



Video Script

Lockheed-Martin
 High Speed Tray Sortation Video (Final 4.0)
 RASmith 06 18 2004

VISUAL	AUDIO
<p>1 ESTABLISHING SHOT, EXTERIOR OF FACILITY</p>	<p>The District of Columbia Regional Postal Service Center. One of only two facilities in the country where the U.S. Postal Service sorts Commercial Bulk Mail and First Class letters and parcels . . .</p> <p>And a perfect proving ground for Lockheed Martin's High Speed Tray Sorter system.</p>
<p>2 WIDE SHOTS OF SORTER TO ESTABLISH LOCATION</p> <p>MONTAGE OF SHOTS OF THE SORTER IN ACTION</p>	<p>HSTS promises to greatly enhance sorting with faster speeds . . . more bi-directional divert points within a smaller footprint . . . and innovative new ways to handle system backups and unread labels.</p> <p>The High Speed Tray Sorter was designed for Washington's Bulk Mail Center – located on the east side of this Capitol Heights, Maryland facility. But it quickly proved its worth to the Processing and Distribution Center professionals, on the other side of the plant.</p>
<p>3 MONTAGE OF SHOTS</p>	<p>Today it's used by both . . . dramatically increasing overall productivity – with the potential for <i>additional</i> applications in the future.</p>

<p>4</p> <p>SHOTS OF OPERATOR CONSOLE IN ACTION</p> <p>TOWER LIGHTS FLASHINT AND BEEPING HORNS (AUDIO UNDER NARRATOR)</p> <p>WORKERS MANUALLY LOADING DUAL INDUCTION POINTS</p> <p>TRAYS DO RIGHT TURN ONTO MAIN CONVEYOR. SHOTS OF OVERHEAD BAR CODE READERS</p> <p>BAR CODE RAYS WITH CUT TO SCREEN SHOT INDICATING DATA TRANSMISSION</p>	<p>Here's how it works.</p> <p>At the beginning of each run, an operator loads a password-protected sort plan from a drop-down menu on the operator console.</p> <p>The system begins a start up alarm sequence, with flashing tower lights and beeping horns alerting operators.</p> <p>Mail trays are loaded onto the system's dual induction points . . .either manually . . . or via upstream conveyors. The sorter can be directly connected to tray transport and dispatch & receipt systems within a postal facility.</p> <p>Within seconds, trays move into place and overhead barcode readers scan labels on the front, back . . . or top of the tray.</p> <p>In a fraction of a second, valid codes are transmitted to the processing unit where the sort plan tells the machine where each tray should go. If the tray has a Dispatch and Routing tag, an interface to Starship is used to aid in the sortation decision.</p>
<p>5</p> <p>CU OF PHOTO EYES WITH TRAYS PASSING BY</p> <p>CU OF DIVERTER ROLLERS POPPIN UP AND TRAY BEING DIRTED</p> <p>OVERHEAD SHOT OF DIVERTING TAKING PLACE</p>	<p>A series of photo eyes track each tray as it moves down the sorter. And when it reaches its proper destination, bi-directional diverter rollers pop up . . . to push the container to the right or left . . . off the main conveyor path.</p> <p>That happens again and again and again . . . one tray after another . . . more than 50 trays per minute.</p>
<p>6</p> <p>WIDE SHOT OF SYSTEM SHOWING BREADTH AND DEPTH</p> <p>GROUP AND INDIVIDUAL SHOTS OF DISCHARGE LANES</p>	<p>While not the <i>first</i> automated tray sorter, the HSTS is the first sorter to offer a number of innovative new features at a lower cost.</p> <p>First – more discharge lanes per square</p>

	<p>feet than competing systems. This means a smaller footprint for better space utilization.</p> <p>The Washington D.C. system has 44 discharge lanes – but that number can be tailored to each facility’s individual needs.</p>
<p>7 SPREAD SHEET SORT PLAN BEING PREPARED ON A DESKTOP PC IN OFFICE ENVIRONMENT</p> <p>8 SHOT OF SORT PLAN BEING ENTERED DIRECTLY INTO CONSOLE</p>	<p>Second, sort plans are simple to write and download. . using standard off-the-shelf spreadsheet software, such as Microsoft Excel. This means that sort plans can be prepared in an office and downloaded over a network -- or entered directly into the operator console at the machine</p>
<p>9 SYSTEM SHOT WITH CG: OVER SCREEN:</p> <ul style="list-style-type: none"> - No Reads - Unassigned Labels - Backups in Discharge Lanes <p>SHOT OF PACKAGES BACKING UP IN CONVENTIONAL SYSTEM (IF AVAILBLE)</p>	<p>Third, the sorter’s innovative design avoids a number of classic problems associated with automated systems:</p> <p>Stalls due to no-reads . . . Un-assigned labels . . . And backed up discharge lanes.</p> <p>In some competitive sorters, if any of these conditions occur, a container will literally “hit the wall” with nowhere to go -- effectively shutting down the whole system.</p>
<p>10 SHOW PACKAGE DIVERTED DOWN FIRST LANE AFTER BAR CODE READERS</p> <p>TIME LAPSE SHOWING BI-DIRECTIONAL DIVERT POINT PUSHING TRAYS RIGHT, THEN LEFT</p> <p>SHOTS OF RECIRCULATION PATH: FIRST CURVE, ROLLER COASTER HILL DOWN UNDER THE LINE, FLOOR SHOTS OF SUB-LEVEL CONVEYOR, FINALLY BACK TO START PONT</p> <p>TRAYS BEING INDUCTED IMMEDIATELY</p>	<p>Not the High Speed Tray Sorter. Lockheed Martin’s innovative design offers users</p> <p>Bi-directional divert points, so pop-up rollers can divert trays in two different directions – right or left</p> <p>A reject lane for no-reads or unassigned labels . . .</p> <p>And a re-circulation path, which takes trays on a winding roller coaster ride . . . under the conveyors . . . and back to the beginning of the sortation process.</p>

