NATCA Safety & Tech Update
Week of October 24, 2016

HUMAN PERFORMANCE: Jay Barrett (MIA) is the Article 48 Representative for Human Performance. His report is below.

HCF

I am not sure where the HCF support has stalled. We have provided the facility and FAA leadership our recommendation and as of yet have not been given a green light to begin any sort of assistance to the facility.

ZNY

We should be formalizing a plan to assist ZNY in the near future; we are waiting for FAA regional leadership to give us the go ahead on this effort as well.

TEAM RESOURCE MANAGEMENT

This workshop is in a presentation mode and this Wednesday we will sit through a shakedown of how it comes across. It is a full 6 hrs. of material as it currently stands. As of yet I have not had a lot of in, but expect to be involved after Wednesday.

ACADEMY

AJI-2 has a new director now and Jason and I will attempt to work with her to formulate a plan to get the human performance material into the academy curriculum. We already have support of Biggio, so this shouldn't be a heavy life. There lift will be finding time in the curriculum.

NATPRO

Tom Adcock and AJI-2 asked for a review of the NATPRO cognitive training classes. It took awhile, but working with the HF PhD Dr. Rachel Seely we determined that current research suggests that gasification can work to improve cognitive performance, if the task is directly relative to the skill being worked on. NATPRO is not necessarily doing this as the majority of activities are just thinking games. As a result the HP office believes the NATPRO suite to be largely ineffective in increasing cognitive skills.

INTERNATIONAL FATIGUE SURVEY

This work is ongoing with sponsors in the international community.

FSSC

There will be a meeting tomorrow. Bob Jones has stepped down as the management representative and we will be getting a new one. His name is Jason Canton Magnolia district manager.

ATSAP

I have been working with Mike Blake and Steve Hanson to see if there is a way to extract ATSAP data into a spreadsheet that would make analyzing the reports less time consuming.

IFATCA AMERICA'S MEETING

I attended the conference in Costa Rica. There were 9 or 10 nations in attendance. I briefed them on the activities the human performance office is undertaking and fielding a myriad of questions for 3 days on issues that each country is having. This was an excellent opportunity to connect with other ANSPs and find out what is any support there is across borders.

HEALTH AND WELLNESS

The ATC survival guide is in a draft form and I am working closely with Ed Davis to create a product that will give new hires a solid foundation of knowledge on what to expect as they begin a new career.

We are also doing a research literature scrub on stress and intend to formulate a plan on how best to address physiological stress components in operation.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) leads NATCA's efforts on the IDS-R project as the Article 48 Representative. Below is Mr. Smith's report.

While the IDS replacement program is winding down its waterfall for the NIDS product, a lot of work is going on in the software department. There are numerous software builds currently in use in the NAS and a new one being key sited the week of October 24 at I90. NATCA has been urging the program office to prioritize updating all facilities to the latest software build. A procedural problem with this goal is that no requirement exists for a facility to upgrade or even a timeframe that facilities need to follow. NATCA will continue to promote the positives of having every facility on the same software build, particularly in the area of technical support.

There are very few networks left on the NIDS waterfall including SCT and CMH/DAY. Each of these has unique needs that the program office is working to meet. The latest software build was created for issues uncovered last year while attempting installation at SCT and subsequently encountered at I90. It is currently running at SCT prior to the network declaring Initial Operating Capacity but the real test will take place at I90.

NEXTGEN: Kevin McLaughlin (SCT) is the National NextGen Representative for NATCA. His report to the membership is below.

