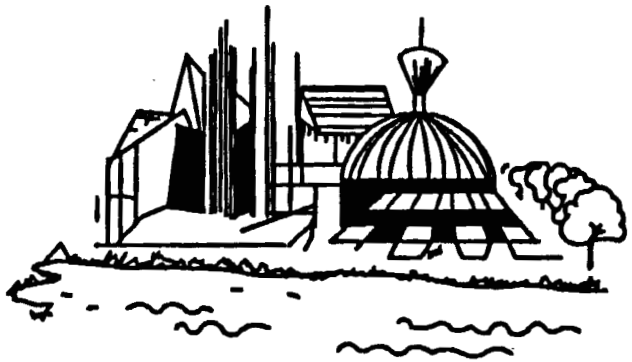
LETTERKENNY ARMY DEPOT (LEAD)
CAPABILITIES
1990 - 2000



- MISSILE & ELECTRONICS
- COMMUNICATIONS & ADP
- WHEELED & TRACKED COMBAT VEHICLES
- FACILITIES & CAPACITY

CTX ENVIRONMENT

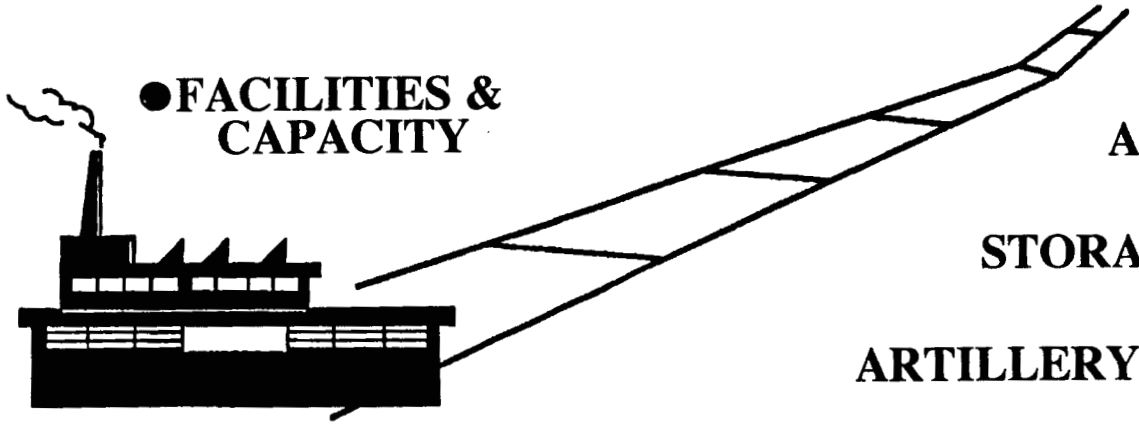
REDISTRIBUTION

ACREAGE

STORAGE

ARTILLERY

AMMUNITION



Letterkenny Army Depot

March 1995

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Section 1
EXECUTIVE SUMMARY

Executive Summary

Letterkenny Army Depot (LEAD) was born during the hectic prewar atmosphere of 1941. Through its highly skilled work force, it has evolved into a premiere state-of-the-art depot known by its customers the world over for excellence in maintenance and ammunition. Its support directorates and special staff round out the quality services provided.

The factors that caused the War Department to select 20,000 acres in south central Pennsylvania for the site of an Army depot, remain in place today. Located in the beautiful Cumberland Valley, LEAD is at a major crossroads between Interstate 81 and U.S. Route 30, with railhead facilities and easy access for air travel. The area has an available and diversified work force that is productive, dependable and based on an extremely strong and traditional work ethic.

This highly diversified installation is host to several collocated activities, which include Headquarters, U.S. Army Depot System Command (HQDESCOM); Headquarters, U.S. Army Systems Integration and Management Activity (SIMA); U.S. Army Regional TMDE Management Office - Region 1 (USARTMO - Region 1) and U.S. Army District Test, Measurement, and Diagnostic Equipment (TMDE) Support Center (USADTSC). The complex employs a total of 3,676 civilian and military personnel, which is comprised of 2,143 employees at the depot and 1,533 at collocated activities.

Entering soon into its sixth decade of providing support to the soldier in the field, LEAD has made modernization of facilities and equipment key to its future. These facilities coupled with LEAD's 19,243 acres of land and its work force ensure the depot's ability to grow and meet the demands of expanded missions.

During the past decade, LEAD spent more than $25 million upgrading, expanding, and modernizing facilities and the physical plant. The depot has invested more than $30 million in environmental enhancement projects. Currently a state-of-the-art communications and data processing center is part of new missions assigned by the base realignment and closure process.

Several projects either recently completed or currently underway will expand LEAD's capabilities even further to accommodate new and changing missions. These projects include: (1) Upgrade to the electrical substation and switching station; (2) $1.8 million expansion to the industrial waste treatment plant; (3) Construction of a 50,000 SF Hazardous Materials Storage facility; (4) Construction of a blocking and bracing facility in the ammunition area; (5) Renovation of Bldgs 12, 370, 426, and 3810 for the tactical missile consolidation at LEAD; (6) Installation of a gas pipeline to convert major boiler plants to natural gas.

Technical expertise paired with this strong work ethic provides a skill base unequaled in the depot system. LEAD employees don't know the meaning of the word "can't" and it shows in the many seemingly impossible projects that are tackled and successfully completed. The skill base is varied and includes a full complement of professional and administrative support personnel, as well as a direct labor maintenance force which includes optic technicians, electronics technicians, heavy mobile equipment repairers, ammunition/explosive workers, welders, sheetmetal workers, material handlers, forklift operators, and production support personnel.

Tactical Missile Consolidation

With the decision of the Base Realignment and Closure (BRAC) 93 Commission to consolidate tactical missile maintenance, LEAD was chosen as the Department of Defense Center of Technical Excellence to perform the maintenance workload on inter-service tactical missiles.

Several missile systems have been successfully transitioned from other services and LEAD has begun the repair and testing of these systems.

Renovation of several buildings is currently under way to increase the required floor space to incorporate the tactical missile consolidation under the Directorate of Maintenance.

Total Army Quality

LEAD continually strives to improve the quality, capabilities, and processes of its products and services through the application of Total Army Quality (TAQ) tools and techniques. Our focus is our internal and external customers, our means - a committed work force.

Our TAQ journey involves everyone and actively includes training, teamwork, leadership, long-range planning, and continuous improvement to move us forward in our pursuit towards excellence.

Teams are at work daily building in quality at the cost center level through continuous process improvement in conjunction with our suppliers. Eighty-five areas in maintenance and ammunition apply statistical techniques to improve our products. We have 12 Statistical Process Control instructors and 35 Army Management Engineering College certified Process Action Team instructors.

Our strategy was reviewed by the Office of the Under Secretary of the Army as a model for change. Through the Integrated Logistics Support Office, management has made a joint commitment with employees to provide a quality product to our customers certified with the seal of pride from our high performing manufacturing and supply team .

LEAD is aggressively pursuing continuous improvement. Utilizing the TAQ tools and techniques, depot activities are focusing on internal and external customer needs and expectations, – identifying, breaking down, analyzing systems/processes and problems, and developing methods for improvement. Long range planning efforts are underway to outline initiatives to move steadily forward in our pursuit for excellence. Through teamwork, employee empowerment, management commitment, leadership, and training we are working to build a culture in which we all work together in one direction with wide spread enthusiasm, creativity, and innovation to continually improve our people, products, and services.

Letterkenny, people stepping together for our customers.

Two new missions were awarded to Defense Megacenter Chambersburg (DMC-Chambersburg) a tenant activity at LEAD. The Army Standard Information Management Systems (ASIMS) began live automated data processing

(ADP) support to eleven (11) U.S. Army Training and Doctrine Command (TRACOC), U.S. Forces Command (FORSCOM), Health Service Command, and Pentagon sites on 15 July 1991. The Streamlining Information Service Operations Consolidation System was implemented in five phases beginning with U.S. AMC Catalog Data Activity in New Cumberland, PA. The remaining four (4) sites: Tobyhanna Army Depot, U.S. Army Communications-Electronics Command, Vint Hill Farm Station, and Natick Research and Development Command were brought on-line May 1993; with the last site active 8 May 1993.

On 9 June 1994, the DMC had its Ribbon Cutting Ceremony Officially opening it as a Defense Information Service Organization (DISO) Megacenter. Workload is projected to be relocated from Bureau of Navy Personnel, Arlington, VA, DISO-Cleveland, Cleveland, OH, under Base Realignment and Closure 1993.

Unique Capabilities

Listed below are the wide range of capabilities we have at LEAD. Descriptions of each of the following are provided in the Unique Capabilities Section.

*Tritium Facility
*Computer Numerical Controlled /Manual Data Input (CNC/MDI) Machining
*Engine Test Cell
*Wiring Harness Fabrication
*Electric Motor Reconditioning
*Soldering Capabilities Including PACE
*28 Acre Radar Testing Site
*Nearfield Antenna & Compact Test Pattern Range
*Difference in Testing Machine Company (DIT-MCO), A2000, Missile Automated Test Equipment
*Engine & Cross Drive Transmission Test Stand
*Optical Instrument Overhaul
*Extensive Painting and Blast Cleaning Capabilities
*Chrome Plating Facility
*Small and Large Recoil Gymnasticators
*Multilayer Circuit Card Repair and Test
*Extensive Hydraulic Hose/Components Rebuild Fabrication
*Shielded Room Capability Interference Free Testing Environment
*Complete Overhaul & Test Capability for Hawk System (Basic thru Phase III Including Related Vehicles)
*Environmental Chambers/Clean Rooms
*Complete Overhaul & Test Capability for PATRIOT Missile System (Including Related Vehicles)
*Special Service Capabilities - Soft Technology
*Foreign Military Sales (FMS) Customers
*Vehicle Test Track Comples
*Radiographic Inspection Facility
*Technical Measurement Facility
*Firing Range
*Ammunition Surveillance
*Laboratory Facilities
*Air Force Defense Missile Systems
*Shipping/Receiving
*Storage
*Demilitarization
*Ammunition Maintenance
*Processing Captured Foreign Military Materials
*Flexible Computer Integrated Manufacturing (FCIM)
*Level III Nondestructive Evaluation Program Manager

Production Facilities

The Directorate of Maintenance has 27 production facilities that total 947,119 square feet of floor space. The two key maintenance buildings are the Electronics Shops in building 370 and the Vehicle Shops in building 350. The Electronics Shops in building 370 contain an Antenna Pattern Test Range with 40,000 square feet of storage (i.e., Automatic Storage and Retrieval System (ASRS Plus)) and 215,100 square feet of environmentally controlled/clean room area. It also contains an extensive variety of specialized test equipment, and nuclear biological and chemical filter testing capabilities.

The Vehicle Shops in building 350 houses a large machine shop, armament, artillery, welding, and other supporting activities. It is equipped with a 60-ton overhead crane, four 30-ton bridge cranes, two 10-ton cranes, one heavy recoil gymnasticator, one light recoil gymnasticator, and six large capacity welding positioners. It also contains two drive-thru paint booths and two drive-thru blast facilities. In addition, there are various Computer Numerical Controlled (CNC) machining centers, processing, cleaning and testing equipment sufficient to support complete, high quality and low reconditioning operations.

Additional support shop buildings provide the following services: chromeplating, reconditioning of hydro-pneumatic recoil mechanisms; complete overhaul of optical fire control instruments; optical lens resurfacing; engine and transmission rebuild, and chemical equipment repair.

The Directorate of Ammunition Operations has production facilities totaling 191,504 square feet of floor space housed on over 12,000 acres. The directorate manages 2,134,000 square feet of earth covered storage igloos. Open storage space totals 242,940 square feet with unlimited expansion capabilities.

The Directorate of Ammunition Operations receives, stores, renovates, tests, issues, and demilitarizes conventional and missile ammunition. These services are provided to the Army, Navy, Air Force, Marine Corps, Coast Guard, State Department, and various foreign and private customers.

LEAD also assembles and tests Sidewinder, Sparrow, Phoenix, and AMRAAM missiles for the Air Force, Navy, and foreign customers. Within the depot gates are three Government-owned, contractor-operated (GOCO) facilities for the up-rounding of Phoenix, AMRAAM, and PALADIN.

LEAD's capabilities in this arena far exceeds current production with facilities and personnel available to do this work for all Army missiles up through the PATRIOT.

LEAD has a large paint facility that can apply various finishes including chemical agent resistant coating (CARC) and camouflage.

Mission and Workload

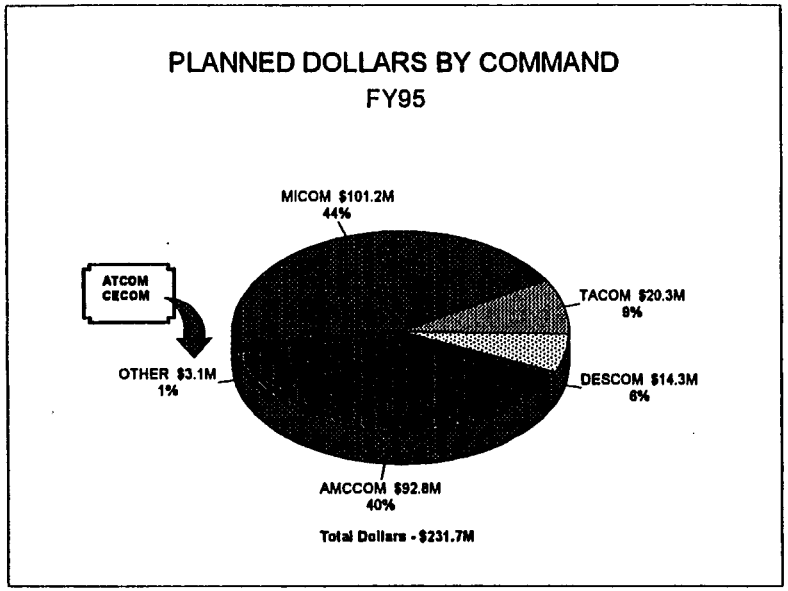
Each year equipment worth millions of dollars passes through the Maintenance Shop Facilities at LEAD. This equipment is overhauled to a like-new condition for about one-third the cost of purchasing a new end item.

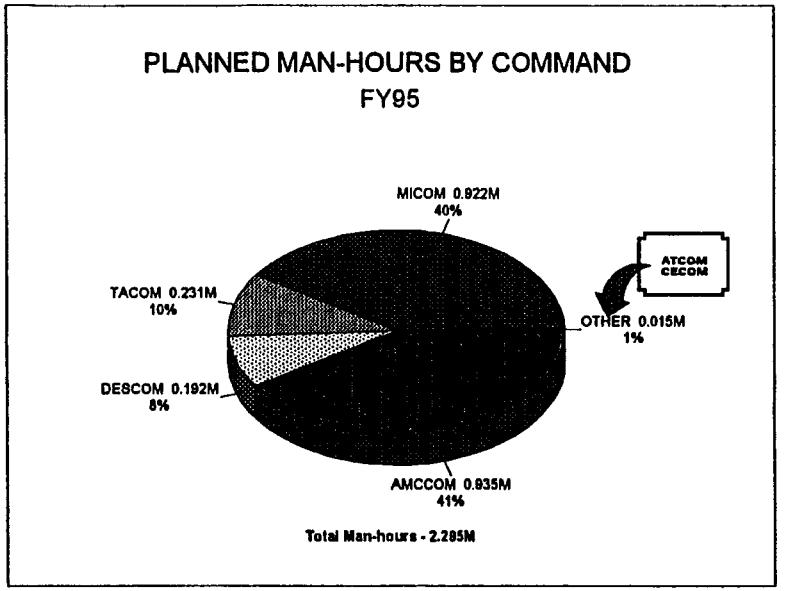
Entire systems are overhauled and modified down to their smallest components. This includes towed and self-propelled howitzers, tactical vehicles, and air defense missile systems. During the last 3 years, the Directorate of Maintenance has produced an average of 870 major items and 18,136 secondary items per year. The following table shows the percentage of workload at the beginning of FY95 by command and commodity.

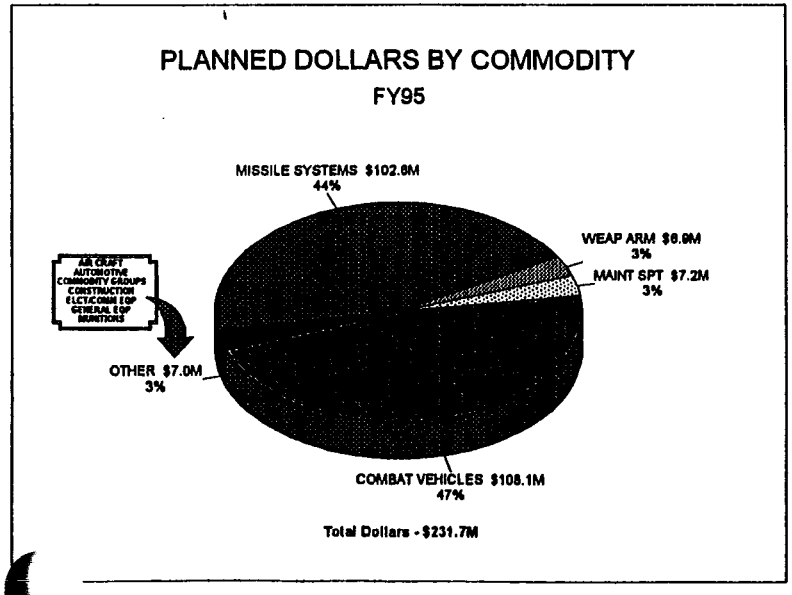
Command	Percentage Total Workload
AMCCOM	41%
MICOM	40%
TACOM	10%
DESCOM	8%
ATCOM, CECOM	1%

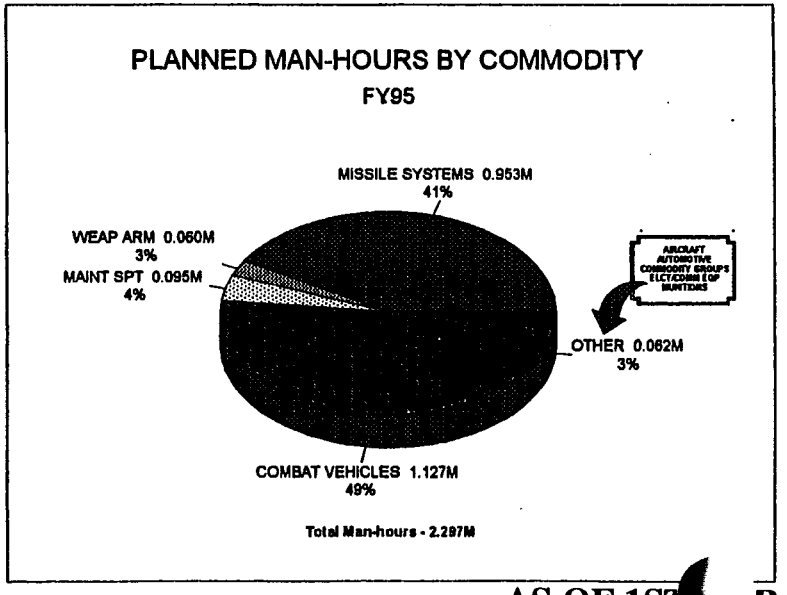
Commodity	Percentage Total Workload
Missile Systems	41%
Combat Vehicles	49%
Weapons Armament	3%
Other	3%

MAINTENANCE MISSION WORKLOAD





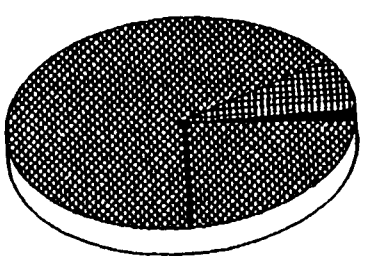




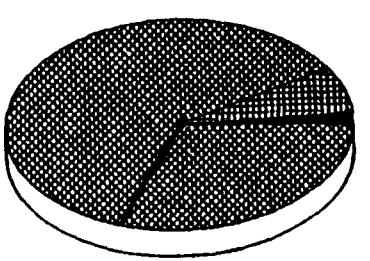
AS OF 1ST R 1995

Directorate of Ammunition Operations Workload

AMMUNITION
CUSTOMERS - ISSUES
FY94



AMMUNITION
CUSTOMERS - RECEIPTS
FY94

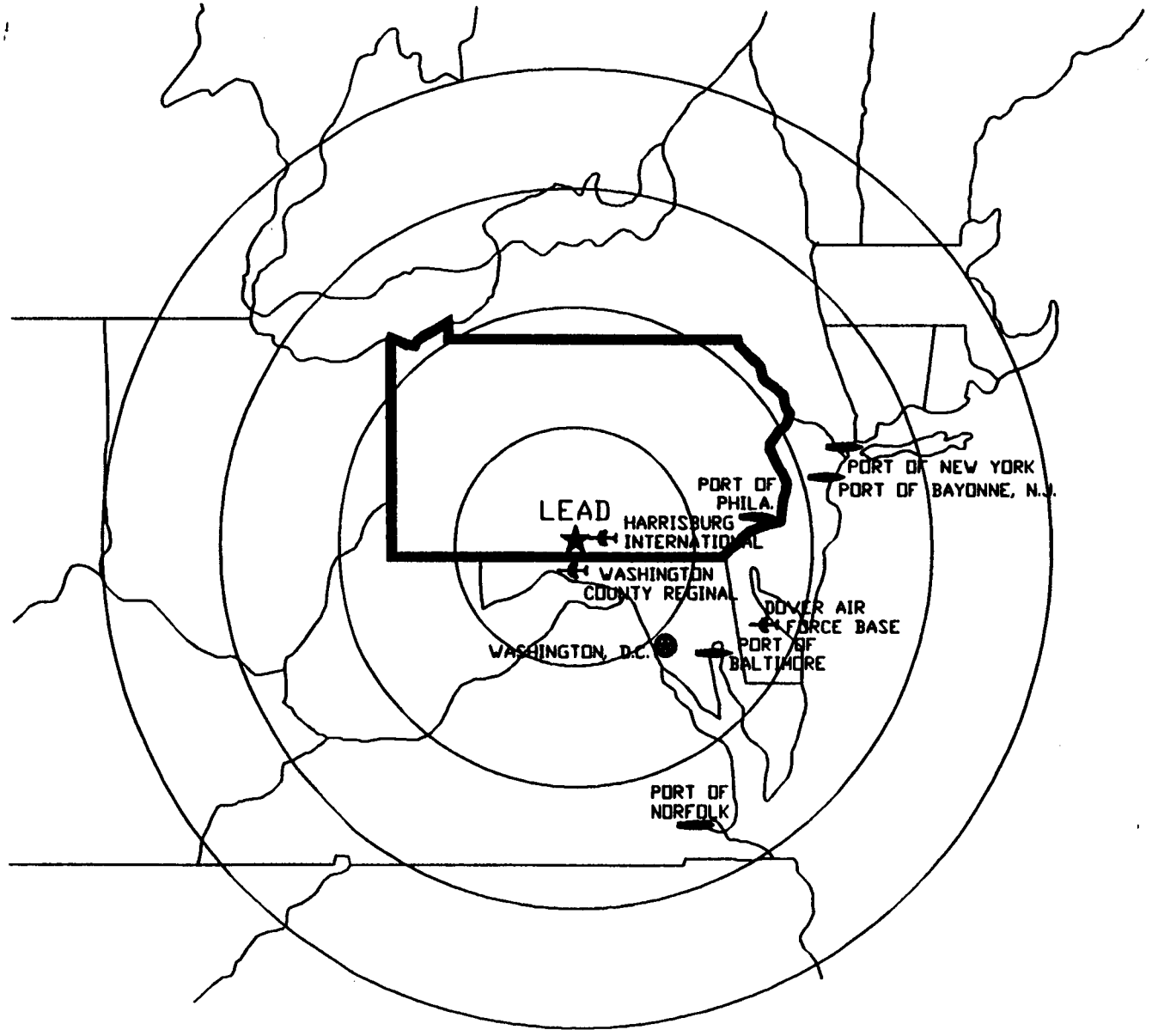


Interservice Support

LEAD has provided support to all phases of the Armed Forces. In addition to providing equipment, vehicles, and fielding services, LEAD also provides extensive hands-on training for the U.S. National Guard and foreign military personnel.

Worldwide assistance is provided through Product Improvement Teams, Technical Assistance Teams, Modification Teams, and Customer Assistance/Liaison Teams. Over the years, LEAD has provided a variety of services to all 50 states and 54 foreign countries.

Location and Transportation



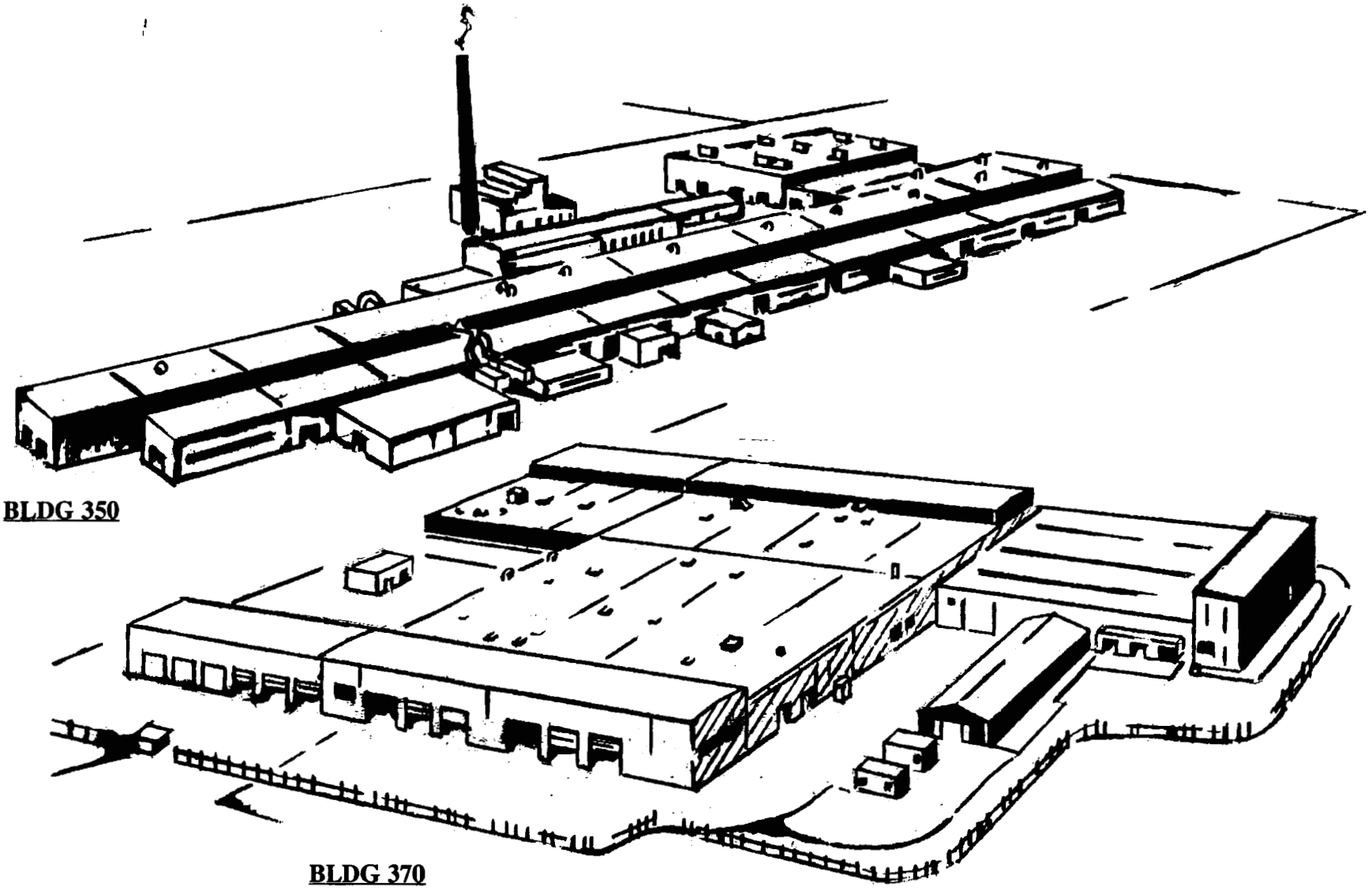
Location and Transportation (Cont)

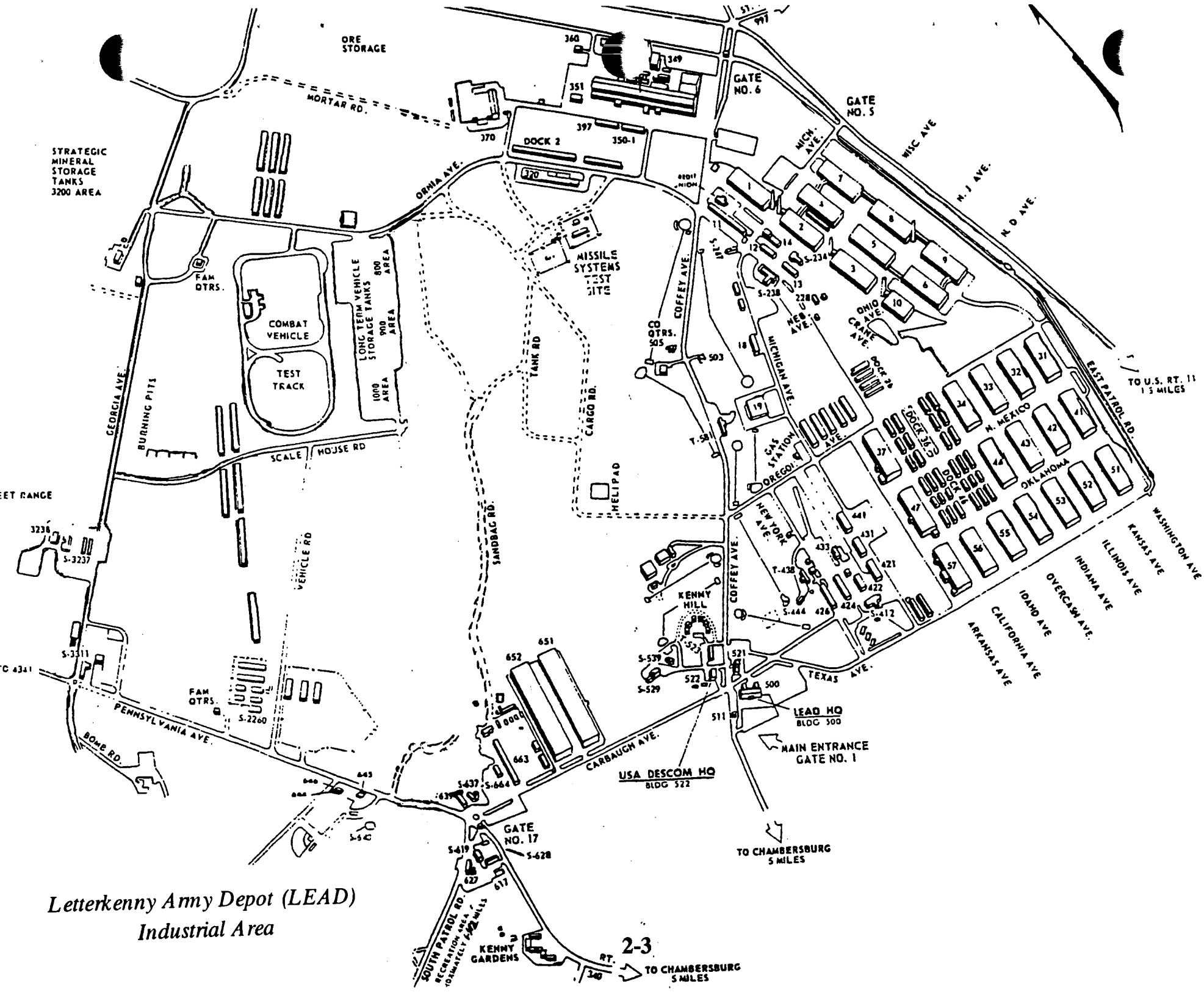
Transportation Access: Interstate Route 81 and U.S. Routes 11 and 30 serve the general area and are within 5 miles of the main entrance to the depot. Letterkenny's location provides highway access to convenient seaports of embarkation at Dundalk Marine Terminal, Baltimore, Maryland (80 miles); Military Ocean Terminal, Bayonne, New Jersey (215 miles); Naval Weapons Station, Earle, New Jersey (200 miles); and Military Ocean Terminal, Sunny Point, North Carolina (474 miles), which is the primary DOD receipt point for Class V.

LEAD is served by the Baltimore and Ohio Railway, which is part of the Chessie System. Government track connects with the Chessie System track at the extreme southeast section of the depot. The Government performs all internal switching. The Chessie System has a freight station at Culbertson, Pennsylvania, east of the depot along State Route 433. The railway Express Office for Class A or B ammunition is Harrisburg. Interchange service is provided with CONRAIL and the Norfolk and Western Railway.

There are more than 50 major truck lines serving the Depot. Additionally, the depot has a 100' x 100' helicopter landing pad located north of Coffey Avenue, along Cargo Road. Military fixed wing aircraft and helicopters utilize the Chambersburg Municipal Airport located 1 mile south of the Depot. Letterkenny is close to the Harrisburg (55 miles), Baltimore (70 miles), and Washington County Regional (25 miles) airports.

Section 2
PRODUCTION FACILITIES





Letterkenny Army Depot (LEAD)
Industrial Area

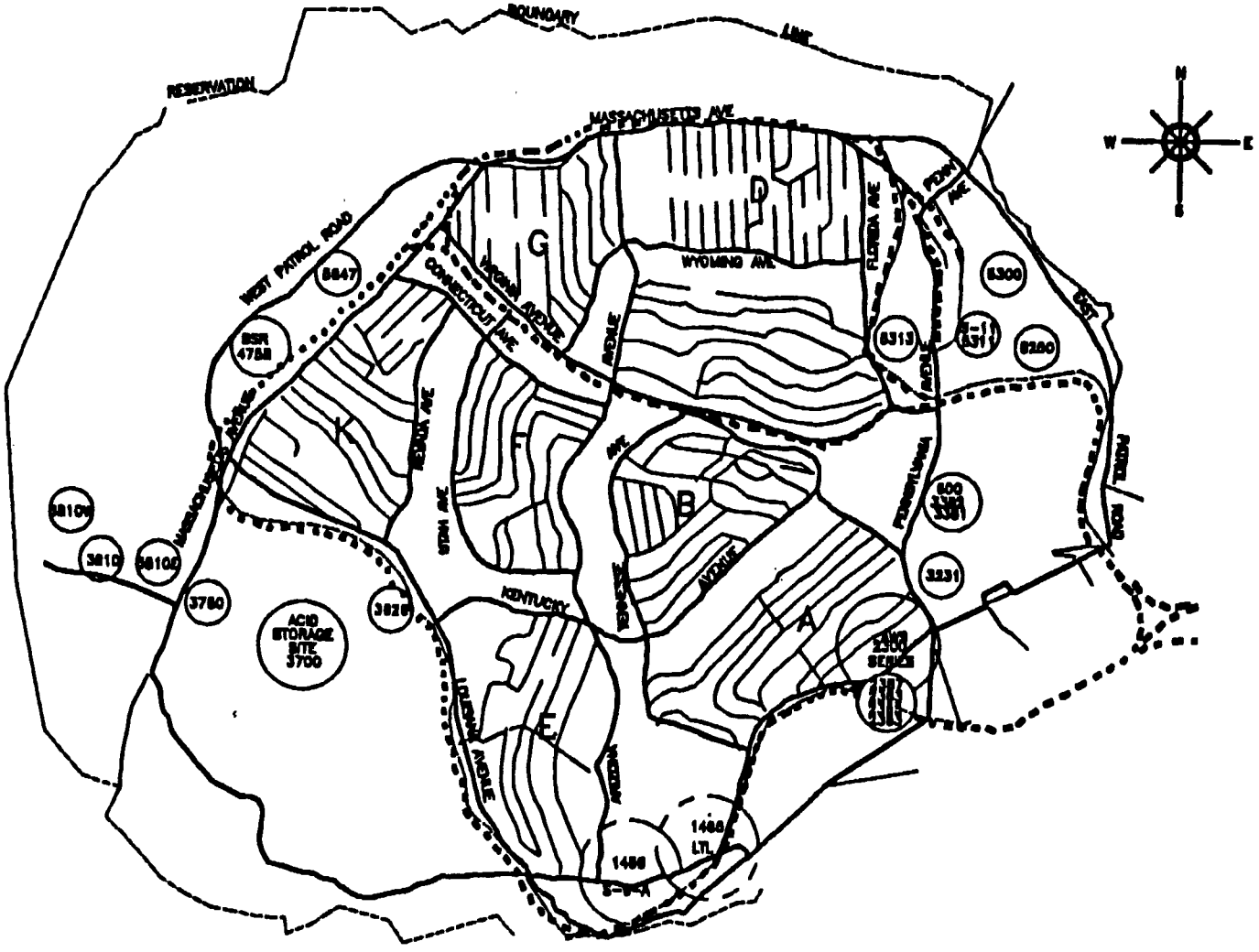
Maintenance Facilities Summary

*Total Acreage	Industrial Complex	150
*Total Number of Buildings		28
Operating Cost		$2,085,442
Replacement Cost		$55,262,500
*Total Number of Square Feet		932,439
Electronics Shops Division		296,161
Test Site		Acres - 12
Vehicle Shops Division		450,000
*Allocated Storage Space (sq ft)		
Improved Inside Storage		56,000
Improved Outside Storage		0
Unimproved Inside Storage		53,911
Unimproved Outside Storage		2,141,640

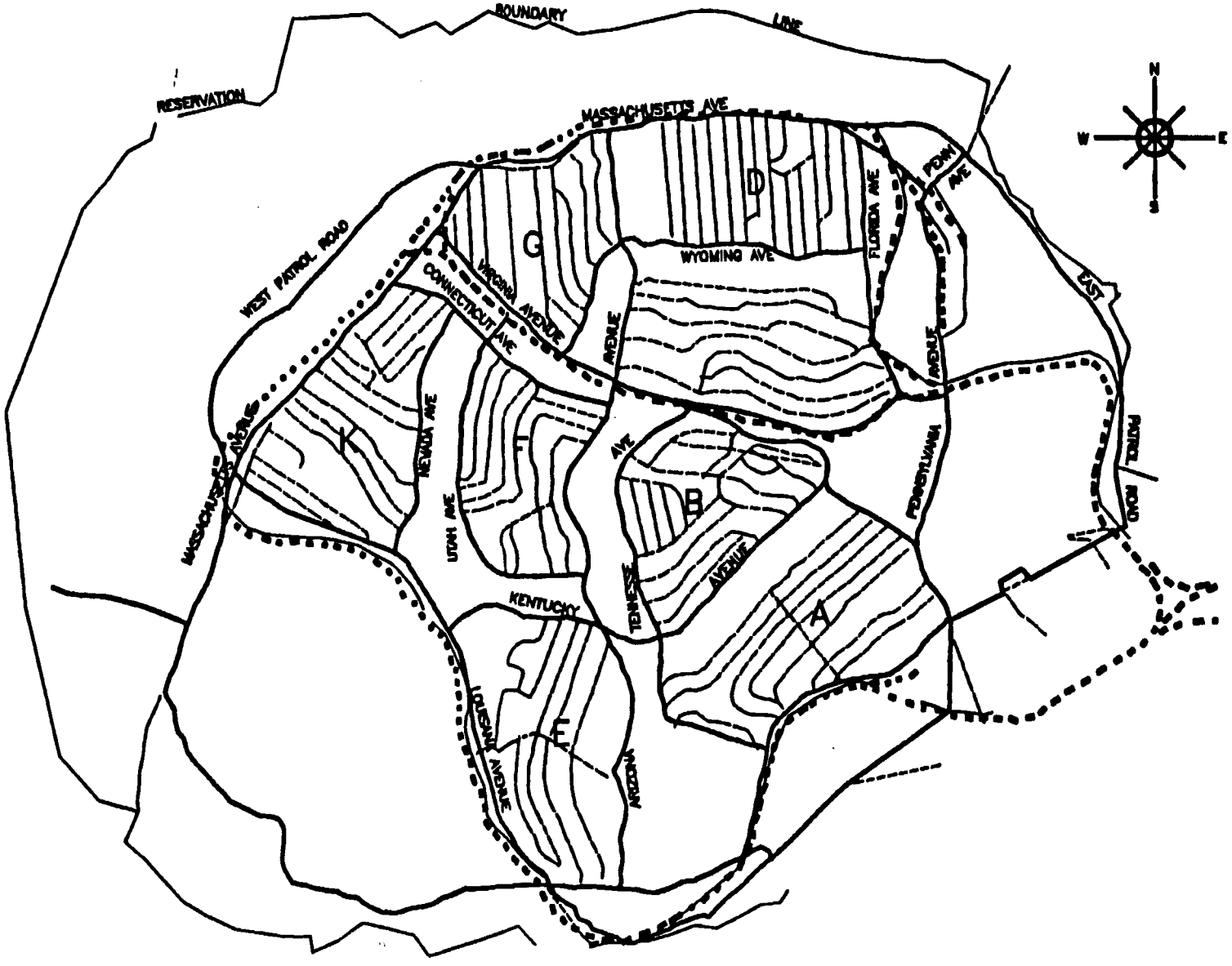
Ammunition Facilities Summary

• **Total Acreage**	**12,000**
• **Total Number of Maintenance Facilities**	**24**
• **Total Number of Square Feet**	**140,026**
• **Total Number Ammunition Storage Facilities/Area**	**1,562**
Igloos	902
Standard Magazines	10
Warehouses	121
Outside/Uncovered	429
• **Total Square Feet Allocated f/Ammunition Storage**	**3,175,740**
Inside/Covered	2,175,740
Outside/Uncovered	1,000,000
• **Total Number of Railroad Docks**	**25**
• **Railroad Track (miles)**	**40**
• **Roads (miles)**	**128**
• **Demolition/Burning Area**	**522,726**
Demolition Ground # 1	174,240
Demolition Ground # 2/Burning Ground	348,480
• **Firing Range Area**	**196,020**

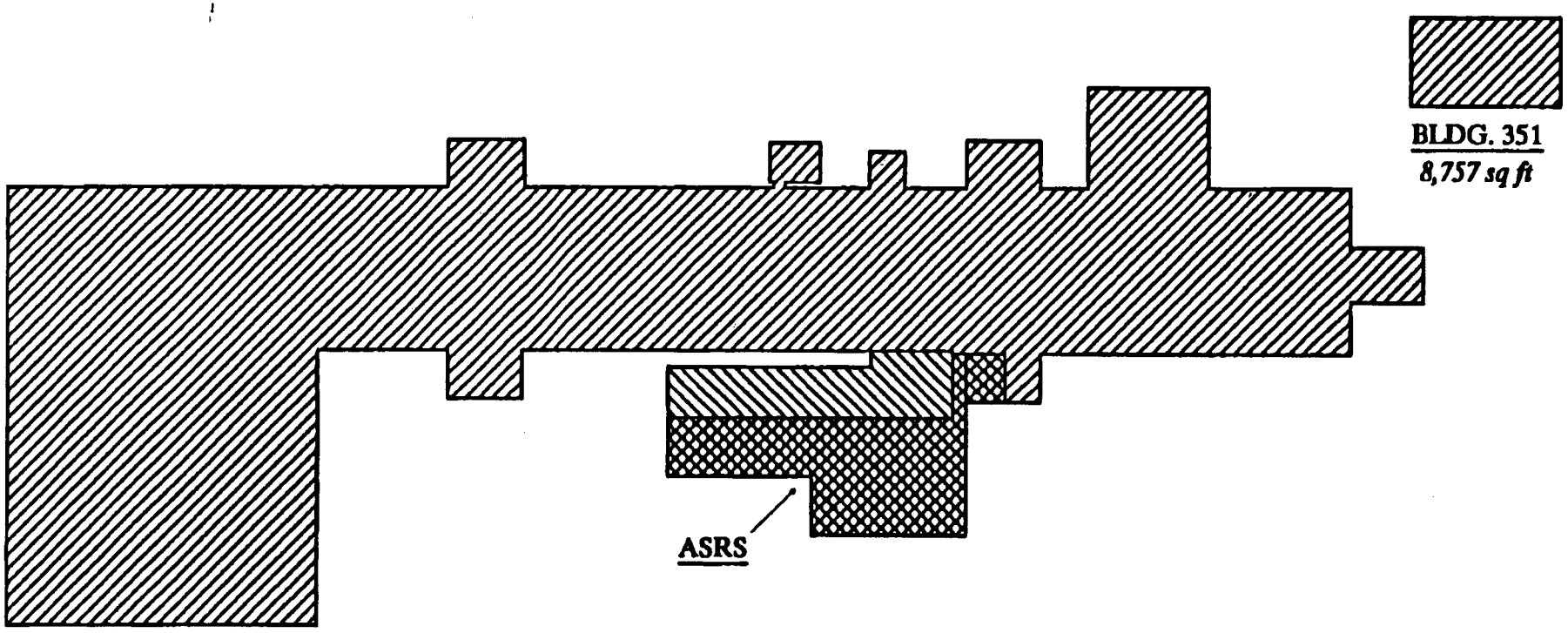
General Layout Ammunition Facilities



General Layout Ammunition Roads and Railroads



Directorate of Maintenance



VEHICLE SHOPS DIVISION
TOTAL SQUARE FEET: 327,947

Vehicle Shops Division (cont.)

Specialized Equipment:

Heavy Recoil Gymnasticators (2)
60-Ton Overhead Crane (1)
30-Ton Bridge Cranes (3)
Large Capacity Welding Positioners (6)
Drive-Thru Paint Booths (2)
Drive-Thru Blast Facilities (2)
Roto-Blast
CNC/MDI Machining Centers (14)
ASRS
Hydraulic Pump/Motor Test Stands
Axis Measuring Machines (3)
Plasma Arc/Punch Press CNC
CAM (CNC programming)
Grinders (Contour Capable CNC)
Optical Comparator (2)
Welding (acetylene, MIG & TIG)
Magnetic Particle Inspection Booths
CNC Water Jet
Environmentally Controlled Heat Treating System
CNC EDM Machine
Distributed Numerically Controlled System
Coordinate Measuring Machine
CNC Turning Center
Front Load Blast Booth (2)

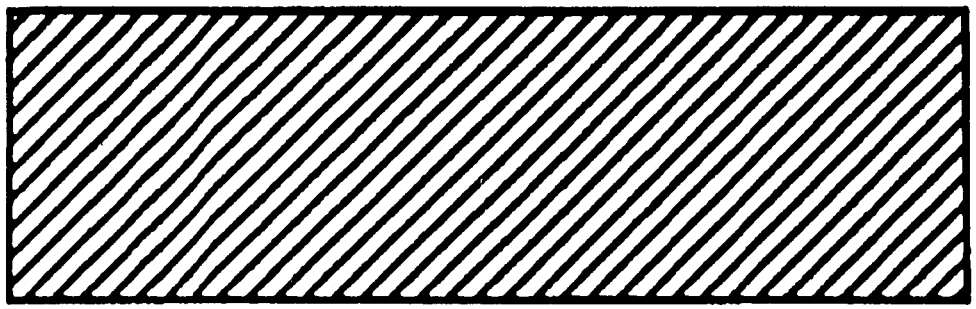
Operations:

Disassembly
Welding
Machining
Cleaning (wash & steam)
Assembly
Blasting
Electrical Repair & Fabrication
Hydraulic Test and Repair
CO2 Extinguisher Repair & Charge
Radiator Repair
Chemical Cleaning & Surface Preparation
Hydraulic/Pneumatic Line Fabrication
Hydra-Pneumatic Test
Radio-Installation & Test
Prototype Technical Assistance
Mechanical Fire Control
Fuel Tank Repair (fiberglass & steel)
Paint (booths & carrousel)
NDT-Dye Penetrant, Magnetic Particle Ultrasound
Manufacturing:
- Blacksmith
- Machine
- Sheet Metal, Form
- Soldering
- Heat Treatment

Tire Repair
Tool & Supply

Primary Skills:

Heavy Mobile Equipment Mechanics
Heavy Mobile Equipment Repairers
Welders, Weld Inspectors
Artillery Repairers
Rubber Equipment Workers
Electrical Equipment Repairers
Optical Instrument Repairers
Sheet Metal Mechanics
Mobile Equipment Maintenance Mechanics
Electroplating Workers
Sandblasters
Painters
Engravers
Equipment Cleaners
Tool Makers
Radiator & Fuel Tank Repairers
Machinists, Machining Inspectors
Hydro-Pneumatic Systems Mechanics
Fabric Workers, Wood Workers
Crane Operators
Glaziers
Blacksmiths
CNC Programmers
Optical Instrument Inspectors
Artillery Inspectors
NDT Equipment Operator Inspectors
Heavy Mobile Equipment Inspectors
Metal Surface Worker Inspectors
Quality Inspection Technicians



BLDG 13

LIGHT AND HEAVY RECOIL FACILITIES
TOTAL SQUARE FEET: 12,000

Specialized Equipment:

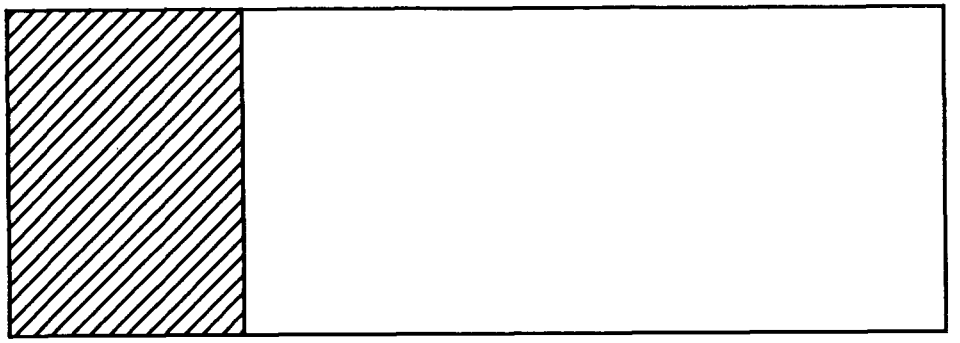
Small Recoil Gymnasticator
Large Recoil Gymnasticator
Nitrogen Charging Stations
Horizontal Honing Machines
Vertical Honing Machines
Nitrogen Ram
Climate Controlled Atmosphere
Surface Tables
Disintegrator
Spring Tester
Rod Pull Tester

Operations:

Antifriction Molding
Cylinder & Rod Honing
Machining Parts
Recoil & Subassembly Gymnastication Assembly
Final Inspection
Field Assistance - Worldwide

Primary Skills:

Artillery Repairers
Machinists
Machine Tool Operators
Machining Inspectors



BLDG. 1N

PLATING FACILITY
TOTAL SQUARE FEET: 30,120

Specialized Equipment:

5- and 10-Ft Deep Chrome Plating Tanks
180-Ton Rail Straightening Press
Vapor Blast Machine
5-Ft Metal Treating Tanks
(phosphate & black oxide)
Paint Booth

Operations:

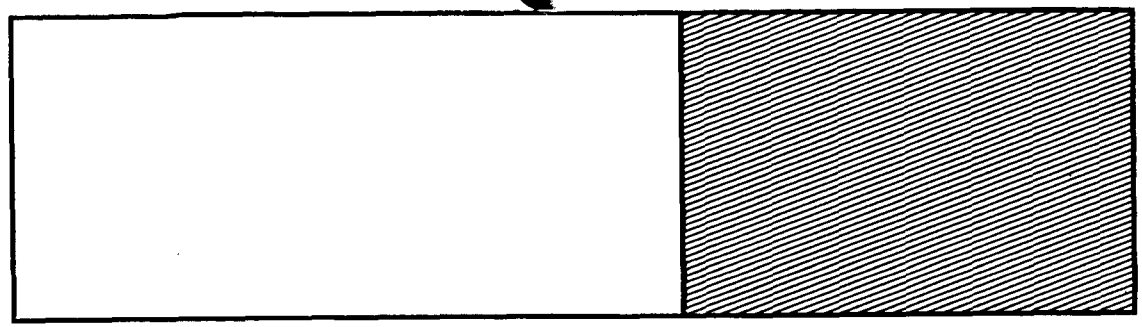
Chrome Plating to include:
- Brush Plating
- Black Chrome
- Industrial Hard Chrome Stripping

Metal Treating:
- Phosphate
- Black Oxide

Blasting (roto blast, tumble blast, hand blast, vapor blast)
Painting
Rod & Rail Straightening
Disassembly, Reclamation & Rebuild of Recoil Mechanisms & Hydraulic Components

Primary Skills:

Electroplaters
Sandblasters
Painters
Artillery Repairers
Machining Inspectors



BLDG 424

OPTICAL INSTRUMENT AND UPHOLSTERY FACILITY
TOTAL SQUARE FEET: 14,196

Specialized Equipment

Sewing Machines

Specialized Equipment:

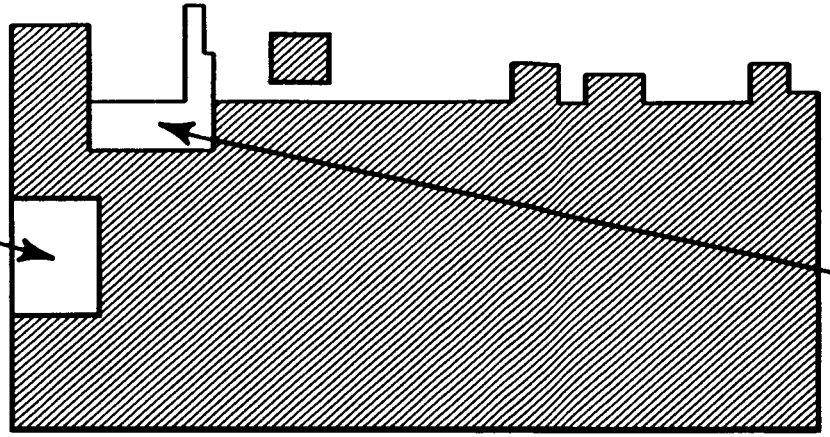
Drill Presses
Planers
Jointers
Table Saws, Large Layout Tables

Operations:

Canvas

Primary Skills:

Optical Instrument Repairers
Optical Instrument Workers
Optical Instrument Inspectors
Fabric Workers
Wood Crafters



BLDG 424 (Shared ME and MV)

ENGINE/TRANSMISSION/CHEMICAL FACILITY
TOTAL SQUARE FEET: 96,799

Specialized Equipment:

Automated Internal Combustion
Engine Test Cells (10)
Smoke Generator Test Stand
Computer Controlled Transmission
Dynamometer Test Stands
Engine Lathes
Honing Machines
Crankshaft & Camshaft Grinders
Vacuum Tester
Profilometer (surface finish detection)
Compression/Tension Tester
Heater Test Stand
Hydrostatic & Volumetric Test Stand
High Pressure Air Test Stand
Surface Plate
Cooling Liquid Electron
Tube Test Set
Wire St[illegible]ng Machine

Operations:

Disassembly/Assembly
Dynamometer Testing
Certified Joint Oil Analysis Program
Cleaning
Rubber Molding
Component Testing
Abrasive/Chemical Cleaning
Painting
Component Overhaul
Electric Component/Harness Repair
Component Disassembly/Assembly
Electrical Repair
Harness Testing
Motor/Generator Rebuild
Air Conditioner Rebuild

Primary Skills:

Sheet Metal Workers
Powered Support System Mechanics
Powered Support System Repairers
Welders
Chemical Equipment Repairers
Heavy Mobile Equipment Repairers
Heavy Mobile Equipment Mechanics
Machine Tool Operators
Machinists
Equipment Cleaners
Sandblasters
Painters
Machining Inspectors
NDT Equipment Operator Inspectors
Heavy Mobile Equipment Inspectors
Metal Surface Worker Inspectors
Electrical Equipment Repair
Air Conditioning Equipment Mecha[illegible]

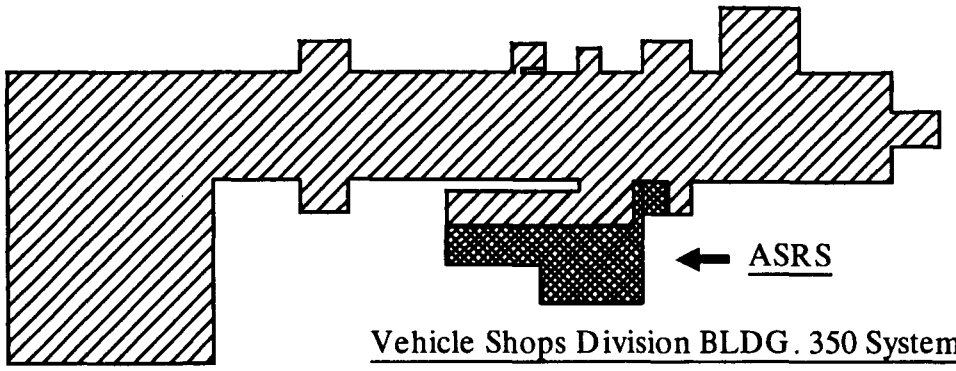
Engine/Transmission/Chemical Facility (cont.)

