NATCA Safety & Tech Update
Week of February 20, 2017

COLLABORATIVE DECISION MAKING (CDM): Kyle Andrews (ORD) is the NATCA Representative to the Surface Concept Team (SCT). Mr. Andrews forwarded the information below for the membership.

The Surface Concept Team has no scheduled meetings or telcons for the month of February. The next telcon will be March 1, 2017, to discuss the latest CDM-SCT tasking, which is to engage industry and other users in the ongoing surface activity. The SCT will next meet in person at the CDM Spring Session in Dallas on April 11, 2017.

NextGen Distance Measuring Equipment (NG DME) Program: Samed Rizvi (PCT) is the NG DME National Representative. Mr. Rizvi forwarded the information below for the membership.

MITRE was tasked with providing a preliminary analysis of impacts on operational procedures due to the discontinuation of 135 DMEs not needed for the NextGen DME solution. The analysis examined procedures in which the stated DMEs were necessary in performing the procedure and focused on ILS, LOC, VOR, and VOR/DME procedures.
The analysis found that 743 IAP's depict one or more of the 135 DMEs of interest. Out of these, 134 IAPs require the use of one of the 135 sites. 44 of the 134 effected IAPs will have mitigations from the VOR MON program leaving 90 IAPs that may require separate action if DME discontinuation is pursued. Some of the mitigations would amend minima, amend the procedure, change the missed approach procedure, require GPS, or possibly cancel the procedure in its entirety.

NextGen DME does not intend on pursuing the discontinuation of any DME's sites that are co-located with VOR's that are being retained by the VOR MON program. With that in mind, the realistic number of effected DME's that will have an impact on IAP's is between 50-60.

MITRE's analysis did not include RNAV SIDs and STARs and they will be conducting an analysis of those as a separate task.

There have been no determinations made on how to act on the results of the analysis.

RNAV and PERFORMANCE BASED NAVIGATION (PBN): Bennie Hutto (PCT) is the Article 114 Representative for RNAV and PBN criteria work. Mr. Hutto's report for the membership is below**.**

PBN Criteria Update:
Pilot Controller Procedures & Systems Integration (PCPSI)
A meeting was held on January 30th-February 1st in Phoenix, AZ were will discussed the following:
Guided Visual Approach
The PARC leadership tasked the Pilot Controller Procedures and Systems Integration (PCPSI) working group to evaluate the "Guided Visual Approach" concept.
Guided Visual Approach has a near term goal under the PBN NAS NAV Strategy 2016, which states, "Developing and implementing an operational capability that leverages the predictability and repeatability of PBN instrument approach procedures and the efficiency of visual separation standards. This will be achieved through updating standards, phraseology and training, and will not require new IAPs. This combination is expected to result in enhanced safety and efficiency during visual conditions without the added complexity of multiple approach procedures".
PCPSI will develop a proposed concept of use and implementation recommendations for this capability, taking account of prior efforts and other initiatives. For example, use of this capability seems to be most appropriate for multiple runways, simultaneous operations (perhaps as an extension of "Established on RNP (EoR)", or at airports where the procedure can be used like an RNAV Visual Flight Procedure (RVFP) to improve stabilized approaches.
The PCPSI is not completely clear regarding the GVA request. Is this to be used with EoR? Those in attendance at the latest PCPSI were questioning the value of the clearance because they were not sure if this would be used as a means to fly into clouds or turn to avoid them. I believe the PCPSI WG needs to receive a more formal briefing before any substantive discussions can truly occur?

