NATCA Safety & Tech Update
Week of June 4, 2018

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

Human Factors Activities
F11 - We performed an 8-month evaluation of using the training standards. we did interviews and surveys of personnel at the facility. We discovered some things we expected and some we didn't. The facility FLMs and OJTIs are frustrated with the amount of time required to fill out the training checklists. Part of this is a facility staffing issue in that not enough time is being allocated to do proper debriefs and training team meetings. We also found that changes will need to be made to the implementation plan to streamline certification for trainees doing well. we have drafted a report and will share it with AJI-2 management and the facility in the next week or so.

Deployment of the Training Standards - very broad conceptual conversations have taken place concerning how and when the standards should be deployed. as previously noted we only have standards for TRACONs at present. Leadership would like the development of Enroute and Tower standards asap. This would then involve integrating them into the curriculum and usage in the Academy.

Training culture change - In light of the feedback and information gleaned from the F11 assessment, we put forth the concept of changing training culture in such a way that it centers on making training a higher priority and focusing on more professionalism in administering the training program. This will be discussed further very soon in that this culture change will require a national effort and a large increase in resources.

3120.4 - A meeting was held with the 3120.4 rewrite group. We were able to get a briefing on all changes they will be proposing at end of June. While we were invited to do this somewhat late in their process, no harm was done due to the fact that the HP office is completely aligned and supportive of the direction this group has taken as far as training is concerned.

Training summit - We attended and participated in a panel discussion at the AJI-2 training summit in OKC. Essentially, we briefed the training community on all the work we have been tasked with concerning training standards. We hope to leverage off line conversations into some much-needed training for FLMs and OJTIs.

Visual Scanning Research - In the process of trying to coordinate a study in support of Top 5 activities. This would be a CAMI study for tower controllers to see if we can detect patterns of commonality in scanning patterns that could then in some way be formalized and taught at the academy. We would travel to 3 facilities with tower

simulators and conduct the protocols. A list of 10 towers has been selected and we will hopefully discuss with the facilities and find 3 volunteers in the next month or so.

Performance Limits Research - This is a research project we are working with NASA on to see if there are behavioral markers that veteran controllers exhibit when they are in a task intensive (high workload) situations. The goal of the research is to identify and then catalogue noticeable behaviors that could be compiled and used to inform controllers and supervisors on ways to preempt or mitigate high workload situations prior to them stressing the resiliency of the system. We have narrowed this down to a combination of 12 Centers, Towers and TRACONs. we would like to visit one facility in each option. We hope to have coordination accomplished in the next month or so.

ATC Field Training effectiveness - This research project is a follow on from one CAMI recently completed in surveying controllers who were unsuccessful in training. This research would dig a little deeper into factors perceived by field training teams (training managers, front-line managers (FLMs) and on-the-job training instructors (OJTIs) and developmental as contributing to failure in ATC field qualification training. We would also like to Identify best practices in training effectiveness and make recommendations of interventions for mitigating possible field training failures. This activity will focus on a center with a high success rate and one with a much lower success rate. We will also do the same in a TRACON.

Safety Culture Debrief - 2 activities occurred here. First, we visited with TPA and were able to completely debrief the facility on the results, take aways and recommendations from the assessment we performed last fall. The facility is doing well and has begun working on making some of the changes suggested in the report. We also briefed the COG about the process and results obtained at TPA and offered to share information with the collaboration team and right from the start team. Some of activities overlap, but the safety culture process focuses on the workforce more than the labor management or collaboration relationship.

Recurrent Training - Jason and I were subjected to filming for the next round of recurrent training. We contributed to the topics with fact-based occurrences and science-based research results.

Health & Wellness

PFS - This month's product will discuss the results from phase one of the visual scanning research that was completed last year. The activity mentioned above is follow on from this study and our goal is to use current CPCs rather than retired or non-bargaining unit personnel.

Fatigue

Modeling software- We have been discussing whether to shift the use of our modeling software fromSAFTE-FAST to a product called FAID. The distinction is

subtle, but important. In essence FAID will take into consideration all time worked including overtime and give a work-based hazard score. SAFTE works a little different in that it focuses on sleep and rest activities to predict performance.

FSSC meeting - This month will be the second meeting with the newly constituted FSSC. It should be a rather full meeting as there is much to discuss concerning how the group wishes to move forward.

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

NextGen Portfolio Manager Reviews (PfMRs)
NATCA participated in 11 Spring NextGen PfMRs where FAA NextGen Program Managers make presentations on the current status of their respective Programs. These included Collaborative Air Traffic Management (TFMS), Time Based Flow Management (TBFM), On Demand NAS Information (ONDI), Low Visibility Ops, Improved Multiple Runway Operations (IMRO), Performance based Navigation, Separation Management, NAS Infrastructure, Improved Surface Operations (TFDM), Environment and Energy, and System Safety.

