ANNISTON
ARMY DEPOT

COMMITTED TO EXCELLENCE

ANNISTON ARMY DEPOT
WEAPONS ◆ COMBAT VEHICLES ◆ AMMUNITION

COMBAT VEHICLES

ARTILLERY

SMALL ARMS

AMERICA'S COMBAT VEHICLE SUPPORT CENTER

Pit Crew of the American Warfighter

Anniston Army Depot

Purpose:

To provide world-class refurbished major end items, components and forward readiness support to the warfighter

Vision:

To be the best value Department of Defense Center for Industrial and Technical Excellence for current and future weapon systems by being uniquely vital, technologically superior, cost effective and unconditionally responsive to all customers worldwide

Mission:

Provide superior industrial expertise, products and services to support America's warfighters, allies and commercial customers

History...

MARCH 1940	The War Department began planning construction of an Army Ordnance Depot in Northeast Alabama.
FEBRUARY 1941	Construction began on the first 500 ammunition storage igloos, six standard magazines, 20 warehouses and several administrative buildings.
SEPTEMBER 1941	Four employees made up the depot's workforce.
NOVEMBER 1942	Depot workforce was 4,339.
1950s	The depot was assigned a maintenance mission for the overhaul and repair of combat vehicles.
1960s	Throughout the '60s, the depot was involved with the M47 and M48 programs as well as reconditioning programs for the M19, M38, M42, M47, M56 and M59 vehicles.
1 AUGUST 1962	Renamed Anniston Army Depot, an installation under the jurisdiction of the Army Materiel Command (AMC)
1963	The maintenance and storage of chemical munitions at ANAD began.
1970s	Overhaul of the M551 Sheridan commenced as well as the overhaul and conversion of the M48A1 to the M48A5 and the M60A1 to the M60A3.
1978	ANAD began work on the M1 main battle tank with the PT/ME - Physical Teardown/ Maintenance Evaluation.
1980s	Missile maintenance was added as a new mission.
AUGUST 1992	ANAD's general supply mission assumed by the Defense Logistics Agency.
1993	Partnering with Industry efforts were initiated with the depot becoming the forerunner in Public-Private Partnerships.
1 OCTOBER 1998	Operational control of ANAD was transferred to the Tank-automotive and Armaments Command (TACOM).
AUGUST 2001	ANAD was designated by the Secretary of the Army as the Center of Industrial and Technical Excellence for Combat Vehicles, Artillery and Small Caliber Weapons.
2002	Partnership with General Dynamics/General Motors on new production of Stryker vehicles. Reorganized for optimization in accordance with Toyota Manufacturing Process (Lean).
AUGUST 2003	Safe and secure destruction of the depot's obsolete stockpile of chemical munitions began at the Anniston Chemical Disposal Facility (ANCDF).
DECEMBER 2003	ANAD and other TACOM installations were given the task of fabricating Armor Survivability Kits for installation on HMMWVs in Operation Iraqi Freedom.
2004 - 2006	JAB/ABV Program Management Fabrication Sustainment for DoD M1 systems
MAY 2006	Production on Stryker vehicles began.
OCTOBER 2006	ANAD named U.S. Army's organic maintenance depot facility for the Stryker Family of Vehicles.
2007	Shingo recognition for FAASV assembly process and AGT 1500 Turbine Engine process.
MAY 2007	ISO 9001: 2000 compliance throughout Nichols Industrial Complex was certified.
JULY 2008	First Assault Breacher Vehicle shipped to the U.S. Marine Corps
MAY 2009	JAB/ABV rollout ceremony
AUGUST 2009	Production operations begin at the Powertrain Flexible Maintenance Facility, which houses overhaul and repair work on reciprocating diesel engines for combat vehicles.

ANNISTON ARMY DEPOT
WEAPONS ♦ COMBAT VEHICLES ♦ AMMUNITION

Organizational Profile...

Nestled in the foothills of the Appalachian Mountains, Anniston Army Depot (ANAD) is a U.S. Army maintenance center and munitions storage site that occupies more than 25 square miles of land. Although rural in locale, the depot is easily accessible by road, rail and air. ANAD is a multi-mission installation, but is most often recognized for its heavy combat vehicle expertise. Through decades of tank repair, ANAD has rightfully earned the reputation as the "Tank Rebuild Center of the World" and is the primary Small Arms Rebuild Center for the Department of Defense (DoD).

Products and Services

ANAD is the only Army depot capable of performing maintenance on both heavy tracked and wheeled combat vehicles and their components. The depot holds the distinction as the Secretary of the Army's Center of Industrial and Technical Excellence for tracked (except Bradley) and wheeled combat vehicles, artillery, assault bridging and small caliber weapons. Under partnership agreements, such as those with Honeywell, BAE Systems and General Dynamics, a wide range of vehicle conversions and upgrades are currently underway. The depot also performs maintenance on individual and crew-served weapons, as well as land combat missiles and small arms. In addition, the maintenance and storage of conventional ammunition and missiles, plus the storage of seven percent of the nation's chemical munitions stockpile (until this stockpile is demilitarized), are significant parts of the depot's overall mission and capabilities.

Organizational Culture

ANAD's purpose, vision, mission, and values are aligned with the missions of its lead agencies: Army Materiel Command (AMC) and TACOM Life Cycle Management Command.

