NATCA Safety & Tech Update
Week of August 21, 2017

ATO Operational Contingency Group (ATOC): Jason Grider (ZFW) is the Article 114 Representative for NATCA. Also, included in Mr. Grider's duties is Article 114 representation for the Business Continuity Plan (BCP). Mr. Grider's report for this month is below.

> Mr. Grider and the ATOC team visited ZME and gave a briefing to air traffic, tech ops, and staff specialist on the upcoming continuity of service demo at ZME. The team was able to schedule time in the ZME TTL to run the continuity of service demo (CSD) in September 2017.
>
> The CSD will be evaluated by NATCA SME's from D10, ZFW and ZME. The demo will consist of four simulations in the TTL. The controllers will test the viability of divesting ZFW sectors 90, 83, 37, and 42 to ZME. The scenarios are set up to demonstrate the limitations in ERAM and STARS that exist when moving airspace to adjacent facilities. They will also allow ZME controllers to see what it would potentially look like for them if they were to ever have to take over these sectors in a contingency event.
>
> Mr. Grider traveled to the WJHTC in Atlantic City throughout the month of July and August to work with second level engineering identifying the many limitations of ERAM communicating with STARS if the host ERAM facility is offline. He additionally worked with developers to design the scenarios for the CSD.
>
> Communication within the ATOC office is mostly being focused on the ConOps and test plan for the divestment of ARTCC airspace. The office is planning on having the ConOps ready for distribution to all of the ARTCC's by end of the calendar year.
>
> Mr. Grider attended the BCP surveillance demo at the WJHTC in August. The demo was to show the ability to have surveillance information on the glass in the Tech Center lab. One NATCA SME was brought in from ZKC to verify the accuracy of the data in the lab. Everything was a success and the BCP is moving forward with the 23-sector demo this September.
>
> NATCA has made a request for an article 7 briefing from the agency on their plans for personnel movement during an activation of the BCP. This should be scheduled sometime in September.

Automated Terminal Proximity Alert (ATPA): Mike Sanders (SCT) represents the membership as the Article 114 Representative for ATPA. Mr. Sander's report is below.

> Mr. Sanders is a controller at SCT, he has participated as a National ATPA Workgroup Member for the last five years working on development, implementation and training throughout the NAS.
>
> Mr. Sanders would like to acknowledge and thank our brother Mickey Vitti (N90) as the previous Art. 114 for ATPA who is retiring at the end of August. Mickey's dedication and attention to detail have made ATPA one of the most desired and highly used controller tool in the NAS.
>
> ATPA is in current development for controller training in an ELMS course projected to be complete and ready for distribution mid December.
>
> At this point if any facility has a desire to adapt ATPA, we need to wait until the ELMS training is complete. Please contact me so we can go over the process.

CAMERAS: Mike Foote (LAX) represents NATCA as the Article 114 Representative for Cameras. He also leads NATCA's work on the Camera Working Group. This group discusses the use of cameras on the airport surface and also provides guidance for the Agency. Mr. Foote's update for this month is below.

> After years of zero action on the outcome of a collaborative work group, the agency has decided they need to come up with some sort of policy for Cameras. The initial proposal from the agency amounted to creating a new Camera program (VSAS) without certifying, creating requirements, or performing any SRM on this proposed new "Program".
>
> After discussions with the agency, it appears what they are really looking for is something that deals with the reality that non certified camera systems are in existence in several airports in the NAS. With that in mind our proposal is essentially to come up with a waiver system for existing cameras in the NAS. Create a process by which SRM is conducted and SOPs are in place to use the current cameras without opening Pandora's Box to use non-certified cameras for separation throughout the NAS.
>
> We all understand that a form of certified camera is being worked on as we speak. (Remote tower project) When it comes there will be requirements, procedures and HITL will have been studied. Until that time the agency feels they need something in place that approves the use of cameras for situational awareness only. Particularly at facilities currently operating them.

We have just begun collaboration on this new approach. The years of work from our old group that included requirements and national SRM has been shelved for now. Expect to hear more in the next couple of months.