TCAS-Windshear Phraseology

Received briefing from Wes Olson, MIT where they provided information that stated "radar data shows pilots are complying with initial 1500' climb/descend RA by only 20% and 2009 EU study indicates only 50% of RA's are reported. This was tied to frequency congestion being an issue, delays of 15 seconds before pilot reports RA to ATC, RA is over by the time pilot reports it, and some pilots reported the direction of the RA as opposite of the actual command. They believe less is best by stating "TCAS RA", then "Clear of conflict," followed by pilot's intentions such as returning to last assigned altitude or request new instructions, etc. PCPSI will make formal recommendation to PARC to simplify the phraseology and standardize with existing Advisory Circular, which will enable ATO and AFS to initiate the changes and it may require a change to recommended phraseology in TCAS II v7.1 Intro Booklet.

The PCPSI will make similar recommendations for Windshear Escape phraseology as used with TCAS to keep it simple.

Obstacle Departure Procedures

Application of an Instrument Takeoff from the cockpit is covered with guidance to the average aircrew, FAR 91.175 (f), AIM 5-2-8, and Ops Specs as specified in a manual approved by FAA. There are three ways to depart when vectors are issued by controller at Towers using either an Obstacle Departure Procedure (ODP), Diverse Vector Area (DVA), or 7110.65W 5-6-3 vectors below MVA. Section 5-6-3 of the FAA 76110.65 is very specific about 3 miles' separation minima required, must be 40 miles from antenna, must Vector away from Prominent Obstacles, and comply with 7210.3Z.

When 40:1 obstructions exist, then DVA is mandatory to issue heading off runway not part of another procedure and when 40:1 obstruction, FAA 7110.65 and AIM guidance that heading off runway can only be issued if guaranteed one of three ways are available. It was discussed that some facilities are not applying the guidance required, but AJV8 needs guidance from PARC to proceed and PCPSI is drafting formal recommendation.

STAR Runway transition guidance and runway changes after Runway Transition Waypoint

The PCPSI has been working to revise current FAA 7110.65 guidance to allow runway changes while established on a STAR runway transition provided the lateral and vertical paths don't change. After reviewing the DCP with the proposed language and guidance, there was no opposition raised and the formal process to add the guidance to 7110.65 will proceed.

STAR Runway Transitions
Currently two methods are used for ATC to assign runway transitions, one being assigning a runway number (*DESCEND VIA DRONE ONE ARRIVAL RUNWAY 21*) and the second uses a landing direction (*DESCEND VIA DRONE ONE LANDING SOUTH*). Using landing direction leaves industry to believe the clearance is not explicit and requires use of a chart note. Industry would like to have all runway transitions assigned using runway numbers as that is how their FMS are configured, but we still feel there is values using landing direction, but need to ensure all facilities uses the criteria as defined within FA 8260.19G when describing these on the charts. We are still working with the various workgroups as well as AJV-8 and AFS to see if changes in language is required to ensure pilots and controllers understand what is to occur when landing directions are used.

ICAO CV/DV Phraseology
We have been receiving briefings from Nav Canada who continues to closely participate and add value to the PCPSI. The interaction has resulted in information exchange, education and increased harmonization of phraseology and procedures, however concerns related to the "differences" between US & ICAO CV/DV will start to emerge as different states implementing at different times and can potentially tailor the phraseology with no mechanism in place to track implementations and changes, which could set pilots and controllers up for potentially failure.

The debate is underway between implicit vs. explicit clearances where implicit clearances reduce phraseology such "DESCEND VIA FREDMM THREE" and explicit clearances add barriers of protection such as DESCEND VIA STAR 4000". The PCPSI believes having IATA participate in the PCPSI could help, but still they still believe we need a more effective path of communicating issues with ICAO.

PARC NAV WG
A meeting was held on February 1st – February 2nd in Phoenix, AZ were will discussed the following:

RF/TF Concurrent Ops Action Team

Prior to the meeting, the Co-Lead drafted an "options tree" for the team review and discuss. He had prepared a matrix of the options when the discussion points could be captured; each option was discussed at length and information about responsibility, workload, pros and cons, cost/schedule and constraints were captured. The discussions were wide-ranging, and the pertinent information was captured in the matrix. There is still concern about the difficulty of designing turns up to 180 degrees using multiple fly-by fixes as the construction is very sensitive to aircraft and wind speed, however the options are being captured within the options tree and the tradeoff matrix.   Further details of the discussions are captured in the tradeoff matrix, which will be revised and re-issued for review prior to the next (March 1) teleconference.

