

Introduction

Tobyhanna Army Depot (TYAD), an integral component of the U.S. Army CECOM Life Cycle Management Command, has earned the distinction as the Defense Department's (DoD) premier depot by providing high quality, cost-effective organic maintenance for command, control, communications, computers, intelligence, surveillance and reconnaissance systems (C4ISR) for nearly 60 years. TYAD is officially designated as the Army's Center of Industrial and Technical Excellence for C4ISR, electronics, avionics and missile guidance and control systems. TYAD is also known as the Air Force's Technology Repair Center for command, control, communications and intelligence systems.

Plant: TYAD is a government-owned/operated facility located in Tobyhanna, PA.

- Size: 1,296 acres
- 155 buildings and 12 test ranges
 - Mission Space: 2.3M square feet
 - 61% under one roof
 - 15% Efficiency Factor
- The Communications Security (COMSEC) enterprise comprises 154,980 square feet

Directorate of Communications Systems

The Directorate of Communications Systems (D/MT) at TYAD provides depot level overhaul, repair, test, modification, conversion and technical assistance for assigned commodities. These include tropospheric scatter radio systems, satellite communication networks and systems, COMSEC and information security (INFOSEC) equipment and subassemblies. The D/MT also provides secure demilitarization and disposal capabilities on COMSEC equipment and keying materiel.

Shingo Candidate

TYAD's 2012 Shingo Prize Medallion recipient is the COMSEC enterprise, which is executed in the COMSEC Division, D/MT. The COMSEC enterprise's mission is to receive, store, maintain accountability and issue COMSEC and INFOSEC equipment and materiel. The branches within the COMSEC Division perform depot level maintenance of COMSEC/INFOSEC equipment and sub-assemblies, and secure demilitarization and disposal capabilities. The COMSEC Division also performs wholesale and retail logistics management efforts for the COMSEC enterprise.

TYAD applied Lean concepts to the COMSEC enterprise to create a balanced, streamlined work process, generating value and exceptional support to the Warfighter.

Cultural Enablers – People Development

D/MT's skilled workforce epitomizes excellence in overhaul, repair, modification, and assistance providing worldwide C4ISR support.

- ✓ D/MT workforce consists of about 614 personnel, which includes 65 contractors and 3 Student Career Experience Program participants.
 - 93% work in production areas and 7% are in support functions.
- ✓ Personnel are introduced to Lean principles at new employee orientation.
- ✓ Productivity and performance are evaluated monthly through a balanced scorecard process and annually in performance appraisal reviews.
- ✓ The COMSEC enterprise includes 167 personnel across multiple branches in the COMSEC Division.

Continuous Improvement - Operations

- ✓ In 2004, the COMSEC enterprise began its Lean journey to streamline processes and provide the best value to their customers.
- ✓ In 2007, the COMSEC enterprise conducted its first Value Stream Analysis (VSA) on the COMSEC Receiving/Assets Verification. This event improved the process by reducing non-value added steps by 39%, manual cycle time by 42%, and process flow time by 79%.
- ✓ In April 2008, a VSA was conducted on the AN/CYZ-10 Repair Process. As a result of this VSA, process flow time was reduced by 4% and manual cycle time was reduced by 16% for an FY08 cost savings of \$44,434.
- ✓ In June 2008, the Secure Communications Branch conducted an event which reduced the component cleaning process cycle time by 47%.
- ✓ In August 2008, a Rapid Improvement Event conducted in the Receiving and Storage Branch reduced travel distance by 73% and reduced manual cycle time by 35%.
- ✓ In November 2008, the COMSEC Division accelerated their Lean efforts and conducted an enterprise level VSA of the COMSEC mission. Various continuous process improvements that have been implemented include:

- Visual Management – Andon lights and production control boards.
 - Point of Use Parts.
 - Standard Tools which decreased tool storage space by 80%.
 - Work Cells established in the Secure Communications Branch.
- ✓ In January 2012, the COMSEC Division conducted a second pass VSA to look for more ways to decrease costs and pass that value on to the Warfighter.

Enterprise Alignment

TYAD's organizational culture has evolved from a traditional to a performance based work environment with a common organizational focus.

- ✓ Corporate Philosophy is a systematic approach whereby every depot employee is focused on the business and its success. Senior management drives this philosophy down throughout the organization.
- ✓ Lean Six Sigma (LSS) Strategy Deployment is directed by Policy Memorandum #12, which provides guidance on deployment of Lean throughout all processes.
- ✓ The senior leadership of D/MT established an A3 strategy plan which outlines their goals for the deployment of LSS in their organization.
- ✓ The COMSEC enterprise monitors metrics using a balanced scorecard.

Accomplishments and Results

D/MT transforms business processes by combining LSS principles to streamline operations, eliminate waste, improve quality and increase production in a Warfighter-centric environment. Reductions achieved from implementing LSS methods in the COMSEC enterprise have resulted in an average savings of 32% in FY11, and an overall average savings of 31.5% since FY08. This significant savings, coupled with decreased repair cycle times, directly results in Warfighters receiving critical COMSEC systems quicker at a reduced cost.

Quality

- ✓ COMSEC Division personnel are self-certified on the systems they work on and perform internal lot sampling according to the American National Standards Institute Standard for Inspections by Attributes. This has resulted in quality performance above the targeted rate of 98%. During FY11 the COMSEC Division has averaged a Quality Rating of 99.95%.

Cost/Productivity

- ✓ Reduced the average actual cost for COMSEC supply functions by 51% per document and 61% per asset since FY08.
- ✓ Reduced the average Direct Labor Hours per KY-99A Reset system 24% and per KY-99A Preset system by 20% since FY08.
- ✓ Increased the labor productivity of supply functions by 67% since FY08.

Delivery

- ✓ Reduced average Repair Cycle Time for the AN/CZY-10(V)3 by 54% since January 2009.

Customer Satisfaction

- ✓ Uses a Customer Focus Team to monitor customer satisfaction via the "Ask-Toby" customer service desk, warranty inquiries, the TYAD web-based external customer satisfaction surveys and the Interactive Customer Evaluation.
- ✓ Assigned dedicated internal COMSEC-specific Customer Service Specialists to assist the "Ask-Toby" personnel.
- ✓ Increased Customer Satisfaction rating since FY07.

Morale

- ✓ COMSEC Division presented 132 employee awards since FY07.
- ✓ Employee Payout Award implemented as a result of employee surveys. Allows employees to impact award amount based on sustainment of depot performance over a variety of measures not just the financial bottom line.
- ✓ Safety is reported on each cost center's Communication Board and is tracked on TYAD's Balanced Scorecard.
 - The COMSEC Division's Total Case Incident rate is 71% better than the industry average and their Days Away/Restricted Time rate is 39% better than the industry average.

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