SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending April 1, 2016

COLLABORATIVE DECISION MAKING (CDM): Ron Foley (ZOB) is the Article 48 Representative for CDM. Below is a report from Tony Smith (DCC) who is the NATCA Representative to the Flow Evaluation Team (FET).

- **CDM/FET meeting at NASA Ames 3/24-25/16**
  - o The CDM/FET subgroup met in Mountain View, California at NASA Ames Facility to perform HITL testing on the usage of CTOP, RTA (Required Time of Arrival) and TBFM interaction.
    - ▪ The group met in various combinations throughout the week. These extensive HITL's utilized a team of about 2 dozen to perform the functions of the Command Center, 3 ARTCC's, Airline AOC's/dispatchers and pilots.
    - ▪ The purpose of these HITL's were to introduce complicating factors into the previous "clean" runs. With these scenarios we had variable compliance on release times, routing changes, AAR changes, and winds aloft.
    - ▪ We did not get to add weather reroutes into the mix this time, but it will be in future HITL's.
  - o A few of the challenges Mr. Smith sees after witnessing the HITL tests is the introduction of uncertainty into the operation where it does not exist today.
    - ▪ The use of an RTA to be backed up with the filed ETA to get a "soft" EDCT. A flight taking off late trying to make up time to hit the RTA could encounter a similar flight that took off on the early side and is flying slow to meet their RTA.
    - ▪ Mr. Smith stressed the need for the controller to know at all times what the flights are doing so we don't set ourselves up for failure and unnecessary deals.
    - ▪ Controller workload is another concern. The need to pay additional attention to the flights participating in the RTA's I see as potentially problematic. Certainly introducing a new tool or procedure that increases our workload is not going to be embraced by the controllers.
- It was enlightening to see the level of detail and preparation NASA/Ames dedicated to this HITL. The concept of integrating a CTOP (or GDP/AFP) with a RTA to the TBFM freeze horizons has great potential for greater efficiencies and should continue to be worked and pursued. We need to be firm in our protection of our workforce in these concepts.

- o Mr. Smith told the group multiple times that having a "mystery speed" is not acceptable to the controllers. He believes there are ways this can work with established (or new) procedures, but with their focus right now on just proving the concept, we need to make sure our concerns are recorded and get addressed.
- The Spring CDM meeting will be April 18-20, 2016 at American Airlines. The FET subgroup will fly in on Monday 4/18 and meet for a half day. We will have a full day subgroup meeting on 4/19. Full CDM meeting on 4/20. The team will fly back on 4/21. Future FET meetings are not set for now and my not resume until the fall depending on tasking and budget.

DATACOMM: Chad Geyer (ZLA) is the DataComm Article 48 Representative. His report for this update is below.

- The Controller Pilot Data Link Communications (CPDLC) Service has been deployed to 15 sites.
  - o There are 41 sites in the waterfall that remain. This is no small feat in the FAA to be able to deploy a system ahead of schedule that is working for controllers.
  - o This successful deployment is a direct result of the work of our NATCA core team. These individuals have been involved in the program for several years. Their work on training, requirements, trials activities, deployment strategy, and documentation development to name a few, are the main reasons the program has had success to date.
  - o These core team members also travel to each site to help the local 48 teams up level their TDLS processors and explain the functionality. These members remain engaged with the sites even after they leave. When questions or problems arise after they have left, they continue to stay in contact and offer any assistance they can. This is a 24/7 job and they give 110%.
  - o The program could not have asked for a better team and the success of the program is a direct result of their dedication and commitment.
  - o The core team members are Ross Dickinson from MEM, Tom Gray from OAK, Ray Adams from EWR and Ray Martinez (Supervisor TMC) from EWR. This group epitomizes the spirt of collaboration.