Some members have a follow-on action to edit the information in the matrix to make it more readable, and will also update the options tree with one more branch. This will be completed prior to the team telecon on March 1 for discussion during the virtual meeting.

Review of Planned Implementation for Historical Winds

FAA has asked MITRE to implement the PARC recommendation regarding use of local historical winds as a plug-in to TARGETS. The criteria in 8260.58A does not specifically state whether or not components of winds outside of the turn area that are larger than those contained along the boundary of the area should be considered. The MITRE implementation considers those components and AFS 420 requested the implementation be brought back to the Nav WG for review. A figure was presented to illustrate the method and explain the components, and after discussion the WG agreed that the method was good and should be used. It was further noted that MITRE was also trying to simplify the data storage (there are very large amounts of data associated with the recommendation) to help AJV and other users of TARGETS when they want to apply local winds to a specific design.

RNP to GLS/LPV Recommendation

It was reported that the RNP to ILS criteria with temperature compensating shallow segment has been reviewed and tested substituting both a GLS and LPV final segment by all manufacturers. Review and testing of the current ILS criteria applied to LPV and GLS has been supported by Boeing, Honeywell, Rockwell Collins, CMC, and Universal. A draft recommendation to extend the 8260.58A Appendix for ILS to the GLS and LPV final segment will be written and circulated prior to the next telecon for possible approval and forwarding to the SG.

Discussion of High Priority Issues for 2017
There are four issues from the 2017 list that remained "high" priority after SG review in January. They are RNP to ILS extension to GLS/LPV, Minimum straight segments around DA for AR procedures, PFAF rounding to nearest 100 feet, and RNP Ops approval streamlining / simplification. Since the extension to GLS/LPV has now been drafted, and the minimum (50 second) straight segment issue is being worked in background by Airbus; the team decided to work the PFAF rounding first and later in the year tackle the RNP Ops Approval process after completing the RF/TF Concurrent Ops action team report on the trade space. It might be possible to complete this work in time for the updated AC90-101A.

Vertical angle on the FAF
During RNP to ILS testing of the shallow segment designs it was found that the data suppliers were by default coding the final segment angle on the FAF, negating the shallow segment (which is around 2 degrees). Review of ARINC 424 standards and the processes with the suppliers revealed that the blanket extension of the final segment angle into the intermediate segment, while necessary in the rare instances where there was a step-down in the intermediate, was being applied to all precision approaches. The standard allows no angle on the FAF as an option, which should really be applied in most cases. A white paper has been written and will be taken to the ARINC 424 meeting in March for review.

New Business:
It was requested that the working group discuss criteria that requires an intermediate fix (IF) to be within 15 track miles to the runway. SWA requested the language be changed to 15NM from the airport (altimeter setting source). The group agreed that we would add this to our issues list for proposed future action.

Established on Departure Operations (EDO)
The last EDO HITLS were conducted during the week of January 30th and we are finalizing the information that will used for the Fast-Time Simulations, which we believe will be accomplished during our teleconference on March 2nd. Ben Willems (Tech Center) who was in charge of the HITLS is going through all the data and preparing his draft briefing. Once the FAST Time Simulations are completed, they will also prepare a draft briefing and we plan on seeing both of these draft briefings by March 31st with the final briefing to be completed on April 21st. We plan to have telcon and or meeting to go over all the information to ensure it has been captured correctly in order to make the decision to move forward with an SRMP, revise the information, or scrap the concept.

National Strategic Production Planning (NSPP)
We meet every Tuesday and discuss the procedures that are scheduled for implementation across the country and have no issues to report at this time.

