



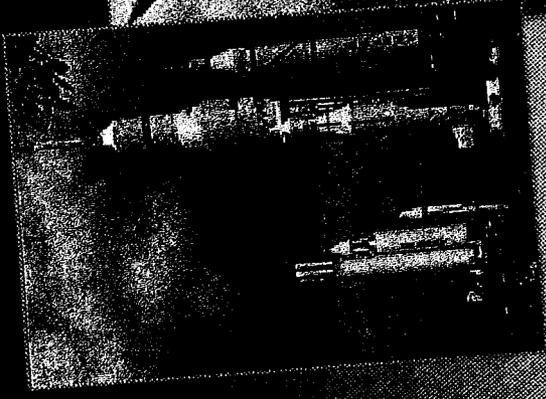
# HUNTSVILLE

Space & Rocket Center

Presentation To

## The Base Closure and Realignment Commission

May 4, 1993



BUD CRAMER  
5TH DISTRICT, ALABAMA

COMMITTEE ON PUBLIC WORKS  
AND TRANSPORTATION  
COMMITTEE ON SCIENCE,  
SPACE, AND TECHNOLOGY  
SELECT COMMITTEE ON  
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May 4, 1993

The Honorable James Courter  
Chairman  
Defense Base Closure and Realignment Commission  
1700 North Moore Street  
Arlington, VA 22209

Dear Chairman Courter:

On May 4, 1993, representatives of the City of Huntsville will testify at the regional hearing of your commission in opposition to the Department of the Army's proposal to reverse the 1991 decision to relocate Army armaments acquisition and materiel management functions from Rock Island Arsenal to Redstone Arsenal.

We are enclosing additional material for your consideration which demonstrates that your 1991 position and the subsequent legislation was correct, that it improved Army readiness, that nothing has happened which justifies revisiting this matter and that this Army proposal now before your commission is unsupported in logic or fact.

Asking you to reverse your 1991 decision, the Army, in essence, says:

- The Headquarters of the Army Materiel Command reviewed your decision and rejected it.
- A substantial one-time investment cost avoidance can be claimed by not complying with your decision (and presumable any other Commission decision)
- You should now also sanction moving - at significant public expense - additional functions from New Jersey to Rock Island because the Army has excess capacity at Rock Island and seeks to use it.

We do not believe these are compelling reasons to reverse your 1991 decision.

In 1991, the Army came to the Commission with recommendations that resulted from careful study of Army materiel acquisition and logistics functions that began to implement a long range plan through a process of consolidation, increased efficiency, planned reduction and economy.

The Commission accepted those proposals. We urge you to stay the course in 1993.

Sincerely,



Bud Cramer  
Member of Congress



# HUNTSVILLE

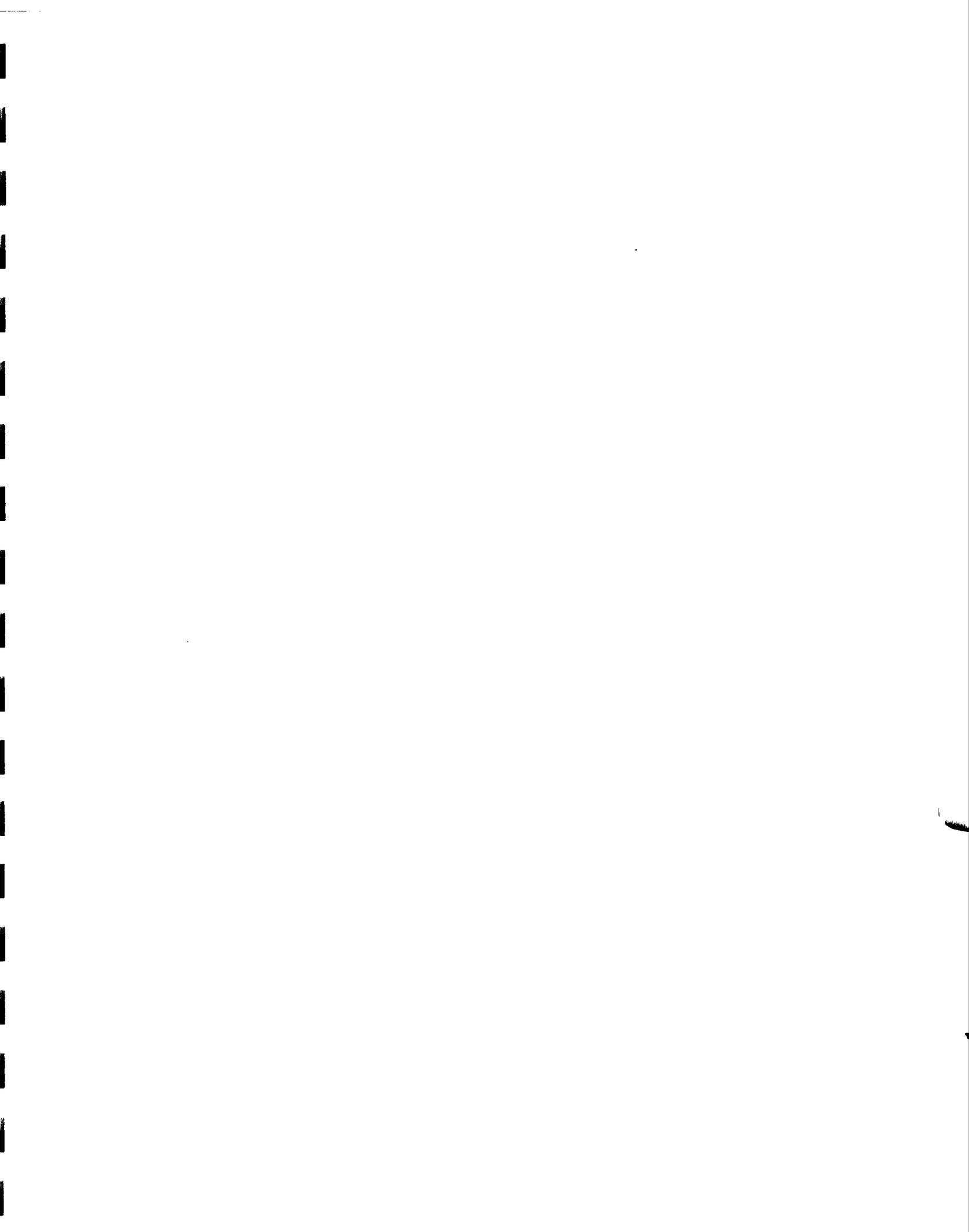
*Huntsville, Alabama*

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**Bud Cramer, Congressman,  
5th Congressional District of Alabama  
Testimony to BRAC-93**

**INTRODUCTION**

Mr. Chairman and Members of the Commission. I am Bud Cramer and I represent the 5th District of Alabama in the House of Representatives. The Army's Redstone Arsenal is located in my District.

I would like to thank the Commission for giving our community the opportunity to discuss with you some issues relating to the 1993 base closure recommendations that affect the Army Materiel Command and the Redstone Arsenal. We believe that the decisions made by this Commission in 1991 to consolidate Army commodity activities at Redstone Arsenal were the correct decisions and that the Army's effort to reverse those decisions this year will not withstand your scrutiny.

With me today are Steve Hettinger, the Mayor of the City of Huntsville, and retired Army Brigadier General Larry Capps.

I would like to proceed by recognizing Mayor Hettinger, who will present to you an overview of the investment that the Huntsville Community is making in response to this Commission's base closure decisions in 1991.

[Mayor Hettinger will give his presentation.]

## OUTLINE OF OUR ARGUMENT

Thank you Steve. I would now like to outline for the Commission the rationale for reaffirming your recommendations in 1991 relating to consolidations at Redstone Arsenal. General Capps will then address the details of this presentation.

Redstone Arsenal is one of the Army Materiel Command's commodity installations and is the home of the Army Missile Command. Its mission is to conduct, perform, or manage research and engineering, acquisition, logistics management and maintenance support for all missile weapons systems, subsystems and associated equipment.

The Army has rated Redstone Arsenal its most valuable commodity oriented installation and the 2nd most valuable installation in the Army Materiel Command.

In 1991, the Army Materiel Command had a plan for its future and proposed a long-range, well-reasoned process of consolidation, increased efficiency, planned reduction and economy. The plan recommended, among other things, the consolidation of commodity management activities at Redstone Arsenal to reduce manpower requirements and overhead expenses.

The 1991 BRAC legislation, following the Army's plan and this Commission's recommendation, relocated the Armament, Munitions, and Chemical Command (AMCCOM) from Rock Island Arsenal to Redstone Arsenal. Merging the armament and chemical management functions with the missile management functions would create the Missile, Armaments and Chemical Command (MACCOM). This follows a Defense Management Report Decision to consolidate inventory control points. At that time the move would have brought 1445 personnel to Redstone Arsenal. The Army stated that this move;

1. Improved the efficiency of Army logistics,
2. Reduced inventory control points,
3. Improved supply distribution efficiency, and
4. Achieved immediate return on investment.

The recommendation eliminated 1170 positions and saved \$45 million each year. The payback for the one time costs of the consolidation at Redstone Arsenal was reached within 2 years.

The 1991 BRAC Commission, on which some of you served, the President and the Congress agreed with the Army's rationale and the consolidation was begun.

The story we get from the Army this year is surprisingly different. They want to reverse the 1991 decision and keep these functions at Rock Island, where they will be reorganized under the Tank Automotive Command (TACOM) in Michigan. The Army claims that this will save the one time costs of the 1991 consolidations.

The Army's 1993 logic fails for several reasons;

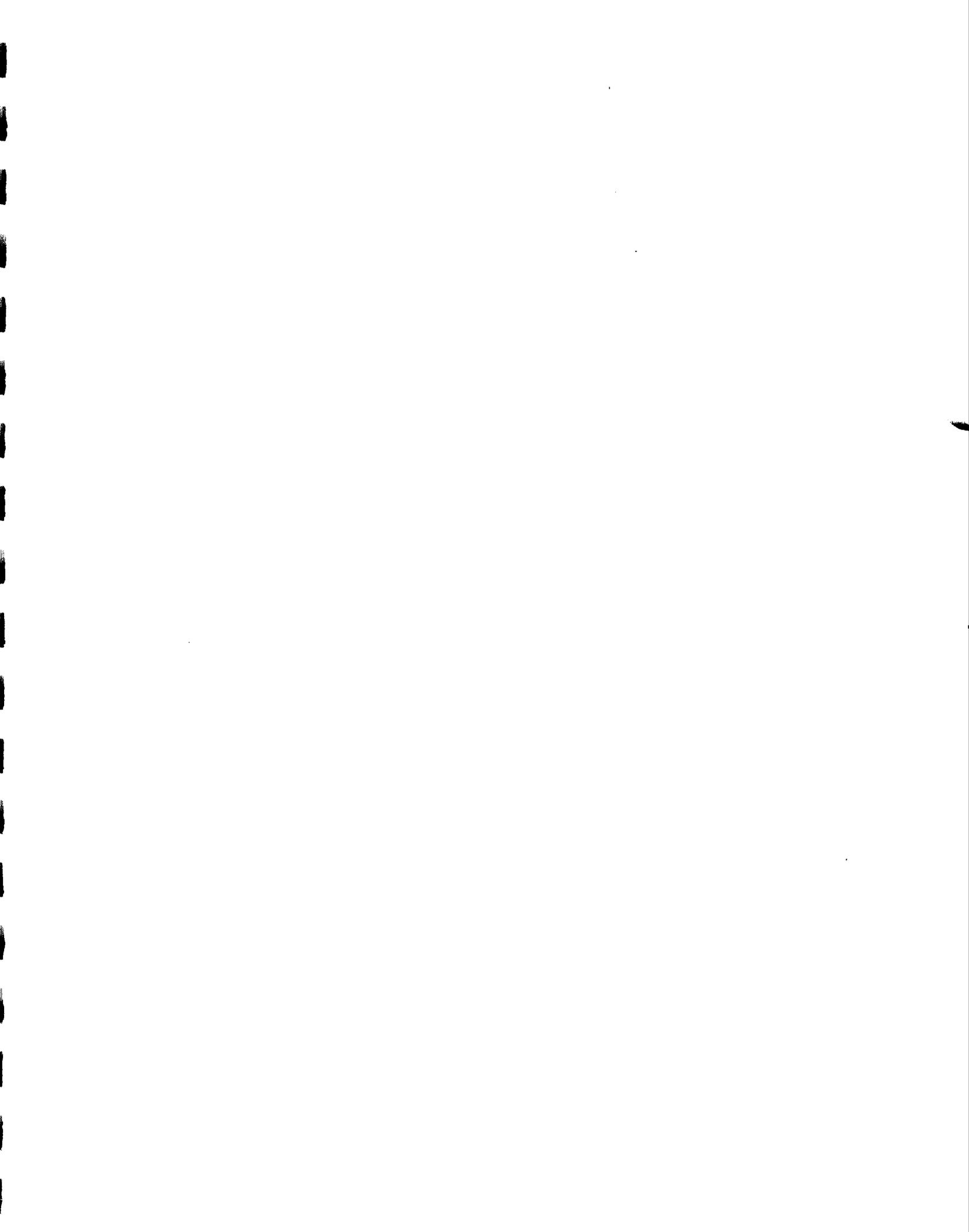
1. Primarily it doesn't allow the Army Materiel Command to operate more efficiently with fewer dollars, people and installations.
2. There is no consolidation of inventory control points.
3. It sanctions split-site logistics operations that are inefficient, and finally,
4. It proliferates commodity organizations instead of proposing consolidations and closures.

In this time of downsizing the military to meet changed circumstances, we must be careful not to proliferate operations. Consolidations and closures must occur to meet today's increasing budget constraints. The 1993 Army proposal does not do this.

In 1991, this Commission agreed with Army rationale for consolidation at Redstone Arsenal. That rationale is just as valid today as it was 2 years ago. Has anything really changed since 1991? I don't think it has. We urge you to reaffirm the 1991 decision.

General Capps will now address some of the details and will leave time for any questions that you might have.

Thank you.



STEVE HETTINGER  
Mayor, City of Huntsville

**TESTIMONY TO BRAC 93**

Chairman Courter and distinguished members of the Commission, I am Steve Hettinger, Mayor of the City of Huntsville. We are extremely grateful for the opportunity to offer this testimony to the Commission. I am representing today more than 250,000 citizens of Huntsville and Madison County, a community with an outstanding 50 year relationship with the Department of Defense and Redstone Arsenal. Huntsville and the North Alabama community were major players in the Army's decision this year to name Redstone as the best medium size Army post in the United States in the annual Army Communities of Excellence program. The Huntsville community recognizes the need to reduce defense expenditures through realignment, and we support these efforts. Employment at Redstone Arsenal over the years has provided a positive and significant economic impact to our community. In return, the City of Huntsville has sought to provide a high quality of life for the many Redstone employees. The fact that many of these employees have chosen to retire in Huntsville following their employment proves our success in creating a desirable place to live and work.

In 1991, the city of Huntsville was tasked once again to prepare the infrastructure needed to accommodate a consolidation of Army activities at Redstone Arsenal. The Army Materiel Command told us then to get ready. This Commission told us then that the work and jobs from Rock Island would be moved to Huntsville. We believed the 1991 Base Closure and Realignment Commission. Based on what is now public law, our community went to work.

The City of Huntsville staff spent nearly 5,000 hours evaluating and planning for the impact of the decisions made by BRAC-91. We modeled the possible impacts to our transportation network and made additional commitments to road construction and improvements, as needed, to accommodate significant increases in employment and residences. We facilitated an agreement with the State of Alabama and the leadership at Redstone Arsenal to

construct a \$150 million parkway across Redstone. Patriot Parkway, as it has come to be known, is not only one of the state's major road construction projects, but is also an immediate cost savings to the Army of \$7.3 million dollars, an amount the BRAC Commission was told in 1991 would be part of the cost of relocating the mission and jobs from Rock Island to Redstone. The Army said it needed the money to build access roads on the Arsenal. Those roads will be built, at no cost to the Army, because the Huntsville community asked the State of Alabama to provide that access. The State of Alabama agreed because it believed the 91 BRAC Commission.

In addition, the City of Huntsville has expended over \$1 million on engineering costs alone for four major road improvement projects to improve access to residential areas where additional development was expected to occur as a result of BRAC-91.

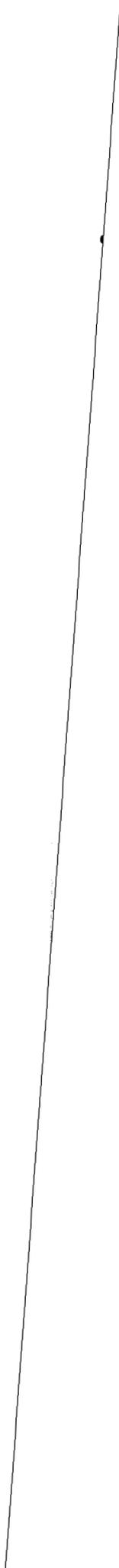
The City of Huntsville has extended its existing Cummings Research Park westward to accommodate additional Research & Development activities, mostly related to defense and aerospace projects coordinated through Redstone Arsenal. Anticipating growth resulting from BRAC-91 and future BRAC decisions, the City of Huntsville recently committed to spend over \$8.1 million in land purchases, infrastructure development and road improvements costs within Cummings Research Park West.

The City of Huntsville and Madison County School Systems and Boards also expect significant growth as a result of BRAC-91 and beyond. More than \$20 million in capital improvements is being committed to expand existing city and county schools or add additional schools partially as a result of BRAC-91 and future BRAC decisions.

As you deliberate recommendations in 1993, Huntsville now finds itself as a community already committed to providing additional capital infrastructure based on your decision two years ago. Yet today, we are a community which stands to lose jobs as a result of recommendations being made this year.

In summary, the recent recommendation to reverse the realignment which this Commission approved in 1991 will cause many questions among communities affected by future BRAC decisions. We acted in good faith. We lived up to our part of the deal. We feel that the best

efforts and intentions of BRAC-91 would be undermined by the reversal of the BRAC-91 decision to realign personnel to Redstone Arsenal. The City of Huntsville is ready and willing to work with the Defense Department to support the continuation of the BRAC effort. We believe that the City of Huntsville, Madison County and Redstone Arsenal, together, are positioned to accommodate significant growth now and in the future. Our efforts to date provide ample evidence of this willingness. **WE STRONGLY SUPPORT THE BRAC-91 DECISIONS AS ADOPTED, AND WE ARE READY TO CONTINUE WORKING TO IMPLEMENT THEM.** THANK YOU.





## PURPOSE

**TO RECOMMEND THE 1991 BASE CLOSURE AND REALIGNMENT COMMISSION (BRAC) LEGISLATION THAT CONSOLIDATED SELECTED ARMY COMMODITY MANAGEMENT ACTIVITIES UNDER A SINGLE COMMAND AT REDSTONE ARSENAL NOT BE CHANGED.**



**HUNTSVILLE**

*The Sky is not the limit.*

## HISTORICAL PERSPECTIVE

ARMY MATERIEL COMMAND (AMC) HAS PRIMARY RESPONSIBILITY FOR DEVELOPING, ACQUIRING AND MAINTAINING ALL ARMY EQUIPMENT AND WEAPONS WITH A WORK FORCE OF 80,000 PEOPLE SERVING IN 126 SUBORDINATE ORGANIZATIONS LOCATED AT 355 SEPARATE LOCATIONS.

DECLINING DoD/ARMY BUDGET TRIGGERED REVIEW OF AMC'S OPERATIONS TO REDUCE OPERATING COSTS AND IMPROVE OVERALL ORGANIZATIONAL EFFICIENCY.

AMC'S VISION 2000 PLAN RECOMMENDED, AMONG OTHER THINGS, CONSOLIDATION OF COMMODITY MANAGEMENT ACTIVITIES AT REDSTONE ARSENAL TO REDUCE MANPOWER REQUIREMENTS AND OVERHEAD EXPENSES (1990).

BRAC-91 APPROVED THE SUBSEQUENT ARMY PROPOSAL AND CONGRESS APPROPRIATED FUNDS TO SUPPORT TRANSFER OF FUNCTIONS AND PERSONNEL TO REDSTONE ARSENAL AND CONSTRUCT NEW FACILITIES.

FY93 ARMY SUBMISSION TO BRAC SEEKS TO REVERSE THIS DECISION AND KEEP RELATED FUNCTIONS AND PERSONNEL AT ROCK ISLAND.



## AMC VISION 2000 TASK FORCE

- ESTABLISHED IN OCTOBER 1990, BY AMC LEADERSHIP TO ACHIEVE ECONOMY OF OPERATION THROUGH CONSOLIDATION, BASE CLOSURES, AND COLOCATION OF LIKE ACTIVITIES:

### GOALS

Reduce AMC strength from over 100,000 (1990) to approximately 60,000 over 5-7 yrs.

Consolidate 6 separate AMC commodity commands into a single Development and Sustainment Command (DSC).

Consolidate all depots and arsenals under a single Industrial Operations Command (IOC).

Consolidate all separate laboratory activities under a single Combat Materials Research Laboratory Command (CMRL).

Consolidate all test and evaluation activities under a single Test and Evaluation Command (TECOM).

### RECOMMENDATIONS



Establish DSC at Redstone Arsenal, AL based on government-owned land available, the strong technological community environment, the reasonable cost of living, the community growth potential, and no adverse impacts on other missions.



Establish the IOC at Rock Island Arsenal, IL.



Establish the CMRL at Aberdeen Proving Ground, MD.



Establish the TECOM at Aberdeen Proving Ground, MD.

- AMC VISION 2000 REPORT SUBMITTED TO THE ARMY. ARMY SUPPORTED CONCEPT OF CONSOLIDATION, BUT COULD NOT APPROVE ENTIRE PLAN DUE TO UPFRONT COST.



## ARMY/AMC BRAC-91 RECOMMENDATION (REDSTONE ARSENAL CONSOLIDATION)

### ACTION

- Create new Missile, Armaments & Chemical Command at Redstone Arsenal by relocating armaments acquisition and material management functions from Rock Island Arsenal, and establish single inventory control point in support of Defense Management Report Decision (DMRD 926).

### PROJECTED SAVINGS

#### MANPOWER   OPERATIONS

1170 Positions  
Eliminated  
Overall

\$45M In  
Yearly  
Operating  
Expenses  
Beginning in  
CY95

### UPFRONT (One Time) COST

\$27.8M for movement of 1,434  
personnel from Rock Island to  
Redstone Arsenal

\$38.3M for the construction of  
new facilities at Redstone Arsenal

**NOTE:** *Total payback for the initial (one time) cost of this consolidation will be achieved by resultant savings within 2 years after implementation*



## **BRAC-91 LEGISLATION (REDSTONE ARSENAL CONSOLIDATION)**

### **ACTION**

- **"Relocate armament, munitions, and chemical command from Rock Island Arsenal to Redstone Arsenal as part of the inventory control point consolidations under Defense Management Report Decision (DMRD 926)."**
- **"Relocate Material Readiness Support Activity from Lexington-Bluegrass Army Depot to Redstone Arsenal along with the relocation of the Logistics Control Activity from the Presidio of San Francisco to Redstone Arsenal."**

### **JUSTIFICATION**

- **Improve overall efficiency of Army logistics**
- **Consolidate missile and armanent functions into one inventory control point**
- **Improve supply distribution efficiency**
- **Achieve immediate return on investment**



## **IMPACT OF BRAC - 91 LEGISLATION**

- **Army began actions required to implement BRAC-91 Legislation.**
  - **Identified \$42M in construction funds required from Congress for new 354,000 sq. ft. facility to provide work space for personnel transferred from Rock Island Arsenal, The Presidio of San Francisco, and Lexington Bluegrass Army Depot.**
  - **Requested Congressional authorization and appropriation of construction funds in FY93 Defense Budget. (Subsequently approved by the Congress)**
  - **Initiated the transfer of personnel from The Presidio of San Francisco and Lexington Bluegrass Army Depot. (Personnel moves have begun.)**
- **City of Huntsville and Redstone Arsenal initiated activities required to support the consolidation.**
  - **Necessary transportation improvements**
  - **Expansion of Cummings Research Park**
  - **Capital expenditures for education**
  - **Employee retention and relocation efforts**



## **REAL VALUE OF BRAC-91 CONSOLIDATION PLAN**

- **It commits AMC to a long-term consolidation plan with Redstone Arsenal as the site for commodity operations and Rock Island Arsenal for industrial operations.**
- **It consolidates similar commodities and missions into one command.**
- **It better positions the Army Materiel Command to achieve FUTURE commodity consolidations at Redstone Arsenal.**
- **It complies with DMRD 926 and physically consolidates two national Inventory Control Points.**
- **It provides steady-state annual savings of \$45M by relocating the Rock Island Inventory Control Point.**
- **In the Army's own words: "It improves the efficiency of Army logistics."**



## ARMY/AMC BRAC-93 RECOMMENDATION (REDSTONE ARSENAL CONSOLIDATION)

### ACTION

- Reverse BRAC-91 legislation and keep armaments acquisition and materiel management functions at Rock Island Arsenal and reorganize them under the Tank Automotive Command (TACOM).

### PROJECTED SAVINGS

#### MANPOWER

\$1M from additional personnel reductions

#### MOVING COSTS

\$44M associated with transfer of functions and personnel to Redstone Arsenal

### JUSTIFICATION

- Closer alignment between armaments and chassis functions
- Functions can be executed fully from Rock Island Arsenal without relocating
- Avoids expense of moving people
- Immediate cost avoidance



## NEGATIVE IMPACT OF ARMY/AMC BRAC-93 RECOMMENDATION

- Sets precedent that legislated BRAC recommendations are subject to subsequent reversal without compelling rationale.
- Does not comply with approved legislation from BRAC-91 nor DMRD 926 to consolidate national inventory control points.
- Loses recurring savings of \$45M per year.
- Proliferates commodity organizations versus consolidation and closure.
- Loses long-term savings potential associated with consolidation of similar functions and organizations within AMC.

*BRAC-91 Report to the President, p. 5-22.*

*"The Commission did consider alternatives such as splitting the inventory control point or separating the inventory control point from its parent command. However, it determined the DoD realignment to be more operationally sound and cost effective."*



# HUNTSVILLE

*Army Materiel Command*

## CONCLUSIONS

- In 1991 the Army Materiel Command had a plan for its future and made proposals to the Commission that began to implement that long-range plan through a well-reasoned process of consolidation, increased efficiency, planned reduction and economy.
- The Commission reviewed those proposals, considered alternatives, and found the Army's proposals sound and accepted them.
- The rationale for supporting the consolidation at Redstone Arsenal is just as valid today as it was two years ago.



## RECOMMENDATION

**REAFFIRM THE COMMISSION'S 1991 RECOMMENDATION AND SUBSEQUENT LEGISLATION TO CONSOLIDATE ARMY COMMODITY MANAGEMENT ACTIVITIES AT REDSTONE ARSENAL FOR ALL THE REASONS CITED IN THE BRAC-91 REPORT.**

BG (Ret) LARRY R. CAPPS  
Huntsville, Alabama

**TESTIMONY TO BRAC 93**

Chairman Courter and distinguished members of the Base Closure and Realignment Commission (BRAC), I am Larry Capps of Huntsville, AL, a retired U. S. Army Brigadier General, former Deputy Commanding General of the U. S. Army Missile Command (MICOM) from 1988 to 1991, and a former member of the Army Materiel Command (AMC) Vision 2000 Task Force in 1990 and 1991. At the request of Senator Heflin, Congressman Cramer, and Mayor Hettinger, I am also here today to represent the citizens of Huntsville and Madison County before this Commission.

(Chart 1) My purpose here today is to recommend that the 1991 Base Closure and Realignment Legislation not be changed. That legislation consolidates selected Army Commodity management activities under a single command at Redstone Arsenal and requires the transfer of related functions and personnel from Rock Island Arsenal, Illinois. We also request that without compelling rationale, you should not set a precedent of reversing the recommendations of previous BRAC's, particularly those recommendations that were subsequently enacted into Public Law. I do not believe you will find any compelling rationale to justify the reversal of your previous position. If this presentation has a theme, it is "to stay the course."

(Chart 2) First of all, let me give you some background and historical perspective that led to the 1991 BRAC Legislation. The Army Materiel Command, headquartered in Alexandria, VA, has primary responsibility for developing, acquiring, and maintaining all Army equipment and weapons. To accomplish its mission, AMC has 126 subordinate organizations located at 355 separate locations; and a work force in 1991 of approximately 105,000 government civil servants. Today that workforce is approximately 80,000 civil servants. In 1990, it was recognized that the Department of Defense and Army Budgets would decline drastically over the

coming five to ten years. Hence, a review of AMC's operations was chartered in an organizational study titled "AMC Vision 2000", whose purpose was to reduce operating costs and improve overall organizational efficiency. The goal was to reduce the civilian work force from the then 105,000 to approximately 60,000 over the next five to seven years. It was clear then, that to achieve a cutback of 45,000 personnel (or 43% of the workforce) and still be able to perform the mission effectively and efficiently, bases would have to be closed or realigned, headquarters would have to be eliminated and functions would have to be consolidated at fewer installations. These facts have not changed. AMC's Vision 2000 plan recommended, among other things, the consolidation of commodity management activities at Redstone Arsenal, AL to reduce manpower requirements and overhead expenses. BRAC-91 approved a subsequent "reduced in scope" recommendation and the Congress of the United States authorized and appropriated funds to support the transfer of functions and personnel from Rock Island Arsenal, to Redstone Arsenal, and to construct new facilities to provide work space for these personnel. The FY93 Army submission to the Base Closure and Realignment Commission seeks to reverse the 1991 decision (and law) and keep related functions and personnel at Rock Island Arsenal.

What has changed with AMC's new leadership is to delay the inevitable decision that some things will have to go away - - or to accept the inefficiency of too many headquarters and unaffordable installations whose personnel overhead requirements surely compete with mission accomplishment.

Mr. Chairman, with your and the committee's indulgence, for the next few minutes let me take you step by step through the AMC Vision 2000 process, the subsequent Army/AMC BRAC-91 recommendations, the BRAC-91 Legislation as it pertains to Redstone Arsenal, and the impact of that legislation on the actions of the Army and the City of Huntsville. Then I will discuss the FY93 Army/AMC recommendations to the BRAC Commission and the negative impact of those recommendations.

(Chart 3) In October 1990, the then AMC leadership responding to projected drastic budget cuts in the Defense Department; set about to take a serious and thoughtful look at how

AMC could be restructured and still perform its vital mission of support to the Army's deployed forces. The mechanism for this study effort came to be known as "AMC Vision 2000" - or how, from a 1990 perspective, would AMC have to change by the year 2000 in order to do its job. The objective of this effort was to achieve economy of operation through consolidations, base closures, and colocation of like (or similar) activities. Hundreds of AMC personnel were involved in this very comprehensive study effort. I, personally, was the co-chairman of a "Process Action Team" of approximately fifty personnel whose function was to look at how the six separate AMC commodity commands could be restructured into one command. Those commands were the U.S. Army Missile Command (MICOM) at Redstone Arsenal; the U.S. Army Aviation Command (AVSCOM) at St. Louis, MO; the U.S. Army Troop Support Command (TROSCOM) at St Louis, MO; the U.S. Army Tank-Automotive Command (TACOM) at Warren, MI; the U.S. Army Armament, Munitions, and Chemical Command (AMCCOM) at Rock Island, IL; and the U.S. Army Communications and Electronics Command (CECOM) at Ft. Monmouth, NJ. Our study substantiated that it was feasible and desirable to consolidate the similar functions of these separate commands into one Development and Sustainment Command (DSC) at Redstone Arsenal, AL. Other "Process Action Teams" were charged with looking at the functions of other AMC commands. Their work substantiated that:

1. All depots and arsenals (the industrial functions) could be consolidated under a single Industrial Operations Command (IOC) at Rock Island Arsenal, IL.
2. All separate laboratory activities could be consolidated under a single Combat Materiel Research Laboratory Command (CMRLC) at Aberdeen Proving Ground, MD.
3. All test and evaluation activities could be consolidated under a single Test and Evaluation Command (TECOM) at Aberdeen Proving Ground, MD.

In early 1991, The AMC Vision 2000 Report was submitted to the Army for consideration as part of the BRAC-91 process. The Army supported the concept of these consolidations; but could not approve the entire plan at the time because of the up front FY92

and FY93 investment costs. Subsequently, the then AMC leadership divided its concept into eleven (11) separate increments that would eventually achieve the desired and required consolidations.

(Chart 4) What was approved by the Army and subsequently submitted to BRAC-91 was the initial step of establishing a new Missile, Armaments, and Chemical Command at Redstone Arsenal by relocating the armaments acquisition and materiel management functions from Rock Island, IL. This also supported a Defense Management Report Decision (DMRD 926) to eliminate one National Inventory Control Point (NICP) by consolidation. The projected savings were 1170 personnel positions and \$45M per year in operating expenses beginning in CY95 when the personnel moves were completed. The one-time investment costs were \$27.8M for the movement of personnel from Rock Island Arsenal to Redstone Arsenal and \$38.3M for the construction of new facilities at Redstone Arsenal. The return on investment would be accomplished within 2 years after implementation.

(Chart 5) In mid 1991, the BRAC Commission accepted the Army's recommendation as it pertained to Redstone Arsenal and forwarded it to the President as part of the proposed BRAC-91 Legislation. The BRAC-91 Legislation was subsequently passed by the Congress and enacted into Public Law. That specific law requires the Army to "Relocate the Armaments, Munitions, and Chemical Command from Rock Island Arsenal to Redstone Arsenal as part of the inventory control point consolidations under Defense Management Report Decision (DMRD 926)." The law also requires the Army to "relocate [the] Materiel Readiness Support Activity from Lexington-Bluegrass Army Depot to Redstone Arsenal along with the Logistics Control Activity from the Presidio of San Francisco to Redstone Arsenal." The justification for the BRAC actions was to:

1. Improve overall efficiency of Army logistics.
2. Consolidate missile and armaments functions into one inventory control point.
3. Improve supply distribution efficiency.
4. Achieve immediate return on investment.

(Chart 6) With passage of the required legislation, the Army began the necessary actions to implement BRAC-91 for Redstone Arsenal. As examples, the Army:

1. Identified \$42M in military construction funds required for a new 354,000 sq. ft. facility to provide work space for personnel transferred from Rock Island Arsenal, The Presidio of San Francisco, and Lexington-Bluegrass Army Depot.
2. Requested Congressional authorization and appropriation of construction funds in the FY93 Defense Budget. (Congress subsequently approved the request.)
3. Initiated the transfer of personnel from The Presidio of San Francisco and Lexington-Bluegrass Army Dept. (Personnel moves are now underway.)

Similarly, the City of Huntsville and Redstone Arsenal initiated activities to support the consolidation effort. Mayor Hettinger very precisely and eloquently elaborated on those Huntsville and Madison County actions required to improve the transportation network, to expand Cummings Research Park, to provide capital expenditures for education, and to aid in Army employee retention and relocation efforts.

(Chart 7) At this point, let's go back and take a summary look at the real value of the BRAC-91 Legislation:

1. It commits the Army Materiel Command to a long-term consolidation plan with Redstone Arsenal as the site for commodity operations and Rock Island Arsenal for industrial operations.
2. It consolidates similar commodities and missions for guns and missiles into one command.
3. It positions the Army Materiel Command to more easily achieve future commodity consolidations at Redstone Arsenal.
4. It complies with DMRD 926 and physically consolidates two national inventory control points.

5. It provides steady-state annual savings of \$45M by relocating the Rock Island Arsenal Inventory Control Point.

6. And, in the Army's own words: "It improves the efficiency of Army logistics."

(Chart 8) Now, let's leave 1991 and go forward in time to 1993 and look at the Army and AMC recommendations for BRAC-93 as it pertains to the Redstone Arsenal consolidation. This year's input would have you reverse the BRAC-91 Legislation and keep the armaments acquisition and materiel management functions at Rock Island Arsenal; yet reorganize them in place under the Tank Automotive Command (TACOM) at Warren, MI. The projected savings are \$1M for additional personnel savings (over the BRAC-91 plan) and \$44M associated with the transfer of functions and personnel to Redstone Arsenal. At best, the later is not a savings, but a cost avoidance that does not reap the \$45M per year in recurring savings of the BRAC-91 Legislation. The AMC justification for this change is that there is a closer alignment between armaments and chassis functions than there is between armaments and missile functions. This is a matter of philosophy, but not fact. Also, AMC says the NICP functions can be executed fully from Rock Island Arsenal without relocating. I'm sure this is true because those functions have been executed at Rock Island Arsenal for a number of years; however, DMRD 926 required the consolidation of two NICP's into one and BRAC-91 chose that the Rock Island Arsenal NICP function be physically consolidated and moved to Redstone Arsenal. In fact, there is very specific language on page 5-22 of the BRAC-91 Report to the President: (and I read), "The Commission did consider alternatives such as splitting the inventory control or separating the inventory control point from its parent command. However, it determined the DoD realignment to be more operationally sound and cost effective."

