

Letterkenny Army Depot

ISO 9001 Registered

ISO 14001 Registered

OHSAS 18001 Registered



A Capabilities Based Depot

Letterkenny Army Depot

VISION

LEAD is the depot of choice for Industry, Government, and the Greatest Warfighters in the world.

MISSION STATEMENT

Deliver superior maintenance, manufacturing, logistics, life cycle support and service worldwide to the Joint Warfighter and our Allies.

Keys to success:

- **Cost—deliver goods and services to supported agencies at the lowest cost possible**
- **Quality—deliver goods and services to supported agencies IAW quality parameters established by contract and specifications**
- **Schedule—deliver goods and services to supported agencies on or before required delivery date**
- **People— develop personnel to ensure: Personnel growth, motivation and cost/quality/schedule**
- **Growth— grow the business**

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COMMANDER'S FOCUS

Depot Commander Priorities

- Maintain/provide a safe, effective and efficient work place
- Gain visibility of the business - evolve LMP into a viable enterprise resource planning tool
- Meet cost, quality and schedule goals/metrics across all depot functions
- Continually improve every day
- Professionally develop our human capital

CG, AMC Priorities

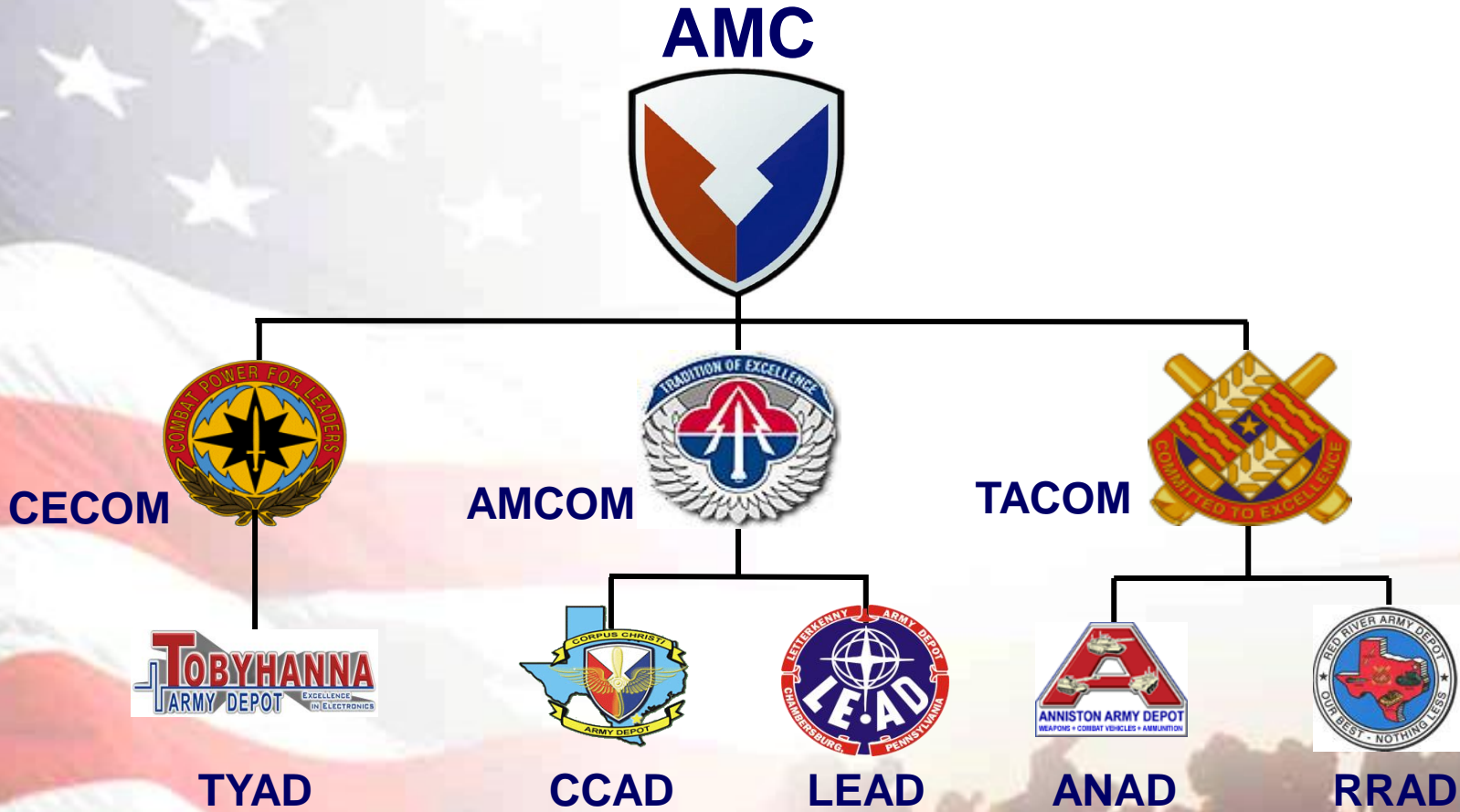
- Support the Warfighter
- Instill a culture of efficiency and resourcefulness
- Consolidate and optimize our capabilities
- Provide global expeditionary logistics
- Network the logistics enterprise
- Build partner capacity

CG, AMCOM Priorities

- Support the Soldier throughout the ARFORGEN Cycle
- Enable, support and improve weapon system life-cycle success, including S&T
- Recruit, develop and sustain a top performing workforce
- Integrate a culture of efficiency without sacrificing effectiveness
- Leverage ME relationships and collaboration to derive measureable benefit to the Soldier
- Assure technology protection