Digital Approach Procedure Initiative
The phase two initiative to the advertise the primary approach on the ATIS as an RNAV (GPS) or RNAV (RNP) approach when weather conditions are below Visual Approach minimums has been canceled for PHL, SJC, SMF, and NCT as the request from RTCA was accomplished with phase one.

TERMINAL AUTOMATION MODERNIZATION REPLACEMENT (TAMR): Aaron Rose (NCT) is the TAMR Article 114 Representative for NATCA. His report to the membership is below.

Are you feeling TAMR? 5 more facilities this reporting period felt the impact of NATCA TAMR. Whether it was moving to new processors and software or transitioning completely from ARTS to STARS; DAB, D21, MGM, LEX, and CVG all joined the TAMR family. Thank you to all the FacReps and controllers that made this possible. Thank you also to the TAMR SMEs who never stop working for the membership.

Mr. Rose started this reporting period with telcons involving the future of terminal simulation. Bill Spence (BTV) and Tom Marynik (ZAB) have been giving up countless hours towards improvements to both AT Coach and a terminal version of the Enroute tool SPOT (Scenario Processing and Organization Tool). The three of us attended a call with TAMR program office for a way forward for funding and development of Terminal SPOT.

Mr. Rose also attended numerous JSS (Joint Site Surveys) and ISS (Initial Site Surveys) via phone.

Within the NAS there are 5 STARS LITE facilities and 4 ARTS IE facilities still in operation. TAMR within the next 3 years will replace equipment these facilities use on a daily basis. TVC, LRD, SAF, and GCN are all NATCA facilities. NATCA TAMR will be making contact with the FacReps very soon to discuss the new software, hardware, and training that accompany the transition. For the remaining facilities, (EGE, ESN, SLN, RDD, and DBQ) NATCA will be instrumental in transitions and ensure these FCT towers (Federal Contract Tower) have a good impression of NATCA.

TAMR was advised that the agency has approved the consolidation of 8 facilities on the TAMR deployment waterfall. Akron-Canton (CAK), Lansing (LAN), Grand Rapids (GRR), Saginaw (MBS), Mansfield (MFD), Erie (ERI), Flint (FNT), and Muskegon (MKG). The facilities were advised on Feb 16th that they would become Remote Towers off Buffalo, Kalamazoo, or Cleveland TRACONs.

Mr. Rose spent 2 weeks at the William J. Hughes Technical Center testing S6R6D5 software for an upcoming software upgrade. Attended surveillance meeting at Southern California TRACON for a future upgrade of radar assets. Potomac TRACON declared ORD (Operational Readiness Decision) which means they will be removing all ARTS IIIE equipment, which will start the week of February 20.

On February 4th the TAMR team held an Article 114 meeting in which James Keith (ZDC) and Jason Grider (ZFW) attended to discuss Terminal CHI

workgroup and ATOC (ATO Operational Contingency Group). TAMR will be working closely with both groups to incorporate Terminal CHI SMEs and coordinate equipment availability for ATOC.

Mr. Rose is coordinating ATSAPs and CARs related to radar issues throughout the NAS related to outdated infrastructure.

Kyle Ness (M98) has taken over as the MSAW Board NATCA SME.

 Training Report Submitted by Bill Spence (BTV)

Working a very busy R4 rollout. We have 95 total sites to visit and brief this very important software version that will prepare every terminal site to transition to what will ultimately be one software baseline. It is the latest step in the overall TAMR goal of one common platform and software baseline in the Terminal NAS. Team members Kyle Ness (M98), Jill Carr (TPA), Jason Rose (D01), Pat Carter (D10), Teah Lord (F11), Chris Falcone (MDT), Ross Costa (RSW), and Chris Hilbert (PHL) are averaging about 12 briefs a month and are on pace to complete work ahead of schedule. There can't be enough said about the support from our Brothers and Sisters from the OSF, led by national lead Randy Garcia (DEN OSF) and TAMR lead Scott Kendrick (North TX OSF).