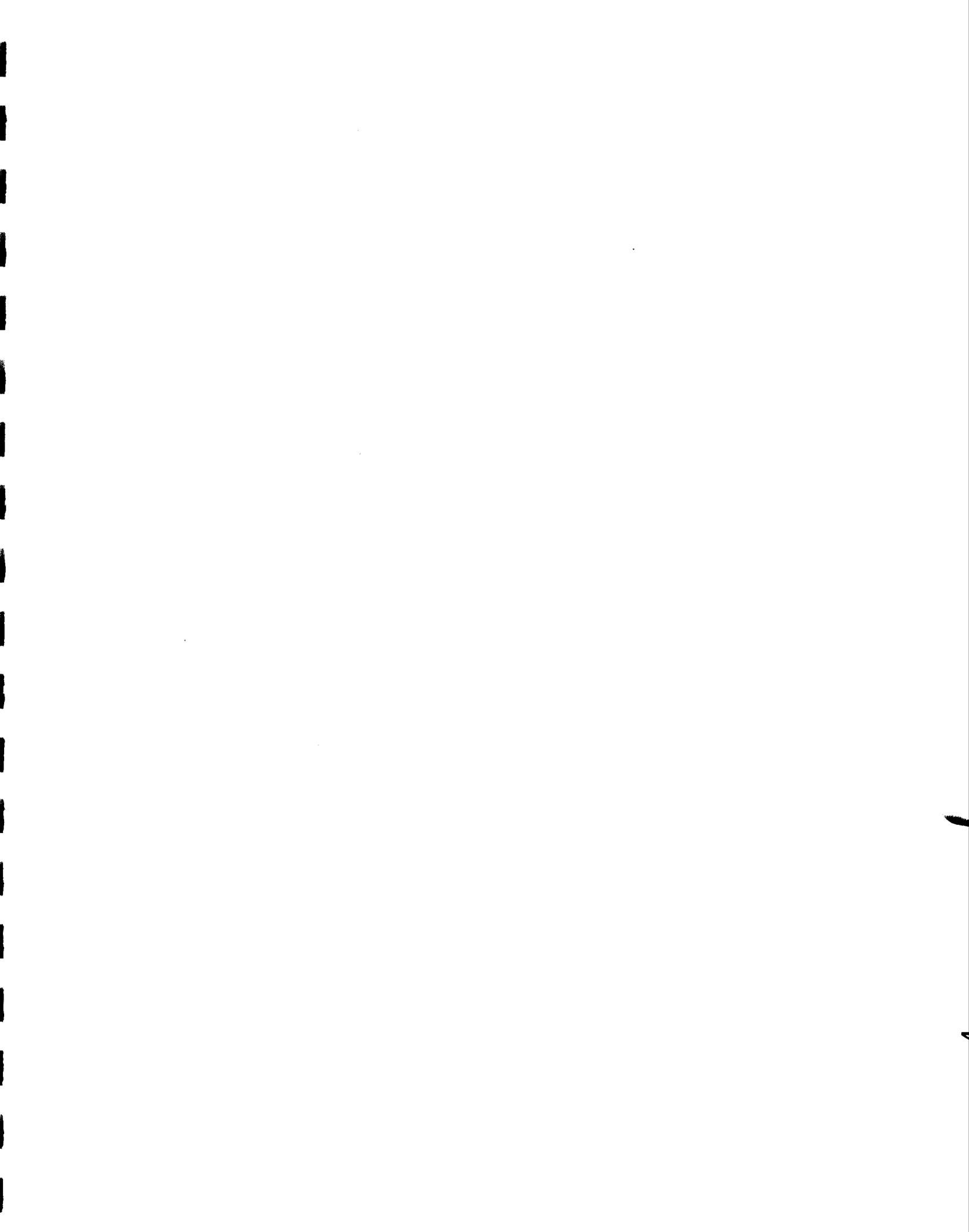
(Chart 9) From the Huntsville perspective, there are some very important negative impacts of the AMC BRAC-93 recommendations as they pertain to Redstone Arsenal in particular, and to the BRAC process in general:

1. Sets a precedent that legislated BRAC recommendations are subject to subsequent reversal without compelling rationale, but apparently solely due to changes in personalities and management philosophy.
2. Does not comply with approved legislation from BRAC-91 nor DMRD 926 to consolidate national inventory control points.
3. Loses the near-term recurring savings of \$45M per year.
4. Proliferates commodity organizations versus consolidation and closure.
5. Loses long-term savings associated with consolidation of similar functions and organizations within AMC.

(Chart 10) Mr. Chairman, I appreciate the commission's patience in letting me carry you through this bit of history as to how we got to where we are today, and what's changed or not changed since the BRAC-91 Legislation. Let me conclude by stating that in 1991, the Army Materiel Command had a well thought-out plan for its future and made proposals to the Commission that began to implement that long-range plan through a well-reasoned process of consolidation, increased efficiency, planned reduction, and economy. The Commission reviewed those proposals, found them sound, and accepted them. Subsequently, those proposals became the law of the land. The rationale for supporting the consolidation at Redstone Arsenal is just as valid today as it was two years ago.

(Chart 11) We ask that you "stay the course" and reaffirm the Commission's 1991 recommendation to consolidate Army commodity management activities at Redstone Arsenal for all the reasons cited in the BRAC-91 Report.

Mr. Chairman and members of the Commission, we thank you for the opportunity to come here today and personally present our material to you. We hope you will continue your very important work to a successful conclusion.



## **BRAC-93 POSITION PAPER OF THE CITY OF HUNTSVILLE, ALABAMA**

### **INTRODUCTION**

In 1991, the Base Closure and Realignment Commission (BRAC) made several decisions that significantly affected the operations of the Army Materiel Command and Redstone Arsenal, Alabama. Those decisions were the result of intensive evaluation and ultimately received Congressional validation when enacted into public law.

Much of what was done in BRAC-91 was in response to the desire of Congress to downsize the military. The Commission evaluated the efficiencies of many bases and decided that many of the people-intensive operations in the AMC commodity commands were good candidates for consolidation. Redstone Arsenal is one of the facilities affected by that consolidation.

While the conclusions of BRAC-91, with respect to Redstone Arsenal, were the result of thorough evaluation, it now appears that the Army has abandoned the wisdom of the long-term approach approved two years ago. Some carefully considered decisions of 1991 are in jeopardy of being reversed by a sudden change in position by the Army. We strongly urge you to reject that effort and reaffirm the conclusions of BRAC-91. We also ask that you not set a precedent, without compelling reason, that reverses recommendations made by previous BRAC's and subsequently enacted into law. We believe you will find no compelling rationale for the change recommended by the Army.

### **BACKGROUND**

The U.S. Army Materiel Command ("AMC"), supports the development, testing, buying and maintenance of the Army's equipment and weapons. The Command has

approximately 80,000 civilian employees in 126 organizations at 355 locations and has undergone significant downsizing in recent months.

Redstone Arsenal, Alabama is one of the Command's installations. It is the home of the Army Missile Command ("MICOM").

In 1990, AMC designed a new command-wide organization capable of efficiently performing its mission in the future with significantly fewer dollars, people and installations. What evolved from that process was a decision to restructure AMC and depart from the existing and inherently inefficient, widely-dispersed commodity-based organization.

#### **BRAC-91**

In 1990, as part of a plan entitled Vision 2000, AMC decided that it was inefficient to maintain a multitude of organizations that served as commodity centers for military supplies. The commodity commands perform research and develop, buy, maintain and supply specific equipment and weapons to the Army. Generally, each location duplicates the functions of the other locations for the various commodities the Army manages.

Vision 2000 made several key observations. First, the work of these material distribution centers does not require unique facilities or equipment and may be done in virtually any office building with adequate communication facilities. Second, there is significant duplication in the multiple centers resulting in too many people.

To improve overall efficiency, AMC proposed to consolidate all the commodity management operations into a single command located at Redstone Arsenal. The management of all Army-owned manufacturing installations and Army depots was to be based at a second command at Rock Island Arsenal. The consolidations were the cornerstones of the Vision 2000 Plan that AMC originally proposed to the Army for BRAC-91 consideration.

The Army ultimately decided that funding of the entire Vision 2000 Plan was not feasible and elected to begin the implementation with, among other things, the following actions:

1. Combine the industrial elements of the Armament, Munitions and Chemical Command at Rock Island with the Depot Systems Command headquarters, thus creating the Industrial Operations Command; and merge the armament and chemical management functions and personnel at Rock Island into Redstone Arsenal's missile management functions. The new command at Redstone Arsenal was to be named the Missile, Armaments and Chemical Command. These consolidations also satisfied the near-term requirement of Defense Management Report Decision 926 by reducing the number of inventory control points. Additionally, the actions recommended positioned AMC to transfer future commodity functions and personnel to Redstone Arsenal as originally contemplated by the Vision 2000 Plan.

2. "Relocate the Materiel Readiness Support Activity from Lexington-Bluegrass Army Depot to Redstone Arsenal along with the relocation of the Logistics Control Activity from the Presidio of San Francisco to Redstone Arsenal... The merger of these two activities at Redstone will form the Logistics Support Activity."

The actions proposed by AMC became part of the Army BRAC-91 proposal and received approval of the Commission, the President and Congress.

### **REALIGNMENT JUSTIFICATION**

While there was a lengthy discussion of the desirability of the realignment, no language more succinctly validates the benefits of this consolidation than the following BRAC-91 report language:

*"This recommendation is a business-oriented decision to improve supply distribution efficiency . . . [the realignment] provides an immediate return on investment."*

The civilian personnel reductions estimated because of this action were:

-- Original Base Line (positions at Rock Island)	2,406
-- Positions Required (final figure March 1993)	1,236
-- Positions Eliminated (by consolidation)	1,170

The one-time costs for this action were:

-- New Administrative Space at Redstone	\$26.2M
-- People (Moves/Payouts)	<u>\$41.6M</u>
-- Total One-Time Costs	\$67.8M

The report estimated savings at \$45M annually beginning in CY95 (1170 positions eliminated x \$35K annual salary plus \$4.7M overhead) yielding a total payback in less than two years.

In response to BRAC-91 Legislation, planning and environmental work necessary to implement this consolidation is nearly complete. Although not a military cost of the relocation, the City of Huntsville, State of Alabama and Madison County, in response to this consolidation, took steps to enhance the infrastructure necessary to support the influx of people. All of these local government agencies incurred significant costs to support the BRAC-91 relocation. The process has been progressing and, in fact, the personnel moves to Redstone Arsenal have begun and are a year ahead of schedule.

The BRAC-91 decision was well reasoned. It has the effect of giving an immediate return on investment in a period when military efficiency is increasingly more important with each passing day. There is nothing that has changed that would suggest a reevaluation of the Commission's earlier decision. The following benefits that supported the decisions of BRAC-91 remain valid:

1. Significant efficiencies are gained through the consolidation into one command of the materiel management functions for guns and missiles;

2. The move sets the stage for future AMC commodity consolidations at Redstone Arsenal, the facility recently ranked as Number 2 in military value in AMC;

3. State and local government became the Army's partner when it committed to significant infrastructure improvements to accommodate the move;

4. The realignment provides long-term annual savings of \$45M.

5. The realignment complies with DMRD 926 (consolidation of inventory control points); and,

6. As the Army stated, the move "improved the efficiency of Army logistics."

The rationale is well documented. The long-term efficiencies are real. The decision of the Commission in 1991 is valid and should remain public law.

The second decision affecting Redstone Arsenal, approved in BRAC-91, was the relocation of two commands to form a new single command, the Logistics Support Activity.

Because of this action, more than 700 personnel are currently in the process of moving to Redstone Arsenal. These people are temporarily housed in Redstone Arsenal in four former military barracks buildings pending construction of permanent facilities.

It is particularly significant that, when initially polled, 86 percent of the federal civilian employees impacted by this decision have stated their intent to relocate with their jobs to Redstone Arsenal. The percentage is extremely high and well above government experience in other relocations (20-22 percent is the range used in government computer models). This statistic is a testament to the attractiveness of North Alabama as a relocation site.

To support the BRAC-91 decisions, the Army combined the new facility requirements (and funding) of the Logistics Support Activity and Redstone Arsenal/Rock Island realignment into a single construction project. The Army requested, and Congress appropriated in FY93, \$42M in military construction funds to construct 354,000 square feet

of new administrative space at Redstone Arsenal. Bids for the facility have been solicited, received and evaluated. At the point of contract award, the Army, on March 16, 1993, delayed the award pending the outcome of BRAC-93.

The reason for the delay became apparent a few days later when the Army made public its 1993 recommendations to your Commission. The Army decided to abandon its earlier recommendations and seek to reverse the BRAC-91 Legislation.

Since the enactment of BRAC-91 by Congress, there have been key leadership changes in AMC. Instead of following the 1990 master plan of commodity command consolidation, favored by prior leadership, AMC has established two **additional** commodity organizations:

1. The Army Simulation, Training and Instrumentation Command, and
2. The Army Chemical Biological Defense Agency

AMC's demonstrated intent to create new organizational entities is directly contrary to the stated intent of DoD to achieve efficiency and economy through consolidation. AMC now proposes to use the BRAC 93 process to further fragment its operations.

### BRAC-93

In 1993, the Army reversed its 1991 recommendations affecting Redstone Arsenal by advocating that the management functions of the U.S. Army Armament, Munitions and Chemical Command (at Rock Island) **not** be moved to Redstone Arsenal. As justification for this reversal, the Army has cited the immediate cost savings of not relocating over 1000 employees to Redstone Arsenal. In a statement that completely contradicted its earlier recommendations and the findings of this Commission, the Army stated:

*"Return on Investment: Implementing this recommendation will avoid approximately \$44M while incurring no costs. Annual . . . savings of about \$1M are anticipated from efficiencies gained from additional reductions in personnel"*

This recommendation is short sighted and does not meet the long-term objectives that the Army was attempting to achieve in Vision 2000 and BRAC-91, and should be rejected by the Commission for the following reasons:

1. The reversal does not comply with DMRD 926. National inventory control point consolidation is not achieved by long-distance management that results in the duplication of services.

2. The reversal is contrary to Public Law enacted in response to the Commission's 1991 findings;

3. The reversal encourages split-site logistics operations with all its known inefficiencies, duplications and recurring costs. In fact, the Commission, on page 5-22 of its 1991 Report to the President, stated that it, "did consider alternatives such as splitting the inventory control point or separating it from its parent command. However, it determined the DoD realignment to be more operationally sound and cost effective."

4. Split-site operations cannot be adequately managed because computer files must be integrated. There are no dollars allocated for this difficult and expensive process.

5. The reversal does not improve Army logistics. Split-site inventory points create logistics nightmares that are hardly in keeping with the Army's goal of consolidation.

6. AMC loses the benefits and opportunities that the \$42M for construction of new administrative space provides. The loss of flexibility created by the construction of new facilities hinders future consolidations at Redstone.

7. The loss of new administrative space forces the Logistics Support Activity to permanently occupy converted barracks space with resultant loss of efficiency and economy.

8. The Army claims that the immediate \$44M cost avoidance is to the benefit of the Army but that argument could be used to justify the reversal of any BRAC decision. The earlier findings never suggested that there not be an upfront cost to the consolidation plan, but rather justified it by citing the long-term savings associated with the consolidation plan.

BRAC-91 also found that, in a very short period of time, the upfront costs would be recouped and after about 1.5 years there would be a gain to the Army. Any other finding is short sighted and contrary to the long-term goal of AMC to consolidate its operations and achieve long-term efficiencies.

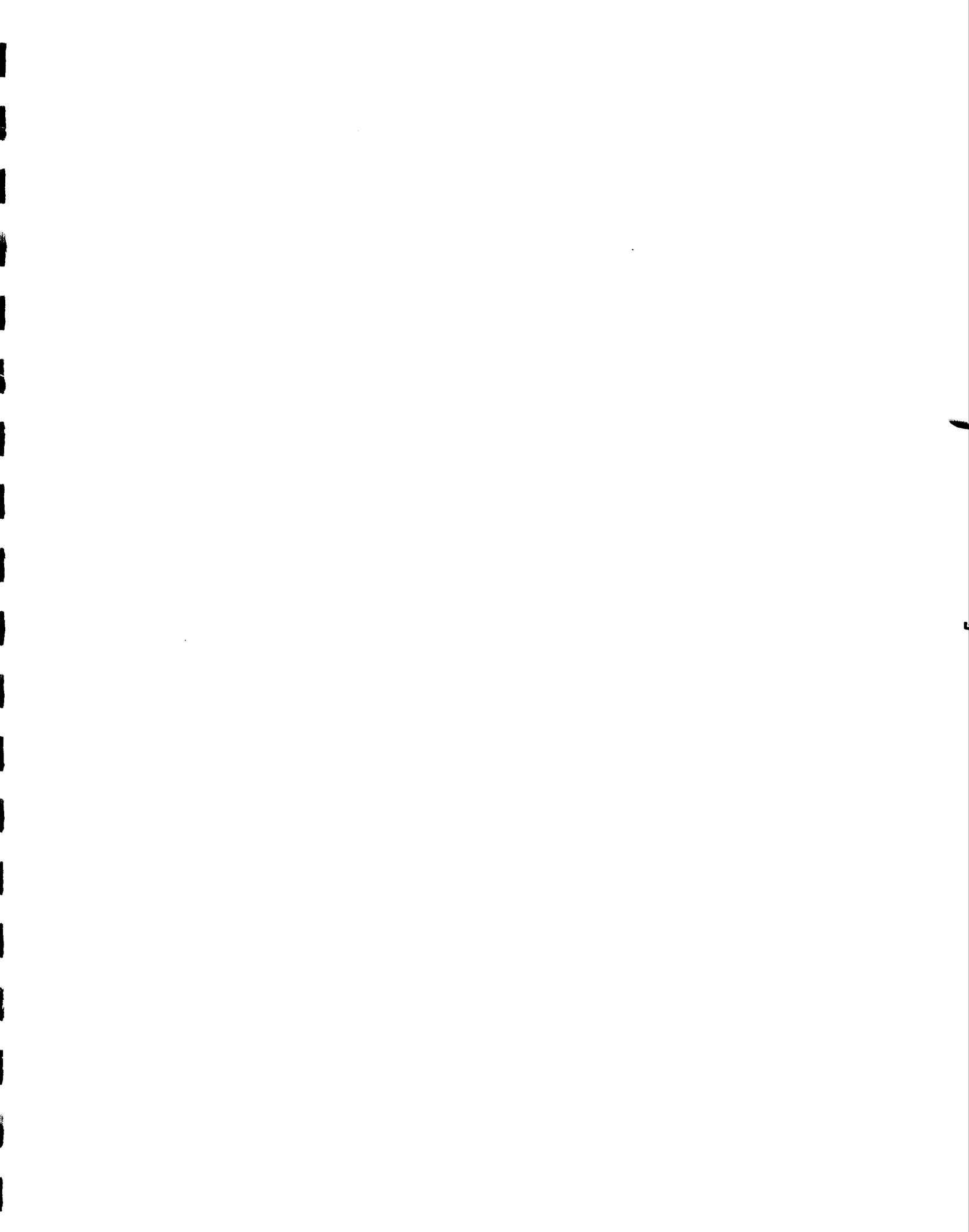
## CONCLUSION

In 1991, AMC developed a long-term plan for its future and requested that the Commission support that plan. That well-reasoned proposal fostered consolidation, increased efficiency, personnel reductions and economy -- certainly desirable goals in a period of military downsizing and budget reductions.

The Army's 1993 proposal advocates fragmentation rather than consolidation. The proposal promotes the proliferation of new organizations rather than the consolidation of existing organizations. Instead of critically examining the desirability of unneeded facilities, the Army is proposing the perpetuation of inefficiency through antiquated facilities linked by long-distance communications. This position is contrary to the long-term objectives of the Commission and should not be supported.

In two short years, the Army is suggesting that all of its previous studies and analyses were wrong. It now proposes that there should be no realignment and that near-term cost avoidance is more important than long-term efficiency. Such inconsistency begs the question: "What has changed?" The answer is simple: "Nothing." In fact, the Army does not argue the long-term savings, it does not argue the correctness of the 1991 decision, it simply changed its mind. This inconsistency does not enhance long-range planning. It does not encourage efficiency. The decision in 1991 was sound when made. It is still correct in 1993.

The Army's current arguments are extremely short sighted, at best, and should be rejected by the Commission. We strongly urge you to enforce your 1991 decision, reaffirm it in 1993, and not set a precedent of allowing changes to the Public Law without compelling rationale.



## Rock Island Arsenal, Illinois

**Recommendation:** Change the recommendation of the 1991 Commission regarding Rock Island Arsenal, IL, as follows. Instead of sending the materiel management functions of U.S. Army Armament, Munitions and Chemical Command (AMCCOM) to Redstone Arsenal, Alabama, as recommended by the 1991 Base Closure Commission, reorganize these functions under Tank Automotive Command (TACOM) with the functions remaining in place at Rock Island Arsenal, IL.

**Justification:** Under the Commission's recommendation in 1991, the materiel management functions for AMCCOM's armament and chemical functions were to be transferred to Redstone Arsenal for merger with U.S. Army Missile Command (MICOM). The merger would have created a new commodity command to be called the Missile, Armament and Chemical Command (MACCOM). This merger allowed one national inventory control point (NICP) to be eliminated.

In December 1992, the Commander of Army Materiel Command (AMC) directed that the command's Core Competency Advocates (Logistics Power Projection, Acquisition Excellence, Technology Generation) review the creation of MACCOM to see if there was a more cost effective option to realign Redstone Arsenal. These competency advocates recommended that the AMCCOM's materiel management functions should remain in place as a subset of the NICP at TACOM. A closer alignment exists between the armaments and chassis functions than between armaments and missiles, making the reorganization under TACOM more beneficial and cost effective for the Army:

- AMCCOM performs approximately \$50 million and 500 work years for Tank Automotive Command's research and development effort compared to only \$9 million and 90 workyears for Missile Command.

- AMCCOM receives \$29 million from TACOM versus \$0.1 million from MICOM for sustainment.

- AMCCOM and TACOM jointly produce all tanks, howitzers, and infantry vehicles. AMCCOM and MICOM do not jointly produce any weapon systems.

- AMCCOM and TACOM use common contractors and universities.

- AMCCOM and TACOM jointly field, manage, and sustain common weapon systems.

- AMCCOM and TACOM share common business practices.

- Guns have their fire control sensors and computers in the vehicle and require extensive joint integration, as AMCCOM and TACOM do now. Missiles have their sensors and fire control in the missile and are easier to mount on a vehicle, as MICOM and TACOM do now.

The Army believes that the armament/chemical materiel management functions can be fully executed from Rock Island Arsenal without relocating. There is precedence for geographic dispersion of NICP functions. The U.S. Communications-Electronic Command NICP is currently performed at three separate sites.

Retention of this activity at Rock Island Arsenal, as a subordinate element of the TACOM NICP, avoids the expense of building new facilities at and relocating over 1,000 employees to Redstone Arsenal.

**Return on Investment:** Implementing this recommendation will avoid approximately \$44 million while incurring no costs. Annual steady state savings of about \$1 million are anticipated from efficiencies gained from additional reductions in personnel.

**Impacts:** There are no environmental or community infrastructure impediments from this recommendation.

## Fort Monmouth, New Jersey

**Recommendation:** Realign Fort Monmouth. Relocate the headquarters of U.S. Army Communications Electronic Command (CECOM) from leased space outside Fort Monmouth to Rock Island Arsenal, Illinois and transfer the Chaplain School to Fort Jackson, South Carolina. Consolidate activities to maximize utilization of main post Fort Monmouth. Dispose of excess facilities and real property at Evans and Charles Woods sub posts, as well as main post, Fort Monmouth.

**Justification:** Fort Monmouth ranks fourth out of twelve installations in military value. It is a small installation with elements located off base in costly leased space. Relocating the CECOM Headquarters, an administrative and logistical headquarters, from leased facilities located outside the main post of Fort Monmouth, New Jersey to permanent facilities at Rock Island Arsenal, Illinois allows the Army to terminate a lease of \$15 million per year with additional savings of over \$8 million per year in locality pay differential for the civilian workforce. At the same time it better utilizes the excess space identified at Rock Island. Separating the headquarters and administrative function from the research and development aspect of CECOM will not have an operational impact.

Rock Island Arsenal has the infrastructure to support and house the headquarters element of CECOM. Currently, Rock Island has administrative space to accommodate approximately 1,000 additional personnel and permanent building space that can be renovated to accommodate even more personnel. The computer system center on the arsenal is one of the Army's largest and can accommodate the needs of the headquarters.

The Rock Island community infrastructure can accommodate the new residents without the need to construct new schools, new water and sewer facilities or other public facilities. There is abundant housing at reasonable costs and excellent access to higher education, both at the graduate and undergraduate level.

Fort Jackson trains about one half of the basic trainees and is the largest recruit training center. It is also the home of the Soldier Support Center, which is relocating from Fort Benjamin Harrison. The report to the 1991 Commission describing the proposed closure of Fort Benjamin Harrison stated that the Army planned to collocate the Chaplain School with this Center eventually. The transfer of the Chaplain School to Fort Jackson benefits not only the Chaplain School's students, but also the large population of basic trainees who are beginning a new career in the Army, many of whom are separated from their families for the first time. The Chaplain School and its staff of chaplains will facilitate the trainees' transition to the Army life.

**Return on Investment:** Total estimated one-time costs for this realignment are approximately \$93 million. Annual steady state

savings are about \$20 million, with a return on investment in three years.

**Impacts:** The realignment of Fort Monmouth will have an impact on the local economy. The projected potential employment loss, both direct and indirect, is 3 percent of the employment base in the Monmouth County Metropolitan Statistical Area, assuming no economic recovery. This potential job loss is partially offset by the proposed movement of personnel to Fort Monmouth from Vint Hill Farms. There are no known environmental impediments from this realignment. Environmental restoration will continue until complete. There are no known obstacles in the ability of the receiving community's infrastructure to support this recommendation.

## Letterkenny Army Depot, Pennsylvania

**Recommendation:** Realign Letterkenny Army Depot (LEAD) by reducing it to a depot activity and placing it under the command and control of Tobyhanna Army Depot, PA. Relocate the maintenance functions and associated workload to other depot maintenance activities, including the private sector. Retain the conventional ammunition storage mission and the regional Test Measurement and Diagnostic Equipment (TMDE) mission. Change the recommendation of the 1991 Commission regarding Letterkenny as follows. Instead of sending Systems Integration Management Activity East (SIMA-E) to Rock Island Arsenal, Illinois, as recommended by the 1991 Commission, retain this activity in place. Retain the SIMA-E and the Information Processing Center at Letterkenny until the Defense Information Systems Agency (DISA) completes its review of activities relocated under Defense Management Review Decision (DMRD) 918. The activities of the depot not associated with the remaining mission will be inactivated, transferred or otherwise eliminated. Missile maintenance workload will not consolidate at Letterkenny, as originally planned. However, Depot Systems Command will relocate to Rock Island Arsenal, where it will consolidate under the Industrial Operations Command there, as approved by the 1991 Commission.

**Justification:** The decision to realign LEAD was driven by the results of the Chairman, Joint Chiefs of Staff triennial review of roles and missions in the Department of Defense. As part of this review, the Chairman chartered the Depot Maintenance Consolidation Study. The study identified a significant amount of excess depot capacity and duplication among the Services.

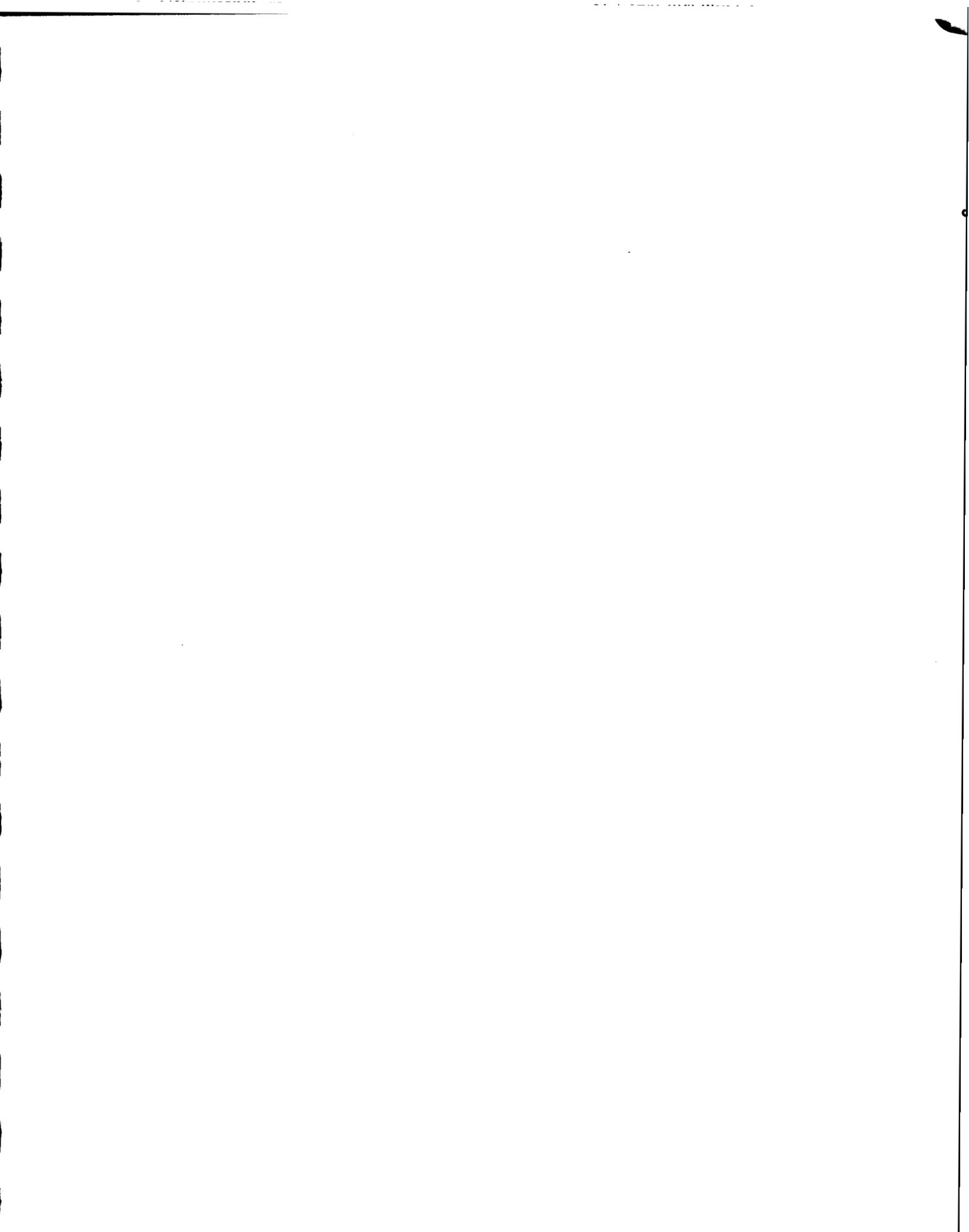
The Army has concluded that the projected ground systems and equipment depot maintenance workload for fiscal year 1999 is not sufficient to maintain all of the ground systems and equipment depots.

In drawing the conclusion to downsize LEAD, the Army considered the following factors: relative military value of the depots; the future heavy force mix; reduced budget; workforce skills; excess capacity; ability of the depots to accommodate new workload levels; the proximity of the depots to the heavy forces in the U.S.; and the resulting savings.

SIMA-E performs computer systems design and data management functions for a variety of activities. This organization is transferring to the Defense Information Systems Agency (DISA) in 1993. Retention keeps this activity focused regionally upon the customer. SIMA-West is located in St. Louis and supports functions in the western portion of the U.S. DISA advised the Army that there were no advantages or savings from a relocation to Rock Island Arsenal, IL. Less than 25% of the work performed by SIMA-E is associated with the Industrial Operations Command at Rock Island Arsenal.

**Return on Investment:** Total estimated one-time costs for this realignment are approximately \$106 million. Annual steady state savings are about \$30 million, with an immediate return on investment.

**Impacts:** The realignment of Letterkenny Army Depot will have an impact on the local economy. The projected potential employment loss, both direct and indirect, is 7 percent of the employment base in the Franklin County Metropolitan Statistical Area, assuming no economic recovery. There are no significant environmental impediments from this realignment. Environmental restoration will continue until complete. There are no known obstacles in the ability of the receiving community's infrastructure to support this recommendation.





## ARMY/AMC BRAC-93 ASSERTIONS

**ASSERTION:** "The Armament, Munitions and Chemical Command (AMCCOM) and the Tank Automotive Command share common business practices."

**RESPONSE:** All Army Materiel Command commodity commands share common business practices, not just the two cited by the Army.

**ASSERTION:** "Guns have their fire control sensors and computers in the vehicle and require extensive joint integration, as the Armament, Munitions and Chemical Command and the Tank-Automotive Command do now. Missiles have their sensors and fire control in the missile...."

**RESPONSE:** Not true and not relevant. The wire guided TOW anti-tank missile, which is managed at Redstone, for example, is mounted on numerous ground and air vehicles. Its fire control system is in the vehicle (not in the missile). Also, the Multiple Launch Rocket System (MLRS) family of missiles (to include the new ATACMS) has its fire control in its track mounted launch vehicle. In addition, the attack helicopter fleet (managed by the Aviation and Troop Support Command) requires joint integration of its fire control (in the helicopter), its guns (managed by the Armaments Munitions and Chemical Command, its missiles (managed by the Missile Command, and its communication equipment (managed by the Communications and Electronics Command).



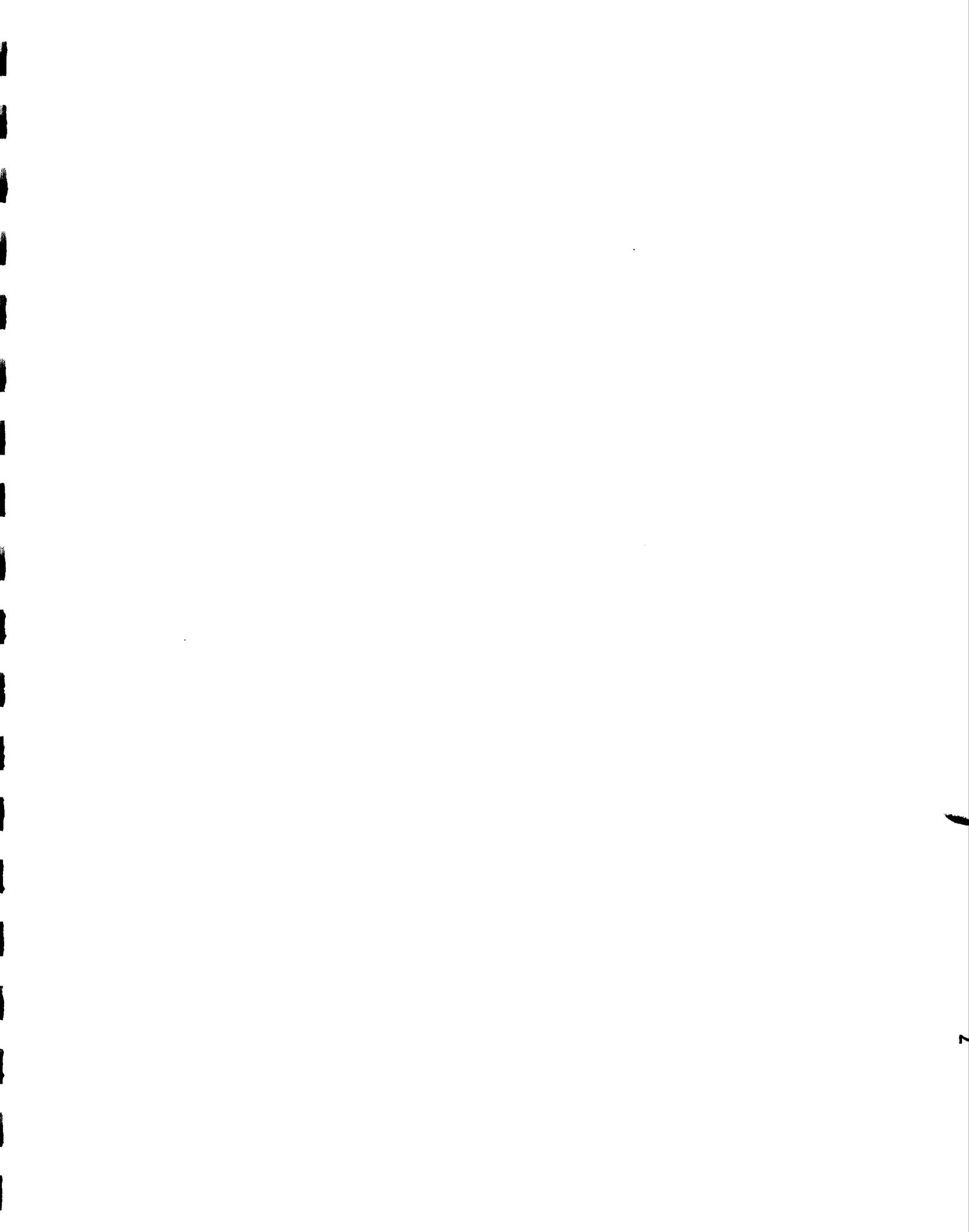
## ARMY/AMC BRAC-93 ASSERTIONS

**ASSERTION:** "The Armament, Munitions and Chemical Command performs approximately \$50 million and 500 work years for the Tank Automotive Command's research and development effort compared to only \$9M and 90 work years for the Missile Command...The Armaments, Munitions and Chemical Command receives \$29M from the Tank Automotive Command versus \$0.1M from the Missile Command for sustainment."

**RESPONSE** All three of these Army Materiel Command commodity commands spend billions of dollars annually. The numbers cited (\$50M/\$29M) are a minuscule portion of the annual budgets of these commands, not a justification to pick one over another to merge with the third.

**ASSERTION:** "The Armament, Munitions and Chemical Command and the Tank-Automotive Command jointly produce all tanks, howitzers and infantry vehicles. The Army Armament, Munitions and Chemical Command and the Army Missile Command do not jointly produce any weapon systems."

**RESPONSE** This assertion conveniently omits mention of the close and continuing relationship between the Armament, Munitions and Chemical Command and the Missile Command over many years. Most Army missile systems have warheads and fuses that are developed and procured by the Armament, Munitions and Chemical Command.



# SAN ANTONIO AIR LOGISTICS CENTER

*A World Class Aviation  
Maintenance Depot*

## Jet Engine Test Facility

Only One In DOD For TF-39  
- \$102 million to replace

## Cryogenic Spin Facility

Only One In U.S.  
- \$20 million to replace

# KEEP KELLY WORKING!

*All Unmanned Navy/Civil Assets*

The Mayor's  
BRAC '95 Task Force

Co-chairs:  
Helen Ayala  
Charles Cheever  
José Villarreal

The Best Engine Depot In DOD  
Vital To Mobilization/Contingency  
Workload Essential To Readiness

Cost Prohibitive To Close  
Best Environmental Record In DOD  
Outstanding Quality Workforce

## GTE Repair Facility

Most Modern In DOD  
- \$33 million to replace

# MILITARY VALUE OF KELLY

## Kelly is the Heart of DOD Strategic Airlift

- Airlift is *the* critical element of success of JCS worldwide mission
- Kelly is the only DOD depot that can support the C-5
  - C-5 is the only outsize cargo-capable aircraft currently in the U.S. fleet
  - 23 years of C-5 management and maintenance experience at Kelly
  - Only hangar in the DOD which can hold 6 C-5's
  - Only depot able to repair/test C-5 engine (TF39)
  - Only modern paint and corrosion control facility large enough for the C-5
  - Best quality record in large aircraft repair
- Kelly support integral to the C-130 (Tactical Airlift Workhorse)
  - Only DOD depot repairing C-130 engine (T56)
  - USAF, Navy, Marine Corps and Coast Guard T56 engines repaired at Kelly
  - 7 years experience in depot repair of C-130
- Kelly will manage and maintain the C-17 (the newest airlift aircraft)
  - Kelly management personnel already involved in support
  - Depot activation for C-17 at Kelly being planned
  - New engineering facility built exclusively for C-17
- Co-located management and depot repair provides an integrated process for:
  - Aircraft (C-5 and later C-17) and engines (TF39 and T56)
  - On-the-spot engineering and management decisions
- 433rd Military Airlift Wing (C-5) located at Kelly
  - 12% of C-5 fleet
  - Reserve Unit that has been first to deploy
- Kelly able to expand with existing facility
- Excellent weather for outside work

## Kelly is the Best Engine Depot in DOD

- Kelly is the largest engine depot - Highest volume, largest facility, largest workload
- Engines managed and repaired solely at Kelly are critical to USAF operations
  - TF39 (C-5) and T56 (C-130)
  - F100 engine powers the F-15 and F-16, the front line fighter aircraft in the USAF
- Recent absorption of intermediate (wing-level) F100, TF39, and T56 workload puts Kelly directly in the line of support to USAF units
- Kelly is the lowest cost engine producer in DOD
  - Repair at other DOD depots costs \$22 million to \$39 million more per year
- Only ALC where Foreign Air Forces have come for depot maintenance (F100 upgrade for Saudi Arabia/Portugal)
- Most modern engine depot in DOD
  - \$615 million investment
  - \$29 million in facilities and equipment in last 5 years
  - Unique one-of-a-kind capabilities exist at Kelly
- Best multi-skilled and experienced engine work force in DOD - Best quality record with 99.9% defect free performance
- Able to expand engine work with existing facilities

## Kelly is Essential in Contingencies/Mobilizations

- Only 24 hour/7 day a week air base providing mobility link to Southern Hemisphere
- Primary USAF support activity for "Just Cause"
- Major support activity for "Desert Shield/Storm"
  - 64% of items for airlift support came from Kelly
  - Shipped 590,000 components - More than any other ALC
  - Surged 19 C-5 and B-52 Aircraft - Second only to the 41 C-141s from WR-ALC
  - Shipped 17 million pounds of munitions
    - 309 aircraft loads of munitions in 191 days
    - 45% of aircraft carrying munitions from U.S.