Specialized Equipment:

Flywheel & Pressure Plate Grinders
Heat Grinding Machine
Turbo Charger Balancing Machine
Rubber Molding Machine
Balancing Machine
Fuel Nozzle Test Stands
Oil Cooler Test Stands
Liquid Penetrate Inspection
Magnetic Particle Inspection
Injector Pump Test Stands
Alternator/Regulator Test Stands
Nozzle Test Stands
Cylinder Hones
Valve Guide/Seat Machines
Valve Grinding Machines
Starter Test Stands
Solenoid Test Stands
GMAW, SMAW & GTAW Welders
Ovens
Paint & Blast Booth
Decontamination Unit Tester
Flame Thrower Bottle Dryer

Primary Skills:

Electrical Equipment Workers
Electrical Equipment Repairers



Vehicle Shops Division BLDG. 350 System

AUTOMATED STORAGE AND RETRIEVAL SYSTEM (ASRS)
TOTAL SQUARE FEET: 15,959

Specialized Equipment:

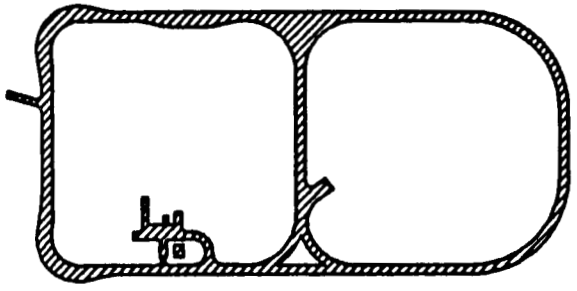
2112 Locations M/L
2 Vertical Carrousels
New Computer Room
Fire Protection
Projected ASRS-PLUS Scheduled for FY97
3360 Locations U/L
2-1000 JIB Cranes
Bar Code Printers & Scanners
2-HP 852 Computers

Operations:

Automated Storage
Retrieval and Distribution of Materials
Kitting
Inventory Control

Primary Skills:

Material Processors
System Operators
System Maintenance Personnel
System Programs



Vehicle Test Track - 1 Mile Oval

VEHICLE TEST TRACK FACILITY

Specialized Equipment:

Vehicle Test Track (1 mile oval)
- Macadam (asphalt)
- Banked Curves
- Dual Lanes
- Brake/Acceleration Area
- Undulation Area

Turning Radius/Geared Steer Test Area
Fording/Flotation Pit
Lockout Cylinder Test Area
30/60 Percent Slopes
Pivot Steer Area (concrete)
Boresighting and Synchronizing Platform and Slope
Bldg S-3297 - Five Inspect/Repair Bays with In-Ground Pit (3,160 sq ft)
Bldg S-3298 - One Heated Inspect/Repair Bay (1,178 sq ft)

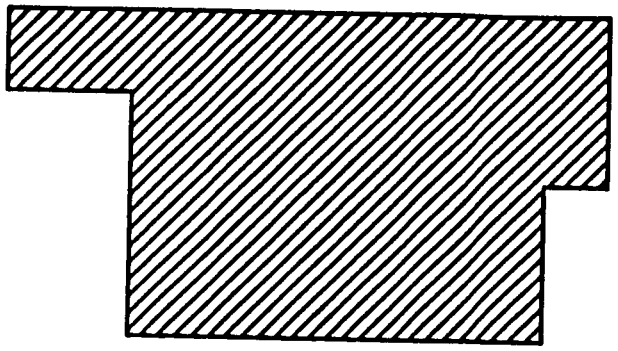
Operations:

Functional Test
Realtime Vehicle Repair
Boresight/Synchronize
- Main Guns and Coaxial Machine Guns

Stabilization Check

Primary Skills:

Heavy Mobile Equipment Inspectors/ Mechanics
Optical Instrument Inspectors/ Mechanics
Artillery Inspectors/Mechanics



BLDG 5250

RADIOLOGRAPHIC INSPECTION FACILITY
TOTAL SQUARE FEET: 7,953

Specialized Equipment

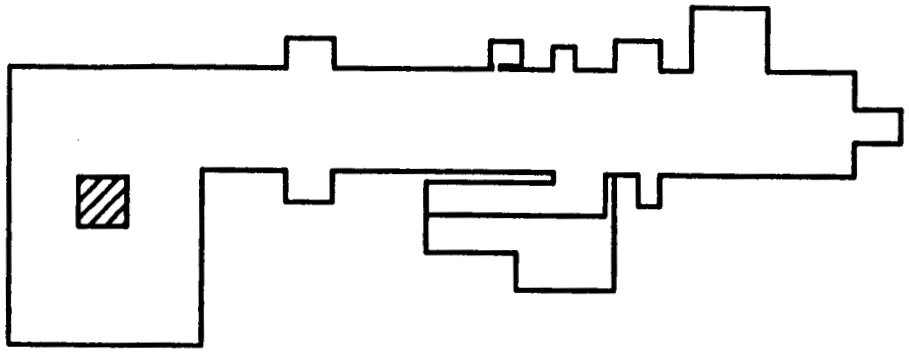
25 Megavolt Betatron X-Ray Machine
320 Kilovolt X-Ray Machine
300 Kilovolt Portable X-Ray Machine
200 Kilovolt Portable X-Ray Machine
160 Kilovolt Portable X-Ray Machine
10-Ton Bridge (overhead) Crane
Closed-Circuit Television
Darkroom with Automatic Film Processor
Equipment-Parts Storage Area
Concrete-Walled Betatron Chamber
Area Monitoring System
Radiation Monitors and Detector
Silver Recovery Unit
25,000 Lb "Track-Tred" Carrier

Operations:

Radiographic Inspection

Primary Skills:

Industrial Radiographer



BLDG 350 (Annex)

TECHNICAL MEASUREMENT FACILITY
TOTAL SQUARE FEET: 836

Specialized Equipment

Coordinate Measuring Machine
- Granite Surface Table
- PC with 3-D Software & Printer
- Math Coprocessor

Optical Comparator
Maintenance Inspection Center
- Computer System with Printer
- Granite Surface Base

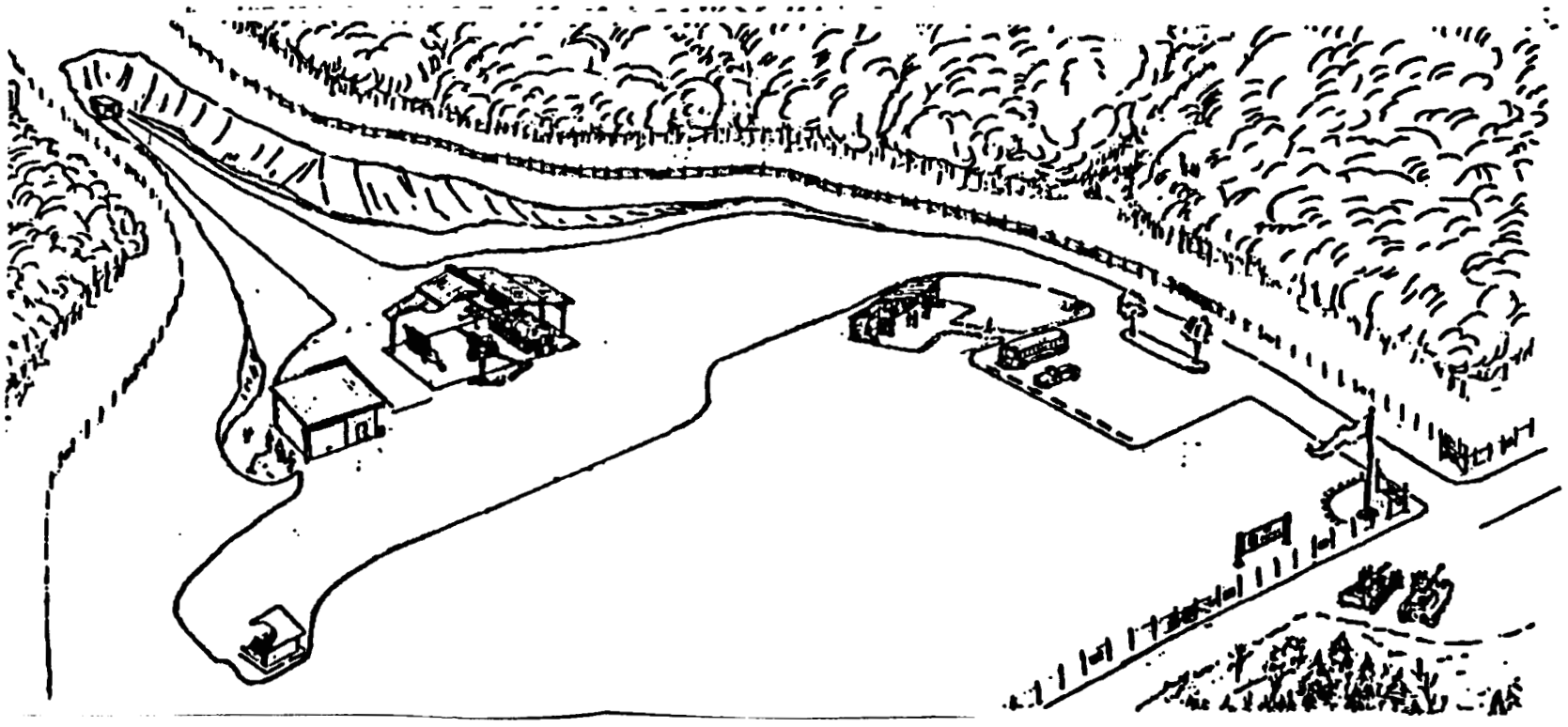
Hardness Tester
Surface Analyzer

Operations:

Machined Material Inspection
Hardness Testing

Primary Skills:

Machining Inspectors



FIRING RANGE BLDG 5781

Specialized Equipment:

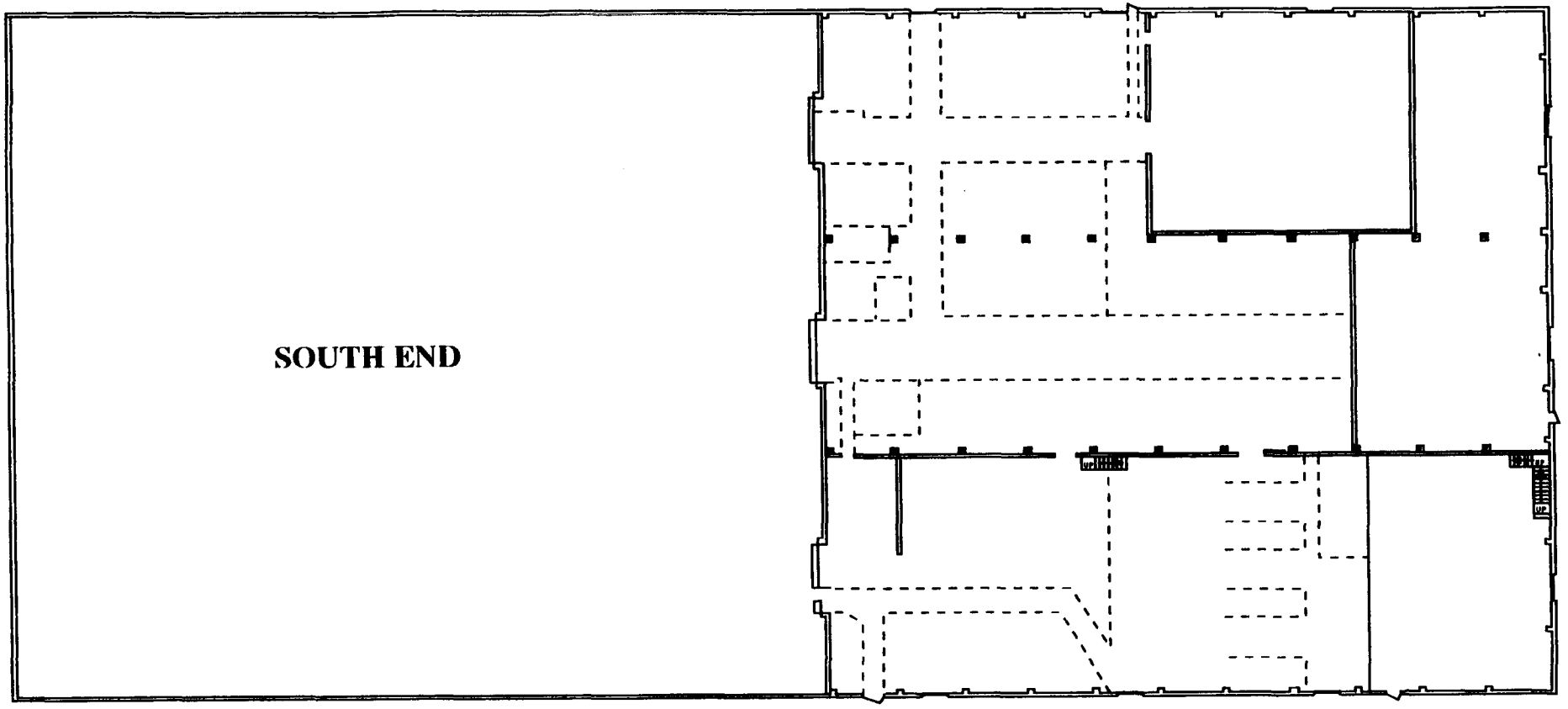
5-ton Industrial Mobile Crane
6,000 lb lift (fork)
10-ton Bridge Cranes (2)
Transducer (rod pull curve)
Potentiometer (terminal velocity)
Chart Recorder (4-channel) w/Amplifiers

Operations:

Test Fire Various Items (i.e., M110/M109 Self-Propelled Howitzers)
M174/M45/M2/M37/M6 Recoil Mechanisms
M101/M102/M114/M198 Towed Howitzers

Primary Skills:

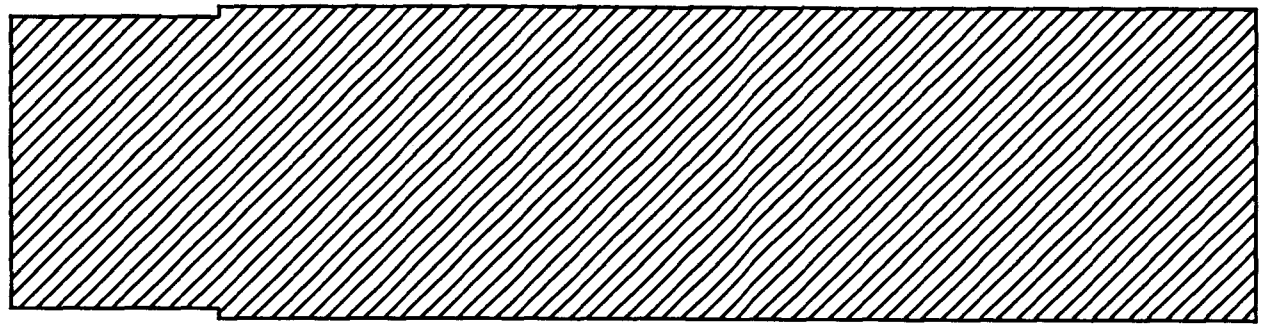
Artillery Inspectors
Machining Inspectors
Artillery Mechanics
Fire Control Inspectors



VEHICLE SHOPS BUILDING 57 NORTH
TOTAL SQUARE FOOTAGE NORTH END - 36,255

OPERATIONS

* **STORAGE**
* **PAINT/PREPARATION**
* **CHEMICAL EQUIPMENT**
* **BLAST CLEANING**



BLDG 14

OPTICAL INSTRUMENT FACILITY
TOTAL SQUARE FEET: 16,830

Specialized Equipment:

M3 Borescope Fixture
Lens Grinders/Polishers
Environmental Chamber
Vacuum Coating Machine
Dioptometers
Azimuth Test Fixtures
Collimating Telescopes
Jewelers Lathes
Dynameter
Telescope Test Fixtures
Lens Measuring Fixtures
Vibration Testers
Magnetic Test Fixtures
Surface Tables
Tritium Air Monitors
Water H[illegible] Tanks
Fume H[illegible]

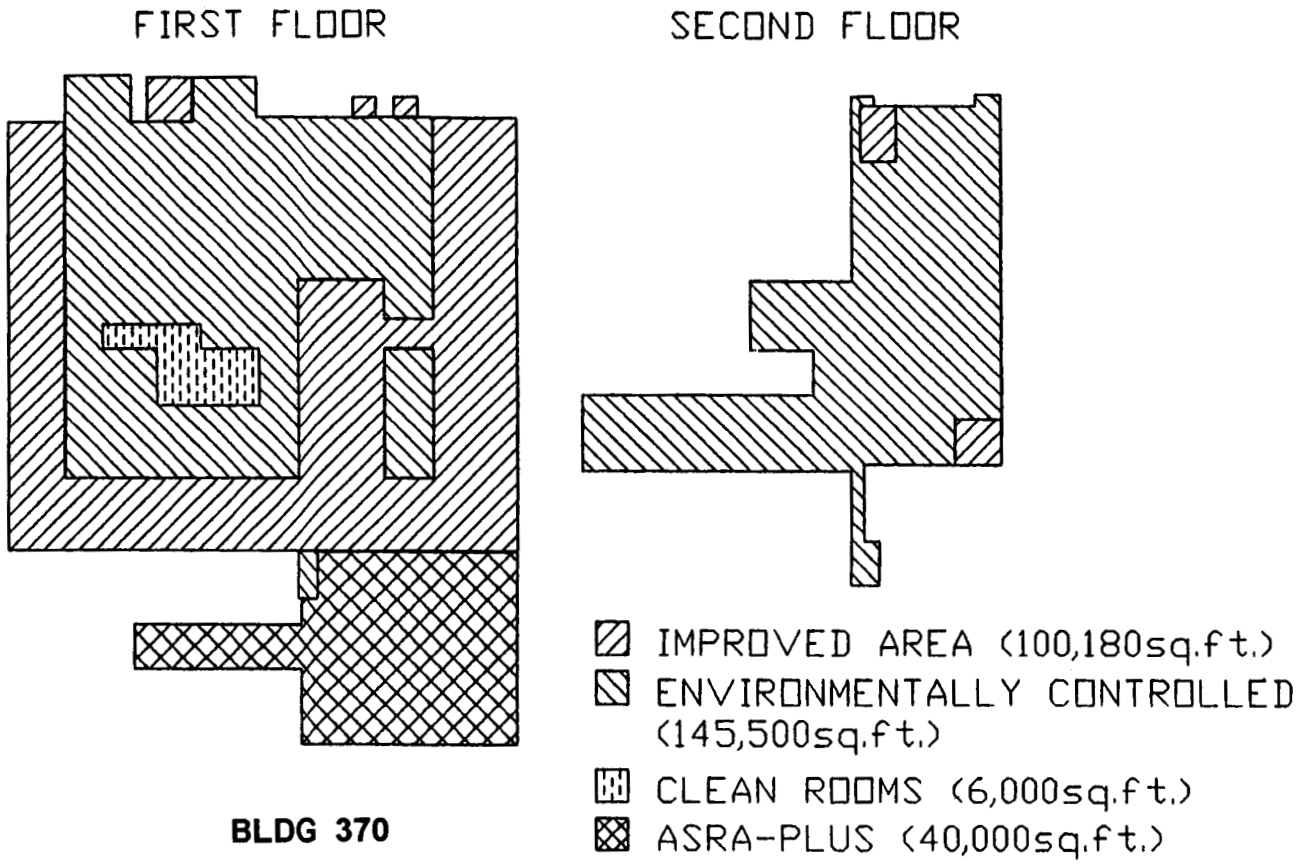
Operations:

Bore Scope Rebuild
Optical Lens Reclamation:
- Grinding
- Polishing
- Coating

Overhaul of Optical Fire Control Instruments
Overhaul of Radioactive (tritium) Instruments
Tritium Installation
Tritium Storage & Handling (licensed by The Nuclear Regulatory Commission)
Tritium Disposal (in accordance with State and Federal Regulations)
Blasting
Cleaning
Painting

Primary Skills:

Optical Instrument Repairers
Optical Instrument Workers
Optical Instrument Inspectors
Painters



BLDG 370

ELECTRONICS SHOPS DIVISION
TOTAL SQUARE FEET: 245,680

Electronics Shops Division

Specialized Equipment:

DATA I/O 156A Consoles
Cooling Liquid Electron Tube
Test Set
M90 Chronograph
Hawk Shock Tester
Turbomotive, Motor Test Console
Hiptronic AC/DC Hi Pot Testers
Nucleus Hyd Console
SMDS Inspection Console, Macro Scope
PATRIOT Antenna Mast Group Test
Console
Integrated Family Test Equipment (IFTE)
HP 3070 Test Console
Sparrow Missile Test Equipment
Phoenix Missile GS & CS Test Equipment
Sidewinder Missile
MLRS Component Test Equipment
AVENGER Component Test Equipment
DRAGON Component Test Equipment
LCSS Test Console
1480 Sq Ft Class 1000Clean Room

Electronics Shops Division (cont.)

Specialized Equipment:

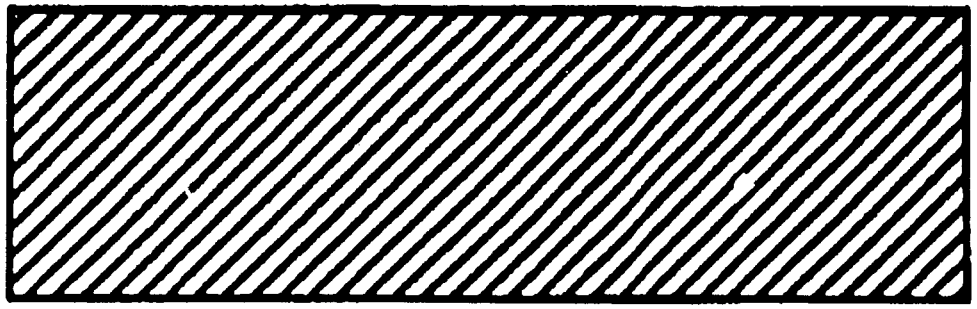
Plastic/Steel Blasting Chamber
Agricultural/Plastic/Glass Bead Cabinet Blast
High Pressure Air Chamber
Static Pressure Air Chamber
Depot Level Hydraulic Test Consoles
RF Isolation Chamber
Induction Braxing Environmental Chamber
Missile Automated Test Equipment
General Electric Test Station - 1000A
Depot Level Microwave Test Equipment
DIT-MCO High Pot & Continuity Tester
Equate AN/USM 410
A2000 Microwave Console
A1000 Depot Test Station
Dynamic Balancer Compensator Test Set
Wire Stripping Machine
Low Power Microwave L&KU Band Test Console
HAWK Major Item Simulators
Dimensional Test Equipment Test Consoles
HAWK High Frequency Consoles
Antenna Pattern Test Range
PATRIOT Depot Level Test Consoles: 243, 244, 247, 2261, 2271, 2260, 265, 2203, 2258 2259, 2204, 2275, CLET
ASRS Plus
PACE Soldering Test Equipment
PATRIOT Launcher Test Station

Operations:

Electrostatic Painting
Electroplating
Metal Processing
Paint Stripping/Painting
FADAC Memory & Computer Rebuild
Iron Oxide Application
Circuit Card Repair (to include multilayer)
Electronic Chassis Repair
Hydraulic & Pneumatic Component Repair
Program Erasable Programmable Read Only Memory (EPROMs)
M90 Chronograph Rebuild
Missile Component Vibration Testing
Missile Component Environmental Testing
JEDMICS Data Collection System

Primary Skills:

Electronics Integrated Systems Mechanics
Electronics Mechanics
Air Conditioning Equipment Mechanics
Ordnance Equipment Mechanics
Filter Systems Repairers
Electronics Measurement Equipment Maintenance
Electroplaters
Electronic Integrated Systems Inspectors
Metal Surface Worker Inspectors
Ordnance Equipment Inspectors
Electronic Equipment Inspectors
Quality Inspection Technicians



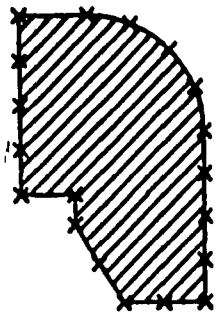
BLDG 12

CABLE/WIRE HARNESS FABRICATION AND REPAIR
TOTAL SQUARE FEET: 13,160

Specialized Equipment:
DIT-MCO
Potting Ovens
Wire Braiding Machines (5)
Soldering Stations
Corona Test Equipment

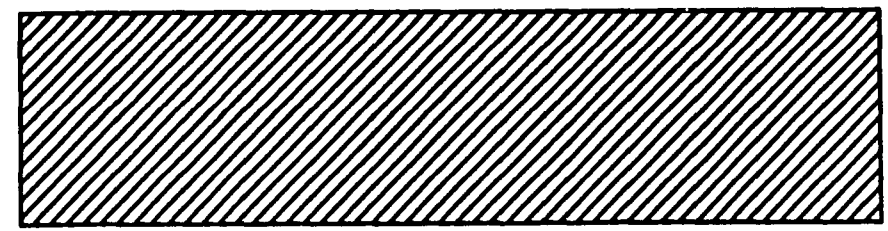
Operations:
Connector Potting
Wire Braiding
Cable & Wire Harness
Fabrication, Repair, & Testing
Military Standard Soldering

Primary Skills:
Electrical Equipment Workers
Electrical Equipment Repairers



HAWK TEST SITE

160,000 square feet of hard stand allows simulation of tactical deployment for 3 assault fire units. The controlled access, free space radiation zone, allows actual on-air operation and testing.



PATRIOT TEST STATION BLDG 403

2,500 square feet of environmentally controlled space for computerized test station P2275. The test station can perform complete analysis of an operational PATRIOT Radar & simulate tactical conditions. A van-enclosed environmental generator provides a hostile (jammed) electro-magnetic environment. The controlled access radiation zone allows on-air operation.

RADAR TEST SITE
TOTAL ACREAGE: 28

Specialized Equipment:

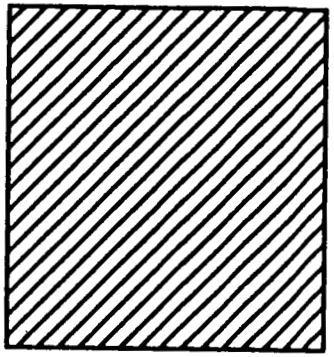
Transmitter Towers
Jamming Towers
Waveguides
400 Cycle Frequency Converters
(200 kva Capacity)

Operations:

System Integrated Check Out (SICO) Testing
Final Electrical and Mechanical Adjustments and Alignments

Primary Skills:

Electronic Integrated System Technicians



BLDG 436

NUCLEAR, BIOLOGICAL & CHEMICAL FILTER TESTING
TOTAL SQUARE FEET: 4,436

Specialized Equipment:

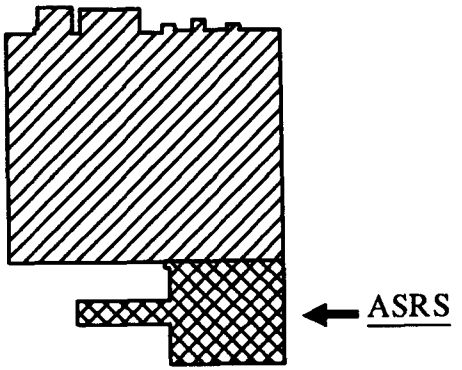
2400 cfm Nuclear Biological and Chemical (NBC) Air Filter System
600 cfm NBC Air Filter System
Dioctylphthalate (DOP) Aerosol Generators (3)
DOP Aerosol Detectors (3)
Halide Generators (2)
Halide Detectors (4)
80286 Computer with Automatic Data Acquisition Capability

Operations:

Provides training to DOD organizations on nondestructive NBC Air Filter system testing
Conducts test on new filter designs and testing methodology
Develops improved methods of data analysis with use of computer and automatic data acquisition hardware/software
Design and fabricate NBC Air Filter components
Provides continental United States (CONUS) and outside continental United States (OCONUS) nondestructive testing and maintenance on DOD NBC Air Filter System

Primary Skills:

Chemical Engineers
(Level III certification per American National Standard Institute/American Society of Mechanical Engineers NQA-1-1986 Quality Assurance Program Requirements for Nuclear Facilities)
NBC Air Filter Technicians
(Level II certification)
Air Conditioning Mechanics
(Level I certification)



Electronics Shops Division BLDG. 370 System

AUTOMATED STORAGE AND RETRIEVAL SYSTEM (ASRS) PLUS TOTAL SQUARE FEET: 40,000

Specialized Equipment:

Unit Load
2 Aisle 147 ft long
Rack Supported
2 S/R Vehicles
2000 lb Capacity
40 x 48 in. Pallets
1440 Storage Locations
Rack Size 36 Tiers - 9 Bays
Size - Weigh Station
Square Feet Occupied 6,277 ft
Size 31 ft wide x 202.5 ft long
Mini-Load
6 Aisles
4518 Storage Locations
Rack Size 21 Bays 18 Tiers

Operations:

Automated Storage
Retrieval - Distribution of Materials
Kitting
Inventory Control
Maintenance Shop Floor System (MSFS) Interface
Bench Stock

Primary Skills:

Material Processors
System Operators
System Programmers
System Maintenance Personnel

Automated Storage and Retrieveal System (ASRS) PLUS (cont.)

Specialized Equipment:

Tray Size 48 in. long x 24 in. wide
x 12 in. high
500 lb Capacity
Size - Weigh Station
6 Store/Pick Stations
Rack-Free Standing
Square Feet Occupied 6,800 ft
Length of Aisle 48 ft
Height of Racks 21 ft

Oversize Storage

2000 Locations
2 Side Loaders
2 Forklifts
RF Communication
Square Feet Occupied 7,800 ft

Cant Lever

3 Aisles
2000 lb Loads
Bays 22
Tiers 6
396 Locations
18 in. Uprights
Arm Adjustment Infinite
500 lb/lineal ft
2 Side Loaders
10,000 lb Lift Capacity

Pneumatic Tube

6 in. Tube Size
10 Send/Receive Units
2 lb Capacity

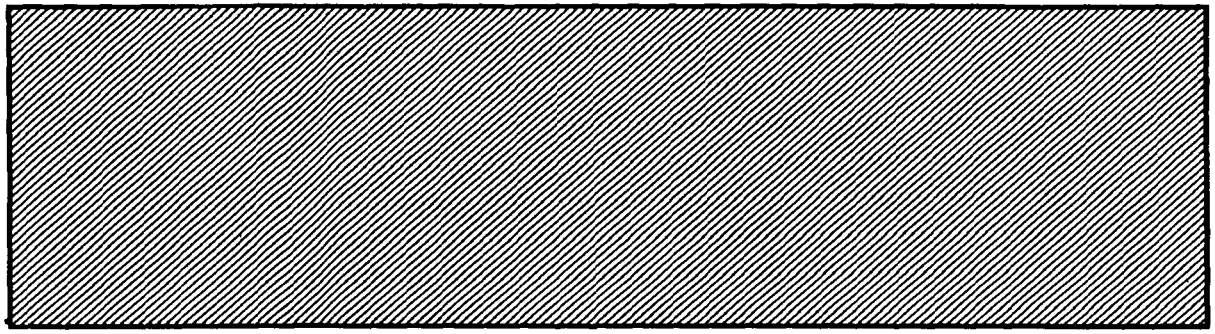
Specialized Equipment:

AGVS

9 Vehicles
Lift Top 4 in. Stroke
2,000 lb Capacity
Guidance-Wire

Computer

HP1000 - Model A900
Primary - Back Up
Intel 310 - 17C
UPS 30 Min
Fortran - Pascal



BLDG 426

TOW MISSILE OVERHAUL FACILITY
TOTAL SQUARE FEET: 19,040

Specialized Equipment:

Equate Emerson 8200
MICOM Automated Test Equipment
(MATE)
(VATE)
Infared Light Source
DIT-MCO
MISSILE Guide Test Station
TOW Sight Test Stations
Surface Tables
Fume Hoods

Operations:

Overhaul of TOW Missile Systems
Overhaul of Radioactive (tritium)
Instruments

Primary Skills:

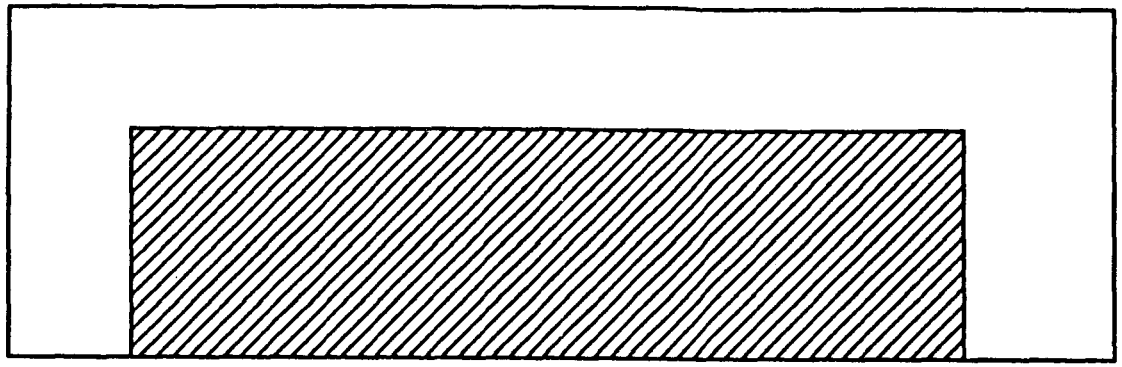
Electronic Mechanics
Electronic Workers

Directorate of Product Assurance

Product Assurance Facilities Summary

*Total Number of Square Feet	10,840
*Chemical Laboratory	2,000
*Office Support	8,000

*The Directorate of Product Assurance is a mission support area.



BLDG S-102

Laboratory Analysis

CHEMICAL LABORATORY
TOTAL SQUARE FEET: 2,000

Specialized Equipment

Hewlett Packard 5890A Gas Chromatograph
w/FID/ECD Detectors Packed Column
Injection Split/Spitless Injection
Hewlett Packard 3393A Integrator
Pensky-Martin Close Cup Flashpoint Tester
Photovolt Aquatest IV Automatic Karl
Fisher Titrator
Lindberg Muffle Furnace
Salt Spray Cabinets
ACCO Wilson Rockwell Hardness Tester
Corning Mega Pure Distillation Unit
Total Organic Halide Analyzer
FAS 2-C Atomic Emission Spectrometer
PE Atomic Absorption/Emission Spectro-
meter w/Automatic Sampler Dual EDL
Power Supply

Operations:

Army Oil Analysis Program (AOAP)
Acceptance Testing
Plating Tank Analysis
Shelf-Life Testing
Paint VOC Testing
Corrosion Salt Spray
Technical Support
Infrared Spectroscopy
Rockwell Hardness
Metals Analysis
Gas Chromatography
Physical Testing
Wet Chemical Analysis
Atomic Absorption Spectroscopy
Atomic Emission Spectroscopy
Environmental Testing
Chlorine Analysis
Radiation Counting/Testing

Primary Skills:

Certified Chemists (2)
Knowledge of Chemical Processes
PhD
BS
Physical Science Technicians (2)
Radiation Counting Techniques
Chemical/Analytical Techniques
Three of the above are AOAP
Certified Evaluators
Note: Chemical Lab Encompasses
Radiation Lab Support

Chemical Laboratory (cont.)

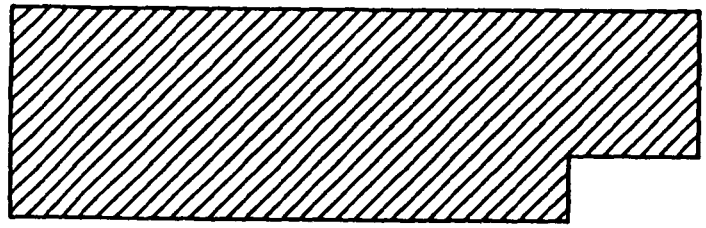
Specialized Equipment:

Beckman 620MX Infrared Spectrometer
Varian DMS90 UV/VIS Spectrometer
Saybolt Viscometer
Stormer 9730 F10 Viscometer
Nametre Viscometer
HIAC/ROYCO Automatic Particle
Counter 2/HR300A and HRLD 600J Sensors
Grieve EBS 350 Forced Air Drying Oven
Blue M Gravity Oven
Sartorious 2003MP1 Analytical Balance
Sartorious 1204MP Top Loading Balance
Corning 130 PH/ION Meter
Seta Flashpoint Tester
Orion Ionanalyzer/901
GCA /Precision Scientific Circulation Water Booth
Tekmer Sonic Disrupter
Static Decay Meter
Beckman LS 5000 TD Liquid Scintillation Counter w/Software
TM Analyloc 300 Liquid Scintillation Counter w/Software
Tennelec, LB 5100 Alpha Beta Proportional Counter w/Software
Hipotronics Dielectric Test Set
Hewlett Packard 4339A
High Resistance Meter

Operations:

Static Testing
Hydraulic Oil Testing
Dielectric Strength Test
Volume Resistivity

Directorate of Ammunition Operations



BLDG 2755

AMMUNITION SURVEILLANCE WORKSHOP
TOTAL SQUARE FEET: 12,000

Specialized Equipment:

Ammunition Peculiar Equipment (APE)
Overhead Cranes and Monorail
Chem Lab/Sample Preparation Bay
Test Measurement & Diagnostic Equipment (TMDE)
Missile Maintenance Test Device (ATACAM)

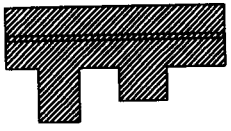
Operations:

Initial Receipt
Periodic Inspection - Cyclic Inspection
Acceptance Inspection
Pre-Issue Inspection
Special Inspection - Directed by HQ
Calibration (TMDE)
Lightening Protection and Electrical Continuity/Ground Testing

Primary Skills:

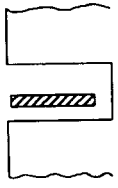
QA Specialists Ammo Surveillance (QASAS)
Certified Ammo Inspectors

CONVENTIONAL AMMUNITION MAINTENANCE FACILITIES TOTAL SQUARE FEET: 133,890

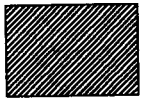


BLDG. 3810 Conv. & Missile Maintenance Facility (24,036 sq ft)

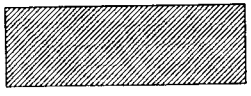
BLDG. 3814-17 Service Magazines (1,292 sq ft)



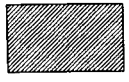
BLDG. 3820 Missile Hold Down Facility (660 sq ft)



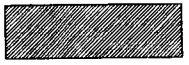
BLDG. 3381 Inert Storage (2,400 sq ft)



BLDG 3382 Inert Storage (4,000 sq ft)



BLDG. 2380 Conv. Maintenance Facility (1,500 sq ft)



BLDG. 2383 Conv. Maintenance Facility (11,310 sq ft)

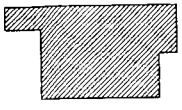
BLDG. 2363 Inert Storage (5,920 sq ft)

BLDG. 2364 Maintenance Line Mat'l Storage (530 sq ft)

BLDG. 2365 Washout Plant (6,000 sq ft)

BLDG. 2387 Conv. Maintenance Facility (4,430 sq ft)

BLDG. 2763 Conv. Maintenance Storage (1,400 sq ft)



BLDG. 2755 Surveillance Inspection (11,118 sq ft)

Conventional Ammunition Maintenance Facilities (cont.)

Specialized Equipment:

Clustering Machines
Declustering Machines
Sandblast Cleaning Units
Abrasive Blast Cleaning Units
Ammunition Washout System
Overhead Conveyors (powered)
Floor Conveyors (powered)
Vacuum Collection System
Link & Delink Machines
Overhead Hoists (electric)
Paint Booths (19, 10, 7 ft openings)
Mobile Electric Infrared Heater
Power Strapping Machines
Prime & Deprime Machines
Various Ammunition Peculiar Equipment
Rapid Response Deluge System
Washout Plant

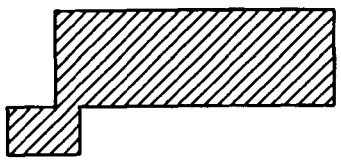
Operations:

Disassemble
Renovate
Cleaning
Painting
Stenciling
Repalletization
Preservation & Packing
Assemble
Washout

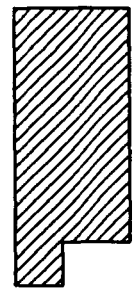
Primary Skills:

Painters
Engineering Equipment Operators
Munitions Destroyers
Explosives Operators
Electronics Measurement Equipment
Ordnance Equipment Mechanics
Ordnance Equipment Mechanics
Ordnance Equipment Workers
Forklift Operators
Warehouse Workers

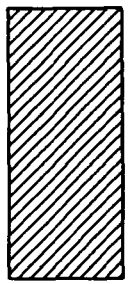
GUIDED MISSILE MAINTENANCE FACILITIES
TOTAL SQUARE FEET: 57,614



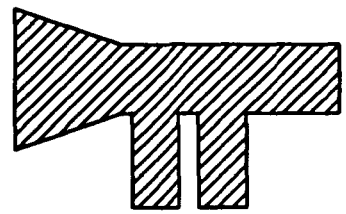
BLDG. 5311 Sidewinder Missile Facility (12,549 sq ft)



BLDG. 3700 AF Wing Modification Facility (2,604 sq ft)



BLDG. 5647 Sparrow Missile Facility (4,000 sq ft)



BLDG. 4755 Secondary Items-Missile Facility (8,020 sq ft)

Guided Missile Maintenance Facilities (cont.)

Specialized Equipment:

Test Set DSM-162A, (SPARROW)
Alphanumeric Printer
Missile Test Stand Assembly
Missile Transport Cart
Storage & Maintenance Stand MSU-166/M
Test Set AN/DSM-4044 (sidewinder)
Missile Cart
Missile Assembly Stand
Missile Alignment Tool
Missile Hoisting Sling
Missile Test Set M22
Digital Voltmeter
Electronic Counter
Signal Generator
Calibration Adapter Box
Oscilloscope
Overhead Hoist (10,000 lb)
Paint Booths
Spectrum Analyzer
Environmental Test Chamber
Maintenance & Test Stand MSU-170/E
Test Set DSM-158 (HARM)
Test Set DSM-160B (HARM)
Test Set DSM-161A (HARM)

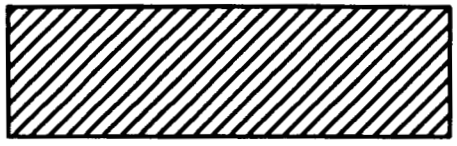
Operations:

Maintenance
Modification
Up-Rounding
Renovation
Palletization
Preservation & Packing
Disassembly
Cold Soak for Radiographic Inspection
Reintegration

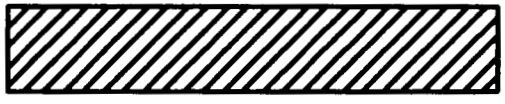
Primary Skills:

Electronic Measurement Equipment Mechanics
Ordnance Equipment Mechanics
Ordnance Equipment Workers
Ordnance Equipment Mechanics

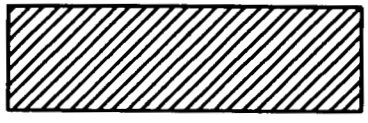
AMMUNITION SHIPPING/RECEIPT, & STORAGE MAINTENANCE FACILITIES TOTAL SQUARE FEET: 3,203,260



BLDG 3626 Ammunition Classification Facility
(12,000 sq ft)



BLDG 1465 LCL/LTL Facility (10,900 sq ft)



BLDG 5321 Blocking & Bracing Facility
(6,600 sq st)

Ammunition Shipping/Receipt & Storage Maintenance Facilities (cont.)

Specialized Equipment:

Forklift (gas/electric)
Tractor/Trailer (flat/box)
Truck (1/2-ton)

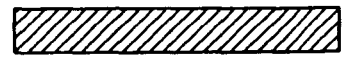
Operations:

Documentation
Receiving
Storage
Issue
Block & Bracing
Inventory

Primary Skills:

Forklift Operators
Warehouse Workers
Motor Vehicle Operators
Blockers & Bracers
Supply Clerks
Packers
Shipment Clerks
Freight Classification Assistants
Distribution Facilities Specialists
Supply Technicians

AMMUNITION DEMILITARIZATION MAINTENANCE FACILITIES TOTAL SQUARE FEET: 533,626



BLDG. 1456 Operating Bldg & Deactivation Furnace (10,900 sq ft)

Specialized Equipment:

Link & Delink Machines
Ammo Fire Control Panel
Deactivation Furnace (heavy duty)
Blaster Multimeter
Blasting Galvanometer
Conveyors (electric)
Wind System Recorder
Debanding Machine
Dial-Beam Scale (250)
Strapping Machine (powered)
Primer Press Machine
Earth Auger Truck

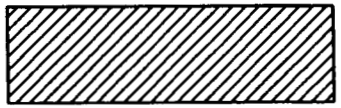
Operations:

Demolition
Multilization
Burning

Primary Skills:

Munitions Destroyers
Engineering Equipment Operators

AMMUNITION SUPPORT FACILITY
TOTAL SQUARE FEET: 13,000



BLDG. 3315

Specialized Equipment:

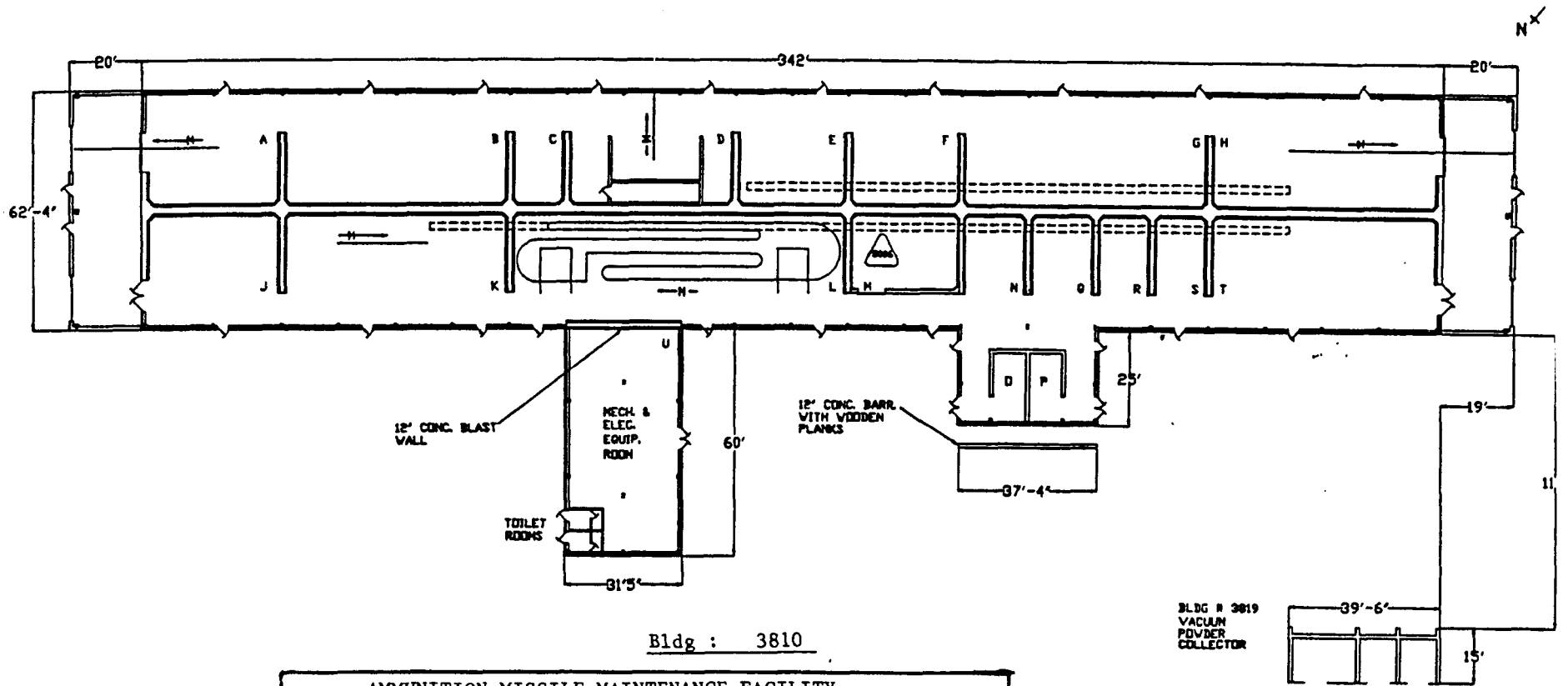
Truck (van)
Truck (1/2-ton)
Truck (3/4-ton)
Truck (water tank)
Truck (gas tank)
Truck (5-ton)
Tractor/Trailer (flat/box)
Truck (troop)
Forklift (gas/electric)
Lift (Milvan)
Loader (scoop)
Auto (compact)
Auto (sedan)
Bus (12, 16, 28, & 44 passenger)
Locomotives

Operations:

Equipment Maintenance
Installation Support
Control Supplies
Issue Supplies
Documentation
Depot Rail Operations

Primary Skills:

Motor Vehicle Operators
Warehouse Workers
Supply Clerks
Industrial Specialists
Production Machine Mechanics
Electricians
Tools & Parts Attendants
Toolmakers
Railroad Conductor
Railroad Engineer

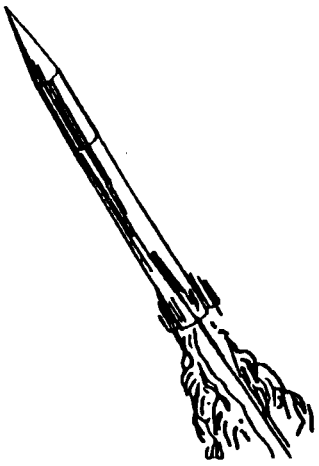


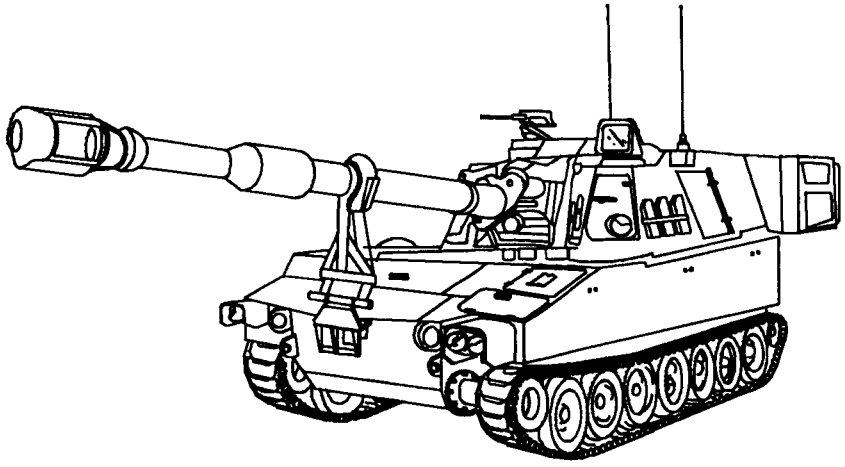
Bldg : 3810

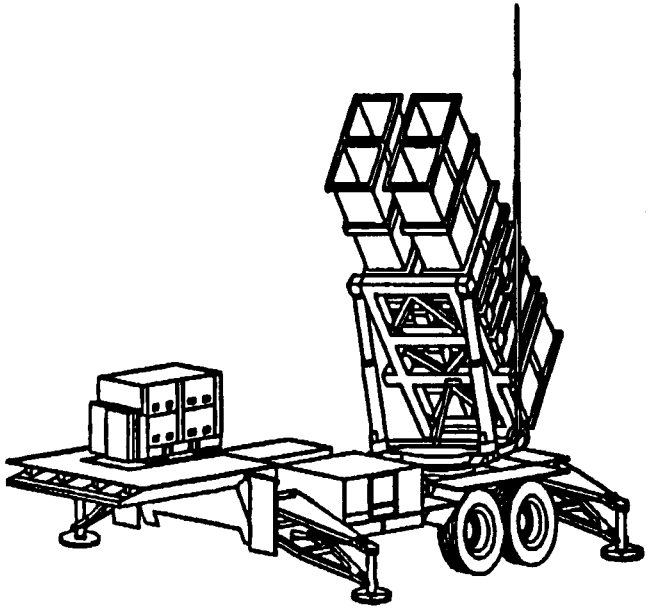
AMMUNITION MISSILE MAINTENANCE FACILITY	
TOTAL SQUARE FEET :	25,380

Section 3

MISSION AND WORKLOAD







Directorate of Maintenance

The Directorate of Maintenance Mission

*Perform repair, overhaul, modification, and/or conversion of equipment and material.

*Provide project development and design service.

*Serve as center for technical excellence (CTX) for HAWK, PATRIOT, PALADIN, AVENGER, SPARROW, HELLFIRE, and HAZMIN (chemical paint stripping).

*Provide training, customer and technical assistance to users of Army materiel.

*Provide leadership in the analysis of maintenance programs and in executing major initiatives to improve quality, cost, and productivity.

*Support reserve component training.

*Provide worldwide NBC air filtration system support.

Production, Planning, and Control Division

Mission

- Develops, plans, and controls directorate funding, workload, and resources
- Provides administrative and staff support to the Directorate
- Provides ADP and system analysis support
- Prepares and coordinates equipment and modernization requirements
- Coordinates TPF, BII/set assembly, FMS repair and return program, and special projects
- Conducts causative research on denials

Letterkenny Army Depot (LEAD) Vehicle Maintenance Mission

CARGO TRUCKS

M35A2 M35A2C
M35A1 M54A2
M813 M813A1
M814

DUMP TRUCKS

M51A2 M917

WRECKERS

M543A2 M816

TRUCKS, TRACTOR

M52A2 M52A1
M818

FIRE CONTROL INSTRUMENTS

M1A1 COLLIMATOR
M2A2 AIMING CIRCLE
M117A2 PANORAMIC TELESCOPE
M118A2 ELBOW TELESCOPE
M1A1 GUNNERS QUADRANT
M139/M140 ALIGNMENT DEVICES
M113A1 PANORAMIC TELESCOPE
M65 PERISCOPE
M145 MOUNT TELESCOPE
M115 PANORAMIC TELESCOPE
M137 MOUNT TELESCOPE
M18 BINOCULAR INFRARED

TRUCKS, FORKLIFTS, 10K

CONCRETE MIXERS (16 cu ft)

ROADGRADERS

5-TON MOBILE CRANES

TRUCK, CRANES

TRAILERS

M101A1 M105A1
M129A2 M129A3
M131A4C M131A5C
M146 M149A1
M172A1 M200A1
M313 M372A2
M390 M390C
M398 M416
M860A1 M870
M871

HEMTT (Heavy Expanded Mobility Tactical Truck)

M984E1 M983E1
M983 M985
M977 911

AMBULANCE

M718A1

TANKER TRUCKS

M49A2C

SHOP VAN TRUCKS

M109A3 M109A1

EXPANDABLE VANS

M820

PLATOON SUPPORT VANS

HAWK LOADERS

M501E2 M501E3

CATERPILLARS/DOZERS

D7E D7F
D7 D9

PATRIOT MAINTENANCE CENTERS

AN/TSM-163 AN/TSM-164

PATRIOT SMALL REPAIR PARTS TRANSPORTS

M1032

INDUSTRIAL SCAMP CRANES

LEAD Vehicle Maintenance Mission (cont.)

Combat Vehicles

TOWED HOWITZERS

M101	M114A2
M101A1	M115
M102	M116
M102A1	M119
M114	M120
M114A1	M198

SELF-PROPELLED HOWITZERS, RECOVERY VEHICLES, COMMAND CARRIERS, ETC.

M109/A1/A2/A3/ A4/A5/A6	M88A1
PALADIN	M107
HIP Prototype	M108
M110	M113
M110A1/A2	M113A1
M41	M114
M42	M548
M48	M551
M48A2	M577A1
M60	M578
M60A2	M728
	M992 FAASV

MISSILE SYSTEMS

NIKE HERC	TOW-COBRA
Basic HAWK	PATRIOT
Improved HAWK	ENTAC, SS-10, SS-11
HAWK PIP I	Corporal
HAWK Phase II	La Crosse
HAWK Phase III	SHILLELAGH

ELECTRONIC INTEGRATED FIRE CONTROL SYSTEMS

M33 Radar System
T-38 Sky Sweeping System

DETECTION SYSTEMS

FAAR (Forward Area Alerting Radar)

FIRE DIRECTION SYSTEMS

M90 Chronograph	FADAC

MISCELLANEOUS ITEMS

Drones
Black Hawk Fuel Tanks
HAWK Dummy Missiles
Stone Crusher
LARC-LX
LACV-30
MEPSCAT
40K Loaders (Aircraft)

Vehicle Shops Division

AMCCOM Major Item Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
M109A2/A3 SP Howitzer	63	45	51	47	45	9
M109A4 SP Howitzer	0	0	5	3	12	10
M109A5 SP Howitzer	0	0	1	5	5	32
M109A6 SP Howitzer (Paladin)	0	0	36	63	66	88
M110A2 SP Howitzer	12	10	18	10	0	5
M101 Towed Howitzer	26	10	0	0	0	0
M102 Towed Howitzer	37	23	28	29	6	0
M114A2 Towed Howitzer	14	7	2	0	0	0
M116 Towed Howitzer	0	0	0	1	0	0
M119 Towed Howitzer	0	2	2	0	0	3
M120 Salute Howitzer	6	6	0	1	6	0
M198 Towed Howitzer	3	9	0	7	2	5
M578 Lt Recovery Vehicle	17	9	3	11	31	8

Vehicle Shops Division

TACOM Major Item Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Crusher Screen Plant	0	1	0	0	0	0
M911 & M926 HEMTT	0	7	0	0	0	0
M977 Cargo Truck	0	3	0	0	0	0
2 1/2-Ton Truck (35A2C)	349	160	151	10	0	0
5-Ton Dump/Wrecker/Tractor/Cargo	122	8	81	14	0	3
M109A3 Van	14	1	2	0	0	0
M49A2C Truck	34	1	0	0	0	0
M390C/M750/M172A1 Trailer	30	0	27	79	0	0
M292 Exp Van	0	0	0	1	0	0
M992A2 FAASV	0	0	0	0	1	265

Vehicle Shops Division

MICOM Major Item Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
HAWK Loader Transporter	31	27	35	10	0	0
HAWK Pallet	151	47	86	20	0	0
HAWK Platoon Support	7	2	4	0	0	0
PATRIOT Maintenance Center	6	1	0	0	0	0
PATRIOT Small Rpr Parts Transporter	2	0	0	0	0	0

ATCOM Major Item Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Electrical Power Plant	0	0	0	5	0	0

Vehicle Shops Division

Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Major Items	924	487	538	316	174	428
Secondary Items	10,843	8,981	7,528	6,831	5,156	2,390
TOTAL	11,767	9,468	8,066	7,147	5,330	2,818

Electronics Shops Division

MICOM Major Item Production
HAWK Ground Support Equipment (GSE)

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
High Power Illuminator	21	17	21	6	6	0
Continuous Wave Acquisition Radar	21	17	21	6	6	0
Launcher	46	44	50	7	0	0
Launcher Section Control Box	25	3	0	0	0	0
Platoon Command Post	21	17	20	7	6	0
Big Cable Set	8	13	9	5	4	4
HAWK OME Gnd	0	2	1	0	7	2
Pulse Acquisition Radar	8	5	6	4	0	3
HAWK Test Set	3	0	0	0	0	0

Electronics Shops Division

MICOM Major Item Production
PATRIOT

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Antenna Mast Group	0	6	10	7	5	8
Radar Set	0	1	1	5	1	5
Launching Station	14	16	19	10	17	16
Engagement Control Station	0	1	2	3	1	5
Communications Relay Group	0	1	1	2	1	2
Communications Set	0	0	0	0	0	2

MISCELLANEOUS

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Avenger	0	0	0	0	97	54

Electronics Shops Division

MICOM Major Item Production
HAWK Field Maintenance Equipment (FME)

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Simulator	2	0	0	0	0	0
Shop Sets	10	3	7	4	8	0
Mobile Team Shop	3	2	0	0	1	0
Test Accessory Group	3	3	0	0	0	0
Hoist Beam	0	3	2	0	2	0

ATCOM Major Item Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Black Hawk Fuel Tanks	0	76	40	0	0	0

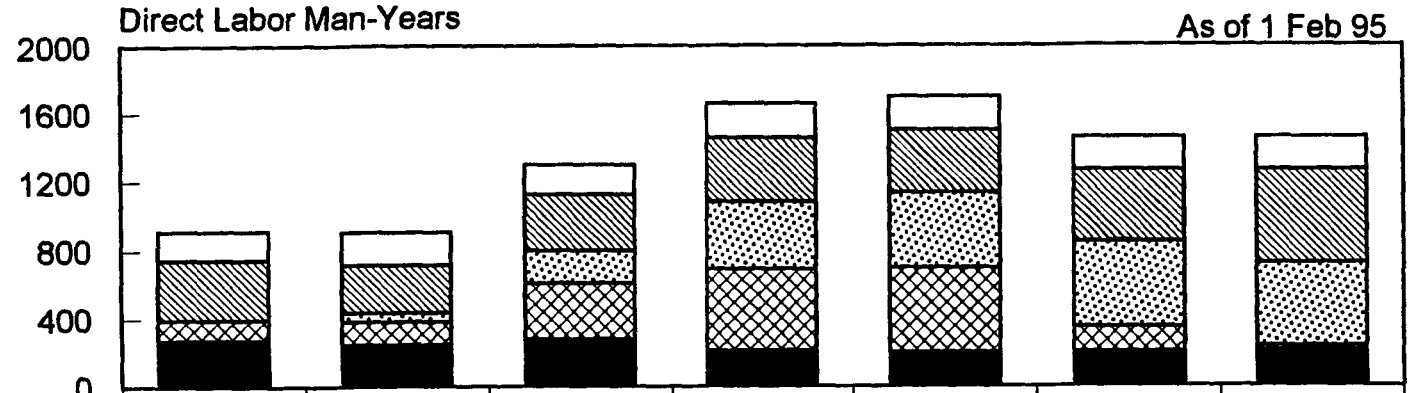
Electronics Shops Division

Production

Item	FY90	FY91	FY92	FY93	FY94	Planned FY95
Major Items	193	255	210	66	162	101
Secondary Items	9,145	9,855	8,057	10,694	4,886	12,000
TOTAL	9,338	10,110	8,267	10,760	5,048	12,101

Mission Workload

New Order Base



	FY93	FY94	FY95	FY96	FY97	FY98	FY99
AMMO	165	189	171	198	198	191	191
PAT/HK/OTH	349	276	326	377	369	419	543
MSL TRANS	0	54	188	387	432	497	486
MSL CONTRACT WKLD	*0*	*3*	*19*	*39*	*57*	*183*	*201*
PALADIN	123	134	330	481	498	147	27
ARTILLERY	271	247	277	207	197	196	204
DL MYRS	908	900	1292	1650	1694	1450	1451

LEAD Maintenance Experience in Support of Foreign Military Sales

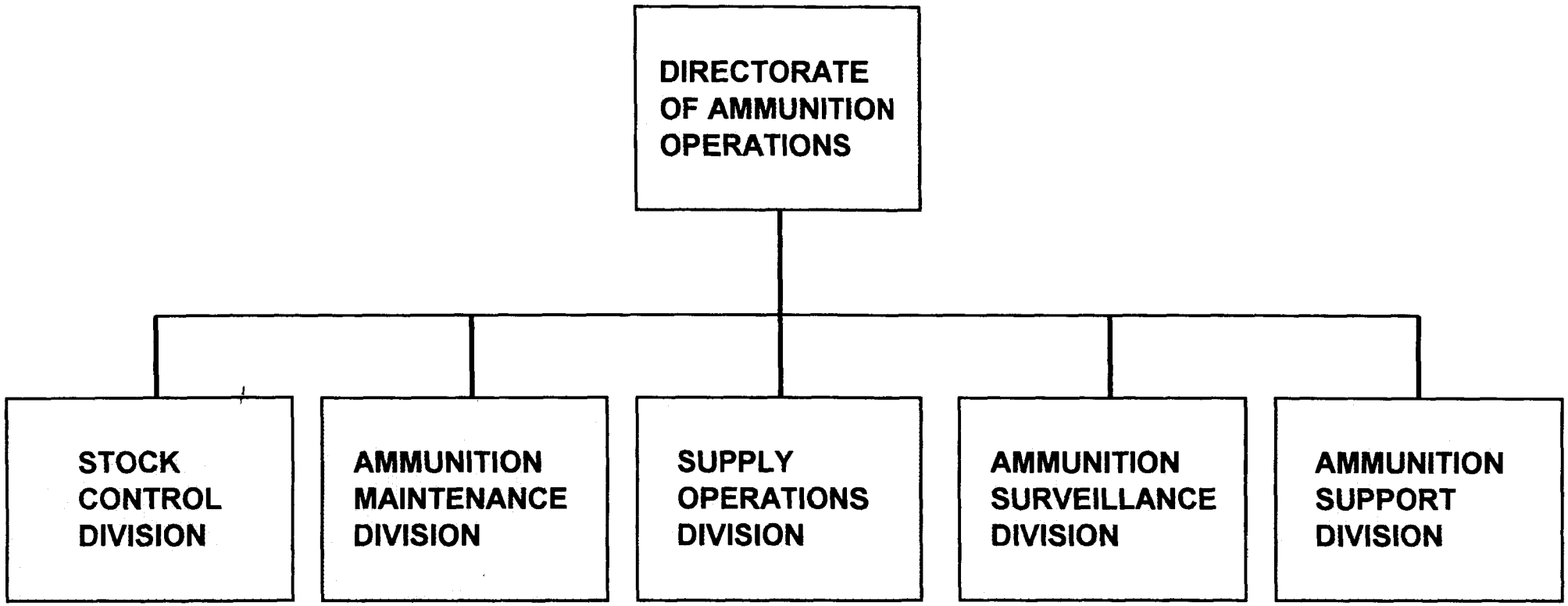
Field Support

Worldwide Assistance

- **Product Improvement Teams**
- **Technical Assistance Teams**
- **Modification Teams**
- **Customer Assistance/Liaison Teams**

Directorate of Ammunition Operations

Directorate of Ammunition Operations



Directorate Of Ammunition Operations (cont.)

Mission

Ammunition
Surveillance

Qual Assur Specialists
QASAS
Quality Inspectors

* RECEIPT
* INVENTORY
* COSIS
* PRESERVATION/ PACKAGING
* STORAGE
* ISSUE
* TRANSPORTATION
* TOTAL PACKAGE FIELDING

Distribution Division

Mission

- Preserves, packages, and marks materiel for shipment
- Procures transportation services for the movement of materiel and people
- Monitors Scheduled Airline Ticket Office (SATO) operation
- Investigates transportation discrepancies
- Provides internal rail service
- Performs maintenance on installation vehicles and materials handling equipment (MHE)
- Provides bus, wrecker, courier, and taxi service
- Controls dispatch of installation mobile equipment
- Administers road tests/maintains and issues operator permits

Directorate of Ammunition Operations

Mission

- Plans, programs, manages, and accomplishes receipt, storage, preservation/packaging, issuing, and shipment of depot mission ammunition and missiles.
- Performs renovation, modification demilitarization, and disposal of conventional ammunition and missiles.
- Performs maintenance, modification, testing, reintegration, and uprounding of Army, Air Force, Navy, and Marine Corps missiles and components.
- Directs, controls, monitors, and evaluates the Ammunition Surveillance Program for ammunition, explosives, and guided missiles.
- Provides depot rail service, laundry support, and stamp-making services to other organizations across the depot.

Ammunition Shipping/Receiving

	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94
RECEIVING								
SHORT TONS	24,654	15,396	22,420	16,803	50,749	38,451	33,202	17,092
MAN-YEARS	28.5	21.7	22.6	27.3	32.6	67.8	65.0	33.1
SHIPPING								
SHORT TONS	23,622	20,668	13,980	19,855	26,524	12,924	17,277	16,579
MAN-YEARS	43.1	39.0	28.9	28.9	42.2	25.4	33.8	32.1
MROs PROCESSED	7,299	6,959	6,157	6,307	5,514	6,105	4,810	6,469

Air Defense Missile Systems
Maintenance Workload and Capability

	Production FY90	Production FY91	Production FY92	Production FY93	Production FY94	Planned FY95
Sidewinder-Missile Up-Rounds	1,084	806	430	614	XX	XX
Sparrow Missile Up-Rounds	712	383	138 (FMS)	441	371	0
Sparrow Wing Modification Sets	856	747	411.25	0	XX	XX
Missile Secondary Components	XX	XX	XX	749	623	1191
Harm Missile Cold Soak & XRay	XX	XX	XX	526	1400	5115
ATACMS Missile	XX	XX	XX	XX	30	83

U.S. Army Central PA Regional Public Works Center

Hazardous Supply Division

Mission

- Receives, stores, and issues hazardous material and waste
- Maintains surveillance over hazardous material and waste to ensure conforming storage, cyclic inspections, and safety requirements
- Maintains inventory of hazardous waste
- Prepares documentation/maintains logs
- Packages hazardous waste including radioactive
- Removes hazardous waste from generator sites and coordinates turn-in with Defense Reutilization and Marketing Office - Letterkenny (DRMO-LEAD).

Depot Property Division

Mission

- Maintains stock record account
- Furnishes support to authorized installation customers
- Operates and controls Automated Self-Service Supply Center
- Operates bulk petroleum, oil, and lubricant distribution system

Directorate of Personnel and Community Activities (DPCA)

DPCA

Within the DPCA, the Civilian Personnel Office (CPO) provides efficient customer oriented services and technology which can be regionalized and include:

**Standardized Job Descriptions*. Job descriptions written combining related areas thus reducing waiting time and improving productivity.

**Personnel Management Assistance*. Multi-functional classification and staffing teams can provide comprehensive advice, assistance, and training for managers and employees in areas such as administering employee compensation programs, development of job descriptions, classifying jobs, and identifying methods and sources of candidates for staffing organizations.

**Downsizing Assistance*. Administer DOD and government-wide management on laws and policies related to DOD downsizing and administer reductions and reorganizations for management consistent with agency requirements and rules.

