



National Air Traffic Controllers Association
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SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending March 4, 2016

DATAComm: Chad Geyer (ZLA) is the Article 48 Representative to DataComm. Mr. Geyer's update for the week is below.

- This week LGA and LAX are running File and Fly operations. File and Fly is where airlines that are planning on using Controller Pilot Data Link Communications (CPDLC) file for the departure clearance (DCL) service and receive their clearances directly to the flight deck.
 - The sites will verify the clearances via voice read back to validate the service. The site will continue to validate clearances until the Local 48 Team decides that the system is working as designed.
 - This is called IOC or Initial Operating Capability.
- LAS and CMH are scheduled to install Version 12 of the Tower Data Link Services (TDLS) system. This will be a two day event. Processor B will be up-leveled on the first day and the local 48 team will have to build their facility adaptation in the middle of the process.
 - Once processor B has run for approximately 24 hours with no issues, tech ops will up-level processor A. The facility will now be running completely on Version 12. The next night the 48 team will ensure that the new interface is passing correct data through the TDLS ERAM Direct Connect (TEDC).
 - This is usually completed in one night on the mid shift due to the fact the Center will have to test both connections with the ERAM back up channel in test mode. The TEDC connection gives the site access to the full routing in the editor window, passes departure messages to the system, and also passes route information that is needed to build fully loadable routes into the flight management system.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) is the IDS-R Article 48 Representative. Below is his latest report.

- Since the last update on the IDS-R program the Joint Resolution Council meeting was, once again, postponed. The latest proposed decision date is March 16.
 - The program office keeps getting requests for "more data" from the JRC. At this point there doesn't seem to be much more data to share and we are all hoping for a decision one way or another. To review: the FAA (IDS-

- R program office) is proposing to end the NIDS program upon completion of 41 networks.
- This does not mean that the NIDS facilities will not receive support. The FAA will be required to support all of the operational NIDS facilities until a new product comes along.
- The end date of the waterfall is still set for May 2017 and the proposed date for the rollout of a new IDS replacement product (EIDS) is spring of 2021.
- While the FAA has moved the IDS-R trouble reporting system into AIMS they didn't take into account that facilities would need education on the new system.
 - The FAA has agreed with NATCA's request to hold AIMS familiarization sessions and invite all the impacted networks to attend. While the first session will take place this week the FAA has already had to reevaluate the schedule because of funding issues.
 - Discussions are taking place to coordinate sending NATCA IDS-R SMEs to facilities instead of the facility representatives traveling to the Technical Center in Atlantic City. It seems that the two travel options listed above are funded differently and SME travel is not facing funding issues.
- The latest software release (Maintenance Release 1) will be tested at the Technical Center in March and is, assuming it passes testing, scheduled for a June release date. There are over 100 "fixes" being bundled into this build and testing will obviously be extensive.

REPRESENTATIVE NEWS:

- **RUNWAY SAFETY ACTION TEAM (RSAT) REPRESENTATIVE:** The NATCA National Executive Board (NEB) confirmed the selection of Bridget Gee (DFW) as the next RSAT Representative.
 - Ms. Gee will replace Ric Loewen (DFW). Mr. Loewen has been a long time NATCA RSAT Representative, former DFW FacRep and the RWSL Article 48 Representative. His work has been excellent and as he moves on the department will miss working with him.
- **TAMR:** Mitch Herrick (MIA) has announced his retirement effective in July of 2016.
 - Mr. Herrick has been a very active Article 48 Representative and he will be missed. The Safety and Technology Department will be working with NATCA Leadership to name a replacement for Mr. Herrick in order to provide a smooth transition.
 - The department would like to thank Mr. Herrick for his service to the union and his outstanding work on not just TAMR but also the Section 804 work.