Transitioning to a Time Based NAS

With the delivery of MetroPlex program benefits underway, NATCA and FAA have taken a giant collaborative stride towards optimizing operations in the NAS. Even before that work has been accomplished, the next question on Industry's mind has become where can further operational efficiencies and advantages be obtained? With oil prices firmly retrenched in sub 75-dollar historical averages, saving track miles has become less of an imperative than when oil was 125.00. The new measure of flight efficiency is time and the new air carrier paradigm of measuring the delivery of passenger value is now operational predictability. Many of the airlines overhead expenses such labor and aircraft are expensed in time increments. This is need to base the NAS around time is leading to the third transformation of ATC methodologies. The first ATC methodology was Procedural Based Control or separation based on protecting a volume of airspace that contains the aircraft or control based on where we think the aircraft is. The second transformation of ATC methodologies was the evolution of Surveillance Based Control or separation services based on where we know the aircraft is. The third transformation will be the evolution of Trajectory Based Control or provision of separation services based on where we know the aircraft will be at some future point in time.

Today's NAS has already seen the deployment of basic time based tools. Time Based Flow Management (TBFM) and Ground-based Interval Management (GIM-S) have been deployed into the Enroute environment. Path Stretch and Terminal Sequencing and Spacing (TSAS) decision support tools are in the pipeline. However, today's NAS operates under structural limitations that limit the benefits of TBO operations. Airspace management lacks the flexibility required for dynamic operations and ATC lacks the decision support tools to continue metering and maintaining efficient flows during conditions constrained by weather and other events. Future technological developments will permit the development of a robust 4 dimensional trajectory for separation purposes. This robust 4DT trajectory will create a more predictable NAS operational landscape and dynamic 4DT operations will allow maintaining efficient metering throughout capacity-reducing events. Along the way and after, controllers will do what we have always done so well; adapt to rapidly changing complexity and meteorological conditions and deliver the safest, most efficient NAS on the face of the planet.

OSHA: Mike Odryna (ZBW) is the Chairman of NATCA's OSHA Committee. He has provided an update for the membership.

Weekly Meetings:
Continuing weekly meeting with Kathleen Edic (AJW-23) EOSH Services.
POC: (Mike Odryna)

New Orleans Lakefront Tower Mold Issues
The project to seal the exterior of the Base Building started on October 25th. The first stage will include removal of failed caulking and the application of an exterior sealant. This process will take several weeks. Once completed a project to remove all areas affected by mold in the interior of the building will begin. Weekly Air Monitoring continues to show interior mold levels at acceptable levels.
POC: (Mike Odryna, Geoff Bacci, Nichol Bell, Lawrence Pharr)

Dallas Love (DAL) Tower Mold Issues
An ongoing water intrusion issue is being investigated at DAL Tower. Several employees had voiced concerns about the IAQ at the facility that is caused by areas within the facility that have been showing signs of Water Intrusion for many years. The Agency hired an independent Certified Industrial Hygienist (CIH) to investigate. The CIH found an area within the Breakroom that showed signs of mold. Also, areas in the stairwell that appear to have been moist in the past. They also identified areas outside the tower where the chalk is failing and must be repaired. The Agency is working on a plan to move forward.
POC: (Shannon Smith, Mike Odryna)

Great Falls (GTF) Tower/TRACON Mold Issues
Shawn Kramer received reports of water continuously infiltrating the first and second floors of the facility at Fort Smith. It turned out that TechOps was aware of the problem and allowed it to continue with plans to fix it in the next fiscal year. The FACREP was instructed to immediately file a UCR. Subsequently the FAA appeared on site to initiate a short-term fix to the leaks and remove the wet sheetrock and carpet.
POC: (Shawn Kramer)

Indoor Air Quality (IAQ) MOU
With the ratification of the new Air Traffic CBA, an MOU went into effect. That MOU required the Agency to adhere to the IAQ Program Implementation Requirements (PIR). The PIR was developed collaboratively between the NATCA OSHA Committee and the Agency. This document defines actions that must be implemented when an IAQ issue arises. One of

the biggest items revolved around water intrusion. As soon as a water leak occurs, the agency must ensure the area effected be completely dried within 48 hours. In the event that this cannot be accomplished, the area will be treated as a mold abatement project. The agency has begun to brief individuals that will be responsible to carry out the IAQ PIR. The SECMs in the Eastern Service Area will be briefed on Thursday September 29th and briefings for SECMs in the Central and Western Service areas are being scheduled.
POC (Mike Odryna)