<p>TRAYS ACCUMULATING AT END OF RECIRCULATION PATH (START OF INDUCTION PATH)</p>	<p>There, re-circulated trays can be re-induced immediately . . .</p> <p>Or they can be instructed to wait and accumulate . . . allowing the induction operator to maintain maximum productivity.</p>
<p>11</p> <p>FLASHING TOWER LIGHTS</p> <p>CONSOLE ALERT SCREENS WITH DIAGNOSTICS IDENTIFYING TROUBLE SPOTS</p>	<p>In the unlikely event that other faults occur, HSTS makes the recovery quick and easy.</p> <p>Sensors and logic actuate tower lights that alert attendants to problems.</p> <p>And alert screens, complete with on-screen diagnostics, identify and locate problems, so workers can fix them quickly and effectively -- with minimal disruption.</p>
<p>12</p> <p>CG ON SCREEN OVER MASTER SHOT:</p> <ul style="list-style-type: none"> - Highest Degree of Accuracy - Meeting Customer & Facility Performance Standards 	<p>The result? Sort plans executed to the highest degree of accuracy. With sortation meeting the performance standards of today's commercial mail customers and the regional mail centers served by the district facility.</p>
<p>13</p> <p>VARIOUS SHOTS OF SYSTEM</p>	<p>But the High Speed Tray Sorter's design and programming flexibility makes it ideal for other uses too. And those responsible for First Class mail processing at Capitol Heights put it to the test.</p>
<p>14</p> <p>SHOTS OF SYSTEM SIDE BY SIDE WITH TRADITIONAL BULL PEN</p> <p>CONTAINERS OF FIRST CLASS TRAYS BEING BROUGHT TO HSTS SYSTEM</p>	<p>U.S. Postal Service officials discovered that the system could master preliminary sorting steps normally handled by traditional bullpens . . . in a fraction of the time.</p> <p>In fact the HSTS can effectively automate <i>many</i> bullpen operations.</p> <p>This discovery instantly boosted productivity in Washington's nearby processing and distribution center, which</p>

<p>SHOT OF MAIL TRUCK BACKING INTO DOCK, SHOTS OF BULL PEN SORTING.</p> <p>ON-SCREEN CG: - Traditional Bull pen: Several Hours - High speed sorter: 30 minutes</p>	<p>now brings <i>its mail</i> to the HSTS for sorting.</p> <p>The high-speed sorter is especially useful when mail trucks arrive late. A traditional bullpen could require several hours to sort a tractor-trailer of mail.</p> <p>Lockheed Martin's High-Speed Tray Sorter can do the job in less than 30 minutes.</p>
<p>15</p> <p>MASTER SHOT OF D.C. SYSTEM:</p> <p>CG: - 130 feet - 44 divert lanes</p>	<p>The design of the system makes better use of square footage. Washington's 130-foot long sorter has 44 divert lanes -- a minimal footprint. But total tour operation is limited only by your imagination.</p>
<p>16</p> <p>SHOTS OF SYSTEM:</p> <p>SORT PLANS IN DROP DOWN MENU CG: Multiple Sort Plans</p> <p>SHOT OF CHANGE BEING MADE ON SCREEN: CG: Easy change over</p> <p>SHOTS OF DIAGNOSTICS & REPORTS ON CONSOLE SCREENS. CG: Variety of reports</p> <p>DIAGNOSTIC SCREEN ON CONSOLE CG: Diagnostics identify problems</p> <p>CU OF EMPTY DIVERT RUN-OUT IN FOREGROUND WITH TRAYS RACING PAST IN BACKGROUND. (AND IF AVAILABLE SHOW DIVERTR BEING DISCONNECTED)</p> <p>LOCKHEED MARTIN LOGO ON SERVICE UNIFORM</p>	<p>And that's just the start of the benefits.</p> <p>The system is easy to operate.</p> <p>With multiple sort plans that can be loaded and waiting in the system.</p> <p>With changes that can be made "on the fly" . . . while the machine is running.</p> <p>With diagnostics, programs . . . and a variety of reports that can help you optimize sorting runs.</p> <p>The system is easy to maintain too.</p> <p>With diagnostics identifying problem areas immediately.</p> <p>With removable discharge lane sections, which can be disconnected for maintenance and repair without disrupting a run.</p> <p>And with the expertise you've come to trust and depend on from Lockheed Martin support engineers.</p>

<p>17</p> <p>MONTAGE SHOTS OF SYSTEM IN OPERATION: OVERHEAD, UNDERNEATH AND ON SURFACE</p>	<p>Fast . . . Accurate. . Dependable...Safe...Affordable</p> <p>That's the Lockheed Martin High Speed Tray Sorter . . . propelling the United States Postal Service towards its goal of greater productivity and service.</p>
<p>18</p> <p>LOCKHEED MARTIN LOGO AND 800 NUMBER.</p>	<p>Talk with your Lockheed Martin representative . . . and learn more about HSTS today.</p>
	<p>(Finish)</p>