Remote Offshore Meteorology Information Demonstration (ROMIO)
The ROMIO program is an effort to bring real time long-range modeling and depiction of oceanic convective weather into the cockpit. NATCA participates in Workgroup bi-weekly meetings. The scheduled March 2017 launch date slipped but all 3 participant air carriers have completed or will shortly complete pilot training and equipage. In April, Delta completed pilot training with 230 ROMIO certified Check Airmen and by end of May most broadband data issues should be resolved. Unfortunately, as of June 1, the agreements needed to achieve a full launch of the ROMIO Demo continue to be held up by contractual issues between the FAA and the providers of satellite broadband needed to drive the avionics.

Airspace Access Priorities ARC: Optimized Airspace Management Task *Group*
This Task Group convened on May 17, for the purpose of creating a description of an optimized NAS that will be considered by the ARC when formulating proposals for policies associated with priority of NAS access. Among the primary challenges confronting this group is how to marry the FAA Automation Roadmap with emerging Space Traffic Management Tools such as NEAP, Space Data Integrator (SDI), and Hazard Risk Assessment and Management (HRAM). The Airspace Access Priorities ARC will meet in June and Mark Prestrude will attend for NATCA.

Space Integration Enhancements Field Outreach
Led by AJV-7, the purpose of this workgroup is to assess the current analogue state of FAA Space Tools and how to leverage Agency work to update to develop ATO capabilities, services, systems and procedures to more efficiently integrate space

operations into the NAS. The Workgroup has been paused while data generated by previous meetings is assessed.

Joint Space Operations Group (JSpOG)
NATCA continues to participate in the bi-weekly meetings of this ATCSCC based Ops group, and I attended the JSpOG meeting at the ATCSCC on May 23. The JSpOG is the primary FAA operational interface with the Commercial Space Industry for LOA creation and launch/recovery support activities. The JSpOG currently is in the process of negotiating or implementing 30 LOAs for active or proposed Spaceports throughout the NAS. Currently, the FAA is constructing a purpose-built room to host Space Ops at the ATCSCC. A JSpOG SOP is also currently under development, has been circulated among FAA LOB and is presently having those internal comments adjudicated. This month the JSpOG supported numerous launch and recovery activities including providing Airspace Management Plans for the SPACEX Falcon 9, Bangabandhu-1 launch on May 10, the Astra L-10 rocket launch from the Pacific Spaceport Complex Alaska (PSCA), the Orbital/ATK Cygnus ISS Resupply cargo spacecraft aboard an Antares rocket on May 21 from Wallops Island VA, the SPACEX Iridium Satellite launch on May22 from Vandenberg AFB, and the SPACEX Falcon9 SES 12 Cape Canaveral launch currently rescheduled for June 4.

Commercial Space Integration Team (CSIT)
The Commercial Space Integration Team (CSIT) latest monthly meeting occurred on May 22nd. USAF representatives made a presentation on the DOD Policy Board for Aviation (PBFA). The purpose of the PBFA is to provide for DOD-FAA interoperability, and provide a single voice on aviation issues for all four Services. The PBFA has a Space Ops Sub-group that will primarily interact with AJR-2 on policy issues. The CSIT also received a briefing on the Airspace Assessment Tool for Spaceports. This tool is a TARGETS plug-in designed to assist in the impact evaluation of proposed spaceports. Additional briefings were presented on the Airspace Access Priorities ARC, the Spaceport Categorization ARC, and Streamlining Launch and Recovery Requirements effort.

CDM Collaborative Steering Group (CSG)
NATCA continues to participate in the monthly leadership meetings of the CDM effort. The CSG consists of representatives from various industry stakeholders including the airlines and NBAA. CSG delegates and oversees the work of multiple CDM sub-teams on which NATCA participates. This month's Rep update falls between the May 2nd meeting and the June meeting, so there is no meeting update to brief.

Space Data Integrator Tool Development (SDI)
NATCA has been collaborating in ongoing weekly meetings with the PMO working on the development of the Requirements and ConOps for the SDI Tool. SDI deployment will be critical to integrating commercial space ops with legacy NAS operations. While SDI is not definitely not the final answer to the needs of controllers, it will be an important operational enhancement on the road to" real-

time-on-the-glass" Space Vehicle Situational Awareness. At the last meeting of this group, we agreed to schedule an SDI SRMP for week of July 23rd. Mark Prestrude has also been participating for NATCA.

UNMANNED AIRCRAFT SYSTEMS (UAS): Steve Weidner (ZMP) is the NATCA Article 114 Representative for UAS. Jeff Richards (ZAU) is assisting Mr. Weidner on this project due to the workload and activity associated with it. Below is the update for the membership.

LOW ALTITUDE AUTHORIZATION AND NOTIFICATION CAPABILITY (LAANC)
Nationwide rollout of LAANC began in April. As of today, two of the six areas in the country - southern Central Service Area and northern Western Service Area, totally 93 facilities - are up and running on LAANC. As of June 1st, 7,699 part 107 requests for authorization have been approved via the LAANC system. To see when LAANC will be rolling out at your facility, visit

https://www.faa.gov/uas/programs_partnerships/uas_data_exchange/

As a reminder, the initial version of LAANC will simply replace the manual process in which authorizations are approved. The tool itself will be used solely by staff support/management during the initial phase and will automate the current UAS authorization process for Part 107 proponents.