- Jim McAllister (PCT) is also working DataComm issues. His update is below.
  - o Core Team Meeting:
    - ▪ They had a slow week in the waterfall last week so Mr. McAllister took the opportunity to schedule a meeting of the core team (NATCA and management) in OKC.
    - ▪ Here are the notes that were captured and forwarded to the PMO:

- It is our recommendation to continue these. A day and a half seemed to be perfect. We have picked a date in May (week of May 9th) to have another at the Tech Center. We also have a week in June slated for another one.
- We found some opportunities to tighten up some of the communication during telcons (outage period cutting over to V12 is only about 20 minutes instead of the hour + that we have been telling the sites, etc).
- Identified some STR Document differences (what is being sent to the sites vs what IFCET has) that I need to work out with Hal
- Identified some distribution list errors still. Will work with Allen to start fresh and build new ones
- Some site confusion about up leveling both X-Terms at a facility on 1st processor turn up. Some sites only doing 1 of them. We will push the sites to up level both of them – the STR gives them the option of 1 or both.
- IFCET can travel home after 2nd processor and router configuration has been completed. E-mail already sent advising them of this.
- We need to set up a telcon with ZLA, So Cal, and associated towers to discuss TEC routes.
- Core Team Members to attend Exit Briefs
- Need TO involvement in Exit Briefs
- Feedback that some Harris Site Leads (not all) are not knowledgeable about what needs to be done for an IOC declaration.
- Would be helpful to add a slide to the Pre-Launch deck about IOC declaration
- Core Team would really like us to push sites to do processor turn ups during the day shift – or later during the midshift so that a Core Team member is there for several hours during the morning "push" in case anything is incorrect in the adaptation.
- Caucus time of 1 hour before the activity is excessive… we will cut down the time to 30 minutes on future ORRs.
- Many sites seem to want a trackball over a regular mouse for the TDLS system. This is due mainly to space limitations in the tower cab – there just isn't enough room to operate a regular mouse. AIMS 159754 has been opened as an ER on this.
- Core Team requests that the Play Book be sent as a separate file to the Core Team member that is on the site – instead of being buried in the slide deck.

- Went over Travel Policy and Time & Attendance to make sure that we are in compliance
- Most important - We all left with the same message going forward and we all missed you!
- Everything discussed in the meeting will be implemented as noted or over the next few weeks pending further discussions with the responsible parties.

○ **Published Route Issue in ATL:**

- Harris has identified issues with 44 new CDRs in ATL that will go active in May. They are claiming that these 44 routes will not be loadable in CPDLC and will also error in PDC.
- Background: DataComm (V12) has implemented a route check in CPDLC, that was also carried over into PDC, to ensure the route being sent is a loadable route in the aircraft FMS. Essentially DataComm (V12) searches for published routes and rejects anything that is different than the published route. When a facility attempts to alter the published route for local procedures, these are rejected by V12. Unfortunately the routes that have been built for ATL are not loadable in the FMS for one of two reasons: leaving the SID midstream or the ADR ends at or after the AAR begins (overlapping segments).
- Solutions: For these to work, Harris advises that a TDLS change will be required to allow local procedures and ignore the route checks in some instances. They suggested that we may want to look into moving ATL in the waterfall. However, I would say that we need more information and a further discussion with ZTL to see if the routes can be modified to fix the reasons for the failure. I will be acting on this today and throughout the week for resolution.
- This issue is also prevalent in the LA area with TEC routes used by the ZLA / SCT terminal facilities. Chad Geyer has been working this issue with ZLA, SCT and the Towers.

○ **CPDLC and PDC Training Course Update:**

- The CPDLC course is in its final stages and is scheduled for FCC at ATL Tower on April 19th. Mr. McAllister will be on site on Monday April 18th to ensure delivery of the PDC ILT (prerequisite course) and functionality of the CDN (CBI) training platform with TDLS keyboard.
- Mr. McAllister mandated and received a review of the keyboard interactivity last Monday in OKC. There were no issues with the keyboard interactivity, however, we did identify and correct CHI, wording and narration issues on 13 slides.
- The PDC course is still in development and is scheduled to be delivered as an eLMS course near the end of June. FCC is currently scheduled for the week of June 6th. This is an extremely painstaking process being handled by a combination of people; Tom Gray and

Tammy Goldener are our SMEs, and Anthony Goodwin, Tom Adcock and Mr. McAllister have all played roles in ensuring AJI follows established training procedures.