With additional resources and tailoring, the following services and programs could be provided on a regional basis:

**Automated Civilian Personnel System (ACPERS)*. Served as the Department of the Army (DA) pilot program completing the conversion of an outdated system to ACPERS within 60 days (one-third the projected implementation time). This clearly demonstrates CPO's ability to rapidly respond to change. The new system enables us to give rapid turn-around on data requests from any serviced organization. LEAD's CPO has been recognized at the highest level of DA as an expert and responsive CPO.

**Employee Assistance Programs*. In quick response to the projected reduction-in-force (RIF), CPO has developed several employee assistance programs.

DPCA (cont)

Stress Management Workships. A cooperative effort between CPO and the Health Clinic. Workshops are offered to all depot employees.

Employee/Family Assistance Seminars. Seminars are scheduled for employees and their family members who may be displaced by a RIF. Representatives from CPO, Credit Union, Unemployment Office, and Job Partnership Act Program will discuss RIF related topics.

Resume Writing Classes. Classes are available to all employees separated by RIF. Individual follow-up assistance may be scheduled after the class.

The DPCA also operates an extensive quality of life program for military and civilian personnel. Quality of life services include self-sustaining morale, welfare, and recreation programs that provides assistance to and opportunities for the hobbyist, sports and fitness enthusiast, programs for child development, latch key children, youth activities, and personal and family management programs.

For employees transitioning careers, a reemployment/retraining assistance office has been established on depot in conjunction with state and county agencies.

A newly established training and conference center with over 7,890 square feet of space consists of training rooms, a learning resource center, and a computer room all in one convenient location.

DPCA (cont.)

LEAD has the capability to serve as a Regional Training Center, including environmental training, with access to:

- VISTANET (closed circuit TV)
- C (Current Events) and KU (Educational) Span Satellite
- Computer Training Center
- Automated Training Plans

In support of military operations, the DPCA has programs for major systems and military (active and reserve components) training as well as an infrastructure to support peacetime and mobilization contingencies.

DPCA (cont.)

FIELDING TRAINING SUPPORT

Familiarization and Orientation Training

- On-The-Job Training (OJT) to Organizations Needs
- Scope
  - Light Armored Vehicles
  - Self-Propelled and Towed Artillery
  - Air Defense Guided Missile Systems
  - Supply Operations
  - Ammunition Operations
  - Transportation Operations
- Customers
  - Army
  - National Guard
  - Reserve Components
  - Air National Guard
  - Allies
  - LARs
- Personnel Trained

FY89	603
FY90	583
FY91	1101
FY92	1058
FY93	1963
FY94	1453

***Aerial Port of Embarkation (APOE)/ Sea Port of Embarkation (SPOE)**

Reserve Component Training

- Key Personnel Upgrade
- Annual Training
- Inactive Duty Training
- Individual Mobilization Augmentee Training Program (IMA)
- Hands-On Training
- Army Training and Evaluation Program (ARTEP)
- Special Training Programs
  - Certification/Licensing
    - 40 hr Crane Course
    - 40 hr 50,000 RTCH
  - QC Inspector Program
- Training

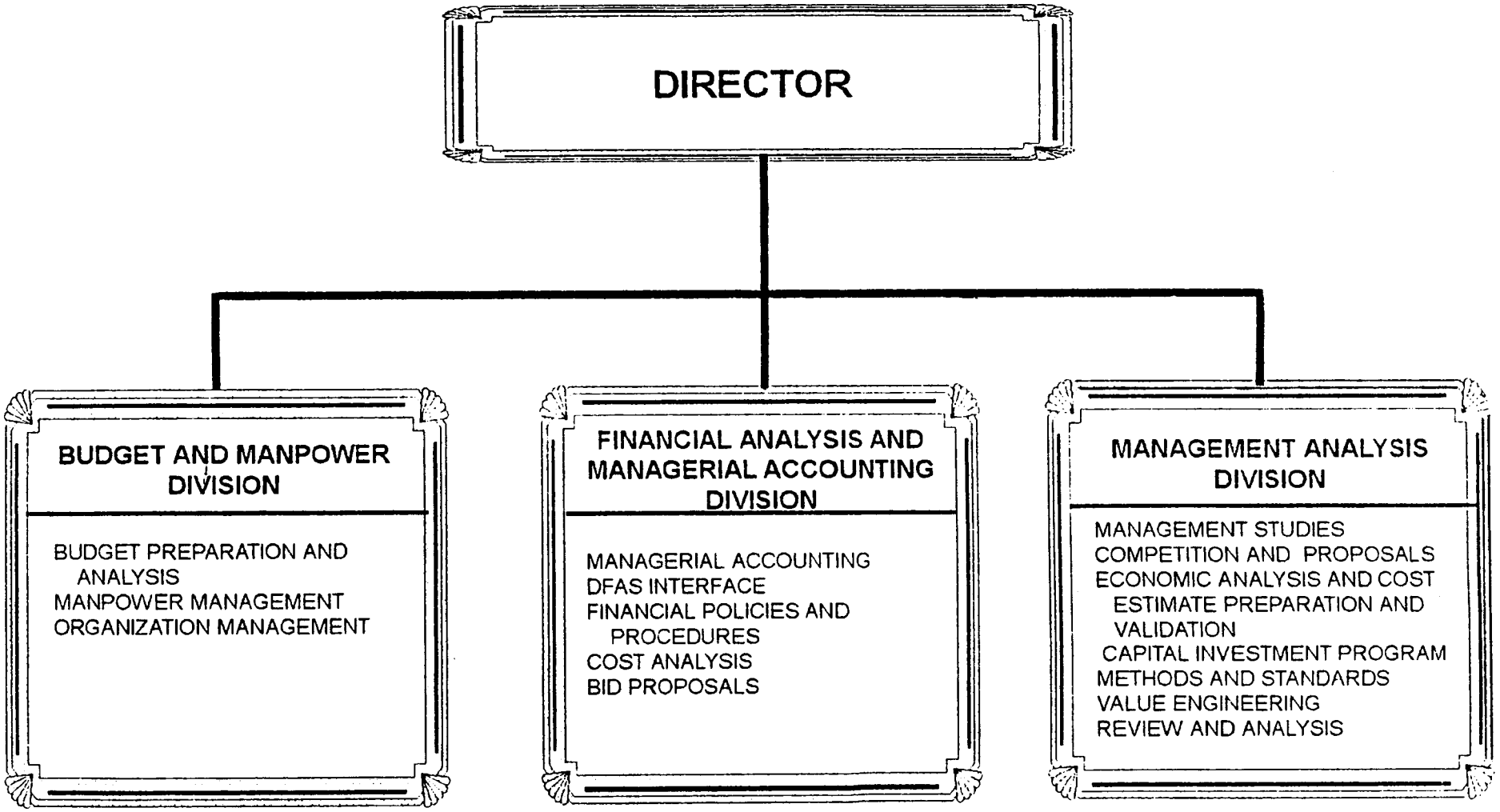
FY89	9,045 Man-days
FY90	19,660 Man-days
FY91	21,200 Man-days
FY92	17,183 Man-days
FY93	11,000 Man-days
FY94	7709 Man-days

Mobilization Capability

- Capability to Support Units
  - 18 Acre Tactical Site
  - 12 Position Firing Site
  - Clinic
  - Tentage
  - Barracks
  - Transportation Support
  - Proximity to Major APOE/SPOE*
  - Training Support
  - Utilities

Directorate of Resource Management

DIRECTORATE OF RESOURCE MANAGEMENT



LEAD RESOURCE MANAGEMENT MISSION

LEAD currently performs resource management support functions such as: budgeting, financial services, cost analysis, managerial accounting, review and analysis management studies, competition and bid proposals, management of productivity improvement programs, and manpower/organizational management.

Directorate of Contracting

Office of the Director

Mission:

Provides advice and assistance to the Commander and other activities concerning purchasing and contracting matters involving appropriated and nonappropriated funds.

Operations and Functions:

***Maintains liaison with the private industry.**

***Administers the Small Business Program, and establishes the yearly Small Business Fairs.**

***Provides advice, assistance, and training to industry on "How to Do Business with the Government."**

***Investigates circumstances and prepares answers to congressional and other inquiries initiated by industry.**

***Responsible for establishing Process Action Teams (PAT) for TAQ.**

***Reviews DA Form 2579 (Small Business Coordination Record).**

***Prepares all report and statistical data, plus manages the Advanced Acquisition Plan of LEAD, Savanna, and collocated activities.**

***Receives and assists visiting officials.**

***Maintains Unclassified Publication File.**

Office of the Director (cont.)

Staffing

Director of Contracting

Administrative Assistant

Procurement Office

Public Works Division

Mission:

To direct the planning, soliciting, executing and administration of supplies, services and construction procurement utilizing formal acquisition, simplified small purchases and intra-governmental General Services Administration (GSA) procedures regardless of the dollar value in support of the Central Pennsylvania Public Works Center (PWC).

Operations and Functions:

Small purchase procedures for materials, equipment, services and construction.

Contracts for material, equipment, construction and services.

Prepares and evaluates Requests for Quotation (RFQ).

Conducts preproposal conferences and site visits.

Evaluates bids, proposals, and quotations.

Administers award protests, Congressional actions and post award litigation.

Develops price and cost analysis positions.

Performs/arranges for preaward surveys of prospective contractor's facilities and production capabilities.

Participates on Source Selection Boards.

Synopsis of requirements in the Commerce Business Daily (CBD) and conducts market surveys when required.

Issues delivery orders under Federal Supply Schedule contracts and various requirement contracts locally generated as well as issued by other services within DOD.

Performs contract administration on contracts to include negotiations of contract extensions, changes, handling contractor claims and disputes, exercising contract options, all daily administrative matters through contract closeout.

Public Works Division (cont.)

Programs Supported:

*Tactical Missile Consolidation:
*M109A6 XTG-411 Paladin
*PATRIOT
*HAWK
*BRAC
*ACP (Asset Capitalization Program)
*APE
*READY 2000
*HERCULES
*Competitive Procurements for LEAD
(New work efforts/ILS Office)
*Asset Capitalization Program

*SPARROW
*PHOENIX
*ATAS
*AVENGER
*ATACAMS
*SIDEWINDER
*HELLFIRE

*Integrated Flexible Manufacturing System (IFMS)
*Rapid Acquisition of Spare Parts (RASP)
*ASRS
*MSFS
*"PROJECT HOPE" (Somolia)
*Haitian Operations
*Rwanda
*Dade County Florida - Hurricane Relief

Activities/Tenants Supported:

*U.S. Army Depot System Command (DESCOM)
*Army Audit Agency
*Defense Reutilization and Marketing Office - Letterkenny
*U.S. Army Area TMDE Support Center (USAATSC) - LEAD
*U.S. AMC Systems Integration and Management Activity (SIMA)
*U.S. Army Health Clinic
*Defense Megacenter - Chambersburg - DESCOM and LEAD
*European Support (AMC Europe)
*Defense Finance & Accounting System (DFAS)
*Savanna Army Depot Activity

Public Works Division (cont.)

Staffing

Supervisor Contract Specialist

Senior Contract Specialist

Contract Negotiators

Contract Specialist

Purchasing Agents

Procurement Technicians

Procurement Clerk

Mission Division

Mission:

To direct the planning, soliciting, executing and administration of supplies, services and construction procurement utilizing formal acquisition, simplified small purchase and intra-governmental General Services Administration (GSA) procedures regardless of the dollar value in support of the depot activities (excluding the Central Pennsylvania Public Works Center (PWC)), Savanna Army Depot, U.S. Army Europe (USAEUR), and collocated activities. Also provides support services required to assure adequate pricing, policy/procedures, automation and efficient contract execution and administration.

Operations and Functions:

Small purchase procedures for materials, equipment, services, Federal Information Processing (FIPs), and construction.

Contracts for material, equipment, construction, FIPs and services.

Prepares and evaluates requests for quotation (RFQ).

Conducts preproposal conferences and site visits.

Evaluates bids, proposals, and quotations.

Administers award protests, Congressional actions and post award litigation.

Develops price and cost analysis positions.

Performs/arranges for preaward surveys of prospective contractor's facilities and production capabilities.

Participates on Source Selection Boards.

Synopsis of requirements in the Commerce Business Daily (CBD) and conducts market surveys when required.

Issues delivery orders under Federal Supply Schedule contracts and various requirement contracts locally generated as well as issued by other services within DOD.

Performs contract administration on contracts to include negotiations of contract extensions, changes, handling contractor claims and disputes, exercising contract options, all daily administrative matters through contract closeout.

Mission Division (cont.)

Researches, interprets, formulates, and disseminates procurement policy guidance.

Reviews, interprets and implements higher authority guidance.

Participates and advises in acquisition planning solicitation and contract reviews, conducts Solicitation Review Boards and Contract Review Boards.

Reviews solicitation packages and contract awards for quality and regulatory compliance.

Conducts cost/price analysis reviews and provides pricing advice, support and policy.

Implements and maintains Standard Army Automated Contracting System (SAACONS) and all ADP software and equipment.

Issues all responses to Freedom of Information Act (FOIA) requests.

Develops and manages Directorate budget and required training.

Prepares responses to all data calls and formal inspections.

Programs Supported:

***Haitian Operations**

***"Project Hope" (Somolia)**

***Hazardous Waste Removal and Disposal**

***Automatic Storage and Retrieval System**

*** Tactical Missile Consolidation**
- **Sparrow**
- **Phoenix**
- **Avenger**
- **Sidewinder**
- **Hellfire**

*Custodial service contracting for LEAD and SVADA

*Technical services, training, equipment for missile programs (classified and unclassified)

*ADP Acquisition for the Standard Depot System (SDS) Modernization

*MSFS

*Defense Megacenter - Chambersburg - DESCOM

*AOD Mod

*Rwanda

Activities/Tenants Supported: **U.S. Army Depot System Command (DESCOM); Defense Reutilization and Marketing Office; U.S. Army Area TMDE Support Center (USAATSC) - LEAD; U.S. Army Health Clinic; Defense Megacenter - Chambersburg**

MissionDivision (cont.)

Staffing

Supervisory Contract Specialist

Senior Contract Specialist

Senior Contract Administrators

Contract Administrators

Procurement Analysts

Procurement Technicians

Imprest Fund BPA/Credit Card Program Administrator

Directorate of Product Assurance

The Directorate of Product Assurance Mission

***Responsible for assuring the overall depot Quality Program is established and responsive to the needs of its customers.**

***Direct, manage, and execute a quality assurance program by conducting audits of depot processes and analyzing quality data feedback.**

***Promote and support a TAQ management program by emphasizing quality production techniques and philosophies.**

Quality Planning Division

Quality Assur Specialists

Management Analyst

Equipment Specialist

Quality Engineers

Quality Audit Division

Quality Assur Specialists

Quality Engineer

Directorate of Information Management

Directorate of Information Management Mission

The Directorate of Information Management mission provides quality Information Area (IMA) services to LEAD and its collocated activities, satellites, and world-wide customers.

Functions:

*Provides technical support related to Joint Engineering Data Management Information Control System.
*Maintains input and output control at Central Data Management Facility for input and output for various functionals and data repositories.
*Maintains the Data Collection Reporting System providing continuous parametric data for tactical missiles to the Air Force and Navy reliability systems.
*Provides systems administration and programming support for the tactical missile parametric and configuration data collection systems and Tier II UNIX systems.
*Provides telecommunications support including gateway and internal network administration.
*Provides support to LEAD; Savanna Army Depot, Savanna, IL; Miesau Army Depot, Miesau, GE; two European Redistribution Facility sites in Germany; Vint Hill Farms Station, Warrenton, VA; Lake City Ammo Plant, Independence, MO; approximately 20 War Reserve CONUS and OCONUS sites; and the Defense Logistics Agency, in the processing of standard system applications.
*Provides electronic mail support including system/file maintenance, software maintenance, and system administration.
*Installs Tier III hardware and software and provides operational support for Tier III computers and SDS remote terminal sites. Prototypes new hardware and software.
*Maintains assigned DA, U.S. Army Materiel Command, U.S. Army Depot System Command, and other standard systems which are implemented at the depot.
*Provides technical support to functional users, unique program development, and project management.
*Assures automatic data processing security regulations are implemented and enforced and monitors production flow of customer processes.
*Conducts continuous review and evaluation toward optimizing operational computer programs, reviews planned computer applications in the interest of efficiency, standardization, cost reduction, conformance to guidance, and avoidance of duplication of effort.

Directorate of Information Management Mission (cont.)

Visual Information:

The visual information services provided the installation include:

*Graphic Arts such as geometric projections, computer-generated graphics, hand-drawn illustrations, and other processes. These graphics are for charts, posters, publications, brochures, and exhibits.
*Production of television tapes for training, command briefings, and documentaries. Also provides closed circuit broadcast transmissions on a local area network in support of training and command information channels.
*Photographic coverage of significant activities using conventional still, aerial, and studio photography. Laboratory processing and developing prints and metal photo identification plates is also provided.
*An audiovisual media and equipment support center and film and video tape library for Government and commercially acquired video productions and motion pictures.
*The VENUS Teleconference Center is linked with 22 other Materiel Readiness Command locations throughout the United States through providing direct video multipoint teleconferences daily.

Records Management:

This IMA subdiscipline provides the following services for the installation:

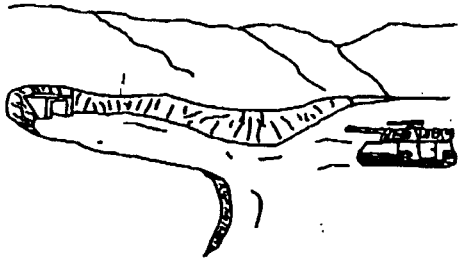
*Assistance on the management of files, copiers, micrographics, forms, correspondence, committees, commercial periodicals, and bulletin boards.
*A one-stop service for the collection of changes to the LEAD organizational directory, telephone directory, office symbols, and e-mail addresses for LEAD and all serviced activities.
*Guidance on the implementation of Privacy Act and Freedom of Information Act policies and restraints.
*Assistance on local administrative publications and forms for LEAD and all serviced activities.
*Requisitions, receives, stores, and distributes publications and blank forms for depot and all collocated activities. Also performs distribution of forms and publications to AMC activities worldwide.

Directorate of Information Management Mission (cont.)

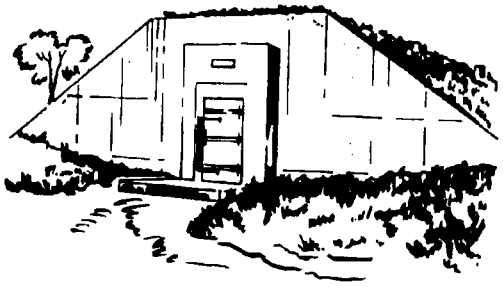
Records Management (Cont.)

*Creates LEAD Bulletin providing official and non-official articles to all depot and collocated activities.
*Maintains an administrative library of publications and provides assistance for users installation-wide.
*Performs surveillance over Outside the Continental United States (OCONUS) travel requests, receiving travel clearances and providing documentation of clearance on travel orders.
*Maintains Records Holding Area and assists with retirement of records to National Records Centers.
*Maintains an electronic mail data base of all login users installation-wide.
*Maintains and controls central repository for and controls distribution of classified documents (confidential and secret).
*Operates the central Mail Room. Receives and safeguards incoming mail messages providing mail delivery to the depot and collocated activities. Picks up, collects, and meters outgoing mail for release to the United States Postal System.
*Provides technical consultation and tracking on printing services for all serviced customers on the installation. Provides assistance for in-house, as well as contract printing through the Government Printing Office.
*Provides installation-wide training on the Modern Army Recordkeeping System (MARKS). Privacy Act, Correspondence, Unit Publications Account Management, and Official Mail Control.

FIRING RANGE



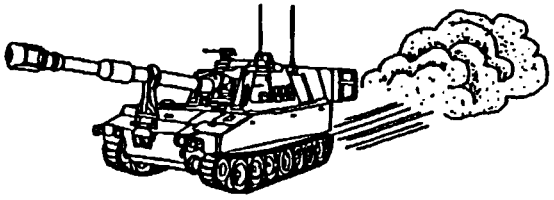
AMMUNITION STORAGE



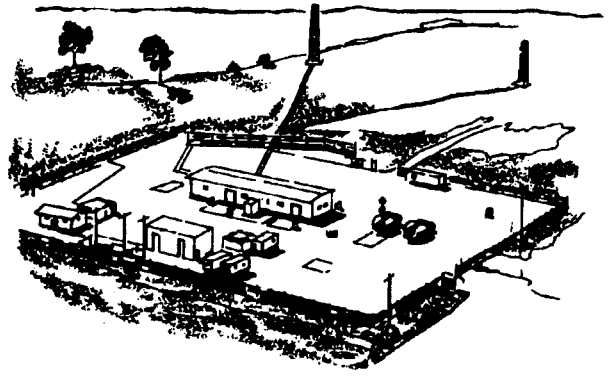
SOFT TECHNOLOGY

Section 4
UNIQUE CAPABILITIES

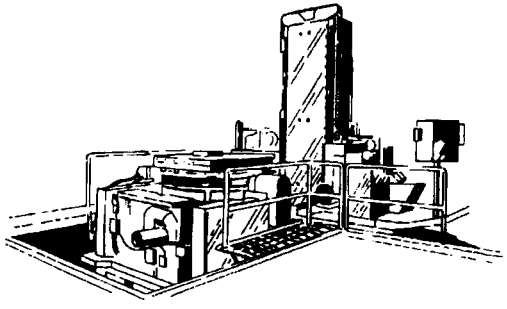
VEHICLE TEST TRACK COMPLEX



28 ACRE RADAR TESTING SITE



CNC/MDI MACHINING CENTER



Directorate of Maintenance

Letterkenny Army Depot (LEAD) Unique Capabilities

Tritium Facility:

Located in Bldg 14, the facility includes a Tritium Instrument Repair Room approximately 20 feet by 20 feet. This room is specially designed and designated for repair work related to self-luminous sources (tritium) into fire control instruments. LEAD has been licensed by the Nuclear Regulatory Commission (NRC). The facility contains required tritium air monitors and fume hoods. All tritium instrument repair personnel are properly trained and skilled in repair/replacement of tritium light sources. Facilities also exist for the shipping, receiving, and storage of tritium items.

Computer Numerical Controlled/Manual Data Input (CNC/MDI) Machining:

LEAD currently has a wide range of versatile CNC/MDI machining capabilities to include turning, milling, grinding, punching, cutting, sawing, waterset cutting, electrical discharge machining, and boring. LEAD has the capability to machine from the smallest component up to an M109 hull or turret.

Engine Test Cell:

A Distributed Numerical Control (DNC) System is connected to all of the CNC machine tools. It provides electronic management of information required to support CNC manufacturing. The DNC system is state-of-the-art technology that electronically connects engineers, drafters, programmers, and quality, to computer numerical control machines on the shop floor.

Wiring Harness Fabrication:

The Electronics Shops Division has the capability to fabricate any wiring harness, from the smallest chassis harness to the largest high-voltage cable, including transitions and connector potting and automatic braiding. On the HAWK Program for example, one of the larger harnesses requires 360 man-hours to fabricate, while a HAWK triad battery requires the fabrication of 290 harnesses. Automatic test equipment capabilities are available for insulation resistance, continuity, and corona. All major wiring harnesses are completely removed and replacement harnesses are fabricated from new teflon insulated wires and then tested for insulation resistance and continuity.

LEAD Unique Capabilities (cont.)

Electric Motor Reconditioning:

Electronics Shops Division disassembles, reconditions, rewinds, modifies, assembles, and tests electric motors including the many motors found in the PATRIOT system. All motors including DC through 400 hertz AC are completely reconditioned. Testing capabilities include a dynamometer load test, a mechanical vibration analyzer, and dynamic balance and power analyzer.

Soldering Capabilities Including PACE:

The Electronics Shops Division possesses extensive soldering and soldering rework capabilities certified to MIL-STD-2000. Highly skilled operators use statistical process control, high power zoom-stereo microscopes, and state-of-the-art soldering workstations for soldering of through-hole and fine pitch surface-mount printed circuit boards. Environmental controls include temperature and humidity controls, 100,000 class clean rooms, and class 100 laminar flow benches. Automated test equipment verifies PCB functionality.

28-Acre Radar Testing Site:

Missile systems at LEAD are tested at the Radar Test Site, a specially designed facility that simulates a tactical emplacement. The system is first put through the paces of daily, weekly, and monthly checks. After a long series of tests and checks, Systems Integrated Check Out (SICO) is begun. This procedure puts the system through an exhaustive test, which includes a series of preliminary checks, target acquisition and identification, concluding in a simulated missile launch. The first "hot run" debugs the system and locates any faults not detected during earlier simulator checks. To further assure the quality and reliability of the system, the entire SICO is repeated before final acceptance by Quality Assurance personnel. This facility is one-of-a-kind within DOD and one of two in the world.

LEAD Unique Capabilities (cont.)

Nearfield Antenna & Compact Test Pattern Range:

The Antenna Pattern Test Range provides year round, state-of-the-art technology in the mechanical and electrical boresighting of continuous wave acquisition radar (CWAR), range only radar (ROR), and high-power illuminator (HPI) antennas. It has wide application for a variety of systems and support to other agencies. Computer controlled equipment generates, monitors, and graphs radiation patterns to ensure proper receiver/transmitter alignment. This facility is one of a kind in DOD.

DIT-MCO, A2000, Missile Automated Test Equipment:

The entire harness operation is supported by a programmable automatic continuity and insulation breakdown tester to analyze cable and wiring. With recently added modules, our testing capacity is up to 10,000 pins per unit. The semiautomatic test stations provide a limitless capacity for electrical testing. Precision Instruments from HAWK, HERC, and FAAR systems including the latest in micro-processors are available for testing video, audio, cathode ray tube display circuits, printed circuit boards, pulse logic, and power supplies. In-process diagnostic testing is performed on a variety of test consoles. A major part of LEAD's massive capital equipment expenditure is invested in sophisticated depot level test equipment for the HAWK system. An entire complement of specialized depot-level microwave equipment is also available..

LEAD Unique Capabilities (cont.)

Engine & Cross Drive Transmission Test Stand

LEAD recently purchased a transmission test stand and has a second one on order to accomplish test requirements of the M109A6 XTG-411 Paladin cross-drive transmission. The test stand is powered by a remotely located diesel engine and generates drive power and dynamic loading of each output by hydrostatic pressure. The control console features computerized data and storage. This test stand provides increased capability, accuracy, and reliability of cross-drive transmissions overhauled at LEAD. This test stand is one-of-a-kind in DOD.

Optical Instrument Overhaul:

The optical instrument overhaul program at LEAD is required to fully support the howitzer mission. Conventional fire control equipment associated with howitzer's range from obsolete telescopes and sighting devices used on some FMS to modern computer linked equipment. LEAD has maintained the skill base required to perform overhaul and repair associated with all howitzers. These journeymen must be able to hand-fit gear drives and mating surfaces to the most stringent tolerances in addition to working with electronic controlled systems.

Extensive Painting and Blast Cleaning Capabilities

LEAD's painting operations include 53 painting facilities spread throughout the depot. These facilities range from small open-face booths to semiautomated paint carousels to large drive-thru booths (the largest being 22 feet wide by 18 feet high by 60 feet long). Chemical agent resistant coating (CARC) coatings (primer and top coat) are applied within these facilities to a wide variety of parts and end items. Exterior top coats are applied per specific detailed end items camouflage patterns. A recently installed VOC emission control system will lead to the elimination of constraints to painting resulting from State regulations. Blast cleaning at LEAD is performed in one of 22 facilities. These facilities include two large drive-thru booths, five walk-in blast rooms, six automatic rotary blast machines, and nine hand cabinets. Blasting compounds used include steel shot, glass bead, agicultural media, and plastic beads. The plastic blast media has been used since November 1984 to remove paint from thin aluminum and composite substrates.

LEAD Unique Capabilities (cont.)

Extensive Painting and Blast Cleaning Capabilities, (cont.)

Nearly all noncompliant coatings (paints containing greater than 3.5 pounds of VOC per gallon) will be applied in one of the new systems. The emission control system utilizes filters, zeolite absorbing rotors and an oxidizer to remove over 95% of the VOC's. The system greatly increases the painting capability at LEAD, complies with Pennsylvania Department of Environmental Resources regulations, and postures LEAD to deal with more stringent environmental regulations in the future. NOTE: Pennsylvania currently ranks as one of the most stringent states in the nation and yet has approved LEAD's capability. This system is one-of-a-kind within the Department of the Army.

Chrome Plating Facility:

LEAD applies engineering plating, per Fed Spec QQ-C-320, through both conventional and reversible rack/conformal anode processes. Electroplating of black chrome, per MIL-C-14538, is also performed. Parts with diameters up to 9 inches and lengths up to 7 feet are normally plated. Thicknesses from .0001 to .060 inches are applied. Metals commonly brush plated include chrome, nickel, gold, silver, copper, and cadmium. Complete pre- and post-machining processes are available including interior and exterior honing and drawlapping.

Small and Large Recoil Gymnasticators:

Small gymnasticators are capable of testing all conventional hydropneumatic recoil mechanisms from the M-2 thru M174. This versatility allows LEAD to participate in major howitzer overhaul programs. The gymnasticators are linked to computers for accurate, instantaneous readouts regarding terminal velocities and can pinpoint problems prior to test firing.

LEAD Unique Capabilities (cont.)

Multilayer Circuit Card Repair and Test:

Electronics Shops Division has the capability to repair multilayer circuit cards down through three layers. LEAD personnel have the option of using lap flow (dissolving the epoxy layers) or a grinding method when repairing the multilayer boards. Associated equipment includes: modern "PACE" equipment; micro-blast (soda or walnut shell) equipment to remove conformal coatings; aqueous circuit card cleaning equipment; hot jet soldering equipment for Surface Mount Technology circuit card repair; wave soldering equipment; 15 to 30 power microscopes for miniature soldering; board and chip EPROM programming and validation test equipment; and bed-of-nails and edge connector based test equipment. All personnel who use soldering techniques are certified for MIL-STD-2000 (Task F&G) soldering.

Extensive Hydraulic Hose/Components Rebuild Fabrication:

Vehicle Shops Division has the capability to repair, rebuild, fabricate, and test hydraulic and pneumatic components (motors, cylinders, compressors, solenoids, valves, electromechanical valves and solenoids, hoses, etc.) for the SPARROW, HAWK, PATRIOT, Target Holding Mechanism, as well as PALADIN and other self-propelled howitzers. Due to the high skill level of personnel, additional projects have included fuel bladder testing and Blackhawk external fuel tank modifictations. Hydraulic and pneumatic testing can be done up to 30,000 psi (hydraulic), flow rates up to 25 gallon per minute (hydraulic), and pressures up to 32000 psi((pneumatic). LEAD is now rebuilding components for the PALADIN program that meet cleanliness level 200 of MIL-STD 1246B. Coolant systems (glycol and insulating oils) are also repaired and tested in the Electronics Shops Division. Testing equipment includes varied high flow/pressure hydraulic test stand, high pressure pneumatic component blast containment shelter (for operator safety), etc.

LEAD Unique Capabilities (cont.)

Shielded Room Capability Interference Free Testing Environment:

LEAD currently utilizes three shielded rooms for testing purposes. These rooms are required to reduce the interference radiating from the enclosed testing equipment. One room is required to shield the equipment used to test HAWK Amplifier-Modulator-Oscillator assembly (RF Pallet) and other associated assemblies. Another room is required to shield the equipment used to test the PATRIOT microwave frequency converter assembly. LEAD also has the capability of testing, per MIL-STD-285, for the shielding effectiveness of PATRIOT shelters. The third room is utilized for testing of lower-level assembly of SPARROW missile guidance section.

Complete Overhaul & Test Capability for HAWK System (Basic thru Phase III Including Related Vehicles):

LEAD is considered the organic depot for the overhaul and testing of the HAWK system. LEAD has and is the prime depot for the U.S. Army, the National Guard, the U.S. Army Reserve, and Foreign Military Sales units. To accomplish this mission, LEAD has the ability to overhaul, repair, and test the following pieces of the HAWK Radar System: the HPI, the CWAR, the ROR, the pulse acquisition radar (PAR), the PLATOON Command Post (PCP), the Battery Control Central (BCC), the Information & Coordination Central (ICC), various pieces of Shop Equipment, and other related HAWK items. The types of test equipment required are several Dimensional Test Equipment (DTE) consoles, several high frequency consoles (HFC), two Missile Automated Test Equipment (MATE), various pieces of microwave test equipment, the A-2000 Receiver Test Console, etc. In addition, LEAD is continually modernizing the test equipment. LEAD has on order or will have on order the following equipment: an IFTE HAWK version, A-1000 Low Power microwave test console, and an A-1000+ High Power microwave test console. After the overhaul and repair of the major HAWK assemblies, the major assemblies and/or complete HAWK Radar System is tested in the Nearfield Antenna Pattern Range or the Radar test site.

LEAD Unique Capabilities (cont.)

Environmental Chambers/ Clean Rooms:

LEAD has various sized temperature chambers used for temperature stressing of electronic assemblies and missile rocket motors and to support cable connector potting processes. Maximum chamber size is 12' x 10 1/2' x 8 1/2' with cooling capabilities down to -40 degrees fahrenheit. A number of class 100,000 clean rooms exist within LEAD maintenance that are utilized for the refurbishment of Stinger argon bottles, assembly of artillery recoil mechanisms and the overhaul of hydraulic components. LEAD also has a class 1,000 clean room for the repair of Sidewinder missile components.

Complete Overhaul & Test Capability for PATRIOT Missile System (Including Related Vehicles):

LEAD is the organic depot for the overhaul and test of the PATRIOT missile system. Various test consoles are utilized during overhaul of PATRIOT system components. The test consoles perform automated and manual checks on PATRIOT circuit cards, power supplies, equipment racks, microwave (RF) subassemblies, wire harnesses, cables, and major end items. LEAD has the capability to overhaul, repair, and test the following PATRIOT major end items: ECS, Radar Set, ICC Station, CRG, and AMG. After the overhaul process, completed PATRIOT system components are acceptance tested at the radar test site. In addition to the major end item overhaul capabilities, LEAD performs PATRIOT secondary item repairs, system modifications, and system upgrades.

LEAD Unique Capabilities (cont.)

Overhaul & Test Capability for Sparrow Missile Guidance and Control Sections:

With the tactical missile mission now being consolidated at LEAD, the Electronics Shops Division is now responsible for the repair and testing of the Guidance and Control Sections of the Sparrow missile for both the Navy and Air Force.

Overhaul of the Avenger Missile System

LEAD is the organic depot for the overhaul and system testing of the Avenger missile system. Integrated Family Test Equipment (IFTE) is utilized for automatic testing of the system's LRUs. LEAD also has the capabilities for the automatic testing of system harnesses and cables. Avenger secondary items repair, system modifications and system upgrades are also performed by LEAD employees. LEAD also provides Total Package Fielding support for the Avenger/ATAS systems.

Argon Bottle Certification and Refurbishment

LEAD has the capability to completely overhaul the Argon Coolant Reservoirs and conduct certification of the bottles.

DS/GS Support

LEAD has developed the prototype S-250 and S280 shelters and serves as the organic depot for repair of these items.

Organic depot for Hellfire System

LEAD is considered the organic depot for the repair/overhaul/modification of the Hellfire Launchers and subassemblies. LEAD employees apply field modifications and supply field technical assistance on Hellfire launchers both CONUS and OCONUS. Currently, LEAD is preparing to induct initial phase teardown in support of Apache Longbow Program.

Flexible Computer Integrated Manufacturing

LEAD's FCIM program integrates equipment, software, business practices, and human resources to rapidly manufacture, repair and deliver items to support DOD Tactical Missile and Paladin missions. This program focuses on networking our business and technical resources with our customers for shortened manufacturing/repair cycles and customer satisfaction.

LEAD Unique Capabilities (cont.)

Vehicle Test Track Complex:

A 1-mile, macadam (asphalt) surface, closed loop oval test track accommodates the full dynamic and static testing of tracked and wheeled vehicles. The track includes straight-aways and banked curves sufficient to allow full speed testing. The complex also includes 30/60 percent slopes, pivot steer spin pad (concrete), brake/acceleration area, turning radius (wheeled/geared steer (track) area, undulation area, lockout cylinder area, fording/flotation pit, boresighting/synchronizing platform with slope, and a weapon's stabilization course. The track is also capable of accommodating numerous tracked and wheeled vehicles simultaneously.

Two inspect/repair buildings provide six bays where timely repairs can be made to tested vehicles. An in-ground pit in one bay provides easy access for inspection/repairs to the components on the underside of vehicles.

Radiographic Inspection Facility:

The radiographic (x-ray) inspection facility houses a 25 megavolt Betatron x-ray machine and a 320 kilovolt x-ray machine. The Betatron unit is located in a concrete chamber with 5 to 8 foot thick walls and a 96-ton steel concrete filled door that moves on railroad type tracks. The Betatron unit can x-ray through 20 inches of steel and is used for inspection of large items (i.e., the interior of large rocket motors). The 320 kilovolt machine is used for smaller explosive/nonexplosive devices and has the capability to x-ray through 2 inches of steel.

LEAD Unique Capabilities (cont.)

Radiographic Inspection Facility (cont.)

The facility is constructed of concrete and steel. A 10-ton bridge crane and a 25,000 pound "track-tread" carrier are used for movement and placement of larger material. An area monitoring system is an integral part of the built-in radiation safety system.

The facility is equipped with three portable x-ray machines. It also has a darkroom that houses an automatic film processor with automatic chemical replenishment features and a unit to enable the recovery of silver from chemical solutions.

The facility is used primarily for explosive devices; however, gun tubes, self-propelled howitzer hulls, or major items requireing safety or quality inspections can be processed as well.

Extensive savings in labor are possible if items can be inspected by x-ray rather than disassembled and visually inspected through a time-consuming process. This facility is one in four in DOD. As of July 1994, it became one of three in DOD since the facility at Pueblo Army Depot will be transferred to LEAD.

Technical Measurement Facility:

Within the vehicle rebuild complex at LEAD is located a technical measurement facility. The 836 square foot, environmentally-controlled room houses various equipment utilized for precision measurements of machined material and components. Equipment includes a coordinate measuring machine with granite table, computer (with 3-D software), printer, and math coprocessor. This machine has infinite fine adjustment on all axis (x, y, z). Machine resolution is .000080 inch; display resolution for digital readout and computer is .0001 inch; repeatability is .0001; and work piece weight is 4,500 pounds. Also available is an optical comparator with 10 to 100 times magnification, a maintenance inspection center for the measurement of smaller parts, and a hardness tester.

LEAD Unique Capabilities (cont.)

Firing Range:

The LEAD Firing range can support functional firing of towed howitzers, self-propelled howitzers, tanks, and anti-tank missiles. Main gun capabilities include up to 8-inch weapons. The range presently supports the testing of 155 mm M109s and 8-inch M110s along with various other howitzers and recoil mechanisms. Capabilities also include small arms testing. The range is used for live firing of inert projectiles with the appropriate powder charges. The complex consists of a firing pad, an ammunition storage area (for daily firing), powder heating capability, an observation building, and an impact bunker. Full instrumentation exists for full functional and proof testing for artillery systems.

Overhaul/Refurbishment of High Pressure Argon Cylinders:

This process is located in Building 370. The high pressure argon cylinder works between 3,500 and 6,000 PSI. The cylinder is utilized on both the Avenger and Air-to-Air Missile Systems. When LEAD receives the cylinder, a file is created in Word Perfect on the personal computer to document any conditions of the cylinder. LEAD proceeds in the process by doing a proof pressure test to 10,700 PSI, which establishes structural integrity of the reservoir. Upon completion of this test, all fittings are removed and cleaned in an ultra sonic cleaner. Then the fittings are reassembled in the cylinder and placed in an oven while a vacuum is pulled on the cylinder for removing any contaminates. To verify that no contaminates are within the cylinder, the gas from the cylinder is run thru a particle counter and fourier transform infared spectrometer (FTIR). Then the file from the FTIR is brought into a program called Multi-Comp (MCOMP). MCOMP will detect down to 1 part per billion; however, we are only utilizing this device to 1 part per million. The contaminates that we are looking for are carbon dioxide (CO2), water (H20), and total hydrocarbons (THC). Once this check has been performed to the drawing specifications, the cylinder is repressurized to 5,000 PSI and packaged for customer delivery. Also, if a cylinder has been damaged on the fiberglass cover or on the ends, the depot will repair these problems. This program is the first of its kind within DOD.

Special Service Capabilities
Soft Technology

Integrated Desktop Publishing

Ventura Publisher

Technical Manuals
Technical Bulletins
Depot Maintenance Work Requirements
Special Procedures
Engineering Test Procedures
Repair Parts and Special Tools List
Quick Response Program
Process Instructions

Computer Aided Design (CAD)

AutoCAD

Engineering Drawings
Engineering Animation
Floor Plans
Technical Data Packages
3-D Graphics
2-D Graphics
Solid Modeling

Computer Aided Manufacturing (CAM))

Prime

Computer Numerical Control Programming
Computer Process Planning (Machine Operations)
Tool Design
Direct Numerical Control

Technical Services

ReverseEngineering
Prototype Design
Process Planning

Skills

Equipment Specialists
Technical System Specialists
Technical Publications Editor
Office Automation Assistants

Electronic Engineers
Industrial Engineers
Equipment Specialist (Msl Systems)

Electronic Technicians
Engineering Technicians
Engineering Draftsmen
Computer System Specialists

LEAD Unique Fabrication Capabilities

Foreign Military Sales Customers

Nonstandard Tool Jig Fixture

Recoil Replacement Kits

Modification Kits

PATRIOT Battalion Maint Center

PATRIOT Battery Maint Center

Support Fabrication

HAWK Loader Fabrication (MWO Kits)

Depot Fixtures

German BME Training (PATRIOT Maint Center)

German PFASC Assembly (PATRIOT Maint Center)

German ISE Training Assembly (PATRIOT Maint Center)

German ISE Tact Assembly (PATRIOT Maint Center)

Shop Equipment Guide (Maint Center)

Support XM-1032

Block 1 Modification Kits

Harness Assembly Board

CWAR High Voltage Power Supply Modification Kit

PATRIOT Fabrication

Water Intrusion Kits

Tripod Improvised

Gun Tube Stand, M109

Road Wheel Arm & Hub

Powerplant Test Fixture

Stand Cab

M109A2 T-Handle

Tool to Lift Bustle

Power Pack Dolly

Road Wheel Arm Stand

Transmission Stand

Power Pack Stand

Spanner

Eye Bolt Assembly

Guide Tool Assembly

Hinge Pin Bushing

Road Wheel Arm Fixture

Idler Arm Holding

Marine Corps & Navy Customers

M67004-2-24002 USMC Items

MK42 Modification Boresight

LEAD Unique Fabrication Capabilities (cont.)

Other Customers

- Modification Kits
- Conversion Kits
- Cable Assemblies
- Cable Carriages
- Cable Connector Assemblies
- Relay Box
- Adapters
- Antenna Mast Group Assemblies
- FME Shop Modification Kits
- HAWK Loader Modifications
- Sweepdown I, PIP (Modification Kits)
- Sweepdown II, PIP (Modification Kits)
- Radio Mounts
- Plant Equipment
- MEPSCAT, Strength Machines
- Cartridge Assemblies
- FADAC Parts
- Camshafts
- Shop Equipment
- Guided Missile Transporters
- Teflon Hose Kits
- Pneumatic Wheel
- Semi-Trailer GM Trans (Retrofit on HEMTT)
- Resistors II
- Remote Function Kit
- Engine Head Assembly
- CWAR High Voltage Power Supply Modification Kit
- PATRIOT Battalion Maint Center
- PATRIOT Battery Maint Center
- Demi-Trailer M1032 Small Repair Parts Transporter
- Miscellaneous Combat Items
- M3A4 Smoke Generators
- Adapters
- Retrofit Kit
- Drawbar Kit
- Relay Box
- M109A4 Self-Propelled Howitzer (MWO Kits)
- 155mm Towed Howitzer (Misc Parts)
- M157 Smoke Generator (Misc Fixtures)

Directorate of Product Assurance

LEAD Unique Capabilities (cont.)

Laboratory Facilities:

Chemical/Radiation Laboratory

The chemical/radiation laboratory staffed by two chemists, two physical science technicians and one radiation analysis specialist provides laboratory and consultant services for physical, chemical, radiological, environmental, and functional analysis of material in support of depot operations. These operations include the Army Oil Analysis Program, Radiation Protection Program, and Electrostatic Discharge Program. It also provides technical advice and assistance to operating elements on matters pertaining to physical, chemical, and radiation properties of materials, special processes, and special equipment.

Environmental Laboratory

The environmental laboratory is a proposed expansion of the current chemical laboratory. An economic analysis is presently in progress to determine the feasibility of expanding the laboratory facilities into more environmental capabilities. Plans are to take over all envoronmental analysis in-house, which are now contracted by LEAD, and eventually provide support to other installations. With the ever increasing environmental concern, LEAD intends to be a leader in hazardous waste minimization programs.

American Society of Nondestructive Testing Certified Level III Magnetic Particle and Penetrant Program Manager

This provides LEAD with in house capability to approve nondestructive testing inspection procedures, conduct certification examinations and provide training in magnetic particle & penetrant testing

Directorate of Ammunition Operations

LEAD Unique Capabilities (cont.)

Air Force Air Defense Missile Systems:

A unique and varied relationship has developed over the thirty years that LEAD Ammunition Operations personnel have performed air defense missile work for the Air Force. In 1960, an Interservice Support Agreement (ISA) was entered into by LEAD and Olmstead Air Force Base, PA; to receive, store, and ship Falcon Missiles. The workload quickly expanded to include modification, testing, rebuild, and up-rounding of five different Air Force missiles and components. These missiles are the Falcon, Bullpup, Shrike, Sparrow, and Sidewinder. Throughout the years as many as 50 people were assigned full-time to meet Air Force requirements.

Today, LEAD has an ISA to receive, store, test, and ship Shrike, Sidewinder, Sparrow, and Harm missiles and components and a Depot Maintenance Interservice Support Agreement (DMISA) to up-round Sparrows and Sidewinders and perform wing modification on Sparrow wings. Twenty-five people are assigned full-time to perform this workload. This work requires a high degree of technical knowledge and sophisticated test equipment. LEAD is the sole producer of up-rounded Sidewinders and Sparrows for shipment and deployment to other sites all over the world.

Shipping/Receiving:

LEAD Ammunition Operations ships and receives all types of Class V items from small arms ammunition to large bombs and missile items. The majority of the workload comes from the conventional ammunition single manager the U.S. Army Armament, Munitions, and Chemical Command (AMCCOM); however, large amounts of ammunition and missiles are shipped/received for U.S. Army Missile Command (MICOM), Navy Air Systems Command (NAVAIR), and Warner Robins Air Logistics Center.

The ammunition area contains 128 miles of road, 31 miles of railroad track, and 25 loading docks to facilitate shipping and receiving. There are approximately 34 full-time positions in support of ammunition shipping and 20 full-time positions in support of ammunition receiving.

LEAD Unique Capabilities (cont.)

Storage:

The ammunition storage area covers 12,000 acres. There are 902 earth covered igloos, 10 above ground magazines, and approximately 100 inert storage locations in the ammunition area.

The amunition area has 802 igloos that are single door type and 100 igloos that are double door construction. The double door width is necessary to accommodate large ammunition items in addition to missile and missile component storage.

The above ground magazines store small arms ammunition and inert materials, including some packaging material and dunnage.

There are approximately 24 full-time positions in support of ammunition storage and storage related operations (i.e., cyclic inspection, inventory, rewarehousing, and care of material in storage). LEAD has 2,227 million gross square feet of ammunition storage space. Currently 79.5 percent of the available space is occupied. There are 156,198 tons of ammunition items stored with a dollar value of over $2 billion.

Demilitarization:

LEAD Ammunition Operations destroys obsolete or hazardous bulk explosives and Class A, B, and C ammunition by demolition, burning, or processing through the deactivation furnace in a designated, strictly controlled access area located a safe distance from the other operations.

Detonation by mechanical or electrical procedures is the preferred method for high explosives (i.e., projectiles, bombs) items. We have the capability to destroy 500 pounds per explosive shot or a maximum of 10,000 pounds per day.

Open air burning is used to destroy bulk wet and dry propellants, rocket motors, and the majority of low explosives (i.e., small arms) items. This is done either in a perforated armor plated chamber, which restricts the fragmentation hazard, or on a bed of combustible materials. All burning is done by permit in compliance with the Environmental Protection Agency (EPA)

LEAD Unique Capabilities (cont.)

Demilitarization (cont.):

and the Pennsylvania Department of Environmental Resources (DER).

The deactivation furnace is used to detonate small arms ammunition and initiators in a thermally controlled environment. The scrap metal generated is resold. This facility is currently being considered for upgrade to improve its operational capacity and bring it up to current environmental standards.

There are 16 full-time positions dedicated to ammunition demilitarization operations at LEAD.

Ammunition Maintenance:

There are 24 maintenance buildings in the ammunition area. Typical examples of the work done in these buildings include replacing/repairing munitions components, repackaging, repainting, and remarking munitions. Maintenance jobs are done for a variety of customers including the Army, Navy, Air Force, and Marine Corps.

There are currently 24 full-time positions involved in ammunition maintenance at LEAD.

Ammunition Surveillance:

Ammunition surveillance directs, controls, monitors, and evaluates the stockpile reliability program for ammunition, explosives, and guided missiles that are received, stored, or shipped at LEAD. Explosive safety and logistics are monitored to assure compliance with Federal regulations and public law.

Processing Captured Foreign Military Materials:

The DOD Intelligence Community secures Foreign Munitions through capture or acquisition for certification test calibration and training DOD personnel. The Directorate of Ammunition Operations is responsible for the receipts, identification, classification, repackaging, storage, and shipments of the Foreign Ammunition. The Directorate of Ammunition Operations has processed ammunition from Grenada, Operation Just Cause, and Operation Desert Storm.

Directorate of Contracting

LEAD Unique Capabilities (cont.)

Base Operations and State of the Art Mission Support:

Purchasing Support Includes:

*Military uniform crest

*Chemicals

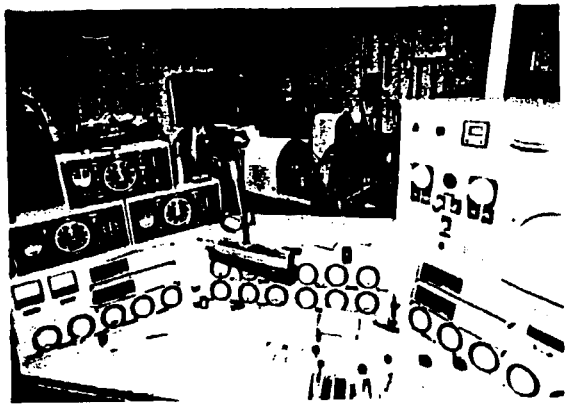
*Hazardous waste support

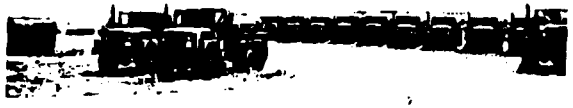
*Radar systems

*Repair/spare parts of antiquated equipment

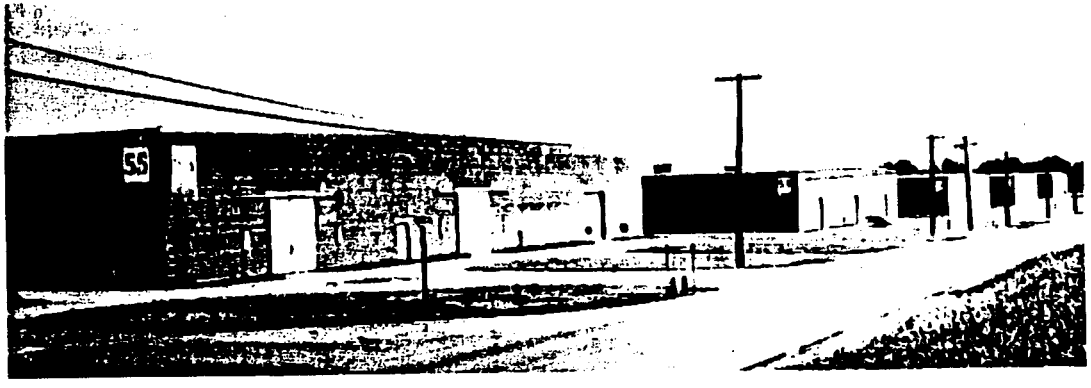
*Materials for special projects/projects/programs (Desert Shield), Just Cause, etc.)

The Acquisition Division provides services and support for electronic and communications equipment, weapons, and ADP systems. Contracting services support GOCO; missile, environmental, equipment, and consolidation initiatives, Complex contracting, Advance Acquisition Planning (AAP), and SAACONS are services unique to the Management Division.





Section 5
CAPACITY



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Directorate of Maintenance

Engine Test Facilities

Type	*No. of Test Cells*
Engines:	
Detroit Diesel 8V71N	6
8V71T	6
8V92T	2
6V53	6
6V53T	6
1271TT	4
Detroit 671	4
Cummins 250	2
290	4
300	6
400	4
Chrysler M75	2
300	2
1790-2C	2
1790-6A	2
1790-2A	2
1790-8	2
Continental G-744	2
895	4
Caterpillar D7E	4
D7F	4
Multifuel LDS 465	6
HAWK Loader M501ES	2
221 Gas REO	2
Leroy 10T	4

Transmission Test Facilities

Type	*No. of Test Cells*
XG411	2
2½-Ton Truck: 3053 w/T13627 Transfer	1
3053w/T13621 Transfer	1
5-Ton Truck: Diesel 6453 w/T13821 Transfer	1
Multifuel 6352 w/T13821 Transfer	1
M110 and M578 Auxiliary Drive	1
LARC-LX Column and Wheel Drive	1

Powerpack Test Facilities

Type	*No. of Test Cells*
M109	1
M110	1
M578	1
HAWK Loader M501E3	2
LARC-LX	1

Directorate of Ammunition Operations

Material Storage Space Utilization

Measured in thousands of Square Feet					
	Gross	Net	Occupied	Vacant	Percent Occupied
Igloo	1,867	1,445	1,054	391	79%
Above Ground Magazine	103	83	68	15	85%
Inert	146	146	109	37	75%
Open	111	111	97	14	88%

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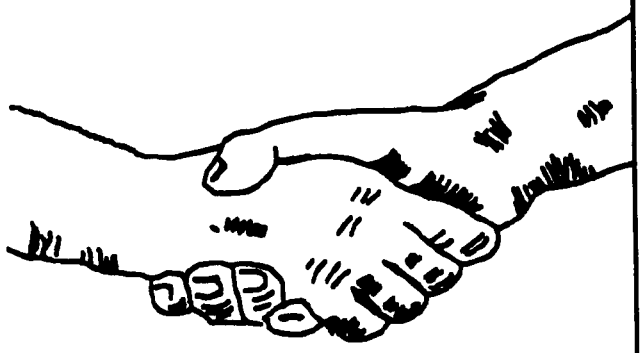
Section 6
INTERSERVICE SUPPORT



- USMC
- NASA
- NAVY
- AIR FORCE
- NATIONAL GUARD

Directorate of Maintenance

Letterkenny Army Depot (LEAD) Maintenance Interservice Support

U.S. Marine Corps

HAWK Missile Systems - (Major and Secondary Items)

NASA

HERC Modifications

U.S. Navy

MK42 Boresight
HERC Target Tracking Radar
HERC Target Tracking Station
HERC Launching Control Trailer
HERC Missile Tracking Radar
HERC Battery Control
HERC Radar Control

U.S. Air Force

Microscopes
Fiber Optic Scope
Binocular, M18
Watches
Clocks
AF Borescopes
Infrared Periscopes
N127 Articular Telescopes
M21 Periscopes
M19 Periscopes
M49 Periscopes
Range Finder
M100 Periscopes
M32 Periscopes
Air Force Caterpillar
M2A2 Aim Circle
Scoop Loader
40 K Loader
Tractor HD21P
HAWK Launchers
HAWK High Power Illuminators.

National Guard

5000 Gal. Trailer Tank
M750 6-Ton Semitrailer Van
M35A2 2½-Ton Truck
M49A2C 2½-Ton Truck
M820 5-Ton Van Truck Exp
M109A3 Shop Van Truck
M129A2 Semitrailer
M54 5-Ton Cargo Truck
M292 2½-Ton Van Truck
M50A1 2½-Ton Truck
M129A1 12-Ton Semitrailer Van
M146 6-Ton Semitrailer Shop Van
M313 6-Ton Semitrailer Van Exp
M870 Semitrailer
M600 Liquid Storage Tank
M50A2 2½-Ton Truck
Refrigerator Container Assy
Fuel Tank Truck
16 Cu. Ft. Concrete Mixer
M131A4C Semitrailer Tank
M131A5C Semitrailer Tank
HAWK Missile Systems
Crusher Screen Plant (75-Ton)

Directorate of Ammunition Operations

Ammunition Operations

Interservice Support

LEAD Ammunition Operations has a number of agreements with other activities to provide shipping, receiving, and storage support. The following is a list of major activities.

- Picatinny Arsenal, Picatinny, New Jersey
- Aberdeen Proving Ground Support Activity, Aberdeen, Maryland
- Department of State, Washington D.C.
- Raytheon Corporation, Lowell, Massachusetts (AMRAAM & Phoenix Missile Support)
- 167th Air National Guard, Martinsburg, West Virginia
- 112th Air National Guard, Pittsburgh, Pennsylvania
- Warner-Robins Air Logistics Center, Warner-Robins, Georgia
- Hill Air Force Base, Ogden, Utah (FMS)
- Foreign Military Intelligence Battalion, Aberdeen Proving Ground, Maryland
- U.S. Army Foreign Science and Technology Center, Aberdeen Proving Ground, Maryland
- Combat Systems Test Activity, Aberdeen, Maryland

Directorate of Integrated Logistics Support

Directorate of Integrated Logistics Support (DILS)

To provide advice and assistance to the Command Group in achieving the strategic direction and goals for the depot.

The DILS has responsibility for integrated logistics support, strategic planning, and marketing policy.

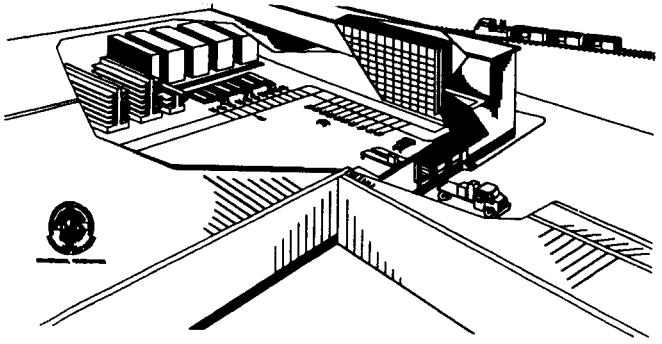
Paramount among those responsibilities are:

-- Identifying and planning for integration of all tactical missile and artillery systems and new workload into total depot maintenance, supply, and storage. Through BRAC legislation, LEAD is the DOD Tactical Missile Center.

-- Maintaining the LEAD Installation Strategic Business Plan.

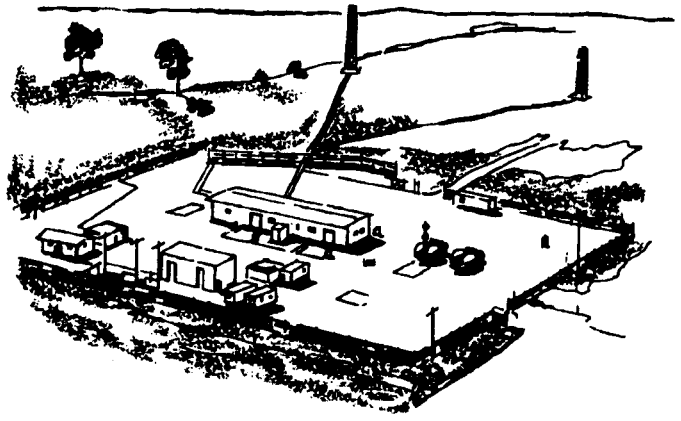
--Maintaining a marketing plan for increased workload and global enterprise in support of LEAD's long-range planning.

AUTOMATED STORAGE AND
RETRIEVAL SYSTEM (ASRS)

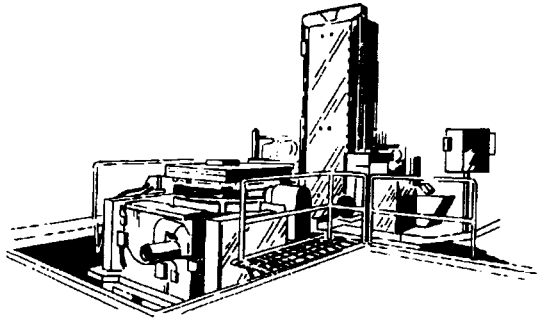


Section 7
MODERNIZATION

28 ACRE RADAR TESTING SITE



CNC/MDI MACHINING CENTER



Directorate of Maintenance

Equipment Modernization
Depot Maintenance Plant Equipment (DMPE)
Past 3 Years

EXAMPLES

- Computerized Cross Drive Transmission Test Stand
- Computerized Engine Test Cells
- Small & Large Recoil Gymnasticators
- MSFS, Automated Time and Attendance Production System (ATAAPS) Upgrade
- K&T 5-Axis Horizontal Machining Center
- CNC Matsura Machining Center
- Laminating Press
- Plastic Media Blast Booth System
- ASRS Upgrade
- Desktop Publishing System
- CAM Machine Programming
- CNC Engraving/Precision Machining
- Dimensional Test Equipment Upgrade
- A2000 Microwave Console
- Upgraded Two DIT-MCOs
- Turbo Motive Test Set
- AC/DC High Pot Tester
- 400 Hz Converters (10 each)
- Constructed Test Fixtures for Nearfield Antenna Range
- CNC Water Jet Cutting System
- Environmentally Controlled Heat Treating System
- CNC Electronic Discharge Machine (wire)
- CNC Turning Center
- CNC Machining Center
- CNC/MDI Punch Press
- CAD/CAM Network
- Distributed Numerical Control (DNC) System
- Coordinate Measuring Machine (CMM)
- Large Roto-Blast
- Integrated Desktop Publishing
- Direct Numerical Control Programming
- IFTE Commercial Equipment Equivalent (CEE) (2 each)
- Individual Solder Stations and Misc Equipment to facilitize for MIL-STD-2000 (TASK F&G)

Modernization Efforts

TECHNICAL LIBRARY AUTOMATED DATABASE

The automated technical library indexing database was developed to give production workers faster access to information concerning technical publications. The database contains over 60,000 publication titles and is being expanded to include maintenance technical software. The database is also being updated to allow interface with the technical data package database which will give production workers access to all pertinent information at one time.

TECHNICAL DATA PACKAGES DATABASE

The database was designed to take cumbersome hard copy technical requirements and consolidate them into one easy-to-use automated system. This database not only lists technical requirements, it gives program costs and manhours expended as well.

Modernization Efforts

- Computer Aided Acquisition Logistics Support (CALS) Compatible Publishing System
- ASRS Plus
- 10,000 Amp Magna-Flux
- Digital Test Station
- Controller System for Nearfield Test Range
- Additional Shielded Room
- VOC Emission Control System
- Joint Engineering Data Management Information and Control System (JEDMICS)
- Fiber Optic Local Area Network System
- Computer-Aided Process Planning System (CAPP)
- Optical Scanner with application in computer-aided design and manufacturing
- Aperture Card Scanner
- Automated Data Collection System
- CNC Bridge Mill
- Coordinate Measurement Machine Integration with Computer-Aided Design
- New Paint Booths - 2 drive thru booths, 1 pallet booth, 1 carousel booth
- Nitrogen Supply and Distribution System
- Real Time Radiography
- 1,000, 10,000, 100,000 Class Clean Rooms
- RF Shielded Electronic Test Equipment Room
- Integrated Multi-Layer Circuit Card Repair
- Argon Supply and Distribution System
- Flexible Computer Integrated Manufacturing (FCIM)

Directorate of Product Assurance

Modernization Efforts

QUALITY AUDITING DATABASE

The evaluation and auditing function has been automated to allow a more efficient means by which to perform analysis of trends in production processes. The creation of spreadsheets assists in rapid processing of chart information. This enables more time to be spent in the research required for continuous process improvement in all areas of production.

