NATCA Safety & Tech Update
Week of October 1, 2018

AIR TRAFFIC REQUIREMENTS (AJV-7): James Keith (D10) is NATCA's Article 114 Representative to the AJV-7 Office. His update for this report is below.

1. PIREP operation view of importance- NATCA participated as a stake holder in a prioritization of operational importance. AJV-7 identified 7 items from a previous SRM on PIREPS. NATCA held a meeting with Steve Hansen. Andy Marosvari, and Matt Tucker and ranked the 7 items and submitted our score to AJV-7 on September 11, 2018.

2. Data Comm speeds- Data comm speeds uplinked to aircraft was determined to be an available option. AJV-7 was given the task to access the importance. NATCA was identified to be a stakeholder and asked to submit a prioritization score. I meet with a few National User Team members and tallied our score. I submitted NATCA's response/score September 25, 2018.

3. ADS-B capabilities prioritization- NATCA again was identified to be a stakeholder on prioritization of these capabilities. I am meeting with Eric Labardini (Article 114 representative to the SBS office) to review the capabilities and rank them. After we complete this task it will be sent to NATCA national office for review prior to being submitted as NATCA's score.

4. STARS E2- The terminal CHI team meet with the STARS E2 team 9/18-20, 2018. The agenda addressed auto point out capabilities, airspace transfer capabilities, spacing and merging tools. Raytheon presented some high level requirements and the team reviewed to ensure they are in line with how the team hopes thinks will appear on the radar scope.

5. STARS colors- A meeting was held 9/19 to discuss color options. A decision was made to from a work group lead by the terminal chi team to address available colors and make recommendations to possible 7110.3 amendments to accommodate some programs request for color usage.

PROFESSIONAL STANDARDS: Andy Marosvari (BOI) is the Chairman for NATCA National Professional Standards. Garth Koleszar (ZLA) and Josh Cooper (SCT) are members of the National Professional Standards committee. Their report is below.

The Professional Standards program is in its 8th year and continues to have a positive impact on the professionalism of controllers nationwide. The program has about 530 active members, with a total of over 850 trained to serve as committee members representing every facility in the National Airspace System. Committee members receive training on communication skills and conflict resolution during a 3-day course taught by NATCA. We are completing or class at MSP on Sept 27, and are sad to be processing through our last class with Andy Marosvari. However, we are equally excited to have the opportunity to move this program forward into its next phase. Lydia Baune has been an excellent addition to the team, and brings along some great ideas for improvement.

We have finished training the bulk of our District Chairpersons with a class at ORD on Sept 19th and 20th. This covered the implementation of the RESPECT initiative along with restructuring of the PS program. We still have a few people to train in this role. We have one empty seat form the ZFW area, and we had a bit of a struggle getting one off the schedule (LAX) for training. We also had one last minute change as Lydia Baune moves onto the national team, and we replaced her district chair position with Deanna Folsom form BOI.

To date, the Professional Standards program has received 2,790 submissions with 90% of those being resolved. That's 2,518 issues that NATCA was able to resolve the issue at the lowest level, peer to peer, without management involvement in the outcome. Approximately 70% of those cases are submitted by management, demonstrating the FAA's belief that the peer to peer method used by the program is working. The recidivism rate is very low, indicating that the one on one discussions between committee members and controllers has a long-lasting, positive effect on the safety of the system and the professionalism of our controllers.

We now have an active PS tab on the NATCA website. It covers information for FacReps, Members, and PS members, with contact information for all active Professional Standards Committee member and District chairpersons. We also have a link to email us directly. Please take a moment and check it out!

If you have any questions about the Professional Standards Program, please don't hesitate to contact any of the NATCA National Professional Standards committee members at ps@natca.net .

REMOTE RADIO CONTROL SYSTEM (RRCS): Corrie Conrad (PDX) is the RRCS Article 114 Representative. Ms. Conrad's report to the membership is below.

AWI (All Weather Inc) is on the third version of the SSS (System Subsytem Specification) document because the content does not meet procedural requirements. They cannot move forward with the PDR (Preliminary Design Review) until this document is approved.
PDR is moved to March, 2019.