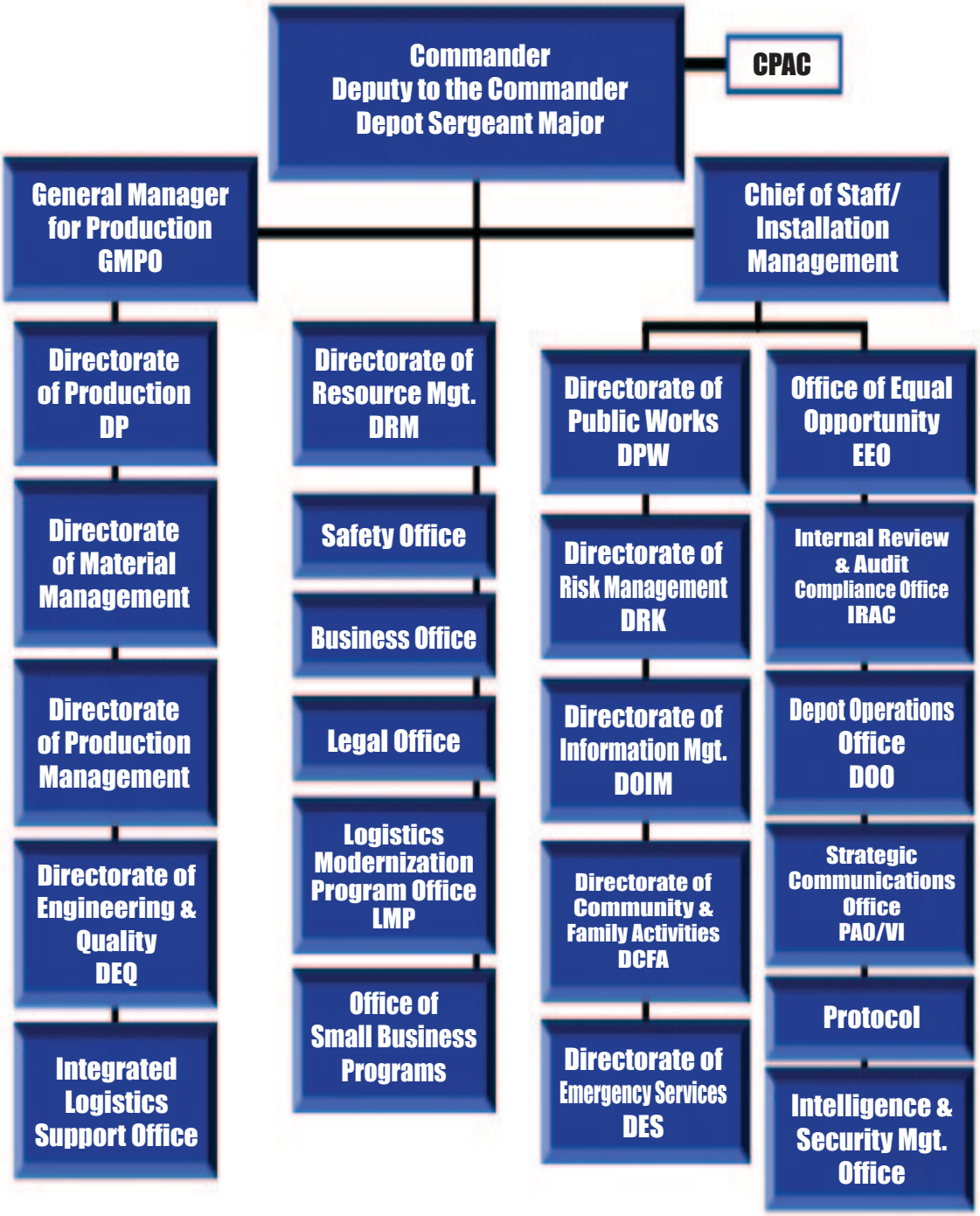
As one of the premier Army facilities in the United States, the depot's leadership feels strongly that for the organization to achieve its purpose, vision and mission, it must be guided by a core set of values.

The goals and action plans, derived from the Strategic Plan, are developed for each of the depot's key strategies. These key focus areas include leadership, environment, safety, customer service, quality, business, community and people. The Strategic Plan outlines these goals and actions for each focus area and assigns the appropriate directorate with primary responsibility. These goals and actions are used as the framework for ongoing business growth, success and improvement.

Employee Profile

As an industrial complex, ANAD takes great pride in the diverse employee skills that contribute to its success. The workforce is well-trained, flexible and totally dedicated to providing the very best product and service to the ultimate customers – American warfighters and allies. Currently, there are about 7,000 employees, including tenant and contractor personnel.

Organization...



Tenants...

- Anniston Chemical Activity (ANCA)
- Anniston Chemical Agent Disposal Facility (ANCDF)
- Anniston Defense Munitions Center (ADMC)
- Anniston Recruiting Company
- Civilian Personnel Advisory Center (CPAC)
- Dear Occupational Health Clinic
- DLA Disposition Services
- DLA Distribution Depot Anniston, AL
- U.S. Army Center for Military History Clearing House
- USA Test, Measurement and Diagnostic Equipment Support Center (TMDE)
- Westinghouse - Anniston
- Anniston Army Depot Contracting Office, Army Contracting Command
- Lockheed Martin Hellfire Missile Maintenance and Demilitarization

Worldwide Support...

Anniston Army Depot's commitment to providing the best possible support to the warfighter extends well beyond its base location in Anniston, Alabama. Our support and services are extended on-site to military units and other locations throughout the United States and beyond.

Anniston Army Depot teams work in 42 locations throughout the continental United States and have locations in six countries around the world.

Small Arms Readiness Evaluation Teams (SARET): Provide inspection and repair for pre and post deployment, supporting both CONUS and OCONUS military units, bringing small arms weapons to fully mission capable status.

Fielding Team and Rapid Repair Support: M1, M88 and Paladin vehicle repair and hand-off.

Forward Repair Activity/OCONUS: Perform any activity coming through the doors - engines, transmissions, generators, welding and fabrication, anything the Soldier needs to get equipment operational.

On-site Locomotive: At Hill Air Force Base in Utah, locomotives are inspected, repaired and rebuilt for the Army and other customers.

Mobile Parts Hospitals: Self-contained machine shops with the capability to build any small parts a warfighter needs. Anniston currently has two mobile parts hospitals in Kuwait and one in Afghanistan.

M1 TIGER Field Service Reps (FSRs): Repair AGT 1500 turbine engines on-site.

Significant Achievements...

ISO 9001 Certification

In order to provide quality service, support and products, the depot recognizes its role in supporting the American warfighter and the importance of continuous process improvement. After working diligently to implement an International Standard (ISO)-based quality management system, ISO 9001 certification was obtained throughout five value streams in the Nichols Industrial Complex.

On May 3, 2007, the depot received a Certificate of Registration confirming the quality management system for the overhaul, remanufacturing, repair and testing of vehicle platforms, gasoline, diesel and turbine engines, weapons and fire control systems, and other supporting systems used in U.S. Army combat vehicles had been assessed and was in compliance with requirements for ISO 9001: 2000.

Shingo Recognition

Anniston submitted two candidates for the 2007 Shingo Prize Award, an annual award that recognizes excellence in manufacturing throughout the public and private business sectors. The award criterion is based on a point system to include employee empowerment, vision, strategy, partnership, quality, cost and delivery.

There are three levels of recognition - Bronze, Silver and Shingo Prize. Anniston's Field Artillery Ammunition Support Vehicle (FAASV) assembly process was a recipient of a Shingo Silver Medallion. AGT 1500 Turbine Engine's entire process from disassembly to final test was a recipient of a Shingo Bronze Medallion.

Lean Six Sigma

Anniston submitted a Lean Six Sigma (LSS) award package through TACOM Life Cycle Management Command and Army Materiel Command to the Department of the Army for an M1 Abrams vehicle assembly project.

By applying Lean Six Sigma tools to the processes in both the hull assembly and turret assembly operations, Anniston received the 2008 Department of the Army LSS Award. Not only was waste removed, but, as part of the project, the depot gained enough floor space to accommodate Paladin cab assembly, which was once completed wherever available space could be found. Now, the workers in Paladin cab assembly have a designated space to accomplish their mission, just like M1 turret assembly.