Directorate of Ammunition Operations

Ammunition Operations
Modernization Plan

MILITARY CONSTRUCTION, ARMY (MCA) PROJECTS

Ammunition Inert Storage Warehouses
LCL-LTL Facility
Ammunition Truck Blocking Facility

PROPOSED CONSTRUCTION

Lighting Facilities for Docks
Enlarging Loading and Unloading Docks

PROPOSED EQUIPMENT

Furnace Air Pollution Control System
Automatic Paint System
Containerized Ammo Dist System
Full Tracked Loaders (Scoop Type)
Earth Auger
Washer Extractor

U.S. Army Central Pennsylvania Regional Public Works Center

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER

DEPOT MODERNIZATION -- PAST FIVE YEARS

MILITARY CONSTRUCTION ARMY (MCA) ($5.5 MILLION)

UPGRADE/MODERNIZE INDUSTRIAL WASTE TREATMENT PLANT FROM 145,000 GPD TO 288,000 GPD -- 1.5 MILLION

SECURITY UPGRADE TO 122 AMMUNITION/MISSILE STORAGE IGLOO WITH INTRUSION DETECTION AND LIGHTING -- 2.7 MILLION

6,600 S. F. BLOCKING/SHIPPING FACILITY FOR TRUCK LOAD AMMUNITION/MISSILE SHIPMENTS -- 1.3 MILLION

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- FY94 THRU FY95

MILITARY CONSTRUCTION ARMY (MCA) ($14.95 MILLION)

UPGRADE OF PLUMBING AND HEATING TO 24 FAMILY HOUSING UNITS, $0.9 MILLION (UNDER CONSTRUCTION)

55,000 S.F. HAZARDOUS MATERIAL WAREHOUSE, $4.4 MILLION (UNDER CONSTRUCTION)

NATURAL GAS PIPE LINE/BOILER CONVERSION, $2.6 MILLION

INDUSTRIAL WASTE TREATMENT PLANT FILTER, $0.9 MILLION UMMCA FUNDED (CONSTRUCTION START FY95)

BRAC 93 -- FY95 PROJECT TO RENOVATE BLDG 11 FOR TACTICAL MISSILE MAINTENANCE $1.65 MILLION (CONSTRUCTION START AUG 95)

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- FY96 AND BEYOND

MILITARY CONSTRUCTION ARMY (MCA)

WATER DISTRIBUTION SYSTEM IN AMMUNITION AREA, 24,000 LINEAR FEET, $1.9 MILLION.

LESS THAN TRUCK LOAD FACILITY, AMMUNITION AREA, $2.7 MILLION

LIVE FIRE IMPACT BUNKER, AMMUNITION AREA, $1.2 MILLION

WIDEN IGLOO DOORS TO 12 FEET, AMMUNITION AREA, $3.7 MILLION

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

FEP PROGRAM HISTORY

➢ FY 1989	$3,902,315
➢ FY 1990	$4,334,279
➢ FY 1991	$4,758,723
➢ FY 1992	$4,870,923
➢ FY 1993	$5,498,300
➢ FY 1994 (IN-PROCESS)	$7,840,000
➢ FY 1995 (PROJECTED)	$9,854,000
➢ FY 1996 (PROJECTED)	$5,915,000
➢ FY 1997 (PROJECTED)	$5,285,000

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- PAST FIVE YEARS

FACILITIES ENGINEERING PROJECT (FEP) ($23.4 MILLION)

- *REPLACED TEN MILES OF 16" WATER LINE TO ROXBURY DAM RESERVOIR
- *REPLACED ELECTRICAL SUBSTATION (TRANSFORMER AND SWITCH STATION)
- *PHASED ELECTRICAL DISTRIBUTION SYSTEM UPGRADE (ONGOING)
- *RAIL SYSTEM UPGRADE

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- PAST FIVE YEARS

FACILITIES ENGINEERING PROJECT (FEP) ($23.4 MILLION) (cont'd.)

- *ALTERATIONS TO BLDG 3 (RAISED FLOOR, ELECTRICAL AND COOLING)
- *ROAD PAVING AND RR CROSSING
- *BOILER REPLACEMENTS /PLANT UPGRADES
- *REPLACED 1 MILLION SQUARE FEET OF ROOFING

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- NEXT FIVE YEARS

FACILITIES ENGINEERING PROJECT (FEP)

- *UPGRADE RAIL SYSTEM
- *REPLACE BOUNDARY FENCE
- *REPLACE POTABLE WATER LINES
- *REPLACE SANITARY LINES
- *DEMO WWII WOOD

U.S. ARMY CENTRAL PA
REGIONAL PUBLIC WORKS CENTER (cont.)

DEPOT MODERNIZATION -- NEXT FIVE YEARS

FEP (FY94 - FY97 $28.9 MILLION)

- ***ELECTRICAL DISTRIBUTION SYSTEM UPGRADE $4.55 MILLION**
- ***DDLP - REPLACE STORAGE BLDGS AND UPGRADE FACILITIES $3.37 MILLION**
- ***SIMA - ELECTRICAL UPGRADES $0.43 MILLION**
- ***DEFENSE MEGACENTER $0.40 MILLION**
- ***RESURFACE ROADS AND RR CROSSINGS, GENERAL RENOVATIONS, REPLACE BOILERS ($20.15 MILLION)**

Section 8

DEMOGRAPHICS

Special Skill Capabilities

Nondestructive Testing Certification
(Level I, Level II, and Level III)

	Level I	Level II	Level III
Radiography	5	4	4
Magnetic Particle	1	15	1
Liquid Penetrate	1	16	1
Ultrasonics	3	1	4

Vehicle Test Driving Certification

Combat Vehicles	82

Soldering/Electrostatic Discharge Certification

MIL-STD-2000 (TASK F&G)	291
Micro Miniature	40
Electrostatic Discharge	472
Certified Soldering Instructor/Examiner	5

Statistical Process Control

Trained (on-site)	1,229
Trained (external)	224
Trained Instructors/Facilitators	41

Welding Certification

Homogeneous Armor	38
Mild Steel	17
Aluminum Armor	56
Aerospace	13

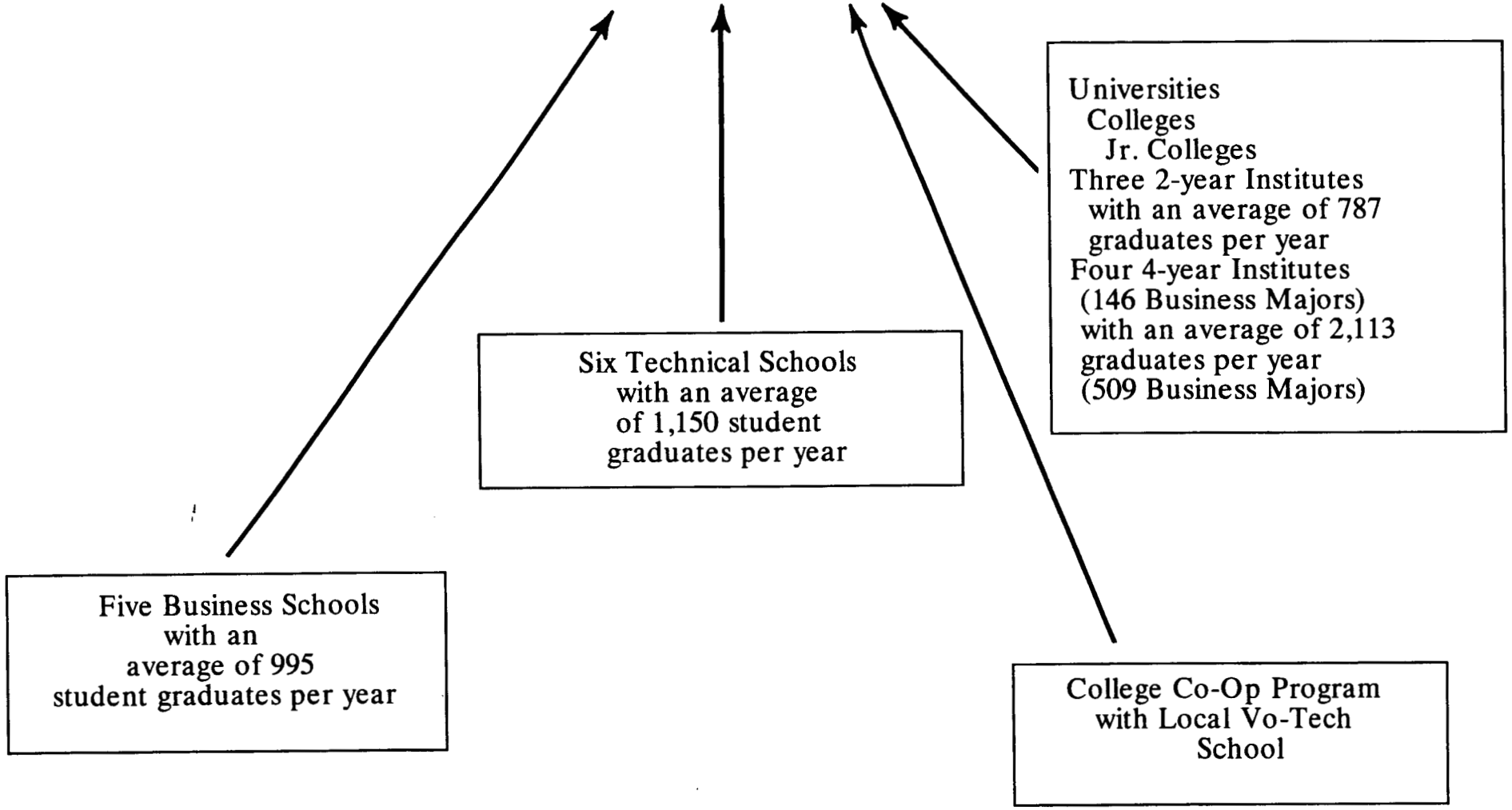
Hazardous Material Certification

Defense Packaging of Hazardous Material for Transport (Ammo)	12

Electrodeposition (Brush Plating)

MIL-STD-865	13

LEAD Technology



All institutions of higher learning listed above are within a 75-mile radious of LEAD.

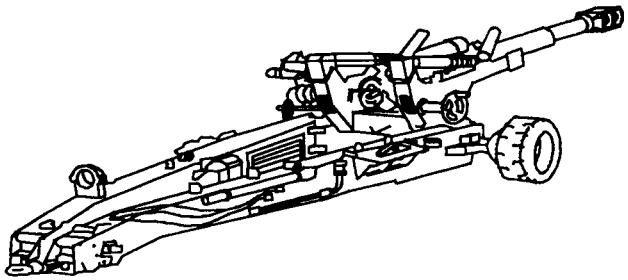
Directorate of Maintenance

LEAD History

Towed Howitzers

M102/A1

M101/A1
M115
M119



M198 Towed Howitzer

M114/A1/A2
M116
M120

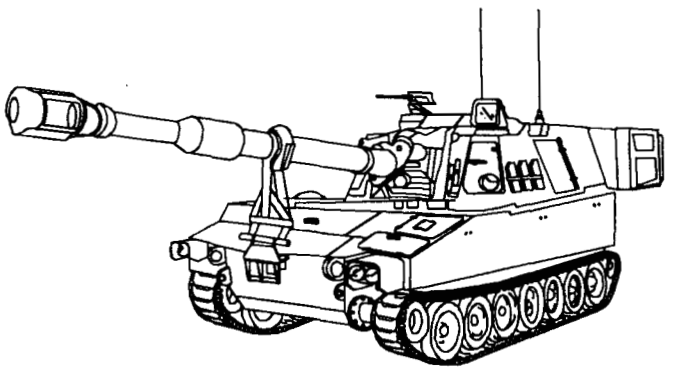
M198

LEAD History (cont.)

Advanced Artillery Development

M109/A1/A2/A3/A4/A5/A6/ - PALADIN
Howitzer Improvement
Program (HIP)

Liquid Propellent
Howitzer Extended
Life Program
(HELP)



M109/A3 Self-Propelled Howitzer

Advanced Field
Artillery System
(AFAS)

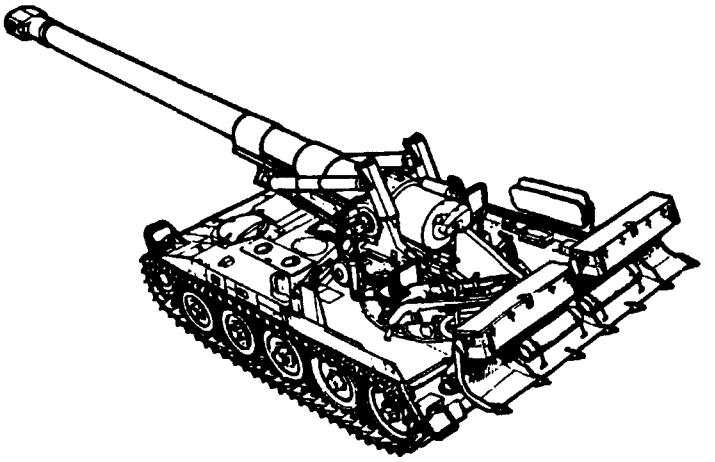
Advanced Howitzer
Integration Technology
(AHIT) 155 mm

LEAD History (cont.)

Self-Propelled Howitzers, Recovery Vehicles, and Command Carriers

M110/A1/A2

M41
M42
M48/A2
M60/A2
M88A1
M107
M108



M110 Heavy, Self-Propelled Howitzer

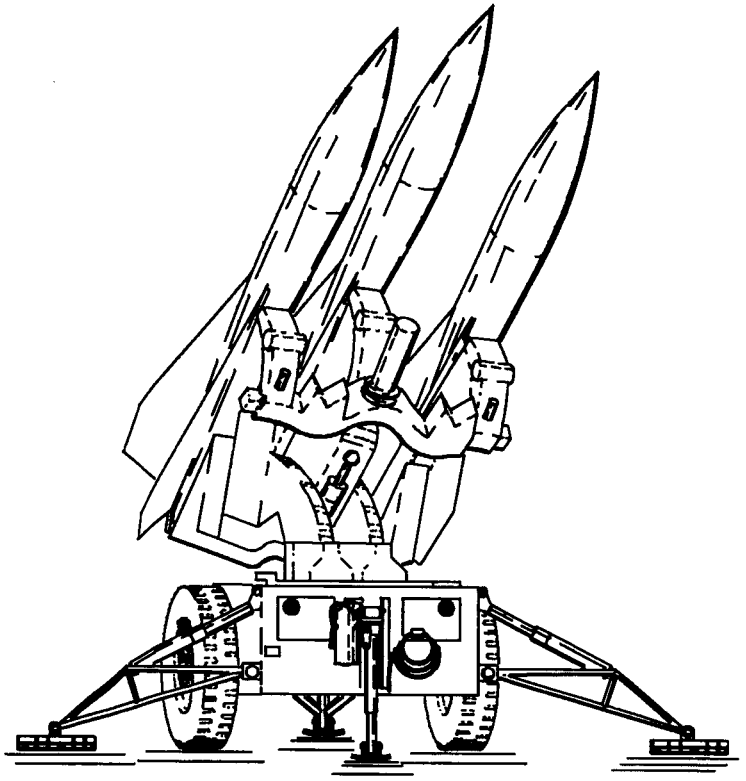
M113/A1
M114
M548
M551
M577A1
M578
M728

LEAD History (cont.)

Missile Systems

NIKE AJAX
NIKE HERC

Basic HAWK
Improved HAWK
HAWK Phase I
HAWK Phase II
HAWK Phase III



Homing All the Way Killer (HAWK)

ENTAC, SS-10, SS-11
Corporal
La Crosse
SHILLELAGH

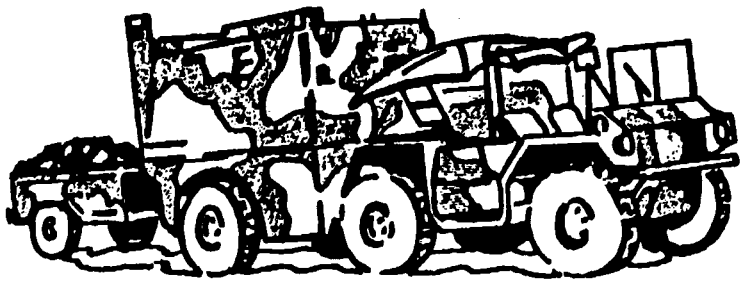
TOW-COBRA
PATRIOT

LEAD History (cont.)

Miscellaneous Electronic Systems

Electronic Integrated Fire Control Systems:
M33 Radar
T-38 Sky Sweeping

Detection Systems:
Forward Area
Alert Radar
(FAAR)



Fire Direction Systems:
M90 Chronograph
Field Artillery Digital
Automated Computer
(FADAC)

Forward Area Alert Radar (FAAR)

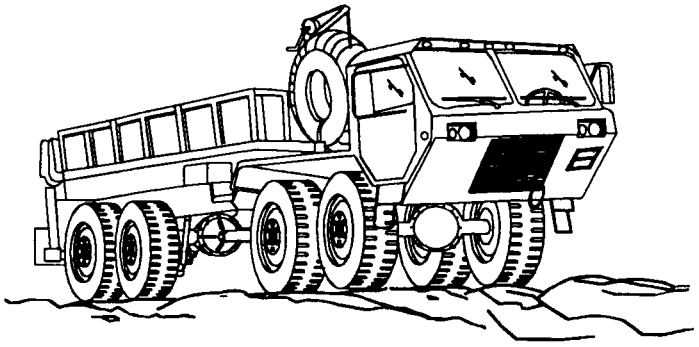
Training Devices: Remoted
Target System (RETS)

LEAD History (cont.)

Wheeled Vehicles

M35/M54/M81 Series
Cargo Trucks

M51A2/M917 Series
Dump Trucks
M543A2/M816 Series
Wreckers
M52/M818 Series
Trucks, Tractors
M101/M871 Series
Trucks, Forklifts, 10K Trailers
M49A2C Tanker Trucks
Shop Van/Expandable
Trucks



Heavy Expanded Mobility Tactical Truck (HEMTT)

Platoon Support Vans
M501 HAWK Loaders
Heavy Construction Equipment
AN/TSM-163 & AN/TSM-164
PATRIOT Maintenance Centers
M1032 PATRIOT Small Repair
Parts Transporter
5-Ton Mobile Cranes
Industrial Scamp

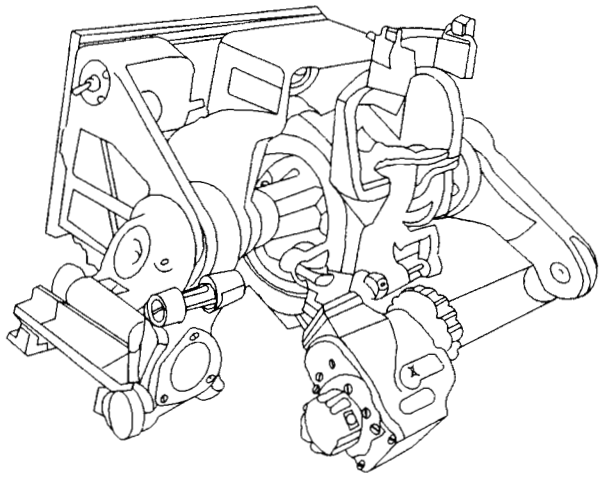
M911/M984 Series HEMTT

LEAD History (cont.)

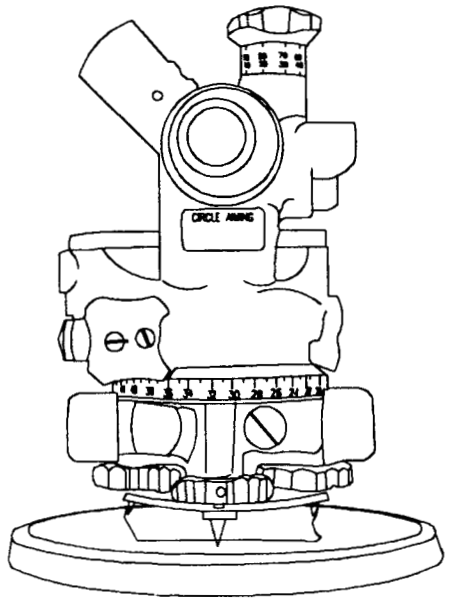
Fire Control Instruments

M1A1 Collimator
M2A2 Aiming Circle
M117A2 Panoramic Telescope
M139/M140 Alignment Devices

M115 Panoramic Telescope
M118A2 Elbow Telescope



M145 Mount Telescope



M2A2 Aiming Circle

M1A1 Gunners Quadrant

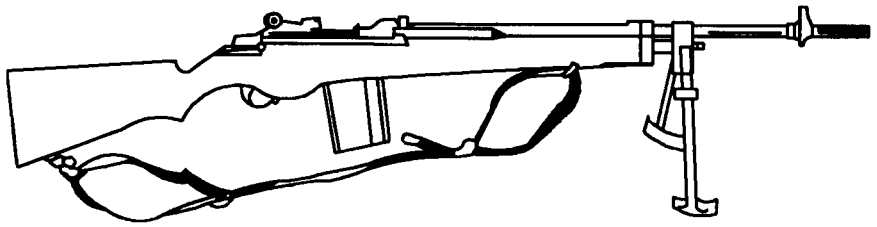
M113A1 Panoramic Telescope
M145 Mount Telescope
M137 Mount Telescope
M65 Periscope
M18 Binocular Infrared

LEAD History (cont.)

Small Arms Experience and Capability

M79 Grenade Launcher

MACHINE GUNS:
- 50 Cal Flex
- 50 Cal TT
- 50 Cal M85
- 30 Cal 1919A6
- 30 Cal M37
- M219
- M60



M14 Rifle

- M1 Rifle
- M14 Rifle
- M16A1 Rifle
- M1 Carbine
- M2 Carbine

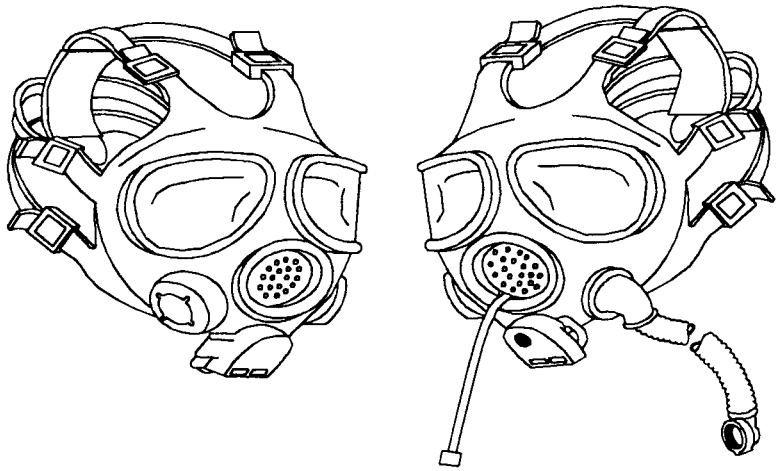
Bar Rifle
45 Cal Auto Pistol
60 mm Mortar
81 mm Mortar
4.2 mm Mortar

LEAD History (cont.)

Chemical

Chemical-Biological Masks
M5 Test Sets
M3 Heaters
M51 Shelter System

M9E Flamethrower
M5 & M33A1 RCA Disperser
M11 Decon



M40 M42
Chemical-Biological Mask

AN/M4D Compressor
M2A1/M2A2 Air Purifiers
M15 Breathing Apparatus
Fire Extinguishers

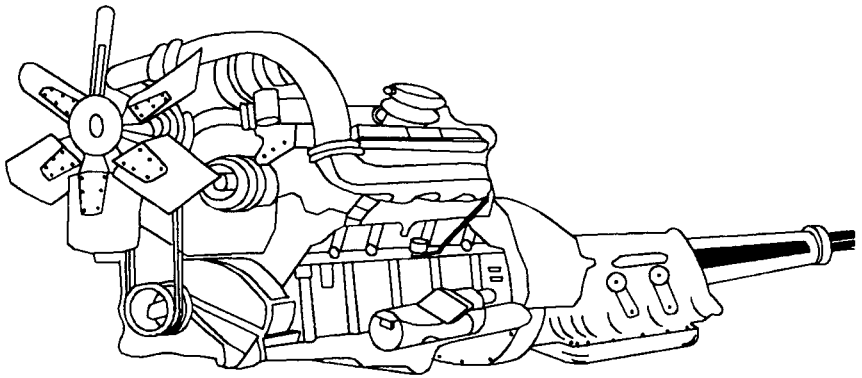
Gas Particulate Filter Units
Modular CPE M56
Smoke Generators
Decontamination Apparatus - M11/M12

LEAD History (cont.)

Powertrain

Detroit Diesel - 8V71N, 8V71T, 8V92T,
6V53, 6V53T, 1271TT

Cummins - 250, 290, 300, 400
Chrysler - M75, 300, 1790-2C,
1790-6A, 1790-2A, 1790-8
Continental - G-744, 895



Detroit Diesel - 8V71N

D7E & D7F Cat Engines
Multifuels
M501E3 HAWK Loader

221 Gas REO
Leroy Engine (10T)
671 Detroit

LEAD History (cont.)

Miscellaneous and Unique Programs

HAWK Pallets

Liquid Storage Tanks

Bridge Launcher

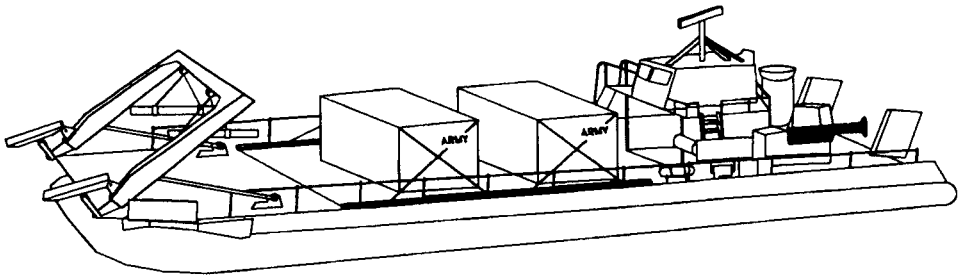
M48A2

Generators

5KW
15KW
30KW
45KW
60KW
150KW
Engine

350 GPM Pumps

LACV-30
LARC-LX



Lighter Amphibious Cargo Vehicle (LACV-30)

Blackhawk Fuel Tank

HAWK Dummy Missile
Military Entrance Physical Strength Capability Test (MEPSCAT)
Crusher Screen Plant (rock crusher)
Drones

Containers

Engines
Transmissions
Transfers
Final Drives
Blades
Differential
Shipping & Storage Containers for Aircraft Components
40K Loaders (Aircraft)

LEAD History (Cont.)

Recoil

M174 Gun Mount

M2A4 Recoil Mechanism

M2A5 Recoil Mechanism

M37A1 Recoil Mechanism

M45 Recoil Mechanism

M6A2 Recoil Mechanism

LEAD Technology

1950s

- Manual Engine and Transmission Test
- Manual Drafting
- Conventional Stick Welding
- Conventional Optical Fire Control
- Mechanical Computer Overhaul
- Hydropneumatic Recoil
- Outdoor Antenna Testing
- Machining, Hydraulic, & Electrical

1960s

- "Clean Burn" Engine
- Agricultural & Steel Shot Blasting
- TIG, MIG, & Spot Welding
- Advanced Hydraulics
- Manual Cable Testing

1970s

- Computer-Controlled Electronic Testing
- Optical Grinding, Polishing, & Coating
- Multicell Hard Chrome Plating
- High Speed Turbo Balancing
- Multiple Substrate Pretreatment/ Stripping

1980s

- CAD/CAM Systems
- Computers
- Plastic & Glass Bead Media Blasting
- CARC & Epoxy Painting
- Flamespray Metalizing
- Computer-Controlled Engine & Transmission Testing
- STE/ICE Diagnostics
- Printed Circuit Board Repair
- CNC Machining, Grinding, Plasma Cutting, Punching, Engraving
- Indoor Computerized Antenna Testing
- SMT Circuit Board Repair
- Hot Jet Soldering
- NRC Tritium Licensed
- NBC Filter Testing
- Fiber Optics, Electro Optics
- Night Vision/Starlight
- EPROM Programming
- KEVLAR Armor
- Inertia Navigation Systems

1990s

- Aqueous Circuit Card Cleaning
- Phase Array Radar Antenna Testing
- Turbine Engine Testing
- Hazardous Waste Minimization
- Micro-Cooling Systems
- Micro-Miniature Soldering
- Multiplier Layer Circuit Card Repair
- Electrical Discharge Machining
- Laser Robotic Welding
- Centralized Multimedia Blasting & Painting
- Water Jet Cutting
- Environmentally Controlled Heat Treating System

Vehicle Production Skills

Skill Areas	Job Titles	
Heavy Mobile Equipment Mechanics	Heavy Mobile Equipment Mechanics/Inspectors	Mobile Equipment Mechanics
Welders	Welders/Welding Inspectors	
Machinists	Machine Tool Operators Machinists	Toolmakers
Optics	Optical Instrument Repairers/Inspectors	
Equipment Operation/ Preparation/Preservation	Fork Lift Operators Crane Operators Electroplaters	Sandblasters Equipment Cleaners Painters
Artillery	Artillery Repairers/Inspectors Pneudraulics Systems Mechanics	
Support Skills	Metal Tank & Radiator Repairers Fabric Workers Sheet Metal Workers Engraver Woodworker Rubber Equipment Worker	Chemical Equipment Repairers Electrical Equipment Mechanics Powered Support Systems Repairers

Electronics Production Skills

Skill Areas	Job Titles	
Ordnance Equipment	Ordnance Equipment Mechanics	
Air Conditioning Equipment	Air Conditioning Equipment Mechanics	
Filter Systems/Test and Repair	Filter Systems Repairers	
Electronics	Electronic Integrated Systems Mechanics Electronics Mechanics Electronics Workers Electronics Equipment Mechanics	
Equipment Operation/ Preparation/Preservation	Electroplaters Sandblasters Equipment Cleaners Painters	
Support	Welders Silk Screen Makers Sheet Metal Workers Maintenance Workers	Instrument Mechanics Industrial Equipment Mechanics
Electronic Test Equipment Repair	Powered Support Systems Repairers Electronic Measurement Equipment Mechanics Electronic Industrial Control Mechanics	

Engineering and Support Skills

Mechanical Engineers
Mechanical Engineer Technicians
Electronic Engineers
Chemical Engineers
Technical Publication Editor
Office Automation Assistants
Equipment Specialists (General)
Equipment Specialists (Missile)
Industrial Engineer Technicians
Technical Systems Specialists
Engineering Technicians
Engineering Technicians (Drafting)
Electronic Technicians
Computer Systems Specialists
Industrial Engineers

Special Skill Capabilities
Product Assurance Certification

Nondestructive Testing Certification
(Level I, Level II, and Level III)

	Level I	Level II	Level III
Radiography	5	4	4
Magnetic Particle	1	15	1
Liquid Penetrate	1	16	1
Ultrasonics	3	1	4

Vehicle Test Driving Certification

Combat Vehicles	82

Soldering/Electrostatic Discharge (ESD) Certification

MIL-STD-2000 (TASK F&G)	291
MIL-STD-2000 (TASK F&G) Micro Miniature	40
Electrostatic Discharge	472
Certified Soldering Instructor/Examiner	5

Statistical Process Control

Trained (on-site)	1,229
Trained (external)	224
Trained Instructors/Facilitators	13

Welding Certification

Homogeneous Armor	38
Mild Steel	17
Aluminum Armor	56
Aerospace	13

Electrodeposition (Brush Plating)

MIL-STD-865	13

Directorate of Ammunition Operations

Ammunition Operations

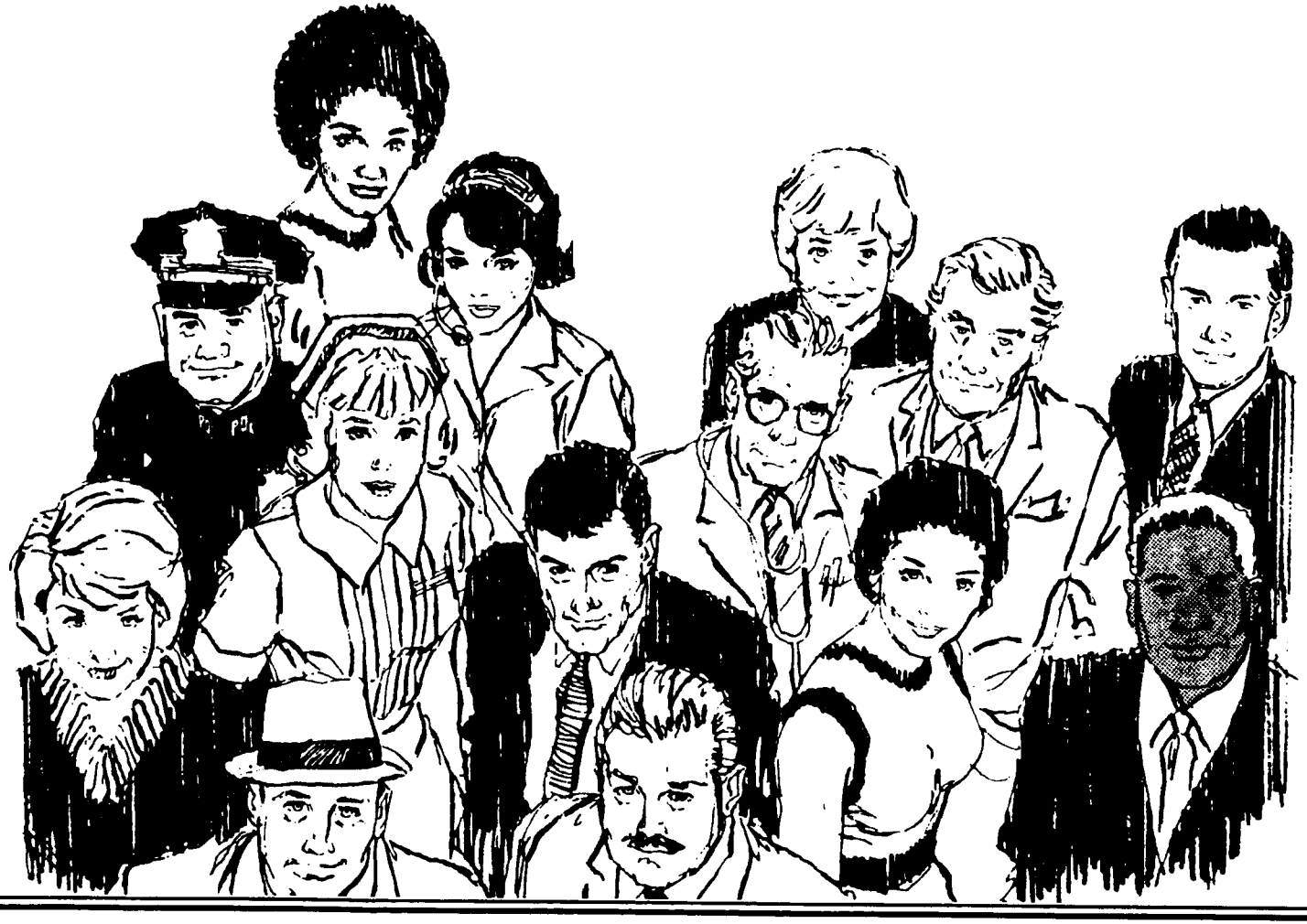
Certification Program

The LEAD Ammunition Certification Program is managed in accordnace with AMC-R 350-4. The program assures that all personnel involved in ammunition/explosive planning and operations are trained and knowledgeable. The program increases ammunition safety awareness, technical knowledge, and operational proficiency. Currently, LEAD has 93 personnel certified in the following special skill categories:

Explosives Operators	14
Warehouse Workers	17
Motor Vehicle Operators	15
Ordnance Equipment Mechanics	9
Forklift Operators	11
Blockers and Bracers	7
Production Controllers	3
Munition Destroyers	5
Painters	4
Electronic Measuring Equipment Mechanics	3
Packers	2
Engineering Equipment Operators	4
Industrial Specialist (ammunition)	1
Ammunition Inspectors	7
QASAS	19
Distribution Facilities Specialists	3

Section 9

ORGANIZATION AND STAFFING



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LETTERKENNY ARMY DEPOT ORGANIZATIONAL DIRECTORY
CHAMBERSBURG, PENNSYLVANIA 17201-4150

COML: 267-XXXX WATS: (717) 267-XXXX DSN: 570-XXXX

Operator Assistance 267-8111 Operator Assistance 570-5110

OTHER POST ACTIVITIES

		EXT
U.S. ARMY DEPOT SYSTEM COMMAND	AMSDS -CG	9151
USAMC SYSTEMS INTEGRATION & MGT ACTIVITY (SIMA)	AMXSI-Z	9801
U.S. ARMY AUDIT AGENCY	SAAG-NER-CFO	9515
U.S. ARMY COMMUNICATIONS & ELCT COMMAND (CECOM)	SDSLE -LR	5112
U.S. ARMY HEALTH CLINIC	HSXR-LK	8416
U.S. ARMY CONUS TMDE SUPPORT — REGION 1	AMXTM -GA	9213
U.S. ARMY DISTRICT TMDE SUPPORT CENTER	AMXTM -GA-L	8012
DEFENSE REUTILIZATION & MARKETING OFFICE	DRMO -ENCE	8651
INDUSTRIAL HYGIENE	HSXR-LK -IH	8806
USAMC MGT ENGR ACTV	AMXME -D	9778
DEFENSE MEGACENTER CHAMBERSBURG	UMV	8763
PATRIOT LIAISON OFC	SFAE-MD -PA-AS -LE	8900
DEFENSE DISTRIBUTION DEPOT LETTERKENNY	DDLP -D	5101
DEFENSE PRINTING SERVICE	DPS-LKY	9308/9282
DEFENSE ACCOUNTING OFFICE-IN-LETTERKENNY	DFAS-IN/EM-AQ	8440
AUTOMATED MULTI-MEDIA EXCHANGE (AMME)	ASQY-NE -LK	8311

DIRECTORATE OF PRODUCT ASSURANCE

	SDSLE	EXT
DIRECTOR	-Q	8084
QUALITY AUDIT DIVISION	-QA	5436
QUALITY PLANNING DIVISION	-QP	5481

DIRECTORATE OF CONTRACTING

	SDSLE-	EXT
DIRECTOR	P	9007
MISSION DIVISION	PA	9312
PUBLIC WORKS DIVISION	PC	9817

INSTALLATION COMMANDER

	SDSLE	EXT
COMMANDER	-C	8300
CIVILIAN EXECUTIVE ASSISTANT	-C	8306
DEPOT SERGEANT MAJOR	-C	8301

DIRECTORATE OF MAINTENANCE

	SDSLE	EXT
DIRECTOR	-M	5519
MAINTENANCE MGT & ANALYSIS OFFICE	-MA	9835
PRODUCTION ENGINEERING DIV	-MM	9077
PRODUCTION PLANNING & CONTROL DIVISION	-MP	5511
VEHICLE SHOPS DIVISION	-MV	8341
ELECTRONICS SHOPS DIVISION	-ME	8714

DIRECTORATE OF INTEGRATED LOGISTICS SUPPORT

	SDSLE	EXT
DIRECTOR	-I	9585

DIRECTORATE OF PERSONNEL AND COMMUNITY ACTIVITIES

	SDSLE	EXT
DIRECTOR	-B	8404
COM & FAMILY ACTV DIV	-BA	9600
COMMUNITY CLUB & POST RESTAURANT DIVISION	-BR	5320
ARMY CAREER & ALUMNI PROGRAM DIVISION	-BB	8887
CLASSIFICATION, STAFFING & SERVICES DIVISION	-BC	5314
EMPL RELATIONS & TRAINING DIVISION	-BE	8566
MOBILIZATION, MILITARY PERSONNEL & TRAIN DIVISION	-BF	8020

U.S. ARMY CENTRAL PA REGIONAL PUBLIC WORKS CENTER

	SDSLE	EXT
DIRECTOR	-E	9456
SPECIAL PROJECTS OFFICE	-ES	8832
HOUSING OFFICE	-EH	8115
ENGINEERING & PLANNING DIV	-EP	5601
BUSINESS OFFICE	-ER	9459
PRODUCTION DIVISION	-EM	8878
ENVIRONMENTAL MGT DIV	-EN	9690
PROTECTIVE SERVICES DIVISION	-EF	8231
DEPOT PROPERTY DIVISION	-ED	9488

DIRECTORATE OF AMMUNITION OPERATIONS

	SDSLE	EXT
DIRECTOR	-A	8400
STOCK CONTROL DIVISION	-AP	8437
MAINTENANCE DIVISION	-AM	9020
SUPPLY OPNS DIVISION	-AA	9621
SUPPORT DIVISION	-AS	9452
AMMO SURV DIVISION	-AV	8918

DIRECTORATE OF RESOURCE MANAGEMENT

	SDSLE-	EXT
DIRECTOR	R	8726
BUDGET AND MANPOWER DIV	RB	9202
FINANCIAL ANALYSIS & MANAGERIAL ACCOUNTING DIV	RA	9202
MANAGMENT ANALYSIS DIV	RC	9317

DIRECTORATE OF LAW ENFORCEMENT AND SECURITY

	SDSLE	EXT
DIRECTOR	-G	5201
SECURITY & PLANS DIV	-GC	8375
LAW ENFORCEMENT DIV	-GD	8800
LAW ENFORCEMENT DIV II	-GE	8800
LAW ENFORCEMENT DIV III	-GF	8800

31 JANUARY 1994

THIS IS NOT AN OFFICIAL ORGANIZATION CHART

SPECIAL STAFF

	SDSLE	EXT
ACTING INSPECTOR GENERAL	-CL	5723
ADMINISTRATIVE MGT OFC	-CA	9256
CHAPLAIN	-CH	8628
EEO OFFICER	-CEEO	8817
HEALTH SERVICES DIRECTOR	HSXR-LK	8416
INTERNAL REVIEW & AUDIT COMPLIANCE OFC	-CI	9819
LEGAL OFFICER	-CL	9889
ORGANIZATIONAL DEVELOPMENT OFC	-OD	8245
PROTOCOL OFFICER	-CA	8659
PUBLIC AFFAIRS OFFICER	-CA	5102
SAFETY DIRECTOR	-CS	5253
TOTAL ARMY QUALITY OFC	-CTAQ	9736

DIRECTORATE OF INFORMATION MANAGEMENT

	SDSLE	EXT
DIRECTOR	-D	5337
INFORMATION CENTER	-DI	8055
OPERATIONS & SYSTEMS INTEGRATION DIVISION	-DO	9450
RESOURCES, LOGISTICS & PLANS DIVISION	-DR	8315
RESOURCES/LOGISTICS OFF		8315
TACTICAL SYSTEMS TECHNOLOGY DIVISION	-DT	8821

SAVANNA ARMY DEPOT ACTIVITY

	SDSLE	EXT
COMMANDER	-VC	8700
INSTALLATION SUPPORT DIV	-VA	8311
EEO OFFICER	-VEEO	8750
MISSION DIVISION	-VM	8632
CIVILIAN PERSONNEL DIV	-VP	8856
QUALITY ASSURANCE DIV	-VS	8624
SAFETY OFFICER	-VSAF	8838

OTHER POST ACTIVITIES

	SDSLE	EXT
U.S. ARMY DEF AMMO CTR & SCH	SMCAC -DO	8901
DIRECTOR OF INFORMATION MANAGEMENT	-IM	6000
OCCUPATIONAL HEALTH NRSG OFC	MCXR-LC -FS-SAV	8805
DEF REUTILIZATION & MARKETING OFC	DRMO	8330
300TH SUPPLY COMPANY USAR UNIT ADMIN		8550

Section 10
ENVIRONMENT

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Through commitments and mission responsibilities, LEAD can effectively develop and test environmental pollution control technology for DA/DOD and provide on-the-job training in environmental technology.

As the Army's Center of Technical Excellence (CTX) for paint stripping, waste reduction, and designation as AMC's CTX for Environmental actions, LEAD has the potential to be a DOD environmental technology and training center.

In coordination with the U.S. Army Toxic and Hazardous Material Agency (USATHAMA), a contract has been undertaken to identify environmental training deficiencies and to use LEAD as a USATHAMA pilot installation.

LEAD has state-of-the-art technology for soil and ground water remediation, potable water treatment/distribution, sewage collection/treatment, pest conrol, and natural resources management experience.

Within its modernization initiative, LEAD has ongoing and planned MCA and FEP projects as environment initiatives.

LEAD also complies with the following environmental constraints:

a. Air Pollution Control Act - The Volatile Organic Compound (VOC) Compliance Plan affects LEAD's painting operations by regulating the emission of VOCs from spray painting to 2.7 tons/year or 15 pound/day maximum, or the depot must use all compliant coatings and/or emission control equipment.

b. Air Pollution Control Act - Permit system requires permits, and in some cases, controls to operate air pollutant sources.

c. Clean Streams Law - National Pollutant Discharge Elimination System (NPDES) permits require a permit to operate the industrial wastewater treatment plant, which limits the amount of certain water pollutants that can be discharged.

d. Solid Waste Management Act/RCRA Part B Permit - requires a permit for treatment, storage, and disposal of solid and hazardous wastes.

The emissions of VOCs cited above will lessen due to increased use of compliant coatings and installation of an emission control system. Other constraints will not cease. The current status of the environment at Letterkenny is good.

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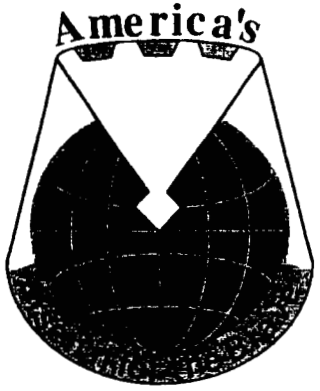

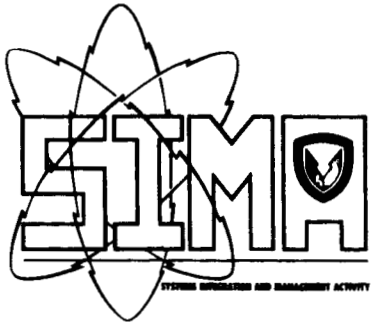

Section 11
COLLOCATED ACTIVITIES

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USAMC SYSTEMS INTEGRATION AND MANAGEMENT ACTIVITY (SIMA)

	AMXSI	
DIRECTOR	-Z	9801
INDUSTRIAL LOGISTICS SYSTEMS	-G	5106
RESOURCES & TECHNOLOGY	-R	9587

U.S. ARMY DISTRICT TMDE SUPPORT CENTER

	AMXTM	
CHIEF	-GA-L	8337
LAB OP DIV	-GA-LAB	8336
ICL LEAD	-GA-LAB-I	5554
ACL LEAD	-GA-LAB-L	8339
TSC FT. BELVOIR	-GA-LBL	354-5502
TSC FT. EUSTIC	-GA-LEU	927-4242
TSC FT. RITCHIE	-GA-LRT	988-2883
TSC WARREN	-GA-LWN	786-6498
TSC VINT HILL FARMS STATION	-GA-LVH	249-6224

DEFENSE MEGACENTER -- CHAMBERSBURG

DIRECTOR	UMV	8763
TECHNICAL DIRECTOR	UMVT	8270
NCO IN CHARGE	UMVM	5746
COMPUTER OPERATIONS DIVISION	UMVC	5503
EXECUTIVE SOFTWARE DIVISION	UMVE	8294
RESOURCES MGT & PLANS DIV	UMVR	5652
SYSTEMS MGT DIV	UMVS	9775

OTHER POST ACTIVITIES

U.S. ARMY AUDIT AGENCY	SAAG-NER-CFO	9515
U.S. ARMY COMMUNICATIONS & ELCT COMMAND (CECOM)	SDSLE-LR	5112
U.S. ARMY HEALTH CLINIC	HSXR-LK	8416
DEFENSE REUTILIZATION & MARKETING OFFICE	DRMO-ENCE	8651
INDUSTRIAL HYGIENE	HSXR-LK-IH	8806
USAMC MANAGEMENT ENGINEERING ACTIVITY DEPOT SYSTEM DIVISION	AMXME-D	9778
DEFENSE PRINTING SERVICE	DPS	9308
DEFENSE DISTRIBUTION DEPOT - LETTERKENNY	DDLP-D	5101

U.S. ARMY REGIONAL TMDE MANAGEMENT OFFICE - REGION 1

	AMXTM-GA	
CHIEF		
DTSC ABERDEEN	-A	298-2433
DTSC LETTERKENNY	-L	570-8012
DTSC PICATINNY	-P	880-3986
DTSC TOBYHANNA	-T	795-7188

Collocated Activities

U.S. ARMY HEALTH CLINIC

The clinic serves as the U.S. Army Military and Civlian Employee's Occupational Health Clinic. Responsibilities include treatment of on-the-job injuries and illnesses, medical surveillance exams related to job exposures, pre-employment exams, disability retirement physicals, fitness for duty exams, and oversea physicals. Medical surveillance exams include hearing tests, laboratory studies, chest X-rays, vision tests, and taking a thorough medical history. As resources permit, we treat non-occupational injury/illnesses for the worker that may suddenly occur at work. This allows the worker to remain on the job.

Responsibilities also include ambulatory health care to active duty military, retirees and their family members. These services are limited and include acute medical care, general radiology, laboratory services and physical therapy.

The clinic averages 1,100 clients per month who are serviced by 1 doctor, 4 nurses, 1 laboratory technician, 1 radiology technician, and 3 medical secretaries.

The Industrial Hygiene (IH) Office evaluates and makes recommendations to control the hazards and stresses associated with work and work operations that may cause sickness, impaired health among the workers or the citizens of the community. The IH office is staffed with 2 industrial hygienists and 1 technician.

Collocated Activities (cont.)

Defense Reutilization and Marketing Office (DRMO)

The DRMO Letterkenny encompasses 774,832 square feet of land and occupies thirteen buildings, 3 open storage areas, 1 off-site railroad, and 7,720 square feet of security fenced in area.

DRMO Letterkenny is a tenant of Letterkenny Army Depot, with Headquarters in Battle Creek, Michigan.

The DRMO is responsible for the disposal of all DOD-generated excess; surplus foreign excess, and other personal property authorized for turn-in (including non-saleable property) except for some specific categories outlined in DOD 4160.21-M.

The professional staff works closely with activities and offers training to ensure visibility of line items available for turn-in as well as effective disposal support.

DRMO offers the Interrogation Requirements Information System (IRIS), a Computerized system which provides visibility of all stock numbered items of Department of Defense (DOD) excess and surplus personal property currently in the world wide inventory of the Defense Reutilization and Marketing Service (DRMS). This property is made available to all DOD activities, FREE OF CHARGE, including - in most cases - packing, crating, handling, and transportation. Before procuring required materials/property reutilization should first be investigated as an effective means of reducing expenditures.

DRMO Letterkenny is the Central contact point for Operation East Precious Metal Supply and Equipment Storage. A representative is available to visit DOD installations to provide

Collocated Activities (cont.)

Defense Reutilization and Marketing Office (DRMO) (Cont.)

technical support in conjunction with the program.

The Resource, Recovery and Recycling (RRR) program receives materials generated by DOD activities and is offered for sale with the total proceeds reimbursed to that DOD activity. The DRMO will provide assistance to the generator in scrap identification and separation methods, initially furnish storage containers for more valuable types of scrap and provide sales service information.

DRMO Letterkenny has a highly qualified Environmental section, providing DOD installations and DLA personnel with guidance for handling, processing, and disposing of hazardous property, in accordance with applicable environmental, safety, and other pertinent laws and regulations.

The Demilitarization Program will maximize monetary recovery by this method and to the degree required by DOD resources. The DRMO will determine, in coordination with generating activities, the most appropriate and economical means to properly demilitarize Munitions List Items (MLIs). The Demil staff will accomplish the demilitarization, including necessary controls and surveillance, in the most cost-effective manner possible, consistent with safety and security requirements in order to conserve DOD resources.

DRMO Letterkenny Pamphlet FY95 is available for an in-depth introduction to DRMO Operations by calling (717) 267-8651/DSN 570-8651.

Collocated Activities (cont.)

U.S. Army Regional TMDE Management Office - Region 1 (USARTMO - Region 1)

The USARTMO is responsible for managing, budgeting, controlling personnel spaces, providing quality assurance inspections, equipment management program, and maintaining a property book for four district TMDE Support Centers located at Letterkenny Army Depot, PA; Tobyhanna Army Depot, PA; Aberdeen Proving Grounds, MD; and Picatinny Arsenal, NJ.

The Region 1 includes U.S. Army active divisional and nondivisional elements, National Guard, reserve components, other DOD and Government activities; and contractors within a 16 state area of Connecticut, Delaware, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and the Miilitary District of Washington.

The USARTMO is staffed by 11 civilians and 1 military personnel. The regional mission is accomplished by a staff of 262 civilians and 57 military.

U.S. Army District Test, Measurement, and Diagnostic Equipment (TMDE) Support Center (USADTSC)

The USADTSC operates an Army Area Secondary Reference Laboratory and 11 fixed and mobile laboratories. It provides the second and third highest level of measurement accuracy for the DA within an eight state area of Delaware, Maryland, Michigan, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia, and the Military District of Washington with traceability to the National Institute of Standards and Technology (NIST).

The USADTSC mission is accomplished by 187 civilian and 15 military personnel.

Collocated Activities (cont.)

Defense Megacenter -- Chambersburg (DMC Chambersburg)

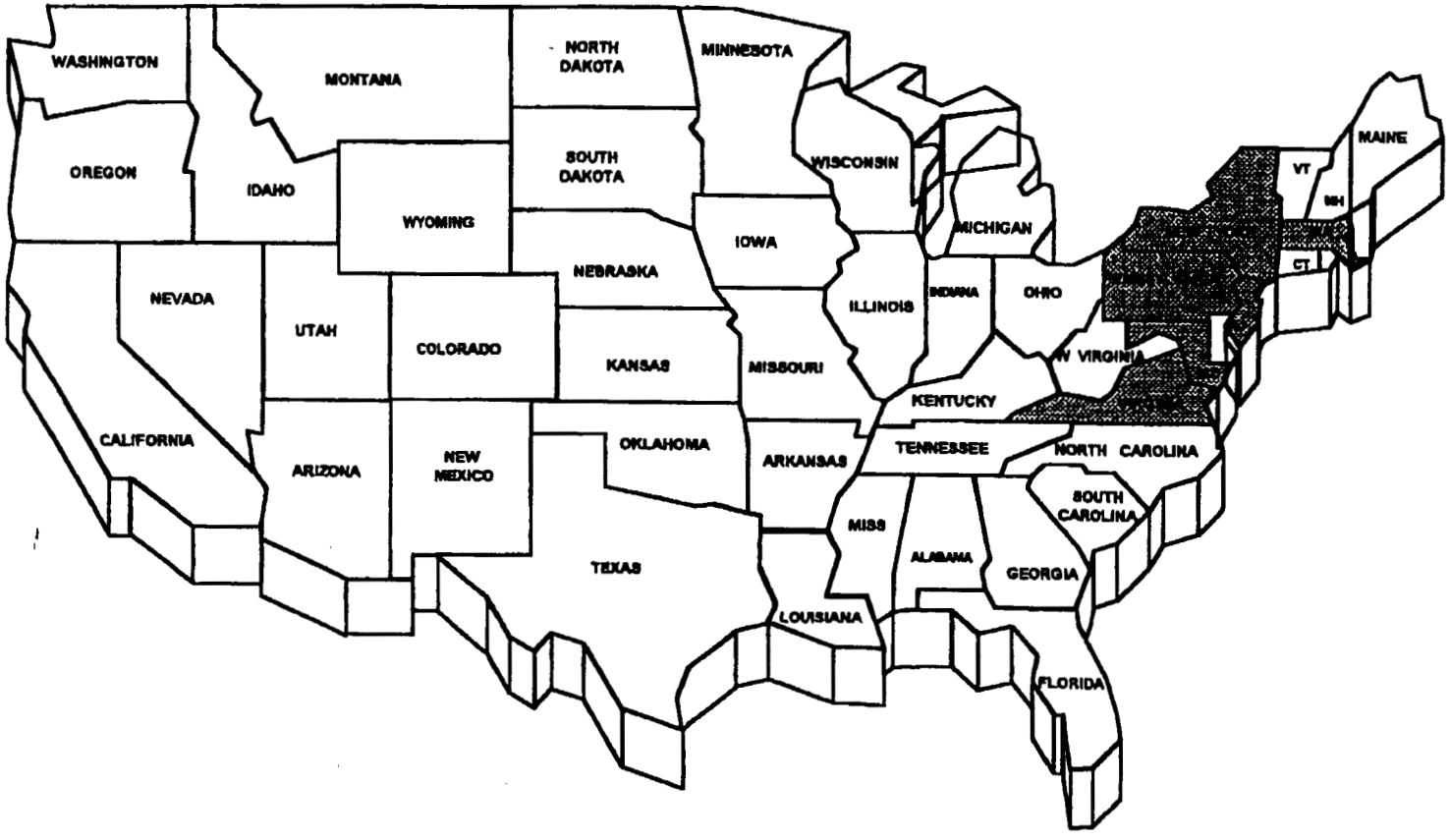
Automation:

DMC Chambersburg provides the direction, management, and integration of mainframe ADP for the installation and various sites throughout Northeastern United States. This support is provided on a 24-hour basis utilizing four large capacity AMDAHL and two smaller IBM computers running more than 26 computer systems for 22 customers.

DMC Chambersburg services over 7,500 local and 21,000 remote users using 203 lines into front end processors and 125 dedicated circuits. DMC Chambersburg has 1.24 terabytes of direct access storage along with 19 square cartridge and 54 round tape drives. It also utilizes 9 robotic tape libraries each with a capacity of 5,600 cartridge tapes with pass-through capability transports. DMC Chambersburg processes an average of 8,825,000 transactions a month at an 88% rate of less than a second per transaction.

DMC Chambersburg has highly trained and dedicated software experts in the areas of system management, telecommunications, operating systems, database management, transaction processors, security, time sharing, compilers, and software development aids.

Collocated Activities (cont.)
DMC Chambersburg Customers



Pennsylvania:
- Letterkenny
- HQ, DESCOM
- SIMA-E
- Catalog Data Agency
- Tobyhanna

Virginia:
- Ft. Monroe
- Ft. Eustis
- Ft. Belvoir
- Ft. Lee
- Vint Hill Farms
- HQ, INSCOM
- DARIC

Massachusetts:
- Ft. Devens

New York:
- West Point

New Jersey:
- CECOM

Maryland:
- Ft. Ritchie
- Ft. Detrick

District of Columbia:
- Walter Reed Army Med Center

OCONUS:
- Miesau
- Somalia
- Southwest Asia

Collocated Activities (cont.)

Defense Megacenter -- Chambersburg (DMC Chambersburg) (cont.)

AMDAHL Applications:

- SDS
- The Standard Army Civilian Payroll System
- The AMC Standard Installation Supply System
- Materiel Release Order Processing
- Ammunition Surveillance
- Storage Management
- Maintenance Inspection Data Analysis System
- Quality Assurance
- Facilities Engineering Management System
- Defense Integrated Management Engineering System
- Expense Appropriation Management System
- Army Industrial Fund System
- Procurement History
- Production Planning and Control (Supply and Maintenance)
- Inventory
- Installation Force Development System
- Maintenance Shop Floor System
- Automated Time and Attendance Production System
- Maintenance - Modification Work Order
- Department of Defense Small Arms Program System

Collocated Activities (cont.)

Defense Megacenter -- Chambersburg (DMC Chambersburg) (cont.)

Sperry Applications:

- SAACONS
- Installation Equipment Management System
- Logistic Applications of Automated Marking and Reading Symbols
- Automated Financial Entitlement System
- Automated Tool Control and Inventory System
- AMC Automated Manpower Management Information System
- Project Automated Tracking System
- Computerized Logic for Automated Standards Setting

Collocated Activities (cont.)

U.S. Army Material Command (AMC) Systems Integration and Management Activity (SIMA)

EXECUTIVE SUMMARY

SIMA, established provisionally on 1 May 1989, became a permanent organization 1 October 1990. It was formed by merging three of AMC's central systems design activities (i.e., the Central Systems Design Activity (CSDA) in St. Louis, MO; the CSDA-East in Chambersburg, PA; and the Logistics Programs Support Activity (LPSA), also located in Chambersburg, PA). NOTE: The portion of SIMA formerly known as LPSA was transferred to the AMC Logistics Support Activity effective 1 October 1994.

SIMA is a recognized Center of Excellence for Army software development and information support. The standard information systems of SIMA are used to manage the business side of defense logistics.

SIMA serves a widely-dispersed customer base consisting of the Department of Defense, Department of the Army, Joint Chiefs of Staff, U.S. AMC, and other Army Major Commands; in addition to depots, plants, arsenals, and installations across the United States.

SIMA is the developer of the Commodity Command Standard System (CCSS) and the Industrial Logistics Systems (ILGS). These systems are among the world's largest and most integrated business systems. The CCSS supports the logistics business functions at AMC's Inventory Control Points. These functions include provisioning, cataloging, asset management, procurement, financial management, and security assistance. The ILGS supports such installation industrial processes as maintenance, manufacturing,

Collocated Activities (cont.)

U.S. Army Material Command (AMC) Systems Integration and Management Activity (SIMA) (Cont.)

ammunition renovation and demilitarization, manpower management, facilities, management, equipment management and property accountability, cost and general ledger accounting, stock control and accountability, receipt, issue and transportation of general supplies and ammunition.

These standard information systems have automated the Army's business processes, helping to reduce costs while increasing productivity and readiness. The soldiers and civilians of SIMA are responsible for every facet of software development for these business systems.

MISSION AND WORKLOAD

The specific mission of the two Deputy Directorates located at LEAD, Chambersburg, PA are as follows:

DEPUTY DIRECTOR FOR INDUSTRIAL LOGISTICS SYSTEMS

This organization is responsible for the central systems design, development, integration, programming, testing, documentation, installation, and maintenance of assigned standard systems.

An integral part of the total scope of SIMA's program is the ILGS, an integration of applications brought together for use by AMC depots and other selected AMC activities. This organization designs, develops, implements, maintains, and provides customer support for AMC systems which operate in industrial and administrative environments.

Collocated Activities (cont.)

U.S. Army Material Command (AMC) Systems Integration and Management Activity (SIMA) (Cont.)

DEPUTY DIRECTOR FOR RESOURCES AND TECHNOLOGY

This organization manages SIMA's financial and manpower resources and provides administrative support to all SIMA mission organizations.

Unique Capabilities

DEPUTY DIRECTOR FOR INDUSTRIAL LOGISTICS SYSTEMS

This organization is responsible for the development, implementation, and maintenance of the industrial logistics systems. The ILGS provides automated systems support for both the functional user and the ADP environment. The systems support is provided by approximately 150 personnel who support an industrial base made up of over 30 installations and over 30,000 employees in CONUS, Europe, and the Pacific West Commands.

