

**NATCA Safety & Tech Update**  
**Week of October 23, 2017**

**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.

Consoles for ENROUTE- AJV-7 are in the early stages of document preparation for consoles. A 3D presentation of current consoles is being reviewed at the tech center. The purpose of the review is to document the shortfalls of the current consoles. I will keep ERAW updated moving forward.

Non-TFDM towers-The Agency identified those towers who will not fall under the TFDM waterfall. AJV-7 is working with MITRE to complete the Problem Cause Impact (PCI) table. I attended a series of meetings to provide comments and suggestions for changes to the PCI table. The suggestions were accepted and incorporated into the document. Next step moving forward is to start shortfall analysis.

Long Range Radar- The workgroup is waiting updated data to review. MITRE is working to establish data from the NAS in its current state. Previously the workgroup was only given data from over 25 years to consider the need for long-range primary radar.

Advanced Interval management- Met with workgroup to go over how to structure a HITL for pair approach. The HITL is tentatively scheduled for March 2018.

Concept, validation, and requirements (CVR) operating model- The Agency gave an article 7 briefing to NATCA. NATCA will meet internally to discuss what we learned at that briefing. I will update after we meet.

E-IDS- AJV-7 compiled a list of all FAA facilities in the NAS to determine a number of E-IDS displays. The findings were passed on to the Program office (PMO). Someone made some changes and removed 8 facilities. I verified that the removed facilities are FAA facilities and they were put back on the list.

Remote tower-last week in October will start the process of reviewing data from the remote tower test. The SRM panel will be the first two weeks of November.

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

### **Human Factors Activities**

F11 - Standards usage is progressing. The team continues to provide on site support to assist with implementation of the standards. There are small issues that are being handled, but the biggest issue is the development of a database to ease the usage of the checklists and calculation and tracking of hours.

N90 - We will be doing training and briefings to the facility management and NATCA E-Board. We will also begin briefings for the entire workforce on what to expect with the implementation of the certification standards. Current plan is also to team up with the NDIS group when they brief the workforce on the NDIS specifics.

A researcher from NASA-AMES has briefed us on behavioral markers research she did in Europe. We are discussing partnering with her and doing further research here at a few facilities. The study would look at what behaviors and performance characteristics controllers' display when their workload increases or performance declines. The goal is to catalogue these markers and feed them back to the workforce to help identify earlier when assistance is needed.

### **Health & Wellness**

We are working with the recurrent training team to implement stress training in the January round and also providing materials for the July round.

### **Fatigue**

ZOA - We are crunching the numbers from ZOA. All the actigraphs were return and we had about 15 participants who wore the devices for the entire 30-day period. Results should be compiled by end of month.

We expect to approach facilities in the Memphis area for the next sleep study.

**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 7<sup>th</sup> year and continues to have a positive impact on the professionalism of controllers nationwide. The program has 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. The first class of FY18 will be held at ZFW, from OCT 30 until NOV 03.

To date, the Professional Standards program has received 2,471 submissions with 90% of those being resolved. That's 2224 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](mailto:ps@natca.net).

**RUNWAY SAFETY:** Bridget Gee (DFW) is NATCA's Runway Safety Action Team (RSAT) Representative. She also serves as the Article 114 Representative to the Runway Status Lights (RWSL) Program. Below is her report to the membership.

#### **Runway Status Lights (RWSL):**

ORD: Being conducted in three phases: Phase 1, Runway 10L/28R, was turned online April 27, 2016. Phase 2 and 3 are scheduled to come online 2017.

Phase 1 (10L/28R): ORD achieved 4/10/17.

Phase 2 (10C Enhancement) – Shelter work completed 9/1/17. Meetings held to discuss fiber installation took place on 9/11/17. 10C IOC (Initial Operating Capability) date estimated for Nov 29, 2017.

Phase 3 (9R Enhancement) – 9R construction estimated to be completed Spring 2018 and IOC Fall 2018. Drawings have been received. The work is out for a bid.