Process Optimization...

Enterprise Excellence

Through the use of Lean Six Sigma methodology, the Value Engineering Program and the Army Suggestion Program, waste removal has been optimized, vehicle turnaround time has been reduced, and First Pass Yield has improved. Establishment of standardized processes and material management has resulted in reduced cycle times as well as a reduction of in-process inventory.

Before - M1 Turret Assembly

After - M1 Turret Assembly
Recipient of DA LSS Award

Before - FAASV Assembly

Before - In-Process Component Storage

Before - M1 Hull Assembly

After - FAASV Assembly
Recipient of Shingo Bronze Medallion

After - In-Process Component Storage
Established Daily Requirements

After - M1 Hull Assembly
Recipient of DA LSS Award

Capabilities...

Although Anniston Army Depot is a multi-mission installation, it is most frequently recognized for its heavy combat vehicle expertise. From the M48 tank of the 1950s to the M1 series battle tank of today, the depot has rightfully earned its reputation as the "Tank Rebuild Center of the World."

The 1.5-million-square-foot Nichols Industrial Complex, located in the eastern area of the depot, has both the capacity and capability to completely overhaul any combat vehicle. This process consists of completely disassembling a battle-damaged or worn vehicle, repairing or replacing any or all components, and reassembling the vehicle to a like-new condition, at a fraction of the cost of a new vehicle.

- M1 Family of Vehicles
- Assault Breacher Vehicle
- Stryker Family of Vehicles
- Paladin/FAASV Vehicles
- M88 Recovery Vehicle
- Armored Vehicle Launched Bridge
- M113 Family of Vehicles
- M9 Bulldozer

The flexibility of its workforce, equipment and facilities has given Anniston Army Depot the competitive edge in the defense industry. The technology of its industrial complex includes the integration of:

- Five-acre Floor Space Facility (flexible-use; fourteen 20- to 60-ton bridge cranes; 9 1/2-inch reinforced concrete floors; six-axis machining center)
- 9 1/2-inch Reinforced Concrete Roads
- 1.1-mile High Speed Test Track (banked turns; slope and bump course; 50-foot width; illuminated)
- Laser Range
- Firing Range
- 75-ton Gantry Crane
- Railhead and Illuminated 75-ton Loading Dock
- Unique Test Facilities and Equipment
- Ingersoll Gantry Machining Center
- Cincinnati Gilbert Dual Column Horizontal Machining Center
- Special Armor Facility
- Full Vehicle X-Ray Capability

Personnel supporting the depot's combat vehicle mission possess a diversity of core skills:

- Artillery Repairers
- Automotive Mechanics
- Ballistic Welders
- Electronic Component Equipment Repairers
- Electronic Integrated System Mechanics
- Electronic Mechanics
- Electro-Optic Repairers
- Small Arms Repairers
- Electroplating Workers
- Fabric Workers
- Heavy Mobile Equipment Repairers
- Machine Tool Operators
- Metal Forming Machine Operators
- Pneudraulic Workers
- Tool and Die Makers

Many welders hold specialized certifications for various armor welding, non-destructive testing and soldering.

"Tank Rebuild Center of the World"

Flexible Floor Space

High Speed Test Track

75-Ton Gantry Crane

Outdoor Firing Range

Public-Private Partnerships...

As an Army and Department of Defense leader in Public-Private Partnership efforts since 1993, Anniston Army Depot has established more than 80 different partnerships with industry leaders utilizing agreements such as direct sales, workshare and facility use.

What is partnering?

- Direct Sales - The use of depot land, facilities, equipment and/or employees to perform work or produce goods for the private sector. The depot works as a sub-contractor to and is funded by the private sector.
- Workshare - Joint scope of work, coproduction arrangements utilizing depot and private sector facilities and/or employees. The depot is funded through normal government sources.
- Facility Use - Private sector use of under-utilized depot land, equipment and/or facilities to perform work for the military. The depot is funded through the private sector or government sources.

What partnering is not

- Contracts where the private sector provides support and/or services to the depot at a cost to the depot. These are normally referred to as Federal Acquisition Regulation contracts.

Why partner with Anniston?

- Our experience has proven that these arrangements are win-win opportunities not only for industry and the depot but also for our warfighters by capitalizing on the strengths and efficiencies of both sectors.

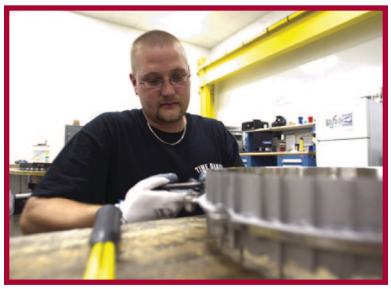
- Examples of current partners/programs include General Dynamics Land Systems (Stryker, M1 vehicles and components), BAE Systems (M113, M88, PIM), Honeywell (M1 Turbine Engines, Egyptian Turbine Engines) and RTI International (M1 Turret Trainers).

- A highly skilled and diversified workforce, updated facilities and equipment, competitive prices coupled with our industry knowledge have proven Anniston Army Depot as a prime target for teaming and partnership arrangements for both defense and non-defense related items. Anniston seeks and encourages all opportunities to partner with industry, especially those potentially new and unique opportunities. A full-time staff is dedicated solely to marketing and developing these arrangements with local, regional and global public and private businesses.

For more partnering information, visit our website: www.anad.army.mil and select the Public Private Partnership link under the Business header or call (256) 240-3654

Stryker Mobile Gun System

Turret trainer



Egyptian Engines

M88 Recovery Vehicle

Production Profile...

COMBAT VEHICLES
M1 Family of Vehicles
M113 Family of Vehicles
M88 Family of Vehicles
M9 Armored Combat Earthmover Vehicle
Armored Vehicle Launched Bridge
Assault Breacher Vehicle
Stryker Family of Vehicles

ARTILLERY
M198 Towed Howitzer
M119 Towed Howitzer
M102 Towed Howitzer
M777A2 Lightweight Howitzer
M109A6 Self-Propelled Howitzer (Paladin)
Field Artillery Ammunition Support Vehicle

SMALL ARMS
Rifles
Machine Guns
Pistols
Grenade Launchers
Gun Mounts
Mortars
Shotguns

BRIDGES
60-Ton Bridge
70-Ton Bridge
Assault Bridging

MAJOR SECONDARY ITEMS
M1 Turbine Engine
M1 Forward Module
M1 Rear Module
M1 Accessory Gear Box
M1 Reduction Gear Box
1790 Engine
6V53T Engine
Diesel In-Line 6 Cylinder Engine
8V M9 Armored Combat Earthmover Engine
8V71 Engine
M1 X1100 Transmission
XT-1410 Transmission
CD-850 Transmission
M113 Transmission
M9 ACE Transmission
Final Drives
Transfer Cases
Differentials
Wheel Drives
Tires/Wheels
Brakes
Auxillary Power Units
Fire Extinguisher Systems
Hydraulic Components
Fire Control Components
Electronic Components
Wiring Harnesses/Cables

Artillery...