Demographics

The SIMA organizational elements located on LEAD employs individuals in grade levels GS-04 thru GM-15 and one Senior Executive Service employee. The average grade level for SIMA is GS-11.

Organization and Staffing

SIMA's organizational structure constructs of the Director, two Principal Deputies, five primary Deputy Directorates, and several smaller organizational entities.

Collocated Activities (cont.)

U.S. Army Material Command (AMC) Systems Integration and Management Activity (SIMA) (Cont.)

SIMA is geographically dispersed. Three major Deputy Directorates are located in St. Louis, MO, along with several smaller organizational elements; and two major Deputy Directorates are located in Chambersburg, PA.

The Headquarters element of SIMA is physically located at Chambersburg.

SIMA has a staff of approximately 600 civilian and military employees. About 200 of these employees are employed at Chambersburg.

Executive Summary

U.S. Army Material Command Management Engineering Activity (AMCMEA), Industrial Operations Division

The Industrial Operations Division was organized as a Division of AMCMEA Headquarters in Huntsville, AL in April 88. The Division was tasked to provide customer requested business analysis and management engineering services for AMC. Products relate to improved efficiency/effectiveness and are customer driven to integrate with on-going customer initiatives. Emphasis is on using Activity Based Approaches to improve management, reduce costs, and better determine costs of customer products/services. The following types of products are provided:

*Activity Based Cost Management Studies
*Productivity Improvement
*Methods and Standards Analysis
*Standards Development
*Unit Cost Models
*Economics Analysis/Savings Validation Studies
*Cost Studies
*Staffing Studies/Realignment
*Organizational Assessments
*Quick Reaction Program Evaluations

Collocated Activities (cont.)

U.S. Army Material Command Management Engineering Activity (AMCMEA) Industrial Operations Division

Personnel in the Depot System Division have a wide variety of backgrounds composed of government service and private industry experience, which makes them skilled in using the following tools to product the products listed:

*Computer Software Programs
*Work Sampling
*Cost Accounting
*Economic Analysis
*Budget Development and Allocation
*Methods Improvement
*Management Analysis
*Cost Analysis
*Industrial Engineering
*Mathematical Models

Demographics

The AMCMEA Depot System Division is located in the Penn Hall Administration Building. The Division is a tenant of LEAD.

U.S. Army Audit Agency, Chambersburg Field Office

The Army Audit Agency assists the Secretary of the Army in satisfying statutory and fiduciary responsibilities, as well as, assisting Army managers in making informed decisions, resolving issues, and using resources effectively. It provides Army leadership -- The Secretariat, DA Staff, and commanders -- with a full range of objective and independent services. These include:

*Financial Audits *Performance audits *Consulting services

The agency has the authority to audit all organizations, activities, programs, and functions of the Army.

Collocated Activities (cont.)

Defense Printing Service

The Defense Printing Service provides the following services:

***Consultation. Provides professional and technical assistance in planning, preparation, automation layout and design of forms, publications, and other printing related services or products.**

***Composition. Various composition, copy preparation, image scanning , and related design services, including desktop publishing and phototypesetting.**

***Reprographics/printing. Complete duplicating and copying services are available, including engineering drawing reproduction up to and including E size.**

***Binding and Finishing. Folding collating, perforating, assembling, punching and drilling, stitching and stapling, padding, wrapping, packing, addressing, and shipping.**

***Micrographics. A wide variety of microform products may be obtained.**

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP)

Defense Distribution Depot Letterkenny (DDLP) was established in March 1992, and became official in July 1992 as part of the consolidation of all supply functions in the DOD under the DLA.

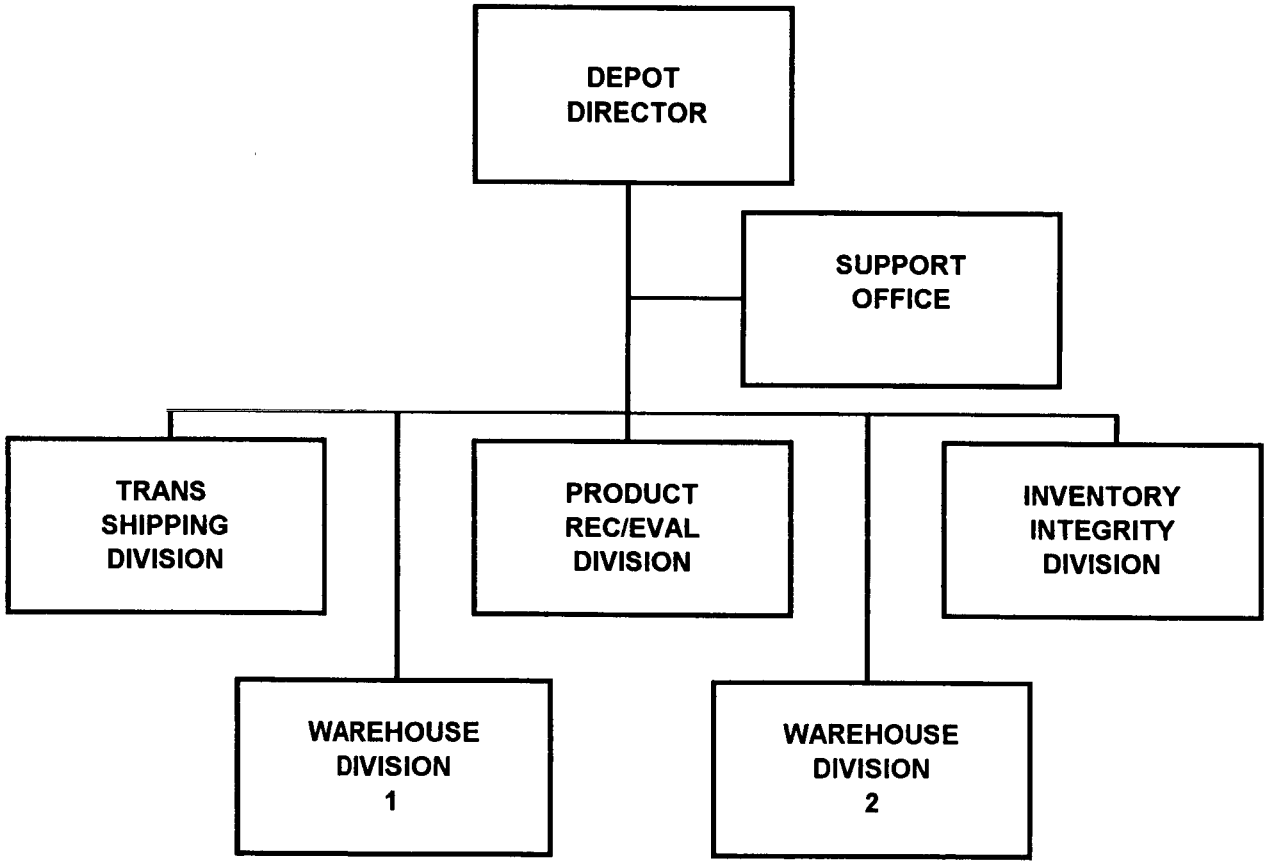
DDLP reports directly to the Defense Distribution Region East located at New Cumberland, PA.

Mission:

To plan, direct, coordinate, and manage the physical distribution functions relative to the receipt, stowage, preservation/package, issue, and transportation of major and secondary items.

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)



Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Plans, develops, and coordinates the depot's workload, policies, funding requirements, and procedures; provides coordination between the depot, the host, the commands, and region. Performs technical inspections/tests, and acceptance of major and secondary items to ensure compliance with applicable regulations.

Receipt/Evaluation Division:

Performs the receipt, classification/identification, storage location assignment, and intra-depot movement of inbound material.

Transportation Shipping Division:

Coordinates transportation activities for the installation, to include intra-depot movement.

Warehouse Division 1:

Provides storage for all depot items except vehicles and ammunition; performs the set assembly mission; and performs physical inventory functions. Develops, administers, executes, and manages the preservation and packaging of receipts and issues.

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Inventory Integrity Division:

Manages all inventory, location survey, location audit/match, and inventory quality control programs; coordinates FMS cases and major fielding efforts; and coordinates set assembly functions.

Warehouse Division 2:

Performs the receipt, preservation, and issue of class VII combat, general purpose, special purpose, missile, and artillery wheeled and tracked vehicles.

Collocated Activities (cont.)

DDLP Directory

ORGANIZATION	DDLP-	DSN 570/ COMM 717-267-
COMMANDER	D	5101/9261 8912
PRODUCT REC/EVAL DIV	E	8927
DOCUMENTATION BR	ED	5113
INBOUND OUTBOUND BR	EI	5555
INSPECTION BR	EB	9496
WAREHOUSING DIV1	S	5130
BIN WAREHOUSING BR	SA	5549
BULK WAREHOUSING BR	SB	8824
WEAPONS/CLASS BR	SW	8645
HAZ MATERIAL BR	SH	8484
BII & SET ASSEMBLY BR	SS	8048

ORGANIZATION	DDLP-	DSN 570/ COMM 717-267-
TRANS SHIPPING DIV	T	9017
SHIPMENT PLAN BR	TS	9006
FREIGHT TERMINAL BR	TF	8296
VEHICLE SUPPORT BR	TV	9062
PACKAGING/PRES BR	SP	5413
HEAVY PACK SEC	SPH	9892
INTERMEDIATE PROC SEC	SPM	5574
FAB CLEAN/PROC SEC	SPP	9874
WAREHOUSING DIV II	U	5268
VEH PROC/PREC BR	UP	8171
MECHANICAL REPAIR BR	UM	9340
OUTSIDE PROCESS BR	UO	5433/8060
VEH PLANNING/DOC BR	UD	5124
INVENTORY INTEGRITY DIV	V	8617
RECONCILIATION BRANCH	VR	5114
SUPPORT BRANCH	VS	5617
SUPPORT OFFICE	X	5192
ADMIN SPT BR	XA	9435
QUALITY BR	XQ	5430

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Functions:

- Receipt
- Storage
  - Bin
  - Bulk
  - Weapons/Classified
  - Hazardous
  - Class VII
  - Special
- Issue
- Preservation/Packaging
- Set Assembly/BII
- Inventory
- FMS Repair and Return
- Transportation
- Total Package Fielding
- Quality

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP)

Storage Capabilities:

***30 Warehouses (2,290,000 square feet)**
***62 Shelters/Sheds (1,149,000 square feet)**
***20 Open Areas (4,207,000 square feet)**
***Tank Farm (156 Tanks) (341,760 square feet)**

--Open storage areas are used mainly for class VII vehicle storage. DDLP hopes to become DLA's storage site for class VII items.

Special Storage Areas:

***Classified Storage (49,860 square feet)**
***Weapons Storage (33,620 square feet)**
***Hazardous Storage (71,000 square feet)**

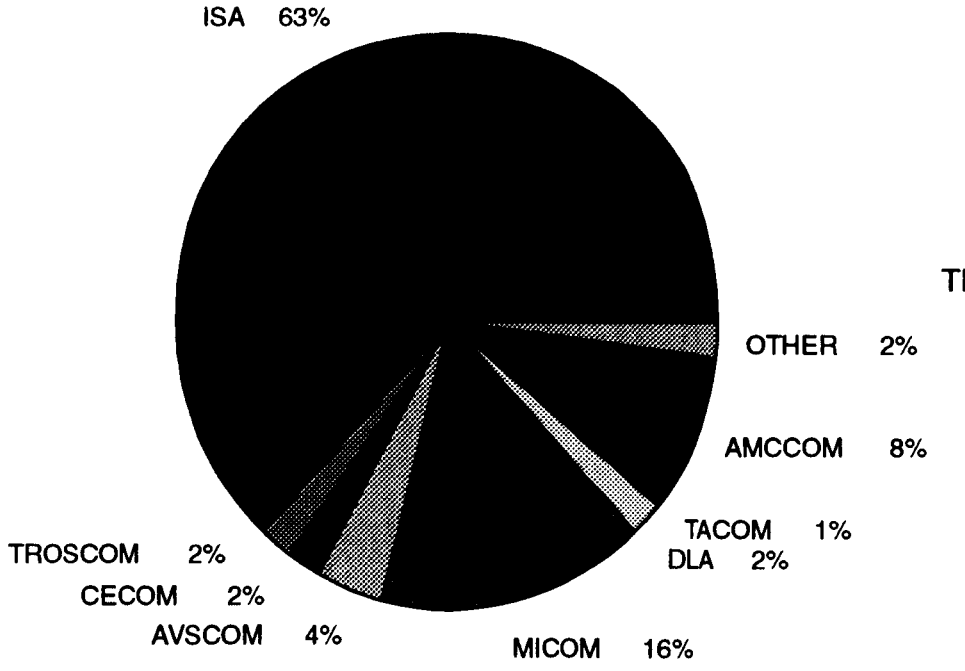
--MCA Project #89540 for a hazardous materials building at LEAD is 90% complete.

Collocated Activities (cont.)

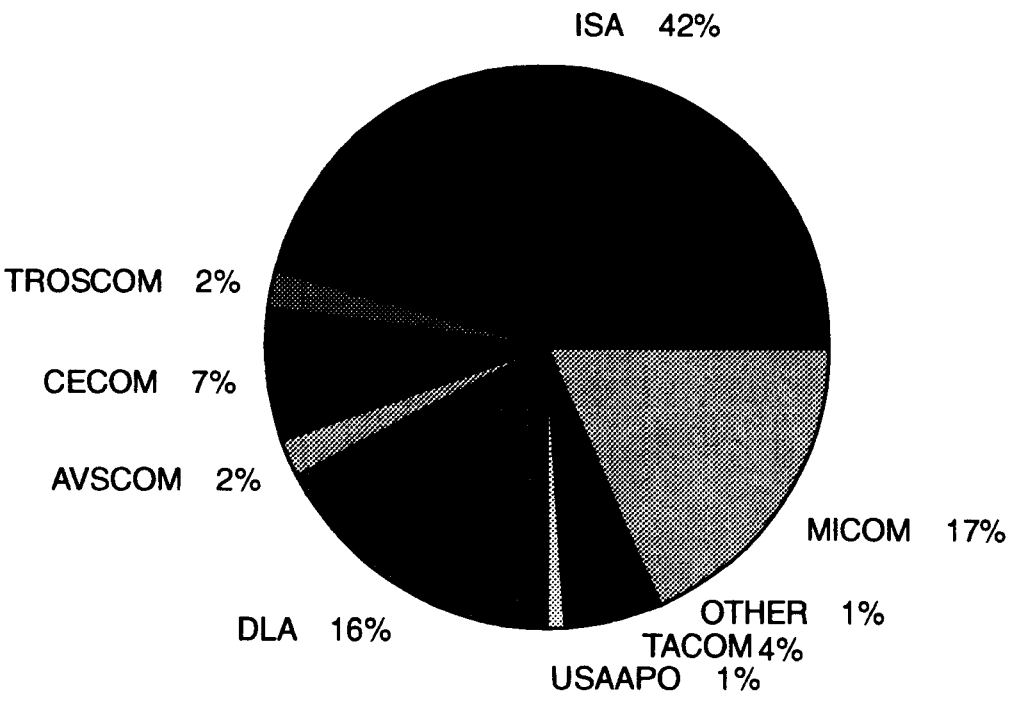
Defense Distribution Depot
Letterkenny, PA (DDLP)

DEFENSE DISTRIBUTION DEPOT LETTERKENNY CUSTOMERS

RECEIPTS



ISSUES



THRU FEB FY95

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Past and Present Unique Missions:

- Deployable Medical Systems (DEPMEDS)
- Clam shelters, Sprungs, Canvas Specialties
- 1st Army Stocks
- FMS Repair And Return
- Set Assembly/BII (BRAC)
- Chemical Underwear
- Small Arms/Weapons Storage
- "Just Cause"
- Maintenance Repair and Return
- Building 320 Vehicle Facility
- PATRIOT/HAWK Fieldings
- Consolidated Containerization Point (CCP) for Desert Storm U.S. Army Support Group
- CCP during Desert Storm for Susquehanna Backlog
- CCP for Somalia Operation "Restore Hope"

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (Cont.)

Deployable Medical Systems:

DDLP was designated as a storage and preservation site for DEPMEDS material returning from Southwest Asia after Desert Storm.

Shelters:

DDLP is designated as the sole storage site for clam shelters, canvas specialty, and sprung shelters.

These shelters were initially purchased for use during Desert Storm. Upon return, some were shipped to special technical inspection and repair sites.

The shelters were also used during the Hurricane Andrew Relief Effort.

DDLP is currently working w/Department of the Army and ATCOM on disposition of the shelters.

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (Cont.)

Building 320 Vehicle Facility:

Receives, ships, and cares for class VII wheeled and tracked assets in storage. This includes combat, general purpose, special purpose, missile, and artillery vehicles.

Special capabilities:

***Steam cleaning, sanding, masking, lubricating, camouflage pattern drawing, prepping, and touch-up and complete painting of vehicles**

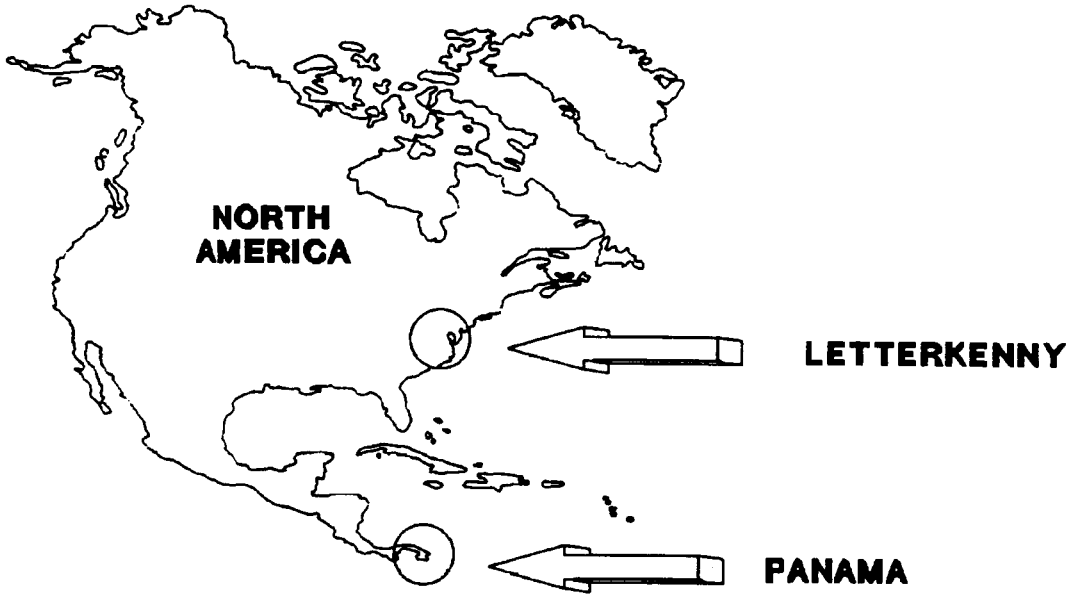
***Vehicle preservation and packing**

***Total package fielding PATRIOT and HAWK fieldings**

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

OPERATION JUST CAUSE



DDLP was designated as the sole storage site for captured "Just Cause" weapons and vehicles. DDLP is currently shipping weapons for museum use and for disposal.

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

FMS:

Countries Serviced:

- Australia
- Canada
- Egypt
- El Salvador
- Germany
- Israel
- Japan
- Jordan
- Korea
- Kuwait
- Philippines
- Saudi Arabia
- Singapore
- Spain
- Taiwan
- United Arab Emirate
- United Kingdom

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Achievements:

- Just Cause
  - 51,013 Weapons processed
  - 80 Vehicles processed
- BRAC
  - $4.2 Million committed to modernization
  - Increase of 100,000 locations
  - 511 Truckloads of material received
  - 3,512 Short tons of material received
- Total Package Fielding
  - Fieldings of PATRIOT and HAWK
  - Staging of future fielding material
- CCP
  - CCP during Desert Storm
    - Operational within 48 hours of notification
    - Peak performance 26 trucks unloaded/day (goal 25)
    - Peak performance 102 air pallets shipped/day (goal 50)
  - CCP for U.S. Army Support Group during Desert Storm
    - Moved 3,457 lines of support group material
    - Moved shelving units and gravity conveyors for Saudi Depot
    - Prepared 27 pieces of equipment for support group use

Collocated Activities (cont.)

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Achievements (Cont.):

- CCP for 1A7 Material
- CCP for Israel EK4 Material
  - 4,100 Lines consolidated and shipped
- CCP for U.S. Army Support Group for Operation Restore Hope

- Desert Storm
  - Over 37,000 Material Release Orders shipped
  - Over 2,700 Class VII vehicles shipped
  - Immediate service for units deployed to Southwest Asia
  - Victory parade vehicles prepared
- Operation Provide Comfort
  - 100,244 Blankets
  - 100,320 Ponchos
  - 1,404 Tents
- Hurricane Andrew
  - 8 Clam shelters shipped
  - Field kitchens shipped
- Operation Restore Hope

Defense Distribution Depot Letterkenny, PA (DDLP) (cont.)

Special Projects:

In addition to basic functions, DDLP performs special functions upon request or upon notification from higher command.

In some instances, a new mission performed by DDLP can become a constant or recurring mission.

Request for cost estimates or work capabilities may be directed in writing to:

Commander
Defense Distribution Depot Letterkenny
DDLP-X
Chambersburg, PA 17201-4175

FAX (DSN) 570-9108, COMM 717-267-9108

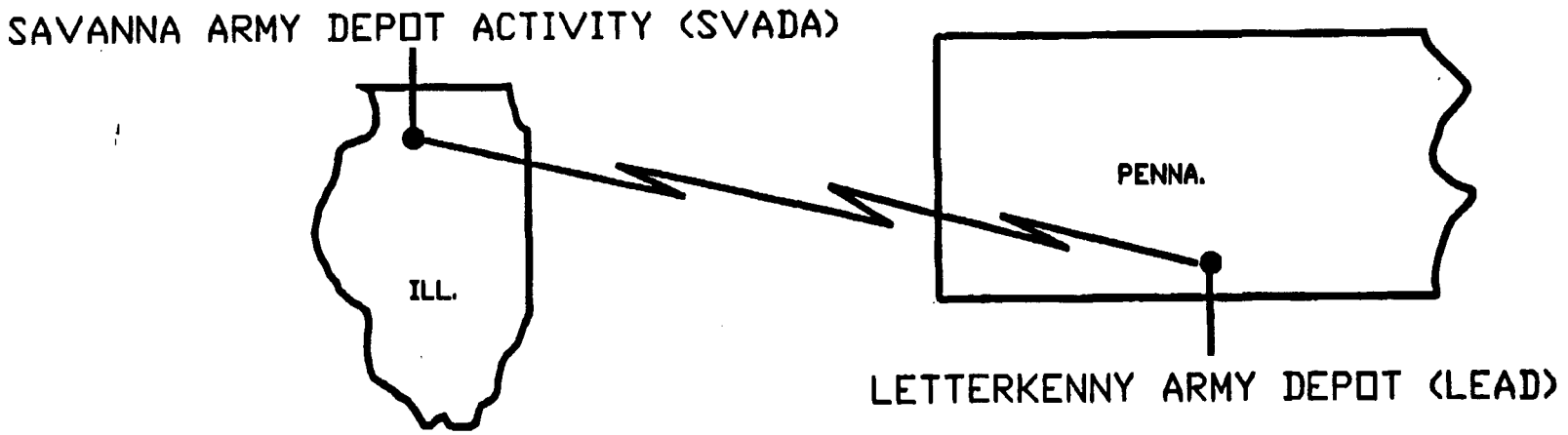
Collocated Activities (cont.)

Raytheon

AMRAAM Final Assembly and Checkout (FACO) Facility — Building 5300, LEAD

- Final assembly, testing, and sale of AMRAAM All-Up-Round Missiles
  - Four sections: guidance, control, warhead, and rocket motor assembled at LEAD
  - Fully Automatic Systems Test and Built-in-Test performed
  - DD250 sales, packaging, and shipping activities
  - Repair and refurbish field returns
  - Hardware modification to product
- Fourteen Raytheon employees on-site
- LEAD provides all support service required to the AMRAAM FACO operation

Section 12
AFFILIATED ACTIVITIES



Affiliated Activities Mission and Capabilities

LEAD's mission and capabilities include the command and control of SVADA located in Savanna, IL. SVADA complements LEAD's mission.

MISSION -- SVADA operates a supply depot activity providing for receipt, storage, renovation, and issue functions for the Army, Navy, Air Force, and Marine Corps conventional ammunition and DLA material; provides backup general supply storage support for Area Oriented Depots (AOD); fabrication and maintenance of APE and installation support to collocated activities.

SUPPORT -- SVADA provides support to CONUS depots, AMCCOM facilities, and the Overseas Theater through the HQAMCCOM Centralized Surveillance Function Test Mission. SVADA also provides support through the fabrication and repair of APE and installation support to the U.S. Army Defense Ammunition Center and School (USADACS), which provides worldwide support to the ammunition community.

INFRASTRUCTURE -- SVADA is comprised of 13,062 acres located along the Mississippi River, 7 miles north of Savanna (approximately 150 miles due west of Chicago, IL). The Government railway connects with the main line of the Burlington Northern Railroad at the depot boundary. Illinois Route 84 comes within 1 mile of the depot entrance and Interstate 80 is located approximately 50 miles to the south. The closest major airport is located at Moline, IL, 65 miles to the south. The installation facilities include 947 buildings, 68 miles of railroad, and 142 miles of roads.

COLLOCATED ACTIVITIES -- Collocated at SVADA are USADACS; DRMO; Occupational Health Nursing Office; Defense Printing Service; and one U.S. Army Reserve Unit, the 300th Supply Company.

WORK FORCE -- The total employment of the installation is approximately 450 civilians and 9 military, of which SVADA employs 170 civilians and 1 military. Of the 170 employees, approximately 88 are assigned to base operation functions (including ammunition surveillance). Additional temporary employees are hired, as required, to accommodate fluctuations in the ammunition mission.

Affiliated Activities Mission and Capabilities (cont.)

DIVISIONS

MISSION -- Receive, store, inventory, issue, assemble, maintain, test, and perform preservation and packaging, renovation, and demilitarization of Class V conventional and guided missile ammunition and related components and to receive, store, ship, and perform care and preservation of strategic materials and other supplies as assigned. Also includes fabrication, rebuild, storage and issue of APE and related repair parts.

Capabilities/Characteristics --

*Ammunition Storage -- 437 igloo type buildings (693,435 sq ft), 156 magazines (1,178,600 sq ft), 14 general purpose warehouses (537,600 sq ft), 14 inert material warehouses (369,600 sq ft), 13 transfer platforms, and 1 ammunition shipping building (7,523 sq ft).

*Railroad network consists of 68 miles of trackage and a container loading yard.

*Demilitarization facilities consist of open detonation grounds, a new contaminated waste processor (small unit) and a new explosive waste incinerator is tentatively scheduled for upgrade.

*Two plant areas (previously load lines) are utilized for demilitarization, renovation, and preservation and packaging.

Affiliated Activities Mission and Capabilities (cont.)

QUALITY ASSURANCE

MISSION --Plans, develops, and directs activity quality assurance mission for all conventional, guided missile, and large rocket ammunition components and explosives. Exercises final authority, under the commander, for quality of all Class II, III, V, VII, and IX and APE at this activity. Conducts ammunition function testing under the Centralized Controlled Function Test Program and certain AMCCOM special test materiel.

Capabilities/Characteristics --

*Ammunition inspection functions conducted at one workshop and at selected magazine locations.

*Function Test Program is conducted at a new function test range which became operational in FY94 and has increased testing capabilities.

*APE equipment including NICP stocks are inspected upon receipt at the installation, at point of fabrication and at operation sites worldwide. Cyclic inspections are also performed on equipment in the HQ, AMCCOM NICP account.

Affiliated Activities Mission and Capabilities (cont.)

INSTALLATION SUPPORT

MISSION — **Provides a variety of services in support of the activity and collocated activities to include mobilization and contingency planning, budgetary forecasting, staffing and analysis, program and analysis, facilities engineering, security, fire prevention and protection, environmental protection, and reserve component training support.**

Capability/Characteristics —

- **Water system is Government-owned and Government-operated (GOGO). The quality of water is adequate for current and future use.**
- **Sewage system is GOGO and is adequate for peak population.**
- **Morale, welfare, and recreational facilities include a swimming pool, a ball field, a gymnasium/fitness center, and an auto hobby shop.**
- **Electricity is supplied by a 34 kva line from Interstate Power Company, Savanna, IL. The depot is equipped with a GOGO diesel generating plant with an installed capacity of 3,125 kva. This diesel generating plant is held in standby to supply the depot with emergency power. In addition, four smaller standby generators are installed on the depot.**
- **Steam heat distribution is provided primarily by two central systems, utilizing No. 5 fuel oil.**
- **A heliport consists of two landing pads and three loading pads.**

Affiliated Activities Mission and Capabilities (cont.)

- The depot railroad network consists of 68 miles of Government-owned trackage, primarily serving the ammunition area.
- The road network consists of 142 miles of concrete, asphalt, and gravel roads.
- There are a total of 950 buildings on the depot, including 437 igloos, 156 magazines, and 28 general supply warehouses; of these buildings, 97 percent are of permanent construction.

CAPABILITY, CAPACITY, AND UTILIZATION

The maximum capability during mobilization is 1,800 short tons per 24-hour day (600 short tons per 8-hour shift). The shipping and receiving capability with present onboard manpower is 329 short tons per 8-hour shift. This capability is possible if all current onboard direct labor personnel are dedicated to shipping/receiving in lieu of also performing other ammunition work (e.g., COSIS, renovation, and demilitarization). This is based on 60 onboard direct labor personnel at a factor of 1.46 man-hours per short ton.

In the ammunition surveillance area, the depot is the sole CONUS installation performing surveillance function testing. This workload amounts to 200 to 300 ammunition lots per year and is expected to remain consistent.

The new Function Test Range has enhanced testing capabilities and enabled the depot to more efficiently perform the Centralized Function Test Mission. The proposed Ammunition Surveillance Workshop will enable the depot to conduct ammunition inspections in a safe environment.

Affiliated Activities Mission and Capabilities (cont.)

SVADA Storage Facilities Summary

Total Acres:	**13,062**
Total Covered Space (Gross Square Feet)	**2,829,235**
• **Warehouse**	
- **Heated**	**-0-**
- **Unheated**	**953,200**
- **Controlled Humidity**	**-0-**
- **Flammable**	**4,000**
- **Chill**	**-0-**
• **Nonwarehouse**	
- **Shed**	**-0-**
- **Igloo**	**693,435**
- **Magazine**	**1,178,600**
- **Controlled Humidity (Igloo)**	**-0-**
Total Open Improved Space (Gross Square Feet)	**1,072,450**
Total Cubic Feet Available for Storage	**34,908,020**
Attainable Cubic Feet	**33,014,803**

Affiliated Activities Mission and Capabilities (cont.)

Installation Capability for Covered Ammunition Storage

Quantity Distance Class	Short Tons
1.1 thru 1.4	234,000

Affiliated Activities Mission and Capabilities (cont.)

Short Tons In Storage by Owner (Fourth Quarter Data)

	TOTAL	ARMY	USAF	N/MC	MICOM	GSA	OTHER
FY88	179.71	31.18	15.73	4.29	0.29	121.59	3.83
FY89	181.40	34.38	14.62	3.26	0.29	121.59	7.26
FY90	185.34	35.88	15.16	3.15	0.29	121.59	9.2
FY91	224.18	37.63	33.66	2.90	14.64	121.59	13.76
FY92	257.38	50.65	43.67	2.90	21.50	119.42	19.24
FY93	251.93	49.96	45.49	2.35	22.81	119.42	11.90
FY94	236.53	45.89	43.69	2.13	24.33	110.41	10.08

Storage Operations Utilization of All Covered Space Available (Fourth Quarter FY94)

	COVERED WAREHOUSE	IGLOO	MAGAZINE
Gross	953	693	1179
Struct/Aisle Loss	334	139	236
Net Available	619	554	943
Occupied	238	428	560
Percentage Occupied	43.2	77.3	59.4

Affiliated Activities Mission and Capabilities (cont.)

UNIQUE CAPABILITIES

SVADA is one of only two installations with a mission of supporting the APE program. New APE is fabricated, and used APE is repaired/rebuilt at SVADA. CNC industrial equipment is utilized. Also, SVADA has a responsible officer who is accountable to AMCCOM national inventory control point (NICP) for APE stored at SVADA.

Backup storage location for AODs.

Fielding location for the Chemical Agent Monitoring System.

FMS consolidation point for AMCCOM.

Possesses a U.S. Nuclear Regulatory Commission Source Materiels License for the storage, packaging, transportation, inspection, and demilitarization of depleted uranium ammunition.

Designated as the Center of Technical Excellence for the demilitarization of depleted uranium ammunition, 30 mm and smaller.

SVADA is the only CONUS installation where surveillance function testing is conducted.

Section 13
LAW ENFORCEMENT
AND
SECURITY

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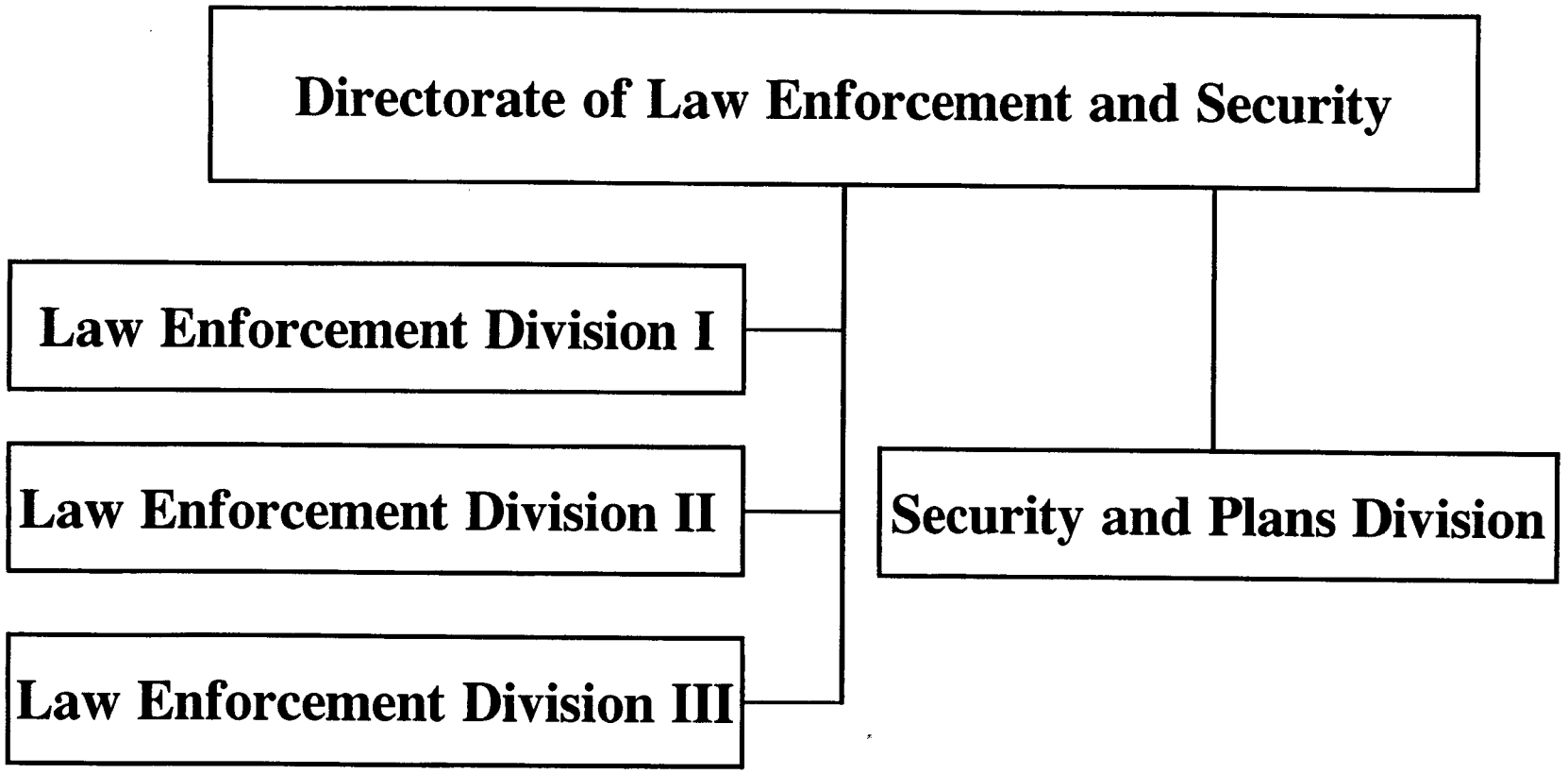
Directorate of Law Enforcement and Security

Directorate of Law Enforcement and Security



Directorate of Law Enforcement and Security (cont.)

Mission:

- Serves as the installation Provost Marshal
- Serves as the principle advisor to the Installation Commander
- Formulates, directs, and manages the execution of law enforcement, security, intelligence, and terrorist counter action programs
- Provides services to SVADA
- Develops programs, plans, and policies
- Maintains liaison with Federal, State, and local law enforcement
- Investigates cases of loss, theft, pilferage, or damage of properties, incidents of fraud, narcotics use, and vehicle accidents
- Serves as technical consultant to managers, directors, supervisors, and staff officers on all matters related to security and law enforcement programs and policies

Security and Plans Division

Security and Plans Division

Mission:

- Serves as the installation Security Manager
- Serves as the installation Information Systems Security Manager
- Provides advice on all intelligence and counterintelligence matters
- Plans, supervises, and coordinates military and domestic intelligence security of defense information
- Directs the depot Personnel Security Program
- Investigates cases of possible compromise of classified information
- Provides security screening and character investigations of employees
- Administers the Depot Lock and Key Program
- Manages the Intrusion Detection System and access control devices
- Develops the installation Crime Prevention Program
- Reviews and approves foreign visitor requests
- Develops security regulations, plans, and policies
- Administers the installation Physical Security Program
- Develops counterterrorism actions, programs, and policies
- Develops training briefings on OPSEC/SAEDA, Information, and Computer Security.
- Provides efficient customer oriented services
- Liaison with Central Clearance Facility on security clearances
- Conducts various security inspections
- Conducts terrorist briefings to all personnel (when required)
- Conducts physical security inspections of locations having STU III and Data Fax equipment used for processing classified information

Law Enforcement Division
I, II, III

Law Enforcement Division I, II, III

Mission:

- Enforces law and order
- Maintains depot parking plan
- Conducts traffic safety and parking surveys
- Enforces State and Federal game laws
- Protects Government property from theft, sabotage, trespass, and apprehends offenders
- Investigates vehicle accidents and traffic violations
- Investigates incidents of crime
- Provides security and protective services for depot property and personnel
- Provides escort services
- Operates and maintains Intrusion Detection System
- Provides transportaton security (Surety Program)

ACRONYMS

ACRONYMS

AAP	Advance Acquisition Planning
ACP	Asset Capitalization Program
ACPERS	Automated Civilian Personnel System
ADP	automated data processing
AFAS	Advanced Field Artillery System
AHIT	Advanced Howitzer Integration Technology
AMC	U.S. Army Materiel Command
AMCCOM	U.S. Army Armament, Munitions, and Chemical Command
AMCMEA	U.S. Army Materiel Command Management Engineering Activity
AMRAAM	Advanced Medium Range Air to Air Missile
AOD	Area Oriented Depots
APE	Ammunition peculiar equipment
APOE	Aerial Port of Embarkation
ASIMS	Army Standard Information Management Systems
ASRS	Automated Storage and Retrieval System
ATAAPS	Automated Time and Attendance Production System
BGAD	Bluegrass Army Depot
BII	basic issue items
BOA	Basic Ordering Agreements
BRAC	Base Realignment And Closure
CAD	Computer-aided design
CALS	Computer Aided Acquisition Logistics Support
CARC	Chemical agent resistant coating
CBD	Commerce Business Daily
CCP	Consolidated Containerization Point
CEE	Commercial Equipment Equivalent

ACRONYMS (cont.)

CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CMM	Coordinate Measuring Machine
CNC	Computer Numerical Controlled
CONUS	continental United States
COSIS	Care of Supplies in Storage
CPO	Civilian Personnel Office
CSDA	Central Systems Design Acitivity
CTX	Center of Technical Excellence
CWAR	continuous wave acquisition radar
DA	Department of the Army
DBOF	Defense Business Operation Fund
DDLP	Defense Distribution Depot Letterkenny
DEPMEDS	Deployable Medical Systems
DER	Department of Environmental Resources
DILS	Directorate of Integrated Logistics Support
DISO	Defense Information Service Organization
DIT-MCO	Difference in testing machine company
DLA	Defense Logistics Agency
DMC Chambersburg	Defense Megacenter Chambersburg
DMISA	Depot Maintenance Interservice Support Agreement
DMPE	Depot Maintenance Plant Equipment
DNC	Distributed Numerical Control
DOD	Department of Defense
DOP	Dioctylphthalate
DPCA	Directorate of Personnel and Community Activities
DRMO	Defense Reulitization and Marketing Office

ACRONYMS (cont.)

DTE	Dimensional Test Equipment
ECS	Engagement Control Station
EPA	Environmental Protection Agency
FAAR	Forward Area Alerting Radar
FACO	final assembly and checkout
FADAC	Field Artillery Digital Automated Computer
FEP	Facility Engineering Project
FME	field maintenance equipment
FMS	foreign military sales
FOIA	Freedom of Information Act
FORSCOM	U.S. Army Forces Command
GOCO	Government-owned, contractor-operated
GOGO	Government-owned, Government-operated
GSA	General Services Administration
GSE	ground support equipment
HAWK	Homing All the Way Killer
HELP	Howitzer Extended Life Program
HEMTT	Heavy Expanded Mobility Tactical Truck
HFC	high frequency consoles
HIP	Howitzer Improvement Program
HPI	High Power Illuminator
HQDESCOM	Headquarters, U.S. Army Depot System Command
ICC	Information and Coordination Central
IDP	individual development plan
IFMS	Integrated Flexible Manufacturing System
IFTE	Integrated Family Test Equipment
ISA	Interservice Support Agreement

ACRONYMS (cont.)

LARC-LX	Lighter Amphibian Resupply Craft
LEAD	Letterkenny Army Depot
LPSA	Logistics Program Support Activity
MATE	Missile Automated Test Equipment
MCA	Military Construction, Army
MDI	Manual Data Input
MEPSCAT	Military Entrance Physical Strength Capacity Test
MHE	materials handling equipment
MICOM	U.S. Army Missile Command
MSFS	Maintenance Shop Floor System
NAVAIR	Navy Air Systems Command
NBC	Nuclear Biological and Chemical
NRC	Nuclear Regulatory Commission
OCONUS	outside continental United States
PAR	pulse acquisition radar
PAT	Process Action Team
PATRIOT	Phased Array Tracking to Intercept of Target
QASAS	Quality Assurance Specialists Ammunition Surveillance
RASP	Rapid Acquisition of Spare Parts
RETS	Remoted Target System
RFQ	request for quotation
RIF	reduction-in-force
ROR	range only radar
SAACONS	Standard Army Automated Contracting System
SATO	Scheduled Airline Ticket Office
SDS	Standard Depot System
SICO	Systems Integrated Check Out

ACRONYMS (cont.)

SIMA	U.S. AMC Systems Integration and Management Activity
SPOE	Sea Port of Embarkation
SVADA	Savanna Army Depot Activity
TAQ	Total Army Quality
TMDE	test, measurement, and diagnostic equipment
TOW	
TOW -COBRA	Tube Launched Optically Tracked Wire Guided Missile
TPF	
TRADOC	U.S. Army Training and Doctrine Command
TQM	Total Quality Management
USAATSC	U.S. Army Area TMDE Support Center
USADACS	U.S. Army Defense Ammunition Center and School
USARTMO	U.S. Regional TMDE Management Office
USATHAMA	U.S. Army Toxic and Hazardous Materiel Agency

Combat Vehicle
Workload/Capacity Analysis
(Manhours in M)

	95	96	97	98	99
*LEAD potential capacity	1.474	1.474	1.474	1.474	1.474
*ANAD potential capacity	2.636	3.016	3.118	3.118	3.118
*TOTAL	4.110	4.490	4.592	4.592	4.592
Surge Workload	7.593	8.306	7.776	5.064	4.514
% Util	185%	185%	169%	110%	98%
*RRAD potential capacity	2.768	2.768	2.768	2.768	2.768
*ANAD potential capacity	2.636	3.016	3.118	3.118	3.118
*TOTAL	5.404	5.784	5.886	5.886	5.886
Surge Workload	7.593	8.306	7.776	5.064	4.514
% Util	141%	144%	132%	86%	77%

*Certified data from BRAC 95 Datacall

Letterkenny
Workload/Capacity Analysis
(Manhours in M)

	95	96	97	98	99
*LEAD Missile potential capacity	1.157	1.415	1.530	1.573	1.573
Missile Util %	66%	84%	81%	85%	95%
LEAD Combat potential capacity	1.474	1.474	1.474	1.474	1.474
Combat Util %	70%	82%	84%	44%	31%
Bradley Workload			(.529)	(.529)	(.529)
LEAD piece (75%)			.397	.397	.397
Contractor piece (25%)			.132	.132	.132
Combat Capacity Util % (with Bradley)			111%	71%	58%
M113 Workload				(.796)	(.796)
LEAD piece (75%)				.597	.597
Contractor piece (25%)				.199	.199
Combat Capacity Util % (with Bradley/M113)				112%	99%

*Certified data from BRAC 95 Datacall

Letterkenny
Workload Analysis
(Manhours in M)

	95	96	97	98	99
*LEAD combat workload	1.029	1.213	1.243	.650	.458
*LEAD missile workload	.758	1.195	1.234	1.334	1.502
*LEAD other workload	.089	.053			.001
*LEAD Total Workload	1.876	2.461	2.477	1.984	1.961
**% combat workload	55%	49%	50%	33%	23%
**% missile workload	45%	51%	50%	67%	77%

*Certified data from BRAC 95 Datacall

** This is the percent of missile and Combat Workload to the total workload at Letterkenny. HAS NOTHING TO DO WITH CAPACITY UTILIZATION.

Combat Vehicle
Workload/Capacity Analysis
(Manhours in M)

	95	96	97	98	99
*LEAD combat workload	1.029	1.213	1.243 No more	.650	.458
*RRAD combat workload	1.749	1.964	~~2.154~~ 2037	1.580 1374	1.493 1282
*ANAD combat workload	2.284	2.360	~~1.787~~ 2179	~~1.146~~ 1553	~~1.058~~ 1443
*TOTAL combat workload TRANS	5.062	5.537	5.184 5439 4216	3.376 3587	3.009 3384
SURGE (150% of the total peacetime workload)					
TOTAL Workload	7.593	8.306	7.776 8.4 million	5.064 man hours	4.514
*ANAD capacity	2.071	2.393	2.481	2.481	2.481
*ANAD potential capacity	2.636	3.016	~~3.118~~ 4042	~~3.118~~ 4042	~~3.118~~ 4042
ANAD *Peacetime Util % capacity	244%	231%	209% 104%	136% 88	121% 84
ANAD *Peacetime potential Util % capacity	192%	184%	166%	108%	97%
ANAD Surge potential capacity util %	288%	275%	249%	162%	145%

*Certified data from BRAC 95 Datacall

Analysis 95 COBRA

LETTERKENNY

Analysis 95 COBRA

LETTERKENNY

Chart 1 - "Analysis 95 COBRA"

Purpose of Briefing - To provide a preliminary analysis of COBRA data as it pertains to the costs and savings projected for LEAD, based on the 95 BRAC recommendations. This analysis assumes Letterkenny's (LEAD) total funded workload moves to Tobyhanna and Annston.

- The COBRA model is full of factors and subfactors which make the model tedious to review. Our approach was to verify or disavow data at the macro level. Does the cost or savings make sense, based on past studies, analysis etc. to include the FY93 BRAC analysis?

- The COBRA model only considered the scenario of realigning LEAD's Maintenance Mission. Other options (eg. TOAD's work coming to LEAD, ANAD's work coming to LEAD, etc.) apparently weren't considered. Although it was apparently determined early on that ANAD was the only depot who could work on tanks, both LEAD & RRAD have worked on tanks in the past. TOAD's work is on small commodities (eg radios). LEAD commodities are large. TOAD has over 800,000 sq. ft of covered bldgs, LEAD has over **1.2M sq. ft**. It may be cheaper to move to LEAD.

- The COBRA did not compare the scenario of realigning LEAD's work to the BRAC 93 recommendation of consolidating TAC Missiles and leaving Artillery in place.

- Army analysis also bases capability/capacity on direct labor hours (DLH's) not suitability of facilities or sq. ft available for work. For example, if depot "A" has the ability to work 2.0M DLH's on their commodities, and their current work load is only 1.0M DLH's, Army assumes that any commodity can be moved to depot "A" and be performed, even when the commodities are very different.

- This briefing is not intended to close one depot over another. Our purpose is to point out inconsistencies in the Army's analysis and the impact on the financial analysis performed via the COBRA. This briefing will contrast the Army's COBRA results with the more accurate COBRA results if a thorough analysis of all contributing factors had been considered.

- The difference between the 95 COBRA and LEAD's financial analysis are staggering. As we go through this briefing, it will be apparent that LEAD's analysis is conservative and not grandiose. There has been no attempt to overstate the flaws in the 95 COBRA.

Outline

- →Summary 95 Recommendation
- →Workload Comparisons
- →95 COBRA Costs/Savings
- →COBRA One-Time Costs
- →COBRA Recurring Costs
- →COBRA Steady State
- →Revised COBRA Cost/Savings
- →Conclusions

Chart 2 - "Outline"

- "Summary 95 Recommendations" The BRAC 95 recommendations concerning LEAD and Tenants will be reviewed for background purposes

- "Workload Comparisons" We will compare current workload thru FY99 for LEAD, TOAD, RRAD and ANAD, and compare TOAD and ANAD's capacity to accommodate what they're gaining. After all transfer of work, we will examine the proposed manpower savings in COBRA, from realigning LEAD.

- "Summary 95 COBRA" - The costs and savings projected by COBRA for realigning LEAD will be reviewed.

- "COBRA One-Time Costs" - The one-time costs associated with moving LEAD's workload to TOAD and ANAD will be reviewed.

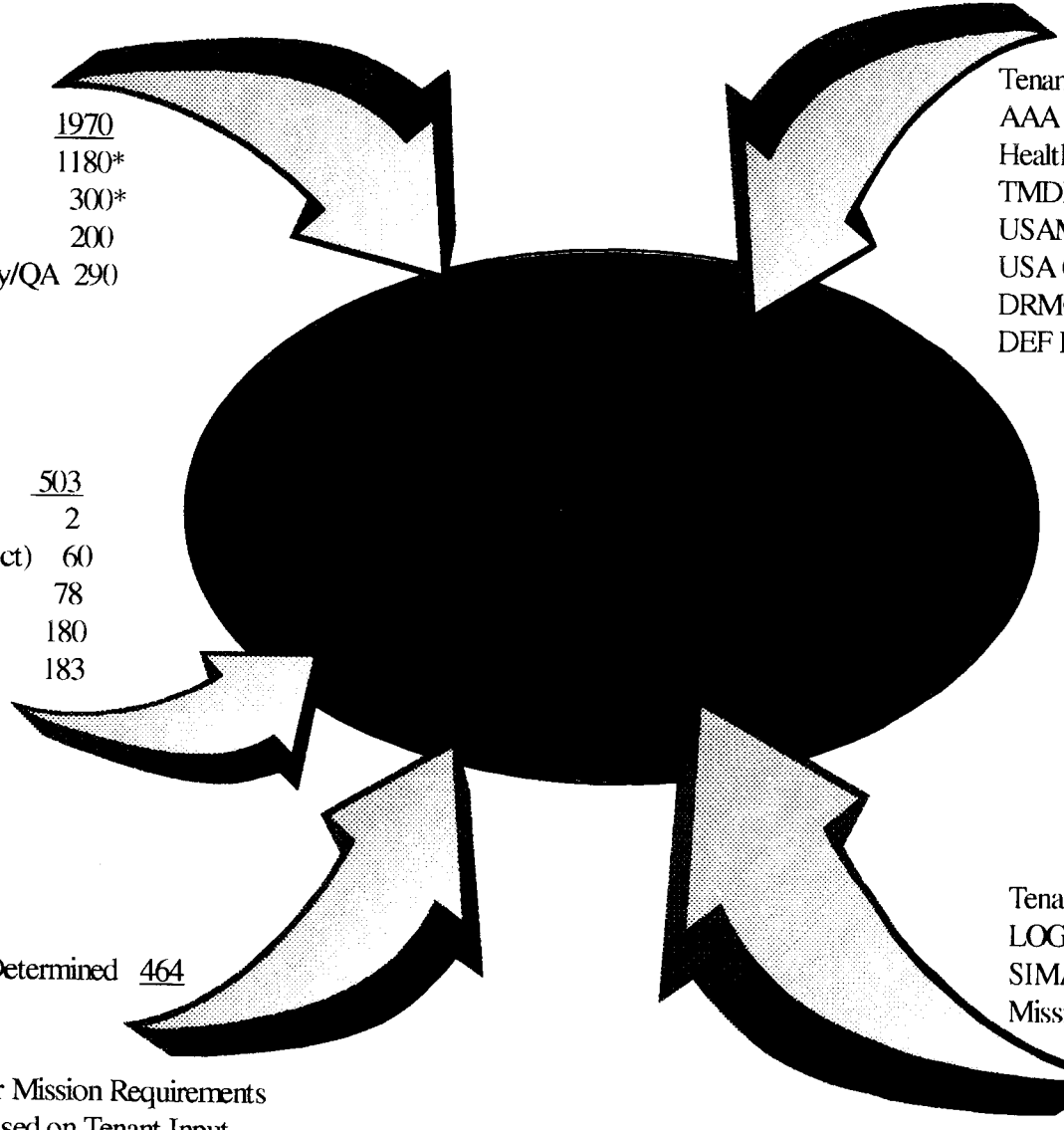
- "COBRA Recurring Costs" - Recurring costs at TOAD and ANAD will be examined. Recurring costs are those costs, such as BASOPS and transportation, which will increase at the gaining installations.

- "COBRA Steady State" - The 95 COBRA steady state savings vs. LEAD's will be summarized.

- "Revised COBRA Cost/Savings" - This chart contrasts 95 COBRA total savings to LEAD's analysis.

- "Conclusions" - We will conclude the briefing with the results of our analysis.

BRAC 95 Recommendations
Civilian & Military Work Years



LEAD	1970
Eliminate	1180*
Trns to TOAD	300*
AMMO	200
BASOPS/Security/QA	290

Tenants Eliminated	107
AAA	16**
Health Clinic	14**
TMDE SPT GP1	12**
USAMEA	21**
USA CECOM	1
DRMO	37
DEF Print SVC	6

Tenant moves	503
Corps of ENGR	2
USA TMDE (District)	60
DFAS	78
MEGA Center	180
Central PA PWC	183

Tenants Remain	453
LOGSA	142***
SIMA	310***
Missile Command	1

DLA to be Determined 464

Foot note:

* Will Move for Mission Requirements

** Will Move Based on Tenant Input

*** AMCSO Memo, 21 Mar 95, Subject: BRAC 95 Implementation Planning Guidance - Discretionary Moves

Chart 2 - "Outline"

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- "Conclusions" - We will conclude the briefing with the results of our analysis.

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- "Revised COBRA Cost/Savings" - This chart contrasts 95 COBRA total savings to LEAD's analysis.
- "Conclusions" - We will conclude the briefing with the results of our analysis.

Chart 3 - "95 BRAC Recommendations - Civilian & Military Man Years".

- The man years shown outside the circle are the net result of the BRAC 95 recommendations. Totals are shown under the heading "COBRA."

- The foot notes detail what will happen.

  * LEAD employees will not be eliminated (based on chart 6). LEAD employees are required to do the work at TOAD & ANAD.

  ** Tenants have stated they will not be eliminated, but move somewhere else.

  *** LOGSA, DLA, & SIMA have been told they will move. *NOTE:* The tenants will provide a briefing to the BRAC staff.

- The "ACTUAL" column shows the best estimate of what will happen.

- Eliminations generate savings; moves drive one-time cost.

Workload Comparisons

5 Year Trend - Pre BRAC

Work Years	FY95	FY96	FY97	FY98	FY99	Change 95-99
TOAD	1929	2227	2456	2305	2311	382
RRAD	1269	1216	1334	978	924	-345
ANAD	1692	1843	1471	1124	1092	-600
LEAD	1161	1524	1534	1228	1215	54

(Source: BRAC Data Call #6)

New Order Base (Only)	FY95	FY96	FY97	FY98	FY99
LEAD	1161	1524	1534	1228	1215
Artillery/Paladin	692	784	770	402	284
TACMSL/Partriot	469	740	764	826	931

Chart 3 - "95 BRAC Recommendations - Civilian & Military Man Years".

- The man years shown outside the circle are the net result of the BRAC 95 recommendations. Totals are shown under the heading "COBRA."

- The foot notes detail what will happen.

  * LEAD employees will not be eliminated (based on chart 6). LEAD employees are required to do the work at TOAD & ANAD.

  ** Tenants have stated they will not be eliminated, but move somewhere else.

  *** LOGSA, DLA, & SIMA have been told they will move. *NOTE:* The tenants will provide a briefing to the BRAC staff.

- The "ACTUAL" column shows the best estimate of what will happen.

- Eliminations generate savings; moves drive one-time cost.

Chart 4 -" WORKLOAD COMPARISON 5 YEAR TREND"

- The chart looks at the 5-year trend in workload for the four depots, Comparing FY95 to FY99 you can see
  - TOADs workload increases by 382 work years
  - RRADs workload decreases by 345 work years
  - ANADs workload decreases by 600 work years
  - LEADs workload increases by 54 work years(Sources; FY95 work years are from the FY95 pricing exercise. FY96 to FY99 from BRAC data call #6, para 3.1.b, programmed workload).

- From FY 97 onward, LEAD has the second highest workload totals. Missile work is expected to increase.

- LEAD's workload surge in FY96 and FY97 is a result of the PALADIN Partnership. PALADIN options, FMS sales and new ventures, the partnership will add additional work in the out years.

- **Additional Partnership Possibilities**
  - HUGH's MISSILE SYSTEMS, team to establish a European missile Depot.
  - VSE, Inc., team to produce Improved Common Bridle Transporter (ICBT), modified HEMTT.
  - AAI, Engineering Supporting, joint venture on medical equipment rebuild.
  - Additional Howitzer/Artillery workload with United Defense (Paladin).

- Bottom chart details LEAD's workload projections by commodity.
  - Artillery moves to ANAD
  - TACMSL & Patriot moves to TOAD

Workload Comparisons Capacity
FY 99 Work Year

	Losing Installations		Gaining Installations			
1. 95 BRAC Recommendation	LEAD Work Years	RRAD Work Years	TOAD Work Years	% of Capacity	ANAD Work Years	% of Capacity
Current FY99 Work years	1215	924	2311	(81%)	1092	(55%)
LEADs FY99 Work years	-1215		+931	(+32%)	+284	(+14%)
RRADs FY99 Work years		-924			+924	(+47%)
BRAC 95 Recommendations	0	0	3242	(+113%)	2300	(+116%)
2. 95 Capacity vs 99 Work Years						
BRAC 95 Recommendations	0	0	3242		2300	
FY95 Capacity (100%)			2869		1982	
Work Years Over Capacity			+373		+318	
% Over Capacity			13%		16%	
% Over 85% Capacity			33%		36%	
MCA Costs in COBRA			**$0**		**$0**	

Chart 5 -"FY99 WORK YEAR COMPARISONS"

1. **FY95 BRAC Recommendation**

- CURRENT FY99 WORK YEARS - This line depicts the projected workload for each depot in FY99. (Source: BRAC DATA call #6)
- LEAD s FY99 WORK YEARS - This line redistributes LEAD's current work projections to TOAD and ANAD IAW the BRAC95 recommendation.
- RRADs FY99 WORK YEARS - This line redistributes RRAD's maintenance work to ANAD.
- BRAC 95 RECOMMENDATION - This line shows the total projected workload from the BRAC95 recommendation. Based on these projections TOAD exceeds their FY95 capacity by 13%, and ANAD 16%.

2. **95 CAPACITY vs. 99 WORK YEARS**

- BRAC 95 RECOMMENDATIONS - Total workload from BRAC95 Recommendations.
- FY95 CAPACITY (100%) - This line shows TOADs / ANADs capacity at the FY95 level. (Source: Table 60, Depots Decisions PAD Model (table of 2).)
- MAN-YEARS OVER CAPACITY - This lines shows the man-years TOAD / ANAD need over their present capacity level.
- % OVER CAPACITY - Based on current capacity levels TOAD exceeds 100% by 13 % and ANAD 16 %. This is important to remember when we look at **"ONE-TIME COSTS "** associated with moving LEAD's workload. Over capacity suggests that both TOAD / ANAD will require construction or building modification. The COBRA Model does not include any associated costs.
- % over 85% capacity - based on work loading at 85% capacity, TOAD is 33% over and ANAD is 36% over.
- BRAC MCA Costs - zero costs were added in COBRA for MILCON.

Requirements vs Savings Work Years

	TOAD	ANAD	TOTAL
FY96 Projected Strength	1718	1659	3377
FY99 Projected Work Years	3242	2300	5542
Increase in Work Years	+1524	+641	+2165
Additional MSN OH (min) To support Dir Labor Increase (18%)	+274	+115	+389
Total Requirement	+1798	+756	+2554
Transfers LEAD/RRAD	-300	-375	-675
Unfunded Requirement	+1498	+381	+1879
Projected LEAD COBRA Savings			+1180

NO SAVINGS

Army's Orginal COBRA Projected Personnel Steady Savings of $59.6M Does Not Exist

NOTE: No Consideration Was Given To The Integration of Assets.

Chart 6 - "REQUIREMENTS vs. SAVINGS WORK YEARS"

- FY96 Projected Strength - from FY96 pricing exercise (latest available data on work years) shows the expected number of direct workers on hand in FY96.

- FY99 Projected Work Years - are the total work years at TOAD and ANAD based on the BRAC95 distribution of LEAD & RRAD's FY99 work load.(See chart 5)

- Increase in Work Years - TOAD 1,524, and ANAD 641.

- Additional Mission Over Head - as direct work increases, mission over head also increases, especially when the commodity mix is different which is the case here. Additional production controllers, supervisors, clerical, test & production equipment maintenance, parts expediters, engineers, etc. We based the increase on 18% of the increase in direct workers.

- Total Requirement - TOAD 1798, ANAD 756

- Transfers LEAD/RRAD - the 95 BRAC transferred 300 LEAD and 375 RRAD positions. We subtracted these from total requirement.

- Unfunded Requirement - total unfunded requirement is 1879 work years (1498 TOAD & 381 ANAD). Meanwhile COBRA eliminating 1180 work years from LEAD and transferred 300 to TOAD. There is a requirement to move all LEAD workers. LEAD's people weren't moved nor were any new hires added at the gaining installations.

- Bottom Line - the 95 COBRA projected personnel savings of $59.6M **DOES NOT EXIST**.

