

MTAC AFSM AI Workgroup #96 8/2/06 Meeting Notes

Automatic Induction (AI) Update

Mauro Licciardello gave an update on the status of the USPS AI deployment. AI currently is fully operational at 42 sites, with 170 AI systems in place and 36 to go, totaling 206 systems. He noted that AI deployment for Phase 1 is 83% completed. When Phase 1 is completed, the USPS will have AI systems on 31% of its AFSM 100 machines at 63 sites. There are 7 sites to go in Phase 1.

Phase 2 will begin right after Phase 1 is finished, likely at the end of September, and will be completed approximately one year later, in the Fall 2007. The USPS has purchased 142 AI systems in Phase 2, but is not yet sure how many sites will receive the systems (probably another 70-80 sites on top of the 63 sites deployed in Phase 1). When Phase 2 is completed, AI will be deployed at 140 out of 240 AFSM 100 sites.

Mailers on the workgroup noted that doing AI installations in the fall busy mailing season can cause service issues and asked for a list of facilities that will be receiving AI systems in the fall. Mr. Licciardello said that once the list is finalized it can be provided to the group. Kathy Siviter asked for an updated APPS deployment schedule as well, which Mr. Licciardello said would also be provided.

Mr. Licciardello said that while last year the USPS only deployed 3 AI systems in the fall and this year it would be installing more sites in the fall season, it is trying to be selective with the sites to minimize any negative impacts on their operations. The installation only takes 3 days and typically 2 of those days are on the weekend, he noted. All the facilities have fall mailing plans that include the ability to offload additional volumes during that time, so the USPS is confident that these facilities can make their fall mailing plans during AI installation. If there is any doubt as to that, the facility can be pushed back on the deployment schedule.

Mr. Licciardello reported that the deployment is going well with only a few instances where systems did not pass the acceptance test on the first try.

Dolly Dock Demo

Mr. Licciardello invited workgroup members to attend a demonstration of the dolly dock induction equipment at the Southern Maryland P&DC on August 17, 2006, at 1:00 p.m. Jamie Gallagher, USPS, will send out further details on that demonstration to the workgroup members. Attendees will be able to see a demo of how ACTs are inducted from dolly docks directly to the AFSM 100, and possibly a demo of the Northrop Grumman tub converter.

Mark Neebe reported that Northrop installed the dolly dock system this past weekend on an AFSM 100 machine at Southern MD which will allow the USPS to induct ACTs directly on to the AFSM 100. The AutoPrep machine also was installed, which has the capacity to handle tub conversion and perfect pallet conversion (see below).

Mailer Tests

Mr. Neebe reported that the mailer tests we have been working toward for the past several months finally are ready to come to fruition. The tests will look at two different mail flows into the AFSM 100 environment using the AutoPrep equipment developed by Northrop as a separate USPS contract with engineering and which will flow into the FSS program, but which the USPS would also have the opportunity to expand for use with AFSM 100 for tub flows and potentially pallet flows.

In the test, mailers will prepare pallets of bundles, using slip sheets to separate layers for different sort schemes. No live mail will be used during the test, both mailers are supplying unaddressed pieces, with no real presort performed. The test is designed to look at the physical mail preparation and movement processes with no negative impact on mailer/USPS transportation.

Mr. Licciardello noted that a requirement for 2 people is envisioned for the AutoPrep, versus the current staffing requirement of 4-5 people for running the prep stations on the AI.

The two mailers are voluntarily participating in two different tests. The Test 1 Scenario will work with Harte Hanks to look at mailers filling ACTs. Test 2 Scenario will work with R. R. Donnelley focusing on mailers preparing "perfect" pallets. The processes for the two tests differ in the workshare by the mailer and how the changed processes integrate into the mailer's operations. The goals of the tests are to identify the best practices in matching mailer preparation output to current and future USPS mail processing capabilities. During the tests, data will be gathered to identify the mailer and USPS costs withing the existing and changed processes. The USPS will look for ways to reduce bundle breakage and mail damage which can lead to cost escalation.

Test 1: Harte Hanks. In Test 1, Harte Hanks will fill ACT containers. Currently, Harte Hanks utilizes a significantly manual output process from its addressing lines. This includes manual stacking of flats, manual counter-stacking of flats, manual strapping of flats bundles, and manual stacking of bundles on pallets. During the test, Harte Hanks will position ACT containers in a load position and operators will fill the ACTs with handfuls of mail. The ACT exchange and handling will be managed for the operator by other personnel and recorded, then the ACTs will be stacked on dollies. Additional ACTs will be stacked on pallets.

The process will note staging and material handling methods and requirements observed in the plant. Full ACT dollies and pallets will be loaded by Harte Hanks personnel into a provided truck. Harte Hanks will look at reviewing data about bundle breakage in the current processing of the test mail, and at the bundle damage during the test, which Mr. Neebe said should be minimal.

