NATCA Safety & Tech Update
Week of April 10, 2017

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

A Safety Risk Management panel was held in Seattle the week of March 13 regarding incorporating Track-Based Display Mode from ADS-B equipped aircraft into ERAM. This is one more step in increasing the accuracy and benefit of data from ADS-B. Members of the ERAM and SBS teams participated along with surveillance and engineering experts. No high safety risks were identified.

Facility Tech Reps (FTRs) from the ARTCCs bordering Canada met with engineers from CAATS and ERAM to develop requirements for the Handoff to CAATS project. Neither system was designed for international handoffs and the changes we make to allow that must also be compatible with other non-US systems. The ability to make and receive handoffs to/from Canada is expected in the 2020 timeframe.

Regression in the ERAM EAD600 release created a condition in which Conflict Probe could be inaccurate. No acceptable mitigation existed, so we had Leidos build a Field Fix release to correct the problem. The new build was tested by ERAM SMEs at the Tech Center and released nationally April 6th. Most ARTCCs will be installing EAD600 by the end of May.

Airborne Re-Route (ABRR) Conformant Routes are planned for a May 7th turn-on. That means that protected segments in flight plans that are part of a Traffic Management Initiative will be indicated with chevrons. The full capabilities of Pre Departure Re-Route (PDRR) and ABRR will be turned on at each facility after they have installed EAD600 and coordinated a date with the Command Center.

New D-side monitors are being sent to all Centers for installation beginning in early May. These new monitors are 24 inches diagonally, but the increased size will not be utilized until the EAE100 software update early next year. The viewable space will stay the same size as today, with blacked out areas on either side of the views.

The budget issues related to the Continuing Resolution put a stop to nearly all travel throughout April. We've been assured that essential testing and site support will still be supported, but any development work, workgroups, and meetings have been cancelled. We'll be assessing the impact this has on the programs that all the ERAM team members work on.

Enterprise-Information Display System (E-IDS): Amanda Hodge (ZOA) is the Article 114 Representative for Enterprise-Information Display System (E-IDS) work. Ms. Hodge's report for the membership is below**.**

> Essentially, the plan moving forward has changed slightly in that we plan to use a MITRE demo with the SMEs in focus groups via go-to meetings (4hr sessions). The details, specific time required, and SMEs needed are all outlined in the attachment, and MITRE can be flexible to accommodate SME scheduling constraints. To finalize the demos, the data from the initial TRACON survey will be used to supplement the info that MITRE already has. The surveys are due back by Apr 10th and we will know by then if there is a specific facility, or type of facility, that has unique processes or procedures that need to be explored further via the focus groups. Doug and I discussed having that finalized by Apr 13th and I believe he relayed that date to Mr. Bartel.
>
> If there is a need to get additional SMEs, I have serious concerns about the proposed timeline. Possible impacts:
> 1. I advised Doug that a lot of lead time is required to get SMEs selected and secured off the schedule due to coordination between S&T and Tech Labor, actual solicitation of SMEs, and the time needed to coordinate with the field facilities prior to the watch schedule getting posted. (We are already posted through May 13th.
>
> 2. I expressed my concerns with the possible government shutdown at the end of the month and the associated fire drills, delays, and "clean up"/get back to normal that always occurs whether the shutdown happens or not.
>
> 3. Less of an issue, but still one I'm considering: I told Doug that I would like to be present for the demos, so that I can see the process that MITRE goes through and capture any lessons learned before we go through this exercise with the towers and ARTCCs. He thought it was a good idea and told me that he budgeted for me for some travel this FY. Unfortunately, until my detail time gets worked out, I don't know how difficult it's going to be to get off the schedule for an entire week.
>
> 4. May 22nd is NIW week. We sent out the TRACON survey to ATMs and FacReps during CFS and are not getting as much participation as hoped, so I would like to avoid a week where we may have a lot of unavailability in the field. I've asked Kelly to let me know how many members are registered to participate.
>
> I know the SMEs selected on the initial bid will provide excellent knowledge and I'm hopeful that we can still utilize them moving forward. I believe the main concern right now is not having representation from smaller TRACONs and/or combined tower/TRACONs, as well as facilities with IDS-5 and NIDs

equipment. The current terminal SMEs on the list are all from medium to large TRACONs with IDS-4 or ACE-IDS equipment. The attachment also notes factoring in TMCs and FLMs in the workgroups.

