AIRSPACE TECHNICAL DEMONSTRATION 2 (ATD-2): Pete Slattery (CLT) represents the membership as the Article 114 Representative for ATD-2. His report for is below.

ATD-2 NASA/FAA Integrated Departure, Arrival, and Surface System (IADS):

The research activity known as ATD-2, that is designed to help the FAA and industry prove the concept of increased efficiency and throughput by combining several existing data sources into one integrated system, continues daily use at CLT. Very important advances to the system have occurred over the last few weeks. Phase two of the project officially began on October 1st.

Chief among these new features is the integration of the FAA's own Electronic Flight Data system, AEFS, with the traffic management capabilities of ATD-2. What this means is that both systems will communicate and share data between themselves. The primary feature of this first attempt at integrating these two systems is that the release times selected by TMCs at CLT tower and approved by ZDC and ZTL TMU, now appear directly on the controller tool, the electronic flight strips.

Also appearing on the controller EFD is information important to future Departure Metering such as The Earliest Off Block Time (EOBT), the Actual Off Block Time (AOBT), and the Target Movement Area Entry Time (TMAT). These times will be necessary in the future when controllers become active participants in Departure Metering programs. We are still a long way off from that future state, but simply having the data available for controllers now, will begin to condition them to understand what those data elements mean. Also, having more data allows controllers to have a more complete picture of the 'state' of any and every aircraft soon to be under their control.

Also new with this Phase Two release is gate information on the controller's electronic strips. This feature is not fully developed yet since gate conflict, and gate availability will not be implemented until sometime next year. There is also ongoing development of a manner in which to display this information that closely resembles the Surface Movement Advisor (SMA) info that is currently available to tower controllers at ATL. This is a key feature of TFDM and getting it right within ATD-2/AEFS will help the developers of TFDM by demoing this concept very early in the design process.

Also new in this release is early integration of ATD-2 technology with ZTL TMU TBFM with IDAC like capabilities. This feature aids CLT controllers in obtaining release times from ZTL through automation in the same manner as traditional IDAC equipped towers, but through a more TFDM-like interface. This capability also aids

ZTL TMU as it gives them an early look at how IDAC will work once they gain that capability sometime next year.

Finally, the decision on when to implement a Departure Metering program will transition from the ramp managers at CLT to the CLT Tower TMC. This change puts ATD-2 in line with the requirements of the TFDM program. Tower TMCs will use the predictive capabilities within ATD-2 to identify periods of capacity demand imbalance, and the duration of that imbalance, in order to aid TMCs in the decision as to when to begin and end Departure Metering. A collaborative process with the ramp controlling entity will be used to determine the amount of recommended gate hold time that will be used to mitigate the capacity demand imbalance. This is a new responsibility within the TMC Unit and may take some time to work out, but we believe we have the right equipment with the right information to make this a success. Initial use of this capability is scheduled for October 10th.

It is believed that each of these new features will lead to greater throughput, efficiency, and situational awareness at CLT, as well as future TFDM sites.

In preparation for Phase 3 of ATD-2 (which begins Sep 30, 2019), NASA has installed ATD-2 equipment at DFW and in the Ramp Towers at DFW. NASA has trained the ramp managers and ramp controllers at DFW on use of the system. They will begin using the ATD-2 system alongside their commercial ramp management system later this month. DFW and DAL FAA controllers will start to receive training on ATD-2 later next year in preparation for integrating the system into their operation next September 30th.

The ATD-2 team completed an SRM study of the capabilities of Phase two in June of this year. No serious risks were identified. Acceptable mitigation strategies for the few low risks areas were identified and affirmed. The document was finalized and signed last month.

Interest in the concepts and capabilities of ATD-2 remains high throughout industry and within the FAA itself. There are numerous visits by airline and FAA HQ personnel scheduled for later this month and into November.

NATCA's participation and involvement in this project, as it has evolved at CLT, has ensured its continued success. Anything that has had even the appearance of potentially having a negative impact on controller roles or TMC duties has been identified and mitigated at the earliest possible opportunity. Thanks to everyone involved for their openness to new equipment and new ways of doing the same old things.

AIR TRAFFIC PROCEDURES (AJV-8): Andy Marosvari (BOI) is the Article 114 Representative in the AJV-8 Office. Mr. Marosvari forwarded the summary below for this update.

NATCA participates in nearly every meeting regarding every change that the FAA is working on. Additionally, most clarifications and interpretations, previously done without collaboration, are now written with NATCA involvement.