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TASK ORGANIZATION



Letterkenny Army Depot

ORGANIZATIONAL CHART

MAJ Jeffrey Will



Executive Action Officer

COL Cheri A. Provancha



Commander

Anita Raines



Deputy to the Commander

Nadine Stoler



Chief of Staff

MSG Joseph Schall



Depot Sergeant Major

Edgar Wright



Operations Planning & Support

Steve Miller



Industrial Operations

Charles Jenkins



Risk Management

Alvin Bailey



Information Management

Terry Kelley



Product Assurance

Scott Molony



Resource Management

Rodney Gettig



Public Works

David Putman



Theater Readiness Monitoring Facility

Betty Mellott



Supply and Transportation

Kathy Salas



Contracting

Rich Kutzler



Transformation /LMP

Melinda Knarr



Legal

Lindsay Bryant



Public Affairs

Shea Hurley



Safety

Gerald Chapman



OCI

Craig Perdue



Internal Review Evaluator

Leon Bolivar



EEO

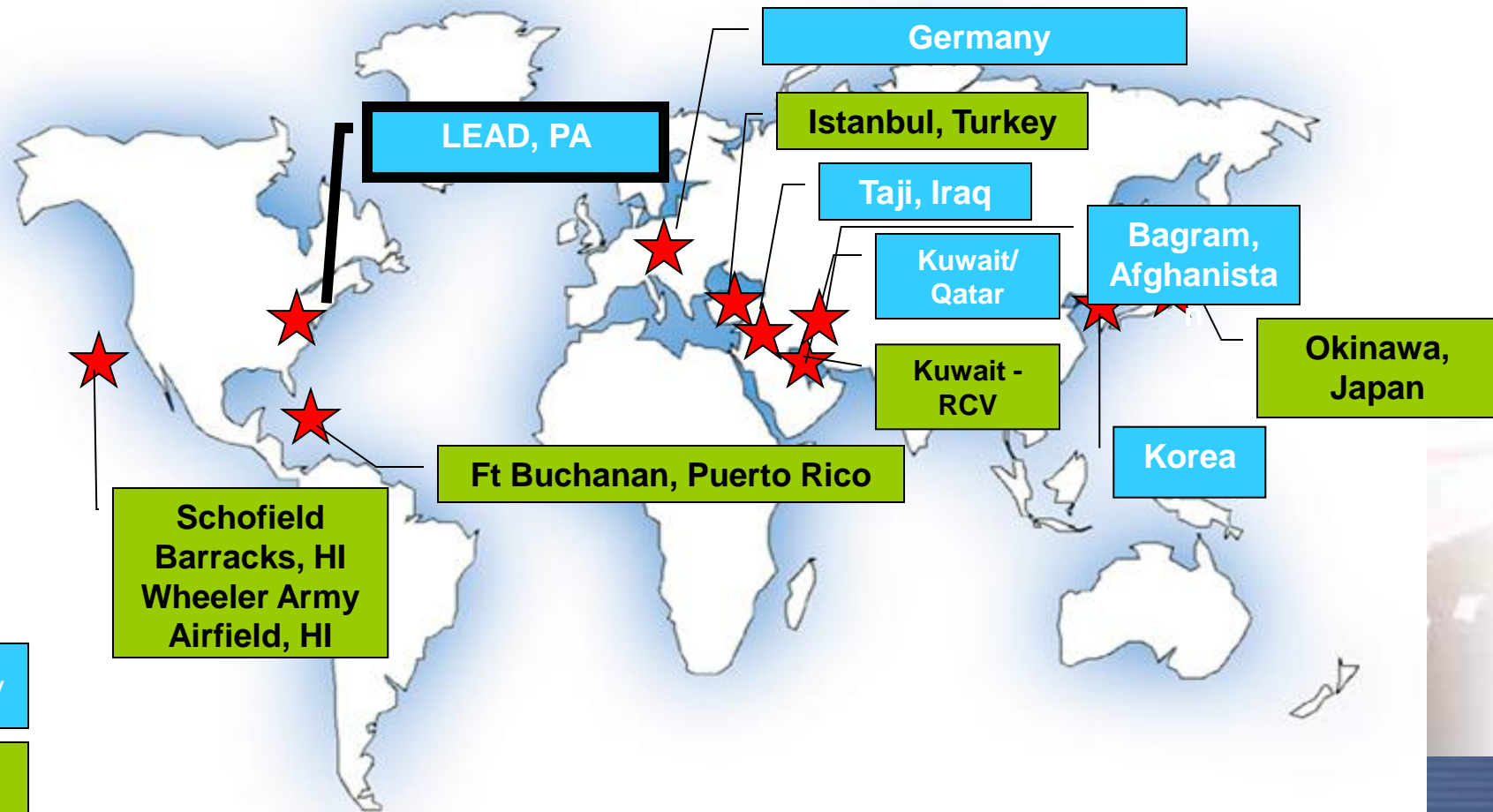
Larry Rubeck



Post Restaurant

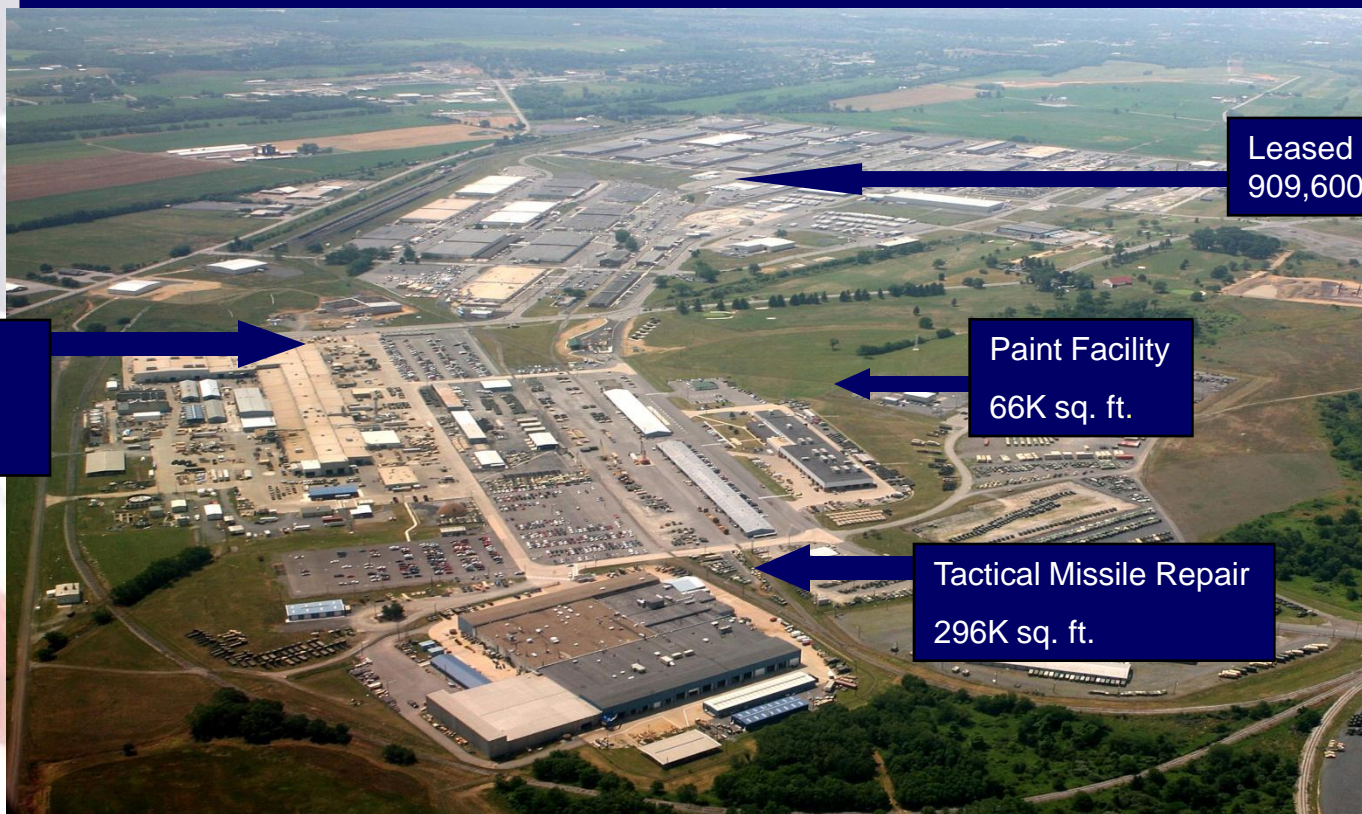
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WHERE WE ARE



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THE INDUSTRIAL COMPLEX



Industrial
Operations
318K sq. ft.

Leased Space
909,600 sq. ft.

Paint Facility
66K sq. ft.

Tactical Missile Repair
296K sq. ft.

18,668 acres

3.8 million labor hours

1.47 million sq ft shop floor

\$175 million specialized equipment

\$1.54 billion infrastructure

3,836 employees comprised of:

1,737 Government; 1,295 contractor/military; and 804 tenants

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PRODUCTION/PROCESS AREAS

1,476,149 square feet of overhaul/
process/assembly work areas



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ELECTRONICS SHOPS

- 296,161 square foot electronic and missile system maintenance and equipment integration facility
- High tech facility specializing in the refurbishment of:
 - Analog/digital electronics
 - Phased array radars
 - Engagement Control Stations
 - Information Control Centers
 - Launching Stations
 - Automatic Test Equipment (ATE)
 - Guidance and control (G&C) maintenance
 - Electronic systems integration, test, diagnostics, and repair
 - Circuit card refurbishment



Current primary emphasis:
Phased Array Tracking to Intercept of Target (PATRIOT) end items, Avenger, TOW and components of Army missile systems, e.g., Javelin, Hellfire, MLRS, and HIMARS

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CONVENIENTLY LOCATED



McGuire AFB – 191 miles

New York City – 223 miles

Philadelphia – 130 miles

Baltimore – 96 miles

Dover AFB – 182 miles

Norfolk – 281 miles

Charleston – 621 miles

65 miles south of Harrisburg International Airport

110 miles north of Washington, DC

CSX rail
interchange near
installation

Norfolk South
interchange – 15
miles

50% of the East Coast population lies within a 350 mile radius

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DEPOT POPULATION

Directorate	O/B Military	O/B Civilian	O/B Contractors
Command Group	1	60	6
Industrial Operations	0	811	849
Operations, Plans & Support	0	329	114
TRMD	0	86	19
Product Assurance	0	94	2
Supply-Transportation	0	86	54
Public Works	0	120	18
Information Management	0	49	6
Resource Management	0	25	0
Risk Management	0	75	8
PFI Soldiers	59	0	0
Depot Total	60	1735	1076
Authorized	1	1625	205
15 Tenants	92	663	420

Depot Proper
Total = 2871

32% less than
5 years federal
service

5%
Minority

42% Veteran

8% Disabled
Veterans

20% more than
30 years federal
service

17%
Women

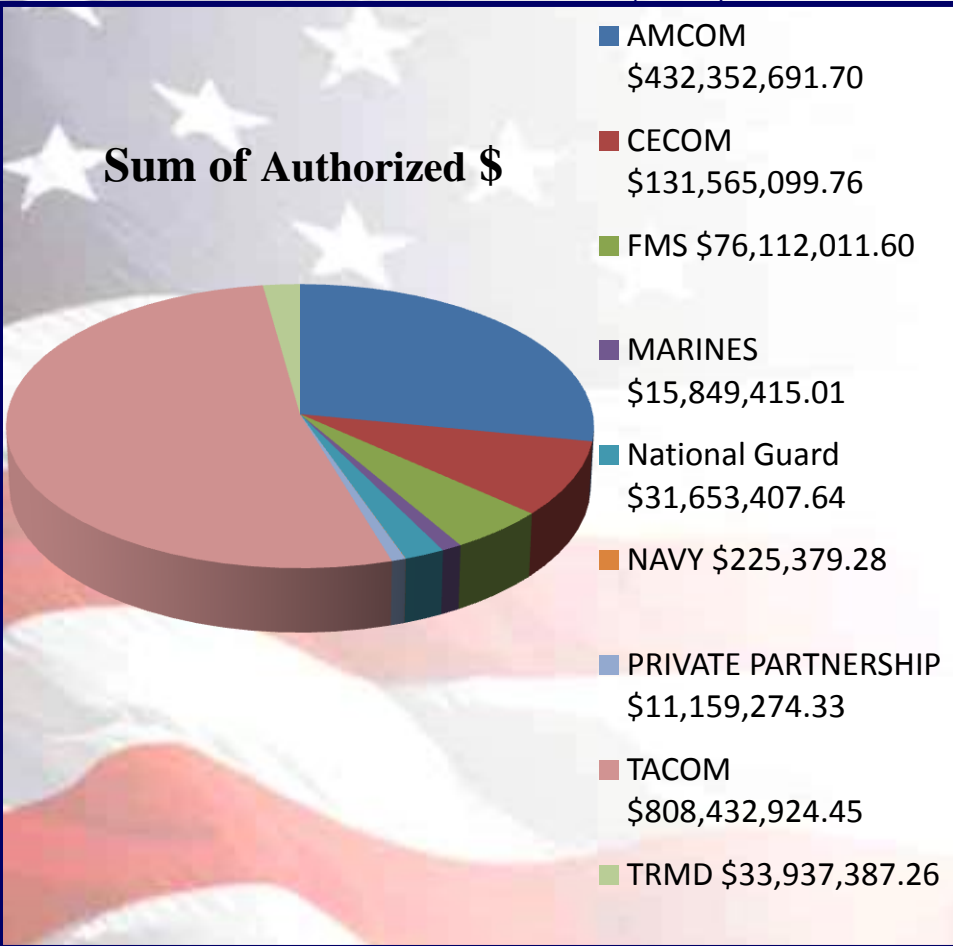
Average age
of workforce
is down from
47.5 to 45.4

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LETTERKENNY ARMY DEPOT WORKLOAD

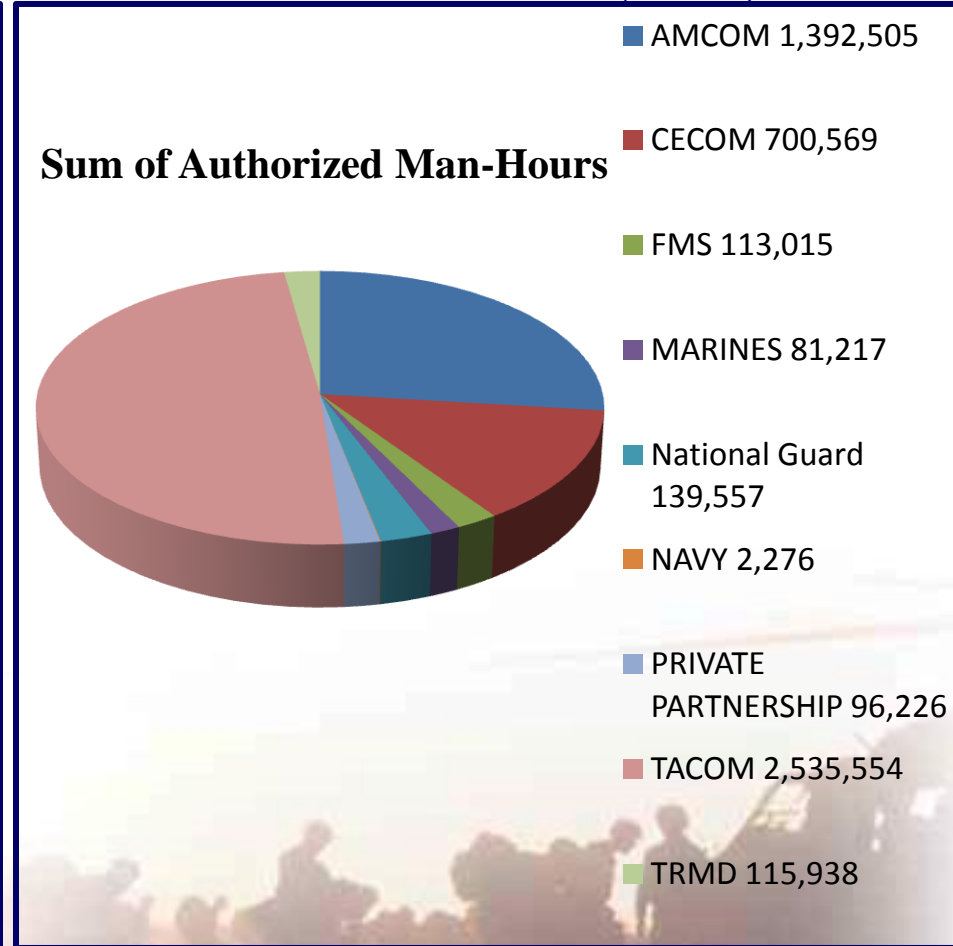
LEAD Workload (\$M)