- o **Functionality and Waterfall Changes:**
    - JAX and PVD were reduced from full CPDLC to enhanced PDC only sites.
    - SJU and MKE were upgraded from enhanced PDC only to full CPDLC sites.
    - JAX and MCO waterfall schedules were swapped due to the change in service at JAX.
    - Working with PBI on the waterfall due to new tower construction.
    - DFW Tower Multiple Tower Issues:
        - DFW Tower uses two control towers daily. As such, they need multiple TDLS displays and D-ATIS equipment to support their operation.
        - There is a disconnect between DFW Tower and the PMO concerning the requirements for deployment. Currently, DFW has two TDLS systems that are used simultaneously for D-ATIS functionality, but cannot be used simultaneously for PDC / CPDLC functionality. The second system is normally used as a back-up to the first system since the site seems to have a higher instance of system failures than any other site in the NAS.
        - We have started to investigate the higher system failure rate and potentially have identified the root cause. Provided the synopsis and diagnosis are correct, our install will help overcome the current failures.
        - In the meantime, Mr. McAllister will be traveling to DFW to watch their operation on Friday and to ensure we have captured any abnormal requirements they may have. As a program, we will be traveling back to DFW later this month to perform a second site survey, again to ensure we have completely captured any additional requirements they may have concerning the use of multiple towers simultaneously.
- o **Local Article 48 Site Participants:**
    - Mr. McAllister has reached out to all reaming sites to ask for their local article 48 participants names. Several of the FacReps have not responded with the required information. Mr. McAllister will reach out to them again this week. If they do not respond by weeks end, the RVPs will be asked for assistance in obtaining responses.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) is the Article 48 Representative to the IDS-R program. His report for this week is below.

- On the 16th of March the Joint Resolution Council met with the IDS-R (NIDS) program office and agreed to cut the number of network installations from 71 to 41. The thirty networks that were previously scheduled to receive NIDS and have been removed are:
  - N90, D21, CVG, R90, CRP, BDL, ZSU, ICT, SDF, YNG, RDU, SYR, LEX, ORF, HSV, LIT, MOB, TOL, A11, M98, AVL, MEM, C90, MGM, D01, TUL, GSO, ACY, TYS, MCI.
  - All other facilities/networks that have been visited by the program office and are in various stages of installation will move forward with NIDS.
- The next wave of IDS-R product, EIDS, is tentatively scheduled for roll out in 2021. The program office claims that they intend to make the above listed 30 networks on the forefront of that program's waterfall schedule.
  - NATCA still feels that 2021 is a very aggressive timeframe to aim for.
- A recent trip to the I90 network uncovered a few issues that need to be addressed before the network goes IOC (Initial Operating Capacity) in late May. HOU had some console remodeling done that created a difference between the proposed location and mounting of the NIDS monitors and what is actually taking place.
- The program office likes to boast about the fact that 30 networks have gone IOC and 18 of those are ORD, using NIDS full time.
  - On the heels of testing the next major software release for NIDS, NATCA has reminded the program office not to forget about or de-prioritize these facilities.

RNAV and PERFORMANCE BASED NAVIGATION (PBN): Dennis Kelly (PHL) serves the membership as their Article 48 Representative for RNAV and PBN criteria. Mr. Kelly will be retiring in the near future and Bennie Hutto (PCT) will be replacing him. Mr. Kelly has done an outstanding job for the membership over the past several years and the S&T Department would like to thank him for his great work. The latest update for RNAV an PBN is below.

- **AC 90-105A -** This riveting advisory circular (AC) provides guidance for operators to conduct Required Navigation Performance (RNP) operations in the United States, in oceanic and remote continental airspace, and in foreign countries which adopt International Civil Aviation Organization (ICAO) standards for RNP operations and is available on the FAA website. Guidance is provided for the following:
  - Required Navigation Performance Approach (RNP APCH) procedures
  - Barometric vertical navigation (baro-VNAV)
  - RNP 1 (terminal) operations
  - RNP 0.3 (rotorcraft) operations