## Kelly's Workload is Essential to Readiness

- Kelly workload continues even with planned force structure reductions
  - C-5 work grows as the aircraft ages
  - F100 engine in use well into the 21st Century
  - Major support of all Automatic Test and Support Equipment for USAF aircraft
- Kelly manages USAF (and NASA) fuels and USAF nuclear weapons
- Kelly manages more items than any other ALC
  - Moving this management would create major disruptions in support
- Labor cost of maintenance lower than other DOD depots
  - Cost is \$10-\$15 a hour less than Navy depots
  - Moving Kelly maintenance to Navy depots would cost \$60-\$90 million more per year
- Kelly manages more foreign military sales than any other ALC

## Kelly is one of the Largest Air Logistics Centers and is Cost Prohibitive to Close

- Largest repair capabilities in DOD would have to be moved
- Re-creating unique and high-tech facilities would cost \$1 billion
- Largest ALC population in DOD would be affected
- Kelly downsized by 8,000 since 1990 (equivalent to 2 Navy depots)
- 41 Tenants at Kelly
  - Major support to USAF mission
  - Defense Information Systems Regional Megacenter

## Kel Site of a

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- Ovi
- Aw
- Cool
- Fir
- Worl
- Lar
- 760
- 45%
- 14%

Steve Hettinger, Mayor

City of Huntsville  
P.O. Box 308  
Huntsville, Alabama 35804  
(205) 532-7304

April 25, 1993

General Joe W. Rigby  
Commanding General  
USAMICOM  
Redstone Arsenal, AL

Dear General Rigby:

In preparing for testimony before the Base Closure and Realignment Commission scheduled for May 4, 1993, in Birmingham, I was provided a copy of a January 23, 1993, Information Paper from Mr. James R. Davidson, Chief of the BRAC Office. In this document it is stated that ". . . Cdr, MICOM was reluctant to accept the mission for the armament/chemical commodities for even 1245 authorizations, testament to fact that colocation would not result in any personal savings." Is this a valid concern or one that you have expressed to AMC leadership?

Once again our community welcomes the opportunity to assist the army in the execution of its mission. Call on me at any time.

Sincerely,



Steve Hettinger  
Mayor

A Future on the Horizon  
**Huntsville**



DEPARTMENT OF THE ARMY

UNITED STATES ARMY MISSILE COMMAND  
REDSTONE ARSENAL, ALABAMA 35898-5000

May 3, 1993

REPLY TO  
ATTENTION OF

Office of the Commanding General

Honorable Steve Hettinger  
Mayor of Huntsville  
Municipal Building  
Huntsville, Alabama

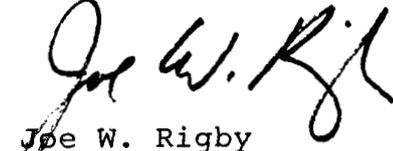
Dear Mayor Hettinger:

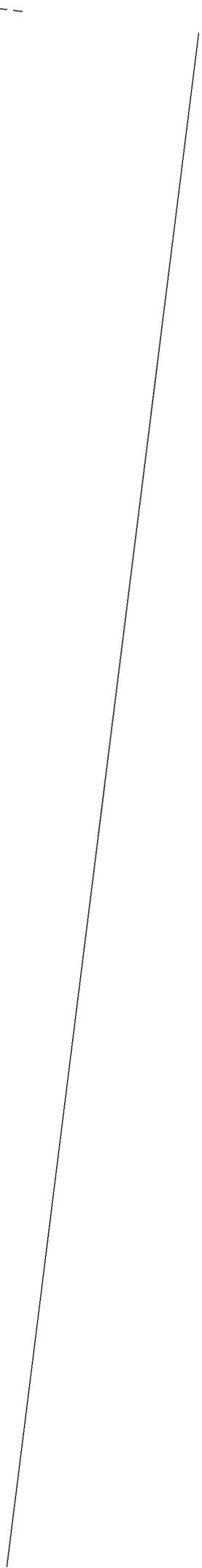
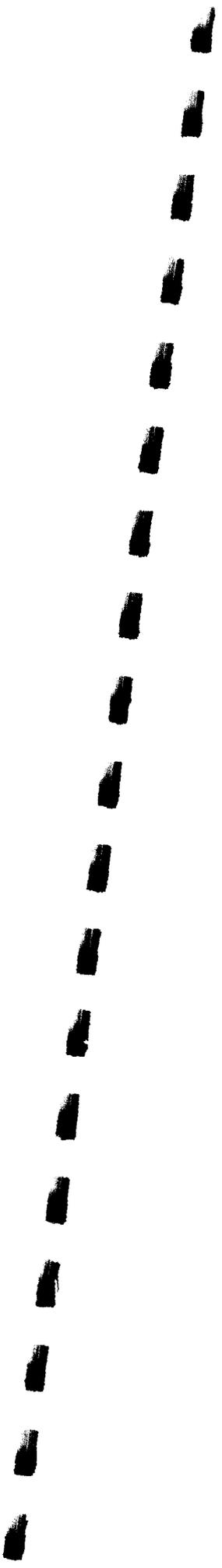
I am responding to a question raised in your letter of April 25, 1993.

Regarding the Headquarters, Army Materiel Command memo, dated January 23, 1993, which states: "Commander, MICOM, was reluctant to accept the mission for the armament/chemical commodities for even 1245 authorizations, testament to fact that colocation would not result in any personnel savings."

The statement attributed to me is in error or quoted out of context. The number of personnel to be transferred with the mission was of concern to me. I did raise it in discussions preceding the AMC decision. The point I made was that with the number of personnel reduced to 1245, mission accomplishment would be difficult unless the group was moved to Redstone and consolidated with elements of the Army Missile Command which could then provide adequate base and headquarters support. Isolated at Rock Island, I was concerned that a group of 1245 individuals would have to use some of its people for base and headquarters support; thereby reducing even further the number of personnel available to perform the primary mission of armament/chemical commodity management.

Sincerely,

  
Joe W. Rigby  
Major General, U.S. Army  
Commanding



# TEAD REORGANIZATION

	<b>TOTAL</b>	<b>MISSION DIR</b>	<b>MISSION OH</b>	<b>BASOPS</b>
<b>TEAD</b>	<b>1965</b>	<b>1029</b>	<b>381</b>	<b>555</b>
<b>Sacramento Spaces</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>75</b>
<b>TOTAL</b>	<b>2040</b>	<b>1029</b>	<b>381</b>	<b>630</b>

# Tooele Army Depot TDA Totals

	<b>REQUIRED</b>	<b>AUTHORIZED</b>
<b>CIVILIAN</b>	<b>2045</b>	<b>1965</b>
	(5) Toxic Chemical Demil Facility	
	(75) Sacramento Support	
<b>MILITARY</b>	<b>18</b>	<b>18</b>
<b>TOTAL</b>	<b>2063</b>	<b>1983</b>

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S I P P P L D E C
Q D S P P N H F O
I E I S S S S L N
2 N R S R T B A V
FARA LINE
NC NO POSITION TITLE GR POSCD D ASICD LICCD LPIND BRNCH T Q T Q AMSCD SWC MDEF RQSTR AUSTR PERMKS S T G P
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001 TITLE: OFC OF THE CDR UICDR: WOMMAA TPACO: XM PPACO: NE
001 01 COMMANDER 06 91A97 6Y 7Z 0D K A A Q ZGSZ0000 BAH ADGA 1 1 4 P V
001 01A DEP SR SGT E9 63Z50 NC I Y Y Y ZGSZ0000 BAH ADGA 1 1 2 P
001 02 CIV EXEC ASST 15 00301 GM C B D Y ZGSZ0000 BAH ADGA 1 1 4 P V
001 03 ADMIN SP 11 00301 GS C C F Y ZGSZ0000 BAH ADGA 1 1 4 P V
001 04 SECY (STENO/OA) 08 00318 GS C C F Y ZGSZ0000 BAH ADGA 1 1 4 P V

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PARAGRAPH 001 TOTALS: 5 5

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009 TITLE: CMD SP STAFF OFC UICDR: WOMMAA TPACO: XM PPACO: NE
009 01 MUN MATL ST OFC 03 91B00 0D K Y Y Y MLAD0000 MWC ADLS 1 1 4 P
009 02 S ATNY ADV (GEN) 14 00905 GM C B D Y ZGSZ0000 BYA ADGA 1 1 4 P V
009 03 LEGAL OFCR 03 55A00 JA K E F Y ZGSZ0000 BYA ADGA 1 1 4 P V
009 04 CHEM SURETY OFCR 13 00301 GM C C F Q MLAV0000 XDD ADLS 1 1 4 P V
009 05 ATTNY ADV (GEN) 13 00905 GS C Y Y Y ZGSZ0000 BYA ADGA 4 2 4 P
009 06 CHEM SURETY SP 12 00511 GS C C F Q MLAV0000 XDD ADLS 1 1 4 P V
009 07 AUDITOR 12 00511 GS C C F Y ZGSZ0000 CGA ADGA 3 1 4 P
009 08 PUB AFFAIRS SP 12 01035 GS C C F Y ZGSZ0000 BKA ADGA 1 1 4 P V
009 09 COMPLIANCE OFCR 12 01E10 GS C Y Y Y ZGSZ0000 BAH ADGA 1 1 4 P V
009 10 PUB AFFAIRS SP 11 01035 GS C C F Y ZGSZ0000 BKA ADGA 1 1 4 P V
009 11 PROC ANAL 11 01102 GS C Y Y Y ZGSZ0000 GBA ADGA 1 1 4 P V
009 12 TRN INST (CM SUR) 09 01712 GS C C F Y MLAV0000 XDD ADLS 1 1 4 P V
009 13 MGT ASST (OA) 07 00344 GS C Y Y Y ZGSZ0000 BAH ADGA 1 1 2 P V
009 14 PARALEG SP (OA) 07 00950 GS C Y Y Y ZGSZ0000 BYA ADGA 1 1 2 P V
009 14A AUDITOR ASST 07 00503 GS C Y Y Y ZGSZ0000 CGA ADGA 1 1 2 P V
009 15 LEGAL CLK (OA) 05 00986 GS C Y Y Y ZGSZ0000 BYA ADGA 1 0 4 P

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PARAGRAPH 009 TOTALS: 21 16

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013 TITLE: PROD ASSUR OFC UICDR: WOMMAA TPACO: XM PPACO: NE
013 01 CHIEF 13 01910 GM C C F Y MD2M0000 NJA ADMD 1 1 4 P V
013 02 SUPV CHEMIST 12 01320 GS C Y Y Y MD2M0000 NJA ADMD 1 1 2 P V
013 03 SUPV QA SPEC 12 01910 GS C C F Y MD2M0000 NJA ADMD 1 1 2 P V
013 04 CHEMIST 11 01320 GS C Y Y Y MD2M0000 NJA ADMD 3 3 4 P V
013 05 QA SPEC 11 01910 GS C Y Y Y MD2M0000 NJA ADMD 10 10 4 P V
013 06 CHEMIST 11 01910 GS C C F Y MD2M0000 NJA ADMD 1 1 4 P V
013 07 QA SPEC 09 01910 GS C Y Y Y MD2M0000 NJA ADMD 9 9 4 P V
013 08 QA SP (MNT MTRL) 09 01910 GS C Y Y Y MD2M0000 NJA ADMD 1 1 2 P V
013 08A PHYS SCIENCE TECH 09 01311 GS C Y Y Y MD2M0000 NJA ADMD 1 1 2 P V
013 09 SECY (STENO/OA) 06 00318 GS C C F Y MD2M0000 NJA ADMD 1 1 2 P V
013 10 PROT EQ RPR 07 04816 WG C Y Y Y MD2M0000 NJA ADMD 1 1 2 P V

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PARAGRAPH 013 TOTALS: 30 30

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045 TITLE: DIR OF RESOURCES UICDR: WOMMAA TPACO: XM PPACO: NE
045 01 DIRECTOR 14 00501 GM C C F Y ZGSZ0000 YAJ ADGA 1 1 4 P V
045 02 SECY (STENO/OA) 06 00318 GS C Y Y Y ZGSZ0000 YAJ ADGA 1 1 2 P V

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PARA	LINE	NO	NO	POSITION TITLE	GR	POSCD	D	ASICO	LICCD	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	ROSTR	AUSTR	PERMKS	S	T	G	P
							S																		
							Q																		
							I																		
							2																		

PARAGRAPH 045 TOTALS: 2 2

050	TITLE:	HUMAN RES DIV	UICDR:	WOMMAA	TPACO:	XM	PFACO:	NE																	
050	01	CHIEF	13	00201	GM	C C F Y	ZGSZ0000	RDC ADGA	1	1															
050	02	PERS STAFF NCD	E6	75B30	NC	I Y Y Y	ZGSZ0000	PBD ADGA	1	1															
050	03	SPV PERS MGT SP	12	00201	GS	C C F Y	MD2M0000	REZ ADMD	1	1															
050	04	SPV PERS MGT SP	12	00201	GS	C C F Y	ZGSZ0000	REZ ADGA	2	2															
050	05	EQUAL EMPL MGR	12	00260	GS	C Y Y Y	ZGSZ0000	RDA ADGA	1	0															
050	06	PERS MGT SP	12	00201	GS	C Y Y Y	ZGSZ0000	REZ ADGA	2	2															
050	07	PERS MGT SP	12	00201	GS	C Y Y Y	MD2M0000	REZ ADMD	1	1															
050	08	LAB REL SP	12	00233	GS	C Y Y Y	ZGSZ0000	RBC ADGA	1	1															
050	09	PERS MGT SP	11	00201	GS	C C F Y	MD2M0000	REZ ADMD	5	5															
050	10	PERS MGT SP	11	00201	GS	C Y Y Y	ZGSZ0000	REZ ADGA	13	10															
050	11	PERS MGT SP	11	00201	GS	C Y Y Y	ZGSZ0000	RDA ADGA	1	1															
050	12	EMPL DEV SP	11	00235	GS	C Y Y Y	ZGSZ0000	RDA ADGA	2	2															
050	13	EQUAL EMPL SP	11	00260	GS	C Y Y Y	ZGSZ0000	RDA ADGA	1	1															
050	14	PERS ASST (OA)	07	00203	GS	C Y Y Y	MD2M0000	REZ ADMD	3	3															
050	15	PERS ASST (OA)	07	00203	GS	C Y Y Y	ZGSZ0000	REZ ADGA	10	7															
050	16	SECY (OA)	07	00318	GS	C C F Y	ZGSZ0000	RDC ADGA	1	1															
050	17	PER ACT CLK (OA)	06	00203	GS	C Y Y Y	MD2M0000	REZ ADMD	2	2															
050	18	PER ACT CLK (OA)	06	00203	GS	C Y Y Y	ZGSZ0000	REZ ADGA	4	4															
050	19	EQUAL OF ASST	06	00361	GS	C Y Y Y	ZGSZ0000	BLB ADGA	1	1															
050	20	PERS CLK (OA)	05	00203	GS	C Y Y Y	MD2M0000	REZ ADMD	1	1															
050	21	PERS CLK (OA)	05	00203	GS	C C F Y	ZGSZ0000	REZ ADGA	3	2															
050	22	PERS CLK (OA)	04	00203	GS	C Y Y Y	ZGSZ0000	REZ ADGA	1	1															

PARAGRAPH 050 TOTALS: 58 50

055	TITLE:	FISCAL RES DIV	UICDR:	WOMMAA	TPACO:	XM	PPACO:	NE																	
055	01	CHIEF	13	00501	GM	C Y Y Y	ZGSZ0000	FAA ADGA	1	1															
055	02	OPER ACCT	12	00510	GS	C Y Y Y	ZGSZ0000	FEC ADGA	1	1															
055	03	PRDG ANAL	11	00343	GS	C Y Y Y	ZGSZ0000	DBA ADGA	1	1															
055	04	OPER ACCT	11	00510	GS	C Y Y Y	ZGSZ0000	FDA ADGA	2	1															

PARAGRAPH 055 TOTALS: 5 4

055A	TITLE:	PROG & BUD BR	UICDR:	WOMMAA	TPACO:	XM	PPACO:	NE																	
055A	01	CHIEF	13	00560	GM	C C F Y	ZGSZ0000	FFE ADGA	1	1															
055A	02	BUD ANAL	12	00560	GS	C Y Y Y	ZGSZ0000	FFE ADGA	2	2															
055A	03	BUD ANAL	11	00560	GS	C Y Y Y	ZGSZ0000	FFE ADGA	3	3															
055A	04	BUD ANAL	11	00560	GS	C Y Y Y	MD2M0000	FFE ADMD	1	1															
055A	05	BUD ANAL	09	00560	GS	C Y Y Y	ZGSZ0000	FFE ADGA	3	2															
055A	06	SECY (OA)	05	00318	GS	C Y Y Y	ZGSZ0000	FFE ADGA	1	1															

PARAGRAPH 055A TOTALS: 11 10

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                S           I P P P           L C E C
                Q           D S P P           H F D
                I           E I S S           S G L N
                2           N R S R           T S A V
PARA LINE
NO  NO  POSITION TITLE      GR  POSCD  D ASICD LICCD  LPIND BRNCH T D T Q  AMSCO  SWC MDEP  RGSTR  AUSTR  PERMKS  S T G P
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055B TITLE: PROD MGT/ANAL BR      UICDR: WOMMAA      TPACO: XM      PPACO: NE
055B 01 CHIEF                    12 00343          GS  C Y Y Y  ZGSZ0000 FGD ADGA      1      1      2 P V
055B 02 MGT ANAL                  11 00343          GS  C Y Y Y  ZGSZ0000 FGD ADGA      3      2      4 P
055B 03 PROG ANAL                 11 00343          GS  C Y Y Y  ZGSZ0000 FGE ADGA      1      1      2 P V
055B 04 MGT ANAL                  11 00343          GS  C Y Y Y  ZGSZ0000 FGD ADGA      1      1      2 P V
055B 05 PROG ANAL                 09 00343          GS  C Y Y Y  ZGSZ0000 FGE ADGA      1      1      2 P V
055B 06 MGT ANAL                  09 00343          GS  C Y Y Y  MDSZ0000 FGE ADMD      1      1      2 P V
055B 07 MGT ANAL                  09 00343          GS  C Y Y Y  ZGSZ0000 FGD ADGA      2      1      4 P
055B 08 MGT ASST (DA)            07 00344          GS  C Y Y Y  ZGSZ0000 FGD ADGA      1      1      2 P V
055B 09 MGT ASST (DA)            05 00344          GS  C Y Y Y  ZGSZ0000 FGD ADGA      1      1      2 P V

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PARAGRAPH 055B TOTALS: 12 10

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055C TITLE: FIN PAYROLL BR      UICDR:              TPACO:          PPACO:
055C 01 CHIEF                    08 00503          GS  C Y Y Y  ZGSZ0000 FCK ADGA      1      1      2 P V
055C 02 LD CIV PAY TECH          07 00544          GS  C Y Y Y  ZGSZ0000 FCB ADGA      1      1      2 P V
055C 03 VOUCHER EXAM            06 00540          GS  C Y Y Y  ZGSZ0000 FCD ADGA      1      1      2 P V
055C 04 CIV PAY TECH            06 00544          GS  C Y Y Y  ZGSZ0000 FCB ADGA      1      1      4 P V
055C 05 VOUCHER EXAM            05 00540          GS  C Y Y Y  ZGSZ0000 FCE ADGA      2      2      4 P V
055C 06 VOUCHER EXAM            05 00540          GS  C Y Y Y  ZGSZ0000 FCD ADGA      1      1      2 P V
055C 07 CIV PAY TECH            05 00544          GS  C Y Y Y  ZGSZ0000 FCB ADGA      8      8      4 P V
055C 08 DA CLK                   03 00326          GS  C Y Y Y  ZGSZ0000 FCK ADGA      2      2      2 P V

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PARAGRAPH 055C TOTALS: 17 17

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060 TITLE: INFO RES DIV      UICDR: WOMMAA      TPACO: XM      PPACO: NE
060 01 CHIEF                    14 00301          GM  C B D Y  ZGSZ0000 DGA ADGA      1      1  XC      4 P V
060 02 ISSO/SEC MGR             11 00301          GS  C B D Y  ZGSZ0000 DGA ADGA      1      1      2 P V
060 03 SECY (STEND/DA)         06 00318          GS  C C F Y  ZGSZ0000 DGA ADGA      1      1      2 P V

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PARAGRAPH 060 TOTALS: 3 3

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060A TITLE: VIS INFO SPT BR    UICDR: WOMMAA      TPACO: XM      PPACO: NE
060A 01 CHIEF                    14 00301          GM  C C F Y  ZGSA0000 DGA MU1M      0      0  XC      4 P V
060A 02 TV PROD SPEC           09 01071          GS  C C F Y  ZGSA0000 DFC MU1M      1      1      4 P V
060A 03 PHOTO                   07 01060          GS  C C F Y  ZGSA0000 DFB MU1M      1      1      4 P V
060A 04 AV PROD SPEC           07 01071          GS  C C F Y  ZGSA0000 DFC MU1M      1      1      2 P V
060A 05 VIS INFO ASST         05 01001          GS  C Y Y Y  ZGSA0000 DFH MU1M      2      2      2 P V