The depot is now the Army's Towed Howitzer Overhaul Facility for the M198 Medium Towed Howitzer. As such, ANAD has overhauled M198 weapons and secondary items for the M198 stock system for the Army, U.S. Marine Corps, and the National Guard since 1997. The depot was certified to overhaul the M102 Light Howitzer and related secondary items in February 2002. Certification to rebuild the M119 Light Howitzer was accomplished in January 2003. Currently, the depot is in the certification process to overhaul the M119 Howitzer and all of its related components. This certification process should be complete in fiscal year 2011. The depot is also performing a pilot overhaul of the M777A2 Lightweight Howitzer to develop overhaul capabilities for the entire weapons system.

Towed Howitzer Overhaul Facility

Components:

- Recoil Cylinder
- Replenisher
- Fire Control
- Air Cylinder
- Speed Shift
- Suspension Actuator
- M45 Recoil Mechanism
- Friction Clutch
- Equilibrator
- Breech and Cannon
- Recuperator

M102 Light Towed Howitzer

Anniston Army Depot is the Army's main rebuild center for Towed Howitzer weapons. The rebuild criteria used in its processes parallels, and often exceeds, that of the original manufacturer.

Our experience ranges from small component repair to complete weapon disassembly, repair, modification, conversion, reclamation, refinishing, reassembly and functional testing. The artillery journeymen employ the latest technology to provide only the safest and most reliable weapons to the customer, the Soldier in the field.

M198 Medium Towed Howitzer

- Antifriction Machining
- Artillery Function Firing Range
- Borescoping Equipment
- Fabrication Machining Facility
- Honing Facility
- Gymnasticator
- Magnetic Particle Inspection Equipment
- Materials Analysis Lab
- Oil Analysis Lab
- X-ray Facility

Anniston Army Depot is the Army's Center for Technical Excellence for the M109A6 Paladin 155mm self-propelled Howitzer and its Ammunition Carrier, the M992A2 Field Artillery Ammunition Support Vehicle (FAASV).

In addition to processes and practices involved with towed artillery, the Paladin requires a number of other specialized capabilities. These include an Integrated Family of Test Equipment (IFTE) diagnostics, Battery Computer System (BCS) testing for the fully automated fire solution, ranging and computer automated gun drive and a Navigation Course Test to confirm the accuracy of the Global Positioning Sensor (GPS) system. Overhaul and conversion of the 155 mm howitzer and recoil system involves special brush plating and hydraulic support as well as specialized electronic gymnastication equipment. Various unique welding and machining fixtures and processes are instrumental in the conversion of the M109A5 to the M109A6 Paladin Configuration. Anniston Army Depot is the Army's sole Certified Installation for performing overhaul or conversion on the Paladin Vehicle System.

M109 Paladin

Small Arms...

Whether it's rifles, pistols, or weapon-related hardware, Anniston Army Depot's Small Arms Repair Facility employees possess the skills and equipment necessary to satisfy all of the customer's needs.

- M1 Series Rifle
- M2 Series Machine Gun
- MK19 40mm Machine Gun
- M9 Pistol
- M16 Series Rifle
- M60 Series Machine Gun
- M134 Mini Gun
- M240 Series Machine Gun
- M249 Squad Automatic Weapon
- M1911 Pistol
- M230 Chain Gun
- Grenade Launchers
- Mortars
- Gun Mounts
- Shotguns

Anniston Army Depot is the primary Small Arms Rebuild Center within the Department of Defense and overhauls weapons for all branches of the Armed Forces. The rebuild criteria used in the overhaul processes parallel, and often exceed, that of the original manufacturer.

ANAD's experience ranges from small component repair to complete weapon disassembly, repair, modification, conversion, reclamation, re-finishing, reassembly, functional testing and target accuracy testing. Our small arms journeymen employ the latest technology to provide only the safest and most reliable weapons to our customer... the Soldier in the field.

- Acoustical/Computerized Targeting and Accuracy Testing
- Borescoping Equipment
- Closed Circuit Cameras
- Computerized Serialization Process Equipment
- Degrease/Cleaning-Finishing/Plating Shop
- Heavy Fire Outdoor Range
- Intrusion Detection Devices
- Liquid Dye Penetrant Equipment
- Machine Shop
- Magnetic Particle Inspection Equipment
- Paint Booth
- Two Indoor Firing Ranges up to 100 meters
- Water Turbine Function Firing Booths
- Welding Booth

DoD's primary Small Arms Rebuild Center

MK19 40mm Machine Gun

M249 Squad Automatic Weapon

Small Arms Readiness and Evaluation Team

Testing

Reciprocating Engines...

Construction of the modern Powertrain Flexible Maintenance Facility was completed in July 2009. Based on Lean manufacturing principles and green initiatives, this facility was built with flexibility in mind. It is comprised of nine-and-one-half-inch thick concrete floors, five-ton bridge cranes, humidity controlled manufacturing environment, electric material movers, portable work stations and more.

Occupying 142,500 square feet of prime engine production space, the facility brings processes that were previously performed at various locations across the installation under one roof. Within the state-of-the-art engine repair facility, employees repair, reclaim, modify and overhaul some of the world's largest, most sophisticated reciprocating engines. Ranging from a six-cylinder turbocharged engine that generates up to 275 hp to a powerful 12-V that produces as much as 1,050 hp, these engines are capable of powering vehicles as large as 60 tons.

Reciprocating engines are critical to the operation of the Department of Defense ground combat legacy vehicles: M113, M88, Paladin, AVLB, FAASV and M9ACE.

Each engine – whether rebuilt, repaired or modified – is cycled through one of 13 dynamometer test cells by qualified technicians. Tested and calibrated to ensure maximum performance, they all must meet rigorous standards before being placed in the hands of our valued customers.

The consumer base for these hearty engines extends far beyond the depot's support to U.S. military services. By repairing and overhauling engines for foreign military allies, Anniston's reputation has been positively sounded abroad.

Powertrain Flexible Maintenance Facility

Engine Disassembly

Dynamometer Test Stand

6V53-6 Cylinder Engine

Salt Bath

Turbine Engines...

Within the walls of the 110,000-square-foot Turbine Engine Facility, employees inspect, repair, reclaim and overhaul complete turbine engines as well as their associated components. The highly skilled workforce is equipped with the latest technological equipment.

