**National Air Traffic Controllers Association**
**1325 Massachusetts Avenue NW, Washington, DC 20005**
**Safety and Technology Department**
**Office: 202-220-9818**
**Fax: 202-628-7286**

# SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

## Week ending February 5, 2016

**DATACOMM:** Chad Geyer (ZLA) is the Article 48 Representative for DataComm. Mr. Geyer provided the membership an update below;

- Another successful week on the DataComm program thanks to the hard work and dedication of our members.
    - AUS has declared Initial Operating Capability (IOC) which is a little bit different in the DataComm world than what you are used to hearing. The tower service consists of sending clearances directly to the flight deck and receiving their responses. This is just additional functionality that has been added to a system that is currently deployed in the NAS. Since this is just another capability, there really is no Operational Readiness Decision (ORD) that is common with new systems. IOC means that site has accepted the capability and will use it operationally.
    - Two sites of the waterfall deployment have declared IOC and 3 others are currently using the system operationally with voice read backs. Once the facilities that are sending Controller Pilot Data Link Communications (CPDLC) clearances with verification of voice read backs determine that the information that is being uplinked and downlinked to their satisfaction, the site will declare IOC.
    - Fifty-one CPDLC sites remain in the waterfall for deployment and fifteen enhanced PDC sites remain. All seventy-two sites should be completed by November of this year.
- One of the many benefits that Version 12 of the Tower Data Link Services (TDLS) system brings is the ability to run auto mode. Before version 12 was deployed, about 5 sites were running in auto mode. Auto mode is the ability of the system to auto process PDC's.
    - The reason that so few sites can run in auto mode is because depending on the SID they are flying, the configuration the airport is in, different departure frequencies and other reasons the controller needs to send different information.
    - Version 11 that is in the field only allows for the same information to be sent to every aircraft.
    - With Version 12, the system can be set up to send different information based on the SID/Transition that is assigned. It can even be set up to allow for only certain SIDs/transitions to be sent in auto mode and the controller must process the others. As version 12 rolls out across the country, auto mode will most likely be available for a majority of TDLS sites.

**INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R):** Richie Smith (N90) is the iDS-R Article 48 Representative for NATCA. Mr. Smith's update to the membership is below.

- The long anticipated Joint Resolution Council (JRC) decision regarding the future of the IDSR program was once again postponed. The program office keeps briefing NATCA that the JRC wants more data. The next time frame for a decision is the last week of February. Adding another month's delay to the decision on the future of the program makes the published waterfall schedule unbelievable. If the program gets approval to move forward 30 networks would need to go through various stages of site survey, database collection, site acceptance testing, etc before May of 2017 to be on schedule. To further complicate matters the program office has recently renamed the waterfall schedule as the implementation schedule.
- There are some good things happening around the program. The program office continues its change over into a trouble reporting system fashioned from ERAM experience.
    - While this is a good system/process, the facilities need to be educated and trained as to how to report and track problems. At this time NATCA is coordinating a proposed schedule to bring facility Points Of Contact to the technical center in Atlantic City for a training class.
    - While not all NIDS POCs are NATCA, we have asked that up to two representatives from each facility be invited to the training class and one of them must be NATCA.
- The latest software build, designed to aid the NIDS/ACE-IDS interface, is to be installed and tested this week at PIT. At this time a collaborative process is ongoing as a maintenance software release is bundled and built.
    - The target date for deployment is May.

**NAS VOICE SWITCH (NVS):** Jon Shedden (ZFW) represents the membership as the Article 48 Representative to NVS. Mr. Shedden's report is below.

- **NAS Voice Systems (NVS)** demo labs are currently running on Build 11. Build 12 is currently in development. This is the beginning of the final development stretch leading into Factory Acceptance Testing (FAT) scheduled to begin in November 2016. Items identified in the EUIE (November 2015) have been written into requirements and submitted to the Systems Engineering Working Group.
    - The items are:
        - Mapping of A/G Frequencies
        - Position Chime Control
        - Voice Monitor Suspension
        - Spare Position Dialing
        - Button Labeling
        - Activity Indications
        - A/G Cross Coupling
        - Release of Incoming OVR Calls
        - Improving the readability of the display
        - Sidetone Volume Control
        - Contact list searching