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PARAGRAPH 060A TOTALS: 5 5

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060B TITLE: INFO RES MGT BR    UICDR: WOMMAA      TPACO: XM      PPACO: NE
060B 01 CHIEF                    13 00301          GM  C B D Y  ZGSZ0000 DGA ADGA      1      1      2 P V
060B 02 CMPT SP                  12 00334          GS  C C F Y  ZGSZ0000 DGA ADGA      1      1      2 P V
060B 03 TELECOMM SPEC          11 00391          GS  C C F Y  ZGSZ0000 DGA ADGA      6      4      4 P
060B 04 CMPT SP                  11 00334          GS  C B D Y  ZGSZ0000 DGA ADGA      4      4      4 P V

```

drts2  
15:52:14 04/22/1993

SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TOELE

DOCNO: XWMMMAA  
CCNUM: X10294  
NOTES  
PAGE 4

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCD	SWC	MDEP	RGSTR	AUSTR	PERMKS	STGP
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060B	05	PROG ANAL	09	00343								GS	C	C	F	Y	Z6SZ0000	DGA	ADGA	3	3	4	P	V
060B	05A	MGT ASST	07	00344								GS	C	C	F	Y	Z6SZ0000	ACA	ADGA	1	0	4	P	
060B	06	SECY (DA)	05	00318								GS	C	C	F	Y	Z6SZ0000	DGA	ADGA	1	1	2	P	V
060B	07	SUP TECH	05	02005								GS	C	C	F	Y	Z6SZ0000	DGA	ADGA	2	2	4	P	V
060B	07A	SUP TECH	05	02005								GS	C	C	F	Y	Z6SZ0000	ADB	ADGA	1	0	4	P	
060B	08	DA CLK	04	00326								GS	C	C	F	Y	Z6SZ0000	DGA	ADGA	1	1	4	P	V
060B	09	MAIL & FILE CLK	04	00305								GS	C	C	F	Y	Z6SZ0000	ADB	ADGA	1	1	2	P	V
060B	10	MATL HNDL/MVO	06	06907								WG	C	C	F	Y	Z6SZ0000	ACA	ADGA	1	0	4	P	

PARAGRAPH 060B TOTALS: 23 18

060C	TITLE: INFO CENTER	UICDR: WOMMAA	TPACO: XM	PPACO: NE																				
060C	01	CHIEF	13	00334								GM	C	B	D	Y	Z6SZ0000	DGA	ADGA	1	1	2	P	V
060C	02	CMPT SP	12	00334								GS	C	B	D	Y	Z6SZ0000	DGA	ADGA	5	5	2	P	V
060C	03	CMPT SP	11	00334								GS	C	B	D	Y	Z6SZ0000	DGA	ADGA	3	3	2	P	V

PARAGRAPH 060C TOTALS: 9 9

060D	TITLE: CMPT OPS BR	UICDR: WOMMAA	TPACO: XM	PPACO: NE																				
060D	01	CHIEF	10	00332								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	1	1	2	P	V
060D	02	CMPT OP SUPV	08	00332								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	1	1	2	P	V
060D	03	CMPT OP LDR	07	00332								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	4	4	2	P	V
060D	04	CMPT ASST	07	00335								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	2	2	2	P	V
060D	05	CMPT OP	06	00332								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	11	11	2	P	V
060D	06	CMPT OP	05	00332								GS	C	C	F	Y	Z6SZ0000	DNC	ADGA	4	4	4	P	V
060D	07	SECY (DA)	05	00318								GS	C	Y	Y	Y	Z6SZ0000	DNC	ADGA	1	1	2	P	V
060D	08	MATL HNDLR (MVO)	06	06907								WG	C	C	F	Y	Z6SZ0000	DNC	ADGA	1	1	4	P	V

PARAGRAPH 060D TOTALS: 25 25

060E	TITLE: SYS MGMT BR	UICDR: WOMMAA	TPACO: XM	PPACO: NE																				
060E	01	CHIEF	13	00334								GM	C	B	D	Y	Z6SZ0000	DND	ADGA	1	1	4	P	V
060E	02	CMPT SP	12	00334								GS	C	C	F	Y	Z6SZ0000	DND	ADGA	3	1	4	P	
060E	03	CMPT SP	12	00334								GS	C	C	F	Y	MD2M0000	DND	ADMD	7	7	4	P	V
060E	04	CMPT SP	12	00334								GS	C	C	F	Y	MLAD0000	DND	ADLS	1	1	2	P	V
060E	05	CMPT SP	12	00334								GS	C	C	F	Y	MLAB0000	DND	ADLS	1	1	2	P	V
060E	05A	PROG ANAL	12	00343								GS	C	C	F	Y	MD2M0000	DND	ADMD	1	1	2	P	V
060E	06	CMPT SP	11	00334								GS	C	C	F	Y	Z6SZ0000	DND	ADGA	8	2	4	P	
060E	07	CMPT SP	11	00334								GS	C	C	F	Y	MD2M0000	DND	ADMD	6	6	2	P	V
060E	08	CMPT SP	11	00334								GS	C	C	F	Y	MLAA0000	DND	ADLS	2	2	2	P	V
060E	08A	PROG ANAL	11	00334								GS	C	C	F	Y	MD2M0000	DND	ADMD	1	1	2	P	V
060E	09	MGT ASST (DA)	05	00334								GS	C	C	F	Y	Z6SZ0000	DND	ADGA	1	1	2	P	V

PARAGRAPH 060E TOTALS: 32 24

075 TITLE: DIR CONT/BUS OPS UICDR: WOMMAA TPACO: XM PPACO: NE

drt52  
15:52:16 04/22/1993

SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TOELE

DOCNO: XWOMMAA  
CCNUM: X10294

NOTES  
PAGE 5

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCD	D	ASICO	LICCD	LPIND	BRANCH	T	Q	T	Q	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	BTGP
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075	01	DIRECTOR	14	01101							GM	C	C	F	Y	ZGSZ0000	GCC	ADGA	1	1	2	P	V
075	02	ADMIN SP	09	00301							GS	C	Y	Y	Y	ZGSZ0000	GZZ	ADGA	1	1	2	P	V
075	03	SECY (STENO/OA)	05	00318							GS	C	Y	Y	Y	ZGSZ0000	GCC	ADGA	1	1	2	P	V

PARAGRAPH 075 TOTALS: 3 3

080 TITLE: CONTRACTING DIV UICDR: WOMMAA TPACD: XM PPACD: NE  
080 01 CHIEF 13 01102 GM C Y Y Y ZGSZ0000 GCC ADGA 1 1 2 P V

PARAGRAPH 080 TOTALS: 1 1

080A TITLE: SUPPORT BRANCH UICDR: WOMMAA TPACD: XM PPACD: NE

080A	01	CHIEF	12	01102							GS	C	Y	Y	Y	ZGSZ0000	GAA	ADGA	1	1	2	P	V
080A	02	PROC ANALYST	12	01102							GS	C	Y	Y	Y	ZGSZ0000	GAA	ADGA	1	1	2	P	V
080A	03	CNT PRC/CST ANAL	12	01102							GS	C	Y	Y	Y	ZGSZ0000	GBB	ADGA	1	1	4	P	V
080A	04	CMPT SP	12	00334							GS	C	Y	Y	Y	ZGSZ0000	DND	ADGA	1	1	4	P	V
080A	05	CNT PRC/CST ANAL	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GBB	ADGA	1	1	4	P	V
080A	06	CMPT SP	11	00334							GS	C	Y	Y	Y	ZGSZ0000	DND	ADGA	1	0	4	P	
080A	07	PROC ANAL	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GAA	ADGA	1	0	4	P	
080A	08	PROC ANAL	09	01102							GS	C	Y	Y	Y	ZGSZ0000	GAA	ADGA	3	1	4	P	
080A	09	PROC CLK (OA)	04	01106							GS	C	Y	Y	Y	ZGSZ0000	GAA	ADGA	3	2	4	P	

PARAGRAPH 080A TOTALS: 13 8

080B TITLE: CONTRACTING BR UICDR: WOMMAA TPACD: XM PPACD: NE

080B	01	CHIEF	12	01102							GS	C	Y	Y	Y	ZGSZ0000	GBC	ADGA	1	1	2	P	V
080B	02	CONTRACT SPEC	12	01102							GS	C	Y	Y	Y	ZGSZ0000	GBC	ADGA	4	3	4	P	
080B	03	CONT NEGOTIATOR	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GBC	ADGA	3	3	2	P	V
080B	04	CONTRACT ADMIN	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GBD	ADGA	3	3	2	P	V
080B	05	CONTRACT SPEC	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GBC	ADGA	1	0	4	P	
080B	06	CONTRACT SPEC	09	01102							GS	C	Y	Y	Y	ZGSZ0000	GBC	ADGA	4	3	4	P	
080B	07	CONTRACT ADMIN	09	01102							GS	C	Y	Y	Y	ZGSZ0000	GBD	ADGA	3	3	4	P	V
080B	08	PROC CLK	04	01106							GS	C	Y	Y	Y	ZGSZ0000	GBA	ADGA	1	1	4	P	V

PARAGRAPH 080B TOTALS: 20 17

080C TITLE: PURCHASING BR UICDR: WOMMAA TPACD: XM PPACD: NE

080C	01	CHIEF	11	01102							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	1	1	2	P	V
080C	02	LD PURCH AGENT	08	01105							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	1	1	2	P	V
080C	03	PURCH AGENT	08	01105							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	1	1	2	P	V
080C	04	PURCH AGENT	07	01105							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	9	6	4	P	
080C	05	PURCH AGENT	05	01105							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	9	6	4	P	
080C	06	PROC CLK	05	01106							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	1	0	4	P	
080C	07	PROC CLK	04	01106							GS	C	Y	Y	Y	MDZM0000	GBE	ADMD	1	1	4	P	V
080C	08	PROC CLK	04	01106							GS	C	Y	Y	Y	ZGSZ0000	GBE	ADGA	2	2	4	P	V



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SECTION 2 - CIV & MIL

LNAME: U S ARMY DEPOT TOELE

DOCNO: XWVOMMAA

CCNUM: X10294

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PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRANCH	T	Q	T	Q	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	ST	GRP
							S									I P P P							L E E C
							Q									D S P P							N R F D
							I									E I S S							S G L N
							2									N R S R							T S A V
122	01			CHIEF	14	00803				GM	C C F Q	Z6S70000	CHB	ADGA					1	1			2 P V
122	02			SAFETY ENGR	12	00803				GS	C C F Y	Z6S70000	CHB	ADGA					2	1			4 P
122	03			IND HYGIENST	12	00690				GS	C Y Y Y	MD2M0000	CHB	ADMD					1	1			2 P V
122	04			SAF OCC HLTH SP	12	00018				GS	C C F Y	Z6S70000	CHB	ADGA					1	1			2 P V
122	04A			SAFETY ENGR	12	00803				GS	C C F Y	MLAD0000	CHB	ADLS					2	0	ZA		4 P V
122	05			SAFETY ENGR	12	00803				GS	C Y Y Y	MLAV0000	CHB	ADLS					1	1			4 P V
122	06			SAFETY ENGR	11	00803				GS	C Y Y Y	Z6S70000	CHJ	ADGA					1	1			4 P V
122	07			SAF OCC HLTH SP	11	00018				GS	C C F Q	Z6S70000	CHB	ADGA					3	3			2 P V
122	08			SAF OCC HLTH SP	09	00018				GS	C C F Y	Z6S70000	CHB	ADGA					1	1			2 P V
122	09			SECY (OA)	05	00318				GS	C C F Y	Z6S70000	CHB	ADGA					1	1			2 P V
122	10			COMP CLK (OA)	05	00303				GS	C Y Y Y	Z6S70000	CHB	ADGA					1	1			2 P V

PARAGRAPH 122 TOTALS: 15 12

123	TITLE: ENVIRON MGT DIV	UICDR: WOMMAA	TPACO: XM	PPACO: NE
123	01 CHIEF	14 00819	GM C Y Y Y	Z6SE0000 JFA VENC 1 1 4 P V
123	02 SECY (OA)	05 00318	GS C Y Y Y	Z6SE0000 JFA VENC 1 1 4 P V

PARAGRAPH 123 TOTALS: 2 2

123A	TITLE: HAZ WASTE MGT BR	UICDR: WOMMAA	TPACO: XM	PPACO: NE
123A	01 SUPV ENV ENGR	13 00819	GM C Y Y Y	Z6SE0000 JFA VENC 1 1 4 P V
123A	02 ENVIRON ENGR	13 00819	GS C Y Y Y	Z6SE0000 JFA VENC 1 1 2 P V
123A	03 ENVIRON ENGR	12 00819	GS C Y Y Y	Z6SE0000 JFA VENC 2 1 4 P
123A	05 ENVIRON PROT SP	12 00028	GS C Y Y Y	Z6SE0000 JFA VENC 1 1 2 P V
123A	05A ENVIRON ENGR	11 00819	GS C Y Y Y	Z6SE0000 JFA VENC 3 3 4 P V
123A	06 ENVIRON PROT SP	11 00028	GS C Y Y Y	Z6SE0000 JFA VENC 4 3 4 P
123A	07 IND WASTE WKR	07 06901	WS C Y Y Y	MD2M0000 JFA ADMD 2 2 4 P V

PARAGRAPH 123A TOTALS: 14 12

123B	TITLE: ENVIRON PROG BR	UICDR: WOMMAA	TPACO: XM	PPACO: NE
123B	01 SUPV ENV ENGR	13 00819	GM C Y Y Y	Z6SE0000 JFA VENC 1 1 2 P V
123B	02 ENVIRON ENGR	12 00819	GS C Y Y Y	Z6SE0000 JFA VENC 2 1 4 P
123B	03 ENVIRON ENGR	11 00819	GS C Y Y Y	Z6SE0000 JFA VENC 5 5 4 P V
123B	04 ENV PROT SP	11 00028	GS C Y Y Y	Z6SE0000 JFA VENC 2 1 4 P

PARAGRAPH 123B TOTALS: 10 8

124	TITLE: FIR PRV/PRT DIV	UICDR: WOMMAA	TPACO: XM	PPACO: NE
124	01 CHIEF	12 00081	GS C C F Y	Z6S70000 JMD ADGA 1 1 2 P V
124	02 SUPV FFGTR	10 00081	GS C Y Y Y	Z6S70000 JMD ADGA 2 2 2 P V
124	03 LD FFGTR	07 00081	GS C Y Y Y	Z6S70000 JMD ADGA 5 5 4 P V
124	04 FIRE PROT INSP	07 00081	GS C Y Y Y	Z6S70000 JMD ADGA 2 2 2 P V
124	05 FFGTR	06 00081	GS C Y Y Y	Z6S70000 JMD ADGA 15 15 4 P V



PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	RBSTR	AUSTR	PERMKS	LINE C	NO	LINE	NO	LINE	NO

PARAGRAPH 145A TOTALS: 23 20

145B TITLE: UTILITIES BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																						
145B	01	UTL SYS OPR SUPV	11	05406	WS	C	C	F	Y	ZGSZ0000	JGA	ADGA	1	1														2 P V
145B	02	B PLT OP/PF SPV	09	05402	WS	C	Y	Y	Y	ZGSZ0000	JGA	ADGA	1	1														2 P V
145B	03	ELECT MECH	11	02604	WG	C	C	F	Q	ZGSY0000	JJJ	ADGA	2	2														2 P V
145B	04	ELECT MECH	11	02604	WG	C	Y	Y	Y	MD2M0000	JJJ	ADMD	1	1														2 P V
145B	05	AC EQ MECH	11	05306	WG	C	Y	Y	Y	ZGSY0000	JJB	ADGA	1	1														2 P V
145B	06	BLR PLT OPR	11	05402	WG	C	Y	Y	Y	ZGSZ0000	JJC	ADGA	4	4														4 P V
145B	07	ELECT (HIGH VOL)	10	02810	WG	C	Y	Y	Y	ZGSY0000	JJJ	ADGA	1	1														2 P V
145B	08	PW S SY M(AC/EL)	10	05378	WG	C	Y	Y	Y	ZGSY0000	JJJ	ADGA	1	1														2 P V
145B	09	BLR PLT OP/PIPFT	10	05402	WG	C	Y	Y	Y	ZGSY0000	JJC	ADGA	3	3														2 P V
145B	10	BLR PLT OPR	10	05402	WG	C	Y	Y	Y	ZGSZ0000	JJC	ADGA	7	7														4 P V
145B	11	BLR PLT OPR	10	05402	WG	C	Y	Y	Y	MLAD0000	JJC	ADLS	5	5														4 P V
145B	12	ELECT	10	02805	WG	C	Y	Y	Y	ZGSY0000	JJJ	ADGA	3	3														2 P V
145B	13	MAINT MECH	10	04749	WG	C	Y	Y	Y	MD2M0000	JHE	ADMD	1	1														2 P V
145B	14	PLUMBER	09	04206	WG	C	Y	Y	Y	ZGSY0000	JJF	ADGA	1	1														2 P V
145B	15	WT TR PLT O/PLMB	09	05409	WG	C	Y	Y	Y	ZGSZ0000	JJL	ADGA	1	1														2 P V
145B	16	HT EQUIP MECH	08	05309	WG	C	Y	Y	Y	ZGSY0000	JJE	ADGA	1	1														2 P V

PARAGRAPH 145B TOTALS: 34 34

145C TITLE: MAINT & ALT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																						
145C	01	MAINT MECH SPV	10	04749	WS	C	Y	Y	Y	ZGSZ0000	JGA	ADGA	1	1														2 P V
145C	02	FAC MGT ASST	08	01601	GS	C	Y	Y	Y	ZSSZ0000	JDD	ADGA	1	1														2 P V
145C	03	MAINT MECH LDR	10	04749	WL	C	Y	Y	Y	ZGSY0000	JHE	ADGA	1	1														2 P V
145C	04	ELECTRICIAN	10	02805	WG	C	Y	Y	Y	ZGSY0000	JHE	ADGA	1	1														4 P V
145C	05	ELECTRICIAN	10	02805	WG	C	Y	Y	Y	ZGSY0000	JJJ	ADGA	1	1														2 P V
145C	06	MAINT MECH	10	04749	WG	C	Y	Y	Y	MD2M0000	JHE	ADMD	1	1														4 P V
145C	07	MAINT MECH	10	04749	WG	C	Y	Y	Y	ZGSY0000	JHC	ADGA	5	4														4 P
145C	08	WLDR/SHT MTL MEC	10	03703	WG	C	Y	Y	Y	ZGSY0000	JHC	ADGA	2	2														4 P V
145C	09	MAINT MECH	09	04749	WG	C	Y	Y	Y	ZGSY0000	JHE	ADGA	9	7														4 P
145C	10	MAINT MECH	09	04749	WG	C	Y	Y	Y	MD2M0000	JHE	ADMD	4	4														4 P V
145C	11	MAINT MECH	09	04749	WG	C	Y	Y	Y	MLAV0000	JHE	ADLS	1	1														2 P V

PARAGRAPH 145C TOTALS: 27 24

145D TITLE: ROADS/GROUNDS BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																						
145D	01	ENG EQ OP SPV	10	05716	WS	C	Y	Y	Y	ZGSZ0000	JGA	ADGA	1	1														2 P V
145D	02	CRN OP (ENG EQ OP)	11	05725	WG	C	Y	Y	Y	ZGSY0000	JGA	ADGA	1	1														2 P V
145D	03	ENGR EQ OPR	10	05716	WG	C	Y	Y	Y	ZGSY0000	JGA	ADGA	2	2														2 P V
145D	04	MVO	07	05703	WG	C	Y	Y	Y	ZGSY0000	JJN	ADGA	2	2														2 P V
145D	05	MVO	07	05703	WG	C	Y	Y	Y	ZGSZ0000	JJN	ADGA	1	1														2 P V
145D	06	TRACTOR OPR	07	05705	WG	C	Y	Y	Y	ZGSY0000	JHG	ADGA	1	1														2 P V

PARAGRAPH 145D TOTALS: 8 8

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	ROSTR	AUSTR	PERMKS	S	T	G	P
								S																	
								Q																	
								I																	
								2																	

145E TITLE: SOUTH AREA BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
145E	01	SUPV GEN ENGR	12	00801	GS	C	C	F	Y	MLAD0000	JAZ	ADLS	1	1												
145E	02	EQUIP SP (GEN)	11	01670	GS	C	Y	Y	Y	MLAD0000	NQC	ADLS	1	1												
145E	03	ELECT MECH	11	02604	WG	C	C	F	Q	MLAD0000	JJJ	ADLS	2	2												
145E	03A	ELECTRICAL MECH	11	02604	WG	C	Y	Y	Y	MLAD0000	JJJ	ADLS	1	0	ZA											
145E	04	ELECTICIAN	10	02805	WG	C	Y	Y	Y	MLAD0000	JHE	ADLS	1	1												
145E	05	ENGR EQUIP OPR	10	05716	WG	C	Y	Y	Y	MLAD0000	JHG	ADLS	1	1												
145E	06	HVY MCB EQ MECH	10	05703	WG	C	Y	Y	Y	MLAD0000	LQB	ADLS	1	1												
145E	07	MAINT MECH	10	04749	WG	C	Y	Y	Y	MLAD0000	JHE	ADLS	1	1												
145E	08	BATTERY RPR	08	03725	WG	C	Y	Y	Y	MLAD0000	LVC	ADLS	1	1												
145E	08A	AUTO WKR	08	05823	WG	C	Y	Y	Y	MLAD0000	LVC	ADLS	2	0	ZA											
145E	09	TRACTOR OPR	07	05705	WG	C	Y	Y	Y	MLAD0000	JHG	ADLS	1	1												

PARAGRAPH 145E TOTALS: 13 10

150 TITLE: DEP EQ/ACCT DIV				UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
150	01	CHIEF	13	01601	GM	C	Y	Y	Y	ZGSZ0000	NGA	ADGA	1	1												

PARAGRAPH 150 TOTALS: 1 1

150A TITLE: EQUIP ACCT BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
150A	01	CHIEF	12	00346	GS	C	Y	Y	Y	ZGSZ0000	NGA	ADGA	1	1												
150A	02	LOG MGT SP	11	00346	GS	C	Y	Y	Y	ZGSZ0000	NGA	ADGA	2	2												
150A	03	EQUIP SP GEN	11	01640	GS	C	Y	Y	Y	ZGSZ0000	NQC	ADGA	2	2												
150A	04	GEN SUP SP	11	02001	GS	C	Y	Y	Y	ZGSZ0000	NQB	ADGA	1	1												
150A	05	PROG ANAL	09	00343	GS	C	Y	Y	Y	ZGSZ0000	NGA	ADGA	1	1												
150A	06	MAINT SYS ANAL	09	01101	GS	C	Y	Y	Y	ZGSZ0000	NCA	ADGA	2	2												
150A	07	GEN SUP SP	09	02001	GS	C	Y	Y	Y	ZGSZ0000	NQB	ADGA	1	1												
150A	08	GEN SUP SP	07	02001	GS	C	Y	Y	Y	ZGSZ0000	NQB	ADGA	3	3												
150A	09	PROG CLK	05	00303	GS	C	Y	Y	Y	ZGSZ0000	NQC	ADGA	1	1												
150A	10	SUP CLK	04	02005	GS	C	Y	Y	Y	ZGSZ0000	NQB	ADGA	2	2												

PARAGRAPH 150A TOTALS: 16 16

150B TITLE: MATERIAL MGT BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
150B	01	MVD SUPV	07	05703	WS	C	Y	Y	Y	ZGSZ0000	MMA	ADGA	1	1												
150B	02	MAINT PARTS SP	09	01101	GS	C	Y	Y	Y	ZGSZ0000	NQC	ADGA	1	1												
150B	03	SUP CLK (OA)	05	02005	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	2	2												
150B	04	SUP CLK	05	02005	GS	C	Y	Y	Y	ZGSZ0000	MMA	ADGA	1	1												
150B	05	SUP CLK (OA)	04	02005	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	2	2												
150B	06	MVD	07	05703	WG	C	Y	Y	Y	ZGSZ0000	MMA	ADGA	2	2												
150B	07	LDRY MC OP/MTL HDLR	06	07305	WG	C	Y	Y	Y	MLAD0000	KLA	ADLS	1	1												
150B	09	STORE WORKER	05	06914	WG	C	Y	Y	Y	ZGSZ0000	NBA	ADGA	2	2												

PARAGRAPH 150B TOTALS: 12 12

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SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TDELE

DOCNO: XWOMMAA  
CCNUM: X10294

NO: 100  
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PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	D	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	S	T	G	P
------	------	----	----	----------------	----	-------	---	-------	-------	-------	-------	---	---	---	---	-------	-----	------	-------	-------	--------	---	---	---	---

150C		TITLE: CENTRAL TL RM BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																					
150C	01	MVO SUPV	07	05703	WS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1												2	P	V	
150C	01A	SUP TECH	05	02005	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1													2	P	V
150C	02	SUP CLK	04	02005	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1													2	P	V
150C	03	TOOL & EQ WKR	08	04840	WG	C	Y	Y	Y	MD2M0000	NBC	ADMD	1	1													2	P	V
150C	04	MVG/MATL XPD	07	05703	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	1	1													4	P	V
150C	05	MVO/MATL XPD	07	05703	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1													4	P	V
150C	06	MATL XPD	06	06910	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	2	2													4	P	V
150C	07	MATL XPD	06	06910	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	2	2													4	P	V
150C	08	TOOL XPD	06	06910	WG	C	Y	Y	Y	MLAV0000	NBC	ADLS	1	1													2	P	V

PARAGRAPH 150C TOTALS: 11 11

150D		TITLE: VEHICLE SVCS BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																						
150D	01	AUTO MECH SUPV	10	05823	WS	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1													2	P	V	
150D	02	EQ SP (AMHE)	11	01670	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1														2	P	V
150D	03	EQ COORD CLK	04	00303	GS	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1														2	P	V
150D	04	BTRY RPR LDR	08	03725	WL	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1														2	P	V
150D	04A	ELECT MECH	12	02604	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	0														4	P	V
150D	05	MOB EQ MTL MECH	10	03809	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1														2	P	V
150D	06	MOB EQ DRV INSP	09	05701	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1														2	P	V
150D	07	BTRY RPR	08	03725	WG	C	Y	Y	Y	MLAV0000	LVC	ADLS	3	3														4	P	V
150D	08	BTRY RPR	08	03725	WG	C	Y	Y	Y	MLAD0000	LVC	ADLS	1	1														4	P	V
150D	09	MVO	08	05703	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	2	2														2	P	V
150D	10	MVO	08	05703	WG	C	Y	Y	Y	MLAV0000	LVC	ADLS	1	1														2	P	V
150D	11	MVO	08	05703	WG	C	Y	Y	Y	ZGSZ0000	LPA	ADGA	4	4														4	P	V
150D	12	MOB EQ MTL WKR	08	03809	WG	C	Y	Y	Y	MLAD0000	LPA	ADLS	1	1														2	P	V
150D	13	RUB EQ RPR	06	04361	WG	C	Y	Y	Y	MD2M0000	LPA	ADMD	1	1														4	P	V
150D	14	RUB EQ RPR	06	04361	WG	C	Y	Y	Y	ZGSZ0000	LPA	ADGA	1	1														4	P	V

PARAGRAPH 150D TOTALS: 21 20

150E		TITLE: EQUIP MAINT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																							
150E	01	HMEM SUPV	10	05803	WS	C	Y	Y	Y	ZGSZ0000	LQB	ADGA	1	1														4	P	V	
150E	02	EQ SP (AMHE)	11	01670	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1															2	P	V
150E	03	EQ COORD	07	00303	GS	C	Y	Y	Y	ZGSZ0000	NBC	ADGA	1	1															2	P	V
150E	04	HVY MOB EQ MECH	10	05803	WG	C	Y	Y	Y	ZGSZ0000	LQB	ADGA	4	4															4	P	V
150E	05	IND CABL INSP/R	10	05301	WG	C	Y	Y	Y	MDEM0000	NBC	ADMD	1	1														4	P	V	
150E	06	AUTMV MECH	10	05823	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	2	2														2	P	V	
150E	07	AUTMV MECH	10	05823	WG	C	Y	Y	Y	MLAV0000	LVC	ADLS	2	2														2	P	V	
150E	08	AUTMV MECH	10	05823	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	2	2														2	P	V	
150E	09	AUTMV WKR	08	05823	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	1	1														4	P	V	
150E	10	AUTMV WKR	08	05823	WG	C	Y	Y	Y	MLAD0000	LVC	ADLS	1	1														2	P	V	
150E	11	AUTMV WKR	08	05823	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	2	2															4	P	V
150E	12	MOB EQ SVCR	06	05806	WG	C	Y	Y	Y	MD2M0000	LPA	ADMD	1	1														2	P	V	
150E	13	MOB EQ SVCR	06	05806	WG	C	Y	Y	Y	ZGSZ0000	LVC	ADGA	1	1															2	P	V
150E	14	MOB EQ SVCR	05	05806	WG	C	Y	Y	Y	MLAV0000	LPA	ADLS	2	2															4	P	V
150E	15	MOB EQ SVCR	05	05806	WG	C	Y	Y	Y	ZGSZ0000	LPA	ADGA	1	1															4	P	V

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SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TODELE

DOCNO: XWOMMAA  
CCNUM: X10294

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PARA LINE	NO	NO	POSITION TITLE	GR	POSCO	D	AGICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCD	SWC	MDEP	ROSTR	AUSTR	PERMKS	E	T	G	P

PARAGRAPH 150E TOTALS: 23 23

155			TITLE: LAW ENF/SEC DIV				UICDR: WOMMAA								TPACO: XM											
155	01		STF PM/SCTY OFC	04	31800										MP	K	Y	Y	Y	ZGSZ0000	TEA	ADGA	1	1	XC	4 P V
155	02		SECY (OA)	05	00318										GS	C	C	F	Y	ZGSZ0000	TEA	ADGA	1	1		2 P V

PARAGRAPH 155 TOTALS: 2 2

155A			TITLE: CNTRINTEL/PLAN BR				UICDR: WOMMAA								TPACO: XM											
155A	01		STF PM/SCTY OFC	04	31800										MP	K	B	D	Q	ZGSZ0000	TEA	ADGA	0	0	XC	4 P V
155A	02		SEC SP (INFO)	11	00080										GS	C	B	D	Y	ZGSZ0000	TJA	ADGA	1	1		2 P V
155A	03		SEC SP (AUTD)	11	00080										GS	C	B	D	Y	ZGSZ0000	TJA	ADGA	1	1		2 P V
155A	03A		PHY SEC SP	09	00080										GS	C	C	F	Q	ZGSZ0000	TJA	ADGA	1	1		4 P V
155A	04		TRNG INSTR (SEC)	09	01712										GS	C	C	F	Y	ZGSZ0000	THA	ADGA	1	1		2 P V
155A	05		SEC ASST (OA)	05	00086										GS	C	C	F	Y	ZGSZ0000	IRD	ADGA	1	1		2 P V
155A	06		SEC CLK (OA)	04	00086										GS	C	C	F	Y	ZGSZ0000	TFA	ADGA	1	1		2 P V
155A	07		SEC CLK	04	00086										GS	C	C	F	Y	ZGSZ0000	TFA	ADGA	1	1		4 P V
155A	08		SM ARM RPR (LKSM)	09	06610										WG	C	C	F	Y	ZGSZ0000	TEA	ADGA	1	1		2 P V

PARAGRAPH 155A TOTALS: 8 8

155B			TITLE: SECURITY BR				UICDR: WOMMAA								TPACO: XM											
155B	01		CHIEF	11	00085										GS	C	C	F	Q	ZGSZ0000	TLA	ADGA	1	1		2 P V
155B	02		SUPV SEC GUARD	09	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	3	3		2 P V
155B	03		SUPV SEC GUARD	07	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	5	5		2 P V
155B	04		LD SEC GUARD	06	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	5	5		4 P V
155B	05		LD SEC GUARD	06	00085										GS	C	C	F	Q	MLAD0000	TKB	ADLS	5	5		2 P V
155B	06		SEC GUARD	06	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	11	11		2 P V
155B	07		SEC GUARD	06	00085										GS	C	C	F	Q	MLAD0000	TKB	ADLS	5	5		2 P V
155B	08		SEC GUARD	05	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	70	70		4 P V
155B	09		SEC GUARD	05	00085										GS	C	C	F	Q	MLAD0000	TKB	ADLS	13	13		4 P V
155B	09A		SEC GUARD	05	00085										GS	C	C	F	Q	MD2M0000	TKB	ADMD	12	12		2 P V
155B	10		SEC GUARD (DSGT)	05	00085										GS	C	C	F	Q	ZGSZ0000	TKB	ADGA	5	5		2 P V
155B	11		SECY (GA)	04	00318										GS	C	C	F	Y	ZGSZ0000	TLA	ADGA	1	1		2 P V

PARAGRAPH 155B TOTALS: 136 136

160C			TITLE: FAM SPT BR				UICDR: WOMMAA								TPACO: XM											
160C	01		ACS OFCR	11	00101										GS	C	Y	Y	Y	ZGSW0000	QUB	ADGA	1	1		4 P V
160C	02		ARMY FAM PRG COORD	09	00101										GS	C	Y	Y	Y	ZGSW0000	QUB	ADGA	1	1		2 P V
160C	03		YOUTH COORD	06	00188										GS	C	Y	Y	Y	ZGSW0000	QUB	ADGA	1	1		2 P V

PARAGRAPH 160C TOTALS: 3 3

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SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TOELE

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PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	T	Q	AMSCO	SNC	MDEP	RQSTR	AUSTR	PERKS	B	T	G	P
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250		TITLE: DIR OF IND OPS		UICDR: WOMMAA		TPACO: XM		PPACO: NE									
250	01	DIRECTOR	15	01101	GM	C	C	F	Y	MD2M0000	LDA	ADMD	1	1	2	P	v
250	02	MAINT GFGR	03	91800	OD	K	E	F	Y	MD2M0000	LDA	ADMD	1	1	2	P	v
250	02A	PRON MGR	14	01101	GS	C	C	F	Y	MD2M0000	LDA	ADGA	1	1	2	P	v
250	03	SECY (STEND/OA)	07	00318	GS	C	C	F	Y	MD2M0000	LDA	ADMD	1	1	2	P	v

PARAGRAPH 250 TOTALS: 4 4

270		TITLE: PRD PLN & CONT D		UICDR: WOMMAA		TPACO: XM		PPACO: NE									
270	01	CHIEF	13	01101	GM	C	C	F	Y	MD2M0000	LJB	ADMD	1	1	2	P	v
270	02	MAINT GFGR	03	91800	OD	K	Y	Y	Y	MD2M0000	LJA	ADMD	1	1	2	P	v
270	03	LOG MGT SP	12	00346	GS	C	C	F	Y	MD2M0000	KAD	ADMD	3	3	2	P	v
270	04	LOG MGT SP	11	00346	GS	C	C	F	Y	MD2M0000	KAD	ADMD	1	1	2	P	v
270	05	SECY (OA)	05	00318	GS	C	Y	Y	Y	MD2M0000	LJB	ADMD	1	1	2	P	v

PARAGRAPH 270 TOTALS: 7 7

270A		TITLE: IND MGMT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE									
270A	01	CHIEF	12	00301	GS	C	C	F	Y	MD2M0000	LJA	ADMD	1	1	4	P	v
270A	02	MAINT MGT SY SP	11	00301	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	2	2	4	P	v
270A	03	GEN SUP SP	11	02001	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	1	1	4	P	v
270A	04	SUP SYS ANAL	11	02003	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	1	1	4	P	v
270A	05	PRG ANAL	11	00343	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	2	2	4	P	v
270A	06	PRG ANAL	09	00343	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	3	3	4	P	v
270A	07	MNT/PROP MGT SP	09	01101	GS	C	Y	Y	Y	MLAV0000	LJA	ADMD	1	1	4	P	v
270A	08	MNT/PROP MGT SP	09	01101	GS	C	Y	Y	Y	ZGSZ0000	LJA	ADMD	1	0	4	P	v
270A	09	ADMIN SP	09	00301	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	2	2	4	P	v
270A	10	SECY (OA)	04	00318	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	1	1	4	P	v
270A	11	LIBRARY TECH	04	01411	GS	C	Y	Y	Y	MD2M0000	LJA	ADMD	1	1	4	P	v

PARAGRAPH 270A TOTALS: 16 15

270B		TITLE: CMF MTL RQ PLN BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE									
270B	01	CHIEF	11	01101	GS	C	C	F	Y	MD2M0000	LJB	ADMD	1	1	2	P	v
270B	02	PDN CONT (AUTO)	09	01152	GS	C	Y	Y	Y	MD2M0000	LJB	ADMD	3	3	2	P	v
270B	03	MAINT PARTS SP	09	01101	GS	C	Y	Y	Y	MD2M0000	LJB	ADMD	3	3	2	P	v
270B	04	SUP CLK	05	02005	GS	C	Y	Y	Y	MD2M0000	LJB	ADMD	4	4	2	P	v

PARAGRAPH 270B TOTALS: 11 11

270C		TITLE: VRF MTL RQ PLN BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE									
270C	01	CHIEF	11	01101	GS	C	C	F	Y	MDEM0000	LJB	ADMD	1	1	4	P	v
270C	02	PDN CON (AUTO)	09	01152	GS	C	Y	Y	Y	MDEM0000	LJB	ADMD	4	4	4	P	v
270C	03	MAINT PARTS SP	09	01101	GS	C	Y	Y	Y	MDEM0000	LJB	ADMD	5	5	4	P	v
270C	04	SUP CLK	05	02005	GS	C	Y	Y	Y	MDEM0000	LJB	ADMD	6	6	4	P	v



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SECTION 2 - CIV & MIL  
LNAME: U S ARMY DEPOT TDELE

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PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCD	LPIND	BRANCH	T	D	T	D	AMSCD	SWC	MDEP	RQSTR	AUSTR	PERMKS	ETGP
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280A	03	HME RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	14	14								2 P V
PARAGRAPH 280A TOTALS:																				19	18	

280B TITLE: RCLM/MACH SHP BR UICDR: WOMMAA TPACD: XM PPACD: NE

280B	01	HME MECH SUPV	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1								2 P V
280B	02	HME MECH	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	4	4								2 P V
280B	03	MACH TL OP	09	03431	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	7	7								2 P V
280B	04	NON DESTR TESTER	09	05439	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	4	4								2 P V
280B	05	MACH TL OPR	08	03431	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	5	5								2 P V
280B	06	HMR RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	5	5								2 P V
PARAGRAPH 280B TOTALS:																				26	26	

280C TITLE: LT/HVY ENG OH BR UICDR: WOMMAA TPACD: XM PPACD: NE

280C	01	HME MECH SUPV	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1								2 P V
280C	02	HME MECH	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	8	8								2 P V
280C	03	HME RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	11	11								4 P V
PARAGRAPH 280C TOTALS:																				20	20	

280D TITLE: DRV TRN DISASB BR UICDR: WOMMAA TPACD: XM PPACD: NE

280D	01	HME MECH SUPV	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1								2 P V
280D	02	HME MECH	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	2	2								2 P V
280D	03	HME RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	16	16								2 P V
PARAGRAPH 280D TOTALS:																				19	19	

280E TITLE: DRV TRN ASMBLY BR UICDR: WOMMAA TPACD: XM PPACD: NE

280E	01	HME MECH SUPV	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1								2 P V
280E	02	HME MECH	10	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	4	4								2 P V
280E	03	HME RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	17	17								2 P V
PARAGRAPH 280E TOTALS:																				22	22	

280F TITLE: DSL GEN COM PS BR UICDR: WOMMAA TPACD: XM PPACD: NE

280F	01	PSS MECH SUPV	10	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	1	1								2 P V
280F	02	PSS MECH	10	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	4	4								4 P V
280F	02A	PS EQ RPR	08	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	8	8								2 P V
280F	03	PS EQ RPR	06	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	6	6								2 P V
PARAGRAPH 280F TOTALS:																				19	19	

280G TITLE: DSL GEN ASMB T BR UICDR: WOMMAA TPACD: XM PPACD: NE

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	STGP