OSH changes in the New CBA

Numerous articles have changes in the CBA that affect how OSH issues are handled and coordinated throughout the FAA. The OSHA Committee will hold a webinar in November to discuss the changes.
POC (Mike Odryna)

OSH issue reporting

If you have an OSH issue at your facility, use your normal reporting process. I.e. OCC, UCR etc. Also, contact you NATCA Regional OSHA rep. The regional OSH Rep's work as liaisons between the lines of business.
If you have a concern about something occurring at your facility, you can fill out the following form to request a member of the OSHA Committee contact you to discuss your concerns.
OSHA Committee Information Request Form

Committee Membership:

We still have vacancies in both the Southwest and Great Lakes Regions.
POC: (Mike Odryna)

BGR ATCT Water Intrusion and Mold

Historical evidence of Water intrusion and Mold has been highlighted at Bangor ATCT. The FAA has conducted preliminary mold investigations and has sealed the area so as to prevent Mold spores from entering the workspace. A plan is currently being developed to seal the leaks and remove the mold.
POC: (Geoff Bacci, Mike Odryna)

Regional OSHECCOMs

The NATCA Air Traffic Regional Reps and Region X reps attended their respective Regional OSHECCOM meetings throughout September and October in the Eastern, Great Lakes, Southwest, Central, and Northwest Mountain Regions. Minutes from the Regional OSHECCOM meetings can be found at:
OSHECCOM KSN Site

Fire Drill Requirement

All FAA employees are required to participate in a fire drill annually. Ask your local management for the status of fire drills at your facility.

POC: (Mike Odryna)

HSV (HSV) Tower/TRACON IAQ Issues

At the convention Mike Odryna was approached regarding IAQ issues at the Huntsville Facility. Then on during the week of September 19th painting was going on at the Tower. The employees voiced concerns over fumes in the Tower that lingered in to the weekend. The Agency is currently looking into the issue.

POC: (Matt Tucker, Mike Odryna, Molly Ware)

OTZ FSS REHAB

The OTZ FSS rehab is finally complete, and the employees are happy with the new environment.

POC: (Larry Trottini)

Springfield IL Tower Asbestos

Asbestos concerns have been highlighted at the Capital Tower in Springfield IL. We currently in the process of compiling and reviewing pertinent information.

POC: (Geoff Bacci, Mike Odryna)

National OSHECCOM Meeting

Mike Odryna, Dominic Petrelli and Larry Trottini will be attending the National OSHECCOM meeting in Washington DC on October 26th and 27th. Discussions and updates to include the National PAD Program, 3900.19B Revision, FAA OSH Program Update, Injury and illness reports, and Facility OSH Inspection Findings. At this meeting Dominic Petrelli (Region X Rep.) will be elevator to the Chair position for the next 2 years.

Current Facility issues being worked by the committee and others.

FAY: Fumes	SPI ATCT: Asbestos Issues
NEW: IAQ Mold	FAI/ATCT: Roof Fix and repair Tower Cab Ladder
FAI FSS: New Roof and HVAC Unit	YNG: Roof Replacement
Alaska FSS: OTZ Housing/FAI HVAC-ROOF Replacement	ARR Overall Facility Condition
GRR: Odor, ASR Contamination	PHF: Mold/IAQ
BGR ATCT: Mold and Water Intrusion	KET FSS-FSS Facility Rehab
NWM Regional Office: Water Quality Issues: New Regional Office Build	New NWM Regional Office Design
DAL ATC: Water intrusion and Mold	SGF Mold/IAQ
ANC ATCT: IAQ Article 53 Investigation	ZAN: Seismic Upgrade
DSM SSC Office: Comprehensive Mold Evaluation	FSM: Water Intrusion, IAQ
ANC ZAN- Seismic upgrade	SGF ATCT: HVAC Project

PHL: Water Intrusion, Mold	BGR: Facility Condition regarding maintenance follow-thru.
GTF: Mold	NWM Regional Office: Water Testing
STL Tower: Elevator	ZAN: Drinking Water Issues
Mansfield Tower: Water, Security, FLS	HSV: IAQ, Fumes

TERMINAL FLIGHT DATA MANAGER (TFDM): Matt Baugh (IAH) is the Article 48 Representative for TFDM. Mr. Baugh's update is below.

