

## It takes teamwork to be Lean

By Sherre Mitten-Bell, DDSP Public Affairs

Lean can be defined as the elimination of waste and the enhancement of workflow. At Defense Distribution Depot Susquehanna, Pa. (DDSP), it means working smarter as a team.

Lean is a management term, first applied in the private sector, that is being used at DDSP as a tool to achieve the DOD cost cutting and size reducing initiatives. In 2004, DOD issued a broad policy that included a mandate for better maintenance processes at various depots and in the field.

The philosophy started as Lean Six Sigma in the Japanese car factories in the 1940s and was adopted in the 1990s by U.S. corporations to increase their efficiency, productivity and quality.

While Six Sigma focuses on quality, as in reducing the number of errors in a process, Lean is a broader application intended to reduce waste. The principles of Lean include defining a problem area, mapping out the current process, analyzing the impact of each step in the process, experimenting with possible solutions to increase input and output, and examining the impact of the changes.

MAJ Brenden Loton, the Australian Regular Army Exchange Officer

assigned to DDSP, has been coordinating Lean events since March 2005. He is working alongside consultants that have successfully implemented Lean at private sector companies like Toyota.

Additionally, they spent a year establishing ongoing Lean initiatives at Defense Distribution Depot San Joaquin, Calif. (DDJC), before coming onboard at DDSP, so they were already familiar with depot operations.

Efficiency consultants stress that the outcome of Lean initiatives depends heavily on teamwork with active participation by leadership, unions, and the employees working on the floor. The Lean team was completed with the addition of Transportation, Systems, and Safety specialists along with supervisors, work leaders and workers. It is critical that solutions are worker-driven.

The initial focus for Lean at DDSP is identifying opportunities to improve Consolidation and Containerization Point (CCP) operations. CCP processes freight that is received at DDSP from other DDC distribution centers, vendors, and the General Supply Agency that is destined for customers outside the continental U.S. (OCONUS).

The CCP material is sorted, consolidated and containerized along with stock pulled from DDSP. If it is to be transported overseas by air, the material is staged in the Air Line of

Communications (ALOC) area, built onto air pallets that are trucked to an airbase. If it is to be transported by ship, it is staged in Surface Outloading and loaded into sea containers that are trucked to a seaport.

CCP was targeted for Lean because a low percentage of freight was not leaving the base on time, keeping DDSP from meeting performance metrics.



Resulting from LEAN initiatives, CCP Receiving staging lanes allow easier movement of freight and traffic.

The team began by mapping the CCP flow of material on paper, including the timeframes of material movement.

The objective was to find the points, or specific areas where material set waiting to be moved, causing a time delay. The map showed that material was not being handled on a first in, first out basis in either CCP Receiving or Outloading.

The biggest opportunity and first focus area for improvement was in the ALOC area. Too often the staged freight

## Trooper helping to get DDCT to green

By Polly Charbonneau, DDC Command Affairs

There's a new face around Defense Distribution Depot Corpus Christi, Texas (DDCT) and it's bright green.

"Trooper" is the smiling mascot for DDCT's efforts to get and stay green on all their performance measures.

To name the mascot, DDCT Commander, LTC Timothy W. Orner, Sr, USA, held a contest. DDCT's Administrative Support Assistant, Lonie

DuBose, won the contest. She received \$20 in Safety Bucks to purchase items from the Safety Store.

"The DDCT workforce is very motivated to support our Warfighters," said LTC Orner. "But we can all use a little encouragement. That's where Trooper comes in. You can see Trooper on posters around the warehouses reminding everyone that we need to stay green."

DDCT MASCOT



Trooper

overflowed into several destination lanes or was misdirected entirely into the wrong lane for a number of reasons.

In one weekend, the staging area was cleared so that the lanes could be marked on the floor with paint. The overhead signage was improved to clearly identify what was to be placed in each lane. Also, standard operating procedures (SOPs) were defined and posted for all shifts to adopt.

Just a few months later, CCP Receiving was the next area to see changes in the form of visual queues. The workers are to receive delivered freight and move it to the next process area in one day's time.

As it was, unloaded material was placed so close together that only what was exposed could be easily removed. In addition, trucks pulled up to receiving doors in random sequence, increasing the time needed for forklift traffic to crisscross.

Staging lanes are now clearly painted on the floor in front of each receiving door. Labels on the material are color-coded according to the day of the week it was received. Additional material handling equipment is available to assist workers when lifting or tilting boxes, reducing the possibility of back injuries. Also, Transportation personnel are modifying their process, assigning trucks to dock doors in a numerically sequenced order.

Surface Outloading was the most recent area of improvement. By the end of November 2005, the entire surface staging area was reconfigured, both CONUS and OCONUS, so that it would be utilized to its best capability for the current workload.

CCP Surface Outloading staging areas are grouped according to the freight's geographical destinations. The customers with the highest volume of material are staged closest to the dock doors and the lane signage is improved. Fire lanes and travel lanes were incorporated into the floor plan to increase safety and allow forklift traffic to flow easier.

Lean is an ongoing process. "The



*DDSP Receiving employees have additional material handling equipment such as this scissor table used to raise boxes to working levels.*

improvements made in ALOC and Surface Outloading have benefited the movement of all freight out of the EDC [Eastern Distribution Center]," said MAJ Loton. "However, finding opportunities never stops. By eliminating a bigger problem, a smaller problem surfaces." Improvements made in one area can be diminished by deficiencies not yet addressed in another area, so it isn't fair to judge outcome on immediate statistics.

Lean has improved performance at DDSP, but the wide range benefits will surface only as it is systematically integrated throughout all operations. In the future, the process of moving CCP surface containers from the dock door to the gate, as well as the movement of material from outlying warehouses to the EDC, and the Packing operations will all be studied by the Lean team. Even DDSP's detachment in Mechanicsburg, Pa., is undergoing some trial studies.



*Lean initiatives in ALOC reduced overflow and misdirection in freight staging areas at DDSP.*

"I am very committed to Lean as a methodology for process improvement," said CAPT Jim Naber, SC, USN, DDSP's Commanding Officer.

"There will be lots of opportunity for participation in the Lean events that are on the horizon. The process changes made already were the result of the combined efforts of many people including experienced workers, younger workers, leaders, supervisors, safety specialists and the Lean consultants."

According to CAPT Naber, teamwork and dedication are key to the success of Lean at DDSP. "The biggest impediment that I am seeing with the Lean events is the failure to follow through. I'll be holding progress meetings with all of the leadership, asking them to tell me and show me how they are implementing the process changes in their areas. We, as an organization, are investing too much time, money and talent in these events to have them only partially implemented."



*As a result of Lean initiatives at DDSP, Surface Outloading is reconfigured, marked with lanes and signs using the floor space capacity according to the current workload, allowing easier flow of forklift traffic.*