NATCA Safety & Tech Update
Week of November 26, 2018

ADVANCED TECHNOLOGIES & OCEANIC PROCEDURES (ATOP): John Lenhart (ZOA) is the Article 114 Representative for Advanced Technologies & Oceanic Procedures (ATOP). Mr. Lenhart's report is below.

Items worked:

- Tech Refresh (TR)2
- ATOP BCP/OCP
- T26/T25 fall back
- Reduced Separation

TR 2

ATOP Tech Refresh 2 (TR2) has once again slid right due to the product being unsatisfactory. The ATOP Team has found sync and processing issues as well as controller work station issues like mouse speed. ZAN is still projected to have TR2 installed first. At this point there is no solid date. NATCA and the ATOP program office are in concurrence that TR2 will not be deployed until all the bugs are worked out. This was after an unknown Engineer brought up working the bugs out at "the Site". Obviously NATCA does not support that.

ATOP BCP/OCP

The ATOP Site Leads, and Agency counterparts met at the Tech Center the week of November 5th. The Team made the recommendation to concentrate the programs budgetary allotments on ATOP Failure Rapid Recovery. The goal is to for ATOP to be able to have a full recovery after a failure within 8 minutes. An automated recovery process has been proposed.

The AJR-X OCP Team also appeared at the meeting. ZAN and ZOA are proposed to have a two week meeting at ZAN in Jan. 2019 to complete their Operational Contingency Plan. ZAN and ZOA are each other's support facility. ZNY has no proposed dates as of yet.

T26 and T25 Fall Back

ZNY elected to fall back to T25 within days of coming up on T26. Reason for the fall back was ZNY discovered an ATOP functionality that was different than what the ATOP Site Leads and Team approved. When working on the CPDLC indicator, Engineering made the Current Data Authority (CDA) indicator not work as designed. ZNY elected to fall back to T25 where their controller briefings were correct. On 11/6/2018 the ATOP Site Leads and Team met with SLE to correct the error. ZNY should be back up on T26 before the new year.

Oceanic Reduced Separation

The SRM for the proposed 23 nm lateral and 20 nm longitudinal separation standards are proposed for the week of Dec. 10th 2018 in Dallas provided the Government does not have a shutdown on Dec. 7th. The two standards will be looked

at and paneled separately. 23 nm lateral is already an approved standard by ICAO. 20 nm longitudinal is still being modeled.

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

Florence (FLO), Syracuse (SYR), and Elmira (ELM) transitioned to TAMR STARS this reporting period. In addition, Erie (ERI) approach moved into Buffalo (BUF) and TAMR worked with ERI to ensure tower controllers who did not move were properly trained and ready for STARS operations moving forward. All in all, the consolidation and transitions commenced and finished without any major issues. These five facilities should take pride in a job well done. Without collaboration on a local and national level a month such as this could not and would not happen.
Mr. Rose took some time off during the reporting period but did travel twice for meetings in Boston and San Diego. In Boston, Ross Costa (RSW) and Aaron Rose attended the quarterly Operating System (OS) migration meeting. Discussed new AT Coach, AT Pilot and AT Prepare training which will have to go out prior to the OS transition which will start deployment in early 2021. In San Diego Mr. Rose was a participant in the quarterly surveillance meeting with Eric Labardini (NATCA SBS). SCT has a new radar feed from NAS North Island (ASR11) which improves surveillance on the San Diego final. The primary is not being used at this time but the secondary is in use and providing substantially to the FUSION presentation. Talks are under way with the DOD to improve the primary portion of the radar. In addition, a report from AJW on the ongoing radar optimization was presented. Joe Yannone (NATCA Region X), also in attendance, reported that the completion of this effort will be in July or Aug 2019. The next radar optimization effort will be focused on NCT and N90. The first meeting with NCT will be just after the new year. Coordinated with S46 about installation of the hardware needed for automatic updates to altimeter within STARS. This will be after the new year.
Main Display Monitor (MDM) issues have crept up once again, this time at D10. An MDM was reported fading to black and then return to full service. Second level engineering (TSLE) and TAMR PMO are investigating. If there are any issues related to MDM or STARS please do not hesitate to email TAMR@natca.net.