NATCA's Safety & Technology Leadership Council (NSTLC) will work with Mike moving forward to ensure NATCA's position on the use of camera's is well documented.

DATACOMM: Chad Geyer (ZLA) is the Article 114 Representative for Data-Comm. Below is his update.

Last week Controller Pilot Data Link Communication (CPDLC) sites sent over 5100 clearances a day. Over the last few weeks the Facility Technical Representatives (FTR) have been meeting at the Human Factor Labs at the WJHTC. The DataComm program office have developed a simulation of what Full Services will look like on the glass and how controllers will interact with the new capabilities and services in the Full Service deployment scheduled for release in 2022. Use cases have been written and Leidos is preparing to develop initial requirements for the services. Initial computer human interface (CHI) has been developed and the FTR's are making recommendations on changes that will need to be made to improve understanding by the controller workforce. The services will include Full Routes, Full Altitudes, Holding, and Advisory Messages. Remember that UM messages are Uplink Messages sent from the controller and DM Messages are those sent from the flight deck. The messages that are being added to routes that are being deployed in initial services include

- UM75 WHEN ABLE PROCEED DIRECT TO [position]
- UM77 AT [position] PROCEED DIRECT TO [position]
- UM78 AT [altitude] PROCEED DIRECT TO [position]
- UM82 CLEARED TO DEVIATE UP TO [distance offset] [direction] OF ROUTE
- UM75 WHEN ABLE PROCEED DIRECT TO [position]
- UM127 REPORT BACK ON ROUTE
- UM127 REPORT BACK ON ROUTE
- UM137 CONFIRM ASSIGNED ROUTE

There are also additional messages that the flight deck can send to controller and those messages include

- DM40 ASSIGNED ROUTE
- DM41 BACK ON ROUTE
- DM23 REQUEST [procedurename]
- DM24 REQUEST [route clearance
- DM27 REQUEST WEATHER DEVIATION UP TO [distance offset] [direction] OF ROUTE

Full Service Altitudes will include the ability to uplink Block Altitudes and will also include crossing restrictions (available in initial services) menu available in the Full Data Block so that crossing restrictions can be uplinked to an aircraft. The Block Altitude messages will include

- UM30 MAINTAIN BLOCK [altitude] TO [altitude]
- UM31 CLIMB TO AND MAINTAIN BLOCK [altitude] TO [altitude]
- UM32 DESCEND TO AND MAINTAIN BLOCK [altitude] TO [altitude]
- DM7 REQUEST BLOCK [altitude] TO [altitude]
- DM77 ASSIGNED BLOCK [altitude] TO [altitude]

The ability to Uplink Holding instructions and update EFC's will be available as well. The message set is

- UM91 HOLD AT [position] MAINTAIN [altitude] INBOUND TRACK [degrees] [direction] TURNS [leg type]
- UM93 EXPECT FURTHER CLEARANCE AT [time]

Finally, Full Services will include Advisory messages. These messages are free text only and can be saved to an advisory menu to Uplink as needed. These messages will primarily be ride report messages all though a controller could include information about weather in the sector. Sigmets and CWA's will have to be voiced as they are today since controllers are required to give the information to Non-Data Comm aircraft as well.

ENROUTE AUTOMATION MODERNIZATION (ERAM): Julio Henriques (ZNY) leads the ERAM efforts for NATCA. This update is provided by Dan Mullen (ZID).

The most recent release of ERAM software, EAD700, completed key site testing at ZFW, ZHU, and ZAB August 7th. Those sites, along with Facility Tech Reps (FTRs) from other facilities, evaluated the software and tested the newest functionality. As usual, several problems were discovered that need to be fixed and that process will be done in the next few weeks. EAD700 will be released nationally in early September, and the biggest change for controllers will be the ability to approve point-outs by clicking an indicator on the data block or in the Aircraft List. This will reduce the amount of time needed to verbally coordinate in many cases. The Automated Point Out functionality was well liked by controllers at the key sites, but procedural questions were common.