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280G	01	PSS MECH SUPV	10	05378						WS	C	Y	Y	Y	MD2M0000	LVC	ADMD		1	1		2	P	V
280G	02	PSS MECH	10	05378						WS	C	Y	Y	Y	MD2M0000	LVC	ADMD		3	3		2	P	V
280G	02A	FS EQ RPR	06	05378						WG	C	Y	Y	Y	MD2M0000	LVC	ADMD		8	8		2	P	V
280G	03	PS EQ RPR	06	05378						WG	C	Y	Y	Y	MD2M0000	LVC	ADMD		9	9		2	P	V

PARAGRAPH 280G TOTALS: 21 21

280H TITLE: AIR COND BRANCH		UICDR: WOMMAA		TPACO: XM		PPACO: NE												
280H	01	PSS MECH SUPV	10	05378	WS	C	Y	Y	Y	MD2M0000	LVC	ADMD	1	1		2	P	V
280H	02	PSS MECH	10	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	6	6		2	P	V
280H	03	PS EQ RPR	06	05378	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	15	15		2	P	V

PARAGRAPH 280H TOTALS: 22 22

280J TITLE: FUEL/EL RECND BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE												
280J	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MD2M0000	LVC	ADMD	1	1		2	P	V
280J	02	HME MECH	10	05803	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	4	4		2	P	V
280J	03	HMR RPR	06	05803	WG	C	Y	Y	Y	MD2M0000	LVC	ADMD	20	20		2	P	V

PARAGRAPH 280J TOTALS: 25 25

280K TITLE: LG ITMS PAINT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE												
280K	01	Painter SUPV	09	04102	WS	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280K	02	PAINTER	09	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280K	03	MOB EQ MTL WKR	08	03809	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	2	2		2	P	V
280K	04	GEN EQ RPR	08	04801	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280K	05	PAINTING WKR	07	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	2	2		2	P	V
280K	06	EQUIP CLEANER	06	07009	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280K	07	EQUIP CLEANER	05	07009	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280K	08	PAINTING WKR	05	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280K	09	SANDBLASTER	05	05423	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280K	10	GEN SPT WKR	02	03501	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V

PARAGRAPH 280K TOTALS: 16 16

280L TITLE: COMP CLNG/PNT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE												
280L	01	PAINTER SUPV	09	04102	WS	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		2	P	V
280L	02	PAINTER	09	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280L	03	ELECTROPL WKR	08	03711	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	4	4		2	P	V
280L	04	PAINTING WKR	07	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280L	05	EQUIP CLEANER	06	07009	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280L	06	PAINTING WKR	05	04102	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280L	07	EQUIP CLEANER	05	07009	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	3	3		2	P	V
280L	08	PAINT PREP WKR	03	04101	WG	C	Y	Y	Y	MD2M0000	LFA	ADMD	1	1		4	P	V

PARAGRAPH 280L TOTALS: 21 21

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCD	SAC	MDEF	ROSTR	AUSTR	PERMKS	T	B	P

280M TITLE: PROCESS SPT BR      UICDR: WOMMAA      TPACO: XM      PPACO: NE

280M	01	FLD SUPV	06	05704	WS	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1										
280M	02	TL PTS ATTND	06	06904	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	2	2										
280M	03	FLD	05	05704	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	6	6										
280M	04	LABORER	03	03502	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	3	3										
280M	05	MATL EXAM IDENT	03	06912	WG	C	Y	Y	Y	MD2M0000	LJC	ADMD	1	1										
													PARAGRAPH 280M TOTALS:		13	13								

280N TITLE: EQUIP SUPPORT BR      UICDR: WOMMAA      TPACO: XM      PPACO: NE

280N	01	IND EQ MECH SUPV	12	05352	WS	C	Y	Y	Y	MD2M0000	NGC	ADMD	1	1										
280N	02	IND EQUIP MECH	12	05352	WG	C	Y	Y	Y	MD2M0000	NGC	ADMD	2	2										
280N	03	INSTR MECH	11	03359	WG	C	Y	Y	Y	MD2M0000	NGC	ADMD	2	2										
280N	04	ELECTRICIAN	10	02805	WG	C	Y	Y	Y	MD2M0000	NGC	ADMD	2	2										
280N	05	IND EQUIP MECH	10	05352	WG	C	Y	Y	Y	MD2M0000	NGC	ADMD	2	2										
280N	06	GEN EQUIP RPR	08	04801	WG	C	Y	Y	Y	MD2M0000	NGC	ADMD	1	1										
													PARAGRAPH 280N TOTALS:		10	10								

300 TITLE: VRF DIV      UICDR: WOMMAA      TPACO: XM      PPACO: NE

300	01	CHIEF	14	01101	GM	C	C	F	Y	MDEM0000	LJA	ADMD	1	1										
300	02	MAINT OFCR	03	91800	OD	K	Y	Y	Y	MDEM0000	LJA	ADMD	1	1										
300	03	MAINT NCO	E6	63H30	NC	I	Y	Y	Y	MDEM0000	LJA	ADMD	1	1										
300	04	SECY/STEND (OA)	05	00318	GS	C	Y	Y	Y	MDEM0000	LJA	ADMD	1	1										
300	05	SUP CLK	05	02005	GS	C	Y	Y	Y	MDEM0000	LJA	ADMD	2	2										
300	06	OA CLK	04	00326	GS	C	Y	Y	Y	MDEM0000	LJA	ADMD	2	2										
													PARAGRAPH 300 TOTALS:		8	8								

300A TITLE: INDUCTION EVAL BR      UICDR: WOMMAA      TPACO: XM      PPACO: NE

300A	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1										
300A	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	2	2										
300A	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	19	19										
													PARAGRAPH 300A TOTALS:		22	22								

300B TITLE: DISASSEMBLY BR      UICDR: WOMMAA      TPACO: XM      PPACO: NE

300B	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1										
300B	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	4	4										
300B	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	17	17										
300B	04	SHOP SWEEPER	03	03501	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1										
													PARAGRAPH 300B TOTALS:		23	23								

PARA	LINE	NO	NO	POSITION TITLE	GR	PGSCO	ASICO	LICCD	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEF	ROSTR	AUSTR	PERMKS	STGP

300C TITLE: AUXILIARY EQ BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300C	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v
300C	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	3	3							2	P	v
300C	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	16	16							2	P	v
300C	04	FLO	05	05704	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v

PARAGRAPH 300C TOTALS: 21 21

300D TITLE: SUSPENSION BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300D	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v
300D	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	3	3							2	P	v
300D	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	19	19							2	P	v

PARAGRAPH 300D TOTALS: 23 23

300E TITLE: POWER TRAIN BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300E	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							4	P	v
300E	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	4	4							4	P	v
300E	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	19	19							4	P	v

PARAGRAPH 300E TOTALS: 24 24

300F TITLE: ASSEMBLY BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300F	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v
300F	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	4	4							4	P	v
300F	03	CRANE OPR	09	05725	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v
300F	04	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	18	18							2	P	v
300F	05	FLO	05	05704	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v

PARAGRAPH 300F TOTALS: 25 25

300G TITLE: FINAL OUT BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300G	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							4	P	v
300G	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	3	3							4	P	v
300G	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	18	18							4	P	v

PARAGRAPH 300G TOTALS: 22 22

300H TITLE: CONST/ENGR EQ BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE															
300H	01	HME MECH SUPV	10	05803	WS	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1							2	P	v
300H	02	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	4	4							2	P	v
300H	03	HME RPR	08	05803	WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	20	20							2	P	v

PARAGRAPH 300H TOTALS: 25 25

PARA	LINE	NO	NO	POSITION	TITLE	GR	POSCD	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	ROSTR	AUSTR	PERMKS	STGP
								S															LCEC
								Q															NHFD
								I															ESLN
								2															TSAV
																							STGP

300J TITLE: LIGHT VEHICLE BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300J	01	HME MECH SUPV	10	05803	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300J	02	HME MECH	10	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	4	4	4	P V
300J	03	HME RPR	08	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	19	19	2	P V
300J	04	FLO	05	05704	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V

PARAGRAPH 300J TOTALS: 25 25

300K TITLE: MEDIUM VEHICLE BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300K	01	HME MECH SUPV	10	05803	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300K	02	HME MECH	10	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	4	4	2	P V
300K	03	HME RPR	08	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	20	20	2	P V
300K	04	FLO	05	05704	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V

PARAGRAPH 300K TOTALS: 26 26

300L TITLE: HEAVY TRAILER BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300L	01	HME MECH SUPV	10	05803	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300L	02	HME MECH	10	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	5	5	2	P V
300L	03	HME RPR	08	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	16	16	2	P V
300L	04	FLO	05	05704	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V

PARAGRAPH 300L TOTALS: 23 23

300M TITLE: HEAVY VEHICLE BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300M	01	HME MECH SUPV	10	05803	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300M	02	HME MECH	10	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	5	5	2	P V
300M	03	HME RPR	08	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	17	17	2	P V

PARAGRAPH 300M TOTALS: 23 23

300N TITLE: TROOP SUPPORT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300N	01	HME MECH SUPV	10	05803	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300N	02	HME MECH	10	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	5	5	2	P V
300N	03	HME RPR	08	05803	WG	C Y Y Y	MDEM0000	LJC	ADMD	16	16	2	P V
300N	04	FLO	05	05704	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V

PARAGRAPH 300N TOTALS: 23 23

300P TITLE: PREC EQUIP BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE							
300P	01	PRTG EQ MEC SPV	11	05330	WS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300P	02	EQUIP SP	11	01670	GS	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300P	03	ELCTR MECH	12	02604	WG	C Y Y Y	MDEM0000	LJC	ADMD	2	2	2	P V
300P	04	SURV INST MECH	12	03301	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V
300P	05	ELCTR MECH	11	02604	WG	C Y Y Y	MDEM0000	LJC	ADMD	1	1	2	P V

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCD	LFIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEF	RQSTR	AUSTR	PERMKS	ETGP
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300P	06			PRNTG EQ MECH	11	05330				WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	11	11			2 P v
300P	07			ELCTR MECH	08	02604				WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	1	1			2 P v
300P	08			PRNTG EQ WKR	08	05330				WG	C	Y	Y	Y	MDEM0000	LJC	ADMD	4	4			2 P v

PARAGRAPH 300P TOTALS: 22 22

300R TITLE: MED BODY SHOP BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE														
300R	01			MOB MECH SUPV	10	03809			WS	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300R	02			MOB EQ MTL MECH	10	03809			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	5	5				2 P v
300R	03			MOB EQ MTL WKR	08	03809			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	22	22				2 P v

PARAGRAPH 300R TOTALS: 28 28

300S TITLE: HVY BODY SHOP BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE														
300S	01			MOB EQ MECH SUPV	10	03809			WS	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				4 P v
300S	02			MOB EQ MTL MECH	10	03809			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	5	5				2 P v
300S	03			MOB EQ MTL WKR	08	03809			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	23	23				2 P v

PARAGRAPH 300S TOTALS: 29 29

300T TITLE: 615 PAINT BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE														
300T	01			PAINTER SUPV	09	04102			WS	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300T	02			PAINTER	09	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	7	7				4 P v
300T	03			GEN EQ RPR	08	04801			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300T	04			PAINTING WKR	07	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	6	6				2 P v
300T	04A			SANDBLASTER	07	05423			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	6	6				4 P v
300T	05			FLO	05	05704			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300T	06			PAINTING WKR	05	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	6	6				4 P v
300T	07			SANDBLASTER	05	05423			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				4 P v

PARAGRAPH 300T TOTALS: 29 29

300U TITLE: 612 PAINT BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE														
300U	01			PAINTER SUPV	09	04102			WS	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300U	02			PAINTER	09	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	7	7				2 P v
300U	03			GEN EQ RPR	08	04801			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300U	04			PAINTING WKR	07	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	6	6				2 P v
300U	05			MATL XPD	07	06910			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300U	06			FLO	05	05704			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v
300U	07			PAINTING WKR	05	04102			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	7	7				2 P v
300U	08			HAZ WASTE WKR	05	06901			WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1				2 P v

PARAGRAPH 300U TOTALS: 25 25

300V TITLE: STEAM/RADIATOR BR				UICDR: WOMMAA		TPACO: XM		PPACO: NE	
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PARA LINE	NO	NO	POSITION TITLE	GR	POSCD	D	ASICO	LICCD	LPIND	BRNCH	T	Q	T	Q	AMSCD	SWC	MDEP	RQSTR	AUSTR	PERMKS	ETGP
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PARAGRAPH 320B TOTALS: 20 20

320C TITLE: MACHINE SHOP BR			UICDR: WOMMAA		TFACO: XM		PPACO: NE																	
320C	01	TOOLMAKER SUPV	13	03416	WS	C	C	F	Y	MD2M0000	LPA	ADMD	1	1							2	P	v	
320C	02	MODEL MAKER	14	04714	WG	C	Y	Y	Y	MLEV0000	SJB	ADLS	1	1								2	P	v
320C	03	TOOLMAKER	13	03416	WG	C	Y	Y	Y	MLAV0000	SJB	ADLS	2	2								2	P	v
320C	03A	TOOLMAKER	13	03416	WG	C	Y	Y	Y	MLEV0000	SJB	ADLS	2	2								2	P	v
320C	04	MACHINIST	11	03414	WG	C	Y	Y	Y	MD2M0000	LPA	ADMD	3	3								2	P	v
320C	05	TOOLMAKER	11	03416	WG	C	Y	Y	Y	MLAV0000	SJB	ADLS	2	2								2	P	v
320C	06	MACHINIST	10	03414	WG	C	Y	Y	Y	MD2M0000	SJB	ADMD	2	2								2	P	v
320C	07	SLK SCR MKR PRNT	09	04419	WG	C	Y	Y	Y	MD2M0000	SJB	ADMD	2	2								2	P	v
320C	08	MACHINIST	08	03414	WG	C	Y	Y	Y	MD2M0000	SJB	ADMD	2	2								2	P	v
320C	09	FABRIC MKR	07	03105	WG	C	Y	Y	Y	MD2M0000	SJE	ADMD	2	2								4	P	v
320C	10	MATL XPD	07	06910	WG	C	Y	Y	Y	MLAV0000	SJB	ADLS	1	1								2	P	v
320C	11	PLATE MKR	05	04416	WG	C	Y	Y	Y	MD2M0000	SJB	ADMD	1	1								4	P	v

PARAGRAPH 320C TOTALS: 21 21

320D TITLE: TECH WRIT/TRNG BR			UICDR: WOMMAA		TFACO: XM		PPACO: NE																	
320D	01	CHIEF	12	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	1	1								2	P	v
320D	02	EQ SP (MACH/ELC)	09	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	5	5								2	P	v
320D	02A	EQ SP (M/EL INST)	09	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	2	2								2	P	v
320D	02B	EQ SP (GEN INST)	09	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	2	2								2	P	v
320D	02C	EQ SP (AUTO/ELC)	09	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	4	4								2	P	v
320D	02D	EQ SP (MACH)	09	01670	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	2	2								2	P	v
320D	03	TECH MANUAL EDIT	09	01083	GS	C	Y	Y	Y	MD2M0000	LGB	ADMD	1	1								2	P	v
320D	04	TECH EQ ILLUS	09	01020	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	3	3								2	P	v
320D	05	QA CLK	04	00326	GS	C	Y	Y	Y	MDSM0000	LGB	ADMD	1	1								2	P	v

PARAGRAPH 320D TOTALS: 21 21

320E TITLE: EQUIP TEST BR			UICDR: WOMMAA		TFACO: XM		PPACO: NE																	
320E	01	CHIEF	12	01670	GS	C	C	F	Y	MLAV0000	SJA	ADLS	1	1								2	P	v
320E	02	EQ SP ORD/MACH	11	01670	GS	C	Y	Y	Y	MLEV0000	SJA	ADLS	6	6								2	P	v
320E	03	EQ SP ORD/MACH	11	01670	GS	C	C	F	Y	MLAD0000	SJA	ADLS	2	2								2	P	v
320E	04	EQ SP ORD/MACH	09	01670	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	3	3								2	P	v
320E	05	EQ SP GEN	09	01670	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	3	3								4	P	v
320E	06	ELECTRICIAN	10	02805	WG	C	Y	Y	Y	MLAV0000	SJA	ADLS	1	1								4	P	v

PARAGRAPH 320E TOTALS: 16 16

320F TITLE: AMMUNITION EQ BR			UICDR: WOMMAA		TFACO: XM		PPACO: NE																	
320F	01	CHIEF	13	00830	GM	C	C	F	Y	MLAV0000	SJA	ADLS	1	1								2	P	v
320F	02	MECH ENGR	13	00830	GS	C	C	F	Y	MLAV0000	SJA	ADLS	1	1								2	P	v
320F	03	CHEM ENGR	13	00843	GS	C	C	F	Y	MLAV0000	SJA	ADLS	1	1								2	P	v

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCD	D	ASICO	LICCD	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	S	T	G	P
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320F	04	MECH ENGR	12	00830			GS	C	Y	Y	Y	MLAV0000	SJA	ADLS				4	4			4	P	V
320F	05	ELEC ENGR	12	00850			GS	C	C	F	Y	MLAV0000	SJA	ADLS				2	2			4	P	V
320F	06	ELEC ENGR	11	00850			GS	C	Y	Y	Y	MLAV0000	SJA	ADLS				2	2			4	P	V
320F	08	MECH ENGR TECH	11	00802			GS	C	Y	Y	Y	MLAD0000	SJA	ADLS				1	1			2	P	V
320F	09	MECH ENGR	11	00830			GS	C	Y	Y	Y	MLAV0000	SJA	ADLS				3	3			2	P	V
320F	10	ELEC ENGR TECH	09	00802			GS	C	Y	Y	Y	MLAV0000	SJA	ADLS				1	1			4	P	V
320F	11	MECH ENGR TECH	09	00802			GS	C	Y	Y	Y	MLAV0000	SJA	ADLS				3	3			2	P	V

PARAGRAPH 320F TOTALS: 19 19

320G TITLE: SHOP SUPPORT BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
320G	01	CHIEF	12	00896	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	1	1				2	2			2	P	V
320G	02	IND ENGR	12	00896	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	2	2				2	2			2	P	V
320G	03	IND ENGR	11	00896	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	3	3				3	3			2	P	V
320G	04	IND SP/MACH	11	01150	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	1	1				1	1			2	P	V
320G	05	IND ENGR TECH	09	00895	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	2	2				2	2			2	P	V
320G	06	EQ SP GEN	09	01670	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	1	1				1	1			2	P	V
320G	07	IND ENG TECH	07	00895	GS	C	Y	Y	Y	MD2M0000	LEA	ADMD	2	2				2	2			4	P	V

PARAGRAPH 320G TOTALS: 12 12

320H TITLE: ENGR SERVICES BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
320H	01	CHIEF	13	00830	GM	C	C	F	Y	MLAV0000	SJA	ADLS	1	1				2	2			2	P	V
320H	02	MECH ENGR	13	00830	GS	C	C	F	Y	MLAV0000	SJA	ADLS	1	1				1	1			2	P	V
320H	03	ELEC ENGR	13	00850	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	1	1				1	1			2	P	V
320H	04	MECH ENGR	12	00830	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	2	2				2	2			2	P	V
320H	06	CHEM ENGR	12	00893	GS	C	C	F	Y	MLAV0000	SJA	ADLS	1	1				1	1			4	P	V
320H	07	MECH ENGR TECH	11	00802	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	3	3				3	3			2	P	V
320H	08	ELEC ENGR TECH	11	00802	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	1	1				1	1			2	P	V
320H	09	MECH ENGR	11	00830	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	2	2				2	2			2	P	V
320H	10	ELEC ENGR	11	00850	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	2	2				2	2			2	P	V
320H	11	MECH ENGR TECH	09	00802	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	1	1				1	1			2	P	V
320H	12	ELEC ENGR TECH	09	00802	GS	C	Y	Y	Y	MLAV0000	SJA	ADLS	1	1				1	1			2	P	V

PARAGRAPH 320H TOTALS: 16 16

330 TITLE: RAIL SHOPS DIV		UICDR: WOMMAA		TPACO: XM		PPACO: NE																		
330	01	HME MECH SUPV	16	05803	WS	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1	XC			4	4			4	P	V
330	02	SECY (OA)	04	00318	GS	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1				1	1			2	P	V

PARAGRAPH 330 TOTALS: 2 2

330A TITLE: ELECTRICAL BR		UICDR:		TPACO:		PPACO:																		
330A	01	HME MECH SUPV	16	05803	WS	C	Y	Y	Y	MDEM0000	LUA	ADMD	0	0	XC			4	4			4	P	V
330A	02	ELECT	11	02805	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	10	10				10	10			4	P	V
330A	03	ELECT	10	02805	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	2	2				2	2			2	P	V

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	ST	GP
------	------	----	----	----------------	----	-------	---	-------	-------	-------	-------	---	---	---	---	-------	-----	------	-------	-------	--------	----	----

330A	04	LOCD ENGR	09	05737						WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1			2	P	V
330A	05	ELECT WKR	08	02805						WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1			4	P	V

PARAGRAPH 330A TOTALS: 14 14

330B TITLE: MECHANICAL BR		UICDR: WOMMAA		TPACO: XM		PPACO: NE													
330B	01	HME MECH SUPV	11	05803	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1			2	P	V
330B	02	HME MECH	11	05803	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	9	9			4	P	V
330B	03	PIPEFITTER	10	04204	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	1	1			2	P	V
330B	04	HME MECH	10	05803	WG	C	Y	Y	Y	MDEM0000	LUA	ADMD	10	10			4	P	V

PARAGRAPH 330B TOTALS: 21 21

330C TITLE: SUPPORT BRANCH		UICDR: WOMMAA		TPACO: XM		PPACO: NE													
330C	01	MTL PROC SPT SPV	10	03701	WS	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	02	MACHINIST	11	03414	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	03	MACHINIST	10	03414	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	2	2			4	P	V
330C	04	WELDER	10	03703	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	3	3			2	P	V
330C	05	SHTMTL MECH	10	03806	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	06	PDN MACH MECH	10	05350	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	07	PAINTER	09	04102	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	3	3			4	P	V
330C	08	WELDER WKR	08	03703	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	2	2			2	P	V
330C	09	WOODWKR	08	04604	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	10	PAINTING WKR	07	04102	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	11	FLO	06	05704	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	12	EQUIP CLNR	06	07009	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	13	MTL XPD	05	06910	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			2	P	V
330C	14	LABORER	02	03502	WG	C	Y	Y	Y	MDEM0000	LPA	ADMD	1	1			4	P	V

PARAGRAPH 330C TOTALS: 20 20

450 TITLE: DIR CML/AMMO OPS		UICDR: WOMMAA		TPACO: XM		PPACO: NE													
450	01	DIRECTOR	14	02001	GM	C	B	D	B	MLAV0000	MWA	ADLS	1	1			4	P	V
450	02	CHEM STAFF OFCR	05	74C00	CM	K	E	F	Q	MLAV0000	MWA	ADLS	1	1			2	P	V
450	03	ADMIN SPEC	09	00301	GS	C	C	F	Y	MLAV0000	MWA	ADLS	1	1			2	P	V
450	04	SECY (STENO/OA)	06	00318	GS	C	C	F	Y	MLAV0000	MWA	ADLS	1	1			2	P	V

PARAGRAPH 450 TOTALS: 4 4

455 TITLE: CML PRP/CONT DIV		UICDR: WOMMAA		TPACO: XM		PPACO: NE													
455	01	CHIEF (CSEPP COORD)	12	00343	GS	C	C	F	Y	MLAD0000	XDB	ADLS	1	1			4	P	V
455	02	GEN ENGR	12	00801	GS	C	C	F	Y	MLAD0000	XDB	ADLS	1	1			2	P	V
455	03	PRG ANAL	12	00343	GS	C	C	F	Y	MLAD0000	XDB	ADLS	2	2			4	P	V
455	04	PRG ANAL	09	00343	GS	C	C	F	Y	MLAD0000	XDB	ADLS	1	1			2	P	V
455	05	SECY (OA)	05	00318	GS	C	C	F	Y	MLAD0000	XDB	ADLS	1	1			2	P	V

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCO	D	ASICO	LICCO	LPIND	BRNCH	T	Q	T	Q	D	AMSCO	SWC	MDEP	RQSTR	AUSTR	PERMKS	BT	GP
							S																	
							G																	
							I																	
							2																	

PARAGRAPH 455 TOTALS: 6 6

460	TITLE: PLAN & CONT DIV																							

PARAGRAPH 460 TOTALS: 2 2

460A	TITLE: COMPLIANCE BRANCH																							

PARAGRAPH 460A TOTALS: 9 9

460B	TITLE: PLANNING BRANCH																							

PARAGRAPH 460B TOTALS: 7 7

460C	TITLE: CONV INV BR																							

PARAGRAPH 460C TOTALS: 8 8

460D	TITLE: CHEM INV BR																							

PARAGRAPH 460D TOTALS: 9 9

PARA	LINE	NO	NO	POSITION TITLE	GR	POSCD	D	ASICO	LICCD	LPIND	BRNCH	T	Q	T	Q	AMSCO	SWC	MDEP	ROSTR	AUSTR	PERMKS	STGP
------	------	----	----	----------------	----	-------	---	-------	-------	-------	-------	---	---	---	---	-------	-----	------	-------	-------	--------	------

465				TITLE: CONV OPS DIV				UICDR: WOMMAA		TPACD: XM		PPACD: NE										
465	01			CHIEF	12	02001				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		2 P v
465	02			SECY (OA)	05	00318				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		2 P v
465	03			OA CLK	04	00326				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		2 P v

PARAGRAPH 465 TOTALS: 3 3

465A				TITLE: CONV STORAGE BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE										
465A	01			MVD MTL HD SPV	08	05703				WS		C C F Y	MLAB0000	MWD	ADLS				1	1		2 P v
465A	02			QA SPEC	09	01910				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		4 P v
465A	03			DIST FAC SP	09	02030				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		2 P v
465A	04			SUPPLY TECH	05	02005				GS		C C F Y	MLAA0000	MWD	ADLS				6	6		2 P v
465A	04A			SUP TECH (OA)	05	02005				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		2 P v
465A	05			SUP CLK (DA)	04	02005				GS		C C F Y	MLAA0000	MWD	ADLS				1	1		4 P v
465A	06			MVD (EXPL HD)	08	05703				WL		C Y Y Y	MLAA0000	MWD	ADLS				1	1		4 P v
465A	07			BLOCKER/BRACER	08	04602				WG		C Y Y Y	MLAB0000	MWD	ADLS				2	2		2 P v
465A	08			MVD MATL HNDLR	08	05703				WG		C Y Y Y	MLAB0000	MWD	ADLS				17	17		2 P v

PARAGRAPH 465A TOTALS: 31 31

465B				TITLE: TRANSP BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE										
465B	01			CHIEF	11	02130				GS		C C F Y	MLAT0000	LAC	ADLS				1	1		4 P v
465B	02			TRAFFIC MGT SP	09	02130				GS		C Y Y Y	MLAT0000	LAC	ADLS				1	1		2 P v
465B	03			FREIGHT RATE SP	07	02131				GS		C Y Y Y	MLAT0000	LAC	ADLS				2	2		4 P v
465B	04			TRAVEL CLK (OA)	06	02132				GS		C C F Y	ZGSZ0000	LAC	ADGA				1	1		2 P v
465B	05			SHIPMENT CLK	05	02134				GS		C Y Y Y	MLAT0000	LAC	ADLS				1	1		4 P v
465B	06			SHIPMENT CLK	04	02134				GS		C Y Y Y	MLAT0000	LAC	ADLS				2	2		4 P v
465B	07			SHIP CLK (OA)	04	02134				GS		C Y Y Y	MLAT0000	LAC	ADLS				1	1		4 P v
465B	08			COND LDR (RR IN)	09	05736				WL		C C F Y	MLAT0000	LCA	ADLS				1	1		2 P v
465B	09			COND (RR INSP)	09	05736				WG		C Y Y Y	MLAT0000	LCA	ADLS				2	2		2 P v
465B	10			LOCO ENGR	09	05737				WG		C Y Y Y	MLAT0000	LCA	ADLS				2	2		2 P v

PARAGRAPH 465B TOTALS: 14 14

465C				TITLE: CONV MAINT BR				UICDR: WOMMAA		TPACD: XM		PPACD: NE										
465C	01			EXPL OPR SUPV	11	06502				WS		C C F Y	MLAD0000	MXA	ADLS				1	1		2 P v
465C	02			EXPL OPR LDR	08	06502				WL		C C F Y	MLAD0000	MXA	ADLS				1	1		2 P v
465C	03			IND EQUIP MECH	10	05352				WG		C Y Y Y	MLAD0000	NGC	ADLS				2	2		2 P v
465C	04			ELECTRICIAN	10	02805				WG		C Y Y Y	MLAA0000	NGC	ADLS				1	1		2 P v
465C	05			EXPL OPR	08	06502				WG		C Y Y Y	MLAD0000	MXA	ADLS				8	8		2 P v
465C	06			HAZ MATL HNDLR	08	06901				WG		C Y Y Y	MLAD0000	MXA	ADLS				1	1		2 P v
465C	07			PAINTING WKR	07	04102				WG		C Y Y Y	MLAD0000	MXA	ADLS				2	2		4 P v
465C	08			MTL XPD/TL RM AT	07	06910				WG		C Y Y Y	MLAD0000	MXA	ADLS				1	1		2 P v
465C	09			EXPL WKR	04	06502				WG		C Y Y Y	MLAD0000	MXA	ADLS				2	2		4 P v

PARAGRAPH 465C TOTALS: 19 19



drts2

15:28:37 04/22/1993

SECTION 2 - CIV & MIL

LNAME: U S ARMY DEPOT TODELE

CCNOG: XWOMMAA

CCNUM: X10294

NOITDE

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=====
S I F P P L D E C
Q D S P P N H F D
I E I S S E S L N
2 N R S R T S A V
=====
PARA LINE
NO NO POSITION TITLE GR POSCO D ASICO LICCO LPIND BRNCH T Q T Q AMSCO SWC MDEF RQSTR AUSTR PERMKS S T G P
=====

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470A 03 CRANE OPERATOR 11 05725 WG C Y Y Y MLAV0000 MWD ADLS 1 1 2 P V
470A 04 HAZ MATL HNDLR 08 06901 WG C Y Y Y MLAV0000 MWD ADLS 1 1 2 P V
470A 05 TOX MATL HDL MVD 08 06511 WG C Y Y Y MLAV0000 MWD ADLS 18 18 2 P V
470A 06 MVD/CHS RM ATTD 05 05703 WG C Y Y Y MLAD0000 MWD ADLS 1 1 2 P V

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PARAGRAPH 470A TOTALS: 24 24

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470B TITLE: CHEM INSP BR UICDR: WOMMAA TPACO: XM PPACO: NE
470B 01 CHIEF 12 01910 GS C C F Q MLAA0000 NKD ADLS 1 1 2 P V
470B 02 QA SPEC/AMMO 11 01910 GS C C F Q MLAA0000 NKD ADLS 3 3 2 P V
470B 03 AMMO INSP 09 06501 WG C C F Q MLAA0000 NKD ADLS 7 7 2 P V

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PARAGRAPH 470B TOTALS: 11 11

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470C TITLE: MONITORING BR UICDR: WOMMAA TPACO: XM PPACO: NE
470C 01 MSR SUPV 08 05205 WS C C F Q MLAD0000 MWD ADLS 1 1 2 P V
470C 02 MONITORING SY RP 08 05205 WG C Y Y Y MLAD0000 MWD ADLS 7 7 2 P V

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PARAGRAPH 470C TOTALS: 8 8

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470D TITLE: INTERNAL MVMT BR UICDR: WOMMAA TPACO: XM PPACO: NE
470D 01 TMH MVD SUPV 08 06511 WS C C F Q MLAV0000 MWD ADLS 1 1 2 P V
470D 02 TX MATL HD MVD 08 06511 WL C C F Q MLAV0000 MWD ADLS 1 1 2 P V
470D 03 TX MATL HD MVD 08 06511 WG C Y Y Y MLAV0000 MWD ADLS 18 18 4 P V