- Computerized Dynamometer Test Facility
- Computerized NDT Equipment
- Electro Mechanical Fuel System Test Facility
- Laser Balancing Equipment
- Laser Inspection Equipment
- Laser Welding
- Oil Pump Test Equipment
- Recuperator Repair and Test Facility
- Vacuum Brazing Repair and Test Facility

Proficiency and talent best describe Anniston's workforce. There is no better example than the AGT1500 Turbine Engine Facility for the M1 Abrams to relate the significance of those attributes. The tireless dedication and priceless skill of those who work in this facility have culminated in the depot achieving the coveted position of leader in turbine engine repair. Anniston provides M1 Abrams engines worldwide. And, the track record speaks for itself:

- 80 percent cost savings for rebuild
- 26 percent reduction in engine repair cycle time
- Contractor performance certification
- ISO 9002 certified
- Personnel certifications
- Vendor qualification
- Shingo Bronze medallion

Much of this expertise has been gained through initiatives to extend and improve the durability and life of these engines.

- Durability Testing
- Endurance Testing
- Engine Failure Investigation/Analysis
- On-site Assistance
- Research and Development for Component Reclamation
- Condition-based overhaul
- Total Integrated Engine Revitalization (TIGER) Program

The current customer base includes the Army, Marine Corps, National Guard, Reserve Components, Honeywell and General Dynamics; and a continuous interface is maintained through regular customer site visits.

- Aberdeen Proving Ground, Md.
- Fort Hood, Texas
- Fort Riley, Kan.
- Fort Knox, Ky.
- Fort Stewart, Ga.
- Lima Army Tank Plant, Ohio
- National Training Center, Calif.
- On-Site Contractor Support
- Yuma Proving Grounds, Ariz.
- Korea

Display of Turbine Engine

Dynamometer Testing

Engine Assembly

LENS Welding Machine

Manufacturing...

For many years, when seemingly unsolvable design, fabrication, manufacturing, or reclamation problems arose, the rallying cry has always been "Let Anniston do it!" And, without exception, Anniston did.

Anniston has proven itself time and time again by providing low cost one-of-a-kind orders, accurate cost and delivery estimates, rapid diversification of product lines, immediate status of orders and access to critical information.

Its greatest asset is its highly skilled workforce, providing the depot with capabilities seldom found elsewhere.

- CAD/CAM Technicians
- Certified Welders
- CNC Programmers and Operators
- Engineers
- Chemists
- Planners
- Plating & Painting Operators
- Sheet Metal Workers
- Tool and Die Makers
- Machinists

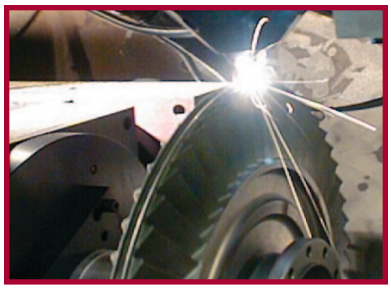
Within the 102,062 square feet of manufacturing/fabrication facilities, these highly skilled craftsmen are equipped with the latest state-of-the-industry tools and equipment. These facilities and craftsmen are dedicated solely to the design, manufacturing and reclamation of quality products.

- CNC 4-Axis Lathe (29 x 60-inch capacity)
- CNC 6-Axis Horizontal Boring Mills (70 x 9 x 12-foot capacity)
- CNC Abrasive Water Jet Cutting Machines
- CNC & Conventional Grinder (cylindrical, centerless, surface)
- CNC Gantry Machining Center (100-hp spindle, 60 x 20 x 10-foot, 30-ton capacity)
- CNC Laser (120 x 244 x 1-inch capacity)
- CNC Milling Machinery (both vertical and 5-axis horizontal, 72 x 48 x 36-inch capacity, pallet changers, 5-ton capacity)
- CNC Oxy-Fuel & Plasma Cutting Machine
- CNC Punch/Laser Cutting Machine
- CNC Robot and Electron Beam Welding Machines
- CNC Turning Machinery (20-inch diameter x 44-inch length)
- CNC Vertical Milling Machine (280 x 36 x 36-inch capacity)
- CNC Water Jet (268 x 60 x 6-inch capacity)
- Fabricators/Punch Press and Brakes
- Heat Treating (both vacuum and air)
- HVOF and Flame Spray Coating
- Laser Engineered Net Shaping (powder metal deposition)
- Plating (chromium, cadmium, zinc, manganese phosphate, nickel, oxide, silver and more)
- Precision Plasma Cutting Machine

The depot's high-tech manufacturing is also supported by the latest technological concepts and control systems to include ISO 9000, metallurgical and chemical analysis, metrology and nondestructive testing.

30-Ton Gantry Machining Center

State-of-the-Industry Machining



Laser Engineering Net Shaping

Electron Beam Welding

Computer Aided Manufacturing...

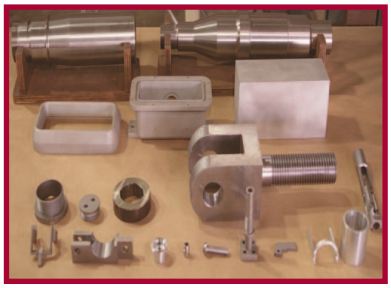
Anniston's posture as a leader in the defense industry is most readily demonstrated by the use of its computerized execution system. On the leading edge of technology, two high-tech manufacturing capabilities - Flexible Computer Integrated Manufacturing (FCIM) and Rapid Acquisition of Manufactured Parts (RAMP) - serve as models in the defense industry. FCIM RAMP - integrated, not simply connected - permits systematic utilization of state-of-the-market hardware, software and communication.

FCIM RAMP forms an extremely responsive and powerful enterprise. It focuses on the "above-the-shop floor" activities by integrating the engineering, production planning, tracking, monitoring and fabrication functions through a multilayered computer architecture. It also allows Anniston to produce difficult-to-procure items and one-of-a-kind, normally high cost, items at a reduction in price.

FCIM RAMP provides Anniston Army Depot with the world-class capability necessary in a global marketplace where agile manufacturing is a prerequisite.

FCIM RAMP Features:

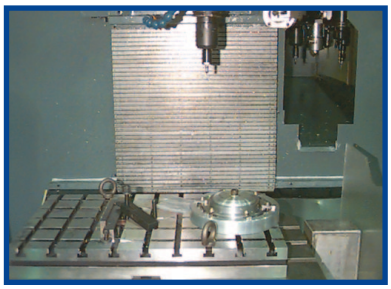
- Computer controlled information with common data accessible by all elements
- Configurable System Controller and application control interfaces
- Connectivity to the machine controllers
- Electronic textual and graphical instructions on the floor
- Generative Process Planning Environment to manufacture parts using Standard for the Exchange of Product (STEP) model data ISO 10303
- Generic Site Interface module, tailored to the interface requirements within the depot and other locations
- Multifunction process planning, including variant techniques
- Real-time system control and status update, from order entry through product delivery
- User friendly man-to-machine interfaces



Parts Design and Fabrication

4-Axis CNC Machining Operation

Electrical Discharge Machine



CNC Machining - Automated Pallet Shuttle

Unique Fabrication...