- Additional Comments
  - Work year consideration was not given to the integration of the assets at LEAD. LEAD's analysis made no adjustment for this either.
  - **There are more than enough work years for three depots. LEAD's missions transferred but apparently neither the work load nor manpower transferred with it.**

Sources: FY96 pricing exercise
work load - BRAC data call #6
COBRA analysis

95 COBRA
Original Cost and Savings

1. One - Time Costs (5 Years 96-01)

	$M
Personnel/Other	45.30
*Construction	00.00
*LEAD Equip	5.00
*TAC Missile	00.00
	50.30

2. Recurring Costs (5 Years 96-01)

BOS TOAD	1.20
*BOS ANAD	0.00
BOS BASE X	3.60
MIL HSE Allow	.30
*Transportation/Integration	0.00
	5.10

3. Total Cost 5 Years 55.40

4. One - Time Savings (5 Years 96-01)

	$M
Military Moving	.020

5. Recurring Savings (5 Year 96-01)

Personnel	196.70
BOS/RPMA	65.20
	261.90

6. 5 Year Net Savings

One - Time Costs	+50.30
Recurring Costs	+5.10
One - Time Savings	-.02
Recurring Savings	-261.90
	-206.50 Savings

Chart 7 "95 COBRA Cost and Savings"

- Total 5 Year - 96 - 01

- This chart shows the summary COBRA numbers concerning LEAD and tenants as were shown on chart 3, "BRAC 95 Recommendations." Asterisks are items ignored by the analysis, and will be accounted for in LEAD's revised analysis.

- One Time Costs - costs to move LEAD's work load to TOAD/ANAD. The $5.0M contained in the COBRA95 is for equip move to ANAD. What costs are missing? Move Patriot/Hawk/etc equipment to TOAD, construction (MILCON) at both installations, all tenant moves, TAC Missile consolidation at TOAD.

- Recurring Costs - additional costs incurred by the gaining installation. BOS = Base Operations Support, no increase to BOS at ANAD. No transportation costs were included. LEAD's assets will be shipped between LEAD - TOAD - ANAD to have all work done. Asset integration was not considered.

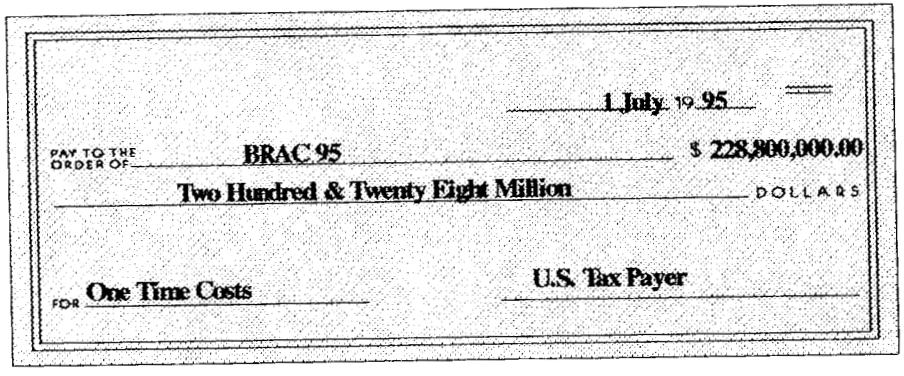
- One Time Savings - includes a cost avoidance for a one - time military move. There were no military reductions through BRAC95. This savings should be zero.

- Recurring Savings - projected savings from realigning LEAD. Personnel savings are driven by the number of jobs eliminated. We have already shown that no jobs will be eliminated, if any thing LEAD's analysis indicates that both TOAD & ANAD will be required to obtain additional resources when LEAD's workload transfers. We will also examine BOS/RPM.

- 5 Year Net Savings - the net of savings less costs. COBRA shows savings of $206.5M over 5 years (96-01). Chart 12 will compare the 95 COBRA savings to the LEAD's analysis.

One - Time Costs

DOD's BRAC 95
Recommendation
TOTAL One Time Cost COBRA $50.3M



LEAD Analysis

• Construction (TOAD/ANAD)	$+31.5
• Equipment/Trng (TOAD)	$+15.5
• Missile Consolidation	$+42.0
• LEAD &Tenant Moves	$+139.8
Actual One-Time Costs	$228.8M

Chart 8 " One - Time Costs"

The 95 COBRA estimated one - time costs at $50.3M. The 93 COBRA estimated $119M, to include $28.9M in MILCON for TOAD & ANAD to accept LEAD's work, before TAC Missile consolidation.

- The 95 COBRA did not include the following
  - Construction Costs (MILCON) - the 93 COBRA included the following

TOAD		ANAD	
Support Mnt Facility		Gen Mnt Facility	
Missile Mnt Facility	} $8.4M	Artillery Recoil Facility	
RADAR Mnt Facility		Artillery Engines Mnt Facility	} $18.8M
		Artillery End Item Facility	
		Missile Carrier Facility	

Additional Requirements TOAD

Radar Test Site	$1.7M
Modulation Test Facility	$0.0M
Antenna Test Facility	$0.0M
Radiographic Facility	$0.0M

- Total 93 COBRA was $28.9 X 1.10 (5% a year) = $31.8M
- A conservative $31.5M was added to the 95 COBRA.
- A letter has been issued from AMC to each depot to calculate the MILCON required to carry out the 95 BRAC.

Note
$5M to ANAD
$5.635M to TOAD
$4.83M Trng TOAD
$15.465M

- Equipment transfer costs - the 95 COBRA included $5M to transfer Artillery equipment from LEAD to ANAD. No costs were included to move equipment to TOAD or to cover tenant equip moves.
  TOAD - based on the BRAC93 recommendations, LEAD and TOAD estimated $4.9M to move Patriot/Hawk equipment and a training requirement of $4.2M. Trng $4.2M X 1.15 = $4.83M. TOAD equipment $4.9M X 1.15 = $5.63M
  Additional - $15.465M was added to the COBRA.
- TAC Missile Consolidation - the BRAC95 recommendation is to have missile consolidation at TOAD. No cost estimates were included for this change from the 93 recommendations. The estimated cost at LEAD was $42M, this amount was added to the 95COBRA to cover the consolidation. (Note: LEAD has already completed over 85% of required renovations). LEAD requires no additional MOD's.
  LEAD & Tenant Moves - based on the adjusted numbers of eliminations and moves the COBRA was rerun. Costs for moving tenant equipment were also included.
- The revised one - time costs are estimated to be $228.8M(this is a conservative number) until all MILCON is detailed.

COBRA Recurring Costs
Steady State

COBRA ADDED BASOP Costs to TOAD/BASEX $1.3M

Actual BASOP Costs (TOAD/ANAD) $2.2M

DOES NOT CONSIDER:

ADDITIONAL Transportation/Testing Costs $000,000

Integration/Storage _____

Actual Recurring Costs $000,000

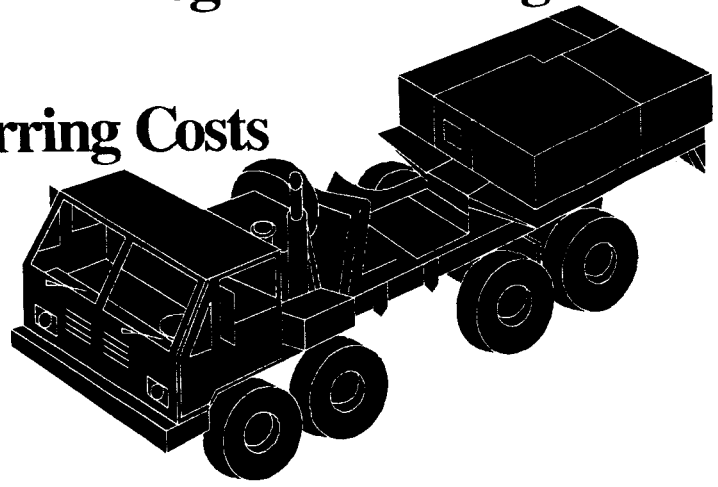


Chart 9 " COBRA Recurring Costs"

- Steady State - after transfer of all work
- The 95 COBRA analysis added only $1,296,000 steady state, in base operation costs to cover both TOAD and ANAD.
- The annual recurring cost at TOAD & ANAD increases to $2.2M, from revising BOS data to FY94 actual.
- The COBRA model ignored a big recurring cost. The associated transportation & personnel costs with assets being disassembled at one place, parts shipped for maintenance or storage at another, and being returned for integration. Based on analysis of each system, the yearly increase is $000,000. LEAD does not know the total impact so nothing was added to the revised COBRA.
- The Program Managers will end up paying more money for assets, than under the current plan to consolidate at LEAD.

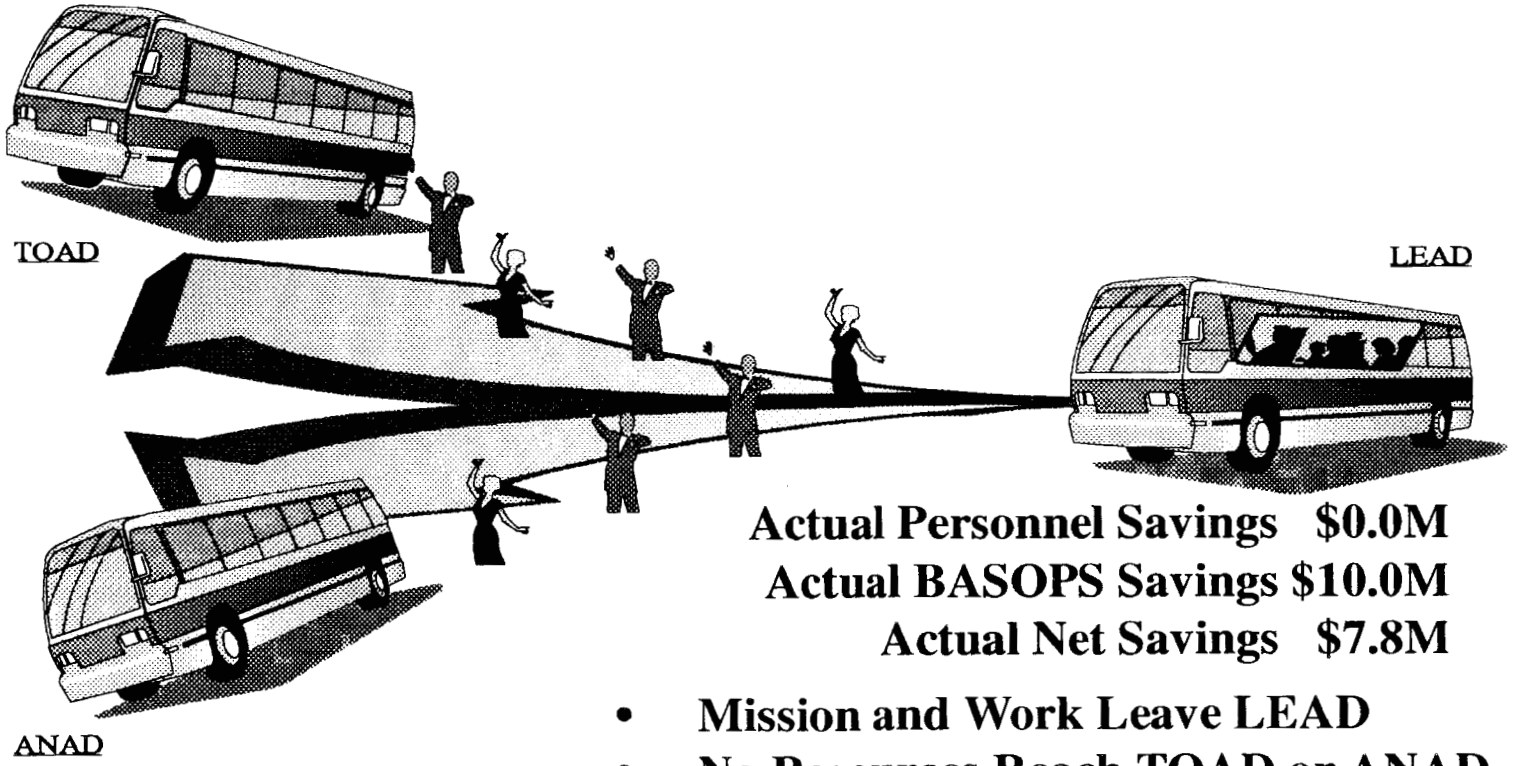
Summary COBRA Analysis

Steady State

COBRA Savings
$79M

Personnel Savings
$59.6M

BASOPS/RPMA
$19.4M



Actual Personnel Savings $0.0M
Actual BASOPS Savings $10.0M
Actual Net Savings $7.8M

- **Mission and Work Leave LEAD**
- **No Resources Reach TOAD or ANAD**
- **COBRA Claimed Savings**

DO NOT EXIST

Chart 10 "Summary COBRA Analysis"

- Steady State - after all work transfers
- Mission leaves LEAD, resources (personnel & BASOPS) don't show up at TOAD/ANAD.
- Total COBRA Savings (Steady State)-Shows $79M per year in personnel eliminations and savings in BOS/RPMA. The fallacy in the COBRA is that it moves LEAD's workload / missions without resources to do the work.
- Personnel Savings - the personnel savings of $59.6M **does not exist**. The same resources will be required. Especially at TOAD where there is no opportunity to eliminate duplicate equipment or better utilize people. LEAD's mission is different from what is currently being done at either installation.
- BASOPS - the only possible savings from realigning LEAD is the **$10.0M** in savings from reducing base support functions net savings are only $7.8M. Further reductions are not possible since AMMO, integration, disassembly and storage remain.
- The COBRA model loaded a base operations support (BOS) and RPMA cost of $55.9M for LEAD. This figure includes costs to support Savanna Army Depot Activity and all tenants. These should not have been included. The actual costs for LEAD should have been $37.8M, actual FY94. TOAD & ANAD were also adjusted to 94 actual.
- Steady State savings are only $7.8M when you subtract added BASOPS at TOAD/ANAD.

95 COBRA savings	$79.0M	
actual saving	$7.8M	
Overstated by		$71.2M per year

Summary COBRA Analysis

One - Time Costs (Move LEAD's Work)

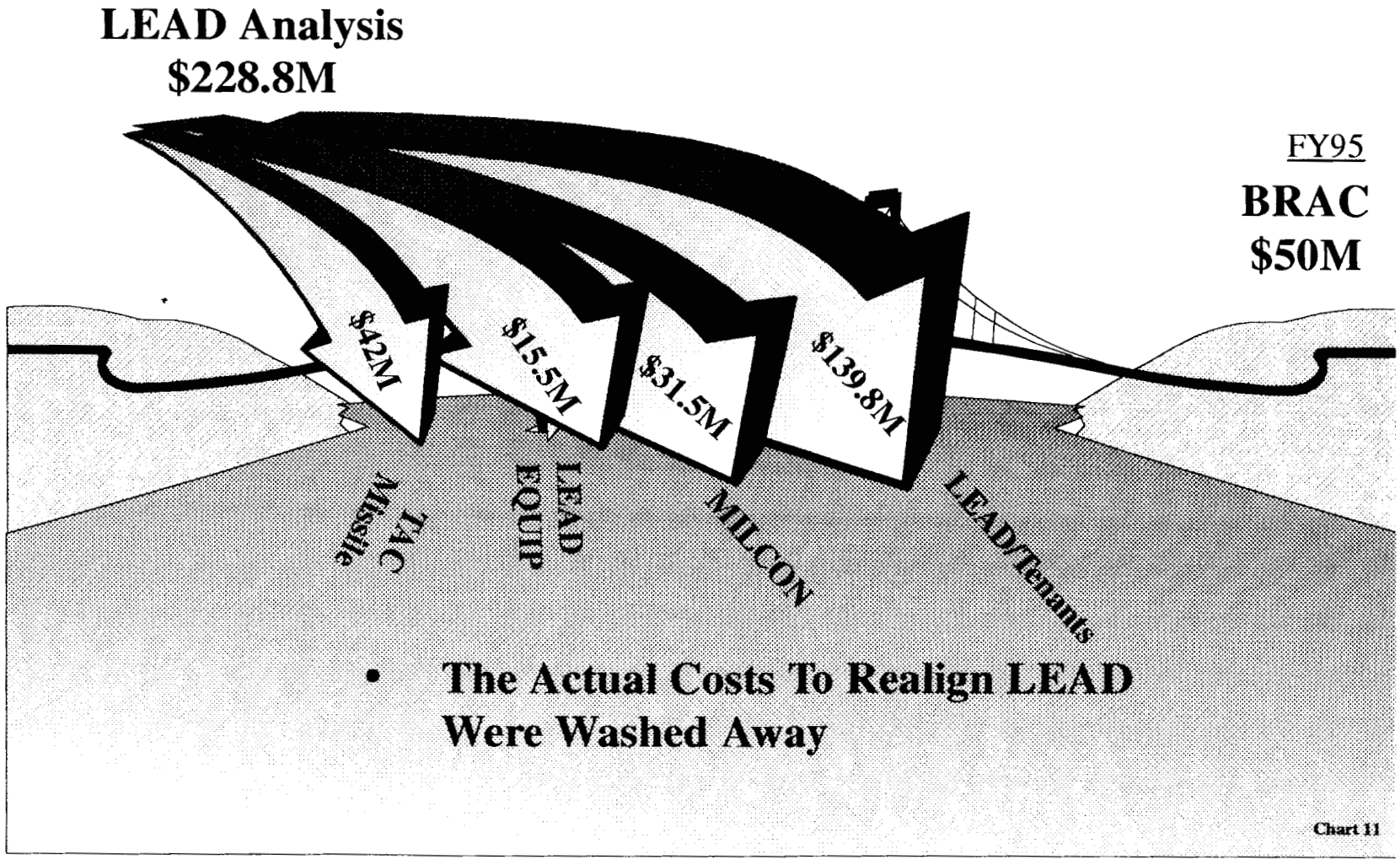


Chart 11 "Summary COBRA Analysis"

- One-time transfer costs are very significantly underestimated.

- The COBRA ignored costs to move all tenants and LEAD's work force to do the mission at TOAD & ANAD.
  - COBRA ignored Missile Consolidation costs at TOAD
  - COBRA ignored EQ transfer costs to TOAD
  - COBRA ignored construction/modification costs required at TOAD/ANAD - ** in March 1995 the IOC sent a memo to each depot asking for an estimate of construction required to carry out BRAC 95.
  - COBRA understated costs to move LEAD & tenants
  - *TOAD may have Congressional Funding for a $35M Project that is in the 30% design phase. These funds cannot be ignored of they relate to LEAD missions moving to TOAD.

- The COBRA Analysis does not accurately reflect the true picture.

95 COBRA one - time costs	$50.3M
actual one - time costs	$228.8M
understated by	$178.5M

This analysis is conservative, the following was not included:
- Loss of Productivity/Learning Curve
- Transportation Costs between LEAD, TOAD, & ANAD
- Integration costs at LEAD
- Any environmental clean-up
- Extra moving costs for DLA (used $44.9M estimated at $99M)
- Any MILCON assoceated with tenant moves

Revised 95 COBRA
Actual Cost and Savings

1. One - Time Costs (5 Years 96-01)

	$M
Personnel/Other	139.80
*Construction	31.50
*LEAD Equipment	15.50
*TAC Missile	42.00
	228.80

2. Recurring Costs (5 Years 96-01)

BOS TOAD	1.80
BOS ANAD	1.00
BOS BASE X	0.00
*Trans/Integration	0.00
	2.80

3. Total Cost 5 Years 231.60

4. One - Time Savings (5 Years 96-01)

	$M
Military Moving	.02

5. Recurring Savings (5 Year 96-01)

Personnel	0.00
BOS/RPMA	0.42

6. 5 Year Net Savings

One - Time Costs	+228.80
Recurring Costs	+2.80
One - Time Savings	-.02
Recurring Savings	-0.41
Net Cost	**+231.20M**

Chart 12 "Revised 95 COBRA LEAD"

- 5 Years - 96 - 01

- This chart replicates chart 7, Summary 95 COBRA. but has been revised to show a more realistic cost. This is a conservative estimate until all MILCON, transportation costs, etc. are defined.

- <u>One - Time Costs</u> - MILCON, tenants move, equipment moves, TAC Missile consolidation at TOAD and revised estimate for LEAD was developed. The total MILCON bill is not known.

- <u>Recurring Costs</u> - BOS costs were adjusted based on the actual FY94 costs. The additional transportation and integration costs were not included because an estimate hasn't been developed. For one asset, it appears that up to $5,000.00 could be added.

- <u>Recurring Savings</u> - there are no personnel savings from realigning LEAD. BOS/RPMA savings were adjusted based on the adjusted costs for LEAD.

- <u>Comparison of 5 Year Net Savings</u>

	<u>COBRA</u>	<u>ADJUSTED COBRA</u>
One - Time Costs	+$50.0M	+228.8M
Costs	+$5.0M	+2.8M
One - Time Savings	-$.02M	-.02M
Recurring Savings	<u>-$261.9M</u>	<u>+.41M</u>
	-$206.9M savings	**+$231.2M COST**

- There are no 5 Year Savings
- MILCON will require a minimum of 4 to 5 years.
- ANAD will require time to take RRAD's work load
- TAC Missile at LEAD is immediate savings

COBRA vs Actual Impact

	COBRA	vs	ACTUAL COST
5YR Net Savings/Cost	-$206.6M		+$231.2M
20YR Net Present Value	-$952.2M		+$138.6M
Steady State Savings	-$77.8M		-$7.3M

Breakeven Year Is ????

COBRA gave up at 2095

- Savings

+ Costs

Chart 13 "COBRA vs. ACTUAL IMPACT"

- 5 YR. NET - (1996-2001) COBRA projected a savings to DOD of $206.6M over the 1st 5 years. Based on the construction requirement, we estimate no moves will happen until 2001. MCA requires a 5 year period from start to completion of the facility. The actual impact is that by the end of 2001, BRAC 95 will cost DOD $231.2M.

- 20 YEAR NPV - Over a twenty year period COBRA shows a saving of $952.2M. The actual impact is no savings. The actual NPV at the end of twenty years will be a cost of $138.6M.

- STEADY STATE SAVINGS- COBRA estimated net steady state savings of $77.8M from personnel and base support reductions to do realigning LEAD. The actual savings are $7.3M in base support.

- **BREAK-EVEN YEAR** - over 100 years

Conclusions

Actual Steady State Savings (Net)	**$7.3M**
Missile Consolidation Savings (Yearly)	**$32.0M**
Savings From PALADIN Partnership (5 Years)	**$61.0M**
Savings One-Stop Shop	**$00.0M**

- **No Savings from BRAC 95**
- **Advantages of BRAC 93**
  - Achieves Actual DOD Consolidation
  - Achieves Greater DOD Savings
  - Savings Realized in Few Years vs 100+ Years
  - No Additional MILCON Required
  - Tenants Stay in Place, No Cost To Move
  - Saves Artillery War Time Capability
  - Partnership Can Continue To Grow

Chart 14 "Conclusions"

- COBRA omissions were detailed in this briefing, one fallacy was the omission of running various scenarios of bringing work to LEAD, in particular continuing with the 93 BRAC recommendations to:
  - Consolidate TAC Missiles
  - Retain Artillery

- No consideration was given to further development of Partnershipping and possible future savings being realized from joint ventures like PALADIN.

- THE ONE-STOP SHOP for Missiles was not considered.

- These charts show a comparison of potential savings from these various scenario and offers some advantages over the 95 BRAC recommendation

- LEAD can support:
  - Artillery MSL Maint
  - Tanks Patriot/Hawk
  - Electronics Ground Mat Support Equip
  - Radar

Previous charts show many errors and omissions within the COBRA model.

SCHEDULE

0800-0830	COMMUNITY REPRESENTATIVES	
0830-0930	WORKING BREAKFAST	
	LEAD OVERVIEW	COL FAIRALL
	DDLP OVERVIEW	LTC CARLOW
0930-1020	TOUR MISSILE ELECTRONICS BLDG (MR GOODMAN)	
1020- 1110	TOUR VEHICLE SHOPS DIVISION (MR SHIVELY)	
1110-1145	TOUR UNITED DEFENSE (MR SCOTT)	
1145-1200	PRESS AVAILABILITY	

OUTLINE

DEPOT MANAGEMENT

LETTERKENNY ARMY DEPOT

WHAT DO WE DO?

HOW ARE WE DOING

SUMMARY

LETTERKENNY army DEPOT

LARGEST EMPLOYER IN FRANKLIN COUNTY

FACILITIES

-19430 ACRES
-54 MILES RAILROAD
-1863 BUILDINGS
- 1.3M SQ FT INDUSTRIAL
- .8M SQ FT ADMIN
-902 AMMO IGLOOS
- 3M SQ FT STORAGE

ENVIRONMENTAL

- 2 SUPERFUND SITES
- $43.2M SPENT THRU FY94
- EST $500M THRU COMPLETION

$25M IN INFRASTRUCTURE MAINTENANCE IN LAST SEVEN YEARS

RECENTLY DESIGNATED A NATIONAL PERFORMANCE REVIEW LABORATORY

MISSIONS

AMMUNITION

- RECEIPT/STORE/ISSUE
- DEMIL

MAINTENANCE

- DOD TAC MSL
- ARTILLERY

BASEOPS

- FULL SERVICE TO MISSION AND TENANTS

FA[illegible]IN

[illegible]98

LETTERKENNY ARMY DEPOT

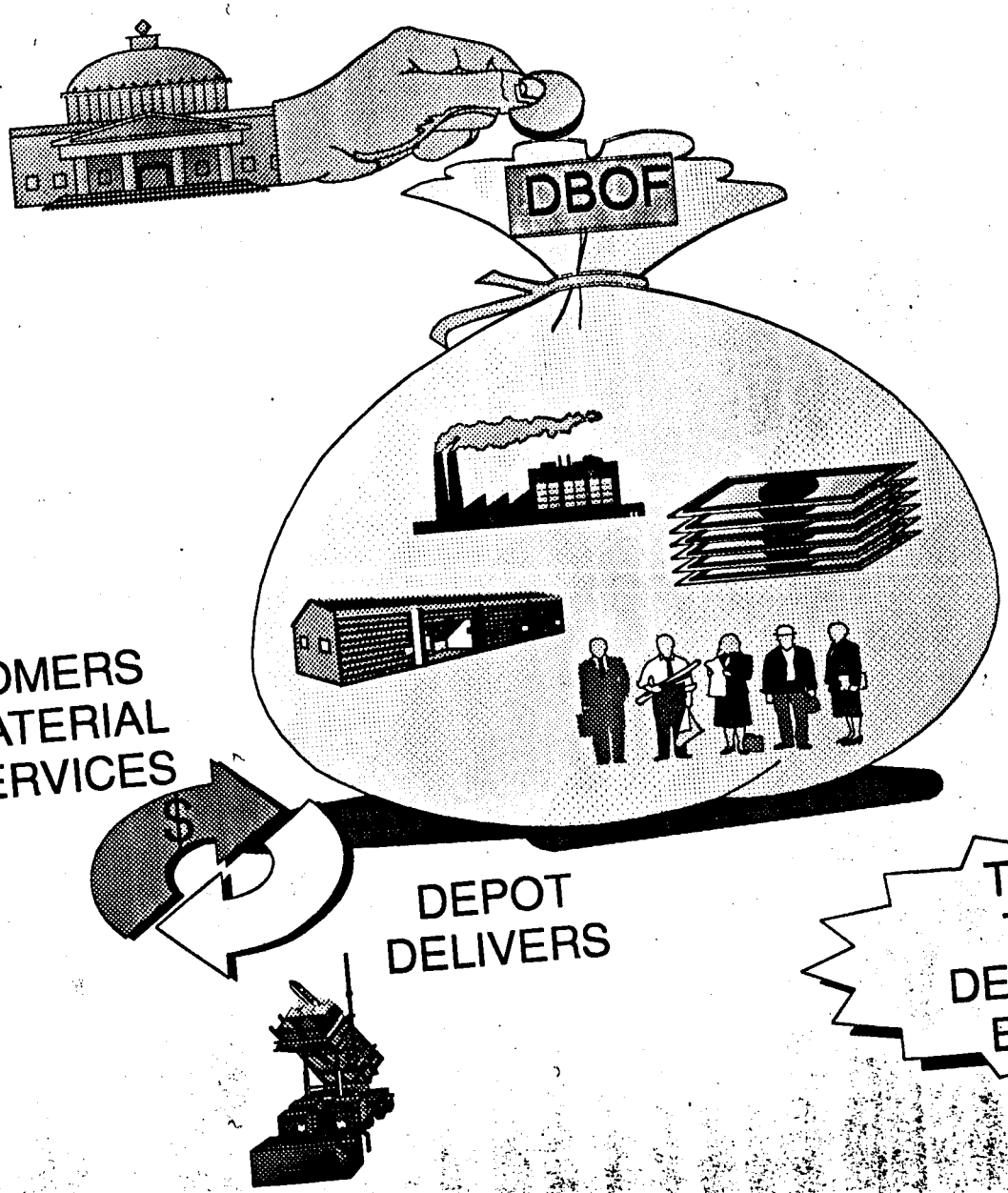
DEPOT

- MAINTENANCE - 1333
- AMMUNITION - 166
- BASOPS - 636
- TOTAL - 2135

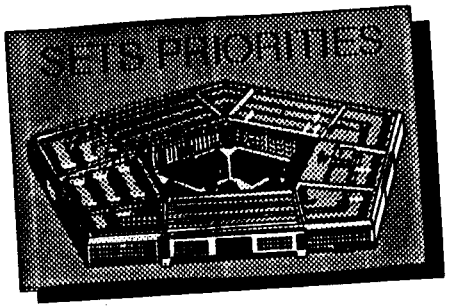
TENANTS

- HQ U.S. ARMY DEPOT SYSTEM COMMAND - 335
- SYSTEMS INTEGRATION & MANAGE MENT ACTIVITY - 198
- U.S. ARMY LOGISTICS SUPPORT ACTIVITY - 129
- U.S. ARMY TMDE - 55
- DEFENSE LOGISTICS AGENCY - 450
- DEFENSE MEGA CENTER - 149
- DEFENSE FINANCE & ACCOUNTING SERVICE - 72
- OTHERS - 95
- TOTAL - 1483

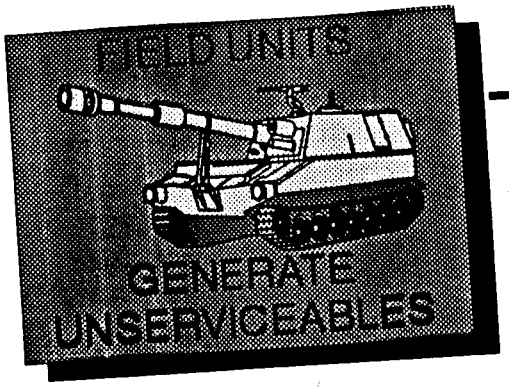
DEFENSE BUSINESS OPERATING FUND

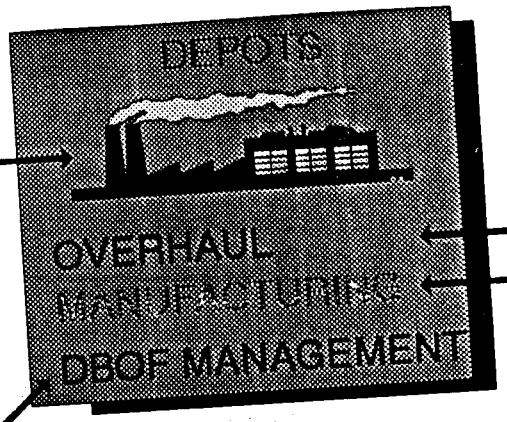


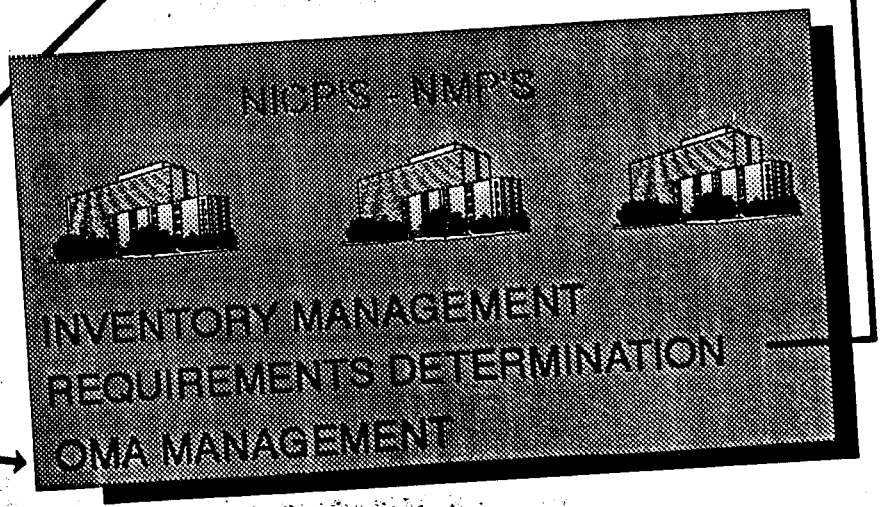
DEPOT WORKLOADING



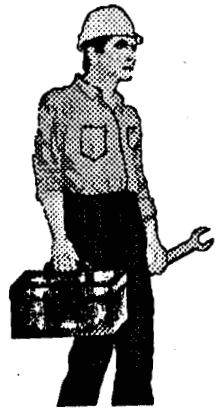
ACQUISITION COMMUNITY



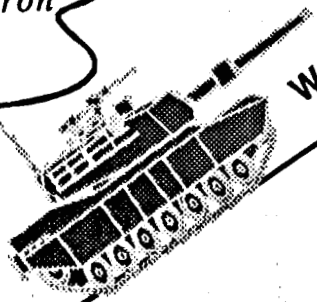




CAPABILITY vs WORKLOAD



Point of Stability -
Best Bang for the Buck!
Lowest Cost - More Iron
Out the Door



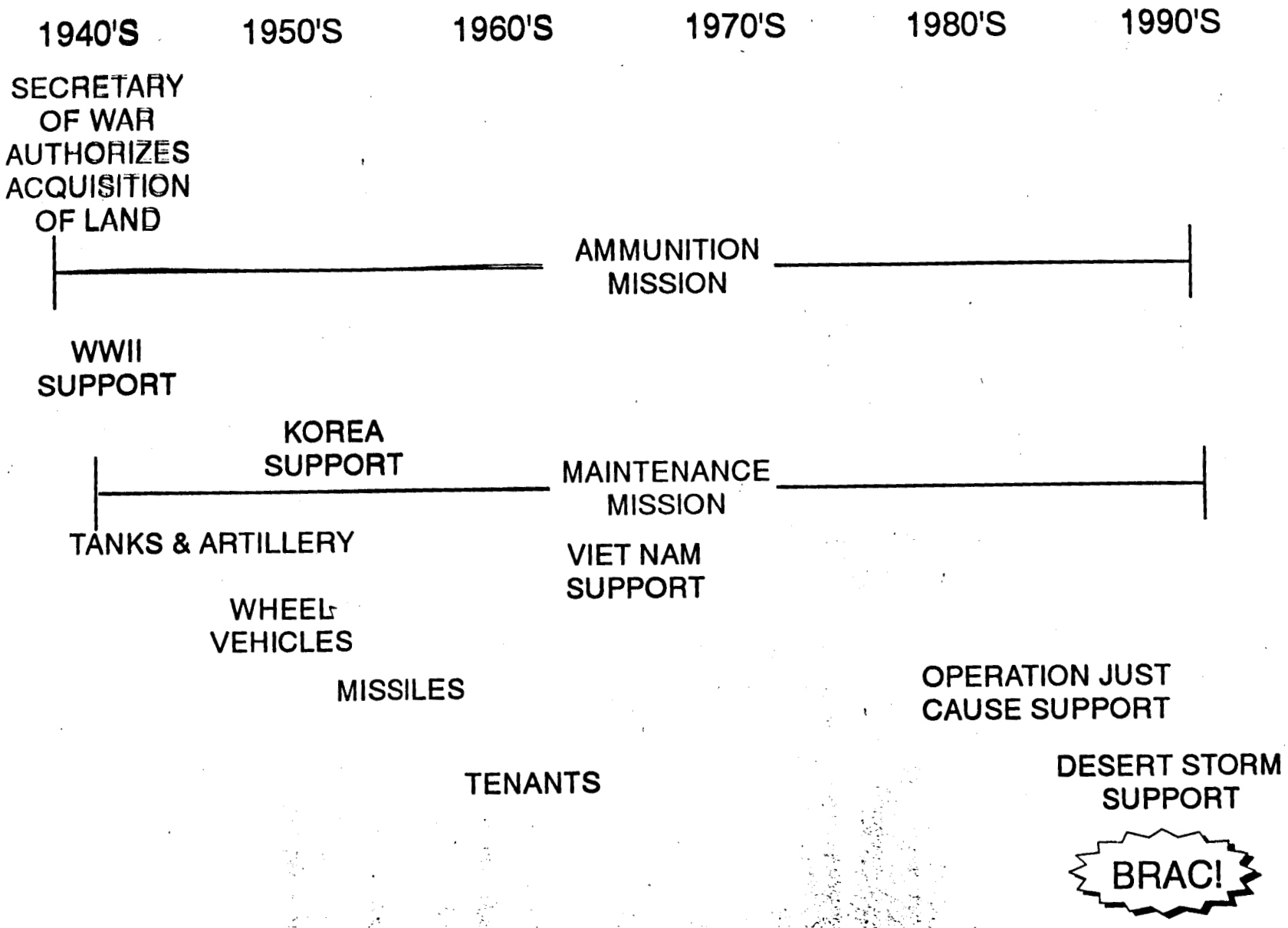
WORKLOAD

Delayed Support to the Customer

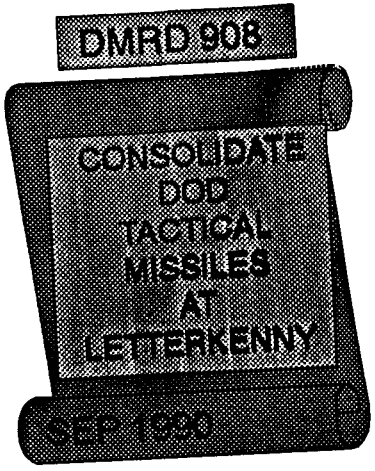
CAPABILITY

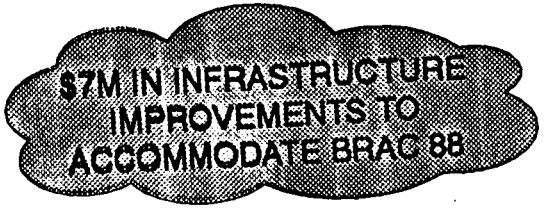
Rates Too High
Less Iron Out the Door -
Costs You More Per Unit!

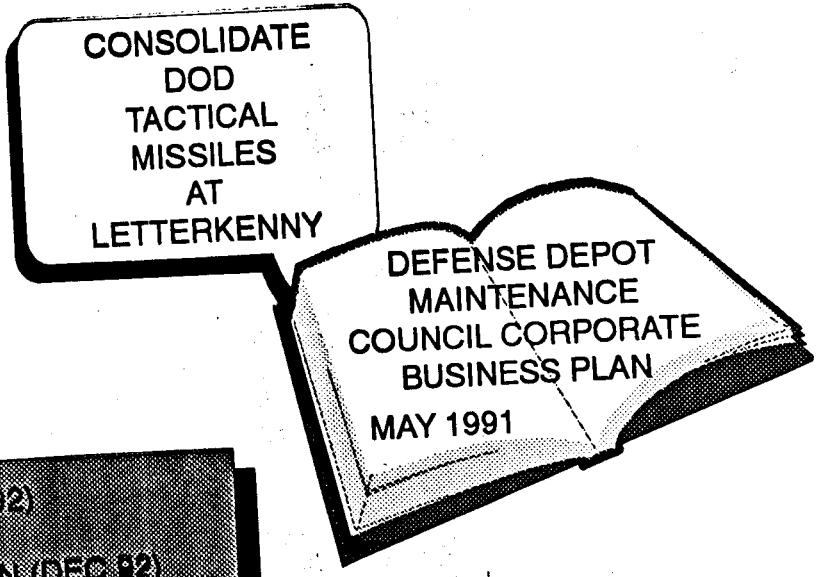
LETTERKENNY ARMY DEPOT
FIFTY THREE YEARS OF HISTORY

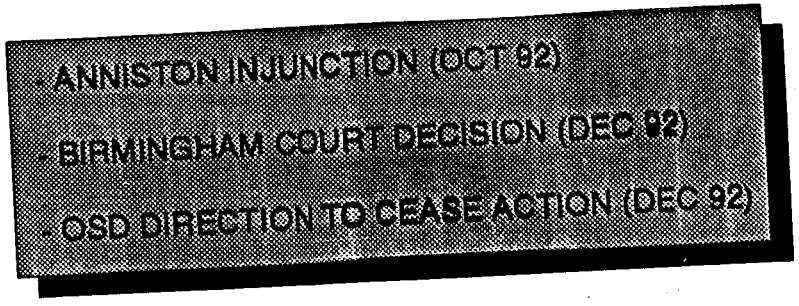


LEAD BRAC HISTORY

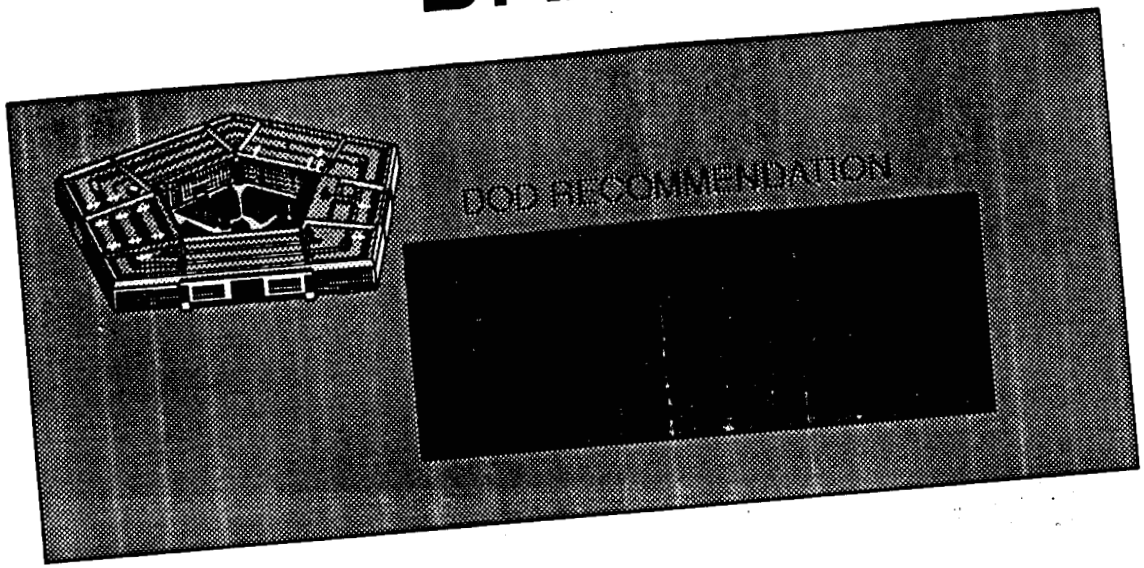


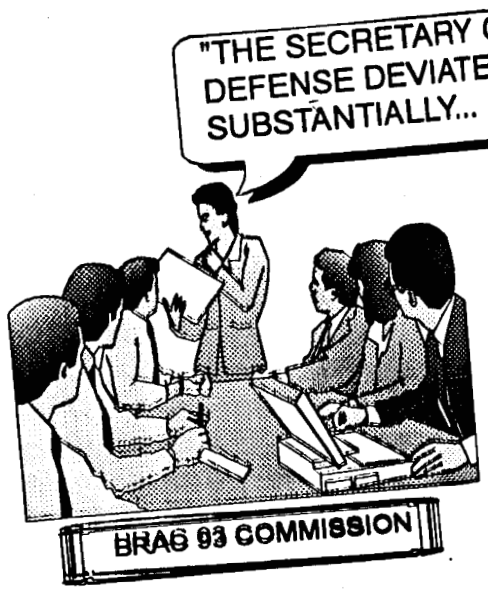


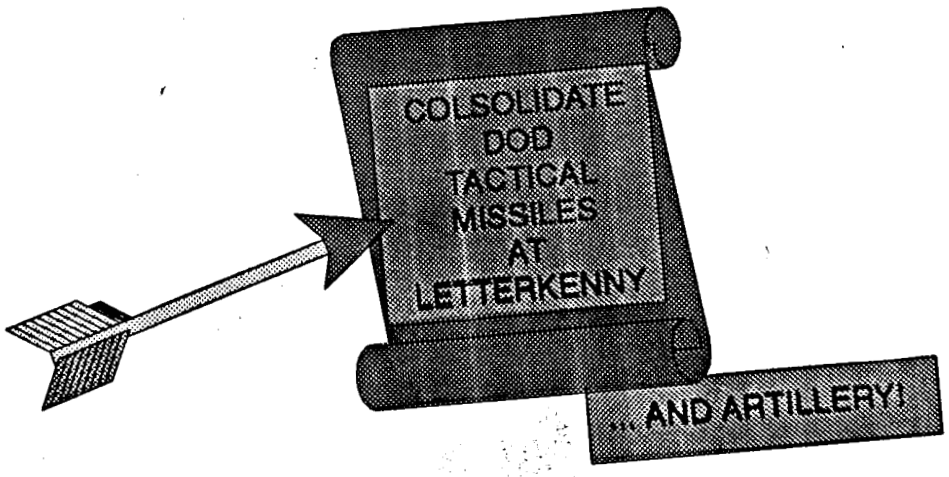




BRAC 93







BRAC 95...

BRAC 95

DOD RECOMMENDATION

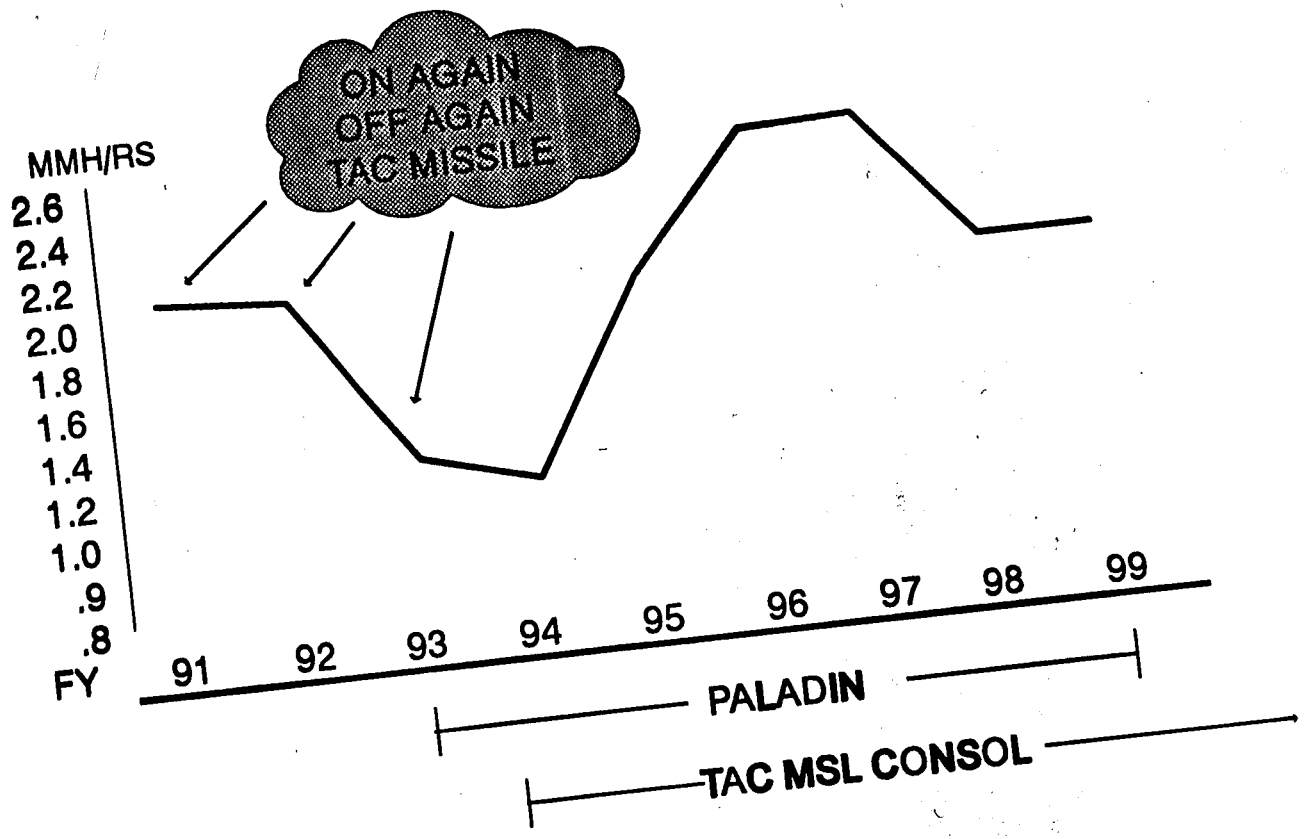
- MISSILES TO TOBYHANNA
- ARTILLERY TO ANNISTON
- REALIGN LETTERKENNY FOR AMMUNITION ONLY

CONSOLIDATE MISSILES AT TOBYHANNA

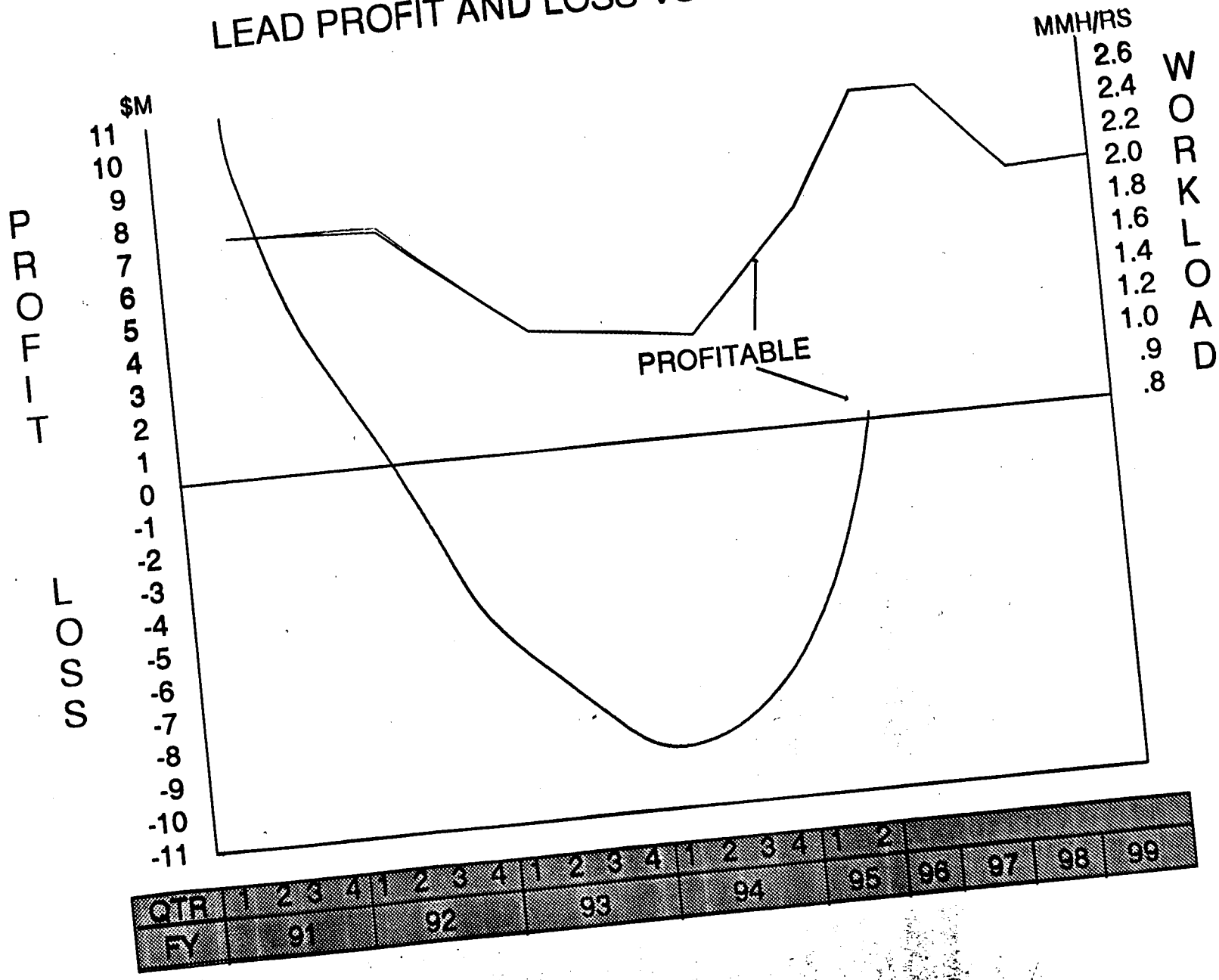
BRAC 95 RECOMMENDATION SAME AS BRAC 93...

...EXCEPT INTERSERVICING MISSILES NOW MORE IMPORTANT

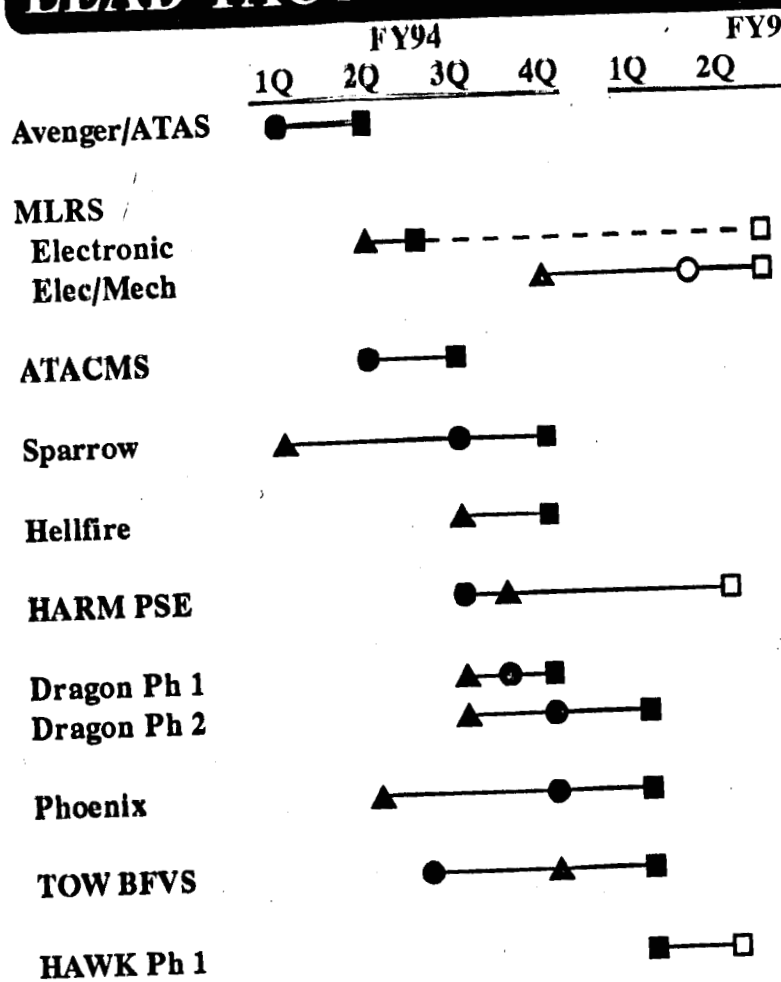
LEAD WORKLOAD



LEAD PROFIT AND LOSS VS WORKLOAD



LEAD TACTICAL MISSILE CONSOLIDATION



	FY99 MNHR (K)	FY99 $ (K)
Avenger/ATAS	82	5,833
MLRS	85	6,044
Electronic		
Elec/Mech		
ATACMS	11	782
Sparrow	31	2,204
Hellfire	9	640
HARM PSE		
Dragon Ph 1	15	1,066
Dragon Ph 2		
Phoenix	13	924
TOW BFVS	36	2,560
HAWK Ph 1		

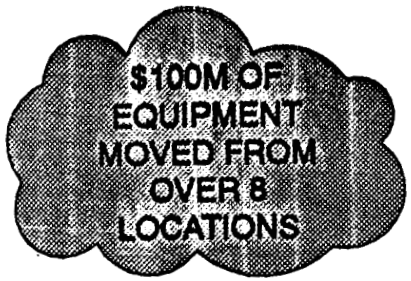
△- Training ○- Equipment □- FAT/Production △○□- In process ▲●■- Completed As of 22 Mar 95

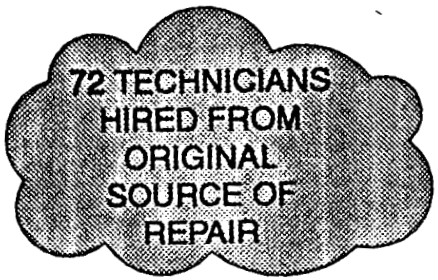
LEAD TACTICAL MISSILE CONSOLIDATION

	FY99 MNHR (K)	FY99 S (K)
Sidewinder (N)	95	6,755
TOW Cobra	39	2,773
TOW 2	72	5,191
HAWK Ph 2	92	6,541
Sidewinder (AF)		
Maverick	46	3,270
PATRIOT (CTR)	7	498
LCSS	18	1,280
Shillelagh	8	569
AMRAAM	54	3,838
HARM (GS)	47	3,341
Total	760	54,109

△ - Training ○ - Equipment □ - FAT/Production △○□ - In process ▲●■ - Completed As of 22 Mar 95

PROJECT	COST	
CONSTRUCTION	4.9	
RELOCATIONS		
PEOPLE	4.0	
EQUIPMENT	6.1	
TRAINING	7.5	
PROCUREMENT	4.1	
		26.6
CONSTRUCTION	2.6	
RELOCATIONS		
PEOPLE	5.3	
EQUIPMENT	2.1	
TRAINING	4.7	
PROCUREMENT	.6	
		15.3
		41.9

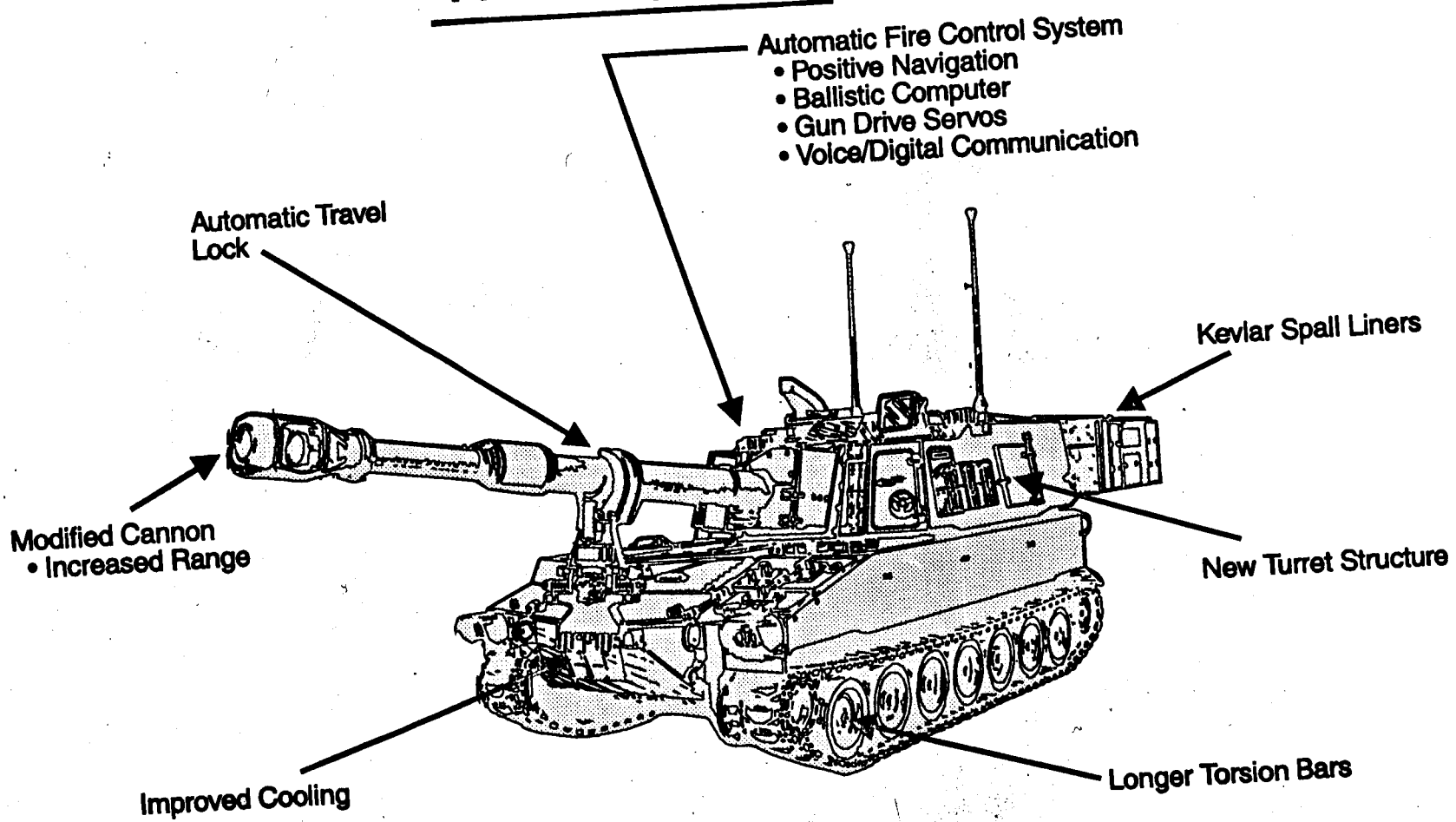




15

Paladin Enterprise

Paladin Upgrade



Paladin Enterprise

United Defense
FMC/BMY

Production Schedule

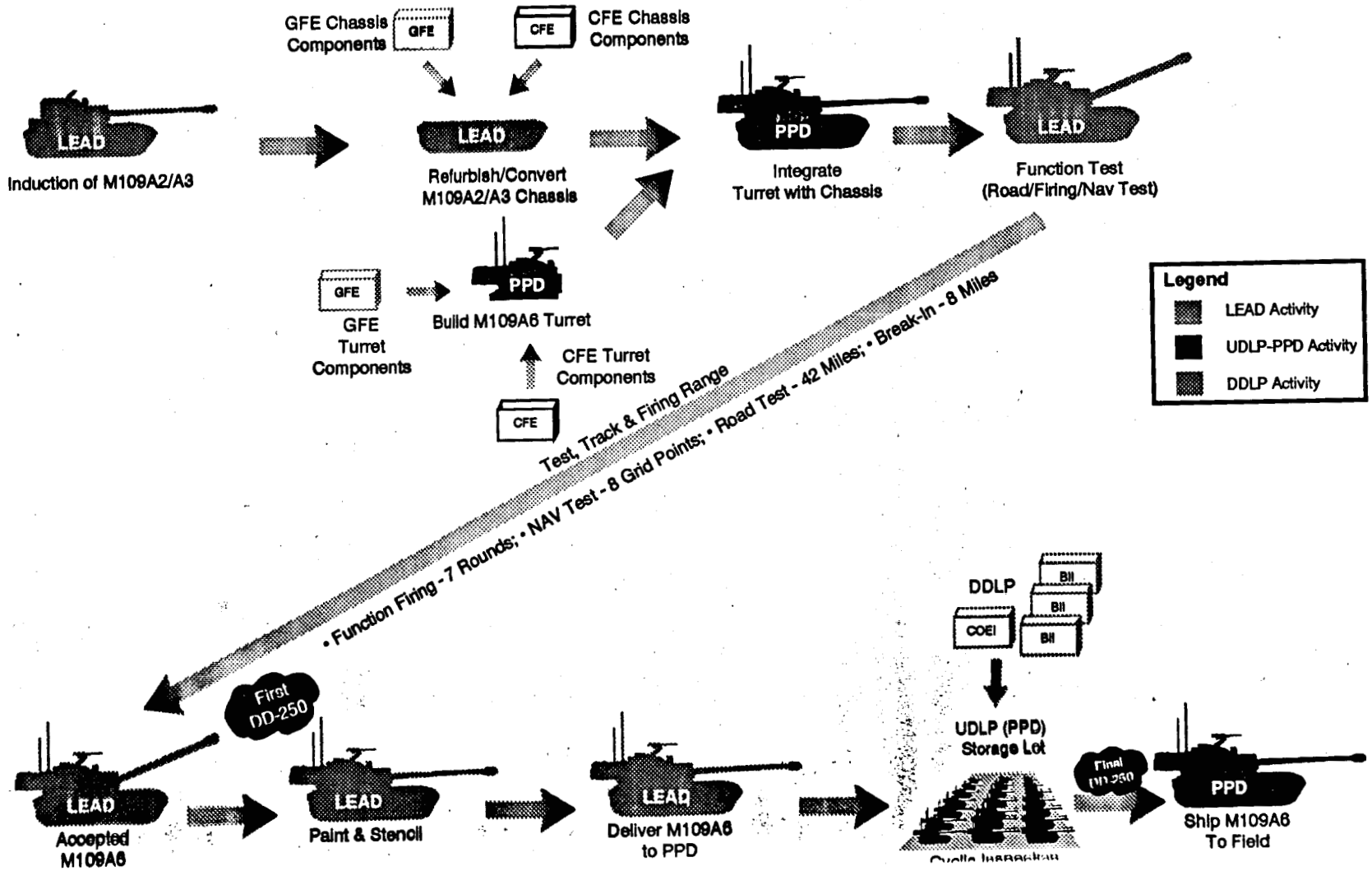
Schedule	1994 O	N	D	1995 J	F	M	A	M	J	J	A	S	O	N	D	1996 J	F	M	A	M	J	J	A	S	O	N	D
Enterprise	1	2	4	5	5	6	6	6	8	8	9	10	10	11	12	13	15	15	16	17	17	17	17	17	18	18	18
Contract			1	2	4	5	5	6	6	6	8	8	9	10	10	11	12	13	15	15	16	17	17	17	17	17	18
Completed		**1**	**2**	**4**	**5**	**6**																					