As we prepare to transition dozens more ARTS IIE sites to STARS, we have a very busy Air Traffic Training briefing schedule. Chris Falcone (MDT) is helping with the workload and taking a bigger role in STARS AT training. We soon will finalize a tower-only course that we will utilize in the future training of facilities that are receiving STARS without a TRACON. Falcone and Peter Sachs (SFO) are working with me on this.

Working with Tom Marynik (ZAB) on a common simulator for the terminal facilities as we prepare to transfer the STARS operating system sometime late in this decade. Tom's experience with the EnRoute version of AT Coach and his role in the rollout of ERAM has been and will continue to be invaluable.

Software & Engineering Report Submitted by Kyle Ness (M98)

NATCA SMEs from NCT, M98, PHL, D10, MKE, A80, MDT, CLE and ABE participated in software operational testing and evaluation over a three-week period at the technical center in early February. This event was the first evaluation of the sizable R6 build and SMEs evaluated numerous improvements in addition testing to existing functionality such as: ATPA, radar tracking, multiple sectors, RECAT, ADSB, inter-facility operations, backup systems and safety alerts. Test scripts can run up to 500 steps in length and our NATCA SMEs not only did a great job of putting the software through its paces, but also discovered some potential deficiencies which need further evaluated.

Potomac TRACON (PCT) recently declared ORD on the STARS system and through that process PCT identified their priority PTRs. NATCA systems

engineering has been working with the STARS software planning board to assign these PTRs to upcoming builds and were successful in getting one item in a near term build just under budgetary deadlines.

AT Coach PTRs requested by N90 were finalized and sent to contractor for impact assessment. Once complete, a development schedule can be established for site delivery.

In late January, it was discovered there was a software bug associated with conflict alert in a software build for legacy STARS sites using the R27 build. This bug had the potential to disrupt hardware upgrades at Detroit TRACON (D21) and Port Columbus (CMH). Software engineering quickly produced a solution and D21 successfully transitioned to their new system February 11 and CMH remains on schedule.

STARS software stakeholders are currently crafting the capabilities for the spare knob controls associated with the STARS display. Presumably, when the STARS display and controls were conceived, the intended use of these knobs would be assigned as the system matured. STARS deployment activities over the last few years has solidified controller perspective regarding the spare knobs, especially the request to adapt the Predicted Track Line (PTL) to these controls. NATCA systems engineering has identified several adaptable options for these controls so that sites can use them to their liking.

Mr. Ness attended the MSAW/CA board meeting at the technical center in Atlantic City in mid-February. Numerous initiatives were discussed to enhance safety alerts either by refining existing STARS adaptation or by implementing devices that reduce alarms when aircraft turn to final, level off or are in close proximity to untracked aircraft. While these mechanisms are mostly conceptual in nature, they hold promise to deliver significant reduction of nuisance conflict alerts. NATCA is working to move these concepts off the drawing board and into development in conjunction with human factors and data gathering initiatives.

STARS and Common Terminal Digitizer (CTD) Deployment Update
Scott Robillard (K90)

The TAMR waterfall continues to press forward to replace all ARTS IIE system and legacy STARS systems in the NAS. While all programs encountered obstacles along the way, the TAMR program has a hard stop issue with the Common Terminal Digitizer (CTD). After over two years of development, and several testing events, the CTD is months behind schedule and is threatening to do something to the TAMR program that has not occurred since reinitiated in 2010: Miss milestones and not be able to deploy. During this past update period, NATCA has assisted the PMO in meeting with the CTD vendor, evaluating schedules and proposed fixes. To seek resolution, NATCA and the PMO are planning a test group to be on site at RFD while the vendor, along with the FAA, tries to optimize the RFD ASR8 to a level

sufficient that it is suitable for air traffic use. The concept is to have real time feedback to the technicians and engineers to diagnose and fix the issues. While that is occurring, the rest of the team will be working to design a software solution for the remaining issues with CTD. At least two (2) more software drops will be needed to digitize the ASR8s in the NAS with a CTD. On its current schedule, the first possible time a CTD could digitize an ASR8 and achieve IOC is expected to be December 2017. For context, the system was originally scheduled to IOC its first system November 2016. These delays are threatening the TAMR waterfall. CTD is funded by and responsible to the TAMR PO.

