use.

   o   In addition to IDAC Training, we had a NATCA SME at MITRE to assist
       ZHU with TBFM and GIMs HITLs.
- This week the NATCA TBFM SMEs will provide IDAC training for the towers
  associated with ZID.
- Mr. Owens will be in ACY this week to review the new TBFM build , which be
  delivered to the field in November 2015.

UNMANNED AIRCRAFT SYSTEMS (UAS): Steve Weidner (ZMP) leads the NATCA
efforts on UAS and is assisted by Jeff Richards (ZAU). This week's report is below.

- Received a briefing from Capt. Nate Meier (Air Force Research Lab - AFRL) on
  the AFRL's testing efforts for Ground Based Sense and Avoid (GBSAA) for UAS
  at Wilmington and Springfield, OH.
- Met with NATCA Training Rep, Tom Adcock, to discuss potential training for
  controllers regarding Code 7400 for UAS lost link situations.
- Participated in the Pathfinder #2 (Extended Visual Line of Site - EVLOS) SMS
  panel on Tuesday, Wednesday and Thursday. Mr. Weidner was joined by on the
  panel by NATCA RDU SME Thomas Eggar. The initial Pathfinder #2 testing will
  take place in RDU airspace.
- Joined the weekly NATCA Airspace team telcon to brief the team on the NASA
  Unmanned Traffic Management (UTM) research project. This is a low altitude
  (primarily Class G airspace) project.
- Participated in a telcon with Debra Randall (NASA). Ms. Randall briefed Mr.
  Weidner on the recent UAS HITL conducted at NASA Ames.
   o   Two NATCA controllers - Erik Mandt (ZOA) and Kristen Hildenbrand
       (ZOA) - participated in that HITL.
- Participated in a telcon with Scott Dann (General Atomics - GA) to discuss GA
  participation in CFS.
- Met with Jodi McCarthy (FAA Director, Airspace Services) to discuss the
  Pathfinder #3 (Beyond Visual Line of Site - BVLOS) SMS panel.
- Participated in a telcon with Travis Mason (Google, Government Affairs).
- Participated in the Virginia Unmanned Systems Commission meeting. Mr.
  Weidner has been appointed as a member of this commission representing
  NATCA.
- Participated in a meeting with David Vos (Google Wing) and Travis Mason
  (Google, Government Affairs) as they briefed NATCA President and Executive
  Vice-President, Paul Rinaldi and Trish Gilbert on Google's proposed package
  delivery service - Project Wing.
- Met with NATCA NextGen Rep, Mel Davis, to discuss UAS activities within
  NextGen.

WAKE TURBULENCE: Scott Pressley (BHM) is the Article 48 Representative to the Wake Turbulence Office. Mr. Pressley's report to the membership is next.

- The week of September 18th was spent meeting with MITRE in Virginia about RECAT Phase II issues and starting the discussion on some future wake turbulence solutions.
- Time was also spent preparing for the upcoming ICAO Wake Turbulence Study Group meeting in Montreal.
- Time was spent on telcons and conversations concerning implementation of RECAT Phase II.

WEATHER: Matt Tucker (ZTL) is the Weather Lead for NATCA. Mr. Tucker's report for this week is next.

- **Flight Service NextGen Initiative (FSNI)**
    - o Attended the Article 7 briefing for FSNI emergency frequency rehoming. There are a couple of decommisionings outstanding and a letter was being drafted to finalize the initiative for deployment.
- **NEXTGEN Weather Processor**
    - o Attended a PMR with Raytheon and the program office. There are still a lot of schedule and funding questions. Currently there is four years of funding which will get the program out of Tech Center testing but no deployment. This is a major concern as all the work required for the CHI development that has to be done and then no guarantee of deployment
    - o The CHI planning group met for two days to layout a roadmap for development and worked with Raytheon on some basic layout and functionality details. A lot of the work to be done has to coincide with development of product activities, which is an issue with the funding and schedule concerns.
    - o Attended a joint technical interchange meeting between Raytheon the contract holder for NWP and Harris Corp the holder of the CSS-WX contract.
        - ▪ A number of items were discussed and how interfaces would need to be handled as well as how products will be available and the formats that will be required for accessibility.
        - ▪ Timeliness of products was discussed as latency in weather products is a large issue for controllers and pilots so distribution concepts and failover procedures are going to be hammered out and tested.
- **CAAC (Chinese)**

- o Mr. Tucker taught a Weather and Air Traffic Management class to the CAAC.
- o The primary topic he covered was operational bridging and human in the loop in Aviation weather forecasting and how it impacts traffic management decisions.
- o Mr. Tucker also demonstrated a number of automated weather products that are being used now and in the future.

Dale Wright

Dale Wright
Director
Safety and Technology