Geza Cseri
AMC G3, Industrial Base Capabilities Division

AMC
Organic Base Overview

25 February 2004
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Standard Form 298 (Rev. 8-98)  
Prescribed by ANSI Std Z39-18
Outline

- Industrial Base Definition
- Organic Base Today
- Organic Base Examples
- Lean Implementation
Industrial Base Definitions

- 10 USC 2500 -- “national technology and industrial base” ... persons and organizations engaged in research, development, production, and maintenance activities conducted within the U.S. & Canada.

- 50 USC 2152 -- “domestic defense industrial base” ... domestic sources providing, or which would be reasonably expected to provide, materials and services to meet national defense requirements during peacetime, graduated mobilization, national emergency, or war.

- FARS 208.7201 -- “industrial base”... that part of the total privately-owned and Government-owned production and maintenance capacity of the U.S. & Canada, which will be available during national emergencies to manufacture and repair items required by the Department.

- AR 700-90 -- “Industrial Base” ... the privately owned and Government-owned industrial capacity available for manufacture, maintenance, modification, overhaul, and/or repair of items required by the United States and selected allies, including both the production base and the maintenance base.
U.S. Army Materiel Command
- Today’s Organic Base -

All with Joint Missions!

Note: (1) GOCOs
(2) GOGOs
Rock Island Arsenal
- Products/Programs -

- 155mm Howitzer, M198
- 105mm Howitzer, M119
- Recoil Mechanism, Carriage -- Howitzers
- Final Assembly - Light Towed Howitzer (105mm)
  - M101A1
  - M102
  - M119
  - M198 (155mm)
- Gun Mounts
  - 105mm: M140A1 (M60 Tank)
  - 120mm: M1 (M1A2 Tank)
  - 155mm: M178/M182 (M109 Self-Propelled Artillery)
- Howitzer
  - 165mm: M150 (M728 Combat Engineer Vehicle)
- Mobile Shop Sets & Tool Outfits
- Forward Repair Systems
- Contact Maintenance Truck, Heavy
- Explosive Ordinance Disposal
- Aircraft weapons sub-systems
- Spare and repair parts
Anniston Army Depot

- Products/Programs -

- M1 Abrams Family of Vehicles
- Armored Vehicle Launched Bridge (AVLB)
- M88 Recovery Vehicle
- Self-propelled Artillery
  - M109A5 Paladin
  - M109A6 Paladin
  - FAASV
- Towed Artillery
  - M119 Howitzer
  - M102 Howitzer
  - M198 Howitzer
- M9 Armored Combat Earthmover (ACE)
- M113 Family of Vehicles
- Small Arms
  - M16 Rifle
  - M2 MG 50 cal
  - M60 MG 7.62 mm
  - M240 MG
  - M4A1 Carbine
- Mortars and Grenade Launchers
  - 120MM Mortar
McAlester Army Ammunition Plant
- Products/Programs -

- **Insensitive Munitions Filled Bombs**
  - 500 lb
  - 1,000 lb
  - 2,000 lb

- **Non-Insensitive Munitions Filled Bombs**
  - 1,000 lbs
  - 2,000 lbs (three types)
  - 5,000 lbs

- **Navy Gun Propellant Charges**
  - 5 inch/38 Cal (two types)
  - 5 inch/54 Cal (two types)
  - 5 inch/62 Cal (two types)

- **Inert Bombs**
  - 500 lb (two types)
  - 2,000 lb

- **TNT Reclamation**
Lean is a Management Philosophy

“...it is a philosophy of manufacturing that seeks to minimize unnecessary time, materials, and effort in the production process”

Standard and Davis, Running Today’s Factory, 1999
5 Principles of “Lean Thinking”
from "Lean Thinking" by Jim Womack and Dan Jones

- **Value** (from the customer’s perspective)
- **Value Stream** (the steps that add value)
- **Flow** (no stops, piles, or back-ups)
- **Pull** (on-demand)
- **Perfection** (waste-free)

“Lean Thinking” is a mindset relentlessly focused on identifying and removing waste from a value stream
Lean Implementation results in…
- Improved efficiencies
- Improved customer satisfaction
- Reduce overall resources per project
  - People & facilities
- Continuous process improvement

Depots obtain competitive edge to compete
- Reduce surcharges/rates
- Improved quality
- Encourage partnerships