- o RNP 2 domestic, offshore, oceanic, and remote continental operations
- o RNP 4 oceanic and remote continental operations
- o RNP 10 (Area Navigation (RNAV) 10) oceanic and remote continental operations.
- **AJV 14 report -** AJV-142 was also informed by AJI-31 (Safety) that the proposed changes to JO7100.41A comply with current FAA safety standards and orders. At the request of AJV-81 and AJI-31, AJV-142 prepared a Safety Risk Management Decision Memorandum (SRMDM) that documents this information.
  - o The SRMDM, a Clearance Record and a copy of JO7100.41A will be submitted during the week of March 6, 2016 to FAA senior executives for final review and signature. This action will complete the required FAA internal review process and it is expected that JO7100.41A will be distributed for use by March 31, 2016.
- **Community Outreach –** From the latest draft: "The PBN Blueprint Task Group identified a set of recommendations to enhance the success of implementing performance-based navigation (PBN) procedures.
  - o They recognized a need to not only significantly increase the knowledge of the broad stakeholder community but also to establish a more structured non-technical stakeholder community outreach effort that would parallel and support the PBN development and implementation effort.
  - o Although the Federal Aviation Administration (FAA) accepted the PBN Blueprint Task Group recommendations on community outreach and has launched an array of initiatives in response to these recommendations, how to best integrate appropriate community outreach into the implementation process continues to be a significant hurdle for the success of PBN procedures.
  - o Therefore, the NextGen Advisory Committee has called for the PBN Blueprint Task Group to provide further detail on its recommendations to complement FAA's initiatives".
  - o Mr. Kelly views this a huge step in the direction of slowing down and possibly shutting down some of the NextGen plans for PBN in the NAS in the future.
- **NextGen Integration Work group (NIWG) PBN –** This group's main focus is the use of Track to fix (TF) and Radius to fix (RF) legs as it pertains to RNP approaches in the use of EoR.
  - o Mr. Kelly mentioned in the last months report of the ongoing battle of whether to pursue both TF and RF options or just RF. Some want to pursue a waiver for DEN to run their current operation in IMC but trying for a waiver will also slow down the dual and trip rules due to duplicate DCP process and save only 2 months, so the consensus seems to be to stay with a rule change that will eventually include everybody.

- o There are 4 or 5 airports proposed for Potential TF implementation sites - ATL, CLT, SLC and SDF are among them.
- **National Procedure Assessment (NPA) –** The 36 page final report on the process and criteria for cancellation of instrument flight procedures that was approved by the Tactical Operations Committee in March 2016 is now out and available for those who want to see.
- **NSPP -** ATL ZELAN3 special RNP SID delayed until 5/26/2016 publication cycle. ORD 9 STARs delayed until 9/15/16.
- **PBN on the ATIS –** Conclusions from the latest Mitre analysis:
  - o Data analysis suggests that RNP approach availability advertised on ATIS *can* be an effective measure to increase usage. The results also suggest that advertisement, alone, may not be effective everywhere and there are other factors contributing to usage rates
    - ▪ Other factors contribute to RNP approach usage, some of which are difficult to measure or attribute to the results, such as: Individual aircrew currency, daily demand timing that may drive ATC constraints or workload, operator initiatives to encourage RNP approach requests, controller comfort/familiarity with the RNP operation.
    - ▪ Next Steps:
      - • Facilitate a coordinated ATC/airline effort to actively encourage use of RNP approaches at the study airports
      - • Consider increasing the number of airports in the study
      - • Measure and report on the effectiveness of these efforts
  - o Where successful and fleet mix/operations permit, consider advertising PBN approaches as the primary instrument approach
  - o RNP approaches may offer flight time/distance benefits in some cases that serve as incentive for operators to request
  - o Straight-in RNAV (GPS) approaches offer no operational incentive for pilots to request such an approach when an ILS exists
  - o Not all aircraft can fly an RNAV (GPS) approach as a precision approach
    - • Legacy CRJ and ERJ aircraft can only use LNAV line of minima
  - o We need to get input from the individual facilities in this initiative to see what they think and add to the analysis.
    - ▪ Phase two , which expands this program is next.
- **Performance Based Navigation Aviation Rulemaking Committee (PARC) –** There is a new RF display action team: An NBAA letter to the PARC SG brought up an issue with RF leg utilization in some systems that cannot display the RF leg arc on their maps. These systems can "fly" the RF, that is, the navigation system can compute them and guide to them, but the display systems do not support display of arcs (this is a problem). The letter summarizes the difficulty of even upgrading some of these systems, and asks for a review of possible operational mitigations that might be used to allow such systems to fly the RFs despite the

display limitation. The SG made a decision to form an action team (AT) to tackle the issues brought up by NBAA.