Most of the ERAM hardware needs to be replaced and the Tech Refresh project has become a high priority. Some of the internal components are failing faster than first predicted, and spare parts won't be available much longer. The first step, replacing the D-side processor, has just begun and will be completed at most sites by July 2018. The R-side upgrade will begin by October 2018, but the exact schedule is still being worked out. This stage includes replacing the R-side monitor, and the National User Team (NUT) and Computer-Human Interface (CHI) team have been working for over a year to

select a replacement. One option is an Ultra Hi-Def widescreen that would be useful to display all the new data block symbols and views coming with new programs, like Datacomm. These monitors are a very tight fit in the existing consoles, and we still have some work to do to make sure they can work existing equipment and the planned replacements for VSCS and ERIDS.

FTRs have been at the Tech Center in Atlantic City this month evaluating a demo of Datacomm Full Services. This has been an early look so the team can make any needed changes to the design and give recommendations on training. Full Services in Datacomm will add functions like Hold clearances, speed assignments and ride advisories.

We have also attended demos at MITRE and Leidos for several other future concept programs. Members of the NUT worked on Controller-to-Controller communication tools, Trial planning and Probe on the R-side and Fusion Based Display. Some of these programs are still several years from deployment, but it's important to have NATCA Subject Matter Experts work on them as early as possible so we can help shape their design.

Some of the issues the NUT has been working on:

ER 178785 CID Letter Allocation
Wayne briefed the team on how the legacy system allocated CIDs and also discussed options for modifying the current method. The issue will be discussed again next week and desired behavior language will be developed.
ER 175522 Dwell Lock Keyboard Command
The updated problem statement was discussed, the desired behavior is to develop a new command line entry that will enable/disable the dwell lock feature for a specified FDB. New language was added to turn the dwell On/Off regardless of its current state. The updated problem statement was send to the team and will be discussed again next week.
ER 174189 Data Com Radar Service Terminated
The Data Com team is reviewing this ER and the request for a change to the use case.
ER 174779 GI Messages
The task team reviewed the draft problem statement and also discussed an older but not implemented SIG1642 which may already have the correct desired behavior. The task team will determine if SIG1642 will address the current situation and brief the team on their findings.
ER 179367 D-Side Font Size
SIG1621 changed the size of the font for the D-position display; the new font is too small. The CHI team will be reviewing all D-position views to determine what the correct font size should be. Once the CHI teamwork is complete, the user team will be briefed on the changes.
ER 177574 Keyboard Macro Command

The task team discussed the possibility of withdrawing the completed problem statement. Their reasoning is that there may be little advantage to having the feature. Several FTRs commented that they thought the idea still had merit and would like to continue the discussion. The ER will be discussed again until the team can determine if there is a safe and usable way to implement this function.

ER 175723 Relevant Leg Indicator

The issue was prioritized as a 1C.

ER 179850 Data Com /U Command

This new command and it adaptation were discussed. The adaptation suggests that it needs to be on keys 52 or 53 as a required function. The concern is that this will not be needed operationally for some time and that this should be optional adaptation. Jamie Beert is researching the adaptation question and the issue will be discussed again next week.

The EnRoute Automation Workgroup (ERAW) has been working with the TFMS and ABRR workgroups to relaunch the Airborne and Pre-Departure Reroute program. Software changes still made to be made to ensure that ABRR/PDRR is compliant with recent changes to the 7110.65, and the groups are trying to reach consensus on how to implement those changes. We're trying to get ABRR/PDRR available for use by the end of October 2017.

Enterprise-Information Display System (E-IDS): Amanda Hodge (ZOA) is the Article 114 Representative for Enterprise-Information Display System (E-IDS) work. Ms. Hodge's report for the membership is below**.**

The Enterprise Information Display System (E-IDS) project aims to replace all existing IDSs in the NAS, providing the Agency with one enterprise solution across facility types. While some customization is necessary and will be available, one system will reduce overall costs for upkeep and training, and resolve the upcoming end-of-life issues we have with our current IDSs in the field (IDS-4, ERIDS, etc.). The project is still in the early stages of development.