By organizational title alone, one might think that the "Upholstery Shop" is limited to sewing and repairing various fabrics, but the capabilities extend far beyond upholstery repair.

- Chemical, Biological and Radiological Particulate Repair
- Data Plate Fabrication
- Gasket Fabrication
- Unique Identification (UID)
- Glass Cutting
- Hydraulic Hose Fabrication
- Rubber Coating Application
- Toolmaking

Precision toolmaking capabilities permit Anniston Army Depot to fabricate gaskets, grommets, pads, jigs and fixtures from a variety of materials to include nylon, Teflon, cork, rubber, steel, aluminum and phenolics.

The depot also fabricates low, medium or high pressure industrial hoses ranging in size from 3/16 to 2 inches in diameter.

Upholstered items such as seats, straps, cushions, tarpaulins and ballistic shields used in the repair, reclamation and manufacturing efforts are crafted from Naugahyde, ballistic nylon, vinyl nylon, leather, canvas and a variety of other materials. Additionally, windshields, window glass and other glasses can be custom cut from both tempered and non-tempered glass.

Anniston's Photo Data Plate Lab is capable of fabricating practically any decal or data plate on any material. From silk screening on vinyl or metal photo processing to data plate engraving, Anniston can do it.

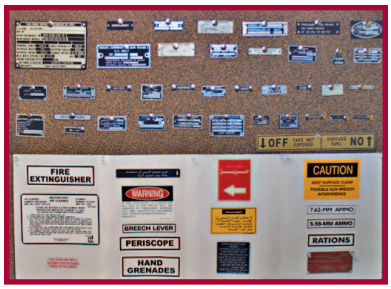
- Diffusion Transfer Copying
- Metallography Lithographic Processing
- Metal Photo Processing
- Photo Etching
- Silk-screening

The rubber coating process applies either a hot or cold rubber coating to a host of items, including headrests and optical eye pieces. In addition, color guarding can be applied to various fabrics.

The Chemical, Biological, Radiological (CBR) unit, another aspect of the Upholstery Shop, tests and repairs filtration systems used in combat vehicles.

Standard Upholstery Work

Gasket Fabrication



Completed Decals

Decal Production

Quality Commitment...

Anniston Army Depot maintains a worldwide reputation for producing quality products with the goal to remain number one. Producing quality products and services on time and at competitive prices has been Anniston's business model since the beginning. Through its world-class quality program, trust by its customers is maintained.

The depot's quality program, based on ISO 9001:2000, is structured for customer satisfaction through process improvement. All production operations within Anniston Army Depot are currently certified to the ISO 9001:2000 Quality Standard.

Quality functions are performed under the Directorate of Engineering and Quality (DEQ). In addition to engineering, this directorate is responsible for quality methods and standards.

The primary focus of DEQ is customer expectations, rather than just acceptable product quality. Customers expect a reliable quality product that is be delivered on time and within cost. The depot consistently meets these expectations.

Within Anniston's production operations, everyone is responsible for the quality of the products produced and for meeting both internal and external customer expectations. They take whatever action is necessary to provide their customers with the best product at the best price.

Organizational Responsibilities

Production Organization:

- Corrective and Preventive Action
- Defect Data Reporting and Analysis
- Product Acceptance
- Product Inspection
- Worker Accountability

Quality Assurance Organization:

- Customer Support Program
- Methods and Standards
- Product Verification (Sampling)
- Quality Audit Program

LLOYD'S REGISTER QUALITY ASSURANCE · ISO9001

ISO 9001 : 2000 Certified

Quality Assurance - Paladin Engine

Computerized Coordinate Measuring Machine

Quality Objectives:

- **Increase Customer Satisfaction**
- **Increase Product Conformity**
- **Deliver Products on Time**
- **Deliver Products within Cost**

Engineering...

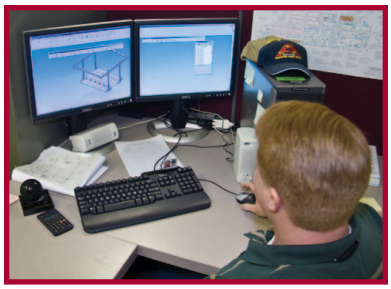
Anniston Army Depot has a dynamic technical staff able to meet the challenge of aggressive overhaul, manufacturing, design and testing programs.

- Chemical Engineers
- Chemists
- Electronic Engineers
- Engineering Technicians
- Environmental Engineers
- Industrial Engineers
- Materials Engineers
- Mechanical Engineers
- Physical Science Technicians

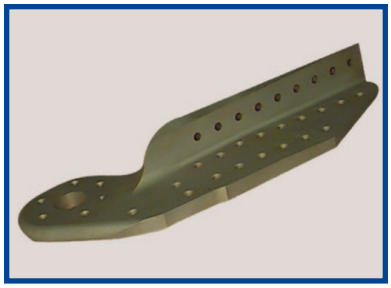
Anniston's engineering disciplines work together to achieve innovative solutions to complex problems. These solutions are a way of life in a manufacturing facility with such a diversity in mission and capabilities. The technical staff continues to refine the expertise necessary to meet the specific needs of valued customers.

- Composition Analysis
- Computer Aided Design and Manufacturing (CAD/CAM)
- Equipment Specifications
- Failure Analysis
- Industrial Cleaning and Finishing
- Laboratory Testing
- Mechanical Property Testing
- Microscopic Analysis
- Nondestructive Testing
- Process Certification
- Process Flows and Shop Layouts
- Special Skills Certification Program (Welding, Nondestructive Testing and Soldering)

ANAD engineering provides manufacturing and assembly support for research and development programs within the Department of Defense. The support to the customer includes design, Engineering Change Proposal (ECP) submission and review, prototype fabrication, testing, assembly and operational evaluation, tooling and fixture design, tolerance evaluation and process optimization. Over the years, the support to R&D projects has included the M1 Bridge Launcher (Joint Assault Bridge), M1 mine field and obstacle clearing vehicle (Assault Breacher Vehicle), retrofit of Tank Thermal Sight/Driver's Night Viewers, Soviet Vehicle Simulators for target and training application (Opposing Forces Surrogate Vehicle), Armor System Fabrication, Mine Roller Mounting Kits, Auto-Loader Installation, Complete Turret Fabrication and Armor Penetration Devices as well as various classified R&D projects.



CAD Modeling of Turret Platform Rack



CAD Generated Solid Model Hinge

R&D Turret Project

Assault Breacher Vehicle (ABV)

Materials Lab...