SURVEILLANCE BROADCAST SERVICES (SBS) OFFICE: Eric Labardini (ZHU) is the Article 48 Representative to the SBS Office. Below is the update for SBS.

- The NATCA Surveillance and Broadcast Services (SBS) team includes: **Eric Labardini (ZHU),** National SBS Article 48 Rep, **Craig Bielek (A90), Dan Hamilton (SFO),** National Airport Surface Surveillance Capability (ASSC) Rep, **Andrew Stachowiak (I90),** and **Tom Zarick (ZDV),** National Interval Management Rep
- **ADS-B:**
  - As of this update, over 21,000 aircraft are equipped to broadcast with ADS-B Rule compliant avionics in the NAS. The SBS PO rough estimate of avionics installation capacity nationwide is 50,000 aircraft per year. With about three years and nine months to the January 1, 2020 deadline to equip, concern is high that equipage levels will fall short of the estimated total NAS fleet (100,000-160,000). Users that wait too close to 2020 may find that the availability of installers falls short of demand. The DOD recently announced that they will fall short of the deadline to equip their fleet.
  - ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities.
  - 75 of 160 Terminal sites have reached their ADS-B IOC and the majority are operating on Fusion. The remaining Terminal sites are ARTS 2E sites awaiting an upgrade to the ELITE (STARS) build. The Terminal ADS-B/Fusion transition proceeds in this order: Kickoff meeting, ADS-B Flight Inspection, ADS-B IOC, Fusion Operational Suitability Demonstration (OSD) and Fusion Operations. The most recent and upcoming Terminal events:
    - Evansville (EVV) Fusion Support, Mar 8
    - Harrisburg (MDT) Fusion Support, Mar 8
    - Knoxville (TYS) ADS-B/Fusion Kickoff, Mar 30
  - There is a growing issue with ADS-B non-compliant avionics. Though the most serious issues that affect tracking are filtered by the SBS network or the automation systems themselves, other issues such as Call Sign Mismatch (CSMM) or Duplicate ICAO address are presented to controllers due to misconfigured avionics. Avionics issues are not unique to ADS-B, and radar transponder issues seen today are worked through FSDO. The Agency's approach to ensuring users return to compliance with ADS-B is hampered by their lack of resources to do so. The entire ADS-B compliance effort seems to be centralized at the HQ level among a handful of personnel. This is not a sustainable model at 2020 or even today's equipage levels.
- **ASDE-X Tech Refresh:**
  - PHL is the latest facility to receive the latest version of the tech refresh.

- o There was an event at KSEA where an Alaska Airlines B737 landed on a taxiway parallel to a runway. After some data collection and tests ran by NASE Engineering, it has been decided that Dan Hamilton would take the lead on national project to introduce Taxiway alerts into Safety logic for ASDE-X. More updates will follow as this project develops.

- **ASSC:**
  - o Optimization continues at SFO with the new ASSC system installed in the new tower. The Program is still on track to IOC SFO in October of this year.
  - o The ASSC team continues to work collaboratively with the agency regarding the final RU (Remote unit) constellation.
  - o Dan Hamilton and the Air Traffic team conducted another successful outreach briefing at MSY March 31st.

- **CLT WAM:**
  - o Current schedule to reach an IOC by May 24 still has risk. The Agency has a notoriously slow approval process for SRM Documents and associated Orders. The SBS PO is reaching out to their counterparts for support in expediting. The SRMD is being circulated for comment and signatures. Timelines are tight and present a risk to achieving the desired IOC.
  - o CLT Air Traffic workforce training is scheduled to begin April 18. A regression Flight Inspection is planned April 5-7.

- **Communicating for Safety:**
  - o The NATCA SBS team supported the SBS Program Office outreach effort at CFS March 21-23. The SBS Booth allowed the team to answer individual questions and relay status info.
  - o At the ADS-B breakout session, SBS Article 48 co-leads Eric Labardini and Bobby Nichols presented program status, initiatives, and challenges to ADS-B implementation.

- **FMA and Fusion:**
  - o An FMA Fusion work group status meeting was held on April 1.
  - o Plans are still on track for an SRMP meeting in Atlanta April 26-27.