We were notified this month of a protest with the awarding of the TFDM contract to Leidos. We have not been given any additional information as to who or why the protest was submitted, and the timeline for protests varies depending on what it involves and how far the initiating party wishes to take it. However, we are still doing all of the work we can while staying within the confines of the law during this period.

Louis Caggiano (EWR) was able to make it to DC the weeks of 10/11 and 10/17 for a crash course in TFDM. He's done a great job so far and has already begun participating in workgroups with Leidos/SAAB regarding facility implementation and security.

On 10/112, the TFDM team made a trip out to Leidos to get a one-on-one view of the electronic flight system (EFS) and surface manager. This visit allowed us to get our first hands on experience with the EFS and will better serve us in our human factors and requirements meetings moving forward. It seems as though Leidos is attempting to push an out of the box EFS. With the help of Louis and Kelly, and the eventual addition of 5-7 NATCA members to the workgroup, we will continue to work towards building a system that will meet the needs of our members across the 89 facilities currently planned to get EFS.

We have continued to drill down into the requirements of TFDM with Leidos/SAAB and, following last months System Requirements Review (SRR), our comments and final open action items are due at the end of the month. Once completed, Leidos will begin building a "prototype" TFDM for

our initial Early User Involvement Event (EUIE), currently scheduled for 2/1 & 2/2. At this EUIE, I will attempt to get as many as 8-10 members to DC to test the equipment and provide feedback for the TFDM team to utilize moving forward.

MITRE hosted a two-day demo for the 3T's (TBFM, TFDM, & TFMS) on 10/20 & 10/21. At the meeting, management and NATCA representatives from all 3T's were shown notional interfaces of the programs, and were able to discuss possible issues moving forward with the integration of all 3 systems. Several scenarios were also provided that mainly focused on the use of Integrated Departure Route Planning (IDRP) due out sometime in the next 3-5 years. This program would allow the center TM to set fix thresholds on fixes to aide in metering. Along with this capability, IDRP gives the tower TM the ability to reroute those aircraft to an open or less utilized fix to relieve pressure down stream. These procedures would need to be nailed down for each center and any underlying facility, both the tower and TRACON, in order to gain the maximum amount of benefit. On day 2, MITRE demonstrated the Departure Viewer reroute capability as well as Terminal Sequencing and Spacing (TSAS).

Advanced Electronic Flight Strips (AEFS)

We received more bad news out of the Tech Center regarding the latest 5.3.0.3 build of AEFS. Initial stress testing of the build was to begin the week of 11/14, but due to issues involving speed, we have pushed back the testing to the week of 12/05. Two steps forward, one step back. The build, overall, has undergone a huge overhaul in the coding in order to increase speed and dependability, and we have seen major improvements in the system. An engineering build, currently running in CLE, has increased speed and reliability, and we have seen a decrease in freezes since its installation in mid September.

We are still awaiting word from 3M to see if they are able to fix the screen resolution on their new 32" monitor. If they are unable to provide us with an operational monitor, we will have to begin a new search for a replacement.

- **PHX**
    - Hardware was upgraded 10/18-19, in the tower and training lab, with the current baseline equipment and all seems to be running well.
- **CLE**

    - Had an issue with a server freeze and the other server did not automatically pick up service. TSLE has gotten the logs and is looking into the issue.
    - There have also been reports of missing arrival strips; TSLE is looking into this as well.
- **EWR**
    - Nothing new
- **SFO**
    - Nothing new
- **LAS**
    - Nothing new
- **CLT**
    - Received a prototype temporary strip holder, in case of AEFS total failure, and tested them in the cab. It was found that 3 could not fit side by side on a 24" monitor; therefore, additional cab redesign may be necessary.