SURVEILLANCE BROADCAST SERVICES (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, 20,423 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 3 years and 9 months to the January 1, 2020 deadline to equip, concern is apparent 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.
 - ADS-B IOCs have been completed at all EnRoute (ERAM and MEARTS) facilities.
 - 74 of 154 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:
 - Detroit (D21) achieved Fusion Operational status on Feb 10
 - Harrisburg (MDT) ADS-B IOC on Feb 11
 - Greensboro (GSO) Kickoff on Feb 23
 - Evansville (EVV) ADS-B IOC on Mar 2
 - Evansville (EVV) Fusion OSD on March 8
 - Harrisburg (MDT) Fusion OSD on March 8
 - On March 3, ZHU enabled the expanded Gulf of Mexico ADS-B Radios. These three Radios are based in Mexico and help fill in surveillance coverage for the southern part of the GOMEX airspace. This was a significant goal for the SBS PO in FY16.
- **ASDE-X Tech Refresh:**
 - In mid-February, there was a significant system outage due to a GPS time server issue within the system. Dan Hamilton is working with the system support team in Oklahoma City to determine why the outage occurred, and ensure this issue does not happen again in the future.
- **ASSC:**
 - ASSC Continues moving forward in a positive direction. The team is still on track to IOC the system at SFO, (the key site) in mid October of this year. CLE will follow in early 2017.
 - Outreach briefings took place in Late February at MCI and CVG. Thank you to both facilities for their hospitality! An outreach briefing is scheduled for MSY the week of March 28th.
- **CLT WAM:**
 - Air Traffic Cadre training was completed on Feb 24.
 - A regression flight inspection is planned for April 5-7.

- Per agreement between CLT and the SBS PO, the current targeted IOC date for WAM at CLT is May 24, 2016.
- **Communicating for Safety:**
 - SBS PO and NATCA SBS personnel will once again support a booth at CFS. The emphasis continues to be on ADS-B but we will have personnel on hand to answer Fusion, ASSC, Vehicle ADS-B or other questions. Please stop by with your questions!
- **FMA and Fusion:**
 - A kickoff meeting for the effort was held on Feb 17.
 - An SRM Panel is planned for the week of April 25. Participants from multiple FMA sites are anticipated to attend.
 - If all holds to schedule, then an operational start at a keystone could occur by June 2017 with other sites to follow shortly afterward. The effort is projected to take 18 months or less and cost is estimated at \$1.45 million.
- **Fusion:**
 - NATCA SBS supported the R3 Drop 5 OT&E event at SoCal TRACON (SCT). There has been a significant amount of progress made on identified anomalies. However, the airspace continues to be a difficult radar environment and long term surveillance solutions are needed.
 - There is an anomaly at EVV on their TDW that will be investigated this week. The Fused target symbol enlarges abnormally in a TraCab configuration at a 60nm range. More information to follow.
- **GIM-S:**
 - ZLC lab adaptation design complete at WJHTC. Adaptation delivered to facility support string for further testing
 - ZDV Procedural development completed. Training nearing completion. IOC on track for March 14th
 - ZSE lab adaptation design demo completed.
- **Merging & Spacing**
 - Meeting scheduled at ZBW for March 16th to discuss a path forward for Merging and Spacing Operations, a precursor to Flightdeck Interval Management (FIM) and Advanced IM applications.
- **Space Based ADS-B:**
 - The SBS Article 48 Work Group was privileged to attend tours of Orbital Sciences, Iridium, and Space-X on March 3-4.
 - Orbital Sciences is charged with assembly of the Iridium Next satellite constellation. The primary payload is responsible for satellite phone and similar comm systems. In addition, the satellite will host an Aireon ADS-B payload capable of providing seamless worldwide surveillance. The assembly process is quite technical and impressive in its scale. The early assembly process is a bit slower than later stages as the processes and end product are subjected to more scrutiny. Once cleared for higher rate

production, one satellite every six days will be the expected norm. A total of 81 satellites are scheduled to be produced.

- Iridium's control center demonstrated their highly specialized testing and control facility. A fully functional backup control center is maintained at the Phoenix location capable of monitor and control of the satellite network. On site testing of satellite communications equipment and ADS-B are performed in stringent laboratory conditions. Actual satellites are subjected to isolated, injected data tests. Surprisingly, even in the enclosed environment the ADS-B antennas on the satellite can still pick up ADS-B air traffic in the Phoenix area.
- Space-X is the prime contractor responsible for launching the Iridium Next satellites. The facility in Los Angeles is capable of manufacture of their rocket delivery system from the ground up. From rocket engines, to fuel bodies the height of a small building, to advanced payload capsules, this facility manufactures it all. It felt very much as if we were stepping back into the days of Apollo missions, but so much more advanced. Truly an amazing facility. The Space-X Falcon 9 launch system a two stage rocket with the first stage designed to have enough fuel to fly the booster rockets back and land vertically with a system of aerodynamic fins, leg extensions, and gimbaled thrust. The Iridium/Aireon satellites are expected to be launched ten at a time via the Falcon 9. Iridium launches are expected to be complete by late 2017.
- **Vehicle ADS-B:**
 - Deployment efforts are underway at LAX, CLE, CLT and MEM.
 - Outreach briefings took place at IAH and HOU in mid-February. The team would like to thank both facilities for their hospitality.



Dale Wright
Director, Safety and Technology