Below are a few of the issues I have been working on with the AJV-8 (FAA Procedures Office) in Washington, DC.

NOWGT Aircraft Categorization Issue
Several aircraft currently flying in the National Airspace System (NAS) have either been categorized incorrectly for Wake RECAT facilities or have been categorized but not included in the automation databases. When not included in the automation databases, no category indicators exist with the data tag and NOWGT will appear in the data block but only when in an ATPA volume area. The 7110.65 provides guidance for NOWGT aircraft in 5-5-4 (i) and requires 10 MIT from the preceding aircraft and 10 MIT in front of any following aircraft, regardless of type/category of the other aircraft involved. John Murdock, NATCA Wake Turbulence Rep and I have been working with AJV-8 to address the issue of incorrect or missing categorization indicators. Additionally, those aircraft not categorized and not included in the databases will have no indication of their weight category on flight progress strips or terminal automation for those facilities using 7110.65 wake turbulence separation standards. A GENOT will be issued to alert controllers of the inaccuracies and provide separation criteria for those aircraft affected. A larger issue still exists with the process of categorizing new aircraft and ensuring their inclusion into automation databases. This will be ongoing effort within the agency with NATCA input.

Clarification of DVAs (Diverse Vector Areas)
Based on discussions with the Agency and Industry (Airlines and AOPA), new language was included in the 7110.65, 7210.3 and the AIM describing what Diverse Vector Areas are, the purpose of these areas and air traffic's responsibility when assigning headings within the DVA. Generally, ATC can vector departing aircraft and those executing a missed approach below the MVA using DVAs under certain conditions. Because DVAs are not widely used and in some cases the guidance was misapplied, changes were made to FAA publications to clarify the use of DVAs. NATCA's PBN representative Bennie Hutto and I will be briefing on DVAs at Communicating for Safety during the Wednesday breakout sessions and would encourage your attendance.

Interpretation Requests
There have been several interpretation requests that I have received from a number of our members regarding RADAR services required for ATCTs with RADAR displays, the use of Visual Separation and Visual Approaches during simultaneous and staggered parallel runway operations and issues pertaining to 7-4-4, APPROACHES TO MULTIPLE RUNWAYS. I have been working with AJV-8 on all of these topics and making progress. Sometimes, AJV-8 is willing to make a phone call

to an individual facility to offer an interpretation but most times the interpretation will come in written form through several offices before the facility will receive it. If you have contacted me with a request, know that I have forwarded it and will do my best to help the Agency expedite the response. Please don't hesitate to call or email me for an update.

Upcoming Safety Risk Management Panels

- Remote Tower Phase 3 SRMP – October 10-11, 2018

  Procedural issues used in conjunction with a remote tower will be evaluated.

- 7110.65 4-7-1, Clearance Information – October 16-18,2018

  This panel will evaluate Descend Via clearances on STARs with runway transitions, controller initiated routing changes in conjunction with a clearance to "descend via" and the use of landing directions/runway transitions.

I will provide information for both of these panels in next month's update. Please don't hesitate to contact me at procedures@natca.net or 208-870-1621 with any questions, comments or suggestions.

RNAV and PERFORMANCE BASED NAVIGATION (PBN): Bennie Hutto (PCT) is the Article 114 Representative for RNAV and PBN criteria work. Mr. Hutto's report for the membership is below**.**

PBN Criteria Update:
Standard Terminal Arrival (STAR) Criteria WG
During our meetings with AFS regarding STARS, we were able to obtain a waiver to the FAA Order 8260.3, U.S. Standard for Terminal Instrument Procedures (TERPS) Standard Terminal Arrival Routes (STAR). AFS has written a memorandum that authorizes waivers to the FAA Order 8230.3D, paragraph 2-2-7f (2) requirement to establish an altitude restriction at the STAR termination fix and the paragraph 2-2-10 requirements for minimum deceleration distance/reduced descent gradient requirements prior to a fix with a speed restriction. STARs not meeting these requirements may be authorized with Flight Standards approval. This waiver will remain in effect until rescinded or incorporated into the next Change to FAA Order 8260.3, whichever occurs first. No additional waiver request action is required; however, an approval request must be submitted and approved.
The above information has been provided to the NATCA/Management PBN Co-Leads within the Eastern, Central, and Western Service Centers as well as other NATCA Reps that design STARS.