BOS: Shelter electrical work completed 10/6/17. Airfield conduit/cabling estimated to be completed early November. IOC estimated June 2018.

DFW: Duct bank installation in process approximately 3 weeks remaining. Need agreement for power equipment and to energize shelter circuit. IOC estimated April 2018.

San Diego: Site Survey held 8/30/17. Shelter installation estimated to be completed 12/17/17. IOC estimated Jan 2019.

**Runway Safety:**

Taxiway Lander ASDE-X Enhancement – A National workgroup is under development to develop and solidify a plan for deployment of taxiway alerting at SEA. The workgroup is in a process of developing a testing plan, requirements, procedures, and training for the taxiway lander alerting system.

Surface Safety Group – The Root Cause Analysis Team (RCAT) that I am the co-lead of. Will be moving into a new direction in order to improve surface safety risk management in the NAS. The group is designed to continuously develop, improve, and distribute educational and training materials, recommend necessary policy, procedural changes based on trend data, research technology, and monitor the effectiveness of safety requirements using the runway safety metric and individual safety performance targets stemming from the SMS process. This is a massive change for the runway safety group, as it will allow for more data driven discussion making.

Airport Construction Advisory Council (ACAC): The ACAC continues to support construction activities throughout the NAS and Internationally. We brief weekly on current projects in the NAS.

Runway Incursion Prevention Shortfall Analysis (RIPSA)- Research was conducted at 15 airports without any surface surveillance system. A final site selection is yet to be completed.

Here is the updated RIPSA timeline, which includes detailed activities:

- Attend airfield lighting vendor conference in DFW - Oct 22-27, 2017
- Publish technology acquisition RFI - Dec 2017
- Evaluate RFI responses for candidate technologies – Jan/Feb 2018
- Re-engage candidate airports, conduct on-site assessments and preliminary site surveys – Feb/Mar 2018
- Initiate contract award(s) to technology vendor(s) – Mar 2018
- Complete contract award, hold kickoff meeting with vendor(s) – Apr/May 2018
- Commence MOU development with test site(s) – Q3FY18
- Finalize MOU with test site(s) - Q4FY18
- Conduct engineering and infrastructure site surveys with vendor(s) - Q4FY18
- Conduct SRMP for test site(s) - Q1FY19
- Commence test system(s) installation at test site(s) – Q2FY19
- Complete test system(s) installation at test site(s) – Q3/Q4FY19
- Commence testing and evaluation process – FY20

ICAO - AOWG (Aerodrome Operations Working Group) - The AOWG is responsible for the development of SARP's and the PANS procedures pertaining to emergency response at and in the vicinity of aerodromes. Mr. Jean-Louis Pirat, Chairman of ADOP, specifically asked for my assistance on this working group due to the need of air traffic experience. Work is ongoing.

ICAO - Runway Safety Action Plan Working Group – This group is reviewing Runway Safety Programme achievements, objectives and priorities, and develops a Runway Safety Action Plan for the future. The working group is split into three sub-groups all of which IFATCA/NATCA is presented by Bridget Gee on:

- Data Review Sub-Group
- Hazard Identification and Risk Assessment Sub-Group
- Runway Safety Action Plan Sub-Group

The Runway Safety Action Plan Working Group is in the process of reviewing runway related accident reporting data, reviewing applicability of runway related accident sub-categories – scope of Runway Safety, reviewing Runway Safety indicators and metrics, and identifying Runway Safety data breakdown required for analysis and to be available on iSTARS.

The Working Group is also doing a safety risk assessment of Runway Safety category and sub-categories, will confirm Runway Safety risk priority, and identify mitigation measures

The Action Plan will be presented at the 2017 Global Runway Safety Symposium in Lima in November for endorsement. The purpose of the Action Plan is to strengthen runway safety initiatives at a global level. I will be on two panels at the Symposium in Lima, Peru.