The Materials Laboratory provides vital support to Army equipment life cycle management processes and personnel from conception to failure analysis.

The lab is a resource used by engineering, production, quality, procurement and safety personnel in product development, manufacturing and reclamation processes, material properties, conformance to drawings and standards, procurement of materials, failure analysis and problem solving. The lab supports both destructive and nondestructive testing capabilities.

Chemical and Environmental Lab...

Anniston's Chemical and Environmental Laboratories routinely meet the challenge of changing technology by providing laboratory analyses on all current manufacturing processes.

The Chemical Lab is capable of accomplishing sophisticated chemical testing and consulting services in support of a wide range of industrial processes. Capabilities include physical, chemical and functional testing of paints, platings and coatings as well as a host of other industrial processes, such as mechanical and chemical cleaning.

Of particular interest is the oil analysis capability. This unique capability allows Anniston Army Depot to evaluate samples from virtually any vehicle or piece of equipment. The oil analysis lab is certified through the Joint Oil Analysis Program.

Oil Analysis Equipment

- Oil Analysis Standard Interservice System (OASIS) Internet-Based Operating System
- Automated High Speed Viscometer
- Atomic Emission Spectrometer
- Fourier Transform Infrared Spectrometer
- Fuel Dilution Meter
- Karl Fisher Coulometer
- Crackle Test
- Pall Water Sensors
- LaserNet Fines
- Ferrography
- Optical Particle Counter
- Total Acid Number
- Total Base Number
- Blotter/Patch Test
- Open Cup Flash Point

Anniston's Environmental Lab is staffed with highly qualified personnel and modern equipment. They test, monitor and analyze the water quality of influent and effluent wastewater and treated sewage along with stormwater and groundwater. These tests and analyses support the National Pollutant Discharge Elimination System (NPDES) permit issued by the Alabama Department of Environmental Management (ADEM).

Titrations

Water Sampling

Oil and Grease Sampling

Technical Publications...

Since the establishment of the depot's Technical Publications (Tech Pubs) organization in May of 1982, thousands of documents and publications have been developed in support of Major Subordinate Commands (MSCs) and ANAD's own depot maintenance requirements. Its mission is to provide technical publications support for combat vehicles, optics, weapons, artillery, missiles, automotive electronics, machining, test equipment and other programs. Valued customers include:

- ANAD production value streams
- Public-Private Partnerships with ANAD
- U.S. Army Communications and Electronics Life Cycle Management Command
- U.S. Marine Corps
- U.S. TACOM Life Cycle Management Command, Warren; TACOM, Rock Island; TACOM, ARDEC

Tech Pubs is staffed with professional technical writers/editors and visual information specialists. Their pricing structure is competitive with other defense and non-defense publication developers. They can produce a finished product in hardcopy, camera ready, electronic and multimedia video with audio. Anniston has the distinct advantage of a broad maintenance arena of Department of Defense assets to validate and verify developmental efforts. The staff can support equipment technical publication needs in the form of text, technical illustrations and digital video maintenance processes. They can produce multimedia digital electronic format on CDs, DVDs, video tape or embedded in portable document format (pdf). Listed below are examples of publications Tech Pubs produces:

- National Maintenance Work Requirements (NMWRs)
- Depot Maintenance Work Requirements (DMWRs)
- Technical Manuals (TMs)
- System Maintenance Manuals (SMMs)
- Physical and Functional Configuration Audits
- Fabrication Drawings
- Depot Process Control Pamphlets
- Lean and Six Sigma Initiatives
- New Equipment Training (NET) Manuals
- Rebuild Standards (RS)
- Modification Work Orders (MWOs)
- Integrated Logistics Support (ILS)
- Depot Manuals (DMs)
- Shop Instructions (SIs)
- Booklets and Brochures

The Tech Pubs office is located within the Nichols Industrial Complex, with close proximity to engineering and design support activities. Data retrieval capabilities and Internet access to various sources of data and information are available.

Tech Pubs employees strive to produce state-of-the-art work that enhances current capabilities. They work to meet the customer's needs, while providing timely customer service.

Development of Technical Illustrations

Publications

Digital Video Production

Safety...

Safety is an integral part of the core business at Anniston Army Depot. Focus-based educational programs are in place to train the entire workforce in new and refresher courses. While most training is conducted live, the depot's weekly Morning Show hosts guests on a wide variety of safety and health topics, along with a safety training video. The show is broadcast throughout the day on the local area network. Training topics are broad and include ergonomics, fire safety, electrical safety and behavior modification.

Safety has also been integrated into the Lean and Six Sigma efforts. Facilitators are trained in the use of risk management tools, and each team is challenged to identify and improve three safety issues along with three production issues during all improvement events.

Anniston is particularly proud to be the first in North America to have attained fence-to-fence certification to the OHSAS 18001:2007 standard. The goal is continuous improvement, and statistics show Anniston is meeting the goal. Injury rates have continued to decline over the past five consecutive years in spite of the challenges inherent with a sustained high operational tempo and the introduction of new work. The overall performance of the entire workforce earned Anniston Army Depot the Secretary of Army/Chief of Staff Industrial Safety Award in 2010.

Turret Disassembly

Welder

Risk Management...

As one of the largest military industrial depot facilities in the world, ANAD recognizes the importance of its role as an environmental steward. The depot is strongly committed to long-term sustainability, improved mission performance and environmental protection using the following core principles:

- Compliance with environmental laws and regulations
- Conservation of natural and cultural resources
- Preservation of resources through pollution prevention and affirmative procurement
- Restoration of affected natural resources

Risk Management consists of the following groups: Environmental Compliance, Environmental Management and Restoration, Wastewater Treatment Plants and the Hazardous Waste Storage Facility.

Soil Sampling

Future Facilities...

Powertrain Transmission Facility

A new Powertrain Transmission Facility will be completed in 2012. This new facility will support the Department of Defense's modernization goals while reducing the costs associated with maintaining the transmissions of current and future ground combat vehicles.

Co-located with the new Powertrain Flexible Maintenance Facility, this new facility will contain work areas for every process involved in the overhaul and remanufacture of in line and cross drive transmissions from disassembly through the final testing procedures for a variety of combat vehicles, including the M88, M9ACE, Stryker, AVLB, M1FOV, Hercules, 113FOV and Paladin FAASV. The benefits of containing all the parts and processes in one facility include reduced cycle times, increased efficiencies, increased safety and improved quality.

Built in flexibility will allow for rapid changes in transmission type production based on workload shifts as well as the addition of new transmission types as required.