SWIM Visualization Tool (SVT)

We are still awaiting the delivery of the IP addresses from PHL so that the on-ramping of SVT can take the next step. We are expecting that within the next two weeks and, once completed, they can begin using the system in the TRACON.

Traffic Flow Management System (TFMS): Brian Campos (DCC) represents the NATCA membership as their Article 48 Representative to the TFMS project. His report is below.

Procedural events:
The monthly procedure telcons are continuing to investigate necessary procedures for deployment of Route Amendment Dialog (RAD) PDRR/ABRR. All concerns to date are still covered in the current orders with the exception of referencing the use of the tool: *Use automation procedures in preference to non-automation procedures when it will be to an operational advantage or when workload, communications, and equipment capabilities permit.*
TFMS-DT agreed to capture a list that would express to facilities concerns and/or current orders needing local refresher to support local procedural

development when using the RAD. This will go out in a document as well as covered in training in January.

Software events:

Software releases to deploy Route Amendment Dialog (RAD) PDRR/ABRR starting January 23rd, 2017.

TFMS Release 13 Patch 4 (R13P4) with critical that corrects a performance issue that will mislead a TMC from determining if a flight is conformant to a required route. Another key fix, will allow the Route Amendment Dialog (RAD) PDRR/ABRR to be turned off and on per facility and position. This in itself will support live site testing in November and December prior to training and deployment in January 2017. There are over 50 more fixes in R13P4. The additional R13P4 regression and patch testing Oct 12-14 went well with remaining concerns. Legacy performance issue was discovered in how the turn angle is being used for conformance. Is it using the 8-minute into the future evaluation for conformance or the physical aircraft with the actual route? It is believed it may be with the 8-minute projection point. This may have to change in a future releases but it is not expected to hold up RAD/ABRR/PDRR release.

TFMS Release 13 Patch 5 (R13P5) resolves a key critical to do the testing. The select "ALL" ' check box in Create Route Amendment field selects all flights regardless of red highlighting. TMC could select information without the intent of selecting items in the TMCs field of view, thus, creating an undesirable result. The early look for patch 5 on Oct 14th shows good promise for deployment of R13P5 on Dec 3rd. This problem was originally slated for R13P6 but was moved up.

TFMS release 13 Patch 6 (R13P6) will address fixes with one HIGH that deals with, " There is no indication to the TMC that a conformance measure was dropped once a Required national reroute was canceled with an exact route match on a similar local RAD route". In a tactical means, the route may still be necessary based on the life cycle of the event at a local level. Some indication is necessary to the TMC to inform them to review the previously addressed route at a local level. This resolve is expected on Jan 7th.

Testing events:

TFMS/ERAM, Route Amendment Dialog (RAD) PDRR/ABRR site testing was moved up from November 11th-12 to 7th-8th. The 7th is expected to be a one-facility test using either ZLC or ZMP based upon which facility back up channel can handle things better. Next night will be multi-center between ZLC/ZDV/ZMP. The goal is identify the impacts on how the first time TFMS will integrate with ERAM in sharing data. It is expected things will run well. Test plans are near being finalized for these dates.

Training updates

RAD/ABRR/PDRR training is still scheduled for 40 people of interests for January. One TMC and one STMC from each enroute facility are expected to take the training. This will result as a trained SME with the use of RAD/ABRR/PDRR.
It does seem difficult with some facilities being able to release people due to staffing issues in units.
The TFMS DT is actively working on the course content. Three TMCs from the field combined with the TFMS DT will review and train the 3 TMCs in November. This will prepare the full team to deliver training to the 40 in January. Additional classes may be given in February once the TMU operational SMEs complete the training.