Sum of Authorized \$



LEAD Workload (DLH)

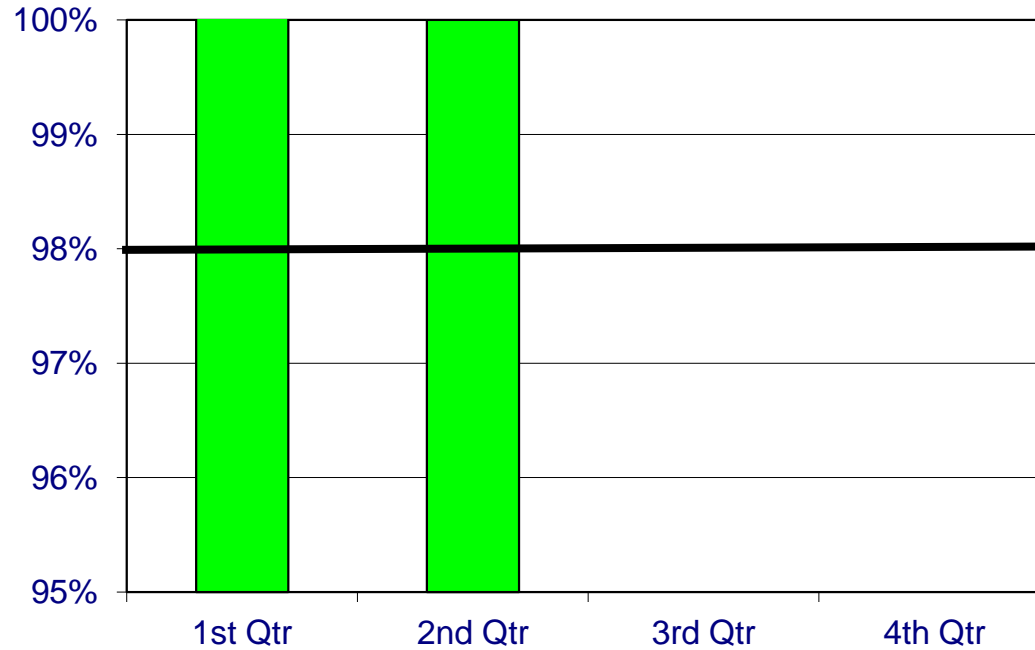
Sum of Authorized Man-Hours



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FY12 CUSTOMER SATISFACTION

AMC Goal



PQDRs (External) Recd	7	5		
SDRs (External) Recd	0	3		
Hotline Calls Recd	1	0		
E-mails Recd	3	1		
Surveys Recd	15	5		
Customer Calls	15	15		
Items Shipped	35030	22125		

Green = 98%>
Amber = 85% - 97.9%
Red = < 85%

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#1 PAYROLL IN SOUTH CENTRAL PA
#1 INFORMATION TECHNOLOGY EMPLOYER

\$215M INSTALLATION PAYROLL
Approx. \$267M into COMMUNITY

CONTRACTS (FY11)
WORLDWIDE: \$208M

PENNSYLVANIA IMPACT:
\$109.9M or 53%

**Average LEAD
Salary:**

\$60,686

**Average
County Salary:**

\$37,920

**Average State
Salary:**

\$42,040

15 Major Tenants

- Defense Information Systems Agency (DISA)
- Letterkenny Munitions Center (LEMC)
- Computer Science Corporation (CSC)
- U.S. Army TMDE Support Center (TMDE)
- CECOM Industrial Logistics System Office (ILSO)
- 99th Reserve Readiness Command (99th RRC)
- U.S. Army Material Systems Analysis Activity (USAMSAA)
- U.S Army Health Clinic
- Defense Reutilization & Marketing Office (DRMO)
- Lower Tier Project Office, PATRIOT Office
- Defense Automated Printing Service (DAPS)
- U.S. Army Civilian Personnel Advisory Center (CPAC)
- ACC, Directorate of Contracting
- Baltimore District Army Corps of Engineers
- Patriot Federal Credit Union

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***The Premier DOD
Center of Industrial & Technical Excellence
for***

***Air Defense & Tactical
Missile Ground Support Equipment***

Mobile Electric Power Generation Equipment

***Phased Array Tracking to Intercept of
Target (PATRIOT) Missile Recertification***

Route Clearance Vehicle (RCV)

CITE Request Submitted

- Unmanned Aerial System (UAS) - Ground Support

Future CITE Initiatives

Force Provider
Material Handling Equipment



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LEAD CERTIFICATIONS

ISO 9001 – all employees

ISO 9001 Certified LEAD Auditor - Required for: Proponent identifies required participants

ISO 9001:2000 - General Overview - Required for: Proponent identifies required participants

ISO 9001:2000 – Auditing - Required for: Proponent identifies required participants

ISO 9001:2000 - ISO Introductory for Senior Management Overview - Required for: Proponent identifies required participants

ISO 9001:2000 Internal Auditor Training - Required for: Proponent identifies required participants

ISO 14000 (Mgt/Leadership) - Required for: Commander, Deputy Commander, Directors and all Union Presidents

ISO 18000

LEAD Employee Certifications

Certifications are tracked in Training Management Software (TMS)

Apparatus Driver/Operator Aerial - Required for: GS-081 Series

Apparatus Driver/Operator Pumper - Required for: GS-081 Series

Defense Packaging of Hazardous Materials for Transportation - Required for: Civilian and military handlers, packers, inspectors, and preparers (certifiers) of hazardous materials

Electrostatic Discharge (ESD) - Required for: Viewing as identified by the supervisors (Supervisors, Electronic Mechanics and Electronic Measurement Mechanics)

Hazardous Material Awareness - Required for: GS-081, GS-018 personnel

Hazardous Material Incident Command - Required for: GS-081-12, 081-10, 081,08, 081-07, 018-11 (

Hazardous Material Operations - Required for: GS-081-12, 081-10-, 081-08, 081-07, 081-05, 081-06 and GS-018-11

Hazardous Material Technician - Required for: GS-081-12, 081-10, 081-08, 081-07, 081-06, 081-05 and 018-11

NDT Liquid Dye Penetrant, Level I, Level II, & Level III (Non-Destructive Testing) - Required for: NDT operators.

NDT Magnetic Particle, Level I, Level II, & Level III (Non-Destructive Testing)

NDT Radiographic, Level I, Level II, & Level III (Non-Destructive Testing) - Required for: Employees who currently hold Radiographic Certificates

NDT Visual Weld Inspection Instructor - Required for: Anyone teaching and testing the Visual Weld Inspection Course

NDT Visual Weld Inspector - Required for: Anyone inspecting welds visually

Radar Use - Required for: GS-0083 and GS-0085 employees who operate radar equipment

Selective Electrodposition of Metals (Sifco Process) - Required for: Electroplating Workers in 3711 series

Soldering Certification (Basic) - Required for: Employees who solder, not job specific

Soldering Certification (Micro-miniature) - Required for: Employees who solder components on circuit boards or do circuit board repairs, not job specific

Soldering Instructor Certification (Basic and Micro- Miniature) - Required for: Employees who solder and want to teach basic and micro-miniature soldering certification and basic and micro-miniature recertification, not job specific.

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PARTNERSHIPS WITH INDUSTRY

*2003 - Present

LEAD & Partners Growing Together

Maintains core capability

Maximizes facility utilization

Provides industry with flexibility and options

Leverages the strength of industry partners

Opens the door for more business to industry



BAE Systems
MRAP/MMPV



Lockheed Martin
TADS PNVs



PATRIOT Launcher



PATRIOT Missile



Lockheed Martin
WCMD



Lockheed Martin
Javelin



AAI Corp
Shadow TUAS

Lockheed Martin, GE & Eaton Vickers & Harris
HIMARS



Lechmotoren US
PATRIOT EPP III Parts & Technical Support



Manitowoc Crane Grp
AT422T Crane



Summa Technologies
FMS Shelters & Generators



Partnership Man-Hours

The Department of the Army's partnership strategic goal is to continue to grow and expand partnerships between Army depots and private industry.

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LEAD PARTNERSHIP

New Build Phased Array Tracking to Intercept of Target (PATRIOT) Launchers



- Build new PAC-3 PATRIOT Launchers
- First Article qualification was awarded for all fabricated items
- Various cable and mechanical sub-assemblies are fabricated by LEAD
- Assemble and integrate specifications
- Complete top coat with water soluble chemical agent resistant coating (CARC) paint
- A Comprehensive Documentation Package is developed for each launcher
- Complete system simulation and testing

Partnering for Future Success

Unclassified

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MINE RESISTANT AMBUSH PROTECTED (MRAP) PRODUCTION



LEAD provided fabrication, modifications, component installation, final assembly, road test, paint and wash



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JOINT PARTNERSHIPS



Command Launch Unit (CLU) Testing and Repair



- Repair
- Programming
- Test
- CAT 3 Storage



Optical Interface (OIF) and Forward Looking Infra-Red (FLIR) Circuit Card Testing and Repair

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CONTINUOUS PROCESS IMPROVEMENT

Employee Involvement



8X Shingo Recipient

PATRIOT '05
HMMWV '06
HMMWV '07
Power Generator '07
BIDS '08
PATRIOT 08
PATRIOT '10
AGPU '11

Hands on Action



Lean Success – FY12 (Oct.-Feb.)

- Completed 3 Value Stream Analysis
- 9 Rapid Improvement Events
- WPU savings \$9,255,638
- WPU year end projected savings \$17.3M

Lean Success – FY11

- Completed 15 Value Stream Analysis
- 33 Rapid Improvement Events
- WPU Savings \$ 36,561,927

Value Added Results



41 Two Piece Summaries YTD

TWO PIECE SUMMARY
AGPU Insert Protection

ISO 14001 Registered
ISO 9001 Registered

REASON FOR ACTION: Why did you choose to do this activity?
3-Mechanics complaining about amount of hardware to disassemble/install old hardware to protect inserts in paint process in MOD-1 remove old hardware install new hardware, no cleaning required

FINAL STATE: How does this activity now usually run today?
Mechanics in disassembly install old hardware to protect inserts in paint process in MOD-1 remove old hardware install new hardware, no cleaning required

ONGOING BENEFIT: If you, the Depot, did not do this or improve get as a result of you either moved unneeded task of tapping saving the mechanics time increased average flow time in MOD-1 by over 2.2 minutes decreased the tools required in workspace

Focus:
 - Lower rejects for broken and loose hardware
 - Baseline Data:
 - Broken and loose hardware was identified as one of the highest defects on the AGPU line
 - Approach:
 - Protect inserts from paint

RESULTS METRICS:

X	WASTE SAVINGS	
X	COST AVOIDANCE	\$1,704
X	WASTE SAVINGS	
X	TYPE OF TRAINING	
X	CYCLE TIME	Reduced cycle time by over 2.2 Min

DATE OF PROJECT: May 2010
TEAM MEMBERS: 1 hr
TOOLS INVESTED: 1 hr
Time Log: 1 hr
Common Benefit: 1 hr
TOTAL HRs INVESTED: 7 others

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PRODUCTS OVERVIEW

Aviation & Missile Command



Special Operations Command



Armor Projects



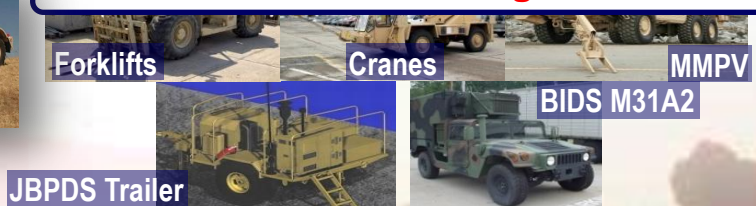
TACOM Life Cycle Mat Command



Route Clearance Vehicles



Joint PEO-Chemical Biological Defense



Communication Electronics Command



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TUBE-LAUNCHED, OPTICALLY-TRACKED, WIRE-GUIDED (TOW) MISSILE DEPOT MAINTENANCE REPAIR



LAND SCAN

The U.S. Army scans the landscape surrounding Vehicle Patrol Base Badel at the mouth of the Narang Valley in Konar province, Afghanistan, 9 May 2009. The base closed down enemy activity in the valley and in Narang, Chowkay and Nurgal districts. U.S. Army photo by SGT Amber Robinson.

