



National Air Traffic Controllers Association
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SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending December 18, 2015

ADMINISTRATIVE SOFTWARE: Rich Santa (ZDC) leads NATCA's efforts on Administrative Software initiatives as the Article 48 Representative for this. Below is Mr. Santa's update for the week.

- **WMT**
 - Mr. Santa has had some discussions with the programmers and has a better process in place for fixing problems.
 - Please email Mr. Santa (richzdc@yahoo.com) if you have any bug or programming issues with WMT.
 - For server outages, continue to have management call the help desk.
- **ASISO**
 - Installed in JAX and ZJX last week. It worked well in the ARTCC and in the TRACON downstairs.
- **ATOMS**
 - Still meeting and moving towards a April 1 testing at two facilities.

AJV -7 AIR TRAFFIC REQUIREMENTS: James Keith (D10) is the DC Based Article 48 Representative to the AJV-7 office. Mr. Keith's summary for the membership is below.

- The last several weeks Steve Weidner (UAS Representative) and Mr. Kieth have been working with the agency's work group on UAS notification procedures for model aircraft. A rough draft has been completed and is being circulated.
- The Interval Management (IM) Work Group has been meeting every Thursday for some time.
 - The last couple of weeks the group has reached an agreement on how IM would work in a transition from enroute to terminal. The original agency proposal was for enroute controllers to issue spacing and merging instructions that would not take place until the final approach fix.
 - The work group has reached an agreement that will allow terminal controllers to issue and spacing and merging instructions for IM that will take place inside the terminal boundary.
- Terminal work package 1 data gathering was completed in October.
 - They are currently reviewing the data to determine what steps are needed next.
- Advanced methods- is a concept that will provide information to TMU controllers to allow them to make better strategic decisions. We will be doing site visits after the new year. Mr. Keith has contacted all FacReps at facilities chosen.

- AIM Segment 3 is meeting weekly to fine tune the concept of operations. The program is designed to move the agency to a total digital world. All charts, LOA's, SOP's ETC will be digital.
- Mr. Keith along with Jeff Woods (PMO Rep), and Mel Davis (NextGen) are still working with the agency on getting Path Stretch to the field sooner.
 - Path Stretch is a tool for enroute controllers that will display a flight path the will assist in meeting meter times if speed will not work. Path Stretch is part of Time Based Flow Management TBFM.
- Terminal CHI team is still in conversation with the agency.

HUMAN PERFORMANCE: Jay Barrett (MIA) is the NATCA Liaison for Human Performance. Mr. Barrett's latest update for the membership is below.

- The Human Performance Team (HPT) has been very active the past few months in defining exactly what the scope and substance of the team will be. The ultimate goal is to influence Agency vision, analysis and policy in all areas of NAS operations. The office is trifurcated with the mature fatigue risk management office, a human factors office and a newly formed health and wellness office. The HPT is now staffed with a PhD Fatigue Scientist and a PhD Human Factors Psychologist. My role is to work alongside the HPT manager and coordinate activities in each office and collaborate on the implementation of activities.
- The fatigue office is the most mature of the three having been in existence since 2009. Recent activities include:
 - Watch schedule modeling support was provided to Oakland Center (ZOA) oceanic areas in response to their request to institute an alternate means of compliance (AMOC) for the fatigue prescriptive work rules implemented in January of 2015, Specifically they are looking for relief to FAA 7210.3 paragraph 2-6-7 concerning a 0530L dayshift prior to a midnight shift. Their request is with air traffic and the FRMT has essentially completed this work.
 - Dr. Nancy Wesensten has been working on a risk analysis matrix that will align with the SMS process and other established matrices currently used in the safety office. This matrix would allow for categories of risk assignment based on modeling of watch schedules using the SAFTE-FAST model the office has been using since its formation.
 - Compliance reports are being massaged in order to monitor fatigue work rules contained in the 7210.3. These reports will allow for identification of facilities where the fatigue work rules may be misunderstood and/or inappropriately applied.
 - Currently the Fully Charged workgroup is working on a series of videos and informational brochures to increase fatigue awareness among the workforce.
 - Work continues on a fatigue alertness application. The app will allow individuals to input their work schedule, time awake and any caffeine ingested to provide an informational prediction of alertness going forward. The app will also provide information on sleep disorders and strategies on

how to increase the user's alertness profile. Projected release continues to be at CFS.

- PFS content is now developed on a quarterly basis rather than every month. It was agreed that the HPT would alternate subjects between Fatigue, HF and H&W month over month.
- Planning has begun on performing additional fatigue field studies. There is a desire from the Fatigue Safety Steering Committee (FSSC) to validate current fatigue working rules and assess the status of the operation since the NASA study in 2011. Intent is to make this field work an ongoing part of the FRMT's work plan.
- The human factors office has been very active since hiring the new manager. Activities here include:
 - There have been numerous requests to assist facilities with very low certification rates for trainees. Currently work is ongoing with N90 and ZNY. This work involves the identification of areas where training programs can be improved with an eye toward the implementation of HF concepts. Some of these concepts involve learning styles, cognitive understanding of the differences in learning, generational attitudes and teaching vs. evaluating in the OJT environment. Workshops have been delivered at N90 and a new set of certification standards are being developed. The concept here is for all stakeholders in the facility to agree on a standardized set of skills a trainee must possess at designated milestones in the training process before they can continue on in training. It is hoped these new standards will be transferrable to other facilities and be available sometime next summer.
 - Work is in progress on a new curriculum and workshop to deliver teamwork training. This training would utilize established HF research and concentrate on the social aspects of teams and groups who have to work together on a daily basis. Beta delivery of this is tentatively slated for MIA in April.
 - There is a lack of standardization across the safety office in human factors taxonomies. The goal is to utilize a standard set in investigations, ATSAP analysis and data mining. Work is progressing on allowing for HF assessment in the ATSAP database.
 - Have responded to a request from the Western ERC to provide individual SET. The office visited the facility and performed an assessment that uncovered some training and performance issues. A plan was formulated with an emphasis on the employee from a HF perspective. This training is ongoing and progressing well. In the process a protocol has been developed for widespread use should other facilities request help when traditional SET opportunities have not been successful.
 - Currently HF is not imbedded in the incident investigation process. The HF office is attempting to become a part of these investigations in order to provide expertise from a human factors perspective. It is believed that there is a lack of understanding and emphasis in uncovering where HF may play a role in an incident. This will require physical participation in investigations when they occur.