  - Mr. Shedden was in Anchorage, AK January 10th-14th discussing voice switch requirements for Alaska FSS.
  - Mr. Shedden was in Melbourne, FL February 1th-5th for the NVS Technical Manual Conference.
  - The NVS Key Site facility representatives have been released and will visit the Harris Demo Lab in Melbourne, FL for an on-site familiarization February 8th-11th. During the visit the representatives will be hands on with the workstation and position equipment. They will also receive a full update on the current state of NVS.
- **Next Generation Air-Ground Communication (NEXCOM)** continues deployment of new CM300/350 V2 radios to terminal facilities across the country. Deployment is going well. Fifteen new radios are in work or are going operational in January at various sites across the NAS.
- **NAS Voice Recorder Program (NVRP)** is the replacement for existing NAS voice recorders (DALR, DALR2, DVRS, DVR2). Vendor meetings occurred between November 19th and December 3rd. There was an NVRP Stakeholder meeting on January 21st discussion requirements and information from the vendor RFI's (Request For Information). We will continue to work on refining requirements for the new recorder.
- The **Headset** contract (Plantronics) is expiring in June of 2016. The FAA program office is currently in the vendor selection process and expected to announce the selected vendor in the spring 2016 time frame. There will likely be changes to the availability of existing headset models regardless of the vendor selected, although the most popular models will remain unchanged.
- **Potomac TRACON (PCT)** is engaged in the SMS process to investigate the removal of their existing Emergency Communications System (ECS). Their existing system provides both A/G multi-cast capability and G/G backup. An SRM panel convened in August on the removal of the ECS identified 2 high hazards. NATCA and Tech Ops are engaged locally to address the continued maintenance of the system.
- **Grand Rapids Tower/TRACON (GRR)** is reporting multiple issues with their aging voice switch. The Voice Switching Team in Oklahoma City (AJW-1732) is working closely with GRR to resolve their issues. There's also a radio coverage/spectrum issue being worked, as well as an issue with Tech Ops Maintenance staffing and training.
- **Waterloo Tower/TRACON (ALO)** is reporting issues with the phone system used operationally in the tower. The issue is currently being worked through the ATSAP process.

**SURVEILLANCE BROADCAST SERVICES (SBS) OFFICE:** Eric Labardini (ZHU) is the SBS Article 48 Representative for NATCA. Mr. Labardini and the SBS Team have forwarded the information below to the membership.

- 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, 19,578 aircraft are equipped to broadcast with ADS-B Rule compliant avionics in the NAS. Current projections continue to fall short of the estimated total NAS fleet required to equip by January 1, 2020. Users that wait too close to 2020 may find that the availability of installers falls short of demand.
  - ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities.
    - Enhanced ADS-B coverage in the Gulf of Mexico is expected with the activation of three Radio Stations shared with Mexico. A successful flight inspection was completed at ZHU on Jan 12. ADS-B Coverage in the Gulf of Mexico remains a challenge with many Radio Stations located on offshore oil/gas platforms that are financially challenged.
  - 71 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 transition to Fusion follows and ADS-B IOC. The most recent and upcoming Terminal events:
    - Harrisburg (MDT) completed their ADS-B flight inspection on Jan 13
    - Detroit (D21) Fusion evaluations were successfully completed on Feb 27.
    - Lafayette (LFT) started Fusion operations on Feb 4
  - Newly IOC'd Terminal sites are starting operational use of ADS-B as the priority sensor (above radar) while Terminal sites that reached IOC prior are reconfiguring to do so. ERAM sites are beginning to promote ADS-B in sort cell rankings; this is a subtle change that takes advantage of ADS-B when available. ZHU has been running in this configuration since August 13. ZKC and ZLC promoted ADS-B on January 7. ZOB plans to promote ADS-B on Feb 18.
- **ADS-B Resiliency Assessment (ARA)**
  - NATCA SBS team members participated in a test of STARS, ERAM, and MEARTS. Observations were made at the Tech Center as the ADS-B network was subjected to simulated jamming and spoofing events. The jamming events were seen by the participants as similar in nature to any other surveillance loss. Spoofing events were more concerning as this introduced false indications from avionics. The results of the test are being compiled for further discussion.
- **ADS-B System Wide Test**
  - NATCA SBS team members traveled to Salt Lake City to observe a coordinated test of system outages. As individual Radio Station components were disabled, team members observed on STARS, ERAM, and ASDE-X. The objective of the test is to better understand system responses, reduce operationally unnecessary alerts, and ensure automation systems are responding appropriately. Test results are being compiled for further discussion.