This image is a work of a U.S. Military or Department of Defense employee, taken or made during the course of the person's official duties.

*Letterkenny Provides
Integrated Support for:*

TOW GROUND

TOW BRADLEY

TOW COBRA

ITAS

IBAS

Total Depot Level Support for the TOW Missile Family

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TOW GROUND COMPONENT REPAIR



Optical Sight



Traversing Unit & Launcher Tube Assembly



Missile Guidance Set

Depot Maintenance Overhaul - System Rebuild/Modification - Fielding Support - Technical Training



Multi-Layer Circuit Card Testing and Repair



DIT-MCO Testing



Cable and Harness Repair/Fabrication

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TOW BRADLEY COMPONENT REPAIR



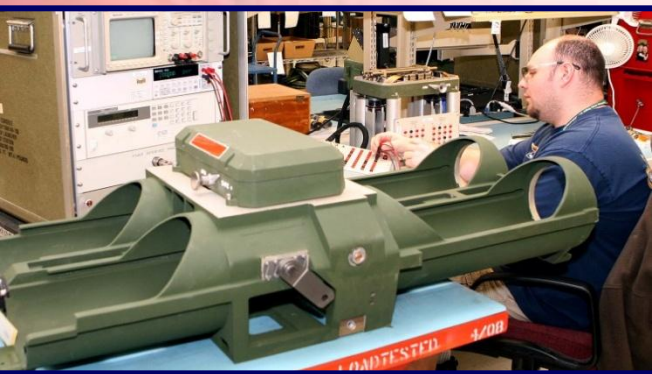
Circuit Card Testing & Repair



Cable and Harness Repair/Fabrication



DITMCO Testing



Launchers



Missile Guidance Set (MGS)



Bradley Test Sets

Depot Maintenance Overhaul - System Rebuild/Modification - Fielding Support - Technical Training

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PHASED ARRAY TRACKING TO INTERCEPT OF TARGET (PATRIOT) RECAP PLAN

LEAD is DOD's **only organic solution** for one-stop service for tactical missile maintenance, modification and integration. LEAD possesses all the specialized capabilities that support **Total** weapon system maintenance including: manufacturing, storage, certification, GSE rebuild, CONUS and OCONUS support, and final demilitarization.



4 Radars



32 Launchers



3 Communication Relay Groups

Mission: Recap program will bring the ground support system to near zero hours/miles and apply the PAC-3 modernization program upgrades.



4 Engagement Control Stations



1 Information Control Central

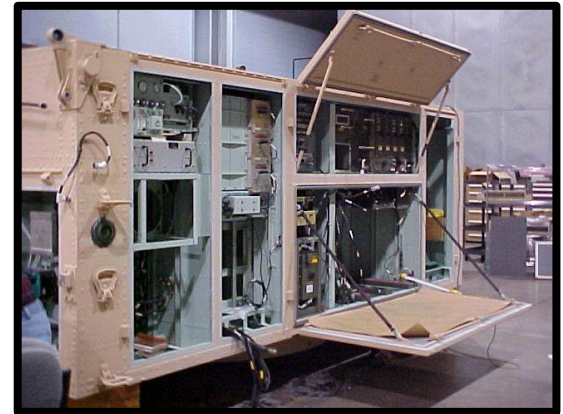


8 Antenna Mast Groups

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PATRIOT RADAR

- Complete disassembly of all electrical and mechanical sub-assemblies
- All sub-assemblies are tested down to the lowest possible level in accordance with Depot Maintenance Work Requirements (DMWRs)
- Final test for System Integration Checkout (SICO) using factory test equipment



PATRIOT Radar

PATRIOT LAUNCHER

- Complete recap of launcher system
- Complete disassembly
- Corrosion removal and sand blast parts
- Parts are replated and exterior parts coated with Chemical Agent Resistant Coating (CARC) paint
- Reassemble and install all new hardware
- Complete testing



PATRIOT Launcher

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PATRIOT ANTENNA

- Each phased array radar antenna element is removed
- All elements radio frequency tested individually on the General Purpose Electronic Test Station (GETS-1000)
- Antenna interior/exterior panels disassembled
- Radio frequency retainer/shield replaced
- Motors/actuators rebuilt
- Coaxial/triaxial cables replaced



PATRIOT Antenna

ANTENNA MAST GROUP (AMG)

- Complete recap of AMG Assembly
- Complete disassembly
- Corrosion removal and sand blast parts
- Reassemble and install all new hardware
- Paint
- Complete integration and testing



PATRIOT AMG

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THE TEST SITE

- PATRIOT radar and AMG systems tested at the 28-acre test facility located on the depot
- One of three places in the U. S. capable of mapping the antenna array
- Includes a pattern range for radar performance testing and a 1350 square foot, 24-foot high thermal chamber to simulate temperature extremes



Test site



Thermal chamber

WORK PERFORMED ON PATRIOT MAJOR ITEMS

- Major Items: disassembled down to the circuit card level and tested
- All major parts and sub-assemblies (i.e., cabinets, brackets, cover plates): totally stripped of paint; some hardware is stripped, plated, and reused
- Each item replated and painted IAW DMWR/TMs
- Stenciling and silk screening markings applied IAW DMWR/TMs
- Chassis: disassembled, stripped, re-plated/painted and marked, reassembled and tested
- Circuit cards: sent to test on the GETS and replaced or repaired as required
- Wire harnesses: replaced or refurbished according to configuration requirements
- All assemblies and sub-assemblies: rebuilt IAW configurations and DMWR/TMs
- Testing: complete radar test and integrated system tests performed on 28-acre radar test site
- Parts fabricated on site that are not available for purchase
- Quality standards: checked at various steps in the assembly process by certified quality control inspectors

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HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS) COMPONENT REPAIR



- Repair of select HIMARS components
- Diagnostics of mechanical, hydraulic and electronic components
- Disassembly, repair, resealing, testing and certified inspection



Weapon Interface Unit



Travel lock actuator



Mission--Repair select HIMARS Components:



Boom gearbox



Weapon interface unit



Hyd reservoir assembly



Power switching unit

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AVENGER OVERHAUL



LEAD Statement of Work includes:

- Direct support and depot-level repairs
- Secondary item repairs
- Joint final inspection by LEAD, unit, and IMMC



LEAD provides:

- Complete A1 overhaul & Reset
- Direct and general support for CONUS and OCONUS locations
- Final hand-off inspection at a designated unit location
- New Equipment Training (NET) at Battalion and Brigade field maintenance activities

LEAD has provided Avenger depot-level maintenance and total fleet maintenance to National Guard Bureau, Marine Corps, and Foreign Military customers since 1992.

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M997 AMBULANCE OVERHAUL/REBUILD



- LEAD overhauls Army National Guard M997 Ambulances
- Upgraded powertrain and air conditioning systems installed
- 1000 ambulance overhaul potential
- Utilize assembly lines (Lean manufacturing principles) for HMMWV and shelter repair for optimum results (cost and quality benefits)



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ROUTE CLEARANCE VEHICLE

On order from TACOM Program Manager – Assured Mobility Systems establish a Fleet Modernization Activity in Kuwait for US Army and Marine Corp Route Clearance Vehicles (RCV) along with selected USMC and Army Mine Resistant Ambush Protected (MRAP) assets. Success will be achieved by attaining a sustained production rate of 32 vehicles per month at the mid point of a three year effort with total fleet repair and modernization as the end state objective.

Cougar



Buffalo



Husky MKII



RG31



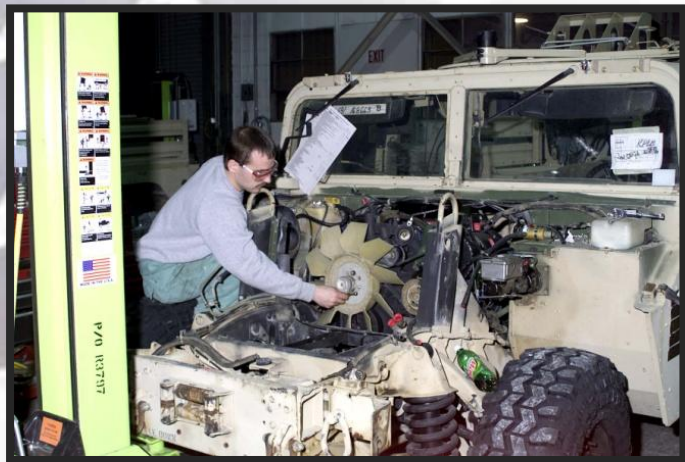
JerrV



Unclassified

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GROUND MOBILITY VEHICLE (GMV) RESET



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HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)



Before

After



Before

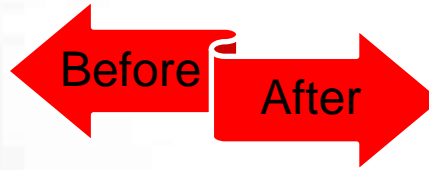
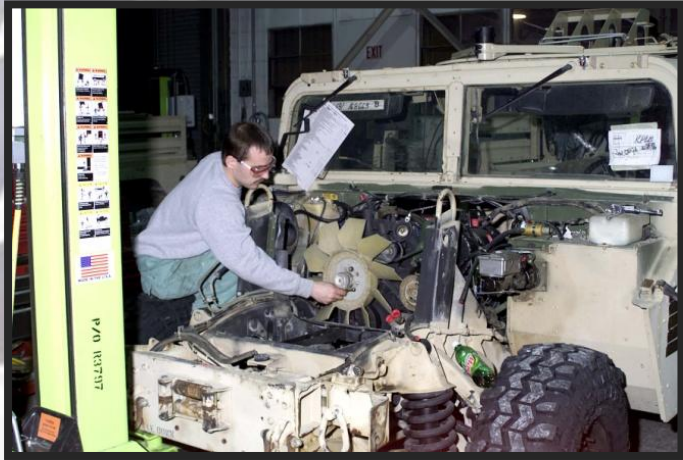
After



With the implementation of Lean manufacturing, LEAD was able to move from 100 vehicles per month to 300 vehicles per month in less than 60 days.