October 20-21: TFMS-TBFM-TFDM (3T) Operational Transition Evaluation exercise

Day 1

Through Lab interactions reviewed operations and possible procedures related to rerouting in the ARTCC, TRACON, and ATCT.
Notes: Mitre demonstrated some scenarios to fill holes in procedural concepts for NexGen tool design which bridge across TFMS/TBFM/TFDM for possible deployment in around 2020-22. They demonstrated much of the Integrated Departure Route Planning (IDRP), which is a tool concept they have been working on for a while, and the use of Integrated Departure-Arrival Capability (IDAC), which is **an a**utomated departure release process. IDAC provides tower capability to schedule their departures.

Day 2

Review storyboards that focused on Pre-departure Rerouting and Surface Metering with their 3T-related interactions, as well as some arrival impacts on departure operations. A few concerns surfaced for TFMS DT when going through these storyboards.
Concern 1: MITRE demonstrated the difference between the uses of IDRP in their scenarios against the RAD tool. In this demonstration, IDRP was framed as "the tool to use" when rerouting flights predeparture. This showed limited use of the RAD and only in the Departure Viewer tool (DVT) option, which is only one of many strategies in using the RAD. The tool hasn't seen software development yet and is in direct conflict or parallel to the RAD/ABRR/PDRR which is set to be deployed this January 2017. IDRP can do one moderate thing the RAD can't, at this point, which it can show a volume limit on a fix. Another column indicator IDRP demonstrated is that it can indicate WX impact. The RAD is designed to do a lot more than IDRP and the volume limit was something that was considered but held for a later development. Not though of for the RAD in

DVT was to have weather impact indication but the weather information is CWIS only, which limits the indication to mostly frontal systems. CWIS is not recommended to be used with air mass thunderstorms since the algorithms don't reflect well with it. The RAPT tool, which uses CWIS, has not been a success since most TMU's try to use it for both frontal and air mass. Due to the weather variance, TMUs that do not realize with what weather to use it for have deemed the tool unreliable.

Throughout all the demonstration, Mitre demonstrated a positive spin on the IDRP concept more the use of the RAD tool, which has design across all facets of TMU. This may be since Mitre is partial to the IDRP and/or had limited understanding of the RAD tool usage and capability.

References were made from third party with tool replacement to the DSP, which is primary to the N90/PHL operation.

Concern 2: Finding out that TBFM and TFDM seem to miss the need to design a tool that would manage an airport as one rate for departures and arrivals. TBFM focuses on the arrival portion while TFDM (SMP) focuses on mainly departure. Manual entries have to be made back and forth between the two to manage it as one. One would think the decision support tool would create a throughput rate for the airport based on equipment types. A combined tool could provide information on options to handle heavier arrivals or departure bank based on the overall flow of the airport within aircraft types. Both groups address well their own part of the problem but seemed challenged on how to manage as one. The discussion was left at manually entering information into the system. Because of this, training is going to be a significant part for the TMCs in managing as one.

Concerns 3: TMU's maintaining TMC experience due to TMU term limitations in some cases of 2-year term or less. With many in depth systems to learn, by the time a TMC feels confidently proficient they may leave the unit. It is important to design systems without overly being complicated to the point of TMCs not using them as intended. A mix of permanents, 5 year term and 2 year term may be a better staffing unit design to keep a unit healthy.

VOR MINIMUM OPERATING NETWORK (MON): John Vogelsang (P31) is the Article 48 Representative on the VOR MON project. His update is below.

No changes to the waterfall this month for the program. The team is scheduled to meet the week after Thanksgiving to discuss any changes that need to be made to the 2017 and beyond waterfall. A meeting is scheduled at Boston Center for Tuesday 11/1 to provide information for the program to facilities in the area. If any facreps are interested in attending, please contact John Vogelsang at vormon@natca.net. There

will be future meetings of this type around the country and I will keep everyone posted on dates and locations. Other than that it's been a quiet month for the VOR MON program.