- **Terminal Fusion:**
  - o An issue has been identified with TDW monitors used in many TraCabs. The 1K resolution on the current TDW does not give a good presentation on an extended range.
  - o Many facilities who are Up/Downs combine into a TraCab during low traffic periods like: the first 2 hours of an opener, the last 2 hours of a closer, or during a midshift.
  - o We are looking into acquiring a 2K display that would mimic a TCW and provide these facilities with better displays for TraCab configurations.

- **Surveillance-Automation Analysis Team:**
  - o Craig Bielek participated in the SAAT team meeting at SCT to discuss the ongoing surveillance and automation challenges there. The group discussed the history of difficulties at SCT as well as the anticipated

> problems in the building of the proposed stadium complex just east of LAX.
>
> o The discussion was preliminary in nature and more work needs to be done.

- **GIM-S:**
    - o **ZLC -** On-site evaluation of adaptation complete. IOC scheduled (though unlikely) for April 30th.
    - o **ZDV -** Successful IOC on March 14th. GIM-S now operational on the Northeast arrival flows.
    - o **ZSE -** Completing on-site adaptation testing. IOC Scheduled for May 16th.
    - o **ZHU -** Resuming GIM-S implementation testing on site. IOC tentative in June timeframe.
- **MEARTS Fusion:**
    - o Eric Labardini participated in a MEARTS 3nm Fusion TIM March 29-31. The team reviewed analysis of simulated, flight test, and target of opportunity data.
    - o As expected, Fusion does not perform well with only long range radar inputs. ADS-B and/or ASR inputs significantly improve tracker performance. As we have with STARS/CARTS sites, MEARTS sites will be expected to develop contingency plans for use during radar outages.
    - o As ADS-B equipage grows, those contingency plans would be used less and less.
    - o During the TIM, MEARTS SLE presented information on Call Sign Mismatch (CSMM) events at ZAN. CSMM is presented when the call sign broadcast by ADS-B does not match the call sign filed in the flight plan. In 45 days, the facility controllers acknowledged over 2000 CSMM alerts or 47 per day on average.
        - ▪ This is a significant operational impact and NATCA has forwarded the info to Flight Standards.
        - ▪ As ADS-B alerts are an assumption in developing future ADS-B applications and necessary to avoid operational impact, SBS does intend to have these alerts present in all automation platforms.
        - ▪ Without user compliance and education, the reverse is more likely that ADS-B alerts will be disabled on all platforms as the nuisance outweighs any other issues.
    - o MEARTS is also experiencing a number of false conflict alert issues. However, analysis shows that these are more related to radar than ADS-B. Overall, the radar systems used in Alaska are causing MEARTS to split tracks and self-conflict alert.
- **Space Based ADS-B:**
    - o The Agency continues to pursue a two phased approach to the use of Space Based ADS-B. The first phase is the Ingest & Process phase with the Agency stating that it would only be situational awareness and conformance monitoring but not for separation.

- o The problem that NATCA has pointed out is the fact that introducing SBA into the Conformance Monitor may lead to frequent status messages overloading Sector Que as well as invalidating established non-radar separation. The de facto result of such an implementation is that it does involve separation.
- o AJV-8 had stated that controllers are going to be required to respond to SBA alerts indicating a loss of non-radar separation. The two phased Agency approach appears to have muddied the waters.
- o The network of satellites is expected to be available for operational use by early FY 2018. However, Agency plan for Phase 1, Ingest & Process, call for a Final Investment Decision in mid-FY2016, but this may be delayed. Phase 2, Reduced Oceanic Separation, first has to select from alternatives before it can even be established that SBA will be the method to achieve ROS. A Final Investment Decision on ROS is not expected until mid-FY2018 with an operational start late calendar year 2020. At this rate, the US will fall well behind other ANSPs that are pursuing other forms of reduced oceanic separation, already via SBA, in a much faster time frame. The danger is that the US controlled oceanic airspace could become a bottleneck compared to surrounding facilities.
- o A Reduced Oceanic Separation (ROS) Human-In-The-Loop (HITL) was conducted at the Tech Center March 15-17.
  - NATCA ATOP SMEs from ZNY, ZOA, and ZAN participated.
  - The event simulated a faster 64 second update rate and 15nm separation standard in ZNY oceanic airspace.
  - The feedback on the ROS concept was generally positive. SMEs indicated support for an ROS separation standard; however, prerequisite modifications to ATOP were identified. SMEs also indicated that a faster 15 second update rate, available through SBA, would be essential for such close oceanic separation standards.
- **Vehicle ADS-B:**
  - o 674 vehicles equipped at 14 Airports.
  - o Deployment should be complete at LAX and CLT within the next month.