SURFACE CONCEPT TEAM (SCT): Kyle Andrews (ORD) is the NATCA Representative to the Surface Concept Team (SCT) for Collaborative Decision Making (CDM). Mr. Andrews forwarded the information below for the membership.

The SCT came out of the summer hiatus with a telcon on September 17 to review the current tasking (78 & 79) and discuss the schedule for upcoming Collaborative Site Implementation Team (CSIT) meetings. Eric Cole, Director of the Airport Surface Efficiency Office, outlined the CSIT meetings for the upcoming years starting with three airports in the fall of 2019, followed by an average of 7 airports in each of the following three years. With a visit on the average of slightly more than one every two months, it will be very important that the issues involving travel and schedule coverage be resolved for FAA members needed to participate.
A high level goal for the SCT has always been the implementation of Surface Metering at airports with long departure queue issues. It seems more and more likely that Surface Metering is simply the FAA creating automation to solve a problem that the airlines are creating for themselves through bank scheduling. At hub airports with one major carrier, the airlines could smooth out the peaks and valleys of queue length through their own scheduling, but instead they have abdicated responsibility, almost with the implication that it is ATC's fault that the queues are so long. The tangential benefits of SCDM - better predictability, more efficient slot use for planes needing release to high volume airports, updating equipment including electronic flight strips - still validate the program's existence, but the high level goal of Surface Metering may never show benefits that could not have been more efficiently achieved through better airline scheduling.

TERMINAL AUTOMATION MODERNIZATION REPLACEMENT (TAMR): Aaron Rose (NCT) is the TAMR Article 114 Representative for NATCA. His report to the membership is below.

Waterloo IA, Aspen CO, and Nashville TN transitioned to TAMR STARS this reporting period. Aspen loaded R7 software which enabled it to continue to provide climb-out MSAW processing. Thanks go out to all BUMs and FacReps for working collaboratively with both NATCA TAMR and the program office. Due to Hurricane Florence two IOCs were delayed at Florence SC and Wilmington NC. New dates are being discussed with the facilities.

The Common Terminal Digitizer (CTD) program manager, TAMR program manager, and Mr. Rose discussed how best to move forward with the outstanding Program Trouble Reports (PTRs) involving false weather and AP. It was agreed upon that weather processing from the CTD would not be sent to facilities other than the primary TRACON. Other portions of the radar feed will be available to adjacent facilities.

Mr. Rose briefed Devin Hunt (JCF STARS) about upcoming meeting between the TAMR program and DOD reference STARS installation at Joshua Control facility. Devin is the new point of contact for NATCA. JCF is in good hands and Devin is eager to dive right in and start work.

Three trips during this reporting period occurred; Springfield Ohio, and two trips to Washington D.C. Springfield was an interesting stop to view the Ground-Based Detect and Avoid (GBDAA) UAS (Unmanned Aerial System) bus. Yes, that says bus; the partnership between the state of Ohio, Raytheon, and DOD to provide a surveillance-based STARS system that can be plugged into a radar source or provide a stand-alone radar source to track and detect UAVs. This system will be used to start integrating UAVs into the NAS. The bus comes with generators, communications system to interact with ATC, and a fully functioning STARS ELITE system.

Washington D.C. included two weeks of meetings ranging from color usage in the terminal environment to an Article 114 TAMR all-day meeting. The terminal color meeting was attended by Aaron Rose (TAMR), Andy Marosvari (AJV82), James Keith (AJV7), and Jay Barrett (Human Factors). In addition, FAA counterparts to include a briefing by Dr. Ken Allendoerfer from Human Factors were in attendance. Topics included future deployment of NextGen technologies (STARS Enhancement 2 (SE2), TSAS), color usage in the field today, and how future requests will be handled. Also, the FAA JO 7210.3; how to change the wording in the order and who makes that call. With the addition of a new color palette and facilities transitioning to STARS who never had colors it was imperative to discuss a way forward. The Article 114 meeting held Sept 25th included the following topics. SE2 functionality, software build plan, R11 software lessons learned, Shreveport tower back-up, continued OMA keyboard issues, and replacement of FAA TAMR PO deployment lead.