NATCA is working with the FAA and MITRE to survey the field about the use of all current IDSs, to provide the E-IDS Team with a better understanding of the needs of each type of facility. This foundation is improved upon utilizing NATCA CPC and TMC SME feedback during subsequent focus groups and demos. Our Agency and contractor team members fully recognize the value of having the end users involved in the process from the beginning. This is an important lesson learned from past projects where controllers saw a product for the first time as it was being turned on in a facility. Our SMEs are helping to create a better product from the start.

There are concurrent activities on the schedule that are including our NATCA SMEs and their input on a regular basis. Upcoming activities include:

- Tower focus groups (TRACON focus groups complete; En-Route TBD)
- Tower and TRACON demos (En-Route TBD)
- Initial En-Route Questionnaire (scheduled for delivery at the end of August) Initial Oceanic Questionnaire (In development)

FLIGHT DATA INPUT OUTPUT (FDIO): Corey Soignet (LFT) is the FDIO Article 114 Representative. Also included in Mr. Soignet's duties is Article 114 representation for the Electronic Flight Strip Transfer System (EFSTS). Mr. Soignet forwarded the information below for the membership.

FDIO

Issues with 1st articles delivered: There is a dust issue, which is accumulating over the sensor. We are making sure it is not caused by the system used at the Tech Center for mass loading strips. So the Tech Center is not using the mega loader to see if the dust level decreases. Currently, the testing is at 8000 strips, failed previously at 12000 strips. Options are change proposal/engineering fix for the printer sensor or better quality control of paper. Blank strip button: It will only work if nothing is printing. It on average will print 17 strips/20presses. Human Factors evaluation concerns: room temperature, sunlight test for reflection/glare. Tech Center is working on these items. The updated prototypes of the printer are being thoroughly tested at the Tech Center and a status update will be available soon.
What we are working on:
Testing: FAALC is completing a new paper/cutter/display test.
Warranty: 1 year
Items to be discussed: Implementation, military & PASS meeting to discuss the printer
Schedule: Key site: November 2017- January 2018. 5 key sites to be conducted: Tower, TRACON, Honolulu, Alaska and Puerto Rico.
Contracts: 2-year base, which started July 2016. SLE will send the expected timeline. As it stands 1st article testing will be complete January 2018 with the Production CLIN exercised January/February 2018. SSM release – February/ March 2018.

EFSTS

Phase 2 kits were sent to all Phase 2 sites and all Phase 2 sites are completing install and the associated training. The EFSTS Team traveled to Chattanooga Air Traffic Control Tower to install and train on the EFSTS system. CHA's install concludes the scheduled and planned install of the EFSTS system at this time. The EFSTS team will continue to support the EFSTS facilities with requested adaptations and technical support.

FIDI

There is nothing to update at this time.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) leads NATCA's efforts on the IDS-R project as the Article 114 Representative. Below is Mr. Smith's report.

A new NIDS software build will be tested during the week of September 11 and key sited during the week of September 18. The plan is to dual key sited the software in both the CMH and I90 networks. This is the first in a series of software "drops" being scheduled by the IDS Replacement program office, but an alternative plan is being investigated. It is possible that NIDS will change its software platform and transition to Linux. Linux is thought to be a more secure software platform and cost comparisons may show a changeover to be beneficial in the long run. A change would have little to no impact to the build no user other that a possibility of different fonts or small visible changes to shapes of displayed boxes.

Because the IDSR/NIDS waterfall has officially ended, with all networks declaring ORD, the program office is staring to downsize its personnel. This should have no impact in the support department but the impact is yet to be seen. If anyone has an issue or question please contact the NATCA Article 114 representative, Richie Smith at idsr@natca.net

NAS VOICE SWITCH (NVS): Jon Shedden (ZFW) represents the NATCA membership as their Article 114 Representative to the NVS project. His report is below.

NAS Voice System (NVS) Factory Acceptance Testing (FAT) Dry Run ended June 23rd. The system still has stability problems so Harris will continue working on defect resolution prior to starting formal FAT. Formal FAT was scheduled to start July 18th, but has been officially delayed. The FAA is working with Harris to address the impacts to the schedule because of this delay.