```

PARAGRAPH 470D TOTALS: 20 20

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470E TITLE: CHEM PROT EQ BR UICDR: WOMMAA TPACO: XM PPACO: NE
470E 01 PR CLTH IN SUPV 07 04816 WS C C F Y MLAV0000 MWD ADLS 1 1 2 P V
470E 02 PROT CLTH INS 07 04816 WG C Y Y Y MLAV0000 MWD ADLS 6 6 4 P V
470E 03 TL PTS ATTND 06 06904 WG C Y Y Y MLAV0000 MWD ADLS 1 1 4 P V

```

PARAGRAPH 470E TOTALS: 8 8

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*****
XWOMMAA DOCUMENT TOTALS: 2063 1983
*****

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TOOELE ARMY DEPOT

I - CIVILIAN:

	TOTAL	CAR/ COND	ON- CALL	TEMP	REL TEMP	EXEMPT	DISAB P/RET	PTP	PTP EQV	CAR LOS TO DESC
7S	(627)	(559)		(68)	(68)	(6)		(7)	(4.0)	
7211110	536	482		54	54	6		7	4.0	
(OTHER 7S)	(91)	(77)		(14)	(14)					
7281221 (DEMIL/ CAMDS SPT)	33	19		14	14					
7281228 (APE)	58	58								
7M	(1831)	(1693)		(138)	(138)	(19)		(2)	(1.0)	(2)
7322070	1786	1648		138	138	19		2	1.0	1
7380170	45	45								1
BOPS	(864)	(843)		(21)	(21)	(8)		(6)	(3.7)	(2)
722894	218	199		19	19			2	1.0	1
2896	646	644		2	2	8		4	2.7	1
OTHER	(2)	(2)								
190000	1	1								
951214	1	1								
DEPOT TOTAL:	3324	3097		227	227*	33		15	8.7	4

\*Includes one term appointment.

(MEMO ENTRY):

	PERM ODS	PERM INT	TEMP FULL- TIME	TEMP PART- TIME	TEMP INT	TEMP SUMMER HIRES	TEMP ODS
7S	(19)		(68)				(54)
7211110	19		54				54
(OTHER 7S)			(14)				
7281221 (DEMIL/ CAMDS SPT)			14				
7M			(138)				(47)
7322070			138				47
7380170							

722894 19

722896 2

DEPOT TOTAL: 19 227 101

PART II - EXEMPT EMPLOYEES INCLUDE:

AMS YOB SEY WTO FJF VRA TOT

7S

7211110

(OTHER 7S)

7281221 (DEMIL)

7281228 (APE)

7M

7322070

7380170

BOPS (6) (6)

722894

722896 6 6

C R

190000

DEPOT TOTAL: 6 6

PART III - NON-PAY STATUS EMPLOYEES:

AMS LWOP INTRMIT NO WORK CO-OP HANDI-CAP OTHER TOTAL

7S (6) (6)

7211110 6 6

(OTHER 7S)

7281221 (DEMIL)

7281228 (APE)

7M (19) (19)

7322070 19 19

30170

BOPS (2) (2)

722894

722896 2 2

OTHER.

190000

DEPOT TOTAL: 27

27

PART IV - TENANTS:

ACTIVITY	TOT	ACTUAL			AUTHORIZED		
		CIV	MIL		TOT	CIV	MIL
DEFENSE REUTIL & MARK OFC	21	21			21	21	
USA MOB RAIL SHOP NO. 3	7	7			7	7	
USA HEALTH CLINIC	32	30	2		27	25	2
UTAH INDUSTRIAL HYGIENE SECTION	10	10			9	9	
ATMOSPHERIC SCIENCES DIV	2	2					
SYS MGR FOR CHEM AGENT MUN DISP SYS ACT	2	1	1		2	1	1
USA INFO SYS CMD	123	123			125	125	
TMDE SPT - TOOELE	13	13			14	14	
TMDE SPT - UTAH	3	3			3	3	
4th MARINE DIV	14		14		13		13
ARMY ENG & HOUSING SUPPORT CENTER	1	1					
USA CAMDS ACTIVITY	204	204			240	240	
DEPOT TOTAL	432	415	17		461	445	16

PART V - MILITARY:

AMS	TOTAL	OFF	WO	EN
7S	(6)	(1)		(5)
7211110	6	1		5
(OTHER 7S)				
7281221 (DEMIL)				
7281228 (APE)				
7M	(12)	(5)		(7)
7322070	12	5		7
7380170				
BOPS	*(8)	(5)		(3)
722894				
722896	8	5		3

OTHER

190000

DEPOT TOTAL: 26 11 15

NO DEPOT ACTY

PART I - CIVILIAN:

	TOTAL	CAR COND	ON-CALL	TEMP	REL TEMP	EXEMPT	DISAB F/RET	PTP EQV	CAR LOS TO DESC
7S	(245)	(229)	(20)	(16)	(16)	(3)			
7211110	240	225	20	15	15	3			
(Other 7S)	(5)	(4)		(1)	(1)				
7281221 (DEMIL)	3	3							
7281230 (INF)	2	1		1	1				
7M	(33)	(33)	(1)						
7322070	33	33	1						
7380170									
BOFS	(241)	(231)	(1)	(10)	(10)	(2)			(2)
722894	74	65		9	9				
2896	167	166	1	1	1	2			2
OTHER	(1)	(1)							
190000	1	1							
DEPOT TOTAL:	520	494	22	26	26*	5			2

\*Includes seven term appointments.

(MEMO ENTRY):

	PERM ODS	PERM INT	TEMP FULL-TIME	TEMP PART-TIME	TEMP INT	TEMP SUMMER HIRES	TEMP ODS
7S	(25)		(16)				(1)
7211110	25		15				1
(OTHER 7S)			(1)				
7281221 (DEMIL)							
7281230 (INF)			1				
7322070							
7380170							

RDDE

(10)



TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

CC: 76300  
 1 April 1993

PAGE  
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TDA DATE FY93 SYSTEM DATE

Para & Line	DESCRIPTION	Gr	MDS	ASI/LIC	BR/ID	AMS	Strength Req	Auth	Sens	Pos	REMARKS	Med Cat
003 00	Res Mgmt Ofc											
003 01	CHIEF	FAB 12	00343			GSIC 72801221FAB	001	001		NCS *		C
		12	00343	14592		GSIC 72801221FAB				SORENSON, DARWIN		
003 02	Admin Spec	FAB 11	00301			GSIC 72801221FAB	001	001		NCS		NA
		11	00301	16503		GSIC 72801221FAB						
003 03	Prog Analyst	FAB 09	00343			GSIC 72801221FAB	001	001		NCS		
		09	00343			GSIC 72801221FAB				RYDALCH, TRACI J.		
003 04	Mech Engr Tech	FAB 09	00802			GSIC 72801221FAB	001	000		NCS		
		09	00802			GSIC 72801221FAB				PRICE, CLINT G.		
003 05	Prog Sup Clk	FAB 06	00303			GSIC 72801221FAB	001	001		NCS		
		06	00303			GSIC 72801221FAB				HANSON, DOROTHY C.		
003 80	Secy (DA)	FAB 04	00318			GSIC 72801221FAB					MURRAY, CINDY L.	
	*Unescorted Access Program											
PARAGRAPH TOTAL USACAMDS ACT Overstrength 1 Temporary 0 Permanent 4 Military 0 Overhire 0 Excess 1 PAY PLAN Auth GM 0 GS 4 WS 0 WL 0 WG 0 O/S GM 0 GS 1 WS 0 WL 0 WG 0												



TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 (Mobile Army Depot (XLW26FAA))

CC: 76600  
 1 April 1993

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Para & Line	DESCRIPTION	Gr	MOS	ASI/LIC/BR ID	AMS	Strength	Req	Auth	Sens	REMARKS	Med	Cat
004 00	Lab Sup Div											
004 01	CHIEF	XDE 14	01320	IGMC	72801221XDE	001	001	NCS	**			C
		14	01320	GM	72801221XDE					OSTER, JAMES K.		
004 02	Secy (M)	XDE 05	00318	GSIC	72801221XDE	001	001	NCS	*			C
		05	00318	GS	72801221XDE					BRYANT, DESIREE		
* Unescorted Access												
** PRP												
PARAGRAPH TOTAL USARVUS ACT												
Overstrength	0	Temporary	0	Permanent	2	Military	0	Overhire	0	Excess	0	
PAY PLAN												
Auth	GM 1	GS 1	WS	WL 0	WG 0							
D/S	GM 0	GS 0	WS	WL 0	WG 0							



TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

CC: 76620  
 1 April 1993

SYSTEM DATE

TDA DATE FY93

AMS

Strength

Req

Auth

Sens

Pos

REMARKS

Med

Cat

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Para %	Line	DESCRIPTION	Gr	MOS	AS/LIC/BR	ID	AMS	Strength	Req	Auth	Sens	Pos	REMARKS	Med	Cat
1004B 00		Monitoring Br													
1004B 01		CHIEF	XDE	113	05205	Z0017		WS	C	72801221XDE	001	0001	INCS	**	B
													VALID VAC		
1004B 02		Elect Tech	XDE	111	00856			GS	C	72801221XDE	002	0002	INCS	**	B
								GS	C	72801221XDE	WOODTON, LYNN A.				
								GS	C	72801221XDE	(W. Marshall)				
								GS	C	72801221XDE	VALID VAC				
1004B 03		Phys Sci Tech	XDE	09	01311			GS	C	72801221XDE	001	0001	INCS	**	B
								GS		72801221XDE	COATES, MICHAEL W.				
1004B 04		Forman	XDE	10	05205	Z8060		WS	C	72801221XDE	003	0003	INCS	**	B
								WS		72801221XDE	KNUDSEN, NEILS W.				
								WS		72801221XDE	WARDLE, PAUL E.				
								WS		72801221XDE	VALID VAC				
1004B 05		Mon Sys Mech	XDE	10	05205			WS	C	72801221XDE	010	0009	INCS	**	B
								WS		72801221XDE	ALDER, STEPHEN E.				
								WS		72801221XDE	DRAPER, KEVIN				
								WS		72801221XDE	GROVER, COLLEEN				
								WS		72801221XDE	HOLM, BARRY C.				
								WS		72801221XDE	KING, PATTI J.				
								WS		72801221XDE	LUNDIN, LARS O.				
								WS		72801221XDE	NICOLO, LADEAN S.				
								WS		72801221XDE	STREGE, ROBERT				
								WS		72801221XDE	(EVALUATED) VALID VAC				
								WS		72801221XDE	(J. Jensen) VALID VAC				
1004B 06		Mon Sys Rpr	XDE	08	05205			WS	C	72801221XDE	005	0005	INCS	**	B
								WS		72801221XDE	IVERSON, J. GLEN				
								WS		72801221XDE	PAINTER, CARMA				
								WS		72801221XDE	RILEY, GARRETT W.				
								WS		72801221XDE	SNOW, STEPHEN				
								WS		72801221XDE	SUTTON, MARGARET ANN				
		** PRP													
PARAGRAPH TOTAL USACAMDS ACT															
Overstrength 1 Temporary 0 Permanent 21 Military 0 Overhire 0 Excess 0															
PAY PLAN															
Auth GM 0 GS 3 WS 4 WL 0 WL 0 wB 14															
O/S GM 0 GS 0 WS 0 WL 0 WL 0 wS 1															



TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 1000e Army Depot (XLW26FAA)

TDA DATE FY93 SYSTEM DATE 1 April 1993

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Para #	Line	DESCRIPTION	IGR	MOS	ASI/LIC	BR	ID	AMS	Strength	Req	Auth	Sens	Pos	REMARKS	Med	Cat
005A 00		Maint Br														
005A 01		CHIEF	XDE	113	01670	GM	C	72801221XDE	001	001	NCS	**				C
				113	01670	GM		72801221XDE	VALID NCS							
005A 02		Elect Tech	XDE	112	00856	GS	C	72801221XDE	001	001	NCS	**	Haz	Wst Duties		C
				112	00856	GS		72801221XDE	(V. Sprague) VALID							
005A 03		Elect Tech	XDE	111	00856	GS	C	72801221XDE	002	002	NCS	**				C
				111	00856	GS		72801221XDE	JOHNSON, DARRELL K.							
				111	00856	GS		72801221XDE	SEAT, DAVID							
005A 04		Equip Spec	XDE	111	01670	GS	C	72801221XDE	003	003	NCS	**				C
				111	01670	GS		72801221XDE	ALLDREDGE, LESLIE							
				111	01670	GS		72801221XDE	HAMILTON, O. WAYDE							
				111	01670	GS		72801221XDE	JONES, GENE L.							
005A 05		Secy (UA)	XDE	104	00318	GS	C	72801221XDE	001	001	NCS					C
				104	00318	GS		72801221XDE	LUNSFORD, MARYANN							
005A 06		Frnn	XDE	111	03359	WS	C	72801221XDE	002	002	NCS	**				C
				111	03359	WS		72801221XDE	HOLLIN, JACK							
				111	03359	WS		72801221XDE	(V. Sprague) VALID							
005A 07		Inst Mech Lar	XDE	111	03359	WL	C	72801221XDE	003	003	NCS	**				B
				111	03359	WL		72801221XDE	EVANS, MARTIN I.							
				111	03359	WL		72801221XDE	MC CLIMANS, RICHARD W.							
				111	03359	WL		72801221XDE	SANDBERG, ROBERT E.							
005A 08		Inst Mechn	XDE	111	03359	WG	C	72801221XDE	007	007	NCS	**				B
				111	03359	WG		72801221XDE	DAVIES, RANDALL C.							
				111	03359	WG		72801221XDE	DAVIS, MILLARD A.							
				111	03359	WG		72801221XDE	DEHERRERA, RICKY A.							
				111	03359	WG		72801221XDE	GORDON, ROBERT							
				111	03359	WG		72801221XDE	JONES, WILLIAM T.							
				111	03359	WG		72801221XDE	SANDVAL, WILLYAM							
				111	03359	WG		72801221XDE	(N. Jensen) VALID							

TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	Gr	MOS	AS1/LIC BR ID	AMS	Strength	Pos	Med	Cat
005A 00	Maint Br (cont.)								
005A 09	Inst Mech	XDE 10	03359	WG C	72801221XDE	014	014 INCS	**	B
		10	03359	16581	72801221XDE		CUNNINGHAM, HOWARD A.		
		10	03359	16581	72801221XDE		DAVIS, DAVID R.		
		10	03359	16581	72801221XDE		HALLETT, RONALD R.		
		10	03359	16581	72801221XDE		HOLLOWAY, TERRY L.		
		10	03359	16581	72801221XDE		JACKSON, D. BURKE		
		10	03359	16581	72801221XDE		KOHKONEN, TERRY E.		
		10	03359	16581	72801221XDE		PETERSEN, GARY W.	VALID	
		10	03359	16581	72801221XDE		<i>(V. Thayer)</i>	VALID	
		10	03359	16581	72801221XDE		<i>(V. Cook)</i>	VALID	
		10	03359	16581	72801221XDE			VALID	
		10	03359	16581	72801221XDE			VALID	
005A 80	Elec Engr	XDE 09	00850	16663	GS C	72801221XDE	HUNTER, DAVID D.		
005A 80	Elec Tech	XDE 11	00856	16584	GS C	72801221XDE	ROMERO, ELVIN T.		

PARAGRAPH TOTAL USACAMDS ACT  
 Overstrength 0 Temporary 0 Permanent 34 Military 0 Overhire 0 Excess 2

PAY PLAN  
 Auth GM 1 GS 7 WS 2 WL 3 WG 21  
 O/S GM 0 GS 0 WS 0 WL 0 WG 0

+ Employee assigned at lower level than position indicates.  
 \* Unescorted Access Prog  
 \*\* FRP

TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	Gr	MOS	ASI/LIC	BR ID	AMS	Strength	Fos	REMARKS	Med Cat
005B 00	Oprns Br									
005B 01	CHIEF	XDE:14	05427		WS:C	72801221XDE	001 001	NCS	(V. Palmer) VALID	C
		14	05427	ZC018	WS:	72801221XDE				
005B 02	Secy (OA)	XDE:04	00318		GS:C	72801221XDE	001 001	NCS		C
		04	00318	15711	GS:	72801221XDE			ROUNDY, CONNIE R. (Unscrtd Acc Prog)	
005B 03	Frnn	XDE:10	05427		WS:C	72801221XDE	003 003	NCS		C
		10	05427	ZB061	WS:	72801221XDE			ERICKSON, STEVEN C.	
		10	05427	ZB061	WS:	72801221XDE			MC KINNEY BEN L.	
		10	05427	ZB061	WS:	72801221XDE			(V. Peterson) VALID	
005B 04	Chem Plt Ldr	XDE:10	05427		WL:C	72801221XDE	004 004	NCS		B
		10	05427	Z6110	WL:	72801221XDE			ADAMS, ROBERT L. Haz Waste Duties	
		10	05427	Z6110	WL:	72801221XDE			BLAUSER, SAMUEL F. Dtl TskLst NTE	
		10	05427	Z6110	WL:	72801221XDE			SHEPHERD, JOSEPH R.	
		10	05427	Z6110	WL:	72801221XDE			WILSON, RONNIE K.	
005B 05	Chem Plt Opr	XDE:10	05427		WG:C	72801221XDE	038 038	NCS		B
		10	05427	16583	WG:	72801221XDE			ATKINSON, DEAN T.	
		10	05427	16583	WG:	72801221XDE			BEAL, KIP L.	
		10	05427	16583	WG:	72801221XDE			BUTTERFIED, MICHAEL	
		10	05427	16583	WG:	72801221XDE			CAHOON, WILBERT M.	
		10	05427	16583	WG:	72801221XDE			DAVIS, RAY E.	
		10	05427	16583	WG:	72801221XDE			DURRANT, BERT J.	
		10	05427	16583	WG:	72801221XDE			GARCIA, JOSEPH M.	
		10	05427	16583	WG:	72801221XDE			GREEN, GARY M.	
		10	05427	16583	WG:	72801221XDE			HARRIS, ANDREW J.	
		10	05427	16583	WG:	72801221XDE			HUNTER, GARY S.	
		10	05427	16583	WG:	72801221XDE			KELSEY, KENTON A.	
		10	05427	16583	WG:	72801221XDE			LAYCOCK, DOUGLAS C.	
		10	05427	16583	WG:	72801221XDE			MANSFIELD, FRED T.	
		10	05427	16583	WG:	72801221XDE			MINER, DANNY K.	
		10	05427	16583	WG:	72801221XDE			ROUNDY, KENT W.	
		10	05427	16583	WG:	72801221XDE			SMITH, MARTY R.	
		10	05427	16583	WG:	72801221XDE			SORENSEN, CASEY L.	
		10	05427	16583	WG:	72801221XDE			SORENSEN, CLAYTON	
		10	05427	16583	WG:	72801221XDE			STANION, DENNIS G.	
		10	05427	16583	WG:	72801221XDE			STEELE, JEFFREY K.	
		10	05427	16583	WG:	72801221XDE			THOMAS, REED	
		10	05427	16583	WG:	72801221XDE			TOMAC, ROBERT S.	
		10	05427	16583	WG:	72801221XDE			WEBB, TERRY L.	



TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	Gr	MOS	ASI/LIC	BR	ID	AMS	Strength: Req	Auth	Pos: Sens	REMARKS	Med: Cat
005C 00	Oprns Con Br											
005C 01	CHIEF	XDE 12	00802		GS	C	72801221XDE	001	001	NCS		C
		12	00802	16586S	GS		72801221XDE				YATES, JAY E.	
005C 02	Supv Chem Engr Tech	XDE 11	00802		GS	C	72801221XDE	001	001	NCS		C
				16587S							REESE, KENT W.	
005C 03	Chem Engr Tech	XDE 10	00802		GS	C	72801221XDE	004	004	NCS		C
		10	00802	16588	GS		72801221XDE				ALLDREDGE, RUSSELL O.	
		10	00802	16588	GS		72801221XDE				MORAN, LONNIE J.	
		10	00802	16588	GS		72801221XDE				FEDERSEN, KARSTEN J.	
		10	00802	16588	GS		72801221XDE				TUCKER, TERRY, L.	
005C 04	Chem Engr Tech	XDE 09	00802		GS	C	72801221XDE	007	007	NCS		C
		09	00802	16589	GS		72801221XDE				BERRY, BART	
		09	00802	16589	GS		72801221XDE				CUSHING, PAUL C.	
		09	00802	16589	GS		72801221XDE				DOYLE, DONALD S.	
		09	00802	16589	GS		72801221XDE				FARLEY, DALE G.	
		09	00802	16589	GS		72801221XDE				LARSEN, DEAN A.	
		09	00802	16589	GS		72801221XDE				MARTIN, TERRY E.	
		09	00802	16589	GS		72801221XDE				(v. Sanchez) Do Not Fill	
** ALL Positions PRP												
PARAGRAPH TOTAL USACAMDS ACT												
Overstrength 0 Temporary 0 Permanent 13 Military 0 Overhire 0 Excess 0												
PAY PLAN												
Auth GM 0 GS 13 WS 0 WL 0 WG 0												
O/S GM 0 GS 0 WS 0 WL 0 WG 0												

TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	Gr	MOS	ASI/LIC/BR	ID	AMS	Req	Auth	Sens	REMARKS	Med Cat	
006 00	Engr Div											
006 01	CHIEF	XDE 14	00801			GM C 72801221XDE	001	001	INCS *		C	
		14	00801	16593		GM 72801221XDE				WILLIS, KELLAND H.		
006 02	Statistician	XDE 13	01530			GM C 72801221XDE	001	000	INCS			
		13	01530			GM C 72801221XDE				PEIRCE, LEONARD D.		
006 03	Secy (DA)	XDE 05	00318			GS C 72801221XDE	001	001	INCNS			
		05	00318	15558		GS 72801221XDE				HUNTER, KAREN R. Part-time Perm	NA	
	* Unescorted Access Prog											
PARAGRAPH TOTAL USACAMDS ACT												
	Overstrength	1	Temporary	0	Permanent	2	Military	0	Overhire	0	Excess	0
PAY PLAN												
	Auth	GM 1	GS 1	WS 0	WL 0	WG 0						
	O/S	GM 1	GS 0	WS 0	WL 0	WG 0						

TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL  
 Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	Gr	MOS	ASI/LIC	BR	ID	AMS	Strength	Req	Auth	Sens	Fos	REMARKS	Med	Cat
006A 00	Elec Thrn/Chem Br														
006A 01	CHIEF	XDE113	00850		GM	C	72801221XDE	001	001	INCS					C
		13	00850	14583			72801221XDE			FRAUGHTON, VERNON					
006A 02	Elec Engr	XDE112	00850		GS	C	72801221XDE	002	002	INCS					C
		11+	00850	10810			72801221XDE			FRAUGHTON, KURT D.					
		12	00850	13508			72801221XDE			NYBO, RODNEY					
006A 03	Chem Engr	XDE112	00893		GS	C	72801221XDE	001	001	INCS					C
		12	00893	16592			72801221XDE			PAYEUR, RONALD T.					
006A 04	Elec Engr Tech	XDE112	00802		GS	C	72801221XDE	003	003	INCS					C
		12	00802	16558			72801221XDE			CLEMENTS, RONALD					
		12	00802	16558			72801221XDE			LARSON, ERIC					
		12	00802	16558			72801221XDE			YATES, NORMAN C.					
006A 05	Mech Engr Tech	XDE112	00802		GS	C	72801221XDE	001	001	INCS					C
		XDE112	00802		GS	C	72801221XDE			(V. S. NAME) - <del>VAC</del> VAC					
006A 06	Elec Engr Tech	XDE111	00802		GS	C	72801221XDE	001	001	INCS					C
		XDE111	00802	15722			72801221XDE			SANDERSON, LARRY W.					
006A 07	Mech Engr Tech	XDE111	00802		GS	C	72801221XDE	003	002	INCS					C
		XDE111	00802		GS	C	72801221XDE			DOBSON, ALLEN					
		XDE111	00802		GS	C	72801221XDE			NIELSON, LARRY					
		XDE111	00802		GS	C	72801221XDE			BOOTH, TIMOTHY					
006A 80	Elec Engr Tech	XDE111	00802	00950	GS	C	72801221XDE			SMITH, STEVEN					
* All Personnel above in Unescorted Access Program															
+Employee assigned at lower grade levels than positions indicate.															
PARAGRAPH TOTAL USACAMDS ACT															
Overstrength	1	Temporary	0	Permanent	11	Military	0	Over Hire	0	Excess	1				
FAY PLAN															
Auth	GM	1	GS	10	WS	0	WL	0	WG	0					
D/S	GM	0	GS	1	WS	0	WL	0	WG	0					

TASK NAEZ XLW26FAA POSITION CONTROL BY INDIVIDUAL

Tooele Army Depot (XLW26FAA)

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Para & Line	DESCRIPTION	IGR	MOS	ASI/LIC/BR ID	AMS	Strength	Req	Auth	Sens	Pos	REMARKS	Med	Cat
006B 00	Mech Engr Br												
006B 01	CHIEF	XDE:13	00830			001	0001						
		:13	00830	14585									
006B 02	Mech Engr	XDE:12	00830			003	0003						
		:11+	00830	14392									
		:11+	00830	14392									
		:12	00830	13506									
006B 03	Mech Engr Tech	XDE:12	00802			002	0002						
		:12	00802	16590									
		:12	00802	16590									
006B 04	Mech Engr Tech	XDE:11	00802			003	0002						
		:11	00802	00949									
		:11	00802	00949									
		:11	00802	00949									
006B 80	Mech Engr Tech	XDE:11	00802	00949									
006B 80	Mech Engr Tech	XDE:11	00802	00949									
006B 80	Mech Engr	XDE:12	00830										
	*Employees assigned at lower grade level than position indicates.												
	*ALL Personnel above in Unescorted Access Program												
PARAGRAPH TOTAL USACAMDS ACT													
Overstrength	1	Temporary	0	Permanent	8	Military	0	Overhire	0	Excess	3		
FAY PLAN													
Auth	GM	1	GS	7	WS	0	WL	0	WG	0			
O/S	GM	0	GS	1	WS	0	WL	0	WG	0			

MUNSAKER, WELDON R. Haz Waste Duties  
(S. Sorenson) **VALID**



DEPARTMENT OF THE ARMY  
 DEPARTMENT OF THE NAVY  
 DEPARTMENT OF THE AIR FORCE  
 Washington, D.C.

JOINT MEMORANDUM FOR THE ASSISTANT SECRETARY OF DEFENSE  
 (PRODUCTION AND LOGISTICS)

Subject: Strengthening Depot Maintenance Activities

Pursuant to the Deputy Secretary of Defense memorandum of June 30, 1990 titled "Strengthening Depot Maintenance Activities," a coordinated, long-range plan for reducing depot maintenance costs of \$2.2 billion for fiscal years 1991 through 1995 is forwarded herein.

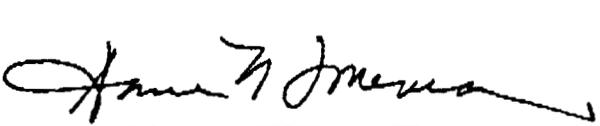
The strategy to achieve the savings is based on three interdependent functions: interservicing, capacity utilization, and competition. The plan relies heavily on open competition (82% of the total) to achieve the savings. It should be emphasized that the savings to be achieved by the Army and the Air Force under the competition initiative will require enactment of enabling legislation. We understand that OSD is preparing this required legislative package. All Services remain committed to their total savings goals. However, since savings will accrue to various appropriations and accounts, target savings should be applied against DOD's total obligation authority until they occur. A detailed breakdown by weapon system will be developed as the on-going commodity studies mature.

This plan also introduces the comprehensive Joint Depot Business Strategy Plan that will be our road map for the execution of required changes and savings. Also included in the plan, is our proposed format for reporting savings as requested in your August 28, 1990 memorandum of the same subject.

We look forward to working with you to improve our depot system. Our joint goals remain to ensure customers receive products and services within cost, quality, and schedule requirements, while maintaining the infrastructure necessary to support surge and mobilization needs.

  
 JOHN W. SHANNON  
 Under Secretary  
 of the Army

  
 J. DANIEL HOWARD  
 Under Secretary  
 of the Navy

  
 ANNE N. FOREMAN  
 Under Secretary  
 of the Air Force

Date 28 September 1990

## JOINT SERVICE LONG-RANGE PLAN FOR INCREASED EFFICIENCIES

1. FOREWORD. This is the Joint Service plan to achieve the long-term efficiencies as directed in the Deputy Secretary of Defense's memorandum on Strengthening Depot Maintenance Activities dated 30 June 1990. The objective of this plan is to present the Services' strategy to achieve a reduction of \$2.2 billion in the cost of depot maintenance operations over fiscal years 1991 through 1995. The Services have previously submitted individual plans to achieve the \$1.7 billion cost savings specified in the Near Term Plans for Increased Efficiencies. The cumulative target of these plans is \$3.9 billion.

The strategy to achieve these savings is based on three interdependent functions. These are: (a) an increase in interservicing of depot maintenance workloads where cost savings can be achieved, (b) an optimal utilization of depot capacity that ensures efficiency and provides for the infrastructure necessary to meet peacetime and contingency needs, and (c) the implementation of a comprehensive public/private competition program for depot maintenance workloads.

This strategy reflects an extremely ambitious undertaking. It requires a major increase in the current interservice base, a substantial savings resulting from workload consolidations that will offset implementation costs, and a public/private competition program that will require placement of an additional 34 percent of the total depot maintenance program under full and open competition by 1995. Additionally, there are uncertainties and unknowns that will impact the outcome of this plan, including the impact of impending force structure reductions, completion of DDMC Commodity and Non-commodity Studies, current and potential maintenance requirements resulting from Operation Desert Shield, and Congressional budget action to cope with the deficit.

Installation closures are not addressed in this strategy, as Services have already taken notional reductions in their 1992-97 POMs to reflect projected installation closures and realignments. Newly identified closures will not produce net savings in the FY 91-95 timeframe, and any new major closures are unlikely to be fully implemented in this period. Nonetheless, all Services have proposed, or are planning, reductions in the depot maintenance base. For instance, the Army has already targeted Sacramento Army Depot for closure and Letterkenny Army Depot for realignment. The Air Force has developed a plan which, among other initiatives, proposes to consolidate aviation depot maintenance activities. The Navy, with Air Force participation, will fully explore this proposal in a separate analysis to be completed by 30 November 1990.

The concept of depot maintenance core is integral to discussions in several areas of this plan. The definition of

core is currently under review by OSD and all references herein are subject to change based on future guidance.

The ability of the Services to achieve targeted savings will be inhibited by external and physical realities that confront them. For example, the ability of naval shipyards to realize additional public/private competition savings is limited due to the extensive competition base that is already established. As a minimum, the Air Force, Army, and Marine Corps will need up to 18 months to fully establish operating competition programs. Although there will initially be workloads that readily lend themselves to competition, all Services will soon be required to compete programs which have not previously been competed, and there is a daunting task ahead to prepare the necessary technical and contractual documentation to ensure successful competitions. This effort must begin immediately.

This plan is in keeping with the intent and spirit of the joint cooperation that it will take to realize the savings that have been targeted. It must be emphasized that its implementation must be flexible and dynamic to respond to the changing military and budgetary environment. It should also be recognized that savings may ultimately be realized in areas other than those detailed in this plan. For example, depot economies and efficiencies achieved as a result of preparing for competition, even if unsuccessful, may contribute to the overall goal. The Services must retain the flexibility to seek and contribute savings toward the overall goal wherever these savings occur. No savings should be removed from the POM until the plan is finalized and actual savings are identified in specific years.

2. **BASELINE.** The baseline for measuring cost reductions is the Administration's FY 1991 amended budget submitted to Congress in January 1990. The savings portrayed in this plan will accrue against various appropriations and accounts (e.g., operations and maintenance (O&M), procurement, stock fund, etc.). Therefore, target savings should be applied against total DOD obligation authority (TOA) until actual savings occur.

This plan portrays the \$2.2 billion specified in the Long-Range Plan for Increased Efficiencies. It identifies how costs will be reduced for depot maintenance operations of the Military Departments for FYs 1991-1995. The plan assumes a prior decrement for the \$1.7 billion assessed to the Services under the Near-Term Plan for Increased Efficiencies.

It will be necessary to develop a detailed matrix to correlate these projected savings targets to specific accounts. This will be accomplished at the Service level. The targets portrayed in this plan are not exact and are intended to portray relative proportion. The detailed methodology for tracking savings has not been developed, but will be an element of the Joint Depot Business Strategy Plan discussed in paragraph 4 below.

3. **SAVINGS ALLOCATIONS.** Table 1 shows the total savings generated by this plan allocated to each Service by fiscal year. The savings are based on the FY 1990 depot maintenance program execution plan as reported in the Joint Service Depot Maintenance Program Objectives Summary (POS-91), dated 14 June 1990. Table 2 is a further breakout of the savings by functional area, followed by a discussion of each functional area. It should be emphasized that these are targets only and depend heavily on the results of many ongoing efforts such as the DDMC Commodity Study Groups for determination of specific programs for which savings can be obtained.

TOTAL SAVINGS TARGET (\$ MILLION)						
FY	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>TOTAL</u>
Army	3.0	9.7	57.7	100.1	142.4	312.9
Navy	108.8	167.5	237.9	293.6	345.2	1153.0
AF	5.9	81.3	130.5	200.1	301.6	719.4
USMC	<u>0.2</u>	<u>0.5</u>	<u>2.6</u>	<u>4.7</u>	<u>6.7</u>	<u>14.7</u>
<b>TOTAL</b>	117.9	259.0	428.7	598.5	795.9	2200.0

Table 1

**INTERSERVICE SAVINGS TARGET (\$ MILLION)**

<b>FY</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>TOTAL</b>
Army		3.8	7.6	11.4	15.2	38.0
Navy		5.6	11.2	16.9	22.5	56.2
AF		5.6	11.2	16.9	22.5	56.2
USMC		0.2	0.3	0.5	0.6	1.6
<b>TOTAL</b>	<b>0.0</b>	<b>15.2</b>	<b>30.3</b>	<b>45.7</b>	<b>60.8</b>	<b>152.0</b>

**CAPACITY SAVINGS TARGET (\$ MILLION)**

<b>FY</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>TOTAL</b>
Army	3.0	5.9	11.7	11.7	11.7	44.0
Navy	7.4	14.5	29.3	29.3	29.3	109.8
AF	5.9	11.7	23.4	23.4	23.4	87.8
USMC	0.2	0.3	0.6	0.6	0.7	2.4
<b>TOTAL</b>	<b>16.5</b>	<b>32.4</b>	<b>65.0</b>	<b>65.0</b>	<b>65.1</b>	<b>244.0</b>

**COMPETITION SAVINGS TARGET (\$ MILLION)**

<b>FY</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>TOTAL</b>
Army			38.4	77.0	115.5	230.9
Navy	101.4	147.4	197.4	247.4	293.4	987.0
AF		64.0	95.9	159.8	255.7	575.4
USMC			1.7	3.6	5.4	10.7
<b>TOTAL</b>	<b>101.4</b>	<b>211.4</b>	<b>333.4</b>	<b>487.8</b>	<b>670.0</b>	<b>1804.0</b>
=====						
<b>GRAND TOTALS</b>	<b>117.9</b>	<b>259.0</b>	<b>428.7</b>	<b>598.5</b>	<b>795.9</b>	<b>2200.0</b>

Table 2

a. **INCREASING INTERSERVICING.** The overriding objective of increased interservicing is to perform workloads within cost, quality, and schedule requirements of the Principal Service. Interservicing savings will be accrued from greater economies of scale through consolidations which will reduce recurring cost to the gaining depot. The losing activity will realize savings through overhead reductions associated with workload lost and downsizing its facilities to eliminate underutilized capacity. The savings target is \$152 million which represents a net 9% return after transfer costs are absorbed.

To take full advantage of interservicing potential, a fundamental change is necessary in the application of the decision tree analysis on depot maintenance new starts. Existing methods of establishing depot support capability often exclude the organic depot system due to late acquisition of technical data, sole source contracts, and unilateral decisions by the acquisition community on support planning. Program Executive Officers and Program Managers must do the up front planning necessary to support alternatives which do not automatically defer depot workload to the original equipment manufacturer. This will require revision to existing policy to allow and ensure that the measures necessary to support interservicing and public/private competition are included.

Another area of change is the approach to defining core. It is essential to recognize that Services require a base to support the infrastructure necessary for surge and mobilization. A business base to support public/private competition is also necessary. However, once the base is met which provides the required technical competence, source of repair will be determined through interservicing analysis or competition in order to achieve best value to the customer.

Interservicing will be increased by specific actions to include:

(a) Workload consolidations resulting from on-going commodity studies.

(b) Revision of the current interservice new start analysis procedure to require recurring cost as a decision criteria in depot source selection. This will, in effect, be an informal public vs public competition in the form of an economic analysis.

(c) Commodity Study Groups review for joint investment opportunities in non-traditional areas (i.e., manufacturing, engine blade and vane repair, engine bearing repair, etc.) which will yield savings through joint use of facilities, joint buys of equipment, and joint investment.

(d) Review and revision of acquisition regulations to ensure that interservicing becomes an integrated part of the

logistics strategy in the acquisition community. This will eliminate duplicate and overlapping depot maintenance investment.

Interservicing will be comprised of several categories and measured against the total workload base that is susceptible to interservicing. The categories of interservicing are the traditional organic depot workloads accomplished in one service for a different service, joint Service contracting, Nonconsumable Item Materiel Support Code 5 (NIMSC-5, organic and contract), and interservicing with other Federal agencies (e.g., DLA, USCG, FMS, FAA, etc.).

Commodity Study Groups will identify specific candidates for interservicing. After completion of the source of repair analysis, the Principal Service will develop, in coordination with the Agent Service, the Depot Maintenance Interservice Support Agreement (DMISA) in accordance with existing directives.

b. OPTIMUM CAPACITY UTILIZATION. Capacity utilization needs to be targeted to optimal utilization of production resources, including manpower, equipment, facilities and material, to optimize output. Only in this manner will economies and efficiencies be achieved. Savings will accrue from increased economies of scale, reduction of overhead, and reduction in MILCON and capital investment.

Capacity utilization will be improved in four ways; (1) divestiture of unneeded or inefficiently used resources, (2) redistribution of existing workloads within and between services, (3) bringing contract workload to organic depots based on lower cost resulting from competition, and (4) capturing new opportunities for workloads in the manufacturing/fabrication arena. Reduction of capacity will be achieved through the conversion of depot maintenance facilities to other than depot maintenance functions (e.g., warehouse, office space, etc.), sale of equipment and property, mothballing capacity not required in peacetime but necessary for surge or mobilization, and base closure.

The savings target is \$244 million through FY 1995. In the aggregate, savings portrayed in the target matrix reflect a ramping up of net savings until the third year, with net savings continuing at a rate of about 3/4 of one percent of the current organic depot maintenance program through FY 1995. Actual savings may be higher, but will be offset by transfer and divestiture costs. The projected levels of savings are considered very ambitious and will be chiefly identified through ongoing Service consolidation studies and the DDMC commodity studies. Examples of the types of consolidations that may be recommended include reduction in the number of locations for aircraft engine repair, single site assignments for airframes, consolidation of helicopter repair, tactical missile repair, bearing refurbishment, and blade and vane repair. Consolidations of workloads will maintain minimum Service core requirements to

sustain technical competence necessary for military contingencies.

c. INCREASING COMPETITION. The most aggressive portion of this plan is competition. The goal is \$1.804 billion in net savings through full and open competition involving both public and private facilities.

The first target of opportunity for public vs private competitions will be items currently under commercial contract where contract renewal is eminent. These items have the advantage of detailed technical specifications and drawings, complete statements of work, and adequate tooling and test equipment. Such competitions will provide near-term savings. Another opportunity will be major refurbishment and modification programs under planning by weapon system program managers. This will require coordination with and participation by Program Executive Officers and Program Managers to develop/revise acquisition plans to break out depot maintenance requirements for public vs private competition. A prime example is the Navy's F-14D remanufacturing program. The third area of competition will be manufacturing and fabrication. Priority will be given to critical items where there is minimal private industrial capability or interest. All Services have a manufacturing/fabrication capability and can quickly compete. Concurrent with the above, the Services will consider for public vs private competition or interservice assignment, all programs currently supported within the organic depot industrial base which are over core. The Commodity Study Groups will identify all weapon systems and sub-systems (i.e., engines and components) that are competeable in the short term. The Executive/lead Service will develop acquisition plans to prepare for a full and open competition.

There are real-time factors that will inhibit competition. For example, the Navy has established the necessary infrastructure to continue its participation in public/private competitions. The Army, Air Force, and Marine Corps, however, will need to build their respective competition programs. Savings generated from these programs will not accumulate in the best case until FY 1993. There is a significant base of knowledge to be passed to those Services from the Navy experience which may accelerate the establishment of other Service programs. Services that are entering competition will not realize savings until programs are established and the realization of savings will require a learning curve.

The target for the establishment of their processes and prototype award for the Army, Air Force, and Marine Corps is 1 April 92. Prototype workloads will be products of prudent selection, where the Services, as offerors, will compete one of their own systems in a public/private forum.

Prudent management strategy dictates a limited number of

major competitions per year. The projected return from competing a workload must justify both the burden and cost of conducting and engaging in competition. The program risks associated with competition must also be considered.

The Commodity Study Groups will develop competition strategies which identify specific opportunities for competition. Core workload will not be competed, but core will be narrowly defined as the fundamental products and services required to operate weapon systems/equipment and fulfill mission requirements. To support core, a portion of a workload will be retained organic and the balance subjected to competition if economically viable. As a corollary, the limiting factor to any competition savings will be the market. If there develops a saturated market for the workloads offered or no market, savings will be limited. An analysis of the ability of the market to accomplish offered workloads will be conducted as part of the competition program.

The savings estimated in the matrix are very aggressive. It is assumed that a 20 percent savings is generated from competition. Actual workload competed must be five times the target to realize this level of savings. A chart attached as Figure 1 shows that on an annual basis, over 34 percent of the total depot workload (contract and organic) must be competed by FY 94. At that time, in excess of \$3.3 billion of annual depot maintenance requirements, over and above what is currently competitively awarded, has to be under active competition. Although not quantifiable at this point, it is evident that after factoring out core workload and programs which are not competable by nature (i.e., no technical data or tooling, infringement on proprietary rights, or the inability to develop a competable statement of work) virtually all remaining programs now in the depot 1990 business base and those in the commercial business base, will be competed by 1995. This does not adjust for the reduction of \$1.7 billion in the Near-Term Plan for Increased Efficiencies or for projected force level reductions. The results of the DDMC Commodity Study Groups will also have a profound impact on the projected cost savings reflected in this matrix. The ability and suitability of specific commodities to sustain competition cannot be determined until the analyses conducted by these groups are available and specific competition strategies have been developed.

4. **MANAGEMENT PLAN.** Appendix 1 illustrates the relationship between the 21 Commodity Studies, the four Generic Studies, cost savings data, and a Joint Depot Business Strategy Plan. The Commodity Studies will develop future depot maintenance strategies for respective weapon systems. The results of these studies will be the initial input for establishing a weapons system matrix which among other things, identifies which systems are core or candidates for interservicing and/or public/private competition. The four Generic Studies (cost comparability,

performance measurement, capacity & utilization measurement, and management information systems) will establish standardized procedures that will ensure compatibility of data from and between the Services and that will be used for the Joint Depot Business Strategy Plan. Appendix 2 provides a notional weapon system matrix. Refinements, such as procedures to manage competition sensitive data elements, are under development. Each Service must approve the system matrix. Issues where there is non-concurrence will be presented to the Joint Policy Coordinating Group on Depot Maintenance (JPCG-DM) for resolution. The approved system matrix becomes the basis from which the Services develop a transition plan which leads to execution of changes as required, i.e., intraservice consolidation, interservice consolidation (DMISA or NIMSC-5), request for proposal (RFP), etc.

Cost savings will be reported by the Services in a matrix format as illustrated in appendix 3. The cost matrix lists appropriations which comprise the total obligation authority by system. This will be the format for reporting and tracking savings achieved. Services will maintain similar data for planned savings.

To pull together the pertinent aspects of the various studies, weapon system matrix, and cost matrix, a Joint Depot Business Strategy Plan is being jointly developed. The strategy plan will focus on achieving \$2.2 billion in DoD depot operation savings as presented in paragraph 3 of this document. Planning is in process to create the Joint Depot Business Strategy Plan. Initial publication is estimated to no later than 1 May 91 and updated on an annual basis.

Appendix 4 is a detailed Plan Of Action and Milestones for the various elements to this plan.

# Competition Within Total Program Base

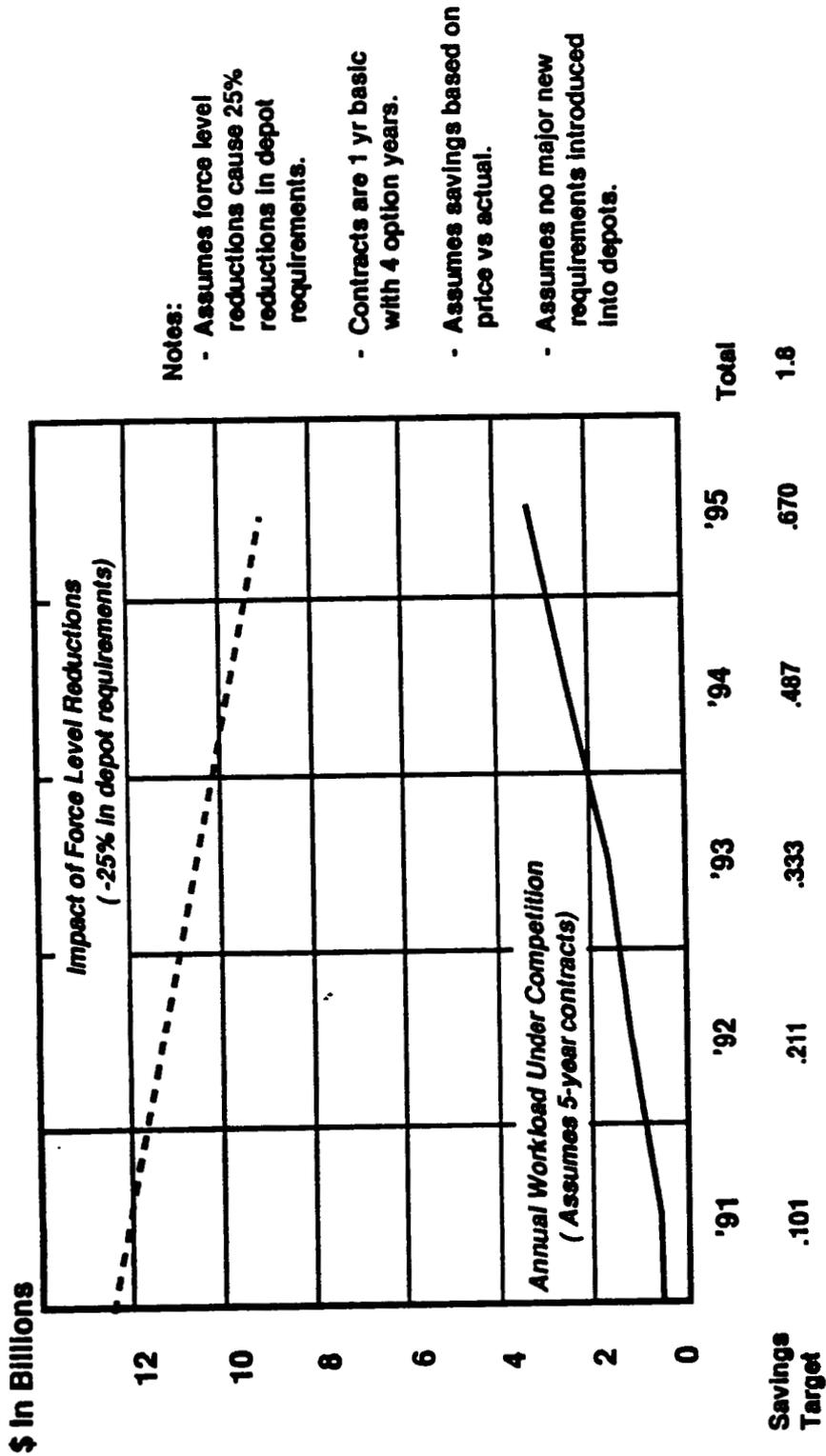


Figure 1

<b>WEAPON SYSTEM MATRIX</b>										
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>
<b>Weapon System/ Core or End Item</b>	<b>Non-Core</b>	<b>Sources of Repair</b>	<b>Available Capacity</b>	<b>Cost to Repair</b>	<b>Time to Repair</b>	<b>Interservice Candidate</b>	<b>Public/Private Competition Candidate</b>	<b>Annual Cost for Alternative Sources</b>	<b>Annual Business Base</b>	<b>Estimated Annual Savings</b>

<b>BLOCK</b>	<b>DESCRIPTION</b>
<b>A-Weapon System/ End-Item</b>	Enter weapon system or end-item type/model/series designation. Continue breakdown to identify sub-system and/or set type designation and depot reparable component (as applicable). If type designation of subsystem, set, or component not available, enter either national stock number or noun name with manufacturer's part number.
<b>B-Core or Non-Core</b>	Enter non-core (nc), core (c), or core with above core (ca) workload. Specify peacetime annual depot repair requirements in units for each category.
<b>C-Sources of Repair</b>	List known CONUS DOD (organic) depot activities which have a capability or could establish one with little or no facilitization cost. List known CONUS commercial sector sources with a capability (e.g., OEM or previous contract repair). List other sources (e.g., non-DOD government agencies, OCONUS DOD activities, foreign governments, foreign commercial, etc.). Annotate current source. Utilize attached Depot Codes list for DOD and non-DOD government agencies. Use five character Commercial and Government Entity (CAGE) code for commercial sources. If no code available use five letter abbreviation.
<b>D-Available Capacity</b>	List each source of repair with available peacetime capacity and indicate additional capacity for mobilization in percentage above peacetime.
<b>E-Cost to Repair</b>	Enter estimated unit cost of repair (in whole dollars) for each source of repair listed in Block D.
<b>F-Time to Repair</b>	Enter estimated unit turn-around-time (in calendar days) for each source of repair listed in Block D.
<b>G-Interservice Candidate</b>	Enter no (n) if non-susceptible to interservicing (e.g., large aircraft, ships, etc.). Otherwise, enter yes (y).
<b>H-Public/Private Competition Candidate</b>	Applicable to non-core and above core workloads only. Enter yes (y) or no (n). Criteria to identify viable candidates for public/private competition include: technical data available, expected savings above return-on-investment threshold, program schedule permits, etc.

**WEAPON SYSTEM MATRIX**

A	B	C	D	E	F	G	H	I	J	K
Weapon System/Core or End Item	Non-Core	Sources of Repair	Available Capacity	Cost to Repair	Time to Repair	Interservice Candidate	Public/Private Competition Candidate	Annual Cost for Alternative Sources	Annual Business Base	Estimated Annual Savings.

**BLOCK**

**DESCRIPTION**

**I-Annual Cost for  
Alternative Sources**

Enter total annualized repair costs (recurring plus nonrecurring amortized over life of contract) (in thousands of dollars) for each alternative source of repair listed in Block D (exclude current source). When showing commercial sources for above core workloads utilize current annual cost for core workload element.

**J-Annual Business Base**

Enter total annual repair costs (in thousands of dollars) for current source of repair listed in Block D.

**K-Estimated Annual  
Savings**