The NATCA TAMR team to include Joe Yannone (NATCA radar and Surveillance) and Eric Labardini (NATCA SBS) worked an issue with Myrtle Beach (MYR) after the facility lost both primary radar from the short-range and a long-range radar. Unfortunately, MYR only has three radars and the other LRR does not cover their entire airspace. Hurricane Florence had a devastating effect throughout the Carolinas. Working with the FacRep NATCA TAMR and SBS provided guidance to the facility as to how to continue operations in a safe matter.

Aaron Rose also participated in the following telcons: SHV ELITE backup Direct Sensor Feed (DSF), CTD, TAMR/NATCA call every Friday, TAMR all-hands on Monday mornings, TAMR STARS Strategic Software Planning, and R11 software planning.

Lastly, I would like to say Fair Winds and Following Seas (I'm ex-Navy) to Jill Carr from Tampa. She is retiring after a stellar career as a controller and NATCAvist. Jill has worked on the TAMR project for 5 years and given her all to the transitions and

training. She will be sorely missed. Thank you, Jill, for all your hard work and dedication to the bargaining unit.

TAMR Deployment and Common Terminal Digitizer (CTD) Update Submitted by Jim VanZee (GRR)

September 2018 represented the successful end of the 2018 Fiscal Year goals for TAMR as well as the kickoff of a big milestone goal push for as we prepare to convert most of the remaining ARTS IIE sites to STARS over the next several months. As of the end of FY18, STARS has been successfully deployed in over 90% of the NAS. During the month of September, transition was completed at ALO, ASE, and BNA. The impact of hurricane Florence forced the cancellation of a planned STARS transition at the Florence, SC (FLO) ATCT on September 24th as well as delayed a scheduled transition for Wilmington, NC (ILM) in late October. NATCA is working with the TAMR Program Office to get these sites back onto the schedule as promptly as possible.

In a collaborative effort with the Agency and other stakeholders, NATCA agreed this month on an In-Service Decision (ISD) agreement for the new Common Terminal Digitizer (CTD). This agreement allows the deployment of this equipment at all remaining sites with the ASR-8, which is needed to upgrade their automation from an analog ARTS display to the digital feed necessary for STARS.

Key TAMR and CTD milestones for September:

IOC (Initial Operating Capacity)

- Waterloo, IA (ALO) 9/13/18
- Aspen, CO (ASE) 9/18/18
- Nashville, TN (BNA) 9/22/18

Equipment Delivery

- Clarksburg, VA (CKB) 9/18/18
- Providence, RI (PVD) 9/18/18

TAMR Software/Hardware Report Submitted by Kyle Ness (M98)

<u>Operational Testing and Evaluation (OT&E)</u>

NATCA SMEs from SCT, D01 and BTV participated in an Early User Assessment of the R9 software build at the Raytheon facility in Marlborough Massachusetts. Over three days NATCA SMEs tested several software modifications to provide feedback to Raytheon developers before these changes are delivered in a mature build to the FAA. Items evaluated include:

Reducing False Radar Failure Indications
Wide Area Multilateration
Satellite Arrival Lists
Flight Plan Handling
Auto Handoff
Datablock Brightness
Restriction Areas
Quicklook Functions

In early October NATCA SMEs will participate in another Early User Assessment of a

new function to convert STARS CDR data into AT Coach scenarios.

System Technical Reports Working Group (STRWG)

Controllers have frequently asked for an aircraft type "undo" function when they mistakenly enter an incorrect aircraft type into the STARS datablock. Several sites no longer mandate flight strip usage and if the controller puts in the incorrect type and doesn't have a strip to reference, they have to go to the FDIO or query the pilot about aircraft type. Stakeholders are reviewing a STARS function will allow controllers to restore the aircraft type field in the datablock if an incorrect type is entered.

Approach Runway Verification (ARV) is new tool to warn controllers when an arrival aircraft is approaching an airport surface area that isn't a runway. Secondly, ARV will provide an alert when an aircraft is approaching the wrong runway or a closed runway depending on system knowledge of the arrival track and adaptable criteria. In recent years, there have been newsworthy events of pilots attempting to land on airport taxiways and wrong runways. Since most of these incidents occur in visual environment near the airport, the intent of ARV is to provide alerts to tower controllers by monitoring a stabilized approach 2 to 3 nm from the runway. The STRWG is reviewing the enhancements and potential CHI considerations.

