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SAFETY AND TECHNOLOGY DEPARTMENT UPDATE

Week ending December 11, 2015

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

- The DataComm Segment One Phase One (S1P1) activity was successful in obtaining an In Service Decision (ISD) last week. This means that the DataComm Departure Clearance Service may continue with the remaining 53 waterfall sites.
 - One of the issues that needed to be resolved prior to the ISD was training. The group in OKC that was programming the ELMS course failed to incorporate keyboard exercises into the ELMS platform NATCA and the agency have come to an agreement on how instructor led training can be used until another vendor can fix the issue.
 - Both sides were very busy meeting with the agency to come to an agreement that would move the ISD forward.
- The four Key Sites have up-leveled the software in Version 12 of the Tower Data Link Services (TDLS) System to incorporate the "UBER" build.
 - This build was a requirement between NATCA and the Program Manager to ensure that a more efficient CHI was used for the waterfall sites. The Key Sites agreed to use a less efficient CHI during implementation and testing knowing that the low equipage would not create an overabundance of increased workload.
 - The TDLS system also incorporated efficiencies in PDC which help offset any additional workload on the controller.
 - The Key Site local 48 teams were also involved with the "UBER" design. Initial reports from the Key Sites validate that the new design is user friendly and more intuitive to the controller. There will continue to be enhancements and Trouble Report resolutions throughout the waterfall in 2016.
- New Subject Matter Experts have been selected to help with the deployment of Version 12 of the TDLS system. The program office is currently working on how these new SME's will be trained and used in the field to help support implementation. Additionally, local SME's will be used at upcoming waterfall sites to help with implementation and their scheduled training is being developed as well.

INTEGRATED DISPLAY SYSTEM REPLACEMENT (IDS-R): Richie Smith (N90) is the IDS-R Article 48 Representative for NATCA. His report to the membership is next.

- Due to the federal government funding deadline last week two facility visits had to be postponed: CID and MKE. The Program Office is trying to reschedule these visits to the first week in January that does not conflict with other travel- January 19-22. CID needs their network to be upgraded to the latest operating system and MKE needs to be

introduced to the newly instituted issue/problem reporting processes that are currently being used in ERAM and other programs.

- NATCA participated in meetings to discuss the next wave of software releases. An agreement was reached between the FAA and NATCA opting for the next maintenance release from All Weather Inc. (AWI) to be delivered to the FAA for testing and ready for deployment by June of next year. Further builds are being discussed with the idea of quarterly releases in mind.
- While the PO is slated to present its proposal to the Joint Resolution Council (JRC) on January 20th they have also constructed a proposal to reduce the scope of NIDS deployment. This proposal reduces the number of NIDS networks from the original 71 stated in the waterfall schedule to 41. The "eliminated" facilities will be individually contacted with the news. This proposal is of course financially driven and takes into account the next IDS replacement product known as EIDS. A large concern about this course of action is that EIDS is projected for deployment in 2021 at the earliest.

NAVAID MONITORING EQUIPMENT (NME): Corrie Conrad (PDX) represents NATCA as the Article 48 Representative to the NME project. The group was not able to complete the initial Operational Safety Assessment last month. The team is scheduled to meet again January 12 – 14, 2016 to complete the assessment.

NAS VOICE SYSTEMS (NVS): Jon Shedden (ZFW) serves the membership as the NVS Article 48 Representative. The NVS update for this week is below.

- **NAS Voice Systems (NVS)** is in the process of deploying Build 11 to the FAA demonstration labs (ACY, OKC, MLB). This is the beginning of the final development stretch leading into Factory Acceptance Testing (FAT) schedule to begin in November 2016. We continue to work functionality and human factors issues.
 - The NVS Key Site facility representatives have been identified and are tentatively scheduled to visit the Harris Demo Lab in Melbourne, FL for an on-site familiarization in February 2016.
- **Next Generation Air-Ground Communication (NEXCOM)** continues deployment of new CM300/350 V2 radios to terminal facilities across the country. Deployment is going well with only one minor issue identified so far. Nineteen new radios are going operational in December at various sites across the NAS.
- **NAS Voice Recorder Program (NVRP)** is the replacement for existing NAS voice recorders (DALR, DALR2, DVRS, DVR2). The NVRP program is currently in the middle of vendor selection. There are tentative meetings scheduled for January to define/refine requirements of 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 currently 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.
- The FAA may convene an additional panel to readdress the identified hazards.
- **Grand Rapids Tower/TRACON (GRR)** is reporting multiple issues with their aging voice switch. There has been a Corrective Action Request (CAR-2015-027) issued to investigate.

SURVEILLANCE and BROADCAST SERVICES (SBS) OFFICE: Eric Labardini (ZHU) is the SBS Article 48 Representative. Mr. Labardini and the reports of other SBS Representatives are below.