The key site survey for Seattle Tower (SEA) occurred the week of August 9th and 10th. The site survey goes over all their position hardware as well as the layout and functions on the position maps.

Mr. Shedden was in Anchorage the week of July 24th meeting with Alaska flight service personnel to finalize their NVS requirements. Harris Human Factors personnel were in attendance to get a better idea of their needs. Final requirements will be reviewed soon.

Mr. Shedden will be in Washington D.C. on August 30th for the NVS Enterprise Management System (EMS) Technical Interchange Meeting (TIM). At the TI, we will discuss use cases of the Enterprise system. Chris Lloyd (ZDC) will also be in attendance.

Next Generation Air-Ground Communication (NEXCOM) continues deployment of new CM300/350 V2 radios to terminal facilities across the country. Some terminal facilities in the NAS using very old radios hear a pop back or "squelch tail" when they release their transmitters. The new radios being deployed under NEXCOM Segment 2 do not have this "feature" as the squelch tail is generally regarded as undesirable in radio communications. This issue has cropped up twice now during deployment and the program office should brief future affected facilities prior to install.

NAS Voice Recorder Program (NVRP) is the replacement for existing NAS voice recorders (DALR, DALR2, DVRS, DVR2). The Program Office presented to the JRC and received approval to proceed to Final Investment Analysis, leading up to the Final Investment Decision. Key site for NVRP will be Seattle Center in the 2018 time frame.

Mr. Shedden will be in Washington, D.C. September 13th for the NVRP Source Evaluation Team kickoff meeting.

Grand Rapids Tower/TRACON (GRR) is reporting multiple issues with their aging voice switch. There's one outstanding issue where a RADAR site is causing interference in the Tower Cab. That issue continues to be worked.

A **Tone Mitigation National Workgroup** has been formed. This was a result of a large number of tone incidences being reported at Potomac TRACON (PCT), as well as other places. National selected the following members to represent NATCA on the workgroup:

- Brandon Miller
- Don Smith
- CJ Jacques
- Jon Shedden

The first meeting is scheduled for September 19th and 20th in Washington, D.C.

Plantronics, the provider of our **headsets**, has been debarred due to "adequate evidence of conduct indicating a lack of business honesty or integrity". This means that the FAA cannot buy any headsets from Plantations for three years. The FAA is currently working with NATCA to address this issue.

Ft. Collins, CO Remote Tower (FNL): Shawn Reuth is the Article 114 Representative to the FNL Remote Tower test. Below is the update for FNL.

Northern Colorado Regional Airport (FNL) August Update

- July 2017

• 18, 19 July - Colorado Remote Tower Team met at FNL with FNL Manager's, contractors and Searidge Technologies

- Searidge gave an operational concept briefing

- Searidge completed a site survey and engineering activities to determine potential placement of RTS equipment, feasibility of existing facilities for operations room, locations of existing power and communication lines

- A general timeline and calendar was established with potential RTS equipment installation beginning in winter 2017/18

• 20 July - Colorado Remote Tower Team gave an operational concept briefing of the FNL remote tower project to Denver TRACON (D01) management, Tech Ops and NATCA

• Weekly updates are being held to establish or follow up on deadlines, planning and
to provide updates on new points of contact established that will be required during the project

- August 2017

• 22, 23 August - Colorado Remote Tower Team will meet in Renton, WA to provide an operational concept briefing and the status of the FNL remote tower project to the Western Service Area

- September 2017

• 26, 27 September - 4 members of Colorado Remote Tower Team are scheduled to meet at Searidge Technologies in Ottawa, Canada for a Human Machine Interface Workshop

• Work with Searidge on equipment functionality, human factors and interfacing between controllers and equipment

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SURVEILLANCE BROADCAST SERVICES (SBS) OFFICE: Eric Labardini (ZHU) is the Article 114 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 114 Rep, **Craig Bielek (A90), Dan Hamilton (SFO),** National Airport Surface Surveillance Capability (ASSC) Rep, **Andrew Stachowiak (I90), Tom Zarick (ZDV),** National Interval Management Rep, and **Chris Aymond (MSY),** National Terminal Interval Management Rep