Program Trouble Report Working Group (PTRWG)

NATCA presented several PTRs during the September meeting for review. Several improvement PTRs were evaluated because they were either obsolete or resolved by other software changes. Eleven were closed, three were re-ranked and four moved to the watch list. NATCA elevated a PTR to enable plot playbacks in fused mode when using playback applications like FALCON. Currently CDR is the only means to see an air traffic playback in fused mode.

MSAW/CA Board

Refinements of the Standards and Guidelines were recently noted due to upslope MSAW changes necessitated by the installation of STARS at Aspen, Colorado. Temperature corrected or "snowflake" approach plates and subsequent pilot actions are having an effect on MSAW monitoring primarily at mountainous airports. Adapting MSAW parameters for winter and summer is challenging and can produce nuisance alarms and are not dynamic. Software solutions will be discussed at the next Board meeting as well as adaptation guidance in the Standards and Guidelines.

Software Planning Board

The Operating System transition from Solaris to Linux is scheduled to begin February 2022. Support for the Oracle Solaris OS ends January 2021 and Linux enables mandatory security protocols. This presents a challenge to build planning since R9/R10/R11 development, integration, testing, regression and key site will be constrained by the OS software activity and rollout. R11 presents the most risk to the software schedule and stakeholders are reviewing build content to reduce impact of R11 deployment.

STARS Hardware

Shreveport, LA (BAD) is scheduled to IOC on STARS G4 ELITE in January. Because of unique midshift operation, a modification to the backup system has been identified and is being investigated. NATCA, second level engineering, field support and the TAMR program office are working on a solution.

TAMR is nearing the final year of deployment activity. To date, most of the terminal sites in the NAS have had ARTS or legacy STARS systems replaced with the STARS G4 and G4 ELITE system hardware. Any anomalies and problems with the G4 systems are typically reported immediately and field support takes quick action to ascertain the problem and implement a remedy. As we continue to roll out hardware, please let us know as soon as possible if your facility encounters any issues related to track balls, monitors, or keyboards.

TAMR Operational Support Facilities (OSF) Update Submitted by Scott Kendrick (North Texas-OSF)

STARS Enhancements 2 (SE2)

Reviewed Airspace Transfer, Merging and Spacing, Point Out scenarios. The described function affords both STARS and ERAM facilities with a capability that improves the overall safety and efficiency of NAS operations. The TAS (Transfer of Airspace) capability will allow for the transfer of defined volumes of airspace between STARS and ERAM facilities.

Software Planning Board (SPB)

Stakeholders continue working changes to the software build plan for S6.00R11. The current software schedule will not fit within the current testing timeframe. Prioritizing current content to move into R10 or delay fixes to software build S8R2.

Operating Testing and Evaluation (OT&E)

NATCA OSF SMEs from DVOSF and GCOSF attended the S6R9 Drop 3 early software evaluation at Raytheon September 24th through September 28th, 2018. This gave SMEs an opportunity to provide feedback on upcoming software changes and improvements in the R9 build.

Program Trouble Report Working Group (PTRWG)

Attended the September meeting. Stakeholders re-ranked and ranked new PTR's. Stakeholders reviewed PTRs on the watch list and several PTRs that were already ranked and adjusted in priority based on recent developments.

System Technical Reports Working Group (STRWG)

Stakeholders are reviewing three proposed software modifications to STARS. The first on Conflict Alert algorithm should consider the turn rate, second one for Beacon reflections during code swap and then also one on Quick look Region Consolidation issues.

In addition, Mr. Kendrick attended the Color usage on terminal display meeting, STARS Enhancements 2, TSAS, SBS, Pre-CCB, TAMR Look Ahead and weekly OSF Technical telecons.