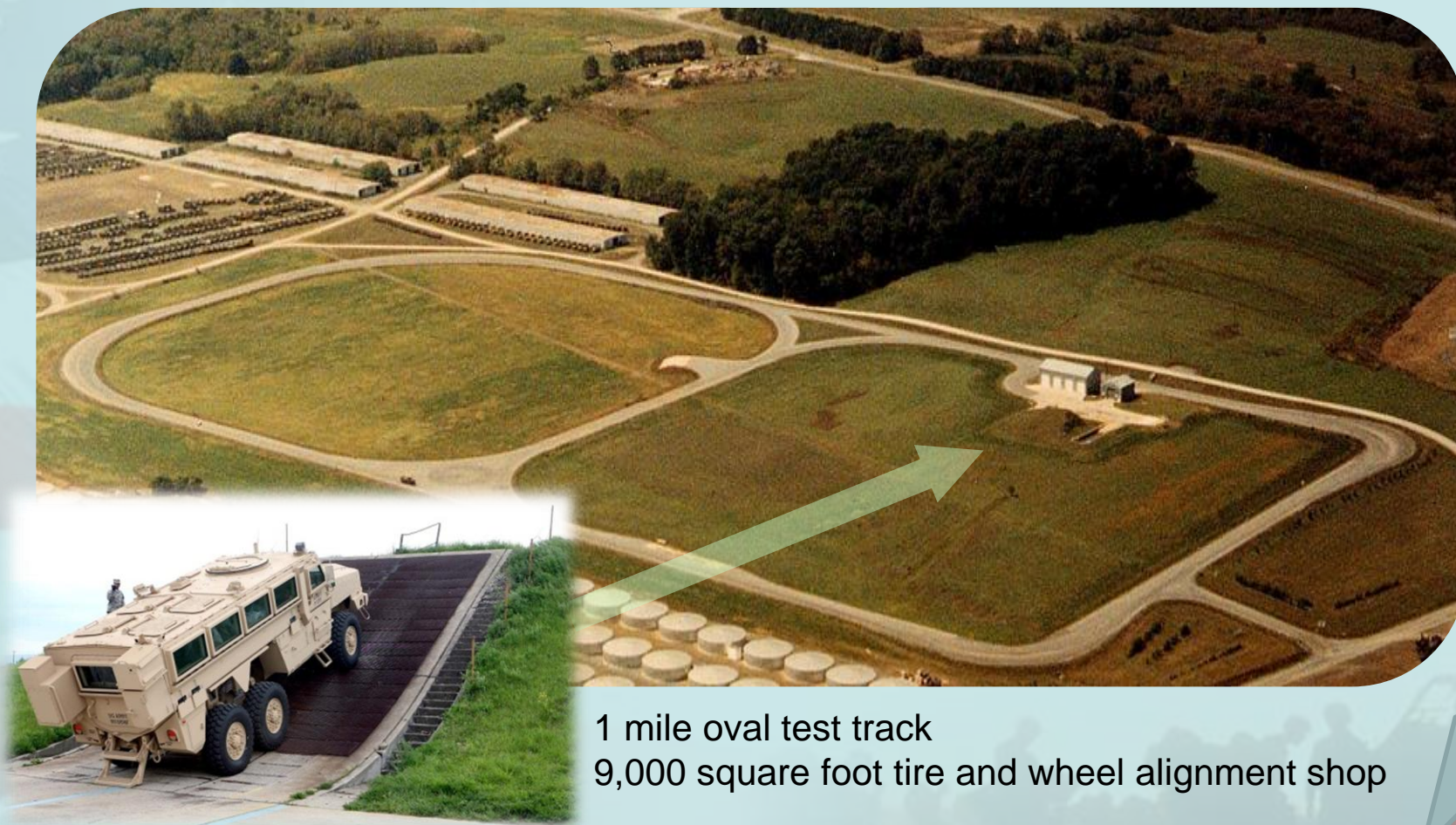
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GROUND MOBILITY VEHICLE (GMV) RESET



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WHEELED VEHICLE SUPPORT - TEST TRACK



1 mile oval test track
9,000 square foot tire and wheel alignment shop

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POWER GENERATOR RESET

Tactical Quiet Generator product line includes:

5kw, 10kw, 15kw, 30kw,
60kw, 100kw and 150kw

LEAD is the Center of
Technical Excellence for
Generators



Current monthly production – 470 (funded FY12: 4765 assets)
FY11 production: 5106 assets

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AVIATION GROUND POWER UNIT (AGPU)

AGPU New Build Program

Service Life Extension Program (SLEP)
and Reset Program



- Letterkenny is the AGPU Reset "Gold Site"
- All CONUS AGPUs will be reset at LEAD

Reset: Current monthly production = 5; authorized 64 each for FY12

New builds: monthly production = 8 starting in April 12; authorized 122 each for FY12 and 13

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2011 BRONZE SHINGO MEDALLION AVIATION GROUND POWER UNIT NEW BUILD



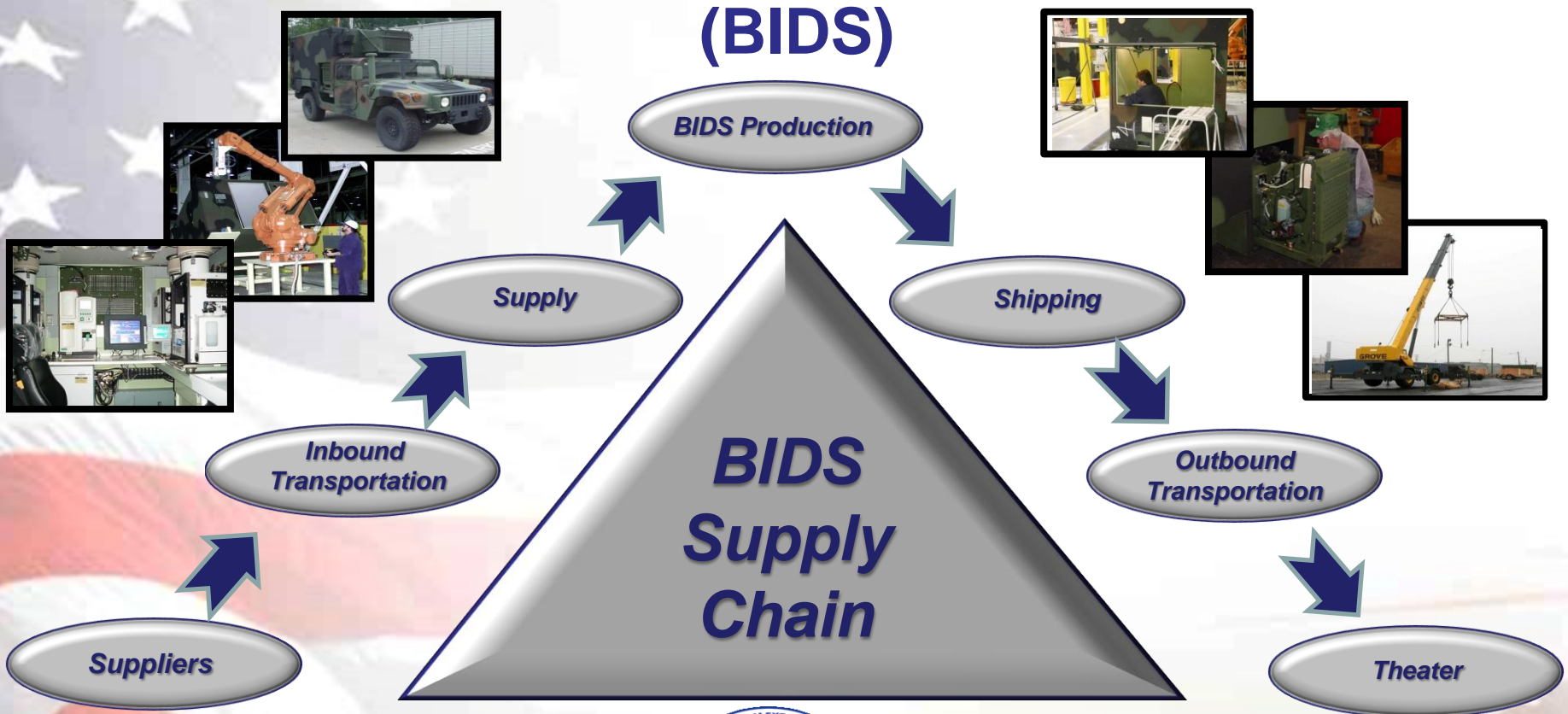
“This recognition demonstrates a continuous commitment to improvement and excellence. I am proud of LEAD employees’ commitment to the Warfighter, the flexibility and adaptability of the workforce, and their pride in workmanship.” –COL Cheri Provancha

“What an amazing commitment at all levels. Very impressive.”
Paul Terry, Shingo Audit Team Leader



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BIOLOGICAL INTEGRATED DETECTION SYSTEMS



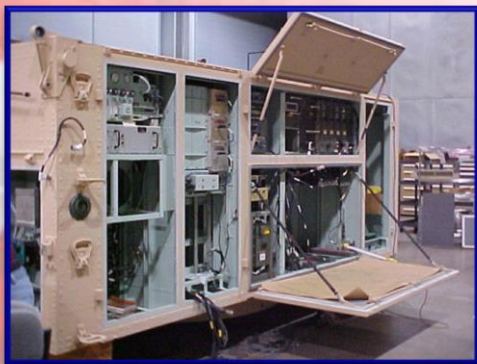
HOMELAND DEFENSE
HOMELAND DEFENSE

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SHELTER MAINTENANCE AND REPAIR



AAI Shelters



Patriot Shelters

- Receive used, worn and damaged shelters and return them to code A condition
- Value Stream Analysis studies reduced cost, streamlined production methods, and shortened turnaround time to field these vital assets to the Warfighter as quickly as possible at minimal cost



250 and 280 Shelters



BIDS Shelters

Depot Maintenance Overhaul - System Rebuild/Modification - Fielding Support - Technical Training

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SOLDIER SUPPORT EQUIPMENT



Shower Refurb & Fielding

Mobile Kitchen New Build

Containerized Kitchens



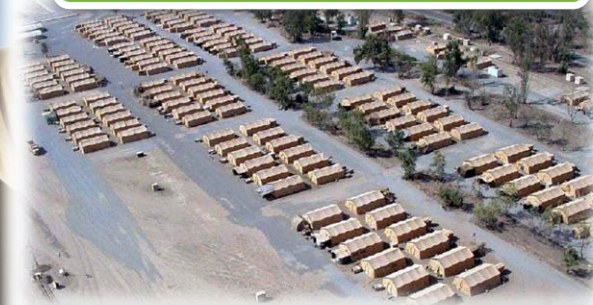
FORCE PROVIDER



New Build

Stock, Store and Issue

RESET



LEAD prototyped the mobile kitchen and developed National Maintenance Work Requirement criteria

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MATERIAL HANDLING EQUIPMENT



10K AT Forklift

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CONSTRUCTION EQUIPMENT



7.5 Ton Cranes



5 CY Scoop Loader



LEAD is the National Guard Bureau's "Depot of Choice"

Letterkenny Army Depot

ADDITIONAL MECHANICAL CAPABILITIES

Shelter repair and assembly shops

Total of 53,000 sq. ft.