TAMR NATCA Training submitted by Ross Costa (RSW)

Mr. Costa traveled to Las Vegas, NV to attend the Communicating for Safety Conference. In addition, Mr. Costa assisted Raytheon at their exhibit with a demonstration of MARS, a prototype control display workstation. Mr. Costa had conversations with controllers attending the conference on the pros and cons of this display system. We asked controllers to take short surveys and advise us what we could do better and what the controller workforce would like to see in the STARS platform going forward.
Mr. Costa also traveled to Marlboro to discuss the new version of the Plain Language Document (PLD). Mr. Kyle Ness and Mr. Costa have been working with the Agency to develop a new training package for all future software changes to STARS. The

intent is to demonstrate the changes in a controller-centric format so that we can easily train the workforce on changes. At this meeting we finalized the latest R7 Software Drop training document that will be fielded soon. We also discussed how this information will be disseminated.
In early November, Mr. Costa traveled to Grand Canyon, AZ (GCN) and Traverse City, MI (TCV) to discuss the training these sites will receive as remote towers from an adjacent, non-overlying TRACON. The discussions revolved around the type of training that will be received at the site and how the site will be training the controller workforce. After this meeting, Mr. Costa worked with Jim VanZee (GRR) and Robert Faulkner (D01) to discuss the challenges of integrating systems into local procedures.
Finally, Mr. Costa traveled to Marlboro, MA to visit with Raytheon to discuss the Operational System switch-over in STARS. The new OS will come with a new tool in AT Coach that will al low for more point and click functionality than currently exists. This tool is known as AT Prepare. We discussed some of the training concerns and needs for deployment. We are hopefully that we will receive a demo on this tool in the near future so that we can make adequate training recommendations.

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

Operational Testing and Evaluation (OT&E)

S6.R8 testing will commence the November 27 at the tech center in Atlantic City, NJ and will run three weeks. The purpose of the R8 build is to integrate Terminal Sequencing and Spacing (TSAS) tools and functionality into baseline STARS software. NATCA SMEs will run system tests to ensure existing software functionality performs as expected and will also run tests with TSAS on to evaluate performance and display of TSAS tools.
S6.R7 Drop 14 went to keysite late September and a handful of software defects were discovered including: intermittent remote tower router network failure, an MSAW/CA adaptation flag, FDAM criteria and MCW indicators. Raytheon recently delivered fixes in Drop 15 and NATCA SMEs will test Drop 15 mid-December. Pending a successful test event, the build will go back to keysite before Christmas and eventual national release in early 2019.

Program Trouble Report Working Group (PTRWG)

This time every year the PTRWG reviews the list for old or unneeded PTRs. During the November meeting, stakeholders closed over 30 PTRs that were either several years old or written against obsolete software builds. Closing these PTRs condenses the list and the PTRs represent more accurate picture of current STARS problems and improvements. This helps TSLE and Raytheon prioritize their software development efforts and meet the needs of the terminal controllers. Several PTRs need be re-validated and will be reviewed at the December meeting.

MSAW/CA Board

Mr. Ness and TSLE software met with FAA Human Factors (HF) to continue planning for the planned MSAW/Conflict Alert reaction time experiment. It was agreed that NCT provided quality MSAW/CA data and the experiment should use NCT traffic and airspace as a basis for the project. A timeline for the experiment has been developed to use NCT SMEs to validate simulation realism and perform the trials. HF

has received AT Coach training scenarios from NCT to use as a basis for experiment simulation and will move toward validation early 2019.

Software Planning Board

The R8.R1 software build will migrate the STARS operating system from Solaris 10 to Red Hat Enterprise Linux. There will be no fixes or improvement in R1 for Air Traffic, Tech Ops, DOD or OSF so R2 while three years out, is already taking shape. NATCA has identified several high priority PTRs to be delivered in R2.

STARS Hardware

Mr. Ness attended a slatwall event at the tech center mid-November. Slatwall is a new workstation concept already deployed at sites such as Cleveland and Las Vegas. The purpose of this meeting was to finalize fit checks of Raytheon components on final design Russ Bassett and Evans slatwall consoles. NATCA feedback centered on eliminating light pass-through, acoustics and cable retention for vital components.

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

Thanksgiving and the rest of the holiday season are upon us! For TAMR, that typically signifies a marked slowdown in activities as stakeholders have leave planned, in addition moratorium periods approach for non-essential work. That being said, we were able to successfully complete three ARTS to STARS transition events since the last update with Florence (FLO), Elmira (ELM) and Erie (ERI) attaining Initial Operating Capacity. Of significance in those transitions was ERI, who closed their TRACON for the last time on ARTS and took the airspace back from ZOB the next morning at the new Erie Sector at BUF – representing the second successful consolidation of facilities under Section 804.