TIME BASED FLOW MANAGEMENT/TERMINAL SEQUENCING AND SPACING (TBFM/TSAS): Matt Gammon (ZID) is the Article 114 Representative for TBFM/TSAS. His report to the membership is below

TBFM/TSAS Team Report - September 2018

TBFM/TSAS Article 114 Rep. Matt Gammon (ZID)

TBFM

The week of September 3rd TBFM Ops Team members were at the Tech Center for TBFM Sustainment testing as an ongoing commitment to consistently test TBFM new builds prior to Keysites and National releases. This Sustainment testing is now scheduled once a month at a minimum and the objective is to have consistent Ops input into the testing process. This is also done with the help of support personnel who have historical knowledge of not only the TBFM system, but detailed processes that have been used in the past for TBFM testing. The same week TBFM Ops Team members visited ZDC in support of Northeast Corridor work for PHL Metering. The initial intent of the adjacent site visits is to gather information of the current adjacent support for Metering and discuss future work with the facility representatives. Also, a presentation of IDAC was given to ZAB in preparation for upcoming Training and Installation at ZAB and four Towers (PHX, TUS, ELP, and ABQ). Initial Site visits at the Towers have already been completed and Implementation is planned for early November.

The following week of September 10th the Ops team was at the Atlantic City Leidos location for the new 4.9 release Ops Evaluation testing. This was the first Operational Eval of the 4.9 system and this release is not planned for National release, but rather for TSAS improvements and enhancements to be tested. The same week a small team visited ZTL in support of ATD-2 for CLT. The Ops Team was asked to train ZTL TMC's on IDAC so that more departure flows can be used in the near future out of CLT utilizing the ATD-2 system. ZTL will set departure flows for CLT (similar to when Towers utilize IDAC) and the CLT ATD-2 system will then be utilized to schedule departures. The Ops Team will return in early 2019 to train the remaining IDAC Towers for ZTL so that the full system can be utilized. During the training on the support system sluggish behavior was noticed and reported. After testing this TBFM SLE and Leidos reported that this was due to Virtual Machines that are utilized in TBFM. The support system is particularly susceptible to this behavior which the team has seen at other sites. The contractor is working on a VM tuner that will hopefully maximize the utilization of these virtual machines in the future to avoid this undesired behavior. This behavior is not expected to affect Ops as there are additional machines on the Operational system that can handle the increased usage of the TBFM system.

The week of September 17th the Northeast Corridor Team visited the Tech Center along with TBFM Leadership. Meetings were conducted with Adaptation personnel from FAA and Leidos to discuss plans moving forward with development of the enhanced PHL arrival system. A meeting was also held with Lab personnel from the Tech Center to discuss the usage of labs at the Tech Center to test PHL adaptations in the future. Additionally, a group from the Ops team was at ZOA for verification of the LAX T2T system delivery. Unfortunately, the initial delivered system was set up to allow ZOA to schedule into the legacy LAX arrival system instead of the new 'coupled' system that they use. The Ops team members on site identified the issues

and working with SLE and Leidos, the appropriate changes were made and delivered out to the site for testing the same week. Once the new system was delivered it was verified in the support lab as working correctly. This will allow ZOA Towers with IDAC installed to schedule departures directly into the LAX arrival system.

The last week September TBFM Ops Team members visited ZOB in support of Northeast Corridor work for PHL Metering. Similar to other adjacent site visits, the intent was to gather information for PHL Metering and discuss future work with the facility representatives. Additionally, there were discussions about PIT early departure scheduling into PHL which is part of the NEC planning as well. Overall the meetings went well and a lot of good information was exchanged between the facility and the NEC Ops team group.

TSAS - submitted by TSAS subgroup lead Paul Carroll (PCT)

The week of September 11-13, we conducted an Operational Evaluation of the TBFM 4.9 software release. Members of the TBFM Operations Team and SME's from field facilities attended the event. The software release contained upgrades to the TSAS program. The evaluation went very well correcting numerous bugs in the system as well as changing command and control input to the desired functionality. We held two activities at the Tech Center during the weeks of September 18-20 and September 25-27 to test and evaluate the TSAS program and its operational functionality. We continue to see improvements with the program software. Some problem and discrepancy reports continue to be filed with Leidos and Raytheon, respectively. We have received enough feedback from field personnel to upgrade some of these issues to IOC critical. We are working with the TAMR and CHI teams to resolve these issues and ensure that they will be available for use prior to key site rollout in September of 2020.