We've only gotten about 1/3 of the responses requested from the 18 terminal facilities. The joint "heads up" email from Doug and me was sent to all ATMs and FacReps about 10 days in advance, followed by the email with the link to the actual survey, followed by the survey extension to Apr 10th. I plan to reach out to the FacReps to request that they help us in getting more responses. If that doesn't improve the situation, I may ask for help when we get to the ARTCCs – maybe something from S&T on the Center FacRep listserv.

FLIGHT DATA INPUT OUTPUT (FDIO): Corey Soignet (LFT) is the FDIO Article 114 Representative. Also included in Mr. Soignet's duties is Article 114 representation for the Electronic Flight Strip Transfer System (EFSTS). Mr. Soignet forwarded the information below for the membership.

FDIO

I along with the rest of the FDIO traveled to the BOCA facility to discuss the new printer design. The new printer is still in the early stages and we are finalizing the final design. A sample of the final product should be delivered to the FDIO team towards the end of April. Upon arrival the printer will then go through rigorous testing and reviewed by all members of the team. I will have more info on the printer in the next update.

EFSTS

We are in the process of sending out the Phase 2 kits to all Phase 2 sites. The Manager and FacRep of each Phase 2 site will also receive an email with all information along with the training materials and time frame to complete the user training. Phase 2 sites listed below.

Bradley CT BDL
Charlotte NC CLT
Chicago IL ORD
Dayton OH DAY
Detroit MI DTW
Fort Smith AR FSM
Gulfport MS GPT
Jacksonville FL JAX
Kalamazoo MI AZO

Lexington KY LEX
Louisville KY SDF
Memphis TN MEM
Montgomery AL MGM
Raleigh Durham NC RDU
Syracuse NY SYR
Tallahassee FL TLH
Tampa FL TPA
West Palm Beach FL PBI
Wichita KS ICT
Wilkes-Barre PA AVP

FIDI

There is nothing to update at this time.

HUMAN PERFORMANCE: Jay Barrett (MIA) is the Article 114 Representative for Human Performance. His report is below.

Human Factors Activities

N90 -I have been advised that there is a collaborative working group that will be formed to deal with N90 training. My understanding is it will be all encompassing to include specified training at the academy, direct hires, the certification standards and other details to address the broader training issues at the facility. As a result I will not be working on the standards at the present time. If the workgroup sees a need for HF involvement going forward, I may be asked to participate again.

Safety Culture Assessment - Members of the HPT visited Amsterdam to witness eurocontrol perform this assessment. It involves sending out surveys to all personnel at the facility to get an understanding of the culture. It is then followed up with interviews and workshops based on the results of the survey. The Agency should be sending Article 7 notification to us soon as they want to pilot this assessment at a facility in May.

Health & Wellness

ARR - I have received information from tech ops that plans are in the works to finally get some additional space for the facility. Current plans are to lease a trainer that will be located at the base of the tower.

Fatigue

ZOA - The actigraphs for the study were not purchased as I reported in the last update. Apparently there was a problem with the acquisition process and GSA regulations had to be followed. Unfortunately they are twice the price and not as good, so we are getting half as many.

ATSAP - Discussed getting the HPT more involved in the ATSAP analysis process with Steve and Mike Blake last week. More discussions to come.

NextGen Distance Measuring Equipment (NG DME) Program: Samed Rizvi (PCT) is the NG DME National Representative. Mr. Rizvi forwarded the information below for the membership.