Powertrain Transmission Facility Construction

Small Arms Repair Facility

A state-of-the-art Small Arms Repair Facility will be completed in 2011. This facility, which is located adjacent to the storage facility for small arms on the installation, will provide for better security of all small arms being repaired and overhauled at Anniston Army Depot while reducing facility maintenance, hazardous waste, transportation and actual weapons costs.

The new shop will feature a one-piece flow, universal fixture mounts, flexible floor plan and a modern indoor test firing facility, enhancing Anniston's ability to meet surge requirements as well as our ability to quickly change its processes to satisfy workload shifts.

Small Arms Repair Facility Rendering

Industrial Wastewater Treatment Plant

The new Industrial Wastewater Treatment Plant, which is expected to be completed in 2011, will be capable of treating 600,000 gallons per day. This is nearly double the current capacity of the existing facility. This facility also provides for future expansion capabilities of up to 1 million gallons per day to support potential future mission requirements.

The plant will provide biological treatment of industrial wastewater, which will produce the required water quality for discharge directly into nearby Choccolocco Creek.

In addition to the greater capacity, the new facility will have a new laboratory and modernized equipment, controls and automation.

Industrial Wastewater Treatment Plant Rendering

ANAD Career Academy...

Since 2001, Anniston Army Depot and the Alabama Department of Education have collaborated to support the ANAD Career Academy. Recognizing the need for educated and skilled workers at the depot and within the community, ANAD leadership developed the academy to provide local high school students with the academic coursework and on-the-job training required to become viable employees for the depot.

The academy is the beginning of a three-phase education program. In the first phase, participants attend their respective high school for half a day and train at the academy for the remainder of the day. Training consists of the Workforce Essentials course, taught by the program coordinator, and on-the-job training from ANAD training instructors. The students earn a salary and are eligible for certain benefits.

In the second phase, students begin taking technical college courses on either a college campus or at the depot's on-site Gadsden State Community College campus while working part time and receiving on-the-job training.

Phase three takes the employee from permanent employment at the entry level in their skilled trade to the identified target grade, non-competitively.

ANAD recruits from approximately 46 schools in eight counties, located within a 35-mile radius of the depot. Students selected for the academy are placed in one of five co-op opportunities: machining, mechanics, welding, hydraulics/pneumatics and electronics. Training is conducted in an 11,000-square-foot facility approved by the Occupational Safety and Health Administration.

Academy officials report Department of Defense-wide interest and the private sector has taken notice as well - Mercedes Benz prototyped the co-op facility for its operations in Vance, Ala.

For more information on the Anniston Army Depot Career Academy, contact Mary Mullen at (256) 235-4840.

Workforce Essentials Class

Mechanics

Precision Machining

Hydraulics/Pnuematics

Electronics

Welding

Child, Youth and School Services...

Throughout the Department of the Army, focus on supporting the Soldiers, civilians and Family members who provide selfless support to the mission has become a subject of significant importance. Anniston Army Depot has responded by providing additional services and support to our employees and their families. In the fall of 2007, the depot realized a long-held goal of providing child care services to our employees with the opening of a new Child Development Center (CDC).

The Department of Defense child development programs have earned the recognition of being the "model for the nation." In March 2007, child care centers run by the DoD were ranked number one in the United States for best standards and oversight by the National Association of Child Care Resource and Referral Agencies. DoD achieves high standards of child care through adequate funding, strict oversight, continuous staff development, strong Family involvement and a shared commitment to excellence. Throughout the Army, 97 percent of all child development centers are accredited by the National Association for the Education of Young Children (NAEYC).

Child and Youth Services (CYS) is an integral part of the Army mission. CYS programs support the Soldier and civilian, which in turn enhance Army readiness. In other words, a Soldier or civilian can concentrate on his/her mission knowing that their children and youth are safe and supervised by a trained and professional staff while participating in quality developmental programs.

Anniston Army Depot has joined the Army Child and Youth Services family and will continue this tradition of excellence. The new facility offers a 161-child capacity to service dependents of the depot's military members and employees as well as its tenants and contractor personnel. The facility's 18,078 square feet of floor space accommodates approximately 18 infants/pre-toddlers, 24 toddlers, 40 preschool children and 75 school age children. The facility features a large multi-purpose gymnasium area, age-appropriate playgrounds and a state-of-the-art computer lab.

In addition to the services this facility offers, the benefits of providing child development programs to our Families is enormous. Convenience, affordability and quality are hallmarks of an Army Child and Youth Services program.

Anniston Army Depot is pleased and very fortunate to be able to offer this valuable program. Through the continued dedication and support of our staff, community partners and volunteers, the ANAD Child Development Center will become a model for the nation.

Child Development Center

Army Community Service (ACS)...

Army Community Service is a dedicated team of professionals who provide comprehensive, coordinated and responsive programs and services that promote self-reliance, resiliency and stability during war and peace. All active duty, U.S. Army Reserve and National Guard service members on active duty exceeding 30 days, depot civilians, tenants, retirees and Family members are eligible to utilize ACS services.

Programs include:
Army Volunteer Corp (AVC) · Army Family Action Plan (AFAP)
Army Family Team Building (AFTB) ·Exceptional Family Member Program (EFMP)
Family Advocacy · Relocation Readiness
Deployment Readiness · Financial Readiness
Employment Readiness · Army Emergency Relief (AER)
Information and Referral (I&R)

Looking Ahead...

Anniston Army Depot is proud of its achievements and has great expectations for the future. While continuing to support such vehicles as the M1, M88, Stryker, M113, M9 ACE and ABV vehicles, Anniston looks forward to opportunities to expand its services to support new vehicles and weapon systems. Anniston is committed to giving consideration to all business initiatives that will enhance and improve support to our troops and allies.

ANAD is equally committed to supporting the future development of Anniston and surrounding areas. The installation continues to interact with the community, surrounding school systems, colleges, universities and technical schools to produce skilled employees to continue the depot's legacy of excellence.

ANAD will continue to play a vital role in our nation's defense mission. The pride of its people in job professionalism and productivity is the cornerstone on which the depot will continue to build.

Doing Business with

Anniston Army Depot

America's Combat Vehicle
Support Center

For information on current business opportunities with Anniston Army Depot, please visit the following websites:

ANAD Homepage:
www.anad.army.mil

ANAD Procurement:
www.procnet.anad.army.mil

Federal Business Opportunities:
www.FedBizOpps.gov

For Partnering Inquiries, Contact:

Anniston Army Depot
Business Management Office, TAAN-BO
7 Frankford Avenue, Anniston, AL 36201-4199
E-mail: ANADPartnerships@conus.army.mil
Phone: (256) 240-3654

For more information, visit our website: www.anad.army.mil

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Superior Performance in
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BRONZE
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ANNISTON ARMY DEPOT
WEAPONS ◆ COMBAT VEHICLES ◆ AMMUNITION

ISO
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14001:2004
18001:2007