The Runway Safety Action Plan Working Group will make recommendations to the GASP Study Group to assist the development of the 2020-2022 editions as well as develop new Runway Safety Action Plan.

**WEATHER:** Matt Tucker (ZTL) is NATCA's Article 114 Representative for Weather. His update for the membership is below.

NEXTGEN Weather Processor (NWP) and Common Support Services-Weather (CSS-WX)

Both programs are struggling to make build milestones and have actually deferred some products until later in the build cycle. CSS-WX factory acceptance testing (FAT) is scheduled in Feb 2018 and a large number of items have been deferred until after FAT. Additionally, key site installs and testing are scheduled to begin in July 2018 and the program is looking at how to have a site declare a partial IOC. One of the biggest concerns is the need for ERAM to be ready to use the new I.P. addresses and models from CSS-WX and right now they are not on the build schedule for ERAM.

Human Factors work is still on going for the Aviation Weather Display (AWD) with Raytheon. Some changes are being worked to some of the early decisions in the design program due to co-dependencies' on products that were much later in the development process that are just coming to light. A number of the problems that have arisen are from using the agile development process and the fact that co-dependent products were not always developed together.

Bandwidth concerns are still an issue for both programs. The size of the radar mosaics going to each facility is being discussed as part of the solution. Each facility would get the high update rate for products relating to that facility and then if they wanted to see another area of the country or another TRACON airspace then it would be a request/reply product and would have a delay in being displayed as the product would have to be received from the central nodes.

## Weather Surveillance issues.

A number of weather on terminal displays are being worked due to AP issues on the ASR-11, false weather on the digitizer for the ASR8, and lack of weather radar coverage for areas such as Northern Arizona and Bozeman. Part of the problem comes from there not being a specific requirement for weather on terminal displays. In order to provide a possible solution to these problems is there is no plug and play system out there right now. There are number of weather systems in the field but none where designed to interface with STARS. Some of the possible short-term solutions are to interface one of the existing systems into STARS. Any solution would require interface development and money. NWP is scheduled to deploy in 2019 but still needs an interface requirement for STARS. This requirement is currently being worked between AJT and AJV-7.

## Friends and Partners of Aviation Weather (FPAW)

FPAW held is fall meeting at the annual NBAA meeting. The primary topic this year was big data. There were a number of panels ranging from Weather in the Cockpit to the use of UAS' for weather sensing, to crowd sourcing airborne weather information. Use of airborne sensors has been around for years but now that airborne Internet is becoming more prevalent there becomes a much more cost-effective way to collect this sensor information. Currently most of the major US airlines have some sort of weather sensing system on board the aircraft just not all of them share the data. Both Southwest and American have a turbulence reporting system that is sending messages down from the airframe but the flight crews normally do not know what was being reported. When it comes to turbulence this can be a problem as the aircraft might report moderate turbulence and the controller will never know it unless the crew actually feels the same level and advises the controller. Delta has a turbulence product that is on their surface Pros in the cockpit that gives them altitude guidance for smoother rides. None of these products are shared with ATC and we are working to try allowing access to this information.

## Limited Aviation Weather Reporting Service (LAWRS)

A number of issues have come up about visibility reporting from the ATCT. The 7110.65 says to use the lesser of the values when the visibility is 4 miles or below. At a facility that has a contract weather observer this statement is true. At LAWRS facilities the controller is the actual weather observer and should always be augmenting the ASOS when it is not representative of the actual weather. So, if a LAWRS controller can only see 2 miles and the ASOS is reporting 3 then the ASOS should be augmented to show the correct visibility. There is still an issue where we have towers that are in the clouds reporting zero tower visibility and the CWO and the ASOS showing much better. A proposed solution for this is to make the RVR governing until 6000+feet and then the ASOS but only when the tower cab is higher than the reported ceiling. If anyone has a comment or other recommendation please email. [Weather@natca.net](mailto:Weather@natca.net)