UNMANNED AIRCRAFT SYSTEMS (UAS): Steve Weidner (ZMP) is the NATCA Article 48 Representative for UAS. Jeff Richards (ZAU) is assisting Mr. Weidner on this project due to the workload and activity associated with it.

- **Communicating for Safety**
  - o Mr. Richards and Mr. Weidner participated in CFS in their capacity as UAS representatives. Mr. Weidner moderated a panel on the challenges of integrating UAS into the NAS (https://www.youtube.com/watch?v=EKv5PehS5pw&list=PLHKKrPBC0RLQz z0KinOBzllyhUYBuoTCo&index=10).

- o He was joined on the panel by:
    - Marke "Hoot" Gibson - FAA Senior Advisor on UAS Integration
    - Steve Pennington - Executive Director, DOD Policy Board on Federal Aviation Administration
    - Parimal Kopardekar - Manager, NASA's Safe Autonomous System Operations
    - Keziah Ogutu - IFATCA EVP Africa & Middle East
    - Travis Mason - Chief of Staff, Google's Project Wing
  - o Mr. Weidner and Mr. Richards also conducted two breakout sessions on UAS with Randy Willis (FAA Manager, AJV115 - Emerging Technologies). In addition to the panel and the breakouts, the exhibit hall featured MQ1 (Predator), MQ9 (Reaper), and RQ4 (Global Hawk) pilots. Their participation gave the attendees the opportunity to interact with the pilots and discuss mutual concerns about UAS operations in the NAS.
- **Global ATM Congress**
  - o Mr. Weidner attended the Global ATM Congress in Madrid where he made a presentation on the latest UAS integration developments in the NAS.
- **RTCA**
  - o Mr. Weidner and Mr. Richards continue participated in RTCA SC-228.
    - SC228 is developing the Minimum Operational Performance Standards (MOPS) for UAS Detect and Avoid (DAA) systems. SC228 is expected to deliver the MOPS to the FAA toward the end of 2016. At which time, it is expected that the FAA will issue a Technical Standard Order (TSO) based on the MOPS.
    - Once a TSO is issued, industry can then begin to develop DAA system's based on those standards.
    - Mr. Richards and Mr. Weidner will continue to work with the agency to ensure that proper training, standards and guidance is accomplished prior to the implementation of active DAA systems in the NAS.
- **SYR MQ9 Operations**
  - o Mr. Weidner and Mr. Richards participated in a workgroup activity to baseline requirements on LOA development for UAS operations at FAA controlled, commercial airports in the NAS.
    - The New York Air National Guard (ANG) will begin regular operations from the SYR airport in the next couple of weeks. These operations will include pattern work, mixed with manned aircraft.
    - The workgroup focused on procedures that are unique to unmanned aircraft, which should be considered by any facility developing an LOA with an unmanned proponent wanting to do runway operations and pattern work.

- ▪ Representatives from FAR also participated in the workgroup. The North Dakota ANG is preparing to move their operation to the commercial airport in FAR later this year.
- **Class B Operations**
  - o Mr. Richards participated in a workgroup that is beginning to explore procedures for unmanned operations in Class B airspace. This work is in the early stages but is expected to increase in the coming weeks and months.
- **UAS Workgroup Update**
  - o NATCA and the FAA signed a scoping document in January creating a NATCA/FAA UAS working group. The scoping document specifies that the workgroup be made up of two representatives from NATCA and two representatives from the FAA.
    - ▪ Mr. Weidner and Mr. Richards will be the NATCA representatives.
    - ▪ We were informed that the FAA has now named their two members to the workgroup. Mr. Richards and Mr. Weidner will be meeting with them soon.

Dale Wright

Dale Wright
Director
Safety and Technology