Those transitions were the final ones for the calendar year. At this point, there are only 10 FAA facilities in the NAS left to transition to STARS during 2019.

The CTD program continues to deploy the new digitizer hardware/software for the ASR-8 sites into the NAS, with successful IOC's at both FLO and ELM. A new software build that is expected to help mitigate the presentation of false weather (AP) on STARS is showing promising initial looks, and testing and evaluation will continue until at least early January 2019 prior to keysite deployment later in the year.

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

TSAS/TBFM

11/5 – 11/9 – Attended the TIAB (TBFM in A Box) training and requirements meeting for OSF/Site support at Denver, CO. The requirements in order to connect TIAB to STARS within the OSF's were detailed and how to accomplish training to use the simulator.

Software Planning Board (SPB)

Stakeholders are being asked to agree to the initial software build content for STARS S8R2. Prioritizing current content that moved from R11 and delaying fixes to the software build S8R2.

Operating Testing and Evaluation (OT&E)

OSF SMEs from SEOSF and DVOSF attended TIAB (TBFM in the Box) for the S6R8 RM OT&E. Nov 27th starts the RM OT&E for the R8 software and goes until Dec 14th.

Program Trouble Report Working Group (PTRWG)
At the November meeting stakeholders ranked new PTR's. Stakeholders reviewed PTRs on the watch list and reviewed several PTRs that were already ranked. In addition, closed PTR's that have been open since the S4 baseline and are no longer or have been corrected within the software.
System Technical Reports Working Group (STRWG)
Stakeholders are continuing review proposed software modifications to STARS. The first on Approach Runway Verification (ARV) which needs agreement before the end of November, second one for MCP RADAR Status ICONS show passed when no monitoring is active.
Safety Risk Management Panel (SRM)
Attended the 6191.5 SRM telecon where stakeholders are reviewing changes to the certification of ADSB and if any impact from these certification changes could impact the NAS.
In addition, Mr. Kendrick attended the STARS OS Day, SBS, 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
The week of October 10/29:
-TSAS Leadership meeting at the Tech Center and TSAS testing. There was a large discussion with most all groups that are working on TSAS about the work that will need to accomplish in the next year. This was good to have all the groups together to discuss all the moving parts. Additionally, testing in the NexGen lab was conducted the next two days as well.
-ZLA/ZAB T2T for IDAC scheduling from ZLA to PHX. During the testing of this adaptation it was found that since PHX RBFM arrival system runs with a set arrival rate that IDST available space is negatively affected. The system still schedules correctly but red/green available space is not correct, and because of this the installation on Ops was held off and a ticket was opened to address this.
-The new 4.8.3 System Ops Evaluations were conducted at ZID and ZTL. This allowed for testing of the two connected systems which is important due to the connectivity of T2T for IDAC scheduling. The initial testing in the support lab went well and the new availability to dynamically switch between IDAC Adjacent scheduling in EDC (MIT) and an Arrival system went well. When the system was loading on Ops there was an issue that was encountered because of a dependency of how the system is brought up. ZID ended up not having the ACM GUIs for ATL and CLT. The system was fixed when restarted and the issue was identified for future releases of 4.8.3. Overall the keysite went well and both ZTL and ZID stayed on the new build.
The week of 11/5:
-The NEC group was at the Tech center to work on the PHL Adaptation with support from SLE, Cavan, Leidos, etc. As well as working on the PHL adaptation the group

worked with others towards the eventual Lab Testing of the PHL XM system at the Tech Center. This will all be working towards a full test of the system at the Tech center in March.
- This was the week of IDAC training/implementation at ZAB and their associated Towers which are ABQ, PHX, ELP, and TUS. The Ops team were at all the towers for the week as well as at the Center. Both TMC's at ZAB and controllers at the Towers were trained on the IDAC system throughout the week. At some locations SME's were trained who then will be continuing the training process after that week. Overall the training was very well received and a date of November 19th was agreed upon to start at limited test usage of the IDAC scheduling system by the Towers.