I continued to attend regular NextGen DME Status and Steering Engineering Workgroup meetings. The group is evaluating the use of military sites for the end state NextGen DME solution. Mitigations are being developed in the event that military DME's will not be able to be used for the solution. Removing military DMEs results in some degradation at the en-route coverage floor in various areas around the country. Coverage degradation may also be observed in some terminal areas.
There are more than 280 existing DME that are not part of the end-state NextGen DME configuration, and some combination of these may make up for some of coverage losses from not being able to use military sites but further analysis needs to be done. Other mitigations to make up for the lost coverage could be to add more sites.
The group is working to realize the benefits of the program sooner. The following implementation strategy was discussed:
First, the approach will continue to implement DMEs en route to support coverage in Class A airspace.
Second, the approach could focus on installing DMEs to add redundancy to eliminate the critical DMEs for existing RNAV Standard Terminal Arrival Routes (STARs) and Departure Procedures (DP).

- RNAV-PRO runs would be needed for each RNAV procedure to verify elimination of the critical DMEs.
- The STAR/ODPs would be updated to remove the requirement to check the critical DME designated.
- Of the 62 NSG-1/2 airports, 18 have terminal procedures with critical DMEs.

Third, DMEs would be installed to fill the existing RNAV coverage gaps to remove the IRU requirement for individual procedures.

- STAR/ODPs would be evaluated individually for removal of the IRU restriction.
- The STAR/ODP charts would be updated to remove the requirement for IRU.

- The suggested strategy allows for the ability to selectively approve procedures for DME-DME only.

Fourth, DMEs needed to fill coverage gaps and add redundancy for the remainder of the terminal area coverage volume would be added.

- Providing extended coverage beyond current procedures allows planners to use the additional RNAV coverage in new procedure development.
- For the PIR, this may be an opportunity to track additional benefits as procedures are redesigned from DME-DME-IRU to DME-DME.

OPERATIONAL PLANNING AND SCHEDULING (OPAS): Rich Santa (ZDC) leads the NATCA effort for web-based scheduling and other operational programs. His update is below.

ATOMS:
The testing for the release of ATOMS (CRU-ART replacement) was cancelled last week pending discussions of the ATOMS requirements and the installation timeline. We are awaiting a decision for the testing scheduled in two weeks. The program will be delayed slightly due to the interruption but it would not be a large detriment if we were back on track soon.

OPAS:
We completed a week of meetings revolving around the functionality of the OPAS program. We had mostly focused on the required bidding requirements in the program. We will meet next week to further the discussions.

WMT:
Very little new work being done on Web schedules. The link buttons on the left side have changed and we have logged a few outages.

CRU-ART:
There have been some discussions on updating CRU to extend its useful life.

Traffic Flow Management System (TFMS): Brian Campos (DCC) represents the NATCA membership as their Article 114 Representative to the TFMS project. His report is below.

March 2017 TFMS-Deployment team update

- The group worked with human factor on Protected Segment's displays on the TSD using the RAD tool. Previous input with mock up models showed too much confusion with multiple sections to be displayed.
- Discussed issue still outstanding where with flight plan's 10A and 10B fields being different, TFMS will not send chevrons to ERAM, with the flight conformant. Although this is not to happen often, TMU will not know whether the protected segment requested happened. A means of informing

TMU that protected segment are needed, is being worked with the following possible solution: In the Reroute Monitor, modifying the status indicator by changing the "C" conformance to red and/or adding something to the "Select Filter" area for selection.

- The team reviewed the R13 P9 fixes for turning on the protected segments at Enroute facilities and changes to improve the RAD for ABRR/PDRR. Key protected segment fixes also came with ERAM changes to EAD600 on projected April 25th. This involves 30 CR's with 6 of them ERAM/TFMS related.

- The team is starting a process to define a top 50 Engineering Requests (ERs) list currently in AIMS and rank them for enhancement development. Team was able to get through 27 of the ERs.
- Team also reviewed current AIMS tickets that affect ABRR/PDRR but are not ranked as high or critical.
- Human factors presented some solution sets from previous meetings for further development. These changes are not expected to be addressed until after the next contract award for TFMS.
- Work is being done in preparation of a Roadshow, which is expected in May/June or Mid-fall timeframe. Scenario's using interactive desktops are being refined for this event. The event is expected give time if the roadshow personnel to work with facilities with TFMS previous and future release topics such as the RAD, CTOP tools.
  ABRR/PDRR Steering Committee meetings defined a near goal to get the RAD tool for ABRR and PDRR functioning for deployment by June 2017. Fixes to TFMS with Patch 9 will fix most concerns that occurred in early January attempt to turn on. The TFMS Patch 9 fixes are coupled with EAD600 release for ERAM. Testing in the end of March showed great promise that all significant necessary fixes have been resolved in testing in WJHTC. Protected segments are projected to be implemented in early May.