- **ASDE-X Tech Refresh:**
  - All sites that originally received ASDE-X signed on to receive the Tech Refresh. The team hopes to have the final site completed in October.
  - EWR received an enhancement to the system which allowed them to notate construction zones on the display. Dan Hamilton is waiting to hear back from the facility. Assuming they are happy with that enhancement, the team will offer that to other ASDE-X sites.
  - The ATSAP program is doing a great job of communicating problem reports with Dan Hamilton and NASE Engineering. This allows for the team to solve issues with greater efficiency.
- **ASSC:**
  - Surface Movement Radar (SMR) integration efforts continue in addition to a new wireless system for the remote units (RU's). Originally, the communication from the RU's to the system hub were wired. Though testing at SFO the technical team discovered that wireless communication was more efficient, had less problems and was more cost effective.
  - SFO is the key site for ASSC. The team is in the process of installing a new ASSC system in the new tower which is currently scheduled to commission in late October of this year. It is the intention of the ASSC team to IOC the system when the new tower at SFO commissions. A timeline has been developed by the team to achieve that October date, which include: Delta training; Field Familiarization and OT&E (operational testing & evaluation) that is conducted by the Tech Center.
  - The team will be conducting outreach briefings at MCI and CVG the week of February 15th.
  - Communication between NATCA and the program office has improved significantly.
- **CLT WAM:**
  - A Flight inspection was conducted February 2-3. The team identified a problem with reception of ATCRBS targets which halted the event early. Analysis continues and once a solution is implemented the flight inspection will be rescheduled.
- **GIM-S:**
  - ZHU - activity still on hold pending TBFM issues resolution
  - ZLC – Adaptation design activity scheduled for the week of 22 February at WJHTC. IOC still scheduled for the end of April
  - ZDV – Adaptation design activities completed for site. Training and procedure development on going. IOC still scheduled for March 14th on NE arrivals.
  - ZSE – Adaptation design activity scheduled on site the week of February 8th utilizing Mitre's mobile TBFM setup. IOC May 1st
  - ZME – Early discussion with both ZME and ZTL indicate everyone's willingness to move forward with ZME utilizing GIM-S for ATL arriving traffic. Hopeful for IOC by the end of April.
- **FMA and Fusion:**

  - Received a briefing on the schedule of safety analysis activities needed to allow FMA use with Fusion. The effort is projected to take 18 months or less and cost is estimated at $1.45 million.
  - If all holds to schedule, then an operational start at the keysite could occur by June 2017 with other sites to follow shortly afterward.
  - A kickoff meeting for the effort is planned for Feb 17.
- **Vehicle ADS-B:**
  - Outreach briefings will be conducted at IAH and HOU the week of February 8th
  - All previous issues at LAX have been resolved, and the team hopes to start the installation and programing of equipment in the near future
  - The team is working with CLT to resolve some callsign issues, with the goal of going live in March.

**UNMANNED AIRCRAFT SYSTEMS (UAS):** Steve Weidner (ZMP) is the UAS Article 48 Representative for UAS and is assisted by Jeff Richards (ZAU). Their update for this week is below.

- **NATCA/FAA UAS Working Group**
  - NATCA and the FAA recently entered into an agreement to create a UAS working group.
    - This working group will consist of two NATCA and two FAA members.
    - The purpose of this working group is to address issues resulting from the impact of Unmanned Aircraft Systems (UAS) operating within the National Airspace System (NAS). Steve Weidner (ZMP) and Jeff Richards (ZAU) will be the two NATCA members on this workgroup.
    - The FAA has yet to name their two members.
  - This workgroup has the ability to establish sub-workgroups to support the activities of the UAS initiative. We'll provide more information as this effort progresses.
- **Syracuse Air National Guard Operations**
  - The Air National Guard would like to begin conducting MQ1/MQ9 unmanned operations from the Syracuse airport.
  - This operation will be the first time sustained unmanned operations will be integrated into an FAA controlled, civilian/commercial airport. Given the ground breaking nature of this operation, NATCA and the FAA will be holding workgroup meeting on February 11-12 in Washington DC to ensure all procedures and issues with this type of operation are addressed.
  - The product of this workgroup will enable the FAA and the Air National Guard to construct an LOA that works well for all involved. The North Dakota Air National Guard is proposing similar operations from the Fargo, ND airport. NATCA and FAA representatives from Fargo will also be participating in this workgroup.
- **Hobbyist Notification Requirement**

- NATCA continues to work on the Hobbyist notification requirement via an AJV-7 sponsored workgroup. As stated in last month's update, the agency distributed a checklist and a guidance memo to the field facilities as a short term solution to this requirement. NATCA has requested an Article 7 briefing on this guidance.
- An Article 7 briefing was scheduled with the FAA, but due to the snow storm that hit DC, that briefing is being rescheduled.

- **UAS at CFS**
  - There will be a large UAS presence at CFS this year.
  - NATCA will be moderating a panel discussion on UAS on the main stage of the conference. NATCA has invited panel participants from the FAA, the DOD, Google, Amazon, NASA and IFATCA to participate.
  - NATCA will also be conducting two UAS breakout sessions.
    - One session will be focused on small UAS (under 55 lbs) operations.
    - The other will be focused on larger UAS operations.
    - NATCA is also working with General Atomics and Northrup Grumman to provide Predator/Reaper (MQ1/MQ9) and Global Hawk (RQ4) Ground Control Station (cockpit) simulators for our vendor area.
    - We are also attempting to have MQ1/MQ9 and RQ4 pilots on hand at the displays to interact with the attendees and answer questions.

Dale Wright

Dale Wright
Director, Safety and Technology