ADS-B:

- As of August 1, 2017, the number of Rule Compliant ADS-B Out in the US reached 33,827. ADS-B In equipped aircraft reached 29,852.
- Current equipage levels are falling short of the projected numbers needed to reach the Jan 1, 2020 deadline to equip with ADS-B. Avionics Installation capacity NAS wide could also be exceeded the longer users wait to equip. So far, the Agency has been clear that the deadline is firm. The stage is set for a potential showdown, as the date looms closer.
- Most, if not all, Air Carriers have provided the Agency with a plan to meet the deadline. However, the means to achieve those plans in the short amount of time remaining is becoming a larger question. One example that stands out is Honeywell avionics which have yet to offer an ADS-B solution; Southwest Airlines and others are heavily dependent on Honeywell avionics. United Airlines has made significant progress in upgrading their B737 fleet with 99 of 110 planned ADS-B installations complete. Several other airlines are also showing increased fleet equipage.
- The military, as previously released in the press, expects to be unable to meet this deadline for several versions of their fighter and older aircraft. They are working with the Agency on a compromise that requires DOD radar availability at key sites to be identified. Many DOD Air Traffic facilities do not even plan to track aircraft via ADS-B.
- GA equipage is a harder question and being carried as a High risk by the SBS Program Office. Increased avionics availability and competition among manufacturers continues to bring the overall cost for GA users down. In addition, the Agency has initiated another rebate program and it is showing some interest, but not as high as expected. The rebate program expires in September.
- The SBS PO very rough estimate of avionics installation capacity nationwide is 50,000 aircraft per year. The rough estimate of all NAS aircraft that need to equip is 160,000. Users that wait too close to 2020 may find that the capacity for installation falls short of demand. Facilities may see these GA ADS-B operators flying more check flights as they attempt to validate their installations and claim the rebate.
- An issue not screened by automation systems but an important assumption for future ADS-B dependent applications is the broadcast call sign of the user. ADS-B sends this information to automation systems for comparison to the filed call sign. When a mismatch occurs a Call Sign Mismatch (CSMM) alert can be generated. The SBS Article 114 work group has recommended

disabling CSMM alerts across all automation platforms. The issue was highlighted in recent Equip 2020 meetings since ADS-B dependent applications (CAVS, Advanced Interval Management, etc) are dependent on this functionality. Monthly tracking continues to trend upward with June showing over 20,000 users generating CSMM conditions.

- ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities. All ERAM sites have promoted ADS-B to the top of their sort cells.
- 102 of 155 Terminal sites have reached their ADS-B IOC and 99 are operating on Fusion. The majority of 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:

- Baton Rouge (BTR) ADS-B Flight Inspection 8/23/17
- Fayetteville (FAY) ADS-B Fusion Kickoff 8/24/17
- Charleston (CHS) ADS-B Flight Inspection 8/30/17
- Montgomery (MGM) ADS-B Fusion OSD 8/30 - 9/01
- Montgomery (MGM) ADS-B IOC 9/01
- Lexington (LEX) ADS-B IOC 9/01
- Pasco (PSC) ADS-B Fusion Kickoff 9/06
- Moline (MLI) ADS-B Flight Inspection 9/06
- Lexington (LEX) ADS-B Fusion OSD 9/12-13

ADS-B Avionics Issues:

- NATCA SBS continues to work with the Agency toward a more proactive approach to ADS-B avionics issues. Though these are infrequent occurrences, the Agency's approach to date has been hampered by a lack of resources, bureaucracy, and legal constraints. These issues occur when standards for installation or configuration within aircraft or ground systems are not met. ADS-B is a cooperative surveillance source relying on the position information determined onboard the aircraft. Multiple ATSAP reports have been filed on the known issues to date. Controllers and facilities are encouraged to report any identified events through ATSAP and any other mechanism.
- In order to reduce the number of safety compromising events in the NAS we need an effective, efficient response mechanism. The Agency is working on mitigations including enhanced validation and a No Services Aircraft List (NSAL). Enhanced validation has a limited effect (15nm around a Terminal Radar) on these issues but it has been deployed NAS wide. The NSAL has been fielded in ZLA and ZOA airspace, including underlying terminals, and will soon be rolling out NAS wide.
- Governance of the NSAL has been the biggest concern. As originally conceived by SBS management, the lag time between identifying a safety-compromising event and reacting could be days or weeks. NATCA is working

on streamlining this process, potentially via an automated mechanism. The end result needs to be an effective means of identifying bad actors and reacting as close to real time as possible.

