

MTAC AFSM AI Workgroup #96 5/17/06 Meeting Notes

Review of WG 71

John Brown, USPS engineering, reviewed the work done by the previous MTAC workgroup, # 71, Flats Container Development, which completed its work in November 2003. The goal of that workgroup was to look at ways to streamline flats preparation operations through development of a new flats container, similar to some of the discussions of the current AFSM AI workgroup # 96.

Workgroup 71 looked at issues such as an optimum container size, UFSM 1000 and AFSM 100 operational needs, how a container would work with various presort categories, what impact would it have on USPS operations (e.g., hardware, floor space, etc.), bundle compensation and integrity issues, and potential impact on minimum package size. During the workgroup's study, several mailers provided flat mail for testing.

USPS engineering developed at Alternative Flats Tray for testing, in a 15 inch and 20 inch size, and used a modified Flats Feeder Assist System for flats tray handling during the test, which evaluated both methods and equipment requirements. The test was conducted at a USPS facility in Fort Myers, FL. Mr. Brown noted that this test preceded both AI and ATHS deployment, as well as upgrades to the UFSM 1000.

Mr. Brown noted that the workgroup met at a Muller Martini facility in June 2003, where new stacking technologies were demonstrated which allowed the preparation of larger packages/bundles of 10-20 inches with little change to printers' production processes. The process included inline sortation, stacking and strapping operations and could lead to reduced USPS handlings, but would require changes to presort and preparation rules. The bundle/stack production complemented mailer containerization and USPS preparation for flats processing.

The workgroup concluded that there may be viable alternative flats containers where pallets of containers could be received directly from mailers and bypass normal bundle production and mail preparation, but that this process would be of benefit only for full trays, the production of which was constrained by the existing presort parameters. Mailers would not have enough volume density to certain ZIPs to create larger packages or fill a new flats container. The workgroup issued a final report and sunset, with its recommendations and remaining work transferred to the flats mail preparation optimization MTAC workgroup # 81.

Mr. Brown noted that as the USPS moves to FSS and bringing flats back into the plant level, there likely will be more mail that would be compatible and presort requirements that could make the alternative flats container a more viable alternative. Mike Winn said that from a printer's perspective, it would require a capital investment to move to the sort of equipment demonstrated at the Muller Martini meeting in 2003. He noted that both mailers and the USPS have come a long way since then in understanding total system costs better. In this current workgroup, he noted, we've learned much about the challenges, but back then there were even bigger hurdles because it preceded the AI interface.

Mr. Brown concurred that whatever this workgroup proposes or adopts has to be good for both the USPS and industry. He noted that cost of the containers would be a major issue. The ACT being used by the AFSM AI is "not inexpensive," he noted, and to be able to hand those containers over to mailers in bulk would be a significant cost to the USPS. Something that would allow mailers to use an intermediary low cost tray that would minimize passthrough to the AI and FSS processes, bypassing the prep stations without requiring manual labor to fill the ACT would be ideal. Mr. Winn noted that is similar to the Harte Hanks test, and suggested that the workgroup be looking at two parallel paths; 1) prepping containers at origin to go directly to ACTs, and 2) a way to take current output from printers and prep it

automatically or semi-automatically.

Automatic Induction (AI) Update

Maura Licciardello, USPS, gave an update on the AI deployment, which he reported is on schedule with 210 systems purchased for deployment to 59 plants. Deployment started in October 2005, and the USPS currently has accepted and delivered 112 AI systems. Deployment is expected to be completed around October 2006, and a Phase II AI purchase recently was approved by the USPS Governors, for 145 additional systems. The USPS is not yet sure how many sites the additional systems will be deployed to, but it expects to start delivering the second phase of AI systems in January 2007 and deploying them through December 2007.

Mr. Licciardello noted that there have been many changes in the plants as a result of AI deployment. Mail flows have changed dramatically, he said, because it is imperative that mail be at the machine for each sort that will be run in order to keep the machine supplied and throughput maintained at acceptable levels. If the AI/machine runs dry, the whole operation will run dry.

There also have been culture changes, he noted, going from the clerk craft to mailhandler craft for most of the work. Mailhandlers are not as used to handling piece processing, they are more used to performing container processing, so it is a big adjustment for both employees and supervisors. He reported that the USPS recently has sent a team of people around to plants that have AI and AHS to assist them with the new operations, new mail flows, and new employee challenges. The USPS has sent teams to 10 sites so far and provided guidance on how to manage these operations more efficiently.

In response to the question of how much mail goes directly to AI versus being processed on APPS first, Mr. Licciardello said that very little bundle volume goes directly to the AI today, with the exception of some large First-Class mailers that prepare loose flats in tubs that can go directly to the AI, and occasionally First-Class Mail on bundles on pallets that is large enough can go directly to AI, but those are few and far between. Most Periodicals and Standard Mail needs to go to APPS first, he noted, because of its presort requirements.

Mr. Winn said that the presort issues were what the previous MTAC workgroup #71 ran into as well, but Harte Hanks has a unique situation in that they have a higher concentration of mail in containers with a different presort density profile.

