



Manzanillo International Terminal: Cooperation, innovation, and utilization

In recent years, Manzanillo International Terminal (MIT) has been recognized not only as Latin America's busiest container port, but also one of the world's most productive, handling more than one and a half million TEUs a year.

MIT is a major trans-shipment terminal, allowing steamship lines to transfer containers from ships on the Atlantic side of Panama via rail and canal to the Pacific side. The Panama Canal Railway has completed construction of the new railroad that links Panama's East and West Coasts. This new rail link will allow greater volumes of trans-shipment containers at MIT and other trans-shipment terminals. Already 25 steamship lines call on MIT.

MIT credits its people, processes and tools for effectively managing its growth and productivity.

"We've worked hard over recent years to improve our efficiency," said Stacy Hatfield, MIT Terminal Manager. "To successfully grow the operation and remain efficient requires agreement and a concerted effort from everyone in the yard."

Cooperation

MIT's productivity increased 33 percent in 2001. According to Dave Michou, MIT Managing Director, adjusted gross production was 35.89 moves per hour per crane.

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— Stacy Hatfield
Terminal Manager
MIT - Panama

"The bottom line is that people made this happen," said Michou. "MIT supplied the tools and encouragement."

MIT began zeroing in on production in the third quarter of 2000 by improving processes one vessel at a time. As part of the effort, superintendents wrote reports after every shift, briefly listing the parts of the job that went well and those that didn't. Everyone in operations and maintenance met each day to critique the reports with the intention of continual improvement.

Innovation

Always seeking to improve safety and efficiency, MIT has used tools to help employees do their jobs well. The terminal was quick to adopt terminal management and vessel planning software to aid in operations and container placement and loading.

“We have used terminal management applications for years,” said Hatfield, MIT Terminal Manager. “But after years of working around an old AS/400-based system, we began looking for an upgrade.”

In particular, the existing terminal management application offered limited querying features, making it difficult for terminal employees to share container location and status with customers. It was difficult for employees to handle their own queries, given the system's inflexible look-up requirements, such as complete container numbers.

Consequently, Hatfield's vessel and yard planning counterparts spent a significant amount of time answering phone calls from customers seeking updates on their shipments.

“Previously we had to print and fax reports to clients a half dozen times a day,” Hatfield explained. “While customer service is crucial, our vessel and yard planners also needed to focus on accurately moving and placing containers.”

The search for a solution led MIT to Mainsail, Tideworks Technology's terminal operations management application. Mainsail consolidates gate, yard, vessel, and rail operations data into one application. A Web interface allows MIT to share data with shipping lines, truckers and other outside sources.

“Mainsail greatly improved our ability to communicate terminal operations internally and externally,” Hatfield explained.

Vessel and yard planning

While Mainsail improved customer service and terminal operations, it begged for integration with MIT's existing vessel and yard planning software. The terminal used a third-party application to manage vessel loading and container placement in the yard. Double entry of data, communication with customers and a desire to speed gate turn times prompted MIT to seek an application that would integrate with Mainsail.

“Tideworks' Spinnaker application was the logical choice,” said Hatfield. “Spinnaker integrates easily with Mainsail and Tideworks made it simple to switch by installing Spinnaker to run concurrently with our legacy application. It gave us time to test the system, make any necessary changes and make the change. After about six months we unplugged the old system.”

Spinnaker gives vessel and yard planners a simple, graphical view of containers and locations. Since it's integrated with Mainsail, there's no double entry. Information collected at the gate, as trucks enter, instantly populates the Spinnaker application, alerting vessel and yard planners to incoming containers and setting into motion the people and equipment needed to get containers to their correct destinations quickly.

Traffic control

The most recent innovation for MIT was the addition of Spinnaker Traffic Control. Traffic Control is designed to increase both the speed and efficiency of container handling.

Traffic Control allows terminals to direct container moves from an air traffic control tower-type setting. For MIT, the first phase of implementation covers instructions for local

containers leaving the terminal and container crane moves, both on and off the ship. Computer terminal screens are installed in six rubber tired gantry cranes at MIT, providing real time pick up ticket information to RTG operators.

After a driver enters the terminal gate an alert is sent to the equipment operator who is responsible for receiving that truck at a predetermined location in the yard.

“Before the driver gets there, the equipment operator knows the move is going to take place,” Hatfield said. “If needed, he can make shifts and grab the container, and when the driver arrives, he can place the container right on the truck.”

According to Hatfield, Traffic Control enables his staff to monitor, from inside the office, all equipment activity, including tasks accomplished and assigned. It also eliminates the need for a clerk to support the RTGs with pick-up tickets.

“That’s a huge advantage for us in terms of utilization of our equipment and people,” Hatfield said. “Our machines have idle time now, because they might not have any work coming, and no one can recognize that easily. With Traffic Control, it’s all laid out right in front of us. We can see what each operator is doing and shuffle work around where needed.”

According to Hatfield, the turn time per container has been reduced several minutes due to the new Traffic Control system.

The next step for MIT was making it easier for RTG operators to identify specific trucks for each container. To that end, MIT encouraged the truck drivers servicing the terminal to paint their license plate numbers on the tops of their cabs, so RTG drivers could spot specific trucks. Within a few months, all trucks were participating in the program.

Putting it all together

As one of Latin America’s busiest ports, MIT is always looking for ways to safely increase efficiencies while providing outstanding customer service. Today MIT handles several thousand container moves a day between vessel, yard and gate transactions. Communication and teamwork have helped MIT marshal its people and resources. Tideworks terminal management and vessel planning applications have helped MIT’s people do their jobs even better.

About Tideworks

Tideworks is a leading provider of cost-effective, reliable software solutions for growing terminal operations and shipping lines worldwide. The company helps more than 23,000 users at nearly 70 facilities run their operations more efficiently and profitably. From optimized equipment utilization to faster turn times, Tideworks works at every step of terminal operations to maximize productivity and customer service. For more information about Tideworks Technology, a subsidiary of Carrix, Inc., visit www.tideworks.com.