While TAMR adjusts the waterfall to gain as much time as possible to allow for CTD to digitize radars, we are also adjusting the waterfall to install Remote Towers at Akron (CAK), Lansing (LAN), Grand Rapids (GRR), Saginaw (MBS), Mansfield (MFD), Erie (ERI), Flint (FNT), and Muskegon (MKG) in lieu of full TRACONs. These sites are being removed from the TAMR waterfall as part of S804 Realignment. While this is a small change for the program, we understand it is an extremely large change for each facility. The NATCA TAMR team will endeavor to ensure the membership receives the systems they need to work traffic in their new configuration.

Other high level activity during the update period:

- Common Terminal Digitizer (CTD) Discrepancy Review Board (DRB). Bi-Monthly, all DRs on the CTD are reviewed and ranked so that they can be addressed via hardware or software. With the noted failures of the CTD program and the strict TAMR timeline requirements, CTD activity cannot be under appreciated.
- MKE Joint Site Survey (JSS): This activity is when the vendor surveys and develops the equipment order for STARS equipment.
- PIT Site Implantation Review (SIR): The SIR is the activity where the PO reviews all site prep work to ensure the site is ready for equipment delivery and install of STARS.
- ACT Site Implantation Review (SIR): The SIR is the activity where the PO reviews all site prep work to ensure the site is ready for equipment delivery and install of STARS.
- DAB Initial Operating Capacity (IOC) Achieved on Jan 28, 2017: DAB transitioned from G1 STARS to G4 STARS.
- D21 Initial Operating Capacity (IOC) Achieved on Feb 12, 2017: D21 transitioned from G1 STARS to G4 STARS.
- CVG Initial Operating Capacity (IOC) Achieved on Feb 18, 2017: CVG transitioned from G1 STARS to G4 STARS.
- CHS Initial Operating Capacity (IOC) planning telcons. IOC scheduled for March 20, 2017. 3 SMEs are scheduled to be on hand for 3 days to assist the site through the transition from ARTS IIE to STARS.
- RDG Adaptation Kickoff Meeting. This is the initial point where the facility first starts to work with the OSF to build its first STARS adaptation.

- CMH Initial Operating Capacity (IOC) planning telcons. IOC scheduled for Feb 25, 2017. CMH is transitioning from G1 STARS to G4 STARS.
- ILM Joint Site Survey (JSS): This activity is when the vendor surveys and develops the equipment order for STARS equipment.
- P80 Joint Site Survey (JSS): This activity is when the vendor surveys and develops the equipment order for STARS equipment.
- MSN Site Implantation Review (SIR): The SIR is the activity where the PO reviews all site prep work to ensure the site is ready for equipment delivery and install of STARS.
- CPR ASR-8/BI-5: System Performance Verification (SPV) Planning. The SPV is a pivotal step in preparing the ASR8 and Bi5 to operate at a level that is sufficient for digitization.
- AVL ASR-8/BI-5: System Performance Verification (SPV) Planning. The SPV is a pivotal step in preparing the ASR8 and Bi5 to operate at a level that is sufficient for digitization.

Congratulation to the newest STARS facilities! LEX and MGM both transitioned from ARTS IIE to STARS G4 Elite on February 18, 2017. These IOCs culminate in approximately two years of work at each facility. With each IOC of an ARTS IIE facility to a STARS system the NAS moves closer to a single terminal automation platform. Initially, there were 91 ARTS IIE facilities, with 8 having dual systems in one facility. The first STARS G4 Elite system was commissioned at ABE on April 15, 2014. Since, the program has move 40 facilities into the STARS family.