Ashley Lyons said that, rate case aside, as we go forward with AI, the AFSM 100, END, and FSS, all these initiatives need to be taken into account as a total picture, rather than separately. We need to be careful if we find a way to feed the AI and a rate structure that encourages that but undermines FSS or END. All these initiatives need to be closely tied together and we need to think about all the implications, he stressed. "We don't want to turn left and then turn right when FSS comes along," he said. Mr. Winn agreed that is why the workgroup wanted a pricing representative to participate. We are moving away from an environment where presort was the value and basis for all we did, and now are looking at an environment where it becomes more important that the output of the mail preparer becomes input to USPS processes.

Harte Hanks Experiment

Mr. Licciardello reported on the Harte Hanks experiment, which will include two tests – both involving equipment developed by Northrop Grumman and prototype designs. One test will look at using dolly docks to place ACTs, and the other is to formulate the preparation option and then place ACTs on dolly docks.

The dolly dock AI test would look at loose flats in ACTs prepared and loaded on dolly docks by the mailer. The USPS then would induct the ACTs off the dolly docks into the AFSM 100 AI. Harte Hanks will prepare the flats for this test, which is now scheduled for July 2006 at the Southern MD P&DC. Mr. Licciardello noted the group had to back off on the test date a bit because Northrop had only one machine to work with and lots of testing already going on there. The USPS currently is testing lots of software with Northrop to enhance the AI in the field, which takes priority.

Mark Neebe, Northrop Grumman, commented that while cost savings in the process seem very apparent, part of the reason for the test would be capturing the costs of the mailer contribution to the preparation effort to look at the total systems cost of the process. He suggested that a group work with John Brown and USPS engineering to look at pre-defining those costs so they can be tracked during the test. It was agreed that John Brown and Mark Neebe will coordinate a small group to look at identifying all the cost elements both on the USPS and mailer side. They will send out a draft and have a conference call to walk through the elements and process.

Mr. Neebe suggested that the group also needs to look at the time frame for when enough critical mass (e.g., presort density) would be achievable by mailers – it is during the existing AFSM 100 environment, or more likely the FSS environment? Is it 1 year from today, or 3 years from today? We need to determine a time line to be able to study rates, make proposals, etc. and it would be good to start those discussions now so there is time to adapt.

Mr. Winn noted that a schedule will be published so that anyone wanting to watch the test in Southern MD can do so.

The second test will be the Automated Bundle Prep Concept, which would automate the de-bundling of strapped bundles off pallets into loose flats in ACTs, automate the loading of ACTs onto dolly docks, which then could be inducted into the AFSM 100-AI. The test will use strapped uncompensated bundles prepared on pallets by R. R. Donnelley, and is scheduled using Northrop Grumman prototype design in August 2006 at Northrop's plant in Troy Hill, MD.

The group noted that to build ACTs at a mailer's plant is not ideal for many mailers and there are issues attached to that process, but it could be a stepping stone to where we want to go in the future. Even today, most of the USPS prep work is done manually, even with the prep stations on the AFSM 100. It is still labor-intensive and costly, so any automation of that process could result in significant cost savings. Northrop has a concept to automate the process, but it is still in the development stage. It would automate the opening up of the bundles, taking off the strapping, picking the mail off the pallet and putting it on a shuttle system to move to an ACT and load the ACTs on dolly docks.

Mr. Neebe said that Northrop has done some live testing of the concept, which still has some rough edges, but accomplishes the basic work. The group hopes to test the concept with mail from RRD in the late summer period, currently scheduled for August. RRD will prepare mail on pallets with strapped bundles only, no shrinkwrap, which will not be processed on APPS or SPBS.

Bill Worth asked if the mail could skip the dolly dock and go directly to the ACT on the AFSM-100AI. Mr. Neebe said it could be done either way. The dolly dock is a piece of test equipment at this point, but the USPS has a desire to be able to pre-prepare flats because the FSS will require so much mail ready for processing, that the ability to put enough prep operators in-line on that equipment will be an even bigger challenge to the USPS. Having some percentage of mail pre-prepped and staged in a low cost method would be operationally desirable.

Mr. Licciardello noted that the picture of the "perfect pallet with scheme slip-sheet" in the presentation handout is what the USPS would hope pallets would look like in this new process. The sort programs would be divided by slip sheets. Bundles would not have to be uniform in height, but some de-compensation may be needed.

Mr. Winn said RRD will follow the same pattern as Harte Hanks in tracking its costs during the test. He does not expect a significant different in preparation costs for RRD, but the USPS will need to track costs on the processing side. He said RRD could do half the strapping with single strap and half as double to see the difference during the test, and whether the pallet remains stable through transportation and material handling. Mr. Winn said that compensating would be more of an issue because making smaller bundles can impact production speed and material costs. That will be part of the study, to look at those potential impacts.

Mr. Licciardello said that the concept will be tested first at Northrop's facility, then tested live at Southern MD in the fall some time. The financial cost models likely will be very similar to the first test and can be used for this second test, subject to validation by the subgroup John Brown and Mark Neebe will coordinate.

Next Steps

The workgroup will meet next in person during MTAC week, on August 2, 2006 (details will be sent out in advance of the meeting).