The week of 11/12:
-The 4.8.3 system was tested again, this time at ZLA and ZOA. This enhanced testing of new releases prior to National release is part of the new Sustainment testing that the Ops Team and Program office is performing. The intent is to get all the identified issues corrected as possible prior to all the facilities coming up on a new build. The overall system looked good in the support testing but the similar issue that was found previously with scheduling into an Arrival system that uses an Arrival rate was seen at ZOA. Although this is not new in 4.8.3 ZOA chose to keep the new build on the support lab only and not step up until this issue was fixed. This issue will be fixed as part of a patch prior to National release and the Ops Team will return to ZOA to ensure it is working correctly. ZLA was informed of the issue but as they have been working with it already they chose to step up to the new 4.8.3 system to continue testing. Leidos has taken the information from both Keysite activities and with the scheduled Patch to be delivered with National release the issues that were identified should be corrected.
-The NEC group was at the Tech Center again continuing to work on the PHL XM Adaptation. There were a lot discussions about how the various labs could work together for the NEC work and plans to accomplish this began to be finalized. There will be a meeting in February with facilities to discuss the plan moving forward, this will be a followup to the initial meeting that was held at MITRE. Before then the NEC group will brief the NEC Collaborative Workgroup on the plan moving forward.
-A meeting was held at D01 where the message of iTBO and the identified facilities for TSAS was delivered. NATCA Ops team SME Brian Reddy was in attendance and helped the Program Office brief the facilities on TSAS work that has been accomplished and some of the plans moving forward. Metroplex representation was there as well as a number of people were in attendance. The next day the iTBO group visited ZDV. These initial meetings will be followed up by other visits and representatives from D01 and ZDV will be identified to help work on the development of TSAS for Denver.

TERMINAL FLIGHT DATA MANAGER (TFDM): Matt Baugh (IAH) is the Article 114 Representative for TFDM. Mr. Baugh's update is below.

The TFDM Ops Team has participated in about 6 Scenario building/test evaluation events at the tech center over the past few months. The goal of these events is to get an early look at the system, help the test team build both operationally realistic and milestone driven test scenarios. This will help both teams in the future months during testing at the tech center and in PHX prior to IOC. Another goal of these events, is to ascertain the "health" of the system and to identify gaps in the development. So far, dozens of discrepancy reports (DR's) have been found and presented to Leidos. These findings will get the items fixed prior to official testing and will hopefully warrant a better process and product down the road.

Managers in the FAA Program Office and AJT (Air Traffic) held a meeting the week of Thanksgiving to discus the TFDM training, logistics, and implementation plans, as well as the number of SME's we will need and the dates by which we will need them. The meeting went well, with the FAA leads supporting our requirements and giving us the go-ahead to begin requesting SME's. There will be an initial request sent out in December for approximately 16 National Training Cadre SME's, all part time. More details will accompany the request.

Advanced Electronic Flight Strips (AEFS)
Coordination is ongoing with LAS regarding their adaptation as well as with CLE and PHX regarding their training and upgrading to a newer build.

- CLT The previous issues that caused some lag in performance have been found. They are due to the number and frequency with which NASA is sending updated times to AEFS, such as Estimated Time of Departure (ETD's), and TFMS EDCT updates.
- PHX Nothing new
- CLE Nothing new
- LAS A recent visit to LAS was moved to later in January to accommodate schedules. For this visit, LAS will work with the national team to help build their possible adaptation. From there, they will decide on wether or not to accept and use AEFS.

SWIM Visualization Tool (SVT)
Nothing new.

WAKE TURBULENCE: John Murdock (PHL) is the Article 114 Representative to the Wake Turbulence Office for NATCA. His update for the week is below.

During the end of October CWT training was completed at Las Vegas Tower and TRACON, North Las Vegas Tower and Nellis Air Force RAPCON. All four facilities went IOC on November 14th with no reported issues. At the end of the month CWT and ATPA training will begin at HCF and all other facilities in the Hawaiian Islands. IOC for the Hawaiian Islands is scheduled for December 11, 2018

The first facilities to implement CWT was almost six months ago. We have not received any reports of errors or concerns with the order. We are closely monitoring all wake encounter reports at facilities using CWT for any increase in wake encounters associated with CWT. Currently there is no data suggesting or indicating any increase in wake turbulence encounters associated with CWT.

We met with ANG for a briefing on Dynamic Wake Turbulence Separation. This was an initial briefing that included a general overview of the program. Currently Dynamic Wake Separation is in a conceptual phase and needs to be further development before the program can be considered for the NAS.