TERMINAL FLIGHT DATA MANAGER (TFDM): Matt Baugh (IAH) is the Article 114 Representative for TFDM. Mr. Baugh's update is below.

The program completed the initial Technical Manual Guidance Conference on January 26. This meeting outlined the creating and distribution methods of all of the TFDM manuals, from operational to tech ops.

The TFDM team visited the Leidos facility in Gaithersburg, MD the week of 1/30 for the first of three Early User Involvement Events (EUIE). We spent the three days going over every aspect of the electronic flight strip (EFS) system that Leidos has had the opportunity to build to this point. The test including the transferring of strips from one position to another, making amendments to slight strips, (both in a virtual ERAM and local changes to initial altitudes, frequencies, runways, etc.), and using Next Logical Action (NLA) buttons to progress the strips, etc. Although the results of the EUIE have yet to be finalized, our initial response was positive. There are a few aspects that Leidos will need to work on between now and the next EUIE in late July, but for a first attempt it was fairly successful. Things we will be

looking for in that EUIE are half strips, quick action buttons for "strip marking", and improved field/block highlighting, among others.

Part of the team will be traveling back to Leidos the first week in March to see the updates from the first EUIE and to develop a strategy for demonstrating the system at this years CFS. A few concerns have been brought up with bringing the system, while still in its infancy, to this many people in a forum such as CFS. However, I believe that the amount of feedback we will be able to get from the membership will be priceless and only further enhance the final product.

There is one main concern at this point in time and that is the limited number of EUIE's. Currently, there are only 3 contractual EUIE's for build 1, which is the EFS portion, and we've already had 1. With the final EUIE coming in November of this year, a couple of weeks prior to the final release of the build. With such a shift in how we do things today coming, I'd rather have another build 1 EUIE after the completion of the build, and will continue to push for adding it to the contract.

Advanced Electronic Flight Strips (AEFS)

The newest build, 5.3.0.3, which has been running in CLE since 1/6/17, went through discrepancy and regression testing from 02/06 - 02/17 in PHX. After the first night of testing, it was decided by the local POC's, to leave the build running during the day for extended operational observation. This was the first new build that PHX has had in over 2 years. Upon completion of the testing, it was decided by the PHX local, myself, the program office (AJM-224), and program requirements (AJV-7), to leave the build running. With this successful testing also came a positive suitability call for the system as a whole, meaning it is able for further deployment, if we so choose.

- PHX

While basic system testing was ongoing, PHX was also testing a 32" on their CD and GC South positions. Initial response to the screen was the smaller size of the strips to accommodate 5 vertical bays as apposed to 3 made the test more difficult to read. We are going to look into creating a 4 bay set-up to see if this corrects the problem. They are going to keep and test the 32" monitors for approximately 30 days and make a final decision at that time.

- CLE

Nothing new

- EWR

Nothing new

- SFO

Nothing new
- LAS
  Nothing new
- CLT

The cables have been run into the tower cab but the hardware has not been installed. We are waiting on engineering services to complete their tower cab modifications, which is expected in the middle of March. Once that happens, we can test the CLT adaptation and connections on the mids in preparation for operational use.
CLT has provided the program office with a very good training and transition plan. We will begin training around 4/10 with their cadres. We will then train their operational personnel from approximately 4/16 to 5/06. After training is complete, they plan to go operational with the system within the next couple of weeks.

SWIM Visualization Tool (SVT)

Local IT has not installed the additional 3 PM/Displays for SVT. System Wide Information Management (SWIM) PO has offered assistance to expedite that activity but we are still awaiting a reply from PHL. We are still awaiting a demo from the surface viewer, NAS Operational Dashboard (NOD), currently in use by the Command Center. A demo is planned later this month. I am still concerned whether TFDM will be able to match NOD's current capabilities in the future.