VOR MINIMUM OPERATING NETWORK (MON): John Vogelsang (P31) is the Article 114 Representative on the VOR MON project. His update is below.

The next VOR MON informational briefing will be held on June 21st at the Greater Orlando Aviation Authority offices at Orlando Executive Airport. The briefing will begin at 0900. Invitations are going out to the facilities in the area but all are welcome to attend if you would like to get a better understanding of the program and how it will affect the facilities in central and south Florida.
A scoping meeting will be held in Atlanta June 5-9 for facilities affected by the discontinuance of PXT. Additional scoping meetings will be held later this year. ABB (Nabb) is still the only VOR, which has been decommissioned and

removed from the charts so far in FY17. Several others have upcoming chart dates.

The following VORs are now undergoing NR studies for discontinuance.

ERY-Newberry, MI
BKZ-West Branch, MI

WAKE TURBULENCE: Kevin Connelly (SAT) is the Article 114 Representative to the Wake Turbulence Office for NATCA. His update for the week is below.

March started with a successful IOC for RECAT Phase 2 Appendix B at Minneapolis Tower and TRACON (M98/MSP). The facility had all but one member who was out on a medical issue trained by the end of February and RECAT went IOC at 0330 Local on 3/14. I cannot express enough how well the training and IOC went with both the locals at Minneapolis. Every controller was receptive to the program, understood the benefits of the change, and IOC was very smooth with no major issues. There was a small issue in the morning with AJV-82 sending the wrong build for the ASDE (Appendix A was loaded and not B) but that was fixed within an hour in the morning with no issues in the operation. After 2 days of monitoring the operation the team left the facility and congratulated everyone in the building on an incredibly smooth transition.

After IOC of RECAT at MSP, I was at CFS in Vegas but enroute issues with the Airbus 388 interrupted the conference. An international incident at FL320 caused a regional jet to have catastrophic failure from a wake turbulence encounter. There was a panel last year about Enroute Wake as a result of it being a top 5 issue and the major recommendation from Wake Research surrounded the A388 after a few incidents had been reported in the past 12 months including a C560 in ZLA airspace being turned nose down following 18 miles behind, and 2000+ft above an A388 on the same arrival. The issue with the CL60 internationally drew media attention overseas and in the US and the FAA decided it may need to react.

As of right now there is just some discussion going on about increasing separations required for the A388 in Enroute airspace. Some of the numbers that have been thrown around are 20 miles, 2000ft below, and some other items but Wake Research still stands by the belief that the best way to mitigate A388 wake encounters is to issue traffic as soon as possible when climb/descending through the altitude of a level 388, climb/descending a 388 through another aircraft altitude, or when merging targets 1000ft vertically with the 388 above the best fix is an “upwind offset”. We do not have the science or technological ability to measure the effects of wake at high atmosphere at this time but we do know how wake reacts to wind from

LIDAR data gathered near the surface at major airports. We are hoping this discussion will continue until a proper mitigation can be found to keep everyone safe surrounding the A388.

The last part of the month was spent working on finalizing documents from RECAT Phase 2.5 to prepare for SRM Panels. We are confident in the data to move forward with "Paired Departures" for Closely Spaced Parallel Runways (SFO likely to be the first site) and intersection departures operating in the same direction of flight. We hope to be moving forward to SRM Panel this summer.

Next month MIA Tower/TRACON are set for Phase 2 Appendix A of Wake RECAT but we are unsure of how the travel stop for the FAA will effect our ability to get MIA trained after April 28th and the end of the C.R. Training at Miami was scheduled to start April 17th and continue through May 20th with IOC on May 30th. For now that schedule is still holding but it may have to change as a result of potential government shutdown and/or lack of funding for travel with a new C.R.