- Article 114 discussions resulted in agreement that B787 aircraft will be placed on the NSAL as soon as possible. These aircraft have a latent avionics issue that causes false position information to be displayed to the ler. This has alarmed several facilities and caused both SCT and NCT to demote ADS-B in their sort cell priorities.
- Two events in August highlighted the inability to react effectively or efficiently to identified avionics problems. On August 9, an ADS-B equipped Embraer 170 demonstrated extremely erratic tracking within Houston Approach. The track was showing a zigzag or starburst behavior and actually split into three separate tracks at one point. The SBS Performance Monitor did flag the aircraft as non-compliant, but this data is currently only used post event. Flight Standards indicated they would quickly reach out to the operator. On August 16, the same aircraft repeated it's bad tracking behavior at Potomac Approach on while on Final to Dulles. The tracking left the facility so uncertain of the aircraft's true position that they stopped all departures. This event was also found to be highlighted by the Performance Monitor post event. Flight Standards now states they have finally grounded the aircraft.

Advanced IM

- American Airlines leadership still hasn't made the decision to support the funding required for AIRS to move forward, though all parties all still optimistic.
- Paired Approach work is still moving forward. Development of Controller Display Features needed to support the application as well as the overarching A-IM ConOps work still in progress.

ASDE-X Tech Refresh:

- Due to recent events in the NAS, there is a renewed interest in taxiway alerts for the system, which was started by the Runway Safety office last year. There is now some backtracking that is being done due to the lack of involvement from AJV-7 from the beginning. Dan Hamilton is actively involved in the entire process to ensure the integrity of the system remains in place. Concerns regarding false alerts, late alerts, incorrect alerts and no alerts are being discussed in addition to other possible mitigations for this overlying issue.

ASSC:

- ANC Design review scheduled for the week of 8/21.
- CVG meetings planned for the week of 8/28 in preparation for initial training. CVG is the next site to receive ASSC, scheduled for March of next year.
- Significant issues occurred when the agency attempted to load new mandatory Internet security changes to ASSC in CLE. Those changes were backed out of the system, and testing will be conducted at CVG prior to IOC. If issues continue to occur, the Security updates will be postponed further until all

problems are resolved. The program will not take a delay due to new security mandates.

FMA in Fusion:

- Operational evaluation and SRMP have concluded. Sep Standards and Collision Risk analysis of IBI mode has delayed the completion of the SRMD. Operational start of FMA use of Fusion is now planned for November 2017. NATCA continues to work to shorten the time frame as much as feasible.

Future Surface Surveillance:

Additional meetings will take place in D.C. the week of 7/24 regarding and ASDE3 and SMR replacement. These meetings are purely informational.

GIM-S:

- ZDV plans on going live with ZKC on Sept 12th. ZDV is also working on an agreement with ZAB to use GIM-S on the SE stream into ZDV.

MEARTS Fusion:

- 3nm Fusion in MEARTS is a complex undertaking, and involves bringing multiple Tower, Approach, and Enroute sectors online with Fusion at the same time. The lessons learned in this undertaking will help the effort with future MEARTS and ERAM sites.
- Significant progress toward a return to Fusion at HCF was made the week of July 17. An OSD was conducted after software and adaptation changes were introduced. NATCA, HCF Air Traffic, and many others agreed that the system is operationally suitable.
- HCF re-started Fusion operations on August 1, 2017. With over three weeks of use, the feedback from facility personnel continues to be positive. SBS remains in a monitoring posture for the month of August.
- Plans are being made for the continued deploying 3NM Fusion in MEARTS at ZSU and ZUA. A Technical Interchange Meeting is planned with ZSU on September 6.