Productivity = Redeployment, not Unemployment
- Reduce overtime
- No attrition replacement
- In-source components
- Grow sales (quality, cost, and delivery)
- Large temporary improvement teams

Why Lean?
Its about performance!
- Quality
- Cost
- Delivery

Help speed improvements to the bottom line by growing productivity faster than attrition
Transforming AMCs Business Philosophy and Practices

Lean is…
“a philosophy of manufacturing that seeks to minimize unnecessary time, materials, and effort in the production process”
Standard and Davis, Running Today’s Factory, 1999

UH-60 A to A Recap
Corpus Christi Army Depot
✓ Plan to reduce Turn-around Time from an estimated 327 days to 150 days
✓ Reduced distance traveled from 5.5 miles to 1 mile
✓ Reduce the number of buildings from 8 to 4

Sidewinder
Tobyhanna Army Depot
✓ Unit Maintenance Cost was reduced by 46%
✓ Improved productivity by 12%

PATRIOT Launcher
Letterkenny Army Depot
✓ Savings: 476 Hrs/unit reduction in FY04
✓ Personnel Redeployment: 12 = savings of over $1M
✓ Customer Realized FY03 Savings: $1.2M
✓ FY04/FY09 Program Savings = $16,181,209
Lean Projects/Processes = Efficient Depots

Objective…
Integrate in Business Processes, both manufacturing & non-manufacturing

GAO Report from July 03
Cites efficiency and productivity improvements in Army depot maintenance operations resulting from Lean implementation

Lean Initiatives

ANNNISTON ARMY DEPOT:
✓ 1790-2DR Engine
✓ AGT 1500 Turbine Engine Process
✓ M1 Fwd Module
✓ M1 Rear Module

CORPUS CHRISTI ARMY DEPOT:
✓ UH 60 A to A Recap
✓ UH 60 Transmission
✓ T700 Engine (Six Sigma)

LETTERKENNY ARMY DEPOT:
✓ Patriot Antenna Mast Group (AMG) Recap
✓ Patriot Radar Recap
✓ Patriot Launcher Components
✓ Patriot ECS; CRG; ICC

RED RIVER ARMY DEPOT:
✓ 903 Engine
✓ MLRS Vehicle Remanufacturing
✓ SEE Recap
✓ Kingpin Fabrication
✓ Bradley Vehicle Overhaul
✓ HEMTT Vehicle Overhaul

TOBYHANNA ARMY DEPOT:
Sidewinder Missile
Firefinder Recap
AN/TRC-170
AN/VPQ-1

ROCK ISLAND ARSENAL
✓ Forward Repair System

SIERRA ARMY DEPOT:
✓ Class VIII-Medical Supplies

BLUE GRASS ARMY DEPOT
✓ Ammunition Shipping & Receiving

WATERVIET:
✓ 81MM Barrel Process
✓ M185 Rebuild Program
✓ 155mm Split Ring

MCALESTER ARMY AMMUNITION PLANT:
✓ CAM/Outloading Process
✓ TNT Reclamation Line
✓ Tritonal Reclamation Line

CRANE
✓ DO Surveillance Inspection Process
✓ ME Dragon Demil Operations

PINE BLUFF ARSENAL
✓ M485
✓ M40 Mask
✓ M295 Decon

HQ AMC:
✓ Materiel Release Process
✓ National Maintenance Program
✓ AWCF Process

Lean Increases Efficiencies & Competitiveness!

Enabler

Increase Public-Private Partnerships!
**AMC Lean & Six Sigma - Integration -**

**Two Powerful Business Improvement Approaches!**

**Lean**  
Speed + Waste + Implicit Infrastructure

**Six Sigma**  
Quality, Cost + Explicit Infrastructure

**Lean & Six Sigma**  
Accelerated Rate of Improvement in Customer Satisfaction, Cost, Quality and Process Speed

**Lean is...**  
“a philosophy of manufacturing that seeks to minimize unnecessary time, materials, and effort in the production process”  
Standard and Davis, Running Today's Factory, 1999

**Six Sigma is...**  
“a disciplined, structured approach for process and product optimization that provides the tools and methodology for achieving robustness and effectiveness of processes.”  
The Quality Management Forum, Fall 2003
Depot Workload
- Percent Leaned -

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