During the test, the USPS will look at using a person to stack ACTs on dollies, and also will fill ACTs and stack them on pallets to compare the differences and see how it would work using pallets. It was noted that an empty ACT weighs about 3.5 pounds. The ACTs can be stacked on pallets, they are designed to stack on top of one another, then the pallet can be stretchwrapped for stability. It is estimated that a layer consists of 9 ACTs, and they can be stacked 5-6 layers high. Joe Schick suggested that the test should look at the weight of ACT containerized mail that can be prepared on pallets to see how it compares to existing methods.

Bill Worth suggested that data also should be analyzed relative to the cost avoidance from not having to process those flats bundles on APPS. There may be systemic impacts on things such as floor space, staging needs, etc.

When the dollies arrive at the Southern MD P&DC, the dollies are unloaded and travel directly from the dock to the staging area at the AFSM 100. The sort plan then is loaded on the AFSM 100, the dollies are loaded to the dolly dock for AFSM 100 processing (additional ACTs loaded on pallets would be transitioned to dollies at the site prior to processing). Mr. Neebe noted this will be the first time that dollies have been taken right from the dock to the AFSM 100. There may be other infrastructure costs, such as empty cartridge handling, he noted, that the group may want to track during the test.

Mr. Neebe explained that each AFSM pre-dolly has 94 ACTs in a closed loop that runs from the prep stations to the feeders. The dolly comes in with full ACTs and trades empty ACTs for full ones so that the machine always stays

balanced. He said the dolly dock induction will provide a more efficient exchange of trays than today's process, with less chance of bottlenecks and crashes on the loops.

Test 2: R. R. Donnelley. In the second test scenario, R. R. Donnelley (RRD) will prepare "perfect pallets" for induction to the AFSM 100. Currently, RRD uses a highly automated output process from its addressing lines that includes automatic stacking of flats, automatic counter-stacking of flats, automatic strapping of flat bundles, automatic shrink wrap of flat bundles, and automatic stacking bundles on pallets.

In the test, RRD will turn off some of the activities currently completed on its addressing line. It will test a process at the end of the line that includes automatic stacking of flats, automatic strapping of flats bundles, and automatic stacking of bundles on pallets, but turns off the counter stacking of flats and shrinkwrap of flats bundles. The pallets may have slip sheets inserted between layers to signify changes of sort plan schemes. The pallets will be loaded on a provided truck for transport to Southern MD. The group briefly discussed how the sort plans could be easily identified from one layer to the next. For the test, a slip sheet will separate the layers/sort plans, but other technology solutions could be pursued down the road.

RRD plans to make up 6 inch tall bundles of flats for the test, using 1-2 straps on the bundles to build stable pallets. Mr. Neebe stressed that the equipment being used for the test will not care about the bundle height, but the mailer has to build stable bundles/pallets for transportation purposes.

When the test mail is received at the USPS facility, the pallets will be unloaded and travel directly from the dock to the AutoPrep equipment where it will be processed into ACTs on dollies with each dolly being sort plan specific. The sort plan is loaded on the AFSM 10 and the dollies are loaded into the dolly dock for AFSM 100 processing.

Ms. Siviter asked how all the various induction/preparation processes will integrate in the future since not all mailers will be able to prepare their mail in these ways. Mr. Neebe noted that there are four different mail flows to the AFSM/FSS, including flats tubs, pallets prepared as "perfect" as in this test, other pallets, and other containers such as gaylords from APPS processing. The group agreed that the presort densities required to prepare pallets in this manner may not be able to be achieved with AFSM 100s and may have to wait for FSS deployment, but there may be some opportunities with the AFSM 100. We need to test these methods of physical mail movement and processing before looking at the presort issues.

Mr. Neebe reported that the tests are scheduled as follows: August 21 will be mail preparation at Harte Hanks; August 22 will be mail preparation at RRD; August 23 the mail from both tests will be processed at Southern MD. Mr. Licciardello noted that the RRD test will represent the first time the USPS puts the AutoPrep bundles on AI in the field, although it has been done at the Northrop facility.

Mr. Worth noted that many mailers use shrinkwrap for bundle preparation, not strapping, so there would be potential issues with FSS and shrinkwrap that are not being addressed with these two tests.

Ms. Siviter asked if the USPS and Northrop have worked out the data collection/cost model with work flows for both mailers and the USPS to help document the cost factors of the tests. Mr. Neebe said a group has worked on putting together a model which will be used in the two tests.

Next Steps

The test group will be able to provide an update on the test results, as well as some other data points, around the 2nd week in September. Ms. Gallagher will set up a telecon for that time period. The next in person workgroup meeting will be held on Wednesday, November 1 from 8:00 am to 10:00 am, prior to the MTAC General Session. It may be possible to incorporate a site visit to see the de-bundling operation experiment at that time as well.