12,000 sq. ft. shelter body repair area with 2x 5 ton cranes

Services range from minor repairs, upgrades, overhauls to complete rebuilding, including structural beams, sheet metal, punctures, electrical systems, seals and air conditioners

Heat Treatment

2 x heat treat ovens - 18" w x 72" L x 24" high up to 2400 degrees.

High bay, heavy crane work space

128,000 sq. ft. in 3 different buildings supporting cranes up to 10, 20 and 60 tons

Modular work cells/stations

All work cells are configured for rapid start-up of new production lines or work cells

All work areas are supported with overhead cranes

Letterkenny Army Depot

CAPABILITIES OVERVIEW

- *Electronic systems integration*
- *Radar testing*
- *Antenna pattern testing*
- *Multi-layer circuit board repair*
- *Missile maintenance*
- *Diagnostic testing*
- *Wiring harness fabrication*
- *DIT-MCO testing*
- *Fiber optic cables*
- *J-STD-001 soldering*
- *Clean room environment*
- *Shielded room environment*
- *Electric motor rebuild*



- *Sheet metal fabrication*
- *Machine shop*
- *Armor kits*
- *Welding*
- *Metal pretreatment*
- *Metal plating & painting*
- *Generator overhaul*
- *Automotive recap*
- *Hydraulics*
- *Heat treatment*
- *Blasting*
- *Non-destructive testing*
- *Precision measurement*
- *Upholstery fabrication*
- *Weld testing/certification*
- *3-D printing*
- *Reverse engineering*



Letterkenny Army Depot

TECHNICAL PUBLICATIONS/ENGINEERING DESIGN

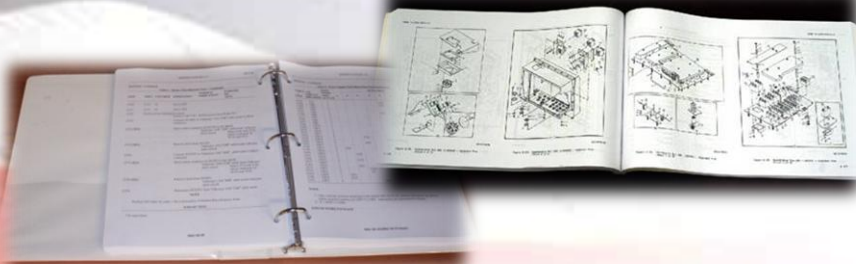
Staff:

- Technical Writers
- Editors
- Desktop publishers
- Engineers
- CADD design pros



28 years experience:

- Depot Maintenance Work Requirements (DMWR)
- Technical Manuals (TM)
- Process Instructions
- Technical Data Packages (TDP)



Publication capabilities:

- Extensible Markup Language (XML)
- CADD design software and reprographic services
- Microsoft Office, Adobe Acrobat, Adobe Photoshop

Model Based Engineering (MBE) utilizing multiple CADD and parametric design platforms to:

- Analyze and design
- Develop reverse engineer systems to development test procedures
- Provide Technical Data Packages
- Develop performance standards
- Provide manufacture-ready engineering designs



Letterkenny Army Depot

ENGINEERING DESIGN AND DEVELOPMENT SUPPORT

Experience

- Decades of experience teaming with program managers, major subordinate commands' material developers, engineering development teams, configuration control boards, and source selection evaluation boards

Performance

- Proven performer in adding high value to the customer's program

Flexibility

- Flexibility in designing and working at the shop level to fabricate prototype systems
- Work with customers to suggest changes for producibility enhancement and cost reduction

Response

- Immediate response to changes in direction, requests for technical documentation, and support to the customer throughout all phases of the project including field logistics and technical support



**Special Forces Ground
Mobility Vehicle**

Letterkenny Army Depot

VALUE ENGINEERING

Best Value

- Over five decades of production experience
- Institutional knowledge of DOD armament systems
- Instinctive ability to maximize weapon system *sustainment*

Expert Service

- Experts in the field of service life enhancement
- Restore worn components to like-new condition
- Fraction of the cost of new acquisition

Problem Solving

- Simplify customers' logistics problems
- Respond to part non-availability
- Reverse engineering and fabrication services



MLRS Actuator Screw
Acquisition Cost: \$5,773
Repair Cost: \$92



PATRIOT Coupling
Acquisition Cost: \$13,909
Repair Cost: \$85

Letterkenny Army Depot

SAWS



'Raw stock prepping'

- Materials are sawed to length for processing in shops
- Raw material stored in the ASRS building and pulled as required

Machine Type	Controls	Model	Sizes	Qty
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SAW	CNC	SPARTAN	18"W x 140"L x 16"H	1
Saw	CNC	HEM	20"W x 120"L x 12"H	1
Saw	CNC	MARVAL: -60 DEG. TO 60 DEG. TILT	23"W x 140"L x 20H	1



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SHEET MATERIAL MACHINING AND CUTTING

Haas CNC Router

- Vacuum table
- Clamping magnet/quick change over
- Mills full sheets of material
- Currently used to drill and tap armor plating for gunner protection kits



Machine Type	Power	Capacity	Sizes	Qty
Cincinnati Laser:	4K WATT	1" THICK STEEL/.5" Thick Alum.	10'L x 5'W	2
STRIPIT Laser:	6K WATT	1.25" THICK STEEL/.5" THICK Alum.	13'L x 10'W	2
ESAB Plasma, Hi-Def:	600 AMP	6" THICK STEEL/4" Thick Alum.	12'Lx8'W	1
Punch Press:	.25 Thick	Trump Turret, .25" Thick Material	10"Lx4'W	1
Hangar Insert Machine:	NA	w/Hardware Attachments	Various	1
Stamp machines (2)				



Letterkenny Army Depot



FLOW-water jet
 -87,000 PSI 12'x6'
 -55,000 PSI 4'x4'
 -Cuts up to 8" thick
 (steel, aluminum, wood, rubber, armor, composites, glass, plastic are common materials)



Products include:

- Gunner protection kits
- Vehicle armor plating kits
- Armor boxes
- Avenger bustle boxes
- Buffalo kits

SHEET METAL CUTTING



PAR 5 Axis Water Jet Cutting Machine
 90,000 PSI



Machine Type	Pressure	Capacity	Sizes	Qty
PAR Waterjet:	90K PSI	8" THICK MATERIAL	12' L x 8'W	1
Flow Waterjet:	87K PSI	FLOW 8" Thick Material	12' L x 8'W	1
Flow Waterjet	55K PSI	FLOW 8" Thick Material	4' L x 4'W	1

Letterkenny Army Depot

BRAKE PRESS OPERATIONS



CNC STRIPIT Brake Press



-Heat inductor used to pre-heat material in order to prevent cracking in titanium armor and other thicker materials

Machine Type	Controls	Model	Sizes	Qty
CNC Strip-It Brake:	Easy Form	15' LONG BED	350 TONS OF PREASURE	1
CNC Strip-It Brake	PPEB	10' LONG BED	150 TONS OF PREASURE	1
CNC Triumph Brake:		4' LONG BED	100 TONS OF PREASURE	1
Davi Plate Roller				

Letterkenny Army Depot

Rapid Machining Cell



Rapid Machining Cell

- Intuitive Programmable Machining
- Fast turnaround time for engineering prototype concepts to end product, often overnight
- Small parts runs

-As part of a Lean Green Belt Project, the purpose of the cell is to prototype and prevent production interruption

Machine Type	Controls	Model	Sizes	Qty
Mill	CNC	TM2	10"W x 45"L x 17"H	1
Mill	CNC	TRAK 5	12"W x 42"L x 36"H	1
Mill	CNC	TRAK 5 W/ Programmable Spindle	12"W x 48"L x 36"H	1
Mill	CNC	TRAK 7	15"W x 60"L x 36"H	1
Mill	MANUAL	BRIDGEPORT	10"W x 36"L x 36"H	1

Letterkenny Army Depot

Mills



Ingersoll Gantry Mill

-CNC
-20'x8' Table
-2 Heads/5 Axis
-16,000 RPM Spindle Speed



Ingersoll 6 Axis Bridge Mill
-CNC
-10'x40' Table
-(Currently being used to work on BIDS Shelters, PATRIOT Shelters and Launchers)
- "1 to Infinity lot size"



CNC HAAS EC 1600/4Axis Horizontal Boring Mill

Kearney & Trecker 5 Axis Horizontal Boring Mill
-CNC

Machine Type	Controls	Model	Sizes	Qty
Vertical Mill	CNC	TREE MILL	10"W x 36"L x 12"H	1
Vertical Mill	CNC	HAAS VF-2	14"W x 36"L x 16"H	1
Vertical Mill	CNC	HAAS VF-4	18"W x 52"L x 18"H	2
Vertical Mill	CNC	HAAS VF-5	26"W x 52"L x 20"H	4
Vertical Mill	CNC	HAAS VF-11	28"W x 120"L x 20"H	1
Vertical Mill	CNC	MATSURA	19"W x 55"L x 16"H	1
Vertical Mill	CNC	MAZAK	18"W x 52"L x 18"H	1
Horizontal Mill	CNC	EC 1600-5 AXIS	32"W x 64"L x 36"D	1
Horizontal Mill	CNC	K&T-6 AXIS		1
Bridge Mill	CNC	INGERSOLL	138"W x 500"L x 125"H	1
Bridge Mill	CNC	INGERSOLL	96"W x 264"L x 96" H	1

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Mazak 7 Axis Integrex

- Lathe Mill Combo
- Reduces set up time
- Currently working on antenna positioner
- Simultaneous machining 5 axis's at one time capability

Lathes



CNC Lathe/Turning Center

Machine Type	Controls	Model	Sizes	Qty
LATHE	CNC	TRL 1840	24"W x 48"L x 12"H	1
Machine Lathe	CNC	TRL 1630	24"W x 35"L x 12"D	1
Machining Lathe	CNC	MONARCH – W/BAR FEEDER	W/CHUCK 24"L x 10" DIAM. W/COLLET 24"L x 2" DIAM.	1
Machining Lathe	CNC	HAAS SL-20	W/CHUCK 24"L x 8" DIAM. W/COLLET 24"L x 2" DIAM.	1
Machining Lathe	CNC	HAAS TL-25	W/CHUCK 20"L x 15" DIAM. W/COLLET 24"L x 4" DIAM.	1
Machining Lathe	CNC	HAAS SL-30 - W/BAR FEEDER	W/CHUCK 35"L x 17" DIAM. W/COLLET 24"L x 4" DIAM.	1
Machining Lathe	MANUAL	STANDARD MODERN	60" x 16" DIAM.	1
Machining Lathe	MANUAL	STANDARD MODERN	60" x 15" DIAM.	4
Machining Lathe	MANUAL	STANDARD MODERN	60" x 19" DIAM.	1
Machining Lathe	MANUAL	STANDARD MODERN	38" x 22" DIAM.	1
Machining Lathe	MANUAL	HARDINGE	17" x 6" DIAM.	2
Lathe/Mill	CNC	MAZAK	15" DIA. X 30"L	1