Schedule	1997 J	F	M	A	M	J	J	A	S	O	N	D	1998 J	F	M	A	M	J	J	A	S	O	N	D
Enterprise	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17			
Contract	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17		
Completed																								

Low Rate Production Dec 91 thru Sep 94 (1-164)
Full Rate Production Oct 94 thru Aug 98 (165-824)

As of 28 Feb 95

Product Manager
PALADIN/FAASV
Paladin Full Rate Production Sequence



CAPACITY & UTILIZATION CALCULATIONS

CAPACITY UTILIZATION =

DOD RULES FOR MAINT DEPOTS ONLY

ANNUAL MANHOURS OF WORKLOAD

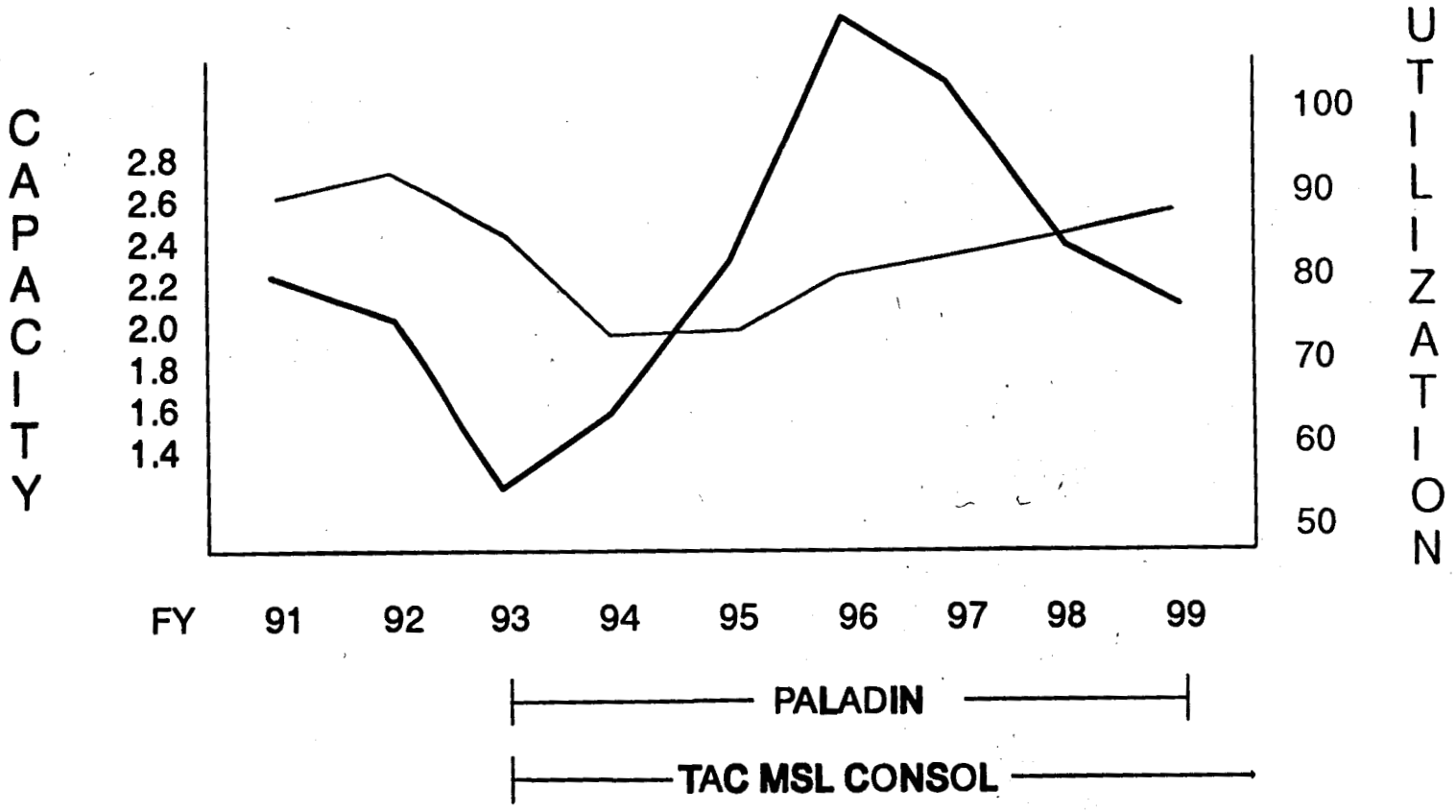
[WORK POSITIONS] [95% AVAIL] [TOTAL POSSIBLE HOURS OF WORK PER DIRECT LABORER]

DENOMINATOR = CAPACITY

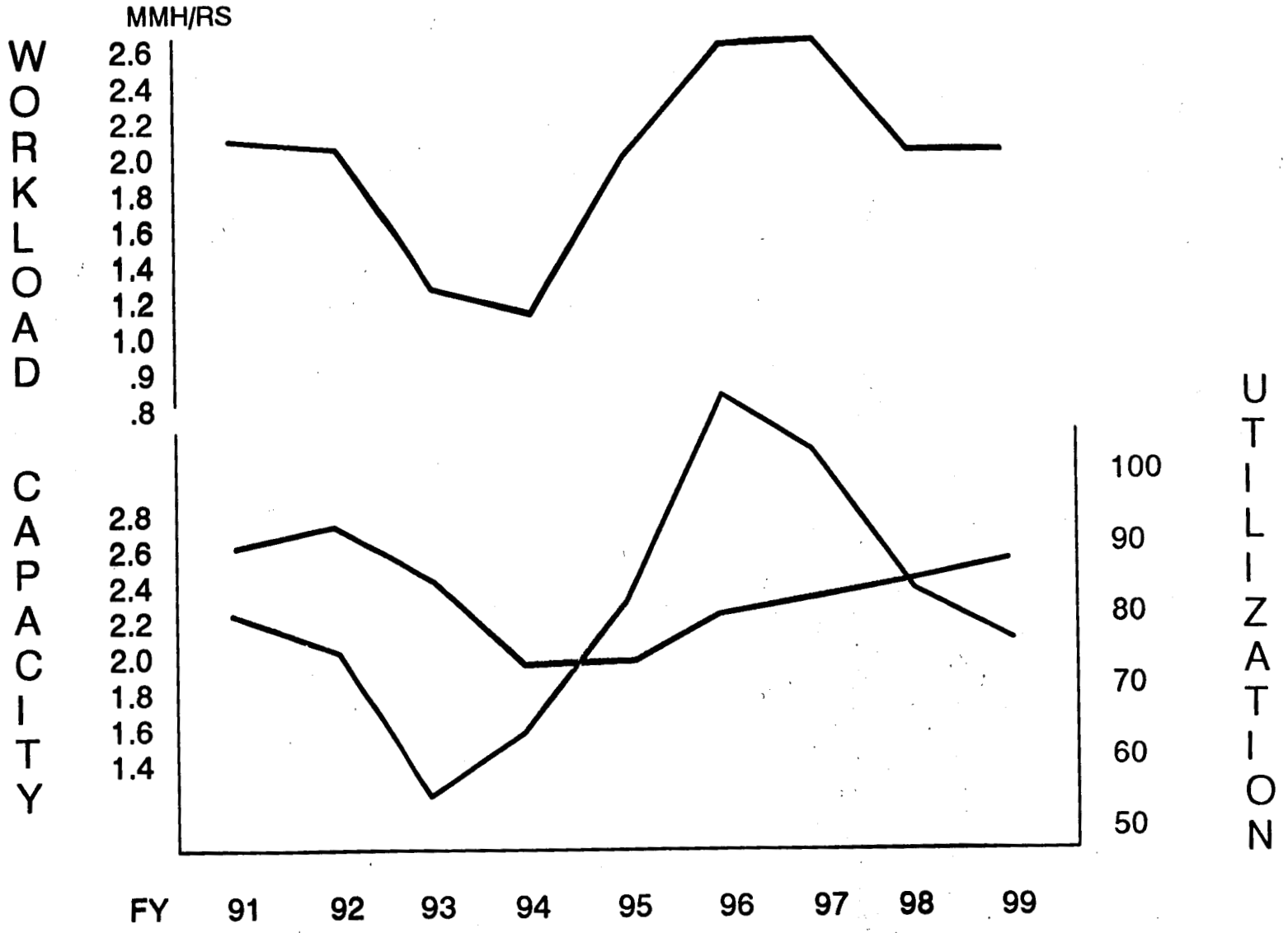
CAUSES ENTIRE ANALYSIS TO BE WEAPON SYSTEM UNIQUE

FIXED AT 1615 HOURS

LEAD CAPACITY VS UTILIZATION



LEAD CAPACITY & UTILIZATION VS WORKLOAD



COSTS VS RATES: TWO METHODS

BASEOPS / MISSION OVERHEAD RATES =

BRAC ANALYSIS

TOTAL COSTS

[WORK POSITIONS] | 85% AVAIL | TOTAL POSSIBLE HOURS OF WORK PER DIRECT LABORER

DENOMINATOR = CAPACITY

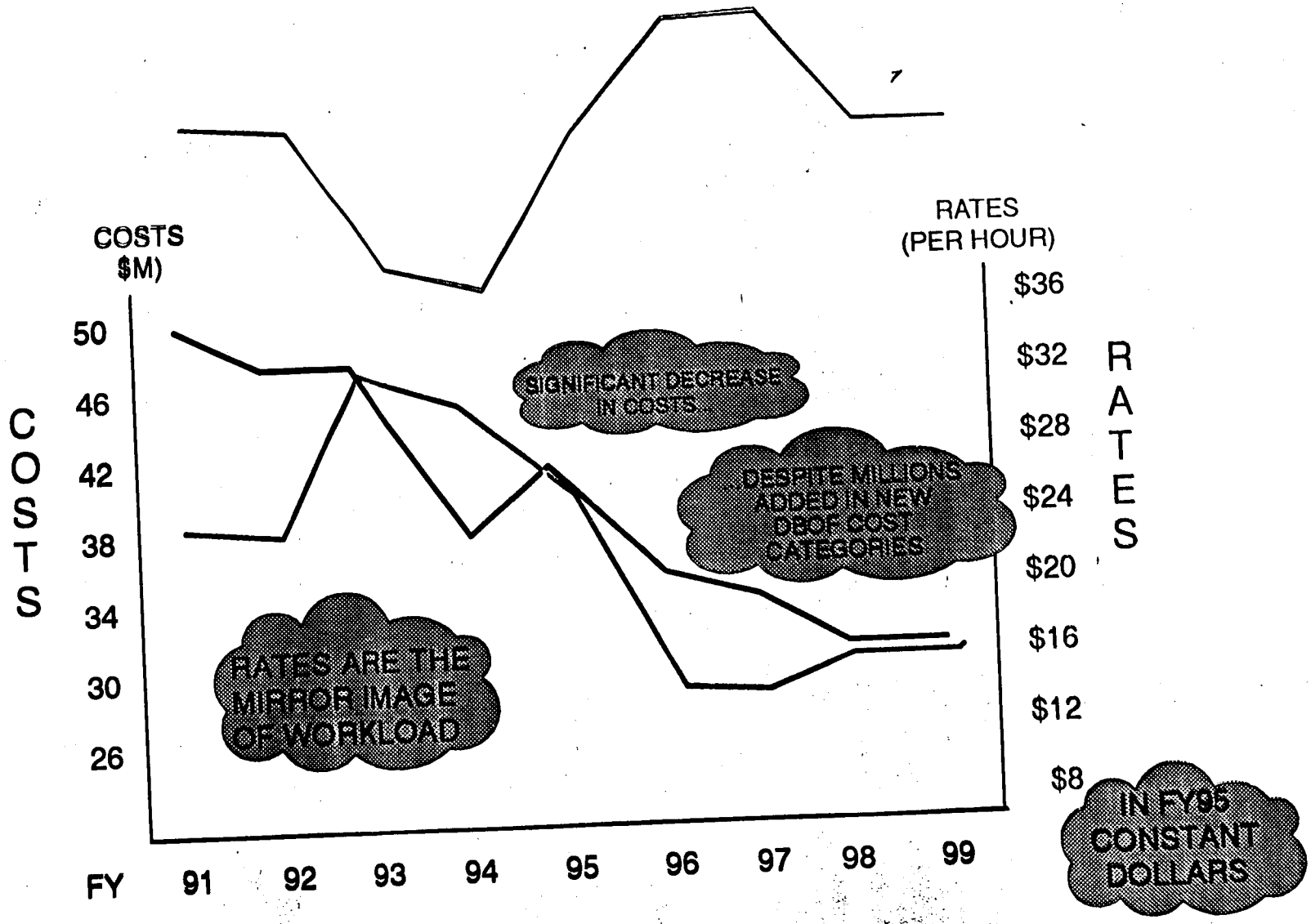
IBOE RATE = IBOE COSTS / CAPACITY

MOH RATE = MOH COSTS / CAPACITY

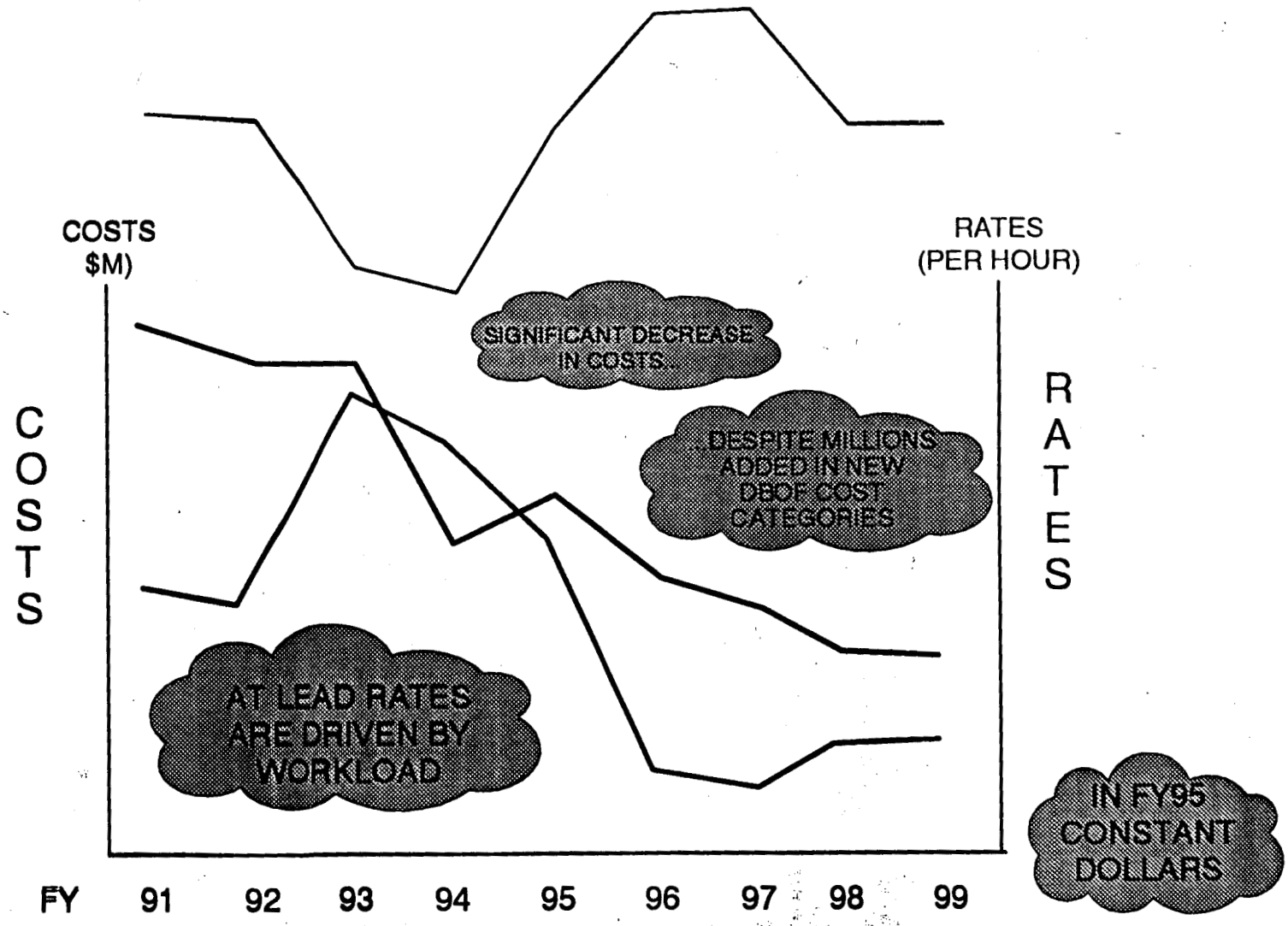
ACTUAL COSTS

$$\text{RATES} = \frac{\text{COSTS}}{\text{WORKLOAD}}$$

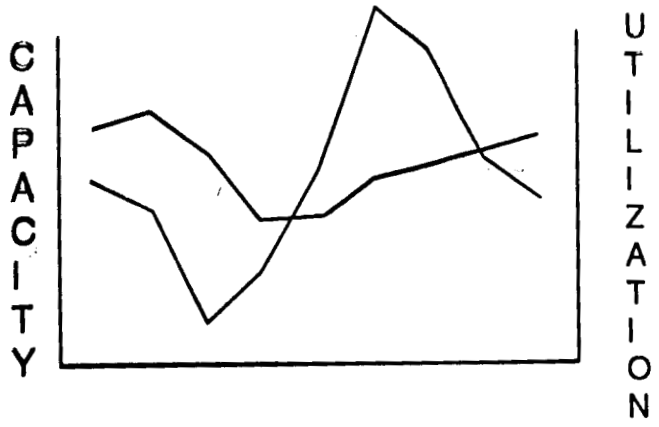
IBOE COSTS VS RATES VS WORKLOAD



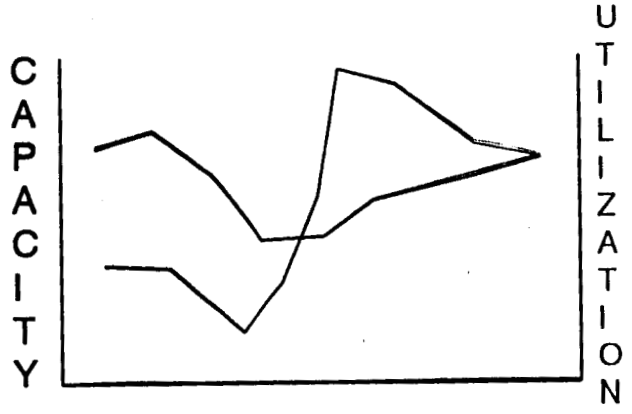
MOH COSTS VS RATES VS WORKLOAD



FUTURE PLANNING



CAUSED BY PALADIN REDUCTION BY FY99



BY REPLACING PALADIN WITH OTHER PRODUCT LINES...

WE'VE ALREADY STARTED PLANNING

BRAC 93 HAS SOME SHORTCOMINGS

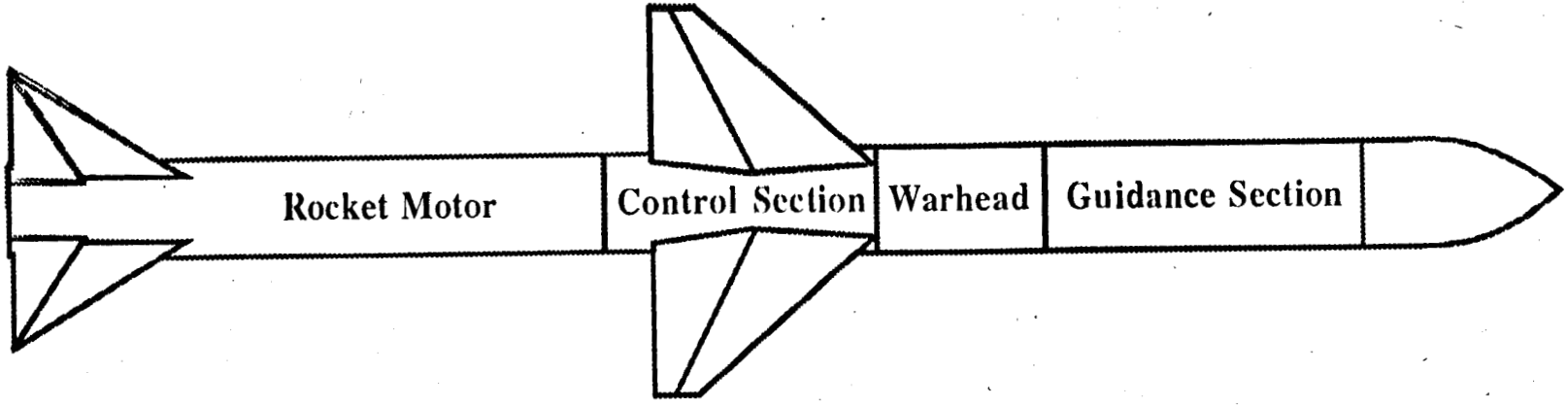
BRAC 93 does:

- **Identify selected systems for consolidation**

BRAC 93 does not:

- **Consolidate all future DOD missile systems to LEAD**
- **Expand all-up-round/and certification capability**
- **Provide a one-stop service for DOD customers**

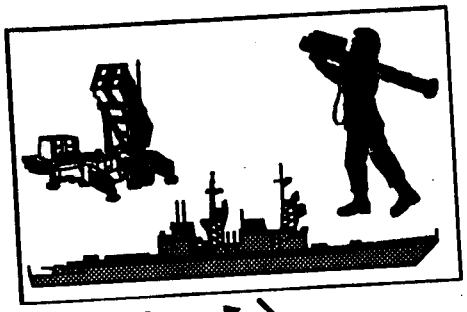
MISSILE CERTIFICATION/SURVEILLANCE



All-
Up-Round

BRAC 93
LEAD repairs
workload for
green book
missiles

TACTICAL MISSILE CURRENT OPERATIONS



Field

Yes

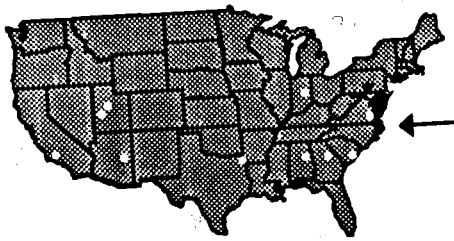
Certification/Test
All-Up-Round
Facilities

Serviceable

No

LEAD

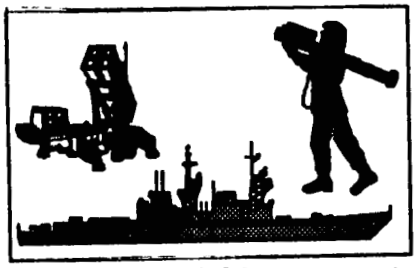
Anything this complicated is too expensive!



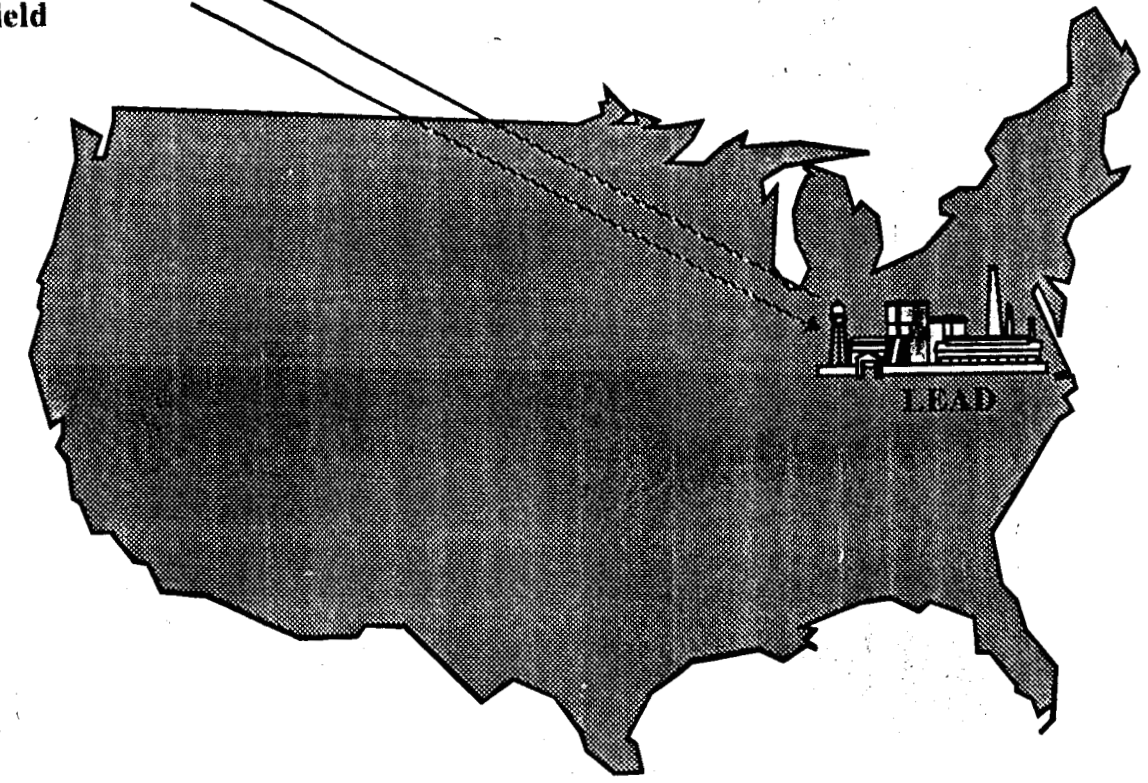
Storage

Yes

ONE-STOP SERVICE CONCEPT

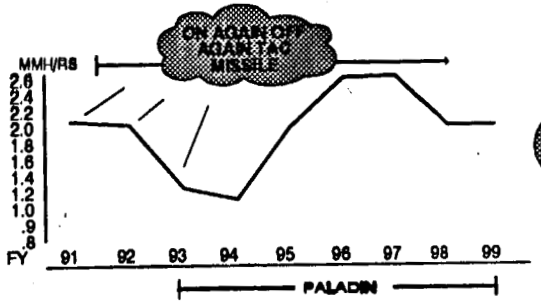


Field



Storage + Up-Round + Repair + Demil = One-Stop Service

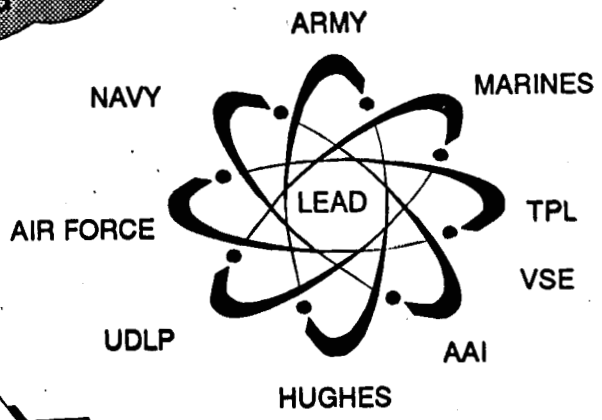
SUMMARY



WORKLOAD AND TIMING DRIVE EVERYTHING

CUSTOMER SUPPORT

LETTERKENNY IS A WORLD CLASS INDUSTRIAL FACILITY



ONE STOP MISSILE AND ARTILLERY SHOPPING

TEAMING

LEAD IS ALREADY POSTURED TO SUPPORT ALL KNOWN FUTURE MISSILE SYSTEMS

Infrastructure Improvements

Electrical Transformation/Distribution Systems: In anticipation of increasing electrical loads associated with growing mission requirements, LEAD entered into a cooperative agreement with West Penn Power Company (WPPC) to upgrade its electrical capacity while modernizing its aerial distribution system. Through this agreement, WPPC began acquisition of right-of-way and construction of a new primary feeder to the installation and new substation; and LEAD initiated replacement of its antiquated electrical switching station, to be followed by replacement of poles and conductors on aerial electrical distribution circuits. At present, WPPC still owns and operates two substations at LEAD: a 12,500-KVA capacity substation built in the 1960s which provides power at 7,200 volts delta; and a 20,000-KVA substation completed in late 1992 which provides power at 12,470 volts wye. The 12,500-KVA substation still feeds the remaining original circuits at 7,200 volts.

The 20,000-KVA substation was constructed to meet the increasing electrical needs of the depot and its collocated activities and eliminate the uncommon 7,200-volt service, allowing for greater availability of replacement parts. The substation distributes power via the new switching station, which has space for twelve circuits.

In 1992, LEAD began the phased replacement and upgrade of its aerial electric distribution system to provide for replacement of deteriorated poles and conductors and allow for distribution of the new voltage throughout the installation. To date, four circuits have been replaced and are fed from the new substation at 12,470 volts. Replacement of two additional circuits is currently in progress and will be completed during the summer of 1995. A project currently being solicited for FY 1995 award by the Baltimore District, Corps of Engineers will provide for the replacement of one additional circuit, leaving only one circuit to be replaced - the one which serves the ammunition storage area. The replacement of this circuit will commence in 1996, with completion in 1997.

Current electrical demand information shows the peak consumption from the combined substations at approximately 12,000 KVA, at which point the original substation would have been taxed and load-shedding would have been initiated. The new substation and aerial circuits have eliminated the concern over the capacity of the substation individual circuits. Future growth in electrical power demand can easily be accommodated by the new substation and aerial distribution system.

Water Treatment/Distribution Systems: In order to maintain the viability of the water treatment plant and water distribution system, several projects to renew or replace facilities and equipment have been completed to ensure compliance with the

Pennsylvania Department of Environmental Resources' (PADER) requirements for water supply systems. In 1990, replacement of the 10-mile raw water supply line from the Letterkenny Reservoir to the water treatment plant was completed. The new 16-inch diameter PVC pipe installed under this project replaced a corroded and badly leaking cast iron line, and will provide reliable raw water transmission capability for years to come.

Several improvements to the water plant have also been completed, including installation of a prechlorination station in 1990, replacement of the two raw water filtration units in 1991, and replacement of main flow control valves, flow measurement equipment, and flash mixers and flocculators in 1993. In 1990, the depot was granted a Public Water Supply permit by PADER under its Safe Drinking Water Regulation.

The potable water distribution system provides for the domestic and fire protection needs of the installation, and is also included in a phased improvement/replacement program. In the past five years, approximately 40 percent of the water valves throughout the installation have been replaced. Several new sections of water line have been installed to improve service to areas of the installation previously served by dead-end mains. The high-pressure and low-pressure water distribution systems have been tied together to boost water pressure throughout the industrial complex. Several additional projects to install and replace existing water mains are in progress or are programmed for construction in 1996 - 1997, and replacement of the main water tower for the depot is programmed for award in 1997.

Industrial Waste Treatment/Collection Systems: Since its installation in the early 1960s, the industrial waster treatment plant has undergone substantial improvements, the most recent of which included a project for complete modernization and expansion of the plant in 1991. This project increased plant capacity to over 210,000 gallons per day, and provided for replacement of aged equipment and treatment processes to ensure compliance with the stringent National Pollutant Discharge Elimination System permit parameters imposed by PADER. Since 1991, several projects of a smaller scale have also been completed, including replacement of the gravity separator, flocculation and settling tank, and final clarifier in 1994; and improvements to the sludge filter press facility. Other modernization efforts include a new sand filtration unit currently under construction, which will aid in further reducing levels of volatiles and heavy metals in the plant effluent; and planned installation of new mixing and aeration equipment in holding tanks to begin removal of volatiles in the early stages of treatment.

The industrial waste collection system has also been the focus of numerous repair/improvement initiatives. Within the past five years, several thousand feet of industrial waste lines

have been replaced or, when more practical, repaired in place through use of the Insituform process, which coats the interior of the pipe with a structural-grade chemical-resistant liner and essentially creates new pipe. The industrial waste pumping stations were completely rehabilitated in 1995, including replacement of pumps and repair of concrete surfaces of wet wells along with installation of remote-reporting overflow alarms. Projects programmed for the next several years will provide for introduction of closed-loop treatment systems for selected waste-generating processes and replacement or Insituform repair of the remainder of the industrial waste collection system.

Sanitary Sewage Treatment/Collection Systems: The sanitary sewage treatment plant was completely modernized in 1972, and the activated oxygen processes and equipment installed at that time still represent current technology in secondary sewage treatment. However, proposed improvements include installation of a sludge filter press to dewater sludge and reduce sludge volume to more manageable levels, with construction programmed to begin in 1996.

The sanitary sewage collection system has benefitted from numerous repair efforts, including replacement of the main gravity line to the treatment plant in 1988 and the main pumping station serving the industrial area of the installation in 1994. Ongoing efforts include phased repair or replacement of pumping stations serving branches of the collection system, and evaluation of system piping to determine the extent of further repairs.

Heating Plants and Distribution Systems: The active boiler plant renewal program at LEAD has ensured the continued availability of heat and process steam throughout the installation. Over the past five years, boilers have been replaced in six central heating plants including Building 349, which serves the principal combat vehicle and tactical missile maintenance facilities on the installation; and numerous buildings with individual boilers. These projects have included replacement of fuel tanks and installation of leak detection systems, required renovations to the boiler houses to provide adequate combustion air, backflow prevention on domestic water lines, and other features to incorporate operational improvements and safety/environmental considerations in plant operations.

The viability of the steam distribution systems is of equal importance to the boiler plants. In the past three years, over 3,000 linear feet of underground steam conduit systems have been replaced, along with approximately 800 linear feet of above-ground steam distribution/condensate return lines. In the coming three years, projects covering the replacement of over 1,500 feet of additional steam distribution lines are programmed for accomplishment.

Roads/Railroads: Over 150 miles of paved roads and 50 miles of railroads at LEAD constitute an intricate transportation network serving the entire 19,243 acres of the installation. However, the principal efforts in maintaining this network have been concentrated on the main arteries serving the most heavily used administrative, production, and storage areas and facilities. Since 1990, approximately 10 miles of main arteries in the ammunition storage and industrial areas have been resurfaced and provided with improved drainage features to prolong pavement life. An additional eight miles of ammunition area roads will be completed in 1995; and five miles of industrial area roads are programmed for 1996.

Railroads have been maintained as an integral part of the shipping/receiving capability of the installation. Recent individual projects have provided for the replacement of over two miles of railroad track which was deemed unusable. A requirements contract for railroad track maintenance has ensured the good condition of much of the remainder of the trackage, with over two miles of complete track and countless ties, switches, and section of rail replaced under the contract.

The intersections of roads and railroads have been maintained through a systematic repair/replacement program involving railroad crossings. Rubberized crossings have been installed in high-traffic areas in the industrial complex for ease of maintenance, while asphalt crossings are maintained throughout much of the ammunition area. Approximately one-third of the crossings have been replaced to date, with the remainder programmed for completion from 1996 through 1998.

Other Utilities:

Fire Alarm - The remaining utilities systems include fire alarm system, which has been converted from an antiquated hard-wire system to a network of radio transmitters and receiver which provides for automatic alarm transmission to the Fire Department in the event of an emergency. Remote locations have been equipped with pull stations with solar-powered transmitters.

Lightning Protection - In addition to lightning protection systems on numerous buildings used for explosives operations or storage and hazardous locations, lightning protection systems have been installed on 21 loading docks throughout the ammunition storage area. These systems provide protection for materials and employees involved in the shipment and receipt of ammunition and explosives. Consisting of guyed poles, aerial conductor grid, and ground loops/ground rods, these systems are an integral part of the safety program associated with an explosives operation.

Natural Gas - Under an FY 1995 MCA project and commercial venture by UGI, a large commercial supplier of natural gas, LEAD

will take natural gas service at its 10 largest boiler plants late this calendar year. This initiative provides for UGI to install the natural gas line to the boiler plants at its expense, while the Government completes the necessary conversion of burners for boilers to accept natural gas. As natural gas is a clean-burning fuel, this project will reduce pollutant discharges from boiler operations and reduce fuel and operating costs by over $70,000 per year.

Air Conditioning Plants - In an effort to maintain controlled environments for electronics operations, data processing facilities, and general personal comfort, projects involving repair or replacement of air conditioning equipment and control systems are undertaken annually. Since 1990, major projects have included installation of new air conditioning/humidity control systems in Buildings 14, 426, and 370 for tactical missile consolidation, Building 3 for data processing operations of the Defense Megacenter Chambersburg, and other locations as dictated by mission requirements. Concurrently, administrative space environmental requirements have been addressed through replacement of air conditioning systems when warranted due to deterioration of existing systems. Future plans include replacement of air conditioning systems in mission area operating and maintenance facilities for equipment needs; replacement of $1.2 million in computer room air conditioning systems for the Defense Megacenter Chambersburg; and replacement of systems currently supporting personal comfort requirements in various office areas.

Infrastructure Repair/Improvement Projects
Expenditures for Completed Pojects from 1988 - 1995

Electrical Distribution Systems	$ 5,874,000
Water Treatment Plants and Systems	$ 2,434,000
Industrial Waste Treatment Plants and Systems	$ 1,865,000
Sanitary Sewage Treatment Plants and Systems	$ 637,000
Heating Plants and Distribution Systems	$ 4,456,000
Roads and Railroads	$ 3,149,000
Other Utilities	$ 2,125,000
Roofs	$ 4,875,000
TOTAL	$25,415,000

24 March 1995

POINT PAPER

SUBJECT: Environmental Achievements at Letterkenny Army Depot (LEAD)

1. PURPOSE. To provide a summary of the proactive environmental management program at LEAD.

2. FACTS.

a. **Industrial Waste Treatment Plant (IWTP).**

(1) In 1992, the IWTP underwent a $2.12M expansion with a resulting capacity increase from 150,000 gallons/day to approximately 300,000 gallons/day. Tobyhanna Army Depot (TOAD) has no IWTP, but has only a pretreatment process which can handle 58,000 gallons/day. This pretreatment flow is discharged to TOAD's sewage treatment plant.

(2) Current state of the art upgrades to the IWTP include a sulfide precipitation unit to further remove heavy metals and a sand filter which acts as a final polisher prior to discharge of the effluent.

(3) With these upgrades, LEAD can confidently achieve the required effluent limits identified in its National Pollutant Discharge Elimination System permit, it is questionable that TOAD can achieve their permit limits even with the benefit of dilution of their industrial wastewater with their sewage flows, especially with an anticipated mission increase.

(4) Where there were known leaks/structural deficiencies in the IWTP lines, these lines have been either upgraded by sliplining or have been completely replaced. Additionally, all industrial buildings are now metered to provide wastewater flow data from each building.

(5) With the recent designation of LEAD as a National Performance Review Reinvention Laboratory, LEAD plans to pursue a closed loop system for its industrial operations in an attempt to achieve zero industrial discharge from these operations.

b. **Water Treatment Plant (WTP).**

(1) LEAD's raw water comes from a reservoir with a 330 million gallon storage capacity. LEAD's WTP has the capacity to treat 1 million gallons/day.

(2) While TOAD's treatment capacity is similar to LEAD's (940,000 gallons/day), TOAD's source of raw water is from groundwater wells, therefore the availability of raw water at TOAD may not be as plentiful and reliable as at LEAD.

c. **Air Emissions.**

(1) In September 1994, LEAD completed construction on a $6.2M Emissions Control System which achieves 95% reduction of volatile organic compound (VOC) (*i.e.*, solvent) emissions from any painting completed under this system, using either high VOC or low VOC coatings.

(2) The request for a permit was submitted to the state regulators on 10 March 1995 and the final permit is expected by the end of April.

(3) LEAD has the potential to expand its noncompliant painting performed under this system. TOAD, on the other hand, has no type of emissions control system so that their capability to conduct painting with high VOC coatings in the Commonwealth of Pennsylvania is severely limited. Currently, TOAD sends some of its painting to Seneca Army Depot in New York.

(4) Looking to Anniston Army Depot (ANAD), Alabama is much more lenient with their regulatory definitions so that at this point, ANAD uses higher VOC coatings without any type of emissions control and subsequently emits more pollutants into the atmosphere. Merely considering regulatory compliance, there may be no adverse impacts to moving various missions to ANAD, however, there will be adverse environmental impacts if a mission which is now painted under the LEAD Emissions Control System where you have 95% reduction of these emissions would be transferred to ANAD which has no similar emissions control.

(5) Additionally, the federal Clean Air Amendments of 1990 include provisions requiring all states to tighten their regulations for painting in the coming years. With increasing regulation, ANAD may then have a potential compliance problem with their current workload, without considering any additional workload from other installations. LEAD can achieve and maintain compliance under the Clean Air Act with their Emissions Control System.

d. **Hazardous Materials Storage.**

(1) LEAD is 95% complete with a $4.4M state of the art hazardous materials storage facility covering 54,400 square feet.

(2) In the past, LEAD stored these materials in many different buildings all over the installation. This facility will allow for the consolidation of all hazardous materials at LEAD into one building.

(3) LEAD will be able to store and segregate any type of hazardous material, to include Installation Supply Activity (ISA) and mission stock as well as low-level radioactive material. Some unique features of this facility include fire suppression, an addressable alarm system, a leak detection and ventilation system, an advanced containment system and loading ramps for 18-wheeler vehicles. The facility is also secured by a fence.

(4) The design of this facility will result in a 1-stop shop hazardous materials area. LEAD will be able to receive, store and off-load any hazardous material from this facility, thereby eliminating the need to receive these items at Dock 5, then move them to another building for adequate storage and move them again for ultimate consumption. Less handling of these materials will result in fewer accidents involving the workforce.

(5) The completion of this building and the implementation of a computerized tracking system for hazardous materials is the first step in achieving an automated life cycle control for hazardous materials at LEAD.

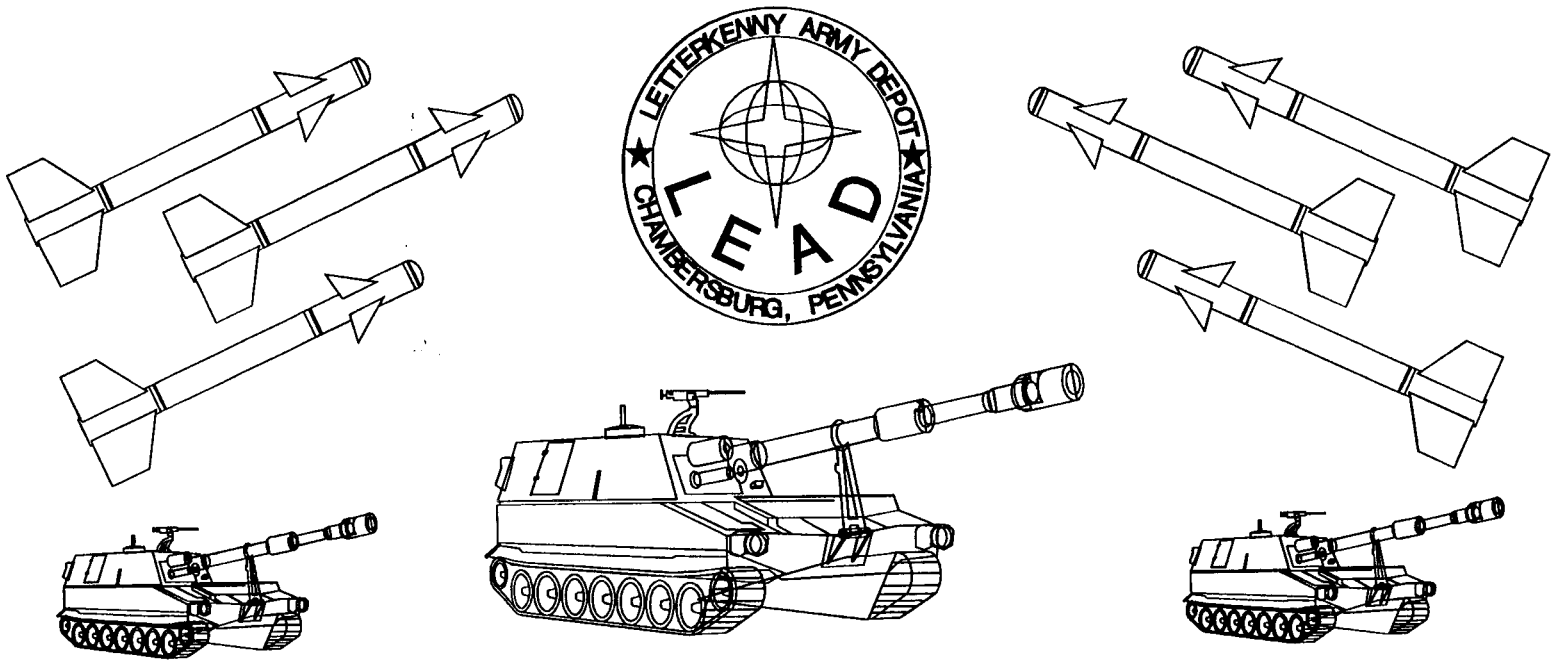
e. **Cultural/Natural Resources.**

(1) Any endangered species, wetlands or potential archeological sites which may be present at LEAD are located outside of the industrial area so that maintenance of these cultural/natural resources would not inhibit any type of expansion in the industrial area.

3. RECOMMENDATION. Due to the IWTP and WTP processes and capacity, the absence of any cultural/natural resources in the industrial area and the recent technological advances which have been implemented (*e.g.*, Emissions Control System and the Hazardous Materials Storage Building) at LEAD, the depot could retain its designated workload and accept additional workload without any adverse effects to the environment.

P. Gieseking
SDSLE-CL
DSN 570-5466

LETTERKENNY ARMY DEPOT



MISSIONS, FUNCTIONS, AND CAPABILITIES

March 1995

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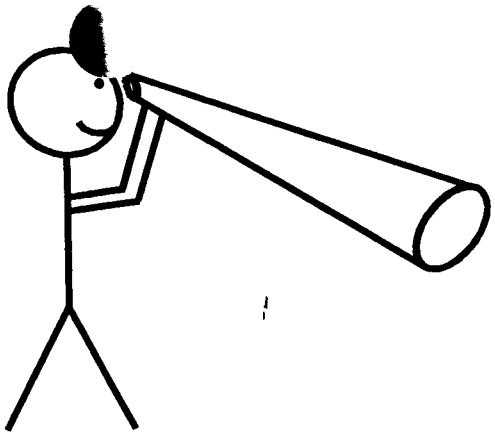
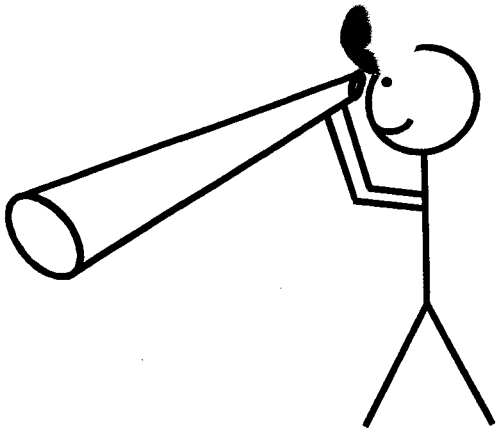




DEPOT OVERVIEW

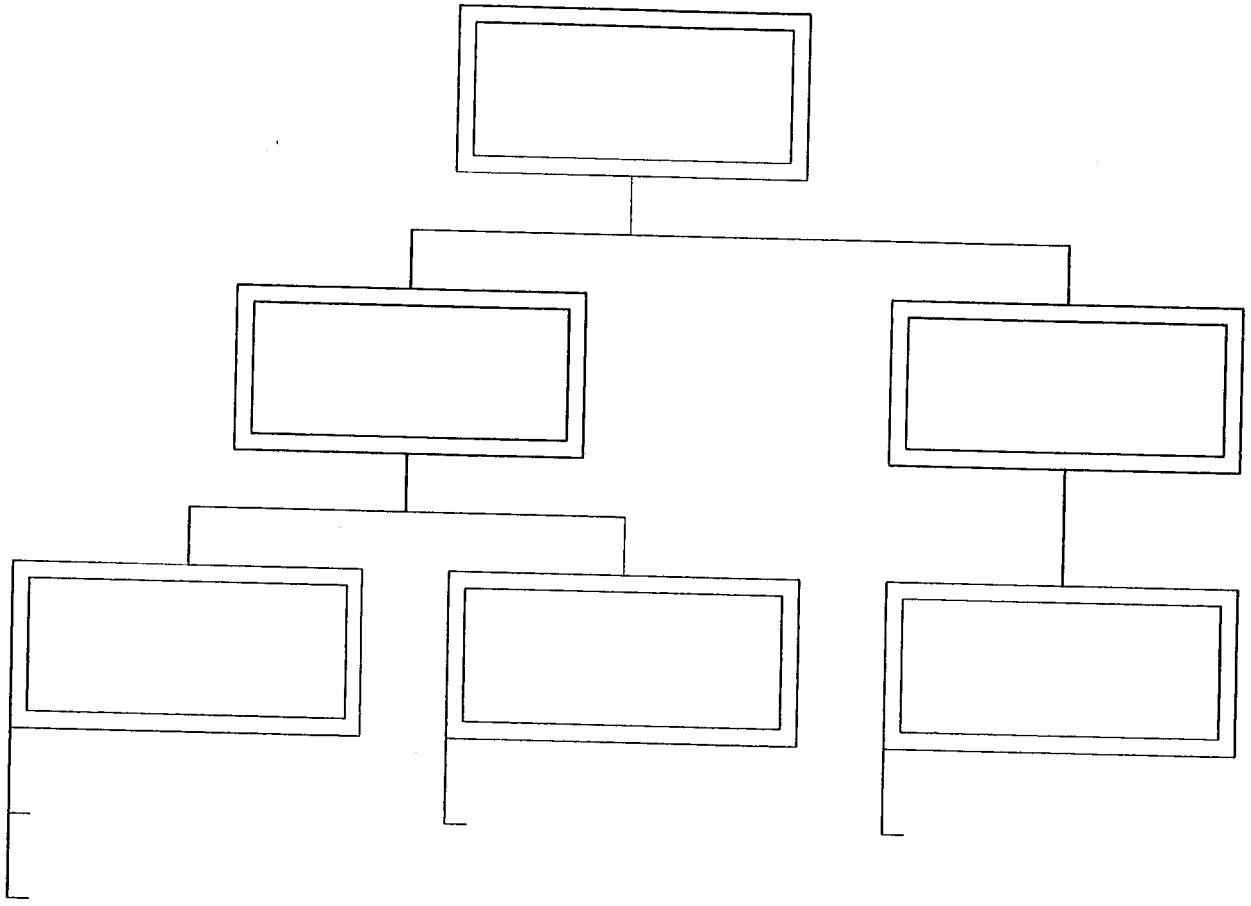
HISTORICAL/EMPLOYMENT INFORMATION

Letterkenny Army Depot was born during the hectic war atmosphere of 1941. As a result of its highly skilled workforce, the installation has evolved into a premier multi-mission organization known by customers the world over for excellence in missile maintenance, artillery, and ammunition services.

The factors which caused the War Department to select 19,243 acres in south central Pennsylvania for the site of an Army depot remain in place today. Located in the beautiful Cumberland Valley, Letterkenny is at a major crossroad between Interstate 81 and U.S. Route 30, with railhead facilities and easy access for air travel. The installation itself is supported by 212 miles of road and 54 miles of railroad. This geographical area has an available and diversified work force that is productive, dependable, and grounded with an extremely strong work ethic. Letterkenny's physical assets and empowered work force ensure the depot's ability for growth and for customer satisfaction in expanded missions.

Letterkenny is home to a total of 3,625 personnel. Of this number, 2,138 are employed by the depot and 1,487 are employed by other collocated activities.

ORGANIZATIONS AT LETTERKENNY



MAINTENANCE

The Directorate of Maintenance Mission is to perform repair, overhaul, modification, and/or conversion of equipment and materiel. Letterkenny serves as a center of technical excellence (CTX) for HAWK, PATRIOT, PALADIN, AVENGER, SPARROW, HELLFIRE, and HAZMIN (chemical paint stripping). Complementary functions include: providing project development/design services, providing worldwide NBC air filtration system support, and providing training/technical assistance to users of Army materiel. Public Law 101-510 directed that Letterkenny be "postured as the DoD specialized missile components and missile support equipment center of technical excellence and integrated depot-level maintenance facility." This consolidates guidance and control section repair for all current and future air, ground, and surface launched missiles.

PUBLIC WORKS

The U.S. Army Central Pennsylvania Regional Public Works Center provides a widerange of services including building maintenance and remodeling, utility and facility operation, equipment operation, engineering, environmental restoration, waste management, energy conservation, recycling and fire protection.

ENVIRONMENTAL

RESTORATION

Through FY94, Letterkenny's Installation Restoration Program has spent $57 million in DERA funds for investigation and cleanup of Letterkenny's two Superfund (Southeastern Area and Property Disposal Office Area) sites.

Recent projects include the following:

- $2.4 million for the K-Area cleanup

- Initiation of Remedial Designs for groundwater cleanup at Rocky Spring and Rowe Spring

- Temporary repairs of Industrial Wastewater Sewers to eliminate contamination of groundwater, and groundwater dye tracing study to understand on-post to off-post groundwater flow.

RESOURCE RECOVERY AND RECYCLING PROGRAM

The Letterkenny Army Depot Resource Recovery and Recycling Program was established and developed in February 1989 to recover scrap from waste streams, prevent pollution and conserve natural resources. The major objective of this program is to be in compliance with all laws/regulations, to include municipalities and to provide full reimbursement of funds generated back to the installation and municipalities, that produced the waste products. The program has met a goal of over 50 percent reduction in waste and realized a cost avoidance savings of $3.3 million.

MAJOR ACCOMPLISHMENTS

- Recycling manager was elected to Rural Area Recycling Community for National Recycling Coalition
- (Job 1) award FORSCOM
- HQDA Letter of Commendation
- Letter of Commendation from Congressman Shuster
- Recycling Manager selected to teach at U.S. Army Logistics Management College on Installation Recycling

OTHER SUPPORT ORGANIZATIONS

DIRECTORATE OF PRODUCT ASSURANCE is responsible for assuring the overall depot quality program is established and responsive to the needs of its customers.

DIRECTORATE OF CONTRACTING provides advice and assistance to activities concerning purchasing and contracting matters involving appropriated and nonappropriated funds, manages the Advanced Acquisition Plans of Letterkenny, Savanna and collocated activities, and administers the Small Business Program.

DIRECTORATE OF RESOURCE MANAGEMENT performs support functions such as: budgeting, financial services, cost analysis, managerial accounting, review/analysis management studies, competition and bid proposals, management of productivity improvement programs, and manpower/organizational management.

DIRECTORATE OF PERSONNEL AND COMMUNITY ACTIVITIES provides customer oriented services such as administering employee compensation programs, development of job descriptions, classifying jobs, and identifying methods/sources of candidates for staffing organizations. Letterkenny served as the Department of the Army (DA) pilot for implementation of the Automated Civilian Personnel System (ACPERS), completing the conversion within 60 days (one-third the projected implementation time). The directorate also provides downsizing assistance, employee assistance programs such as stress management, and operates an extensive quality of life program for military/civilian personnel that includes self-sustaining morale, welfare, and recreation programs. These programs provide assistance to and opportunities for the hobbyist, sports/fitness enthusiast, child development center, school-age latch key services, youth activities, and personal/family management programs.

COLLOCATED ACTIVITIES

- **DEFENSE LOGISTICS AGENCY (DLA)** whose mission is to plan, coordinate, and manage the physical distribution functions relative to the receipt, storage, preservation/package, issue, and transportation of major and secondary items.

- **HEADQUARTERS, U.S. ARMY DEPOT SYSTEM COMMAND (HQDESCOM)** has the principal mission of command and control of all Army depots and depot activities worldwide.

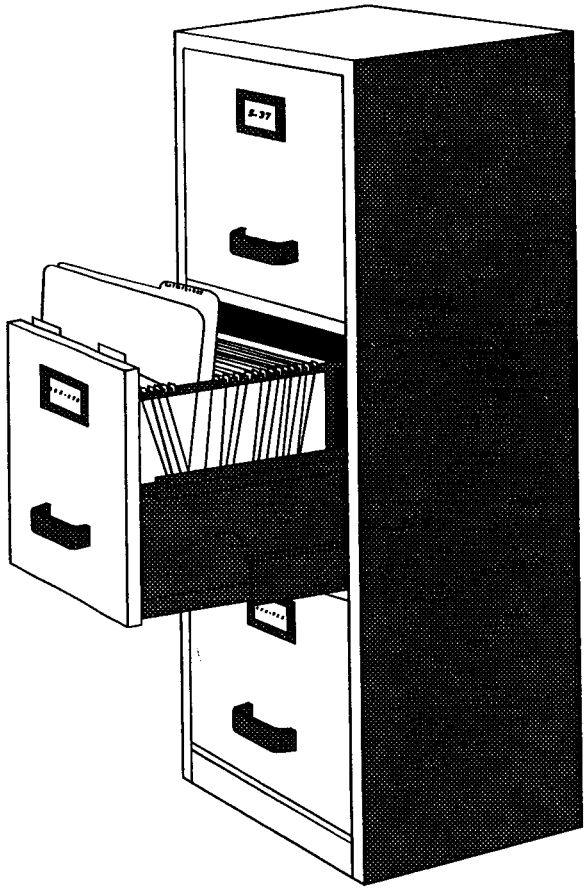
- **AMC SYSTEMS INTEGRATION AND MANAGEMENT ACTIVITY (SIMA-EAST)** provides integrated automation support to the U.S. Army AMC installation, industrial, and financial business processes. Critical to AMC Future Power Projection Missions are: strategic stocks worldwide, single stock fund Army-wide implementation, integrated sustainment maintenance initiative, and Force 21. SIMA-EAST employs approximately 200 organic staff in addition to 35 contractor staff. The organization operates with an annual budget of $20 million, expending $18 million in the local economy.

COLLOCATED ACTIVITIES (continued)

- **U.S. ARMY AUDIT AGENCY** assists the Army in satisfying statutory and fiduciary responsibilities as well as assisting Army managers in making informed decisions, resolving issues and using resources effectively. It provides Army leadership with a full range of objective and independent services, including financial/performance audits, and consulting services. The agency has the authority to audit all organizations, activities, programs, and functions of the Army.

- **DEFENSE MEGACENTER (DMC) CHAMBERSBURG** provides information processing support and services to war fighters and their supporting organizations 24 hours a day, seven days a week. The support includes providing our customers around the world on-line access to the mainframe computer. The Megacenter has three large capacity AMDAHL computers that are capable of executing 390 million instructions per minute. The Megacenter processes 2,000 batch jobs a day and over 31,000 users have real-time access to their data stored on DMC Chambersburg computers. As part of the DoD Data Center consolidation, DMC Chambersburg is receiving workload from three Navy sites currently located at Arlington, VA; Cleveland,OH; and New Orleans, LA. The migration of that workload is scheduled to be completed by September 1995. The DMC Chambersburg workload will be increased by 2,000 daily batch jobs and 10,000 on-line users with the addition of the Navy processing. In addition to providing supply, maintenance, finance, and payroll support to Army and DLA customers, DMC Chambersburg will be processing the payroll and manpower assignments for the entire U.S. Navy.

MISSION HISTORY



MISSION HISTORY

In 1942, construction began on 902 underground and 12 above the ground magazines for ammunition storage. In 1943, Letterkenny's mission expanded to include reserve storage of parts, supplies, tools, and equipment for combat vehicles, tanks, artillery, small arms, and fire control equipment for vehicles. When the war ended in 1945, Letterkenny had shipped more than 3 million tons of ammunition and had made maintenance modifications on more than 3,300 tanks/artillery items.

1952 - Korea Support

In 1954, Letterkenny was assigned the mission for rebuild of guided missile ground control, launching, and handling equipment; missile propellant systems; and internal guidance systems.

During the following years, Letterkenny developed into a multi-mission installation responsible for maintaining and overhauling trucks, artillery, and various missile systems.

1960/1970 - Vietnam Support

- Assumed command of Savanna Army Depot Activity, IL

1990 - Operation Just Cause

1991 - Desert Storm Support

TACTICAL MISSILE MAINTENANCE CONSOLIDATION HISTORY (continued)

March 1992	General Ross letter reaffirming that the missile consolidation was approved under BRAC 1991 and that BRAC funds could be used
August 1992	Joint Services Update of the Tactical Missile Maintenance Consolidation Savings and Cost Analysis showing a $26.5 million savings over a 5-year period
August 1992	Environmental Assessment for missile consolidation at Letterkenny found no adverse environmental impact
October 1992	Defense Appropriations Bill signed
October 1992	Defense Authorization Bill signed
November 1992	Army Tactical Missile Systems (ATACMS) began to be transferred to Letterkenny
December 1992	Judge Robert Propst decision halting the transfer of the Anniston missile workload

TACTICAL MISSILE MAINTENANCE CONSOLIDATION HISTORY (continued)

November 1993	Environmental Assessment (EA) completed and published in the Federal Register
December 1993	Environmental Assessment (EA) approved with no public comments
February 1994	Anniston injunction dissolved

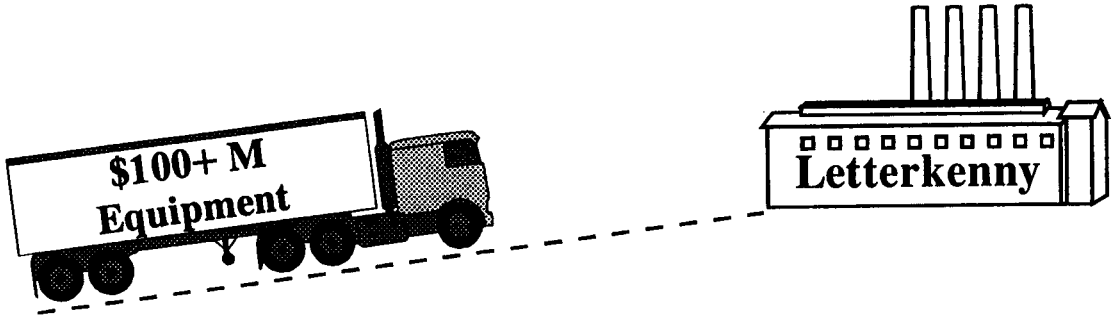
During the following year, Letterkenny successfully transitioned 12 of the 21 missile systems slated for consolidation, system-trained 190 employees, moved over $100 million of equipment from all over the country, improved facilities, and spent over $16.1 million in the overall consolidation effort.