- The Health and Wellness (HaW) Office is currently in the planning stage. The scope and substance of the office is still being discussed and collaborated on. Currently the following subjects have been tentatively agreed to: HaW focuses on personal life issues and characteristics that can impact human performance such as:
 - Social - impact of human relationships within and outside the work environment that can influence employee performance and overall wellness.
 - Physical - can impact ability to meet fitness for duty and overall health.
 - Emotional - effects how employees cope with life challenges such as feelings of sadness, stress, depression and loss.
 - Intellectual - how employees can improve their overall intellectual wellness.
 - Career - opportunities to contribute to the organization, advancement opportunities and the sense of fulfillment employees receive from their work.
 - Financial - elements that impact employees in providing now and in the future.
 - Nutrition - keeping our bodies physically healthy as well as our minds.
 - The final subject for the overall HPT is to bring the concept of “Resilience Engineering” to our activities. RE centers on the concept of concentrating on activities that worked or are working rather than on failures in the system. It also includes an analysis to understand individual and organizational variability with a keen eye toward the joint cognitive systems of the people and organization.

RUNWAY SAFETY: Ric Loewen (DFW) serves as the Runway Safety Action Team (RSAT) and Root Cause Analysis Team (RCAT) Representative for NATCA. Below is Mr. Loewen’s update for the membership.

- Runway Status Lights (RWSL):
 - In the past month the RWSL program has commissioned the system at LAX and achieved Initial Operating Capability (IOC) at EWR and JFK. The JFK system is being brought on line in two phases so work is on going for phase 2. Planning and construction are on going at ORD, DTW, BWI, and SFO.
 - The Program Management Office (PMO) was able to secure funding to explore means to convert the prototype systems at BOS and DFW to the final deployment version of the system. Work is in progress to secure agreement with those two airport operators for that scope of work. Local NATCA SMEs have been collaborating with their counterparts in the Agency, Tech Ops, local Airport Boards, and the PMO to assist the RWSL program in providing system designs that best meet their needs.
- Runway Safety:
 - Surface Memory aids: The Document Change Proposal (DCP) to 7210.3 para. 10-1-7 requiring the use of a standardized memory aid for runway status (closed/inactive), runway crossings, vehicle, personnel, or

- equipment on active runway(s), land and hold short operations (LAHSO), line up and wait (LUAW), and landing clearance is approved and scheduled to be effective May 26, 2016.
- The goal of the DCP is to provide for a national standard for memory aids to reduce human factors induced risks when employees transfer to new facilities as well as provide a repeatable and trainable standard that should reduce incidents stemming from a shortcoming in human memory – that it can become overloaded and information inadvertently dropped due to workload or distraction.
 - Although a very basic list of memory aids is provided by means of a toolbox that is now a part of Cedar, there is a means by which facilities can submit their “non conforming” memory aids for review and possible inclusion in the toolbox. This procedure will hopefully assist with the dissemination of good ideas that today are hiding in towers because there was no standard.
 - Closed Runway Occupancy Prevention Device (CROPD): Along with Steve Hansen (Safety Rep), Jim Ullmann (S&T), and Jeff Woods (PMO Rep), Mr. Loewen was able to attend a demonstration of CROPD at MITRE and then receive a briefing from the Agency IAW Article 7 of our CBA.
 - CROPD is an interesting concept that will connect to the tower’s voice switching system and alert when it detects, via voice recognition, clearances to/from a runway that is indicated as closed in the system.
 - Initial testing of CROPD began in 2012 with voice recordings collected at DCA. Following some programming and adjustments, CROPD was tested on voice data at IAD. To date, CROPD has not been tested on live air traffic. MITRE is prepared to conduct a test at JFK in 2016. To prepare for the testing, CROPD will be connected to the voice switch, likely in February 2016 for system optimization and testing in the early summer.
 - Visual Scanning Working Group: Tower visual scanning is a Top 5 initiative for 2016. A working group was convened this past fall to begin looking at means to train scanning and the impact of new technologies on controller’s scans. Work is ongoing to develop a Corrective Action Plan (CAP) for the Agency’s Top 5.
 - Airport Construction: The Airport Construction Advisory Council (ACAC) continues to support construction activities throughout the NAS, Alaska having taken its annual winter break is the only region not actively working around construction. NATCA representative are reminded that Mr. Loewen represents NATCA on the council and can assist with challenges associated with airport construction.
 - RTCA: In addition to the ACAC, Loewen sits on a working group at RTCA that is formulating recommendations to the Agency to improve communication and collaboration around airport construction. From Air Traffic to Procedures,

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- Airports, Tech Ops, NAS users, and many others there are many opportunities to improve this coordination.
 - Mr. Loewen is also working a corrective action request (CAR) from the ERC related to airport construction and shortcomings in that coordination.
- Root Cause Analysis Team (RCAT): The RCAT will next meet on January 5, 2016. Loewen will be meeting with the Agency in January to revise and update the RCAT charter to reflect changes in their internal practices over the past 6 years

Dale Wright

Dale Wright
Director, Safety and Technology