Letterkenny Army Depot

ELECTRICAL DISCHARGE MACHINING

- Highly accurate
- Unique shaped machining
- Produces dies, jigs and fixtures

CNC Wire Electrical
Discharge Machine



Letterkenny Army Depot

QUALITY CONTROL INSPECTION POINT

- Optical Comparator
- Rockwell Hardness Tester
- Two Coordinate Measuring Machines
(1 4'x6' and 1 18"x36" accurate within .0002 of an inch)



- First article test
- First article inspection
- Tagged and followed through shop

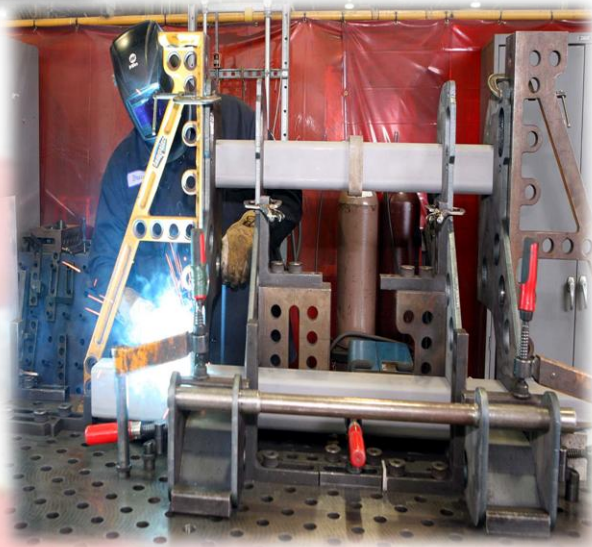
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Weld

Weld Shop Capabilities:

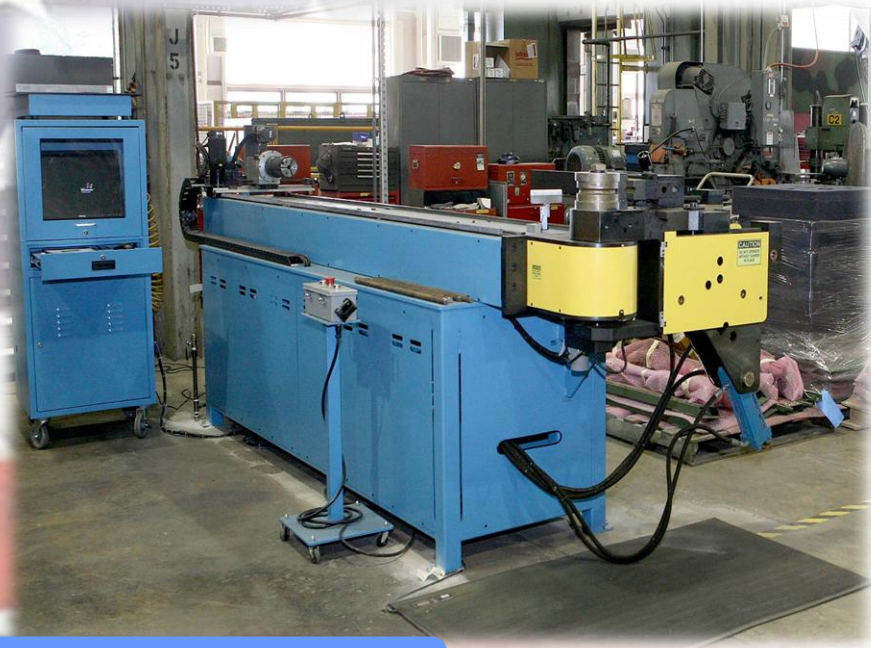
- Titanium Welding
- ROBOTIC Weld Cell
- BLU-CO Tables (Quick Set-up)
- Carbon/Air Arc
- Gas Welding
- Aluminum, Stud, and Fusion Welding (Gas or Flux)
- Tungsten Inert Gas (TIG), Gas Mechanical Inert Gas (MIG)
- Manual Metal Arc (Stick)
- Spot Welding 100,000 watts
- Stainless Steel



Machine Type	Model	Man.	Capability	Qty
Welding Machine	Handler 180/175	Hobart	Standard	2
Amperage Machine	300 GTSW	Thermo Dynamics	Arc w/TIG	1
Welding Machine	SyncroWave 350LX/351	Miller	Welder w/TIG/Runner/ Accessories	16
Welding Machine	Miller 251	Miller	Welder Dual w/W/SP Gun	3
Welding Machine	Millermatic 251	Miller	Welder MIG	2
Welding Machine	Millermatic 252	Miller	Welder w/MIG	27
Welding Machine	NDC150-000	Nelson	System Stud	1
Plasma Cutter	Spectrum 2050	Miller	Standard	2
Welding Machine	VTSL-3400	Versa	TIG MDL, Multi-select	1
Welding Machine	Dimension 452	Miller	MIG/TIG w/F&T	26
Welding Machine	Dynasty 350	Miller	Arc Welder	3

Letterkenny Army Depot

TUBING AND HOISING MANUFACTURING



CNC Tubing Bender

Programmable for:
-Round stock/square stocks
-Reversed engineer technology

Machine Type	Controls	Model	Sizes	Qty
CNC Tube Bender:	CNC	15' LONG BED	3" TUBING	1
RMD Tube Bender:	RMD	5' LONG BED	1.5" OD TUBING	1



Hose Crimping Machine:

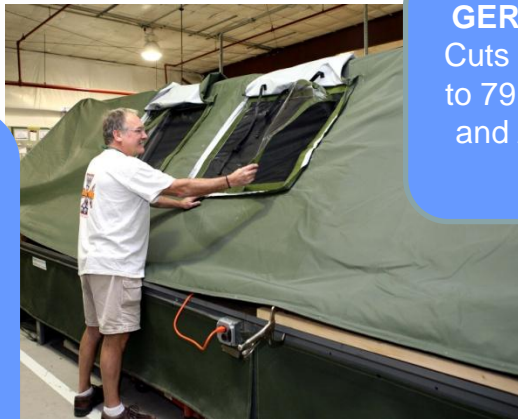
-Primarily used to make replacement hoses for material handling and construction equipment
-Capable of attaching fittings to hoses up to 2" in diameter

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UPHOLSTERY

Sheffield Cutting Machine

-Hot/Cold edge searing machine runs off full rolls of material
-Programs to cut to length and counts number of pieces



GERBER cutter
Cuts materials up to 79 inches wide and 2.83 inches thick

CNC Cutter

Snap welders

JUKI Stitching Machine

Programmable to make box stitches in any size from .75"x.75" to 3"x3"

- Refurbishing
- Furnishing work
- Sound and Water Proofing
- Cushion / Foam Replacements
- Crew Seats and Covers
- Canvas / Tent Liners
- Drapes and Curtains
- Vehicle storage solutions
- Straps

Machine Type	Controls	Man.	Sizes	Qty
Sewing Machine:	Single Stitch	CONSEW	30" Arm	4
Sewing Machine	Double Stitch		30" Arm	1
Sewing Machine	Heavy Duty	CONSEW	20" Arm	4
Sewing Machine	Standard	ARSTIEN	20" Arm	1
Sewing Machine	Box Snitchers	JUKI		2
Knife:	Hot/Cold	SHEFFIELD	NC	2
Measuring Machine:	Measuring	MERLIN	NC	1
Insert Machine:	Standard	GROMET		2
Band Saws:	Upright	DOALL		1
Fabric Cutter:	CNC	GERBER		1
Grommet Machine:	?	EDWARD SEGAL		1
Welder:	?	SINCLAIR		1
Pneumatic Foot Press	?	FASNAP		1

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REVERSE ENGINEERING

Flat bed scanner checks pattern quality and reverse engineer parts.



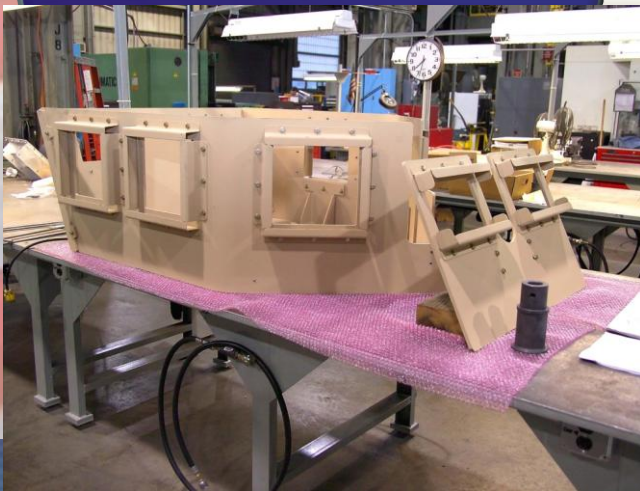
FARO Arm (with laser attachment scanner)
-8' measuring capability
-Tolerance +/- .002

Letterkenny Army Depot

FABRICATION CAPABILITIES AND PRODUCTS – ARMOR PROTECTION KITS



**Objective Gunner's
Protection Kits**



Metal Machining



Welding &
Fabrication



Fabrication &
Assembly



Letterkenny Army Depot

SPECIAL PROJECTS

- Material Inspections
- Packing and packaging
- Palletizing, boxing and crating
- Preservation wrapping
- Material pick up and delivery
- Loading/unloading
- Complete assembly

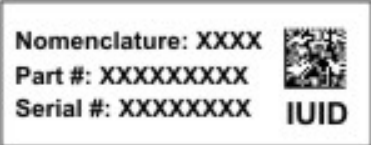



Letterkenny Army Depot

ITEM UNIQUE IDENTIFICATION (IUID) FABRICATION

Fast

Efficient

Template "A":  (2" wide x .75" high)
Nomenclature: XXXX
Part #: XXXXXXXXX
Serial #: XXXXXXXX IUID

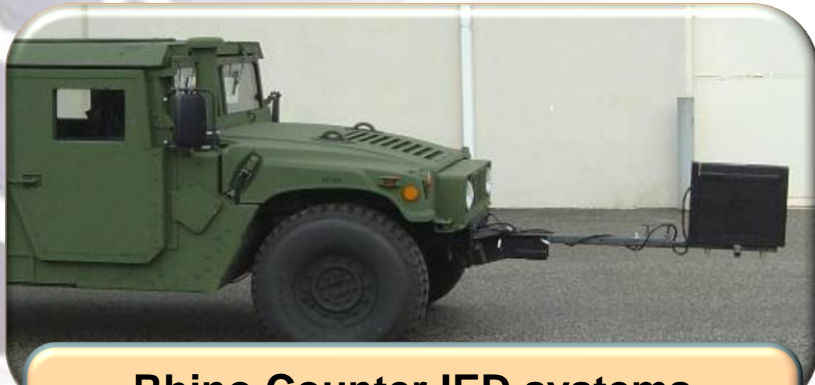
Template "B":  (2" wide x .75" high)
Nomenclature: XXXX
Part #: XXXXXXXXX
Serial #: XXXXXXXX IUID

Template "C": Custom - Color, Design, and sizes determined by customer.