Enter total annual savings estimated to result from utilizing each alternate source of repair listed in Block D.

**Note: All dollars FY91.**

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Costs Related to Maintenance Depot Consolidation Study

Department:  
Fiscal Year:

Cost Category	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Other Changes (Programatic)	Target Budget
=====	=====	=====	=====	=====	=====

Instructions:

- Format 1 is in two parts, Costs Included in Industrial Fund Rates and Costs Not Included in Industrial Fund Rates. For each part and sub-category show the amounts included in the President's Budget, expected savings as a result of short term and long term efficiencies, total of efficiencies and the adjusted target budget after savings and other adjustments are taken into account. Specific manpower savings achieved as a result of efficiencies are also shown for all five columns. If significant savings are achieved in a cost category which is not listed, the format should be modified to identify that category.
- Format 2A is related to Costs Included in Industrial Fund Rates. It shows the effect of efficiencies achieved by Industrial Fund Activities on various appropriation accounts. When completing Format 2A, use the President's Budget amounts for the specific Element of Expense Investment Code (EEIC) affected. List the EEIC in the appropriation column. The total should match the total cost included in Industrial Fund rates on Format 1.
- Format 2B is related to Costs Not Included in Industrial Fund Rates. It shows the effect of efficiencies achieved by Industrial Fund Activities on various appropriation accounts. When completing Format 2B, use the President's Budget amounts for the specific Element of Expense Investment Code (EEIC) affected. The total should match the total costs NOT included in Industrial Fund rates on Format 1.
- The specific elements (i.e. Civilian Pay on Format 1) and the appropriations (Formats 2A and 2B) should be adjusted as necessary to show all necessary information. For example, if savings are achieved in utilities, then Format 1 should be adjusted to indicate these savings as long as the totals match as indicated in paragraphs 2 and 3 above.

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Department:  
Fiscal Year:

Cost Category	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Other Changes (Programatic)	Target Budget
<b>Included in Industrial Fund Rates</b>					
Military Personnel, Salaries and Wages					
Civilian Personnel, Personnel Costs					
Materials, Supplies and Parts					
Fuel					
Contractual Services					
Base Operating Support					
Real Property Maintenance					
Other Expenses					
<b>Total Industrial Fund Costs</b>	<b>( Total should match the total line on format 2A )</b>				
Manyears					
Civilian					
Military					

Cost Category

Included in Industrial Fund Rates

- Military Personnel, Salaries and Wages
- Civilian Personnel, Personnel Costs
- Materials, Supplies and Parts
- Fuel
- Contractual Services
- Base Operating Support
- Real Property Maintenance
- Other Expenses

( Total should match the total line on format 2A )

Total Industrial Fund Costs

- Manyears
- Civilian
- Military

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Format 1

## Costs Related to Maintenance Depot Consolidation Study

Department:

Fiscal Year:

Cost Category	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Other Changes (Programatic)	Target Budget
---------------	-----------------------	----------------------------	---------------------------	--------------------------------	------------------

Not Included in Industrial Fund Rates

- Depreciation
- Base Operating Support
- Real Property Maintenance
- Minor Construction
- Major Construction
- Equipment (>\$5,000)
- Modification to Equipment
- ADPE (>\$100,000)-Software Development
- Other Capital Investment
- Transportation (O&M)
- Hazardous Material Waste
- Stock Fund
- Procurement
  - Spares
  - Modifications
  - Conversions
  - Service Life Extension Program
- Other

Total Non-Industrial Fund Cost ( Total should match the total line on format 2B )

Workyears  
Civilian  
Military

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Department:  
Fiscal Year:

Budget	Appropriation	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Total Savings	Target Budget
1.	Department of the Navy					
17s1804	DDM, Navy					
17s1106	DDM, Marine Corps					
17s1806	DDM, Naval Reserve					
17s1107	DDM, Marine Corps Reserve					
17s1506	Aircraft Procurement					
17s1507	Weapons Procurement					
17s1611	Shipbuilding & Conversion					
17s1810	Other Procurement, Navy					
17s1109	Other Procurement, Marine Corps					
17s7035	Family Housing					
17s1315	RDTE					
17s1205	Military Construction, Navy					
17s1453	Military Personnel, Navy					
17s1105	Military Personnel, USMC					
17s8420	Surcharge Collections					
17s1080	Military Assistance, Exec					
17s11x8	Foreign Military Sales, Exec					
17x4911	Navy Stock Fund					
17x1980	Navy Management Fund					
17x4912	Navy Industrial Fund					
17x4913	Marine Corps Stock Fund					
17x6914	Marine Corps Industrial Fund					
	Other Navy					
	Other Marine Corps					
2.	Other Services					
21s2020	DDM, Army					
57s3400	DDM, Air Force					
	Other DoD					
3.	Other Agencies					
11s11s8242	Foreign Military Sales					
	Other					

Total

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Department:  
Fiscal Year:

Budget	Appropriation	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Total Savings	Target Budget
<b>1. Department of the Air Force</b>						
57*3010	Aircraft Procurement					
57*3020	Missile Procurement					
57*3080	Other Procurement					
57*3300	Military Construction, AF					
57*3400	OM (AFLC OOB)					
57*3840	OM, ANB					
57*3740	OM, AFRES					
57*3600	ROT&E					
57*11*1080	Military Assistance					
57*4921	Air Force Stock Fund					
57*4922	ASIF					
	Other					
<b>2. Other Services</b>						
21*2020	OM, Army					
17*1804	OM, Navy					
	Other DoD					
<b>3. Other Agencies</b>						
11*11*8242	Foreign Military Sales					
	Other					
<b>Total</b>						

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Industrial Fund Customer Appropriation Impact  
Chargeable Expenses

Department:  
Fiscal Year:

Appropriation	Budget	President's	Short Term	Long Term	Total	Budget
		Efficiencies	Efficiencies	Efficiencies	Savings	Target

1. Marine Corps (same as Dept of the Navy)

171804 O&M, Navy

171106 O&M, Marine Corps

171806 O&M, Naval Reserve

171107 O&M, Marine Corps Reserve

171506 Aircraft Procurement

171507 Weapons Procurement

171611 Shipbuilding & Conversion

171810 Other Procurement, Navy

171109 Other Procurement, Marine Corps

172035 Family Housing

171319 RDT&E

171205 Military Construction, Navy

171453 Military Personnel, Navy

171105 Military Personnel, USMC

171820 Surcharge Collections

171080 Military Assistance, Exec

171118 Foreign Military Sales, Exec

174911 Navy Stock Fund

173980 Navy Management Fund

174912 Navy Industrial Fund

174913 Marine Corps Stock Fund

174914 Marine Corps Industrial Fund

Other Navy

Other Marine Corps

2. Other Services

212020 O&M, Army

573400 O&M, Air Force

Other DoD

3. Other Agencies

111118242 Foreign Military Sales

Other

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Industrial Fund Customer Appropriation Impact  
Chargeable Expenses

SOFT REVENUE

Form 2A  
Department:  
Fiscal Year:

President's Budget Short Term Efficiencies Long Term Efficiencies Total Savings Target Budget

Budget Appropriation

- 1. Department of the Army
  - DAH, Army
  - Aircraft Procurement, Army
  - Missile Procurement, Army
  - Weapons & Tracked Veh Proc, Army
  - Procurement of Ammunition, Army
  - Other Procurement, Army
  - Procurement Equipment, ANB
  - ROTC
  - Military Personnel
  - Military Construction
  - Military Assistance Program
  - International Mil Ed and Training
  - DAH, ANB
  - Transfer Appropriation
  - Army Industrial Fund
  - DAH, Army Reserve
  - Army Stock Fund
  - Conv Ammun Working Capital Fund
  - Foreign Military Sales
  - Family Housing
  - Other

- 2. Other Services
  - DAH, Navy
  - DAH, Air Force
  - DAH, Marine Corps
  - Other DoD

- 3. Other Agencies
  - Other Government Depts
  - Other

Total

DRAFT

Department:  
Fiscal Year:

Industrial Fund Customer Appropriation Impact  
Non-Chargeable Expen

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President's Budget Short Term Efficiencies Long Term Efficiencies Total Savings Target Budget

Budget Appropriation

- 1. Department of the Army
  - OMM, Army
  - Aircraft Procurement, Army
  - Missile Procurement, Army
  - Weapons & Tracked Veh Proc, Army
  - Procurement of Ammunition, Army
  - Other Procurement, Army
  - Procurement Equipment, ANB
  - ROTFE
  - Military Personnel
  - Military Construction
  - Military Assistance Program
  - International Mil Ed and Training
  - OMM, ANB
  - Transfer Appropriation
  - Army Industrial Fund
  - OMM, Army Reserve
  - Army Stock Fund
  - Conv Ammun Working Capital Fund
  - Foreign Military Sales
  - Family Housing
  - Other

- 2. Other Services
  - OMM, Navy
  - OMM, Air Force
  - OMM, Marine Corps
  - Other DoD

- 3. Other Agencies
  - Other Government Depts
  - Other

Total

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Department:  
Fiscal Year:

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Budget	Appropriation	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Total Savings	Target Budget
1.	Department of the Navy					
17*1804	DM, Navy					
17*1106	DM, Marine Corps					
17*1806	DM, Naval Reserve					
17*1107	DM, Marine Corps Reserve					
17*1506	Aircraft Procurement					
17*1507	Weapons Procurement					
17*1611	Shipbuilding & Conversion					
17*1810	Other Procurement, Navy					
17*1109	Other Procurement, Marine Corps					
17*7035	Family Housing					
17*1315	ROTHE					
17*1205	Military Construction, Navy					
17*1453	Military Personnel, Navy					
17*1105	Military Personnel, USMC					
17*8420	Surcharge Collections					
17*1080	Military Assistance, Exec					
17*11x8	Foreign Military Sales, Exec					
17*4911	Navy Stock Fund					
17*1980	Navy Management Fund					
17*4912	Navy Industrial Fund					
17*4913	Marine Corps Stock Fund					
17*6914	Marine Corps Industrial Fund					
	Other Navy					
	Other Marine Corps					
2.	Other Services					
21*2020	DM, Army					
57*3400	DM, Air Force					
	Other DoD					
3.	Other Agencies					
11*11*8242	Foreign Military Sales					
	Other					
Total						

DRAFT

Industrial Fund Customer Appropriation Impact  
Non-Chargeable Expenses

Format 28

Department:

Fiscal Year:

Budget	Appropriation	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Total Savings	Target Budget
1.	Marine Corps (same as Dept of the Navy)					
17*1804	DMH, Navy					
17*1106	DMH, Marine Corps					
17*1806	DMH, Naval Reserve					
17*1107	DMH, Marine Corps Reserve					
17*1506	Aircraft Procurement					
17*1507	Weapons Procurement					
17*1611	Shipbuilding & Conversion					
17*1810	Other Procurement, Navy					
17*1109	Other Procurement, Marine Corps					
17*7035	Family Housing					
17*1319	ROTHE					
17*1205	Military Construction, Navy					
17*1453	Military Personnel, Navy					
17*1105	Military Personnel, USMC					
17*8420	Surcharge Collections					
17*1080	Military Assistance, Exec					
17*11x8	Foreign Military Sales, Exec					
17*4911	Navy Stock Fund					
17*3980	Navy Management Fund					
17*4912	Navy Industrial Fund					
17*4913	Marine Corps Stock Fund					
17*4914	Marine Corps Industrial Fund					
	Other Navy					
	Other Marine Corps					
2.	Other Services					
21*2020	DMH, Army					
57*3400	DMH, Air Force					
	Other DoD					
3.	Other Agencies					
11*11*8242	Foreign Military Sales					
	Other					

DRAFT

Format 28  
Department:  
Fiscal Year:

Budget	Appropriation	President's Budget	Short Term Efficiencies	Long Term Efficiencies	Total Savings	Target Budget
1.	Department of the Air Force					
57*3010	Aircraft Procurement					
57*3020	Missile Procurement					
57*3080	Other Procurement					
57*3300	Military Construction, AF					
57*3400	DMH (AFLC ODB)					
57*3840	DMH, AMB					
57*3740	DMH, AFRES					
57*3600	ROTHE					
57*11*1080	Military Assistance					
57*4921	Air Force Stock Fund					
57*4922	ASIF					
	Other					
2.	Other Services					
21*2020	DMH, Army					
17*1804	DMH, Navy					
	Other DoD					
3.	Other Agencies					
11*11*8242	Foreign Military Sales					
	Other					

Total

DRAFT

PLAN OF ACTIONS AND MILESTONES

COMMODITY GROUPS

<u>ACTION</u>	<u>OPR</u>	<u>DUE DATE</u>
Conduct Study Group Leader Guidance Meeting	JPCG-DM	16 Oct 90
Complete study and submit report with System Matrix	Commodity Group Leader	as completed NLT 31 Jan 91
Service Report Approval	Services	Two wks after receipt and NLT 15 Feb 91

GENERIC STUDY GROUPS

Complete study and submit report	Capacity Study Group	9 Nov 90
	Performance Measurement Study Group	23 Nov 90
	Cost Comparability Study Group	13 Nov 90
	MIS Study Group	1 Oct 91

PLAN OF ACTIONS AND MILESTONES

INCREASING INTERSERVICING

<u>ACTION</u>	<u>OPR</u>	<u>DUE DATE</u>
Draft interim revision to DMI regulation to consider recurring cost as criteria for SOR decision	JDMAG/MISMO	9 Nov 90
Approve interim revision to DMI regulation to consider recurring cost as criteria for SOR decision	JPCG-DM	29 Nov 90
Review & modify, as necessary, acquisition policy/guidance to fully support interservicing	Services	2 Jan 91
Review & modify, as necessary, Decision Tree Analysis to fully support interservicing	Services	2 Jan 91
Identify interservice candidates	Commodity Groups	as completed NLT 31 Jan 91
Conduct DMI analyses	Services/ JDMAG	as required
Develop & implement DMISA	MISMOs	as required

PLAN OF ACTIONS AND MILESTONES

**CAPACITY UTILIZATION**

<u>ACTION</u>	<u>OPR</u>	<u>DUE DATE</u>
Complete study report & present to JPCG-DM	JDMAG	29 Oct 90
Approve study report & forward to JLC	JPCG-DM	5 Nov 90
Approve study report & forward to ASD(P&L)M/PL	JLC	9 Nov 90
Approve study report & issue interim authorization to implement revised methodologies	OASD(P&L)L/MD	23 Nov 90
Implement revised methodologies	Services	26 Nov 90
Develop service POA&M to increase utilization to optimum level by end of FY 93	Services	1 Feb 91
Complete capacity measurement of each depot	Services	1 Mar 91
Report depot capacity to JPCG-DM	Services	15 Mar 91

PLAN OF ACTIONS AND MILESTONES

INCREASING COMPETITION

<u>ACTION</u>	<u>OPR</u>	<u>DUE DATE</u>
Review & modify, as necessary, regulatory guidance which restrict competition	OSD/Services	1 Dec 90
Review & modify, as necessary, acquisition policy/guidance to fully support competition	OSD/Services	2 Jan 91
Select prototype system	Commodity Groups	as completed NLT 31 Jan 91
Develop business base & competition strategy	Air Force Army Marine Corp	1 Mar 91
Execute prototype Competition (issue RFP)	Air Force Army Marine Corp	1 Jan 92
Selection/award of prototype competition	Air Force Army Marine Corp	1 Apr 92
Report savings via Cost Matrix	Service	as required

PLAN OF ACTIONS AND MILESTONES

JOINT DEPOT BUSINESS STRATEGY PLAN

<u>ACTION</u>	<u>OPR</u>	<u>DUE DATE</u>
Detail outline	JDMAG/JAB	5 Oct 90
Create initial data call	JDMAG/JAB	9 OCT 90
Subject matter expert meeting	JDMAG	17 Oct 90
Approve data call	JPCG-DM	29 Nov 90
Issue draft Plan w/o data	JDMAG	14 Dec 90
Complete draft review and provide comments	Services	2 Jan 91
Submit Systems Matrix	Services	15 Feb 91
Submit Cost Matrix	Services	1 Mar 91
Submit Capacity data	Services	15 Mar 91
Issue final for Service review	JDMAG	1 Apr 91
Complete review and provide comments	Services	15 Apr 91
Submit final to JPCG-DM for approval	JDMAG	22 Apr 91
Approval for issuance	JPCG-DM	1 May 91

23 April 1993

Utah Governor's Task Force Report - Additional Information

The facts and figures we provided you today are based on the best available information we have at this time.

Tooele utilization figures were taken from the U.S. Army BRAC Options for Ground Systems Equipment Depots briefing, which was briefed by the Army to the Office of Assistant Secretary of Defense for Production and Logistics (Robert Mason), in mid February 1993. The complete briefing is included as TAB 10 to the Governor's Task Force Report.

The Task Force notes that on page 10 of this briefing Tooele Utilization rate is shown to increase to 73% based on the transfer of workload from Letterkenny and Barstow and to 91% when Albany workload is included. Attached is workload breakout, taken from July 92 OPS 29 report, which substantiates this utilization and further identifies adjustments for combat vehicle components taken from ANAD and RRAD and assigned to Tooele.

CAPACITY UTILIZATION

TOOELE ARMY DEPOT

	BASELINE		BARSTON/ LETTERKENNY/ALBANY ENGINE ADJUSTMENT	
	<u>CAPACITY</u>	<u>WORKLOAD**</u>	<u>WORKLOAD***</u>	<u>PERCENT UTILIZATION</u>
FY95	2.057	.548	1.507	73
FY96	2.057	.650	1.657	81
FY97	2.057	.825	1.820	88
FY98	2.057	.745	1.845	90
FY99	2.057	.739	1.873	91*

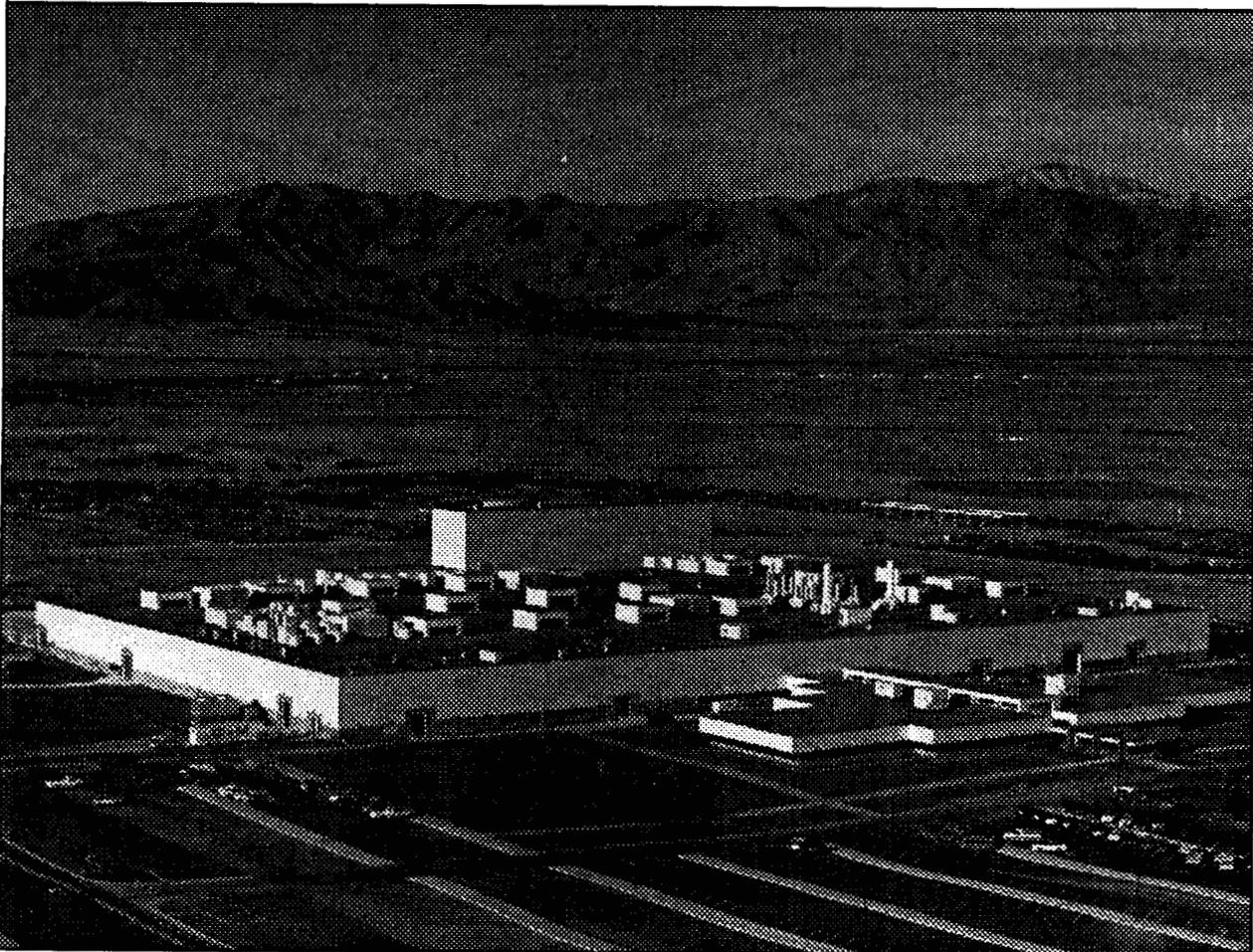
\* Engine adjustment amounts to 273K DLHRs from combat vehicle components taken from ANAD and RRAD. without this plus-up the TEAD utilization rate in FY99 would be 78%.

\*\* From OLS 29 report dated July 97 and reimbursable workload estimate

\*\*\* Same as \*\* above plus USMC workload provided by HQ, AMC.

T O O E L E A R M Y D E P O T

PRESENTATION TO  
DEFENSE BASE CLOSURE COMMISSION



*Tooele's New \$114 Million Consolidated Maintenance Facility with State of the Market Equipment*

UTAH GOVERNOR'S TASK FORCE REPORT

**Volume 1 of 2**

Oakland Regional Hearing 26 April 93

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# Executive Summary

## **INTRODUCTION**

As part of his 1993 Base Closure and Realignments package, Secretary of Defense Les Aspin recommended the realignment of Tooele Army Depot, Utah, ("Tooele" or "TEAD"). Actually, because such a small portion of current activities would be retained, the intended action should be treated as what it is -- the closure of Tooele.

The justification for this recommendation is the Depot Maintenance Consolidation Study portion of the Joint Chiefs of Staff triennial review of roles and missions. But in fact, it is clear from a review of that study, that the recommendation to realign (close) Tooele is the direct result of the Marine Corps' refusal to participate in any cross-servicing effort on ground maintenance systems.

As will be shown, the closure of Tooele flies in the face of nearly every standard of military value; is based on the inappropriate application of highly dubious numbers; rewards inefficiency and obsolescence while punishing efficiency and modernization; allows a service to retain facilities by refusing to participate in the cross-servicing effort; and will needlessly cost the taxpayers hundreds of millions of dollars.

Over the past five years the citizens of the United States have spent more than \$114 million to transform Tooele into the military's most modern and efficient industrial facility. Tooele is the home to the "Consolidated Maintenance Facility" ("CMF") for all tactical wheeled vehicles, vehicle components, and rail, construction, and general equipment. A critical fact to note: the CMF was specifically designed, at significant cost, to handle all inter-service maintenance requirements on these types of items.

We recognize that there is significant overcapacity in the military depot system. Further, for the purposes of this report to the Commission, we do not contest the Army's ranking of Tooele Army Depot as fourth among eleven (4/11) relative to other Army depots on the basis of overall military value. But by any fair application of the closure criteria, Tooele Army Depot should not be recommended for realignment (closure) while antiquated Marine Corps facilities remain open, and should instead be allowed to assume an enhanced role in the overall depot scheme.

## **THE MARINE CORPS OPTS OUT**

In September, 1992, Joint Chiefs Chairman, General Colin Powell, convened a study group of retired senior officers and private sector representatives to examine the entire military depot maintenance system. After being briefed by this group on November 6, 1992 as to its central preliminary finding -- that much more must be done to reduce redundancies in depot maintenance capabilities across service lines -- General Powell issued an undated memorandum to the Secretary of Defense urging that he instruct the Service Secretaries to coordinate proposals on depot closures for the 1993 round (Tab 4). General Powell stated:

*"Done separately, the Services' submissions are not likely to identify the best collective set of DoD facilities for retention."*

---

Following the Chairman's recommendation, Deputy Secretary of Defense Don Atwood issued a memorandum on December 3, 1992, instructing the Service Secretaries to prepare integrated proposals, with cross-servicing inputs, on depot maintenance candidates for inclusion in the 1993 Base Realignment and Closure (BRAC) process. Secretary Atwood instructed that the Army was to take the lead in studying "ground weapon systems and equipment", the Navy/ Marine Corps was to take the lead in ships, other watercraft, and ship systems, and the Air Force was to take the lead on fixed and rotary wing aviation systems (TAB 5).

On January 15, 1993, the Service Secretaries responded to Atwood in a jointly signed memorandum which recommended that the equivalent of "two ground systems depots be closed." The memo further indicated that each service would recommend depots for closure in BRAC 1993 by February 3, 1993. The Service Secretaries agreed "the Army and the Marine Corps...should together determine if workload reallocations would lead to a better final decision" (TAB 6).

In response, General Powell issued a second memorandum on January 22, 1993, which stated that the Army and Marine Corps should address the duplication in ground equipment maintenance by the February 3rd BRAC deadline. General Powell criticized the services' progress, stating: "The Services' response falls short of doing what is required" (TAB 7).

By early February, it was clear that the Marine Corps was unwilling to enter into this process. So on February 9, 1993, Acting Secretary of the Army John Shannon wrote Secretary Aspin criticizing the Navy (Marine Corps) for its "unwillingness to consider cross-servicing for ground systems and equipment" (TAB 8).

### **THE DEPARTMENT OF DEFENSE ALLOWS THE MARINE CORPS TO OPT OUT**

In mid-February, the Army briefed Robert T. Mason, Director of Maintenance Policy in the Office of the Deputy Assistant Secretary of Defense (P&L), on an inter-servicing arrangement on trucks and ground equipment. The Army recommended the closure of Barstow Marine Corps Logistics Base (MCLB) and retention of the Tooele Army Depot. It further recommended that Barstow's workload be distributed, along with that of Letterkenny Army Depot and the electronics workload at Sacramento Air Logistics Center, among Tooele, Tobyhanna, Anniston, and Red River Army Depots. This Army recommendation would have achieved the best overall arrangement for ground systems for the Department of Defense as a whole while still adhering to the recommendation of closing two ground depots.

Incredibly, on March 3, 1993, the Office of the Deputy Assistant Secretary informed the Army that the Department of Defense had acquiesced to the Marine Corps' refusal to take part in the process and had reached the decision to not force inter-servicing arrangements in its 1993 submissions to the Base Closure Commission; rather, DoD would let the Commission decide on such matters. (TAB 3)

---

Because of the Marine Corps' refusal to consider cross-servicing, the Army had little choice but to recommend that Tooele Army Depot be realigned (closed) in addition to Letterkenny Army Depot. The Marine Corps depots, by contrast, went unaffected by the 1993 recommendations.

### **THE GAO'S VIEW**

The General Accounting Office studied the Secretary of Defense's list of recommended closures and the BRAC '93 process and are specifically critical of the depot selection process and the lack of OSD oversight on the issue of cross-service opportunities when evaluating maintenance depots.

In its formal report to Congress and the Commission, the GAO noted: "inconsistencies in the military services' measures of depot maintenance costs and management processes did not allow OSD the opportunity to consider elimination of duplication on other than a service-by-service basis." (TAB 24, p. 18)

Moreover, looking specifically at the Army-Marine Corps joint effort, the GAO concluded:

*"According to several service officials, the services had difficulty overcoming their narrow views of their own depots; thus, a general consensus could not be reached...."*

*"The services' attempt at considering cross-servicing opportunities for ground systems and equipment depot maintenance ended in disarray...Thus, the services made their decisions on ground systems and equipment depots independently based on each services' own excess capacity."*

*"Officials from the three services all stated that consideration of cross-servicing possibilities among the depots was impeded by the lack of strong leadership and direction."*

(TAB 24-P. 20)

### **THE INAPPROPRIATE USE OF DUBIOUS NUMBERS**

Central to the Defense Department's argument for closure of Tooele Army Depot is that it has the highest overhead costs among all military depots. **This supposition is based on the inappropriate use of faulty numbers, and should be dismissed out-of-hand.**

Early in the process, the Marine Corps' representatives to the Joint Working Group insisted on developing overhead costs for all Army and Marine Corps depots based simply on 1992 actual cost data. As a result, Tooele's overhead is calculated at \$48.57, the highest among all depots. But this number is virtually meaningless as any measure of future depots costs, and is highly prejudicial to Tooele and the Army for the following reasons:

- 
- Tooele's CMF was not yet in operation in 1992. Now in operation, the CMF achieves a 37% increase in efficiency through automation.
  - Army Depot Systems Command (DESCOM) had 5000 excess people on board in 1992 which have since been eliminated.
  - The 1992 overhead figure for Tooele quite unfairly, includes significant "one time" costs for the systemization of the CMF; hazardous waste disposal costs from prior years, oversight costs relative to chemical and conventional ammunition disposal programs having nothing to do with the maintenance function of the depot and not charged to customers of maintenance, and wholesale costs charged to the Defense Logistics Agency (DLA) prior to the 1992 transfer of warehousing management to DLA.

The recalculation of FY 1999 costs by the Army, measured in 1993 dollars, projects total DoD "out of pocket" costs per direct man hour at Tooele at \$31.88 (based on closure of Letterkenny, Barstow MCLB, and transfer of Sacramento ALC C&E workload). This compares very favorably to 1992 actual costs of \$38.24 at Albany MCLB and \$47.16 at Barstow MCLB.

### **REWARDING INEFFICIENCY**

Making closure decisions regarding depots based on utilization projections is at its heart fatally flawed because it will effectively reward inefficiency while punishing efficiency.

The reasoning is simple. A given workload goes through an old and inefficient depot. That facility may have to work at or near its capacity to handle this workload. But when the same workload is put through a modern and efficient facility it uses only a portion of its capacity to handle the workload. It is simply illogical to say the old and inefficient facility should be preferred because it is working to a higher capacity.

This flawed use of capacity utilization projections will always prejudice the newer, more modern facilities. The DoD and the Commission should not encourage analyses which penalize modern, more efficient facilities.

Still, even if utilization is deemed to be relevant, the forecasts of Tooele's future utilization used by the Department of Defense are simply wrong.

Mr. Mason, in his March 9 memorandum, concludes that even if Marine depots are closed, the workload at Tooele would increase only to about 39% of its capacity. However, using the Marine Corps' own data on the projected FY 1999 workload for Barstow, Tooele's utilization will increase from 36% to 73% if Barstow (and Letterkenny) are closed. (TAB 18) If Albany MCLB is also closed, the utilization at Tooele would increase to 91%. (TAB 19)

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## **TAXPAYER SAVINGS**

Any cost analysis of the proposed closure of the Tooele Army Depot must begin with the fact that if closed, taxpayers will immediately lose the recent \$114 million invested into turning Tooele into the military's most modern industrial facility.

On the other hand, if the Army's inter-service plan were to be adopted, there would be annual recurring savings to DoD of \$18.6 million (35% reduction from Barstow costs). This is based on closing Barstow MCLB in conjunction with Letterkenny Army Depot and transfer of Sacramento ALC C&E workloads to the Army. These combined workloads would then be distributed among Tobyhanna, Anniston, Tooele, and Red River depots. (TAB 10)

In addition, one-time costs of \$9.438 million in military construction could be avoided at Red River Army Depot (FY '97) which would otherwise be required in order to accommodate Tooele's current workload. (TAB 11)

Unspecified millions would also be saved in future years in cost-avoidance by not having to modernize the more antiquated facilities at Barstow MCLB. (TAB 12)

The additional closure of Albany MCLB, when added to Barstow, would generate an additional annual savings of approximately \$9.3 million (19% reduction from Albany costs), for a total of \$27.9 million in annual recurring savings. (TAB 9)

## **REVISED CRITERIA**

For the 1988 round of base closures, the first criteria for determining the value of a base was its military value to the **Military Department**. In 1991, and again in 1993, the Department of Defense determined this criteria to be flawed and replaced it with the current first criteria: "...current and future mission requirements and the impact on operational readiness of the **Department of Defense's total force**."

It was no accident that this criteria was changed. It was specifically amended to ensure that all base closures be considered on an inter-service basis, not simply how it will impact one military department.

## **CONCLUSION**

The Commission's mandate is clear. It must act where the OSD did not. In fact, the Commission is urged to do so by the Secretary in his Report and Recommendations to the Commission. Secretary Aspin specifically urges the Commission:

*"...with respect to maintenance depots, there was not sufficient time for the Office of the Secretary of Defense to review all potential inter-service possibilities. The Secretary suggests that the Commission should examine those possibilities..." [1993 Defense Base Closures and Realignments, p. 11] [TAB 3]*

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The Utah Governor's Defense Support Task Force, and the Utah Congressional Delegation, urge the Commission do what the Secretary of Defense recommends, namely, require the inter-service use of depot facilities by ordering depots closed without regard to service affiliation.

Cross-servicing arrangements will result in significant savings to the Department of Defense; preserve DoD's best, most modern ground maintenance depots; better utilize existing facilities; obviate the need for new construction to accommodate workload transfers; and still present two DoD ground depots for closure, to wit: Letterkenny Army Depot and the Barstow MCLB.

If however, the Commission believes it has not had the time or sufficient information to make such a sweeping recommendation, we urge the Commission to remove all depots from the 1993 BRAC closure list, and to direct the DoD to undertake a ground-up review of all depots, with maximum cross-service utilization in mind, in preparation for the 1995 Commission deliberations.

As the GAO stated in its Report, quoting officials of the Department of Defense:

*"... until issues concerning the management structure of DOD maintenance depots are resolved, no progress will be made among the services covering cross service and duplication." (TAB 24)*

# REPORT OF THE UTAH GOVERNOR'S TASK FORCE ON TOOELE ARMY DEPOT TO THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

April 1993

## **I. DESCRIPTION OF TOOELE ARMY DEPOT AND THE CONSOLIDATED MAINTENANCE FACILITY:**

Tooele Army Depot ("TEAD" or "Tooele") is a government owned, government operated (GOGO) installation, in existence since 1942. It is an Army Industrially Funded (AIF) depot charged with the principal responsibility of overhauling the Army's tactical wheeled vehicles, and associated secondary items, including trucks, trailers, engines, and transmissions. Tooele also overhauls and repairs a myriad of troop support equipment, including generators, topographical and surveying equipment, and reproduction equipment.

On October 31, 1992, Tooele dedicated a \$114 million dollar "Consolidated Maintenance Facility" (CMF) which was used to consolidate functions of the Maintenance Directorate from 11-separate sites. Personnel within the CMF are working with automated equipment and state-of-the market machinery. It is the most advanced automated overhaul equipment facility in the Department of Defense.

Tooele has been designated by the Depot Systems Command (DESCOM) as the "Center of Technical Excellence" for such systems as the Heavy Expanded Mobility Tactical Truck (HEMTT), the High Mobility Multi-purpose Wheeled Vehicle (HMMWV), the M9 Armored Combat Earthmover (ACE), the Family of Medium Tactical Vehicles (FMTV), the Commercial Utility Cargo Vehicle (CUCV), the M939 5-ton Truck series, and the Heavy Equipment Transporter System (HETS).

Tooele is the only DoD facility capable of depot-level overhaul of rail equipment for the 60, 80, and 100-ton locomotives. This includes assembly, test, and writing of technical publications for the locomotives. Another unique mission is performed by the Ammunition Equipment Directorate (AED). This specialized organization designs, develops, and fabricates equipment used to renovate and dispose of ammunition at Department of Defense installations throughout the world. AED also conducts basic research studies in establishing design criteria for ammunition equipment and performs munitions testing of prototype designs and pilot model equipment.

In the mid-1970's, Tooele became a Depot Complex, with command authority over facilities at seven different operational locations in five states. The Tooele Complex headquarters is located in central Utah, approximately 35 miles southwest of Salt Lake City on 25,000 acres of land. The South Area is remotely located on 19,000 acres, approximately 15 miles South of the main depot; and the Non-Tactical Generator and Rail Shops Division is situated 70 miles northeast at Hill Air Force Base.

The four depot activities managed by Tooele are: Pueblo, Colorado; Umatilla, Oregon; Fort Wingate, New Mexico; and Navajo, Arizona. The Tooele complex incorporates some of the

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largest storage capabilities in the United States. Storage consists of 4,542 earth-covered magazines; 85 above-ground magazines; 104 general purpose warehouses; 125 controlled humidity tanks; 18 transit sheds; 17 regular sheds; over 14 million square feet of improved open storage, and over 3 million square feet of open storage.

Tooele's South Area is the location for 42% of the U.S. Stockpile in obsolete chemical munitions. Tooele is home to the Chemical Munitions Disposal System (CAMDS) research facility which pioneered the Army's baseline method of chemical munitions destruction. Tooele's South Area is also the site for a new \$380 million dollar full-scale baseline chemical munitions disposal facility which will begin disposal operations in 1995.

Tooele is Utah's second-largest federal employer (after Hill Air Force Base) with approximately 2,000 civilian and 35 military employees. Tooele accounts for over one third of all direct and indirect jobs in Tooele County.

## **II. 1993 BRAC RECOMMENDATIONS REGARDING TOOEELE ARMY DEPOT:**

The Secretary of Defense's (Secretary) Report recommended that Tooele Army Depot be reduced to a depot activity and placed under management of the Red River Army Depot, Texas. [TAB 1] In addition, the Defense Distribution Depot Tooele (DDTU) was recommended to be disestablished. [TAB 2]. If implemented, all that would remain at Tooele would be the storage and demilitarization of convention and chemical munitions. Despite the Army's preeminence in ground system maintenance, the 1993 BRAC recommendations targeted two Army depots, Tooele and Letterkenny, while the Marine Corps depots at Barstow and Albany went unaffected.

## **III. CHRONOLOGY OF THE DEPARTMENT OF DEFENSE'S FAILURE TO INCLUDE INTER-SERVICING ARRANGEMENTS ON DEPOT MAINTENANCE**

The following chronology clearly documents how the Navy/Marines Corps' unwillingness to consider inter-servicing arrangements for ground equipment maintenance resulted in time running out before it could be thoroughly examined by the Department of Defense.

### **I. First General Powell Memorandum:**

General Colin Powell, Chairman of the Joint Chiefs of Staff, issued a memorandum for the Secretary of Defense in late 1992 describing the "Depot Consolidation Study."

General Powell's memorandum outlined the problem of excess depot capacity and the need to close depots through the BRAC process. He further urged Secretary Cheney to instruct the services to work together on inter-servicing arrangements in order to come up with the best overall selections.

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*"...Done separately, the Services' submissions are not likely to identify the best collective set of DoD facilities to retain. Accordingly, I request that you send the enclosed memorandum to the Secretaries of the Military Departments, directing the submission of integrated BRAC proposals."*  
[TAB 4]

## **2. The Atwood Memorandum:**

In response to General Powell's advice, Deputy Secretary Atwood issued a memorandum dated December 3, 1992 in which he instructed that:

*"To streamline defense depot maintenance activities and increase efficiency, the Secretaries of the Military Departments, in coordination with the Chairman of the Joint Chiefs of Staff and the Under Secretary of Defense for Acquisition, shall prepare integrated proposals, with cross-service inputs, to streamline defense depot maintenance activities, for the Secretary of Defense's consideration for submission to the 1993 Base Closure and Realignment Commission....."*[TAB 5]

This memorandum outlined that the Department of the Army would take the lead in "ground weapon systems and equipment", the Navy would take the lead in "ships, other watercraft, and ship systems", while the Air Force would take the lead in "fixed and rotary wing aviation and aviation systems."

## **3. Military Department Service Secretaries' Memorandum:**

On January 15, 1993, the Secretaries of the Navy, Army and Air Force, jointly signed a memorandum back to Atwood acknowledging his instructions. They agreed that the "equivalent of two ground systems depots could be closed." [TAB 6] They further agreed that "...while the Army should identify closure candidates, the Army and the Marine Corps.... should together determine if workload reallocations would lead to a better final decision." They set February 3, 1993, as the date by which they would address duplication between the Marine Corps and the Army, and set February 22, 1993, as the deadline for providing BRAC inputs to the Secretary.

## **4. Second General Powell Memorandum:**

Despite the secretaries' stated goal, progress was not made on addressing the duplication in depot maintenance in ground systems between the Marine Corps and the Army. General Powell alludes to this lack of progress in his memorandum of January 22, 1993.

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*"...It is important that we focus our future depot maintenance resources upon the most cost-effective mix of facilities. To do this, we must eliminate not only excess capacity, but also unnecessary duplication. We must do both in time to meet the 1993 BRAC window. The Services response falls short of doing what is required."* [TAB 7, underline added]

## **5. The Shannon Memorandum:**

The written goal of the Marine Corps and Army in addressing the duplication in ground systems depot maintenance by February 3, 1993, went unmet. Acting Secretary of the Army, John Shannon, issued a memorandum to the Secretary on February 9, 1993, criticizing the Navy for the impasse.

*"The Army, designated as lead Service for ground systems and equipment, hosted several meetings to implement the joint review process...However, the Department of the Navy has indicated an unwillingness to consider cross-servicing for ground systems and equipment.... Without a workable agreement by February 11, 1993, we will be unable to comply with the timeliness for submission of an integrated BRAC 1993 proposal..."* [TAB 8]

Secretary Shannon outlined how the Army was committed to depot consolidation and the designation of a single Service executive agent for ground systems.

*"...The Army's existing maintenance management structure is well equipped to handle this consolidation and provide the leadership and expertise necessary to sustain our forces in the future. We are ready to get on with the process."*

Despite the Army's willingness, it was made clear to the Army, through the Office of the Deputy Assistant Secretary for Production and Logistics (P&L) on March 3, 1993, that the Department had made the decision to "...not pursue cross-servicing prior to submitting proposals to the BRAC Commission." Information Paper, Col. Roy Willis, USA, DACS-DMM, 11 March 1993, pg. 2, para. "j". [TAB 9]

## **6. The Secretary's Report:**

The Secretary's report to the Commission forwarding his recommendations for closure and realignment urged the Commission to take an active look at inter-service arrangements when considering which maintenance depots to close.

*"...with respect to maintenance depots, there was not sufficient time for the Office of the Secretary of Defense to review all potential interservicing possibilities. The Secretary suggests that the Commission should examine those possibilities..."* [1993 Defense Base Closures and Realignments, p. 11] [TAB 3]

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#### **IV. THE ARMY'S PROPOSAL ON INTERSERVICING GROUND EQUIPMENT**

The Army officially proposed the inter-servicing of ground equipment and systems. This proposal was briefed to the Office of the Deputy Assistant Secretary of Defense for Production and Logistics (P&L), Robert T. Mason, in mid-February. The briefing had been reviewed previously by the Commander of Army Material Command and the Office of the Secretary of the Army, John Shannon and Mike Owen. Colonel Roy Willis, from the Army Management Staff, was the presenter. A complete set of the briefing charts is provided at TAB 9.

##### **1. Assumptions:**

The Army assumed that:

- Letterkenny Army Depot will be closed and Barstow Marine Corps Logistics Base Depot maintenance functions will be realigned. Tooele Army Depot will be retained.
- Remaining workloads are redistributed among remaining Army depots at Tobyhanna, Anniston, Red River, and Tooele. Albany MCLB would go largely unaffected.
- Part of the briefing also included the transfer of Sacramento ALC communications and electronics (C&E) workload to Tobyhanna. This assumption, while valid, is not crucial to the rest of this report.

##### **2. Impact on Tooele Army Depot:**

As outlined on pages 7 and 10 of the Army brief [TAB 10], Tooele would receive Barstow's automotive, construction and rail equipment workloads, in addition to Letterkenny's secondary item workload. Secondary items include diesel and multi-fuel engines, transmissions, generators, and numerous other component parts.