Surveillance Portfolio Analysis Work Group

- Eric Labardini and James Keith (NATCA AJV-7) have been working closely with the Agency's multifaceted analysis of post 2020 radar infrastructure needs. The ADS-B business case was built on an assumption that today's robust radar infrastructure could be reduced once ADS-B becomes the predominant surveillance source.
- The Agency built their business case on an assumption that 100+ secondary radar sources could be removed throughout the NAS. This causes concern in airspace that does not require ADS-B (many Class D or other Approach Controls). NATCA has been pointing toward another option, removing overlapping radar sources completely rather than harming operational capabilities nationwide. There seems to be an awakening to this idea and analysis of the benefits is underway.
- An SRM Panel was held August 1-3 to analyze the risks associated with partial or complete removal of radar systems in a post 2020 environment. The conclusions of the Panel were that partial removal actually resulted in higher

risks than complete removal. This assumes that complete removal would only occur where the effects were minimized by other overlapping radar sources nearby.

Terminal Fusion:

- The Fusion Focus Group continues to track and resolve facility reported issues with Fusion. These are largely issues with the underlying surveillance infrastructure, and experts from all fields are available to assist. Please report any issues to your OSF and our NATCA SBS group for assistance. It is critical that actual data is recorded for evaluation and resolution.
- NATCA remains very focused on the Common Terminal Digitizer (CTD) effort necessary to incorporate numerous ASR-8 sites into STARS Elite as well as Fusion. The CTD schedule is the driver for TAMR Elite rollout and therefore the drive for the follow up ADS-B/Fusion rollout.
- SCT issues continue to be a large focus. NATCA SBS is heavily involved in the Surveillance Automation Analysis Team (SAAT), which is examining long-term alternatives to help improve overall surveillance in the SCT space. Their efforts are aimed at mitigating tracking issues in the LA Basin, including the effect of the new Stadium near LAX.
    - NATCA and the Agency have agreed to move forward with raising the LGB radar site. This was thought to be one of the easier solutions to put in place, but the Agency cannot seem to get out of their own way to do so. Current target date for completion according to Western Service Area is October to November 2017.
    - WAM in the LA Basin area will be in 3 phases: update 9 existing ADS-B Radios to support WAM via Virtual Radar (CLT configuration), add 8 new Radios to supplement the WAM coverage (still using VR), then update STARS to allow for WAM in Native format (1 second update rate).
    - The first phase of WAM achieved an IOC on August 10. Feedback from SCT personnel has been very positive. WAM has been promoted to the highest priority in sort cells. Analysis of formerly identified tracking issues with radar showed much improvement with WAM implemented. Feedback from NATCA SCT has been very positive. Former issues seen frequently in the LA Basin area have been greatly reduced by WAM.
    - This first Phase of WAM at SCT is a limited configuration of Radio Stations. The system has shown some vulnerability to reflection on the surface of LAX. While this does not affect the tracking of actual targets, the test target injected into the system for TechOps certification has been affected periodically. Until the system has more Radios or other options for certification, this will likely continue.
- SAAT has been analyzing Potomac (PCT) Fusion issues for potential solutions. The facility has been struggling with a number of issues related to problem radar sites or a lack of coverage. Radar analysis is confirming the benefit of adding Quantico radar to PCT as well as reducing obstructions in

the area. Follow up discussions with PCT have been delayed due to facility availability.

- A long-awaited estimate for adding identified radars to CLE has finally been delivered. SBS Article 114 agreed to a path forward to add multiple radars to CLE in support of Fusion. The radar sensors should be incorporated at CLE by June 2018.
- N90 discussions point to a planned transition to Fusion in January 2018. Support activities could start in November 2017 or earlier. A discussion with N90 on the exact time line is planned for September 26.

Vehicle ADS-B:

- 1170 Vehicles equipped at 18 Airports.
- DAL and IAH will deploy additional vehicle transponders this month.
- CVG has equipped and is waiting for deployment of ASSC to go live.