The Agency is working with several industry partners who will provide this service to the various UAS proponents. The Agency will provide UAS facility map data to the industry partners. The partners will, in turn, develop tools that will provide authorization and notification services to the proponents, on a real-time basis, based on the UAS facility map data. The authorizations and notifications will be instantly transmitted back to the facility for which the authorization/notification was made.

Should you be asked for a list of the industry partners who are authorized UAS Service Suppliers for LAANC, refer those inquiries to:

https://www.faa.gov/uas/programs_partnerships/uas_data_exchange/

On that page, you will a section titled, Approved LAANC UAS Service Supplies. In that section there are hyperlinks to the approved UAS Service Suppliers. There are currently two approved suppliers, but more are expected to be added once they've completed the MOU process with the FAA and demonstrate that their system meets the LAANC requirements.

NASA NO-CHASE FLIGHT
The NASA Ikhana UAS aircraft (https://www.nasa.gov/centers/armstrong/news/FactSheets/FS-097-DFRC.html),

after resolving some internal programmatic issue, will be making the first flight in unrestricted NAS airspace during the month of June, using on-board Detect and Avoid (DAA) equipment. The use of on-board DAA will allow the Ikhana to comply with the requirement to "see and avoid" (FAR 91.113) other aircraft. This flight will be conducted in California (JCF, ZLA and ZOA airspace).

As background, all aircraft are required by FAR 91.113 to "see and avoid" other aircraft. On manned aircraft, this is accomplished by the pilot looking out the cockpit window. There isn't a pilot onboard an unmanned aircraft, so UAS operators are required to provide an alternate means of complying with FAR 91.113. This can be accomplished by using visual observers, chase planes, ground-based detect and avoid systems, or a combination of these alternatives. Each of these alternate means of compliance has complications and limitations.

This is an historic flight and a large step forward towards full UAS integration into the NAS. There have been a lot of starts and stops with this program, short notice calls and flight schedules. We want to thank the controllers and staff at ZLA, ZOA and JCF for their willingness to lean in and roll with the changes in order to make this historic flight happen.

PRESIDENTIAL UAS INTEGRATION PILOT PROGRAM (IPP)

The awardees of the long-anticipated Presidential UAS Integration Pilot Program were announced in May. The municipalities that were selected to participate in the are:

- Choctaw Nation of Oklahoma, Durant, OK
- City of San Diego, CA
- Innovation and Entrepreneurship Investment Authority, Herndon, VA
- Kansas Department of Transportation, Topeka, KS
- Lee County Mosquito Control District, Ft. Myers, FL
- Memphis-Shelby County Airport Authority, Memphis, TV
- North Carolina Department of Transportation, Raleigh, NC
- North Dakota Department of Transportation, Bismarck, ND
- City of Reno, NV
- University of Alaska-Fairbanks, Fairbanks, AK

More information about the type of UAS operation being proposed by each municipality can be found at: https://www.faa.gov/uas/programs_partnerships/uas_integration_pilot_program/awardees/

Mr. Richards and Mr. Weidner will be working closely with the agency on these projects. We will know more detail on how or if these operations will affect air traffic control as we learn more about the details of each proposal.

NATCA/FAA LOST LINK WORKGROUP

The NATCA/FAA Lost Link Work Group met the week of May 21st at General Atomics in San Diego. This workgroup is close to finishing its recommendations and a final report will be available later this year. Thanks to Abigail Anderson (ZOA), Jeremy McGinty (ZAU), Danny Watson (ZAB), Jamie Sanders (COS) and Joe Klimes (TRI) for their willingness to participate in this project. The safety and efficiency of the NAS is largely based on standardized procedures and the work of this group will go a long way towards standardizing Unmanned Aircraft System operations in the NAS.

SYR CHASE PLANE OPERATIONS

Mr. Weidner and his FAA counterparts will be visiting SYR on June 4-5 to observe and discuss their UAS chase plane operations. The New York National Guard began flying MQ9 aircraft from the SYR last year, making SYR the first FAA controlled civilian airport that is mixing manned and unmanned aircraft in the same traffic pattern. In order for the unmanned aircraft to transition from the local pattern out to the military operating areas while complying with FAR 91.113 - See and Avoid, they are accompanied by a chase plane. As the controllers at SYR and the guard unit have gained experience with the chase plane operation, they have identified areas of concern. Given the inevitable expansion of unmanned aircraft operations, NATCA and the FAA will be working to improve standards and requirements for chase plane operations.

UAS QUESTIONS

As a reminder, any UAS related questions can be addressed to Mr. Weidner and Mr. Richards at UAS@natca.net.