In calculating efficiencies gained through these transfers, the Army projected Tooele's total direct man labor hours from FY 1995-1999. The Army assumed that Letterkenny's work would be moved 25% annually starting in FY 1995, and that 37% of Barstow's work would be moved in FY 1995 with the remaining 63% in FY 1996. [TAB 10, p. 6]

Based on these calculations, Tooele's utilization rate would increase from 36% at present to 73% by FY 1999. Applying a 37% efficiency factor to work completed in Tooele's new Consolidated Maintenance Facility (CMF) because of automation, Tooele's costs would be \$32.85, in FY 1993 dollars, per direct labor hour in FY 1995-1999. Starting in FY 1999 when the workload transfer from Letterkenny would be complete, Tooele's costs would go down even more to \$31.88 per direct labor hour. [TAB 10, p. 10] With a workload of 1.511 million direct labor hours in FY 1993, the true costs of DoD moving additional work to Tooele would be

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\$26.92 per hour since the depreciation costs (\$4.96/hour in Tooele's case) must be accounted for regardless of whether Tooele is closed.

These rate calculations include depreciation costs for the CMF, and other Tooele modernization, at \$7.5 million annually.

### **3. Impact of Army Plan on Other Ground Depots:**

The Army's plan would similarly increase utilization at other remaining depot facilities, thereby reducing costs.

A. Anniston Army Depot: Anniston would receive tactical missile workloads from both Letterkenny and Barstow. It would receive Barstow's combat vehicles (tracked) and small arms work. [TAB 10, p.7] Utilization at Anniston would increase from 56% currently to 85% when complete. Costs per direct labor hour in FY 1993 dollars would decrease to \$31.35 in FY 1999 and beyond.

B. Red River Army Depot: Red River would receive Letterkenny's combat vehicles and other major item workloads; it would not receive anything from Barstow. [TAB 10, p.7] Utilization at Red River would remain unchanged at 68% through FY 1999. Costs per direct labor hour in FY 1993 dollars would be \$31.71 during FY 1995-1999. [TAB 10, p.9]

C. Tobyhanna: Tobyhanna would receive SAAD radar work originally slated for Letterkenny from Sacramento Army Depot's closure, as well as electronic communications equipment work from Barstow. [TAB 10, pp. 3 & 7] Tobyhanna is already equipped to handle all of these items in addition to C&E workload from possible closure of Sacramento Air Logistics Center. Utilization at Tobyhanna would increase from 66% to 96%. [TAB 10, p. 5] In FY 1993 dollars, the costs of doing work at Tobyhanna would decrease from \$29.14 per direct labor hour in FY 1995-1999 to \$27.88 in FY 1999 and beyond. [TAB 10, p.5]

D. Albany MCLB: As stated previously, Albany depot workload would go unaffected by this specific proposal. For purposes of discussion, the Army also included calculations on the effects of closing Albany in addition to Barstow. The Army concluded that Albany's workload could also be distributed on the same basis as that of Barstow's with even greater savings, as described in paragraph 4 below. [TAB 9, paragraphs "d" and "e"]

## **V. REACTION TO THE ARMY INTER-SERVICE PROPOSAL**

I. Department of Defense: Robert T. Mason, Director of Maintenance Policy, Office of the Assistant Secretary of Defense (P&L) received the Army briefing as described on behalf of Assistant Acting Secretary David Berteau in mid-February. On March 3, 1993, that DoD office informed the Army of "a DoD decision... not to pursue cross-servicing prior to submitting proposals to the BRAC Commission." [TAB 9, para. "j"]

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2. Marine Corps Reaction: It is clear from the chronology of events in Section III of this report that the Marine Corps refused to seriously consider interservicing with the Army because of concerns over losing one or both of its depots. The Marine Corps opted out of the process by simply not submitting data on its depots in a timely fashion for BRAC '93 consideration on interservicing. [TAB 8; TAB 9, para. "j"]

In a March 4, 1993 briefing given by the Marine Corps to Rep. Jim Hansen, at his request, Brig. Gen. J.D. Stewart and Ms. Patricia L. Dalton, LLP-HQ, relied heavily on data which compared Army and Marine Corps depots on the basis of FY 1992 actual costs. [TAB 13] [Briefing packet at TAB 14] This memorandum lists Tooele as having the highest overhead costs (\$48.57) and when added to direct labor costs of \$19.59 per hour, comes out to be the most expensive at \$68.16 per hour. This forms the basis for the Marine Corps' proactive stance in attacking Tooele. The briefer also mentioned verbally that the total workload at Barstow MCLB was "very small," and that it would only increase utilization of Tooele's CMF by 2%, which charge is refuted in Section VII below.

It seems clear that the Marine Corps' use of inappropriate numbers and statistics in briefing decision makers on Tooele's asserted shortcomings was effective. That is obvious from the testimony of General Powell before the Commission on March 15, 1993, where General Powell compared older depots to newer, more modern ones.

Question by Chairman Courter:

*"Was there enough done in examination of cross-use of facilities and inter-operability of capabilities?"*

Answer by General Powell:

*"Not yet. We can do a lot more, but the capacity is so large compared to the requirement that we'll be facing in the future, that the recommendations the services make in this round are sensible ones. And even now, we still have more capacity."*

*"I've heard all the arguments you've heard --I won't pick on any service here, but, 'Ours is the more modern. We've put a lot of money in it.' They're terrific! Problem is, you put a lot of money in them, then they have a lot of overhead that has to be assigned to the cost, and if they're only being operated at, say 30% to 40% capacity, its very expensive."*

*"I've had another service say to me, 'Yea, they've got a brand-new factory, a brand-new depot, and its terrific, but the overhead is too expensive. I have got this old depot that's under a wooden building, and we use lathes and machines that are 20 years-old, but its totally paid-for. There is almost no overhead. And so we get it done very, very cheaply here. So we don't want to spend any more money to repair our engines because we're at full capacity in this little 100-bench shop, rather than go to this 1000-bench shop across the country that is only at 35% capacity, and our little bitty workload only brings it up to 40% capacity, and we're still losing money by sending our stuff there.'" [General Colin Powell, testifying before BRAC Commission, March 15, 1993]*

*Problem w/ all the manufacturing in country, i.e. steel, autos*

Clearly, General Powell was referring to comparisons made by the Marine Corps between

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the Tooele Army Depot's new CMF and older Marine Corps depots. Later on in his testimony, General Powell referred to the one service's (the Marines) entire workload as only bringing the larger depot's capacity up by 5%.

Robert T. Mason, Office of the Assistant Secretary of Defense (P&L), in a memorandum dated March 9, 1993, similarly stated that, "Based on FY 1991 total production costs, that transfer [from Barstow to Tooele] would increase Tooele's FY 1999 utilization by approximately 2 percent." [TAB 15, pg. 7]

Mason further stated that, "If MCLB Albany and MCLB Barstow both were closed and their maintenance work in these commodities transferred to Tooele AD, then the utilization rate at Tooele would increase from 35 to 39 percent." id.

Mason's memorandum, in order to justify continued operation of smaller Marine Corps depots which operate in a "bay style" versus Tooele's automated production line, then repeated the FY 1992 costs showing Tooele's overhead to be the highest based on FY 1992 actual costs contained in the 18 February "Joint Working Group" memorandum. [TAB 13]

## **VI. THE GAO'S VIEW AS EXPRESSED IN ITS ANALYSIS OF DOD'S RECOMMENDATIONS AND SELECTION PROCESS FOR CLOSURES AND REALIGNMENTS**

The General Accounting Office studied the Secretary of Defense's list of recommended closures and the BRAC '93 process and is specifically critical of the depot selection process and the lack of OSD oversight on the issue of cross-service opportunities when evaluating maintenance depots.

In its formal report to Congress and the Commission, the GAO noted:

*"inconsistencies in the military services' measures of depot maintenance costs and management processes did not allow OSD the opportunity to consider elimination of duplication on other than a service-by-service basis." [TAB 24, p. 18]*

Moreover, looking specifically at the Army-Marine Corps joint effort, the GAO concluded:

*"According to several service officials, the services had difficulty overcoming their narrow views of their own depots; thus, a general consensus could not be reached...."*

*"The services' attempt at considering cross-servicing opportunities for ground systems and equipment depot maintenance ended in disarray...Thus, the services made their decisions on ground systems and equipment depots independently based on each services' own excess capacity."*

*"Officials from the three services all stated that consideration of cross-servicing possibilities among the depots was impeded by the lack of strong leadership and direction." [TAB 24, p. 20]*

## **VII. REFUTATION OF FALSE PROJECTIONS OF**

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## **TOOELE'S FUTURE OVERHEAD COSTS AND CMF UTILIZATION RATES**

The decision to close Tooele and to keep open the two Marine Corps depots is being justified on the basis of the inappropriate use of misleading financial data compiled by the Marine Corps and its supporters, and apparently believed and subscribed to both by General Powell, as witnessed by his remarks before the Commission, and Robert Mason, as shown in his memorandum concerning: (1) projected future overhead costs at Tooele; (2) the fallacy of including depreciation costs of facility modernization in the BRAC process for maintenance depots; and (3) the actual amount of Marine Corps workload at Barstow and the real impact its transfer to Tooele would have on Tooele's CMF utilization.

As noted previously, the Marine Corps briefed General Powell and Robert Mason, and later Congressman Hansen, using the FY 1992 actual cost data in the February 18, 1993 "Joint Working Group" memorandum [TAB 13] in an inaccurate and misleading manner in order to justify continued operation of antiquated Marine depot facilities.

### **I. FY 1992 Tooele Overhead Costs:**

The February 18th memo [TAB 13] showing Tooele to have the highest overhead rate uses FY 1992 actual cost figures that are only accurate in determining what occurred during FY 1992. FY 1992 actual cost figures are useless in determining what will happen in future years. Nevertheless, the Navy/Marine Corps insisted on this approach. Over strenuous Army objections, Vice Admiral Stephen F. Loftes, USN, Deputy Chief of Naval Operations (Logistics), included this data in the Navy's BRAC submissions to DoD. [Army Information Paper, TAB 14]

There are several reasons why FY 1992 actual cost data is prejudicial and unfair in evaluating Tooele's true overhead costs. [Army Paper on Tooele BASEOPS Calculations at TAB 14]

The FY 1992 actual cost for BASEOPS overhead at Tooele was listed as \$62.2 million total. This amount can be broken down into component parts to determine for what the money actually went:

- \$6.46 million was for management of chemical munitions demilitarization. No portion of this amount is charged to Tooele's depot maintenance customers.
- \$4.12 million was for management of conventional ammunition storage and demilitarization. No portion of this amount is charged to Tooele's depot maintenance customers.
- \$1.4 million was for one time hazardous waste disposal costs accumulated from prior years.
- \$3.99 million was for management support costs to manage Tooele's current depot activities at Pueblo, Colorado; Umatilla, Oregon; Navajo, Arizona; and Fort Wingate, New Mexico. No portion of this amount was charged to Tooele's depot maintenance customers.
- \$5.03 million was to provide support to tenant organizations at Tooele. No portion of this amount was charged to Tooele's depot maintenance customers.

- \$1.17 million was for one time management and support costs associated with starting-up operations of the new CMF.
- \$5 million is attributable to one time wholesale Defense Logistics Agency (DLA) costs before conversion of Tooele's distribution management under DLA during FY 1992. (A total of \$8 million was charged to Tooele in this area. Only \$3 million of the \$8 million is attributable to depot maintenance.)
- \$11.7 million is attributable to 350 excess personnel at Tooele in FY 1992 prior to a reduction-in-force.

Therefore, discounting the above costs never charged to depot maintenance customers, as well as \$19.27 million in one-time FY 1992 costs from the \$62.2 million, only the \$23.33 million remaining is true recurring base operations ("BASEOPS") overhead actually included in the cost of Tooele's depot maintenance mission. [TAB 15, id]

The figure of \$23.33 million divided by the total number of direct labor hours (DLH) accomplished by Tooele in FY 1992, or 1.727 million labor hours gives a true BASEOPS overhead figure of \$13.51 per DLH.

Finally, when the overhead figure of \$13.51 per DLH is added to Tooele's FY 1992 direct labor cost of \$19.59 per DLH, Tooele's total cost is \$33.10 per DLH.

#### **FY 1992 BASEOPS OVERHEAD COSTS AT TOOEELE:**

- \$62.20 M total BASEOPS overhead
  - 6.46 M chemical ammunition management
  - 4.12 M conventional ammunition management
  - 1.40 M prior years' hazardous waste disposal
  - 3.99 M depot activities support (Pueblo, Umatilla, Ft. Wingate and Navajo)
  - 5.03 M tenant activities support
  - 1.17 M CMF management support (start-up)
  - 5.00 M wholesale DLA before FY 1992 conversion
  - 11.20 M excess personnel (350) before reduction

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\$23.33 M Attributable to Maintenance Operations Overhead

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\$23.33 M divided by 1,727,000 DLH (FY '92 workload = \$13.51 per DLH).

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In the mission overhead accounts, there are \$17.26 million of one time CMF start up and transition costs. This equates to \$10.00 per DLH (\$17.26 million divided by 1,727 million DLH's = \$10.00). Therefore, the February 9, 1993 memorandum listing the figure of \$48.57 per DLH grossly overstated Tooele's true overhead costs attributable to its maintenance

mission, and is largely useless in determining future overhead rates. Instead, future years' costs must be calculated based on other known factors such as projected workload.

One key point that must be kept in mind is that no installation should be judged using only a labor rate; rather, the end item cost or bottom line cost to produce a unit should be the final determinant. Investments in modern equipment and increases in line productivity may use fewer hours to produce a product and may more than offset a higher labor rate.

While examining FY 1992 costs is interesting, they do not, by themselves, accurately project future costs. Instead, future years' costs must be calculated based on other known factors such as projected workload. Army assumptions for FY 1999 workload at Tooele indicate that Tooele will have 1,511,000 DLH total workload. [TAB 17] This does not assume any workload transfers from other depots.

Measured in FY 1992 dollars, the Army further assumes that Tooele will have \$40.54 million in total overhead costs using the same baseline of DLH. The same subtraction process must be followed as in the FY 1992 chart above to arrive at FY 1999 overhead costs attributable to the maintenance mission.

#### **FY 1999 BASEOPS OVERHEAD COSTS AT TOOELE:**

\$63.53 M total overhead (in FY 1992 dollars based on 1.511K DLH)  
- 1.40 M hazardous waste disposal  
- 2.19 M depot activity support (Pueblo and Umatilla only in  
FY 1999 - Ft. Wingate and Navajo closed)  
- 1.53 M tenant activities support  
- 5.00 M wholesale DLA costs  
- 11.70 M excess personnel (350) before reductions

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\$22.50 M attributable to maintenance operations overhead

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\$22.50 M divided by 1,511,000 DLH (total workload) equals \$14.89 per DLH

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\$22.50 M maintenance base operations estimate  
+ 8.62 M chemical ammunition  
+ 4.12 M conventional ammunition  
+ 1.80 M depot activity support (Pueblo and Umatilla)  
+ 3.50 M tenant activities support

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\$40.54 M total base operations overhead

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More than simply the above, there are other reasons why using FY 1992 actual cost data to project future overhead costs is invalid.

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A. Tooele CMF: Tooele's new CMF was not even operational until FY 1993 (late October 1992). The Army applies a 37% built-in efficiency factor to all projected CMF workloads because of automation and termination of excess personnel. Therefore, FY 1992 costs fail to account for the increased efficiencies of the CMF.

B. Increased Utilization: Making closure decisions regarding depots based on utilization projections is at its heart fatally flawed because it will effectively reward inefficiency while punishing efficiency.

The reasoning is simple. A given workload goes through an old and inefficient depot. That facility may have to work at or near its capacity to handle this workload. But when the same workload is put through a modern and efficient facility it uses only a portion of its capacity to handle the workload. It is simply illogical to say the old and inefficient facility should be preferred because it is working to a higher capacity.

This flawed use of capacity utilization projections will always prejudice the newer, more modern facilities. The DoD and the Commission should not encourage analyses which penalize modern, more efficient facilities.

Still, even if utilization is deemed to be relevant, the forecasts of Tooele's future utilization used by the Department of Defense are simply wrong.

Mr. Mason, in his March 9 memorandum, concludes that even if Marine depots are closed, the workload at Tooele would increase to only 39% of its capacity. However, using the Marine Corps' own data on the projected FY 1999 workload for Barstow, Tooele's utilization will increase from 36% to 73% if Barstow (and Letterkenny) are closed. (TAB 18) If Albany MCLB is also closed, the utilization at Tooele would increase to 91%. (TAB 19)

Moreover, using FY 1992 actual cost data to project future overhead costs fails to account for increased efficiencies that can occur at any depot which currently has excess capacity and which also receives additional work through workload transfers. As the Army figures outlined in Section IV of this report show, when utilization increases at a depot, the hourly costs go down. Conversely, depots which are currently at 100% capacity (both Barstow and Albany MCLB's) do not have the ability to accommodate additional work to achieve greater economies of scale.

C. Other Army Depots: Using FY 1992 actual cost data to project future overhead costs greatly skewed the figures against other Army Depots as well because of the 5000 excess personnel on board Army Depot Systems Command (DESCOM) during FY 1992. [TAB 16, para. "b"]

## **2. The Lack of Relevance of Army Representative's Signature On January 18, 1993 Memorandum:**

The January 18, 1993 "Joint Working Group" memorandum, showing Tooele as having the highest overhead costs in FY 1992, was co-signed by a representative of the Army Material Command, Mr. Sam Munoz. [TAB 13] The Navy/Marine Corps eagerly pointed this fact out in their briefing to Congressman Hansen on March 4, 1993, in order to lend validity to the memo's accuracy.

As explained above, there is no reason to question the technical accuracy of the FY 1992

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actual costs as listed. But as we have shown clearly, those costs are irrelevant for projecting future costs. Mr. Munoz did not sign the memorandum for any other purpose than to certify that the figures listed were true for FY 1992, and nothing more.

The Office of the Secretary of the Army certainly did not agree to the misleading manner in which the Navy/Marine Corps has subsequently used the memo. [TAB 14]

### **3. Policy Considerations for BRAC Commission: Why Penalize Modern Depots By Including Facilities Depreciation in Overhead Rates?**

Including facilities modernization costs in overhead rates effectively penalizes the newest and most modern depots in the BRAC process. No other category of military base is presently required to include depreciation costs of new facilities in overhead costs for BRAC purposes.

This policy encourages retention of antiquated depots which are approaching, or have exceeded, their original design life. Perversely, such a policy encourages the elimination of the newest, most high-tech facilities of which Tooele Army Depot is the clearest example.

If the DoD recommendation to realign Tooele is ratified by the Commission, the message would be sent to the services that one sure way to protect your depots is by not modernizing.

### **4. Transferring Barstow MCLB Work Alone Would Increase Tooele's CMF Utilization from 36% to 58.9%**

The Marine Corps' assertion that transfer of Barstow's workload to Tooele would only increase Tooele's utilization by 2% is not supported in fact. Using the Marine Corps' own data for projected FY 1999 workload, Tooele's CMF utilization would increase by approximately 23.9%, based on 412,800 direct labor hours transferred. [TAB 18]

#### **BARSTOW FY 1999 WORKLOAD TRANSFERRABLE TO TOOEELE:**

Engines (Combat Vehicles)	42,400 DLH
Automotive Equipment	321,800 DLH
Construction Equipment	8,200 DLH
General Purpose Equipment	40,300 DLH

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TOTAL: 412,800 DLH

Tooele had total workload of 1,727,000 DLH in FY 1992. Adding 412,800 DLH from Barstow alone would increase Tooele's utilization by 23.9%, or from 36% currently to 58.9%. (412,800 divided by 1,727,000 = 23.9 percent). It is astounding that the Marine Corps missed the correct figure by a factor of ten in their briefing to Congressman Hansen.

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**5. Transferring Barstow MCLB and Albany MCLB Workload to Tooele Would Increase Utilization Rate from 36% to 76.9%**

Again, using the Marine Corps' own figures for projected 1999 workload at Albany, the following items could be transferred to Tooele. [TAB 19]

**ALBANY FY 1999 WORKLOAD TRANSFERRABLE TO TOOEELE:**

Engines (Combat Vehicles)	11,000 DLH
Automotive Equipment	252,700 DLH
Construction Equipment	44,400 DLH
General Purpose Equipment	33,400 DLH

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TOTAL: 341,500 DLH

Tooele had a total workload of 1,727,000 DLH during FY 1992. Adding Albany's 341,500 DLH alone would increase Tooele's utilization by 19.77% (341,500 DLH divided by 1,727,000 DLH = 19.77%). When both Barstow and Albany workloads are combined (754,300 DLH), Tooele's utilization would increase by 43.67% to 79.67% from 36% currently.

**6. Transferring Barstow MCLB, Albany MCLB, and Letterkenney Workload to Tooele Would Increase Utilization Rate from 36% to 91%**

The Barstow and Albany figures above do not include the additional work on secondary items that would be transferred to Tooele following Commission approval of the realignment of Letterkenny Army Depot. Using the Marine Corps' own data on the projected FY 1999 workload for Barstow MCLB and Albany MCLB, Tooele's utilization will increase from 36% to 91% if Albany MCLB as well as Barstow MCLB and Letterkenny are closed. [TAB 9, para. "g"]

**7. Tooele's Competitiveness with Marine Corps Depots:**

An argument presented by the Marine Corps in its briefing to Congressman Hansen on March 4, 1993, was that it would cost the Marine Corps more to have work done at Tooele rather than do it themselves. No data was given to justify this general statement. To the contrary, Tooele has won in recent head-to-head competitions on Marine Corps work. In 1992 for instance, Tooele successfully bid work on the Marine Corps' 5-ton trucks. In fact, it was \$837,005 cheaper for the Marine Corps to ship 112 M939 5-ton trucks from Barstow MCLB and have them overhauled at Tooele, including shipping costs, than it would have been to complete the work at Barstow. [TAB 20]

The Marine Corps was so pleased with the quality and timeliness that they sent many more to Tooele for repair, without seeking competitive bids.

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**VIII. USING FUTURE UTILIZATION ESTIMATES TO DETERMINE CLOSURE DECISIONS IS INVALID WHEN DEALING WITH DEPOTS BECAUSE IT PUNISHES EFFICIENCY AND REWARDS INEFFICIENCY**

It is startlingly illogical to target depots for closure simply on the basis of projected excess capacity. This clearly penalizes depots that are the most efficient, and ones that have the most modern equipment and the best facilities, while rewarding those depots that are old and inefficient and have the poorest facilities.

You assume the workload to be a given. A modern and efficient facility like Tooele may be able to handle that workload while still operating at well less than its capacity. That is the very definition of efficiency. Meanwhile, an older and much more inefficient base may have to devote its entire capacity to handling that same workload. It is simply a perverse conclusion to say that the older, more inefficient facility should be kept open, while the newer more efficient should be closed, because the future projected utilization rate of the old depot is higher.

This approach will always prejudice the newer, more modern facilities. Older depots will have already amortized their facilities costs unlike newer, more efficient facilities. The DoD and the Commission should not encourage analyses which penalize efficiency and modernization.

In a situation like this the answer seems deceptively simple. Instead of closing the modern and efficient depot, because it is going to be less utilized as compared to the older inefficient depot, what should be done is to increase the workload of the more efficient facility by going out and finding it additional capacity. That is exactly what the Army sought to do in its interservicing approach.

Tooele's new Consolidated Maintenance Facility (CMF) is the most modern, high-tech industrial facility in the Department of Defense, but is only at 35% capacity because of shrinking Army workload. Closing one or both of the Marine Corps depots and consolidating Marine ground equipment work to Tooele and other Army depots would raise Tooele's CMF utilization rate, reduce overhead costs, and preserve the best DoD facilities while eliminating World War II vintage facilities.

**IX. KEEPING TOOEELE OPEN, WHILE CLOSING THE ONE OR BOTH ANTIQUATED MARINE DEPOTS WILL RESULT IN SIGNIFICANT LONG-TERM SAVINGS FOR TAXPAYERS**

The long term cost savings to the taxpayer is spelled out at TAB 9. Closing Barstow, in addition to Letterkenny and transfer of Sacramento ALC C&E workload, would generate an additional annual recurring savings of \$18.6 million (35% reduction from Barstow's present costs).

The additional closure of Albany would increase the annual savings to \$27.9 million (28% reduction from Barstow and Albany's combined costs).

Also avoided would be the one time relocation costs of \$74 million resulting from Tooele's closure, [TAB I] as well as the avoidance of \$9.45 million in military construction planned for Red River in FY 1997 to accommodate Tooele's realignment. [TAB I]

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Unspecified millions in additional costs could also be saved through the avoidance of military construction upgrades to the Barstow (or Albany) MCLB's. One example is the \$8.69 million industrial waste water treatment planned for Barstow in the FY 1994 military construction budget request. [TAB I] There would be no justification for spending millions on upgrades at a surplus installation. By contrast, Tooele Army Depot already has two new waste water treatment plants.

**X. THE DECISION TO FORGO INTER-SERVICE USE OF DEPOTS CLEARLY VIOLATES THE EXPRESS WILL OF CONGRESS AND BASE CLOSURE CRITERIA NUMBER 1**

It is clear from Gen. Powell's testimony to the Commission at its opening hearing that he and Secretary Aspin did not have the time, energy, or will to fight the fight that will be required to order the inter-service use of depots. As the General noted as he concluded his answer to Chairman Courter's question on depots:

*"Overall, Department-wide, we might save money, even though one service may have to pay more. Its those -- sort-of, believe me, Talmudic, Solomon-like decisions that are going to have to be made."*

Moreover, as quoted earlier, the Secretary's report to the Commission forwarding his recommendations for closure and realignment urged the Commission to take an active look at inter-service arrangements when considering which maintenance depots to close.

No one disputes the General's assertion that mediating these kind of inter-service turf battles is difficult and unpleasant, and that time was lacking during the BRAC '93 process. However, the final 1993 Base Closure selection criteria require this very type of analysis.

For the 1988 round of base closures, the first criteria for determining the value of a base was its military value to the Military Department. In 1991, and again in 1993, the Department of Defense determined this criteria to be flawed and replaced it with the current first criteria: "...current and future mission requirements and the impact on operational readiness of the Department of Defense's total force."

It was no accident that this criteria was changed. It was specifically amended to ensure that all base closures be considered on an inter-service basis, not simply how it will impact one military department.

**XI. ENVIRONMENTAL ISSUES**

**I. The Impact of Tooele's Realignment on the Chemical Munitions Disposal Program:**

**a. Background:**

Tooele is home to 42% of the entire U.S. stockpile of obsolete chemical weapons. There are seven other sites in the continental U.S. with smaller stockpiles.

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CHEMICAL MUNITIONS STORAGE SITES:

Tooele Army Depot	42.2%
Pine Bluff Arsenal	12.0%
* Umatilla Depot Activity	11.6%
* Pueblo Depot Activity	9.9%
Anniston Army Depot	7.1%
Aberdeen Proving Ground	5.0%
Newport Ammunition Plant	3.9%
Lexington Depot Activity	1.6%

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\*\* 93.4%

\* These sites are under Tooele Army Depot Management.

\*\* Johnston Atoll, South Pacific, contains the remaining 6.6%

The U.S. is under treaty obligations with the Republics of the former Soviet Union to destroy virtually all of the stockpile by the year 2000. According to federal law, each storage site will receive a destruction facility and the chemical munitions will be destroyed on-site. To date, only Johnston Atoll has such a facility operating. Tooele Army Depot is nearing completion on the largest of the facilities, a \$380 million dollar incinerator. It will begin operation in 1995. Strong community opposition at other locations has hampered Department of Defense plans to begin design or construction of such facilities at the other sites.

Tooele is the pioneer in the handling and disposal of chemical munitions. Tooele's separate "Chemical Agent Munitions Disposal System" (CAMDS) facility began operations in September, 1979, to develop disposal methods, and has since successfully destroyed thousands of tons of all different types of chemical agent and munitions.

**b. Negative Impact on Tooele:**

Details of the realignment have not been shared with the Task Force by the Army. It is known that Tooele will lose virtually all of its existing management and support personnel. Red River Army Depot is slated to take over management of Tooele, in addition to Tooele's depot activities at Umatilla and Pueblo.

i. Safety of Local Residents: It can be assumed that the number of security personnel on base will be reduced by the realignment to depot activity status. This calls into question the security of Tooele's sprawling storage sites and the ability of a smaller security detail to police the areas to prevent against unauthorized entry. Many of the munitions stored at Tooele are leakers and require highly specialized handling and security. [TAB 21]

ii. Loss of Expertise in Chemical Management: Support to the chemical mission, including Tooele's depot activities at Umatilla and Pueblo, accounts for 37% of the identifiable base

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operations support at Tooele. This figure does not include general support not specifically identifiable for both base operations and the mission support areas.

If Tooele is reduced to depot activity status, there will be a loss of expertise of the management team. Numbers of personnel and grades will be reduced. Qualified people will be lost. This will become especially critical as the destruction mission is just coming on-line in 1995.

There is simply no other depot with management experience in the highly specialized and sensitive areas of chemical munitions handling and destruction. Red River Army Depot does not have chemical munitions and has absolutely no experience with management of these items. Under the proposed realignment, Red River would now become the manager of 3 chemical munitions disposal sites. The risks to human safety, as well as the hampered ability to comply with international treaty obligations, are too high. [TAB 22]

Tooele Army Depot represents one of the more contaminated sites. As Patrick J. Meehan Jr, Principal Director of the Office of Assistant Secretary of Defense (Environment) admitted in testimony before the Commission on March 22, the Army has estimated the cost of cleaning up Tooele to be approximately \$500 million. In an answer to a question from Commissioner Levitt, Mr. Meehan admitted that Tooele effectively represented a base too dirty to close. So as far as community reuse is concerned -- like with Ft. McClellan in Alabama -- what the Army proposes to do at Tooele is the worst of all possible worlds for the community. The Army wants to shut down the majority of the base's activities, yet it proposes to keep open that which will render effective community reuse all but impossible.

## **XII. ECONOMIC IMPACT GREATEST ON TOOELE COUNTY**

There are other sites in the 1993 BRAC recommendations which could receive higher job losses in terms of quantity of personnel. However, there is no other county or community harder hit by the 1993 list than Tooele County, Utah. [TAB 23]

As a percentage of total jobs lost, both direct and indirect, 34.1 % of all jobs in Tooele County would be lost.

While military value is the number one criteria by which the Commission must make its judgements, it must also take economic impact into consideration when making hard choices between competing installations.

*(Continued Next Page)*

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### **XIII. TASK FORCE RECOMMENDATIONS TO THE COMMISSION**

Based on the arguments and analysis presented, the Task Force recommends that:

- **Barstow MCLB and Albany MCLB be considered for closure or realignment, in addition to Letterkenny Army Depot.**
- **That Tooele Army Depot workload and management not be realigned to Red River.**
- **That the Army be chosen the single executive agent for depot maintenance on ground systems and equipment, and that it be allowed to shift workloads across lines in order to maximize the use of remaining facilities and capabilities.**
- **That in the alternative, if the Commission believes that it does not have the time or the data necessary to make the above recommendations, then it remove all depots from the list of proposed closures for 1993, and that it direct the Department of Defense to prepare a ground-up review of the entire military depot structure in preparation for the 1995 Commission deliberations.**

## List of Enclosures

<b>Report to the Defense Base Closure and Realignment Commission</b> “1993 Defense Base Closures and Realignments”, recommendation on Tooele Army Depot, p. 31 .....	1
<b>Report to the Defense Base Closure and Realignment Commission</b> “1993 Defense Base Closures and Realignments,” recommendation on Defense Distribution Depot Tooele, p. 136 .....	2
<b>Report to the Defense Base Closure and Realignment Commission</b> “1993 Defense Base Closures and Realignments,” Introductory Remarks by Secretary Aspin on Depots, p. 11 .....	3
<b>Memorandum</b> to Secretary Aspin From General Colin Powell Regarding Depot Consolidation Study .....	4
<b>Memorandum</b> for Service Secretaries From Deputy Secretary Atwood, Dec. 3, 1992, regarding Interservicing of Maintenance Depots .....	5
<b>Memorandum</b> for Deputy Secretary Atwood from Service Secretaries Sean O’Keefe (Navy); Michael Stone (Army); and Donald Rice (Air Force); dated Jan. 15, 1993, regarding integrated service proposals on Depot Maintenance .....	6
<b>Memorandum</b> for Secretary Aspin from General Powell, Jan. 22, 1992, Regarding Lack of Progress by Services on Interservicing .....	7
<b>Memorandum</b> for Secretary Aspin from Acting Secretary of the Army Shannon, Feb. 9, 1993, criticizing Navy/Marine Corps for Not Cooperating on Ground Depot Interservicing .....	8

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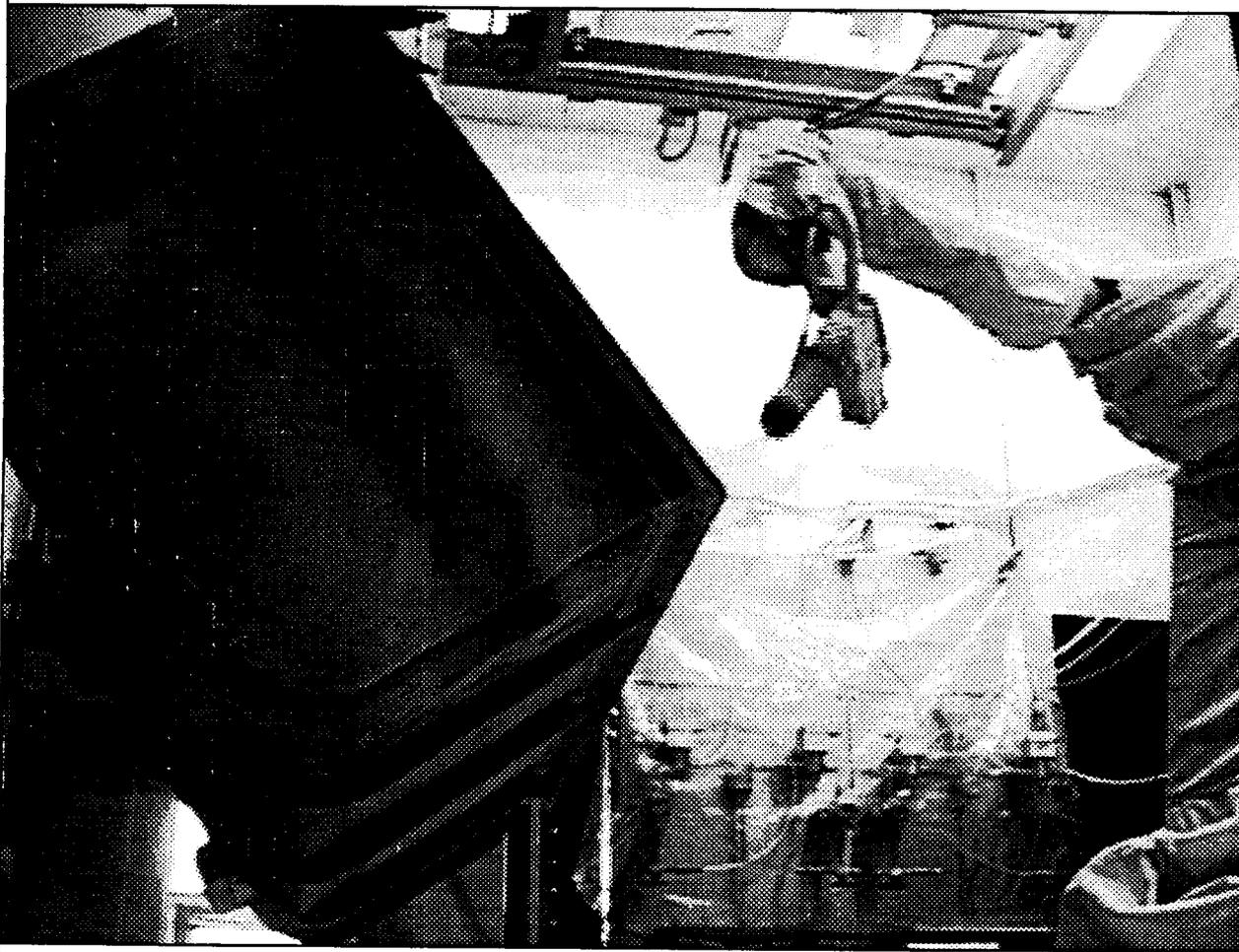
<b>Information Paper, Col. Roy Willis, USA, DACS-DMM,</b> March 11, 1993, Outlining Army's Interservice Proposal on Ground Systems and Equipment.....	9
<b>Briefing Packet, U.S. Army,</b> as Briefed to OSD, Mr. Bob Mason, in mid - February .....	10
<b>U.S. Army Paper,</b> Realignment Costs in Military Construction Needed to Transfer Workload to Red River Army Depot listed at \$9.45 million .....	11
<b>FY 94 DOD Milcon Summary to Congress, pg. 100,</b> Listing \$8.69 million for Industrial Waste Treatment Plant at Barstow MCLB .....	12
<b>Joint Working Group Memorandum, Feb. 18, 1993,</b> Listing FY 1992 Actual Cost for Army and Marine Corps Ground Depots .....	13
<b>Briefing Packet, U.S. Marine Corps, BGEN. J.D. Stewart,</b> Mar. 4, 1993, on Marine Corps Depot Maintenance to Congressman James V. Hansen .....	14
<b>Memorandum for ADASD (P&amp;L), by Robert T. Mason,</b> Director of Maintenance Policy, Mar. 9, 1993 .....	15
<b>Information Paper, Col. Roy Willis, USA, DACS-DMM,</b> Mar. 12, 1993, Comparing Army and Marine Corps Maintenance Depot Costs .....	16
<b>Tooele Base - Operations Calculations,</b> Col. Roy Willis, USA, DACS-DMM.....	17
<b>U.S. Marine Corps Data,</b> FY 1999 Projected Workload for Barstow MCLB in Direct and Labor Man Hours .....	18
<b>U.S. Marine Corps Data,</b> FY 1999 Projected Workload for Albany MCLB in Direct Labor Man Hours .....	19
<b>U.S. Marine Corps Data,</b> 5-ton truck IROAN for Albany MCLB, listing Tooele as Winner of Maintenance Competition in FY 1992 .....	20

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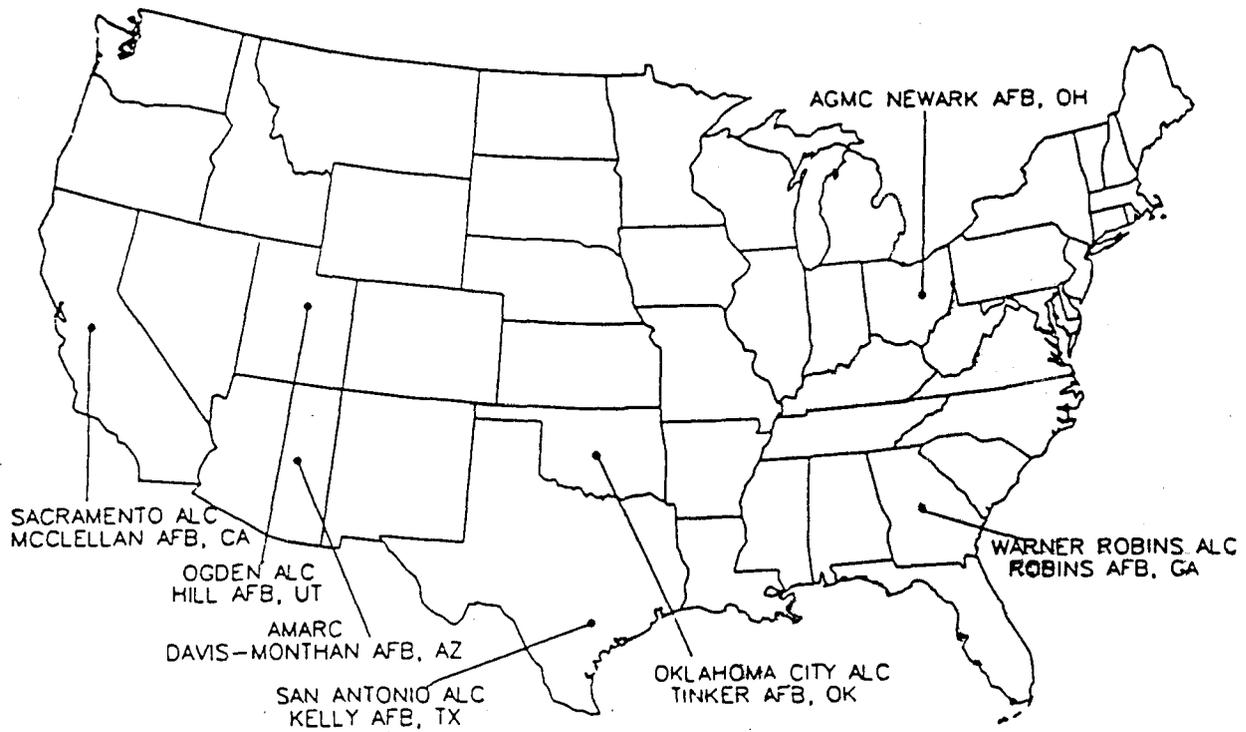
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<b>Desert News Article, Mar. 21, 1993,</b> “73% of Nation’s Leakers are Spread at Tooele Depot” .....	21
<b>U.S. Army data, Tooele Army Depot,</b> Charts Depicting Tooele’s Expertise in Management of Chemical Munitions Disposal Program .....	22
<b>Desert News Article, Mar. 18, 1993</b> “Tooele Tops Lists of U.S. Areas That Would Suffer” .....	23
<b>GAO Report,</b> “Military Bases: Analysis of DOD’s Recommendations and Selection Process for Closures and Realignment,” April 15, 1993, p. 18, 19, 20 .....	24
<b>Consolidated Maintenance Facility (CMF)</b> Specifications .....	25

T O O E L E A R M Y D E P O T



*Tooele's New \$114 Million Consolidated Maintenance Facility with State of the Market Equipment*



#### 4.0 AIR FORCE

The mission of the Air Force Logistics Command (AFLC) is to provide the operational combat commands the support they require to effectively execute their wartime missions. Key elements of this support are the depot level maintenance repair facilities and contractors. It is essential that the peacetime personnel, facilities, and equipment reflect a preparedness for mobilization.

The Air Force has seven depot level maintenance activities as shown on the map. AFLC's industrial complex constitutes one of the major industrial activities of the United States. This industrial complex provides direct support to operational commands located throughout the world. The depots accomplish repair, overhaul and modification of aircraft, missiles, engines, other major end items, and exchangeables in the Air Force inventory. AFLC depot maintenance capability is critical to the successful completion of the Air Force wartime mission; therefore, the peacetime structure of depot maintenance repair assignments and capabilities must be established and maintained with wartime missions as the prime criteria.

The last major AFLC restructuring effort established the Technology Repair Center (TRC) concept and assigned workloads to depots based on an alignment of technologies across the five ALCs, AMARC, and AGMC. Changes in the nature of the AFLC workload have been driven by technological developments, increased emphasis in AFLC on the Air Force wartime mission, technology integration, increased emphasis on weapon system planning, programming, budgeting, and execution.

Although TRC oriented workload continues to exist in the ALCs, assignments are now primarily oriented to integrated weapon system management. The change from TRC to integrated weapon system management is being accomplished incrementally to lessen the impact and maximize utilization of the existing infrastructure, resource investment, support processes, and organizations.

This move to integrate weapon system management and the emphasis on total quality management have resulted in a major reorganization of the AFLC structure. On October 31, 1990, AFLC's five air logistics centers began operating through "product" and "service" directorates that will support AFLC's customers such as the Strategic Air Command, Tactical Air Command and Military Airlift Command along with some 81 nations around the world. In a significant new approach to the way an ALC does business, the centers have changed from being organized along functional lines and now are restructured along product and service lines. Each ALC workforce will support products such as aircraft and commodities, along with services such as financial management and contracting rather than broad functional organizations such as maintenance and distribution.

Each ALC consists of a three-tier structure. One tier includes the typical commander's special staff. A second tier includes the major service directorates, including contracting, financial management, inspector general, human resources, environmental management, communications and computer systems group and an air base group. Product management directorates - those dealing directly with the operational commands - comprise the third tier. As much as possible, each product directorate will be independent and have the necessary people to perform the full spectrum of activities needed to support weapons or systems.

Product management directorates are established by each ALC commander relative to specific weapon system or mission support requirements assign to that center. People assigned to a service directorate are now matrixed to a product directorate where they will work as part of a team to support the directorate's specific product. Procurement specialists from the contracting directorate, for example, are detailed to the aircraft directorate where they buy spare parts for a specific aircraft.

Other AFLC units - including the Aerospace Guidance and Metrology Center, (AGMC) and the Aerospace Maintenance and Regeneration Center (AMARC