Letterkenny is UIDworks© Center for Excellence

Letterkenny Army Depot

FABRICATION PRODUCTS



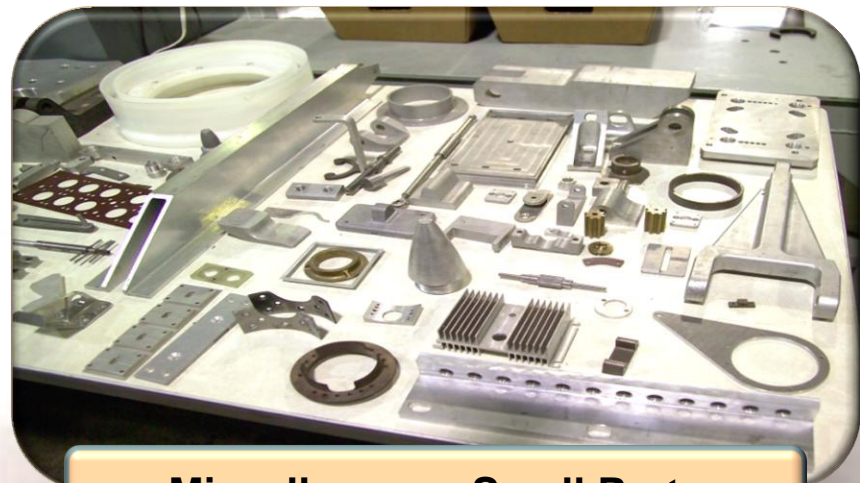
Rhino Counter IED systems Fabricated exclusively at LEAD

- Machine Shop fabricates housings and brackets.
- Electronics Shop fabricates cabling & control boxes.

*LEAD Rhino Team saved
a crew from an EFP....
Excellent Work!!!
Eric N. Erickson Jr., PM Office
IED Defeat*



Mine Rollers



Miscellaneous Small Parts

Letterkenny Army Depot

MATERIAL PREP AND PAINT

Material Prep facilities

- 5 x drive blast booths with various blast medias available
- Large drive-in wash rack facility
- 2 x wash racks
- Dedicated 65,000 sq. ft. building to high volume vehicle painting (in-line wash rack, sanding booths and paint lines)
- 7 x drive-in paint booths with various paint capability specializing in CARC paints
- 4 x metal pre-treat systems
- 3 x paint lines / systems



Letterkenny Army Depot

STAR4D TRAINING INSTITUTE



STAR4D Painter Training Institute

- Partnership with the University of Northern Iowa (UNI), the Iowa Waste Reduction Center and Tiburon
- Curriculum follows UNI's Spray Technique Analysis and Research for Defense (STAR4D) methodology

Letterkenny Army Depot

ELECTRONICS CAPABILITIES

- Electronic systems integration
- Radar testing
- Environmental chamber testing
- Missile maintenance
- Diagnostic testing
- Wiring harness fabrication
- DIT-MCO testing
- Fiber optic cables
- J-STD-001 soldering
- Multi-layer circuit board repair
- Dielectric fluid reprocessing
- Clean room environment
- Shielded room environment
- Electric motor rebuild



Letterkenny Army Depot

FULL SPECTRUM ELECTRONIC REMANUFACTURING, REPAIR, FABRICATION AND TESTING



**Integrated System
Remanufacturing / Testing**



**Electronic / Mechanical
Manufacturing and Repair**



**Environmentally Controlled
Clean Rooms**



**Micro Soldering and Circuit
Card Repair**



**Wiring Harness Testing
and Repair**

Letterkenny Army Depot

CIRCUIT CARD TESTING AND REPAIR CAPABILITY

Circuit boards having up to six layers are processed and repaired or reconstructed



J-STD-001 soldering and micro miniature soldering performed

General Electric Test Set (GETS) consoles provide state-of-the-art technology in diagnostic circuit card testing



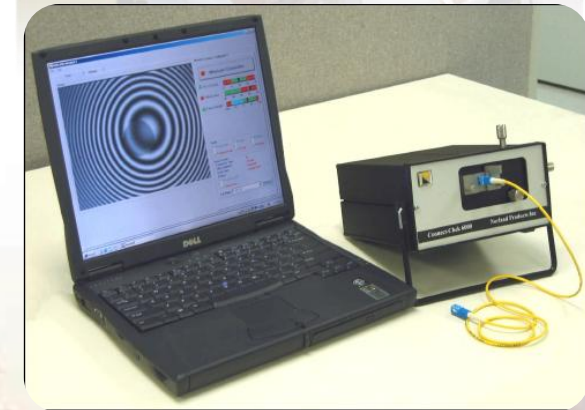
Inspection, disassemble, micro blasting / cleaning and repair

Power zoom stereo- microscope

Letterkenny Army Depot

CABLE AND HARNESS FABRICATION

- Full service wire harness repair and fabrication on assemblies ranging from small jumpers to multi-branched assemblies
- 45,000 square feet
- Reel and store cables up to 4000 feet in length
- Thermal shrink and laser etch marking manufacturing
- Harness layout process
- Reel-to-reel spooling for fiber optic and copper cables
- Assembly of connectors, pins and hardware
- T Foca fiber optic termination and testing
- DIT-MCO testing to include high voltage
- Environmental thermal shock testing up to 210c
- Final mechanical installation, testing and inspection
- Splicing, assembly and attachment of connectors
- Transmission efficiency testing
- IPC 620 and J-STD-001 certified technicians



Letterkenny Army Depot

THE ONLY ARMY DEPOT WITH INDEPENDENT RECEIVING,
STORAGE, AND SHIPPING



Inventory accuracy of 98% is maintained through the LMP/SAP cycle count process

Letterkenny Army Depot

SHELTER HANDLING EQUIPMENT



Letterkenny is fully equipped to handle any size container/shelter



Letterkenny Army Depot

THEATER READINESS MONITORING FACILITY

The Lightner Missile Complex is a new 90,500 square foot, state-of-the-art PATRIOT and Homing All the Way Killer (HAWK) facility capable of missile storage, disassembly, testing, and recertification in support of the War fighter



Letterkenny Army Depot

THEATER READINESS MONITORING

MISSILE MAINTENANCE OPERATIONS

- Missile disassembly and assembly
- Missile safety test
- PATRIOT missile facility 560 test station
- De-canning and canning of missiles
- Explosive handling
- PATRIOT Missile Integration Test System (PMITS) test
- Quality



SPECIALIZED EQUIPMENT

- Built-in temperature, humidity, dust and electronic static discharge controls
- Lightning detection system
- De-canning RAM systems (DRS)
- PMITS test station
- 5-ton overhead cranes
- Lightning warning and protection
- Forklifts



Letterkenny Army Depot

SECURE ASSET PRESERVATION AND STORAGE



Available Outside Storage Lot



Letterkenny Army Depot

CERTIFIED QUALITY MANAGEMENT SYSTEM

Quality System Manual



Quality System Procedures



QSP 1 - Management Responsibility	QSP 15 - Statistical Process Control
QSP 2 - Control of Documents	QSP 16 - Servicing
QSP 3 - Control of Records	QSP 17 - Continuous Improvement
QSP 4 - Internal Audits	QSP 18 - Work Environment
QSP 5 - Control of Nonconforming Product	QSP 19 - Purchasing
QSP 6 - Corrective/Preventive Action	QSP 20 - Management Review
QSP 7 - Control of Monitoring and Measuring Devices	QSP 21 - Electrostatic Discharge
QSP 8 - Customer Satisfaction	DPA SOP 702-12, Certification Criteria for Inspectors
QSP 9 - Identification and Traceability (Tagging)	DPA SOP 702-13, External Product Quality Deficiency Report
QSP 10 - Shelf-Life	DPA Work Instr 1 - Inspection of Local Procurement Receipts
QSP 11 - Workload Acceptance	DPA Work Instr 2 - Sheet Metal, Machine Shop, Upholstery Inspector
QSP 12 - Customer Property	DPA Work Instr 3 - PQDR/SDR Processing
QSP 13 - Process Control	DPA Work Instr 5 - FMS Repair and Return Assets
QSP 14 - Inspection and Testing	DPA Work Instr 6 - MKT RESET: Weld Inspection Sampling Plan
	DPA Work Instr 7 - Paint Surveillance

Letterkenny Army Depot Quality Policy

LEAD's commitment is to provide products and services that meet or exceed customer requirements by continually measuring, evaluating, and improving our processes for greatest customer satisfaction.

Letterkenny Army Depot

LEAD SAFETY COMMITMENT

Safety Mission Statement

Our mission is to work together as a team ensuring the safety and health of every person at Letterkenny Army Depot



THE COMMITMENT

**SAFETY
Our #1
Priority!**

**A Partnership for Excellence
in Safety**

Voluntary Protection Programs
An OSHA Cooperative Program

Letterkenny Army Depot

LEAD RECRUITMENT AND PLACEMENT

Letterkenny employs various recruitment and placement programs, to included partnerships with local technical schools and colleges.

Student Temporary Employment Program (STEP)

Student Career Experience Program (SCEP)

Veterans Recruitment Appointment (VRA)

Upward Mobility Program

LEAD CPAC has contacts/agreements with:

- Hagerstown Community College
- Harrisburg Area Community College
- ITT
- York Technical Institute
- Pennsylvania College of Theology
- Shippensburg University
- Wilson College
- Widener University
- York College of Pennsylvania
- Penn State
- Franklin County Career Technology Center
- Williams Free School of Mechanical Trade
- Thaddeus Stevens College of Technology

Letterkenny Army Depot

WHAT YOU SHOULD KNOW

- ✓ LEAD has a certified Quality Management System, Environmental Management System and a Safety Management System
- ✓ LEAD's customer satisfaction is consistently at 98% or above
- ✓ LEAD implemented the most successful LMP/SAP transition in the Army and continue to make strides in utilizing the LMP tools
- ✓ LEAD's productivity rate is 1620 direct labor hours
- ✓ LEAD invested \$107M in infrastructure over the past four years
- ✓ LEAD is the only Army depot that can control your shipping and receiving

Letterkenny Army Depot

HOO-AH!

- Secretary of the Army Awards for Environmental Restoration FY02, Environmental Quality FY06 and Environmental Sustainability FY09 — Industrial Installation
- Named by BRAC Commission in 2005 as the #1 depot for tactical wheeled vehicles for military value
- Chief of Staff of the Army Combined Logistics Excellence Award 2010
- BAE Chairman's Bronze Award 2010
- Secretary of Defense PBL of the Year Award 2011
- Supplier Excellence Award 2011

Eight-Time Shingo
Recipient

Patriot 05
HMMWV 06
HMMWV 07
Power Generator
Equipment 07
Biological Detection
Shelters 08
Patriot 08
Patriot 10
AGPII 11

2009
JDM Excellence Award
for Outstanding Contributions to
Depot Maintenance



MRAP/MMPV Team



Joint Group on
Depot Maintenance




**Shingo Winner
AGPU
2011**



**Combined Logistics
Excellence Award**

Biological Integrated
Detection Systems



Superior Performance
of Duty in Depot
Maintenance Excellence
Resulting in Improved
Combat Readiness
2009



**Shingo Winner
PATRIOT
2008**




**Shingo Winner
HMMWV
2008**




**Shingo Winner
HMMWV
2007**




**Shingo Winner
Generators
2007**




**Shingo Winner
BIDS Shelters
2008**




**Shingo Winner
Patriot
2009**



70 Years of Support and Capability