March 1995	DoD again recommends that the tactical missile consolidation not be consolidated at Letterkenny

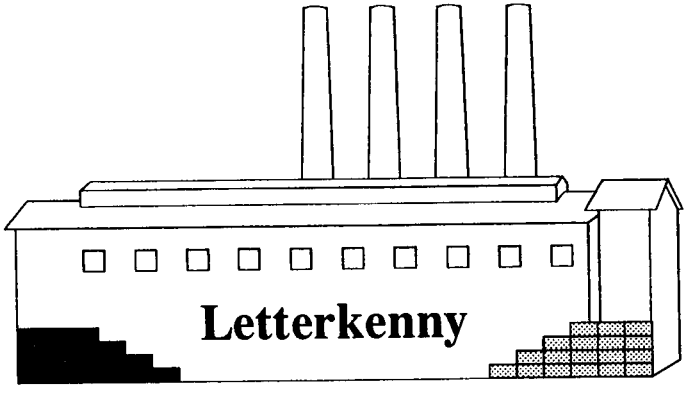
BRAC 93

BRAC 93 IMPLEMENTATION

Equipment



Facilities



Training

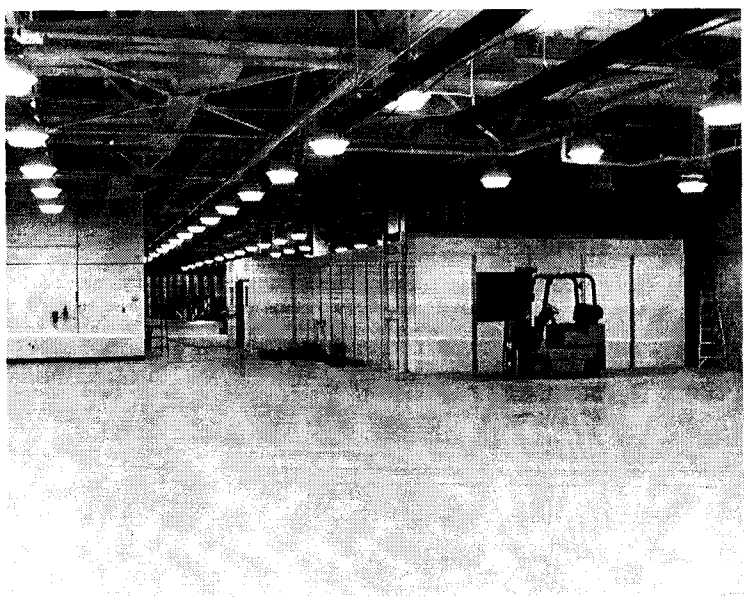
TACTICAL MISSILE CONSOLIDATION TRANSITION SCHEDULE

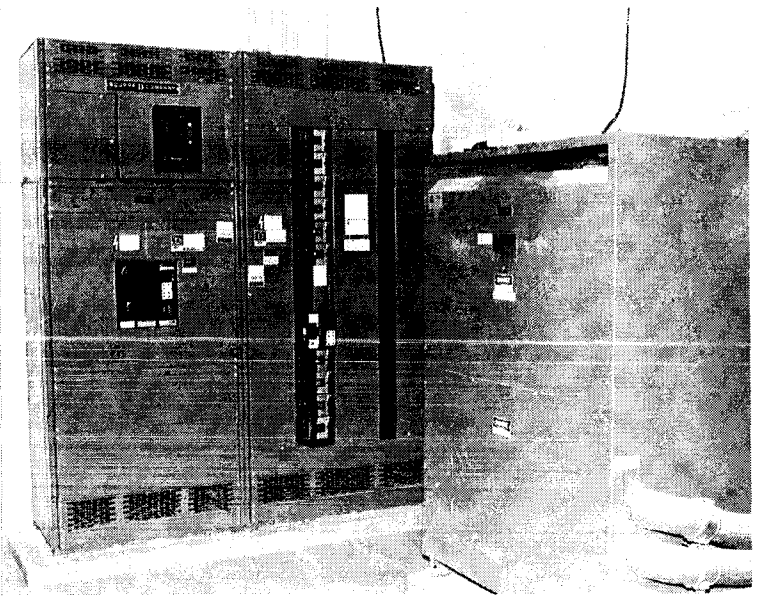
FY94	FY95	FY96	FY98
(CTR) ATAS	(N) Phoenix	(AF) Maverick	(CTR) AMRAAM
(CTR) Avenger	(CTR) HARM PSE	(CTR) HAWK	(CTR) HARM GS
(A) ATACMS	(MC) HAWK Ph 1	(AF) Sidewinder	
(A) MLRS	(A) TOW BFVS	(A) LCSS	
(A) Hellfire	(A) TOW2	(A) Shillelagh	
(A) Dragon	(A) TOW Cobra	(CTR) HARM CS	
(N) Sparrow	(N) Sidewinder	(MC) HAWK Ph 2	
	(CTR) MLRS		
	(CTR PATRIOT		

(Source of Repair) - System

BLDG. 426

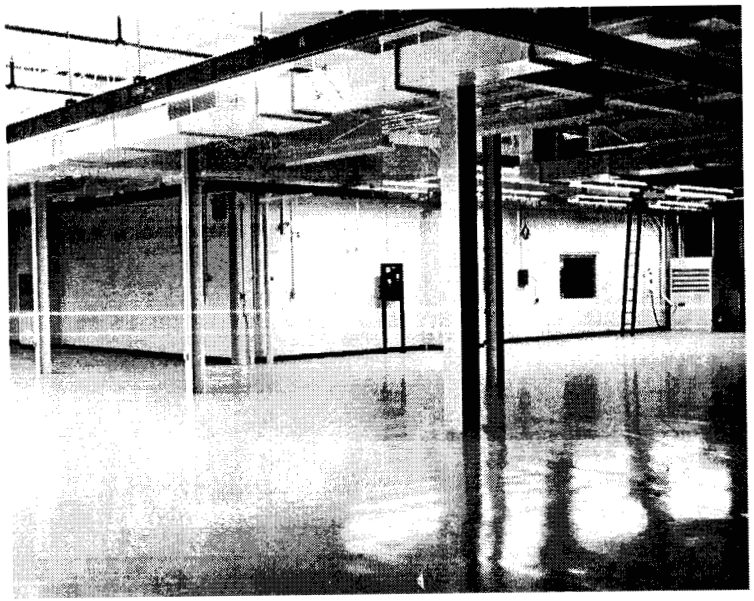
Building 426 is a 20,000 square foot facility which was converted from an industrial operations facility to a missile maintenance facility. Construction involved a complete interior renovation to include: gypsum wall board throughout the facility, metal halide lighting fixtures, electrical upgrades, resinous floor coverings, HVAC, fire protection system upgrades, and specialized finishes as required by specific missile systems.





BLDG. 370

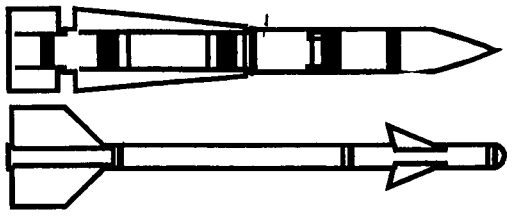
Building 370 is a 296,000 square foot missile maintenance facility. Some renovations were required throughout the facility to create additional floor space and renovate existing floor space to accommodate specific missile systems. Construction consisted of the following: construct two mezzanines and finish space to missile maintenance specifications, upgrade HVAC, upgrade fire protection systems, electrical and lighting upgrades, construction of two-room enclosures in rear garage area, and upgrade to missile maintenance specifications.



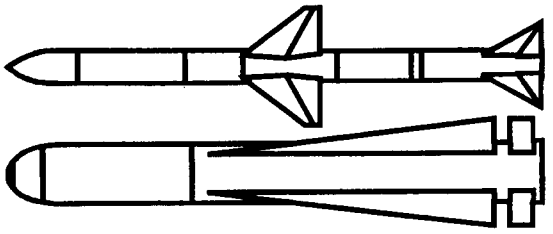
TRAINING PROVIDED FY93-FY95

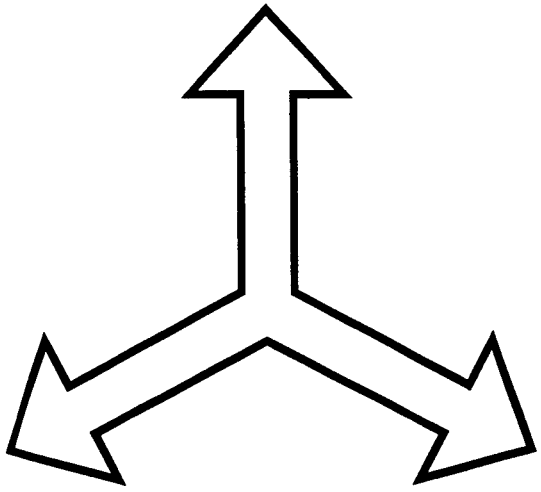
BASIC ELECTRONICS - Hagerstown Junior College, Hagerstown, MD
ADVANCED ELECTRONICS - Hagerstown Junior College, Hagerstown, MD
SPARROW THEORY OF OPERATIONS - Conducted at LEAD by Alameda
TOW COBRA OJT - Huntsville, AL
AVENGER FAMILIARIZATION - Redstone, AL
LAND COMBAT SUPPORT SYSTEM (LCSS) - U.S. Army Missile and Munitions School, Redstone, AL
MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) Repair Course - Redstone, AL
MULTIPLE LAUNCH ROCKET SYSTEM OJT, Texarkana, TX
SIDEWINDER THEORY OF OPERATION - Naval Air Warfare Center, Norfolk, VA
SIDEWINDER OJT - Norfolk, VA
AVENGER BASIC THEORY - Redstone, AL
GROUND TOW OJT - Anniston, AL
DRAGON OJT - Anniston, AL
SPARROW DATA COLLECTION - LEAD
TOW COBRA THEORY OF OPERATION - LEAD
DIGITAL ELECTRONICS and MICROPROCESSORS - LEAD from Hane Industrial

MISSIONS

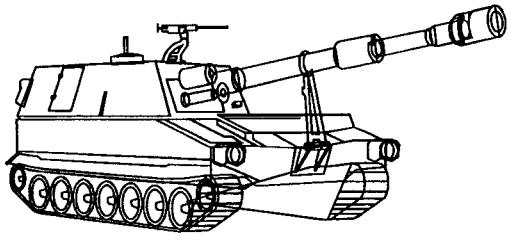


Tactical Missile Consolidation

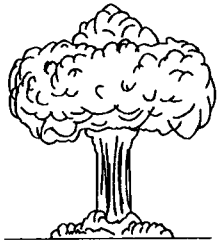




Artillery



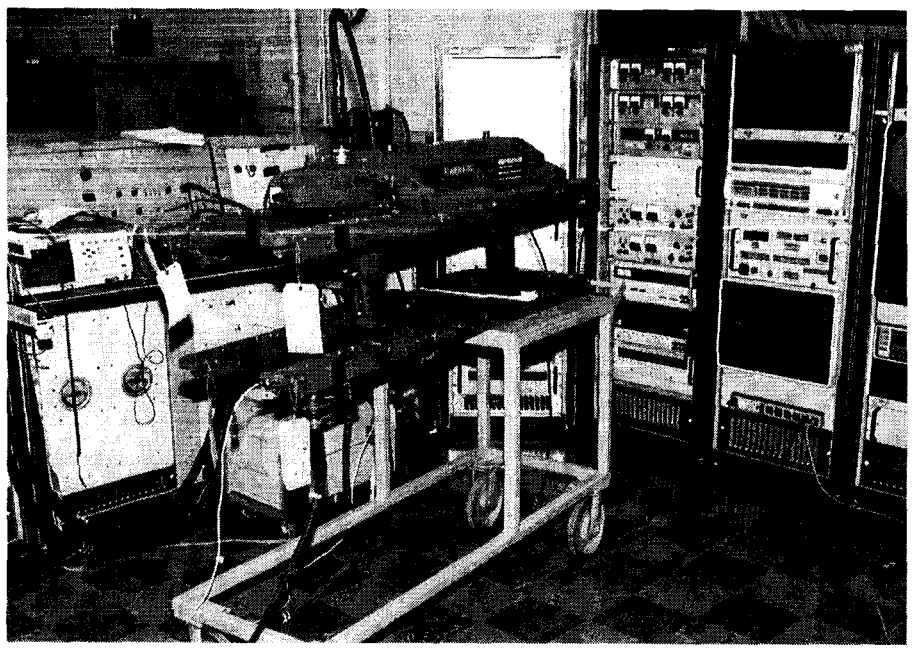
Ammunition



HELLFIRE

Letterkenny is the organic depot for overhaul, test, repair, and modification of Hellfire M272 and M279 launchers, the platforms used to launch the semiactive AGM-114 missiles. To accomplish this mission, Letterkenny utilizes an AN/USM-410 (EQUATE) with unique AH-64 Augmentation and a Rail Tension Tester. Letterkenny is the prime depot for the U.S. Army, Marine Corps, Army National Guard and Reserve, and foreign military customers. We also provide field support services to all customers and system engineering support to U.S. Army Missile Command (MICOM).

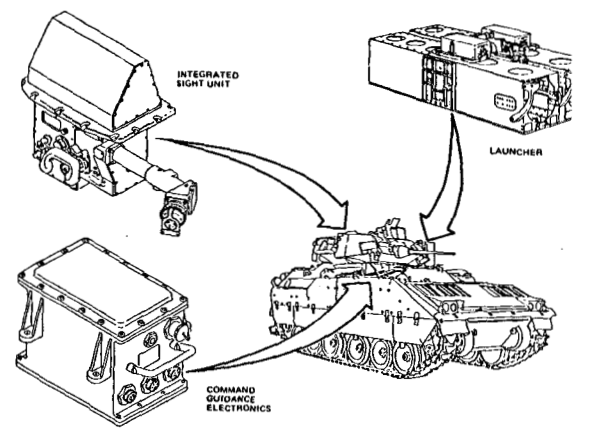
This system successfully transitioned to Letterkenny in October 1994



TOW BRADLEY

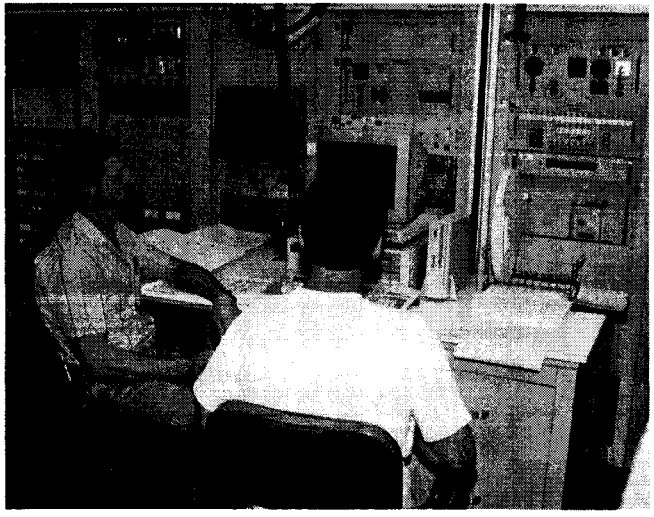
Letterkenny is the organic depot for overhaul, test, repair, and modification of the TOW missile subsystem for the Bradley fighting vehicle. The TOW Bradley is used to launch and guide the TOW missile to targets such as armored vehicles and other hard targets. Letterkenny is the prime depot for the U.S. Army, Marine Corps, and foreign military sales. To accomplish this mission, Letterkenny has the ability to overhaul, repair, and test the Command Guidance Electronics, Missile Guidance Set, and the launcher. The types of equipment required to perform this mission are Table Alignment Test Stands, Launcher Test Stands, EPROM Programmers, Versatile Automatic Test equipment (VATE), and Hot Mock Up capability. Letterkenny provides field support for modifications and technical support.

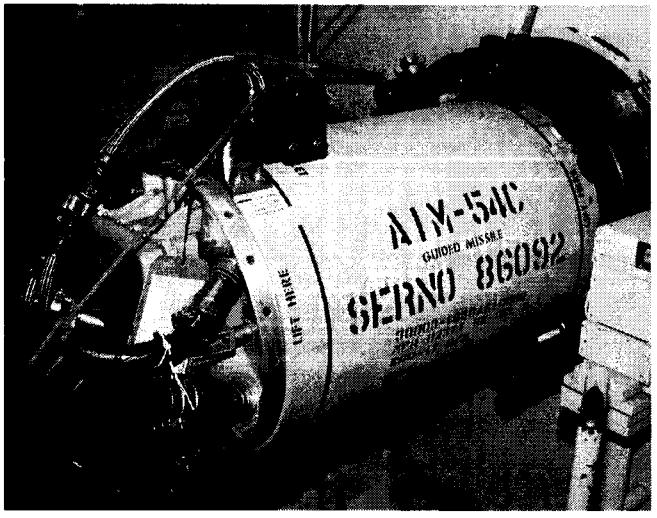
This system successfully transitioned to Letterkenny in December 1994



PHOENIX

Letterkenny is the organic depot for overhaul, test, repair, and modification of the Phoenix AIM-54C missile. The AIM-54 is the only long range, radar-guided air-to-air missile developed. It is used for long range standoff and intercept of aircraft and cruise missiles. To accomplish this mission, Letterkenny has developed capability to overhaul, test and repair the guidance section, control section, and lower level assemblies of these sections. Letterkenny also performs the Reprogramable Program Memory modification. The types of equipment required to perform these missions involve numerous integrated support systems for section and lower level test, an anechoic chamber, hydraulic test stations, and environmental screening equipment. Letterkenny is the prime depot for the U.S. Navy and provides both production and systems engineering support.





FORWARD AREA AIR DEFENSE (FAAD)
AVENGER/ATAS/STINGER

Letterkenny is the organic depot for overhaul, test, repair, and modification of Avenger and Air-to-Air Stinger (ATAS). FAAD consists of both Avenger and ATAS. FAAD provides air defense support to counter low-flying, high-speed, fixed-wing aircraft and helicopters. ATAS supports the Stinger missiles and controls their launching in response to commands from the helicopter fire control system. To accomplish this mission, Letterkenny has the ability to overhaul, test, repair, and modify the Standard Vehicle Launcher, Line Replaceable Units, argon bottles, and the Heavy Mobile Multipurpose Vehicle. Letterkenny is the sole source depot for argon bottle refurbishment. Field team support is provided by LEAD for modifications and engineering change proposal applications. LEAD performs the new production of the S-250 and S-280 direct and general support maintenance shelters in support of FAAD. The types of equipment required to support this mission are an Integrated Family of Test Equipment, Test Program Sets, and associated Depot Maintenance Plant Equipment (DMPE).

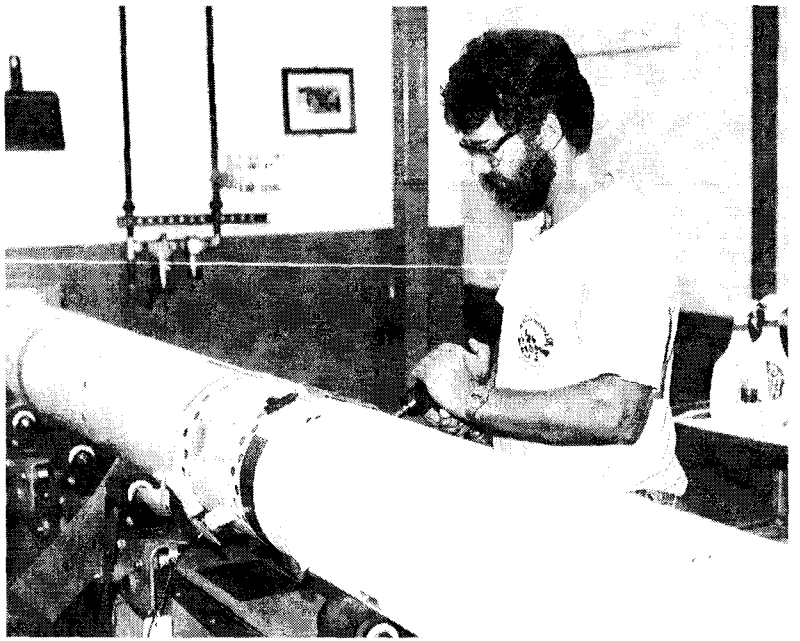
Letterkenny is the prime FAAD depot for the U.S. Army performing total package fielding, prototype development, and engineering support.

AVENGER and ATAS have successfully transitioned to Letterkenny in June 1994

Transition planning is on-going for Stinger

HIGHSPEED ANTI-RADIATION MISSILE (HARM) PECULIAR SUPPORT EQUIPMENT (PSE)

Letterkenny is the organic depot for test and repair of HARM PSE circuit card assemblies. HARM PSE is used by the U.S. Navy and Air Force to perform Intermediate Level Maintenance. To accomplish this mission, Letterkenny has the ability to test and repair nine circuit card assemblies. Types of equipment required to perform this mission are Missile Test Set and Calibration Test Set. Letterkenny is the prime depot for both the Navy and Air Force. Our Ammunition Directorate currently performs All-Up-Round testing, environmental stressing, x-ray, interpretation of x-ray, and storage of HARM missiles for the Air Force.



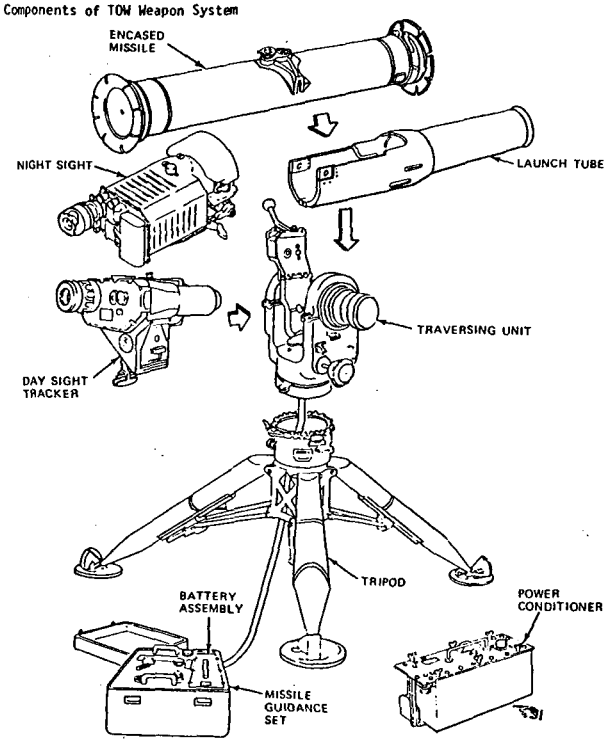
PATRIOT

Letterkenny is the organic depot for the overhaul and test of the PATRIOT missile system. Various test consoles are utilized during overhaul of PATRIOT system components. The test consoles perform automated and manual checks on PATRIOT circuit cards, power supplies, equipment racks, microwave (RF) subassemblies, wire harnesses, cables, and major end items. Letterkenny has the capability to overhaul, repair, and test the following PATRIOT major end items: ECS, Radar Set, ICC Station, CRG, and AMG. After the overhaul process, completed PATRIOT system components are acceptance tested at the radar test site. In addition to the major end item overhaul capabilities, Letterkenny performs PATRIOT secondary item repairs, system modifications, and system upgrades.

GROUND TOW

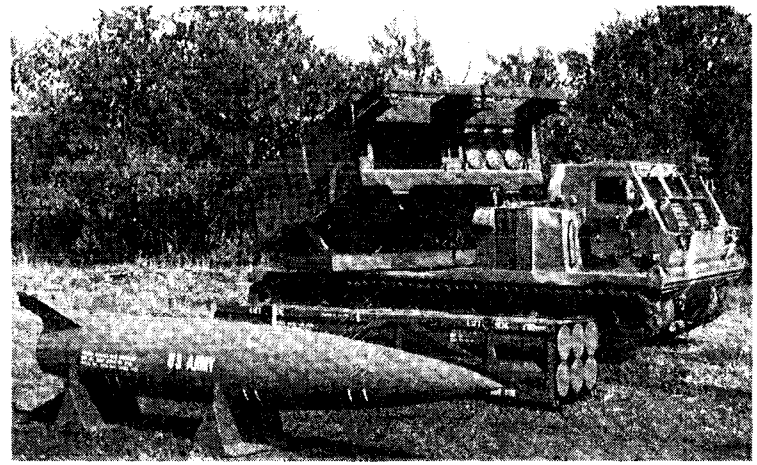
The tube-launched, optically-sighted, wire-guided (TOW) weapon system consists of a launcher and encased missile. It is an easily moved, heavy, antitank weapon designed to defeat armored vehicles and other hard targets such as field fortifications. The system may be configured for several different vehicles, in addition to the standard tripod mount. Additional configurations include the Jeep (M232 Mount), Armored Personnel Carrier (M236 Mount), and the HMMWV (M233 Mount). Letterkenny will perform depot level maintenance and provide field support to the U.S. Army, the National Guard, and foreign military sales customers.

Components of TOW Weapon System

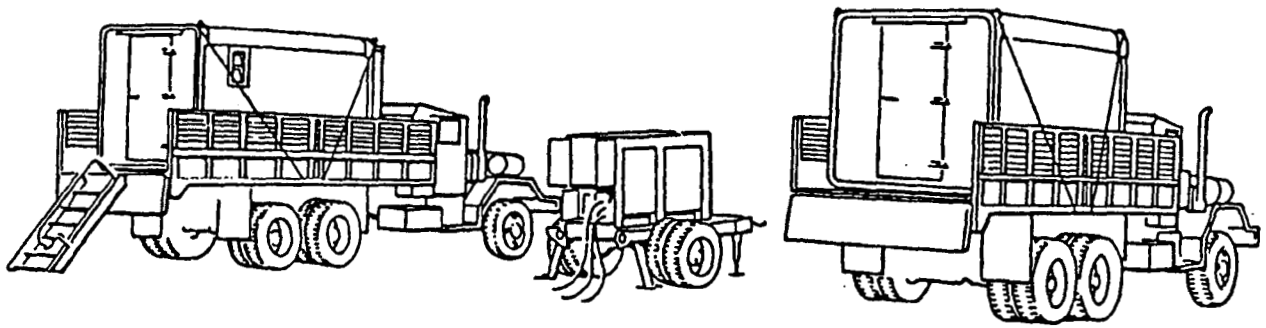


ATACMS

A long-range guided missile, Army TACMS is packaged in launch pod containers similar to those used for MLRS, and is launched by MLRS crews from the dual use M270 weapons platform. Army TACMS is designed for mission versatility and growth. Payload capacity, delivery accuracy, targeting flexibility and short-range response time make Army TACMS suited for a wide range of targets. Letterkenny will repair unserviceable missiles utilizing depot plant equipment. In addition, 10 percent of the missiles will be returned the first year to Letterkenny for inspection, test, and repair as part of the missile surveillance requirement. After the first year, quantities will decrease by 2 percent per year until stabilized at 4 percent. Procedures include a comprehensive test of components, calibration, and installation of any necessary improvements/modifications. Repair of the missiles will include: replacement of major assemblies, subassemblies and/or components of the subassemblies.



The AN/TSM-93 is a digital-controlled automatic electronic test set. It consists of rack-mounted power, stimuli, switching, measuring, optical equipment, and a clean booth. Digital control of the system is accomplished by a test program or, under certain maintenance operation, a manual keyboard. The AN/TSM-93 can make static and dynamic self-test of its control, switching, stimuli, and measuring equipment. It is fault isolated by continuous monitoring devices and programmed self-tests.



AN/TSM-93

ENGINE GENERATOR SET

AN/TSM-94

SHILLELAGH

The Shillelagh is a missile fired from the M551, Armored Airborne Reconnaissance Vehicle. The Shillelagh subsystem mounted on the assault vehicle replaced the M41 light gun and the M56 airborne assault weapon. The Missile is a solid propellant guided missile with a shaped charge warhead and is launched from the 152 MM gun/launcher on the M551 vehicle. The Shillelagh missile has an effective range of approximately 3,000 meters. The missile is guided by a closed loop electronic system using infrared transmitters in the launcher and receivers.

The Shillelagh systems consist of a missile, launcher, infrared transmitter, signal data converter, infrared tracker, modulator, rate sensor, test checkout panel and a power supply.

AMMUNITION SHIPPING/RECEIVING

Letterkenny Ammunition Operations ship and receive all types of Class V items from small arms ammunition to large bombs and missile items. The majority of the workload comes from the conventional ammunition single manager, the U.S. Army Armament, Munitions, and Chemical Command (AMCCOM); however, large amounts of ammunition and missiles are shipped/received for U.S. Army Missile Command (MICOM), Navy Air Systems Command (NAVAIR), and Warner Robins Air Logistics Center.

The ammunition area contains 128 miles of road, 31 miles of railroad track, and 25 loading docks to facilitate shipping and receiving.

PROCESSING CAPTURED FOREIGN MILITARY MATERIALS

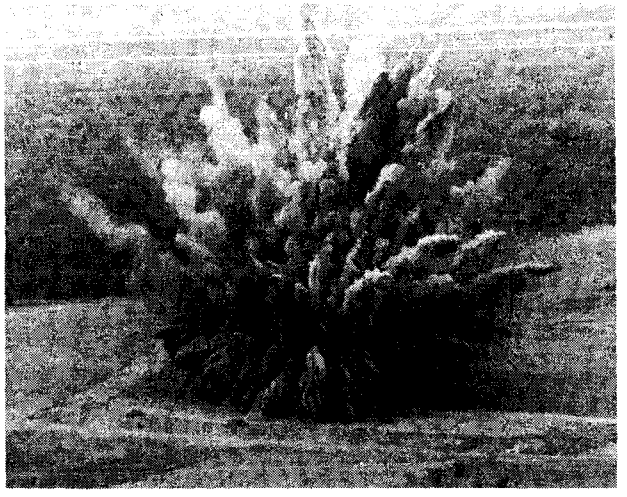
The DoD Intelligence Community secures foreign munitions through capture or acquisition for certification test calibration and training DoD personnel. The Directorate of Ammunition Operations is responsible for the receipts, identification, classification repackaging, storage, and shipments of the foreign ammunition. Letterkenny has processed ammunition from Grenada, Operation Just Cause, and Operation Desert Storm.

DEMILITARIZATION

Letterkenny Ammunition Operations destroy obsolete or hazardous bulk explosives and Class A, B, and C ammunition by demolition, burning, or processing through the deactivation furnace in a designated, strictly controlled access area located a safe distance from other operations.

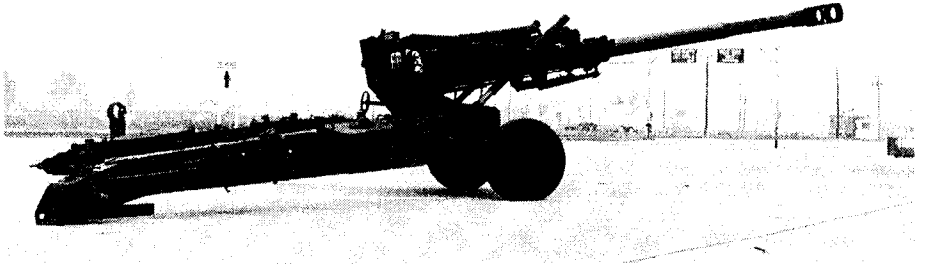
Detonation by mechanical or electrical procedures is the preferred method for high explosives (i.e., projectiles, bombs) items. We have the capability to destroy 500 pounds per explosive shot or a maximum of 10,000 pounds per day.

Open air burning is used to destroy bulk wet and dry propellants, rocket motors, and the majority of low explosives (i.e., small arms) items. This is done either in a perforated armor-plated chamber which restricts the fragmentation hazard, or on a bed of combustible materials. All burning is done by permit in compliance with the Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Resources (DER).



TOWED HOWITZERS

Letterkenny is the prime depot for towed howitzers performing overhaul, modification, repair, and conversion of various Army and Marine Corps units. This includes the M101, M101A1, M102, M102A1, M114, M114A1, M114A2, M115, M116, M119, M120, and M198. Letterkenny has also supported the Air Force by overhauling the 105mm and 40mm armament systems for C130 aerial gunships. In addition to U.S. forces, howitzers have also been overhauled for foreign customers such as Indonesia, Columbia, and New Zealand. Letterkenny also provides field support to artillery units in places such as El Salvador, Hawaii, and Alaska.



SELF-PROPELLED HOWITZERS

Since 1971, Letterkenny has performed overhaul, modification, and conversion of various self-propelled howitzers. This includes overhaul of vehicles for foreign military sales customers and the training of foreign maintenance personnel. Letterkenny has converted several models of the M109 Self-propelled Howitzer and is the prime depot for the M110A2 Heavy Self-propelled Howitzer, the M578 Recovery Vehicle, and the Field Artillery Ammunition Support Vehicle.

PALADIN ENTERPRISE (continued)

All participants in the Paladin Enterprise are benefiting from the partnership.
Major benefits achieved through this relationship include the following:

- Contractor can deliver parts directly to Letterkenny production line and receive parts from the Letterkenny line in Just In Time (JIT) quantities. Parts flow between Letterkenny and PPD as they would in an integrated plant.

- Utilization of Letterkenny's painting facilities reduced the potential generation of additional hazardous wastes.

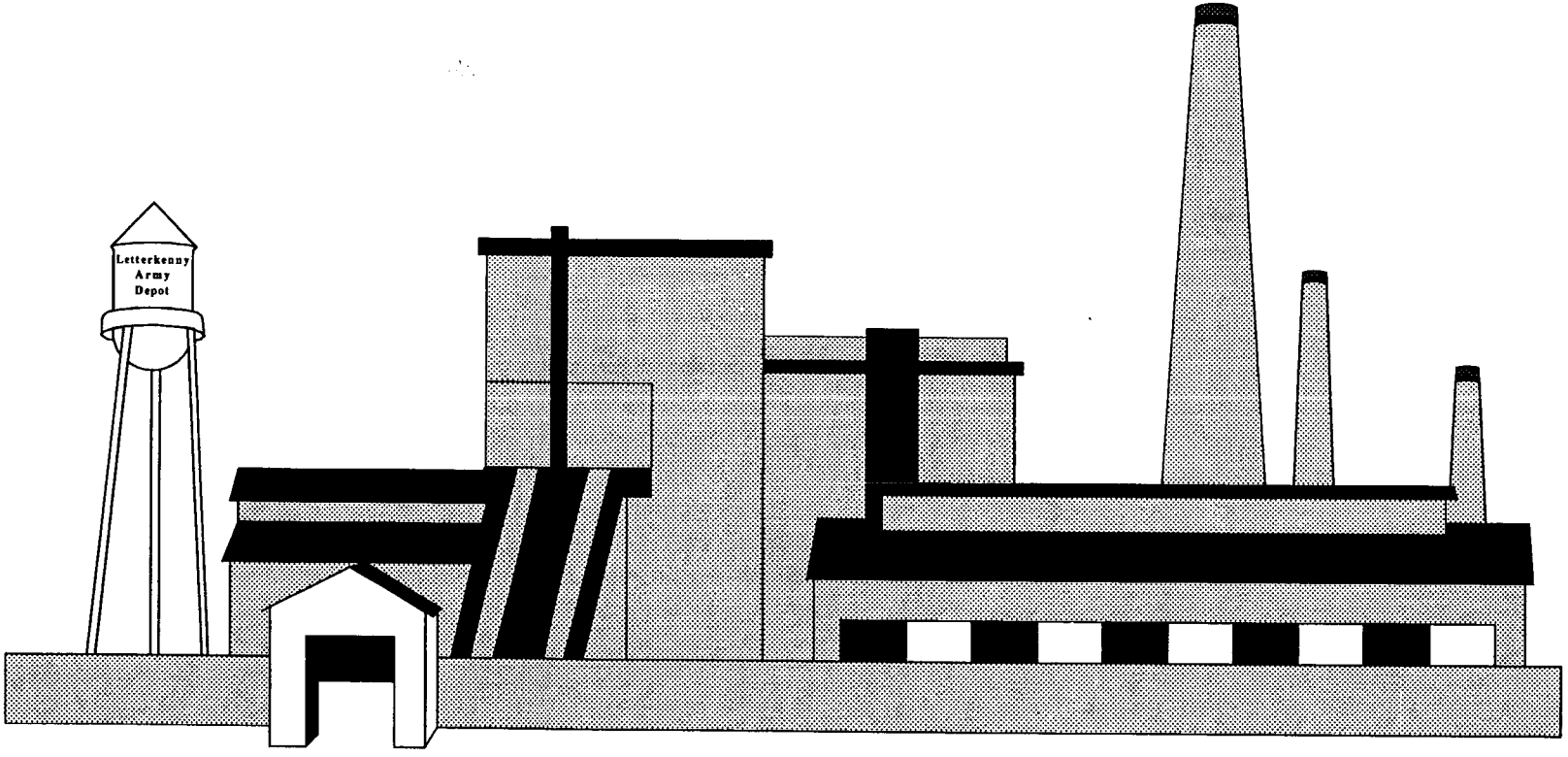
- Reduction in average unit price per vehicle. An estimated 71 percent in cost reduction will result from low rate initial production (LRIP) to full rate production.

- Optimized program economies by dividing the participant responsibilities into specific functions that each party can perform in a manner that reflects total quality.

The Paladin Multiyear Contract is serving as **THE** model for government/industry restructuring. **This effort is the first of its kind within DoD** pioneering the integration of contractor, program manager, and depot work activities for the overall benefit of the product and the government.

The delivery of the first, full-rate Paladin occurred on 31 Oct 94 and was produced two months ahead of schedule and under budget. Gilbert F. Decker, Assistant Secretary of the Army and Army Acquisition Executive, the keynote speaker at the ceremony, said, "*This experiment enterprise is a hallmark of something we should try to replicate. I am extremely proud of what I've seen here today and take my hat off to this.*"

MANUFACTURING CAPABILITIES

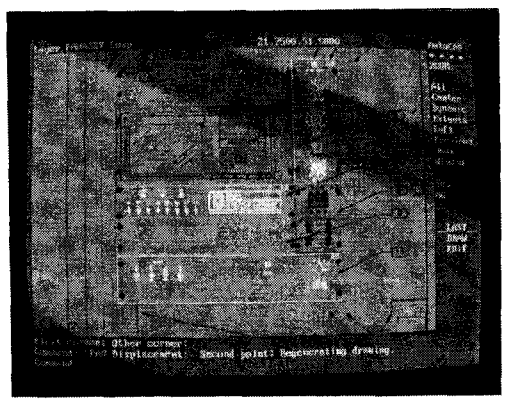


COMPUTER NUMERICAL CONTROLLED/MANUAL DATA INPUT (CNC/MDI) MACHINING

Letterkenny currently has a wide range of versatile CNC/MDI machining capabilities to include turning, milling, grinding, punching, cutting, electrical discharge machining, and boring. Letterkenny has the capability to machine from the smallest component up to an M109 hull or turret.

CAD/CAM

COMPUTER AIDED DESIGN (CAD): Soft technology which aids manufacturing through engineering drawing and animation, floor plans, technical data packages, 3-D and 2-D graphics and solid modeling.
COMPUTER AIDED MANUFACTURING (CAM): Soft technology assisting manufacturing processes through computer numerical control programming, computer process planning for machine operations, tool design and direct numerical control



F1

FLEXIBLE COMPUTER INTEGRATED MANUFACTURING (FCIM)

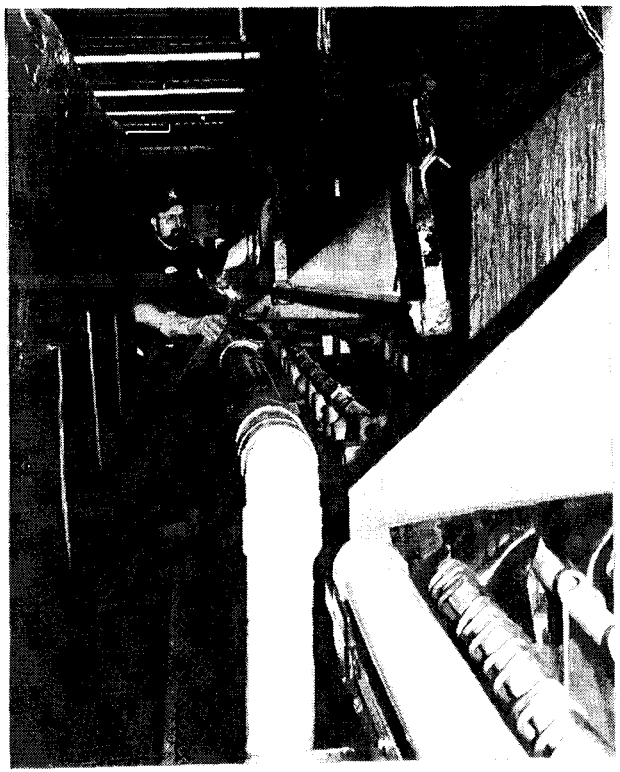
Letterkenny's FCIM program integrates equipment, software, business practices, and human resources to rapidly manufacture, repair, and deliver items to support DoD Tactical Missile and Paladin missions. This program focuses on networking our business and technical resources with our customers for shortened manufacturing/repair cycles and customer satisfaction.

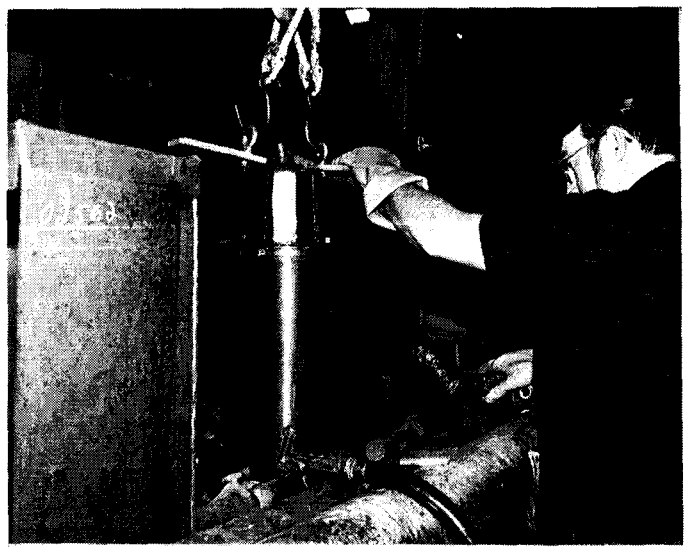
TECHNICAL MEASUREMENT FACILITY

Within the vehicle rebuild complex at Letterkenny is located a technical measurement facility. This 836-square foot, environmentally-controlled room houses equipment utilized for precision measurements of machined material and components. Equipment includes a coordinate measuring machine with granite table, computer (with 3-D software), printer, and math coprocessor. This machine has infinite fine adjustment on all axis (x, y, z). Machine resolution is .00080 inch; display resolution for digital readout and computer is .0001 inch; repeatability is .0001; and work piece weight is 4,500 pounds. Also available is an optical comparator with 10 to 100 times magnification, a maintenance inspection center for the measurement of smaller parts, and a hardness tester.

CHROME PLATING FACILITY

Letterkenny applies engineering plating, per Fed Spec QQ-C-320, through both conventional and reversible rack/conformal anode processes. Electroplating of back chrome, per MIL-C-14538, is also performed. Parts with diameters up to 9 inches and lengths up to 7 feet are normally plated. Thicknesses from .0001 to .060 inches are applied. Metals commonly brush plated include chrome, nickel, gold, silver, copper, and cadmium. Complete pre- and post-machining processes are available including interior and exterior honing and drawlapping.





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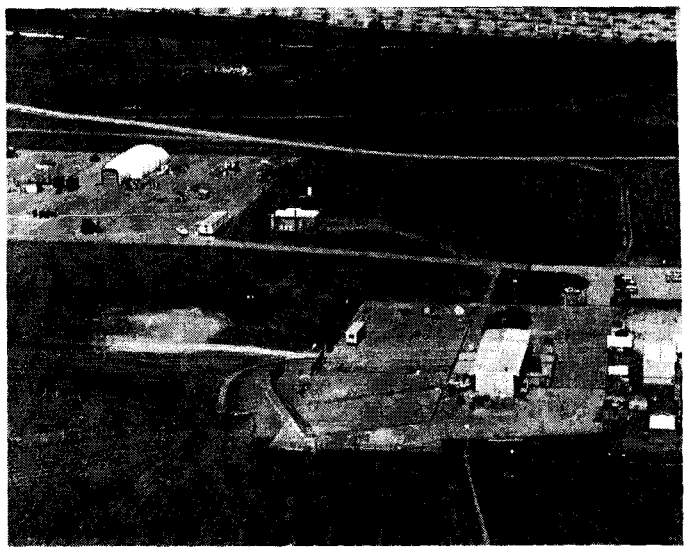
28 ACRE RADAR TEST SITE
(including HAWK Test Site and PATRIOT Test Station)

Missile systems at Letterkenny are tested at the Radar Test Site, a specially designed facility that simulates a tactical emplacement. The system is first put through the paces of daily, weekly, and monthly checks. After a long series of tests and checks, Systems Integrated Check Out (SICO) is begun. This procedure puts the system through an exhaustive test which includes a series of preliminary checks, target acquisition and identification, concluding in a simulated missile launch.

This facility is one-of-a-kind within DoD and one of two in the world.

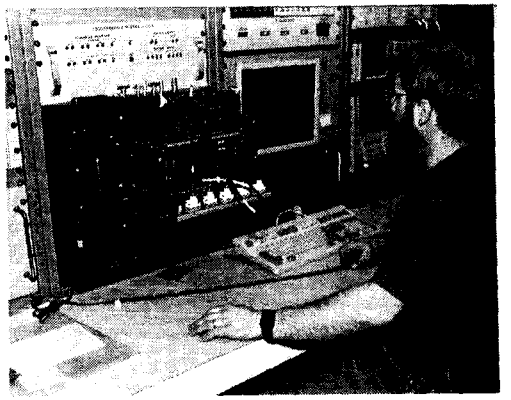


HAWK TEST SITE: 160,000 square feet of hard stand allows simulation of tactical deployment for (3) assault fire units. The controlled access, free space radiation zone allows actual on-air operation and testing.

PATRIOT TEST STATION: 2,500 square feet of environmentally controlled space for computerized test station P2275. The test station can perform complete analysis of an operational PATRIOT Radar and simulate tactical conditions. A van-enclosed environmental generator provides a hostile (jammed) electromagnetic environment. The controlled access radiation zone allows on-air operation.

DIT-MCO, A2000, MISSILE AUTOMATED TEST EQUIPMENT

Letterkenny's entire harness operation is supported by a programmable automatic continuity and insulation breakdown tester to analyze cable and wiring. With recently added modules, our testing capacity is up to 10,000 pins per unit. The semiautomatic test stations provide a limitless capacity for electrical testing. An entire complement of specialized depot-level microwave equipment is also available.



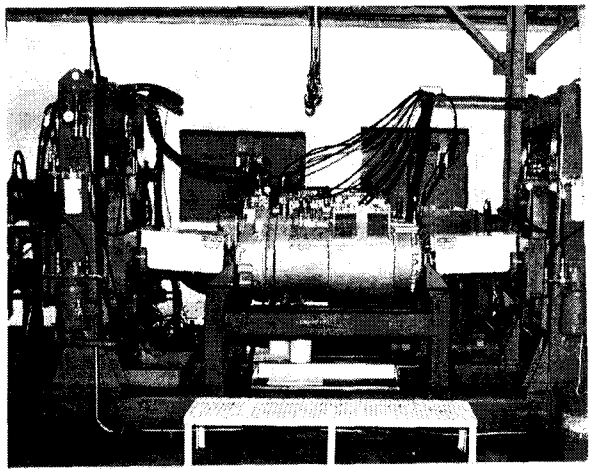
MULTILAYER CIRCUIT CARD REPAIR AND TEST

Letterkenny's Electronics Shops Division has the capability to repair multilayer circuit cards down through three layers. Letterkenny's personnel have the option of using lap flow (dissolving the epoxy layers) or a grinding method when repairing the multilayer boards. Associated equipment includes: modern PACE equipment; micro-blast (soda or walnut shell) equipment to remove conformal coatings; aqueous circuit card cleaning equipment; hot jet soldering equipment for Surface Mount Technology circuit card repair; wave soldering equipment; 15 to 30 power microscopes for miniature soldering; board and chip EPROM programming and validation test equipment; and bed-of-nails and edge connector based test equipment. All personnel who use soldering techniques are certified for MIL-STD-2000 (Task F & G) soldering.

ENGINE TEST CELL

A Distributed Numerical Control (DNC) system is connected to all of the CNC machine tools. It provides electronic management of information required to support CNC manufacturing. The DNC system is state-of-the-art technology that electronically connects engineers, drafters, programmers, and quality, to computer numerical control machines on the shop floor.

ENGINE AND CROSS DRIVE TRANSMISSION TEST STAND

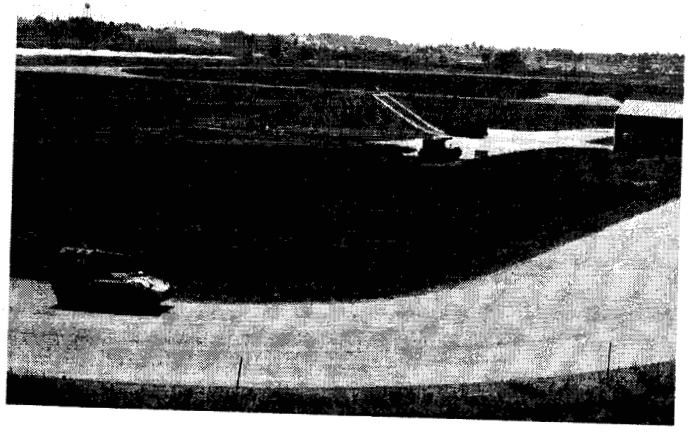


Letterkenny recently purchased a transmission test stand and has a second one on order to accomplish test requirements of the M109A XTG-411 PALADIN cross-drive transmission. The test stand is powered by a remotely located diesel engine and generates drive power and dynamic loading of each output by hydrostatic pressure. The control console features computerized data and storage. This test stand provides increased capability, accuracy, and reliability of cross-drive transmission overhauled at Letterkenny.

This test stand is one-of-a-kind within DoD.

VEHICLE TEST TRACK COMPLEX

A 1-mile, macadam (asphalt) surface, closed loop oval test track accommodates the full dynamic and static testing of tracked and wheeled vehicles at Letterkenny. The track includes straight-aways and banked curves sufficient to allow full speed testing. The complex also includes 30/60 percent slopes, pivot steer spin pad (concrete), brake/acceleration area, turning radius (wheeled/geared steer track area), undulation area, lockout cylinder area, fording/flotation pit, boresighting/synchronizing platform with slope, and a weapon's stabilization course. The track is also capable of accommodating numerous tracked and wheeled vehicles simultaneously. Two inspect/repair buildings provide six bays where timely repairs can be made to tested vehicles. An in-ground pit in one bay provides easy access for inspections/repairs to the components on the underside of vehicles.



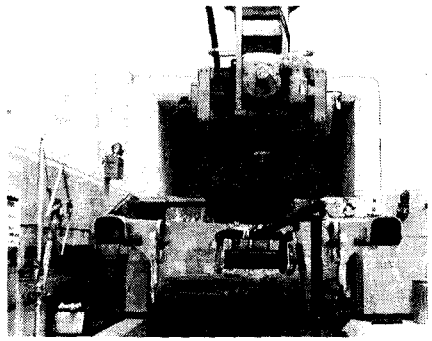
RADIOGRAPHIC INSPECTION FACILITY

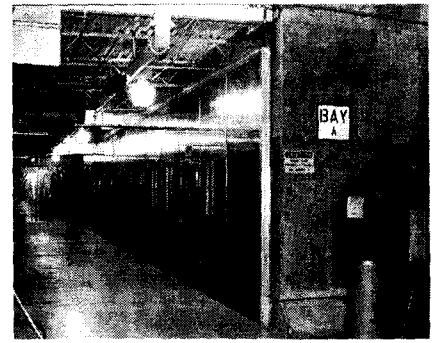
Letterkenny's radiographic (x-ray) inspection facility houses a 25 megavolt Betatron x-ray machine and a 320 kilovolt x-ray machine. The Betatron unit is located in a concrete chamber with 5 to 8-foot thick walls and a 96-ton steel concrete filled door that moves on railroad type tracks. The Betatron unit can x-ray through 20 inches of steel and is used for inspection of large items (i.e., the interior of large rocket motors). A 10-ton bridge crane and a 25,000 pound "track-tread" carrier are used for movement and placement of large material. The 320 kilovolt machine is used for smaller explosive/nonexplosive devices and has the capability to x-ray through 2 inches of steel. An area monitoring system is an integral part of the built-in radiation safety system.

The facility is constructed of concrete and steel and is equipped with three portable x-ray machines. It also has a darkroom that houses an automatic film processor with automatic chemical replenishment features and a unit to enable the recovery of silver from chemical solutions.

Although the facility is used primarily for explosive devices, gun tubes, self-propelled howitzer hulls, and major items requiring safety or quality inspections can be processed as well. Extensive savings in labor are possible when items can be inspected by x-ray rather than disassembled and visually inspected.

This facility is one of only three within DoD.

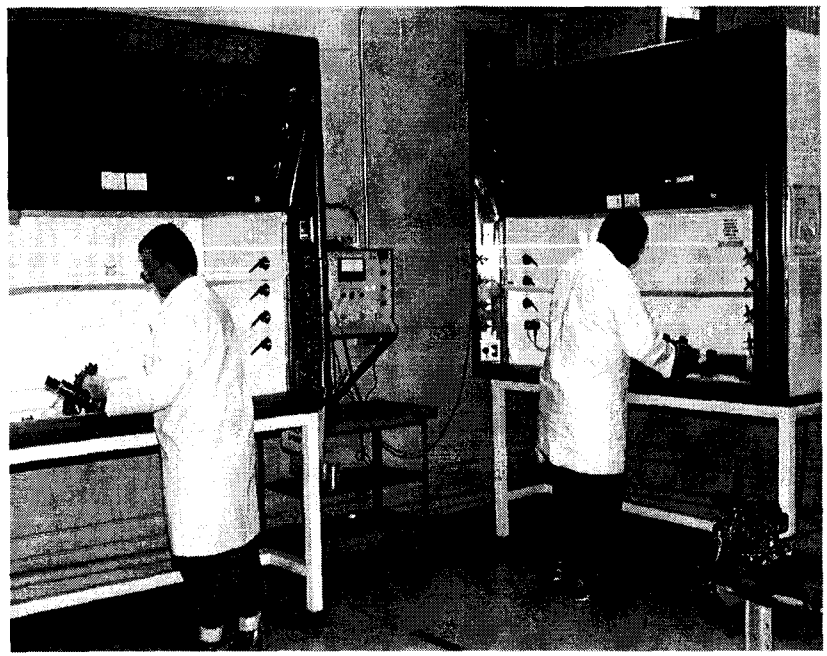




OTHER ADVANCED TECHNOLOGY

TRITIUM FACILITY

Located in Bldg. 14, Letterkenny's facility includes a Tritium Instrument Repair Room approximately 20 feet by 20 feet. This room is specially designed and designated for repair work related to self-luminous sources (tritium) into fire control instruments. Letterkenny has been licensed by the Nuclear Regulatory Commission (NRC). The facility contains required tritium air monitors and fume hoods. All tritium instrument repair personnel are properly trained and skilled in repair/replacement of tritium light sources. Facilities also exist for the shipping, receiving, and storage of tritium items.



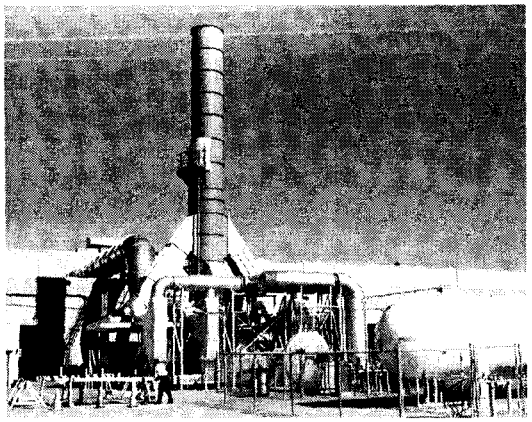
H1

VOC EMISSION CONTROL SYSTEM

Letterkenny's painting operations include 53 painting facilities spread throughout the depot complex. These facilities range from small open-face booths to semiautomated paint carousels to large drive-thru booths (the largest being 22 feet wide by 18 feet high by 60 feet long). Chemical agent resistant coatings (CARC) (primer and top coat) are applied within these facilities to a wide variety of parts and end items.

Our recently installed Volatile Organic Compound (VOC) emission control system utilizes filters, zeolite absorbing rotors, and anoxidizer to remove over 95 percent of the VOCs. The system greatly increases the painting capability at Letterkenny, complies with Pennsylvania Department of Environmental Resources regulations, and postures Letterkenny to deal with more stringent environmental regulations in the future. Pennsylvania currently ranks as one of the most stringent states in the nation and yet has approved Letterkenny's capability.

This system is one-of-a-kind within the Department of the Army.



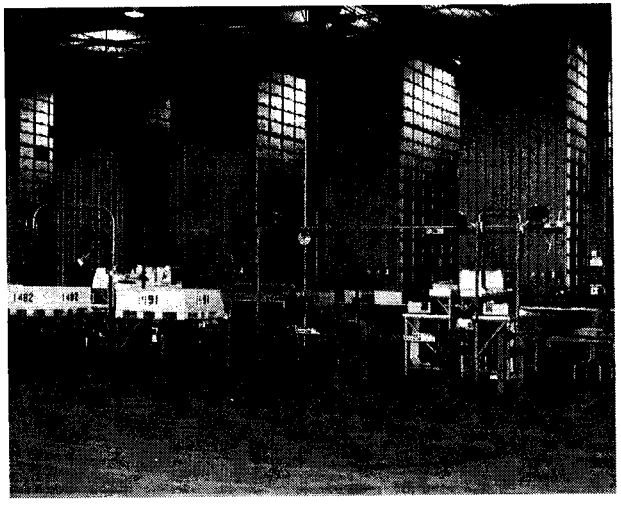
ASRS PLUS

The Automated Storage and Retrieval (ASRS) located in Bldg. 370 is a storage management recordkeeper that provides material visibility, accountability, and job control planning processes.

Incoming materials and parts are assigned a storage location and stored there for later use. Upon request, items are picked and delivered automatically. Automated Guided Vehicles (AGVs) deliver parts and materials throughout the shops.

ASRS operates as a "Real Time" system in which the occurrence of an event (storage or requisition) is recorded almost simultaneously.

Estimated annual savings realized with the utilization of the ASRS is $2,168,227.



H5

NITROGEN SUPPLY AND DISTRIBUTION SYSTEM

Letterkenny's state of the art Nitrogen Supply and Distribution System has been certified by the Naval Warfare Assessment Division at China Lake for purity and particulate count. The liquid nitrogen is 99.999% pure and in its gaseous state has been measured in fractional parts per million for trace gasses. The delicate cryogenics of the Sidewinder seeker demands these rigid purity requirements.

Our nitrogen supply and distribution system consists of an 11,000 gallon vertical tank, two 250scfm pumps, four vaporizers, 10 receivers, and stainless steel high pressure tubing installed throughout Bldg. 370. The system provides nitrogen gas to Bldg. 370 at pressures up to 3500psig. A programmable control system provides full automation for selecting a pump and vaporizers and starting and stopping the system. The liquid vessel also has a liquid tap for filling Dewars.

Currently the system has 12 pressure reduction panels providing gas for Sidewinder missile testing. It is also being used to purge gas of the Avenger argon bottle program. The Phoenix missile system uses liquid nitrogen through a special tap on the system. The system has enough capacity to support future nitrogen requirements in Bldg. 370, including Maverick Missile System.

APPENDICES

Letterkenny Army Depot (LEAD) Maintenance Interservice Support

U.S. Marine Corps

HAWK Missile Systems - (Major and Secondary Items)

NASA

HERC Modifications

U.S. Navy

MK42 Boresight
HERC Target Tracking Radar
HERC Target Tracking Station
HERC Launching Control Trailer
HERC Missile Tracking Radar
HERC Battery Control
HERC Radar Control

U.S. Air Force

Microscopes
Fiber Optic Scope
Binocular, M18
Watches
Clocks
AF Borescopes
Infrared Periscopes
N127 Articular Telescopes
M21 Periscopes
M19 Periscopes
M49 Periscopes
Range Finder
M100 Periscopes
M32 Periscopes
Air Force Caterpillar
M2A2 Aim Circle
Scoop Loader
40 K Loader
Tractor HD21P
HAWK Launchers
HAWK High Power Illuminators.

National Guard

5000 Gal. Trailer Tank
M750 6-Ton Semitrailer Van
M35A2 2½-Ton Truck
M49A2C 2½-Ton Truck
M820 5-Ton Van Truck Exp
M109A3 Shop Van Truck
M129A2 Semitrailer
M54 5-Ton Cargo Truck
M292 2½-Ton Van Truck
M50A1 2½-Ton Truck
M129A1 12-Ton Semitrailer Van
M146 6-Ton Semitrailer Shop Van
M313 6-Ton Semitrailer Van Exp
M870 Semitrailer
M600 Liquid Storage Tank
M50A2 2½-Ton Truck
Refrigerator Container Assy
Fuel Tank Truck
16 Cu. Ft. Concrete Mixer
M131A4C Semitrailer Tank
M131A5C Semitrailer Tank
HAWK Missile Systems
Crusher Screen Plant (75-Ton)

LEAD Maintenance Experience in Support of Foreign Military Sales

LEAD Unique Fabrication Capabilities (cont.)

Other Customers

- Modification Kits
- Conversion Kits
- Cable Assemblies
- Cable Carriages
- Cable Connector Assemblies
- Relay Box
- Adapters
- Antenna Mast Group Assemblies
- FME Shop Modification Kits
- HAWK Loader Modifications
- Sweepdown I, PIP (Modification Kits)
- Sweepdown II, PIP (Modification Kits)
- Radio Mounts
- Plant Equipment
- MEPSCAT, Strength Machines
- Cartridge Assemblies
- FADAC Parts
- Camshafts
- Shop Equipment
- Guided Missile Transporters
- Teflon Hose Kits
- Pneumatic Wheel
- Semi-Trailer GM Trans (Retrofit on HEMTT)
- Resistors II
- Remote Function Kit
- Engine Head Assembly
- CWAR High Voltage Power Supply Modification Kit
- PATRIOT Battalion Maint Center
- PATRIOT Battery Maint Center
- Demi-Trailer M1032 Small Repair Parts Transporter
- Miscellaneous Combat Items
- M3A4 Smoke Generators
- Adapters
- Retrofit Kit
- Drawbar Kit
- Relay Box
- M109A4 Self-Propelled Howitzer (MWO Kits)
- 155mm Towed Howitzer (Misc Parts)
- M157 Smoke Generator (Misc Fixtures)

TRANSITIONS UNDERWAY