We continued our in-depth discussions concerning Minimum En Route Altitudes (MEAs) and Minimum Obstruction Clearance Altitudes (MOCAs) being charted on Standard Terminal Arrivals (STARS). Recently, Flight Standards (AFS) reached out to include input from Industry and they stated they had no issues with them being removed as it would help in eliminating chart clutter. Additionally, discussions continue regarding Minimum Safe Altitudes (MSAs) being charted on STARs. General feeling is they are not a good fit for STARs considering the intended purpose of the Aeronautical charting Forum (ACF) item, but further discussion is required and our input has been sent back to the ACF.

Departure Criteria Working Group (DWG)

We meet in Oklahoma City on September 25th-27th discussing departure criteria for Standard Instrument Departures (SIDS) and Obstacle Departure Procedures (ODPs). No changes or agreements were accomplished during this meeting. Our next meeting will be held via teleconference during the week of October 10th.

Pilot Controller Procedures & Systems Integration (PCPSI)

Our next meeting is being held in Henderson, NV on October 30th-31st.

PARC NAV WG

We met via teleconference on September 26th and discussed the following:

1. Final to Miss OCS Transition (Work Session): Gary Petty (AFS) walked the group through a draft proposal for changes to the RNP AR vertical criteria when transitioning from final to missed approach segment.

The method was generally agreed to by the participants in the meeting, however, Gary listed 4 items (questions) at the end that resulted in discussion.

a. There is a potential to reduce the size of the VEB by modifying the 1.225 multiplier used on RNP to calculate the possible ANPE. The 1.225 essentially scales the 2-sigma (95%) error represented by RNP to a 3-sigma value to match the rest of the VEB values. The question probably is "does RNP represent the error or should we perhaps use some average ANP value to represent the navigation error in this computation. The argument has been going on since the beginning.

b. Should there be an addition to height loss if final segments are steeper than some value? Group discussion supported the idea, so Gary will look further at the ICAO method and include in our recommendation if it makes sense.

c. Gary asked if the group still desires adding an RNP 0.3 line of minima calculated using LNAV/VNAV vertical criteria to RNP AR procedures where lower RNP values are presented. This resulted again in a lot of discussion, as the desire is there but there are issues with its implementation. The group agreed that a team develop a white paper listing and attempting to solve these issues for the broader discussion in the F2F.

d. Allowing GLS and LPV minima on RNP charts was also brought up, but tabled for the time being, although it could be worked with 3 above.

2. TF Overlay for RF (Work Session): Mike Cramer (MITRE) reported that the PARC SG is planning to set up an action team to work through a sample location and operation. The aim of the action team would be to design the procedure(s) and then step through the process of creating an ARINC 424 file, generating airborne databases, and testing in engineering lab environments (e.g., Boeing, Rockwell, Garmin, Universal) to compare flight tracks and FMS compatibility. It could develop

into some human-in-the-loop simulations as well. Mike asked for volunteers who could help with the work to join the action team. Andrew Riedel (Jeppesen) would support the activity for database and coding. AT terms of reference are not yet done.

3. Block Altitudes used on Departures: Mike Cramer (MITRE) reported contacting operators, providing them a list of procedures with block altitudes on departure, asking them for any adverse experiences. Data collection is on-going. GE and Boeing are looking into Gary McMullin's description of issues with the B737. I have provided the list asking for help from the NATCA's Central and Western OSG Reps to obtain information as to why block altitudes were used instead of some other coding such as "at", at/below", or at/above" restrictions as well as to find out if those block altitudes were to be changed what the impact would be for the facilities. The group wants to have a solid position regarding issues being experienced, reasons for windows in the first place, and then other ways of accomplishing what the windows are currently being used for if in fact there's issue as reported by Gary McMullin.

3. STAR Terminus Altitudes: Ron Renk (UAL) is drafting a discussion paper, targeting the week of October 10th to send to the group.

4. TF Overlay for RF (Status): Mike Cramer (MITRE) shared the terms of reference (proposed) for the action team. He asked for WG members who want to participate to send him an email to that effect. I along with Josh Haviland (NATCA's EoR & Western OSG Rep) will participate in these discussions.

Our next meeting will be held in Atlanta, GA on November 7th and 8th.

Bennie Hutto
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TACTICAL ACTION NOTIFICATION RESPONSE (TANR): Shannon Jenkins (ZME) is the Article 114 Representative for Tactical Action Notification Response (TANR). Her report to the membership is below.

-Continued to establish contact with FACREPs from other facilities to better educate and prepare them for upcoming briefings and exercises and to answer any questions they may have.

-Also continuing to socialize through contact with FACREPs from other facilities for gaining more Real Time knowledge of events in which TANR was used.