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 18,000 aircraft (over 10%) are equipped with ADS-B Rule compliant avionics in the NAS. The SBS Program Office is raising the concern with the user community in meetings such as Equip 2020 and others regarding the projected growth of ADS-B equipage versus the January 1, 2020 deadline to do so. Current projections fall short of the estimated total NAS fleet required to equip. Users that wait too close to 2020 may find that the availability of installers falls short of demand.
- ADS-B IOC's have taken place at all ERAM and MEARTS facilities.
- 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 Terminal events:
 - Fresno Fusion, December 1
 - South Bend ADS-B IOC, December 3
 - Savannah Fusion, December 8
- In addition, new Terminal sites reaching IOC are promoting ADS-B as the priority sensor (above radar) while prior Terminal sites are reconfiguring to do so. A plan to promote ADS-B in EnRoute site sort cells is being developed, and ZHU has been running in this configuration since mid-August.
- All ADS-B Baseline Radio Stations have been deployed across the NAS providing all the necessary coverage to at least equal radar coverage if not exceed it. Expansion Radios are being deployed in:
 - Mexico (3 feeding the Gulf of Mexico)
 - Adak, AK
 - Bishop, CA
 - And two Radios as each of the nine ASSC sites

ASSC:

- On Monday, December 7th, the ASSC SRMP reconvened for the 6th time. Due to the Agency's direction to integrate non cooperative radar, the panel was able to mitigate the high risk down to an acceptable level. All other existing risks remained the same or were

mitigated down as well. The SRMD is now in the process of being updated, then it can be sent out for review.

- Due to the addition of SMR (surface movement radar) the agency has requested the team reevaluate the RU (remote unit) constellations at ASSC sites. Rather than the 18 that was in the initial baseline, the agency's goal is to reduce that RU number to roughly 10 per site. The team is doing some analysis to determine the best approach moving forward so they can provide controllers with the best product possible.
- Meanwhile out at SFO, installation of ASSC continues in the new tower that is scheduled to commission October 2016. The team is confident they can have the system ready to go by that commissioning date. Unfortunately, the Program office continues to state that the new tower at SFO will commission with ASDE/AMASS. This remains a hot topic of discussion within the program. Schedules are being coordinated between the ASSC team and SFO tower to finalize a timeline to achieve ASSC IOC in October 2016. As soon as that timeline is firmed up, the team can schedule CLE to follow right behind SFO. Dan Hamilton will be reaching out to all sites on the ASSC waterfall list in the upcoming weeks.

CLT WAM:

- To date Fusion has not been operationally suitable at CLT Approach. The two radars available provide inadequate overlapping coverage, which leads to stitching, target jump or other anomalies. In order to reach Fusion, CLT will require an additional surveillance source. SBS is pursuing a solution used in ERAM and MEARTS call Wide Area Multilateration (WAM). Through multi-Radio triangulation, an aircraft's transponder location can be found to a high degree of accuracy. By design, the WAM system in CLT will also provide sensor update to the automation system every 2.3 seconds.
- Multiple flight tests by the vendor have taken place and Air Traffic will examine airspace coverage during a Flight Inspection planned for the first week of February.
- An informal assessment took place on December 8 and the results looked very promising. Participants included CLT NATCA, OSF, NATCA SBS, and many others. Technical issues continue to be overcome, but the lengthy, bureaucratic approval process for an SRMD looms on the horizon.
- WAM may be a solution for other sites, but it is only intended to open the door to Fusion and thus ADS-B use. ADS-B adds another layer of surveillance with equal accuracy and even faster update rates.

GIM-S:

- Ground-based Interval Management with Spacing
- ZLC Orientation meeting took place on the 3rd of December. Bi-weekly meeting now scheduled to start in January. Waiting for the site to determine which cornerpost(s) will be implemented in the first adaptation. IOC tentatively scheduled for April 2016.
- ZMP standing down on any future work until ZAU TMU staffing can support participation.
- ZDV adaptation delivered to the facilities support string. Waiting to get feedback from site on progress. IOC still scheduled for February 2016.

FIM:

- Flight-deck Interval Management
- IM-S AA&C (Arrivals Approach and Cruise) ConOps v2.1 completed and out for comments.
- American Airlines Merging and Spacing Operations resumed on December 8th and will be continuing into next year.

FMA and Fusion:

- A Flight Standards conducted study removed the requirement for high update sensors in multiple closely spaced parallel runway configurations. This study also called for FMA use in multiple configurations as specified in 7110.693. However, the study failed to account for the use of Fusion. This has left multiple sites in a position contrary to SBS guidance where controllers are required to move from one display update rate to another. In order to remedy the situation, a new safety study must be conducted that proves that Fusion is safe for use in FMA. NATCA has been working closely within AJV, SBS, and TAMR to try and expedite the issue across multiple departments.

MEARTS Fusion:

- Work continues on separation standards analysis to support the MEARTS 3nm Fusion SRMD. SBS targets completion of the draft SRMD by the end of FY16, and an operational IOC at the HCF key site soon after.

Space Based ADS-B (SBA):

- Monthly meetings between the Agency and Aireon continue to target a completed launch cycle by 2017. The network of 72 satellites will open the door to enhancements in the oceanic environment including dramatic improvements in search and rescue and potential Reduced Oceanic Separation (ROS). The Agency is pursuing Phase 1 as ingestion of SBA in ATOP to enhance situational awareness by 2018; however, no separation standard is directly tied to SBA. SME input has led to the understanding that this may lead to undesirable complications, and the Agency is reevaluating their approach to ATOP modifications. Phase 2 is ROS by 2020 or later, and the Agency is evaluating alternatives that include SBA and faster ADS-C reporting.

Vehicle ADS-B:

- 652 equipped vehicles at 12 airports. The team continues to gather data in regards to STIR regions and hopes to have a plan forward soon. An outreach at FLL will take place on December 14th, with HOU and IAH to follow sometime in January. NATCA and the FAA have come to a mutual agreement in regards to the LAX transmit map, and we hope to start installation and deployment in the near future. ARP and AJM provided comments on an Airports Council Int'l draft rulemaking petition for the Code of Federal Regulations to expand the areas on the airfield where vehicle squitters can transmit. The Airports Office is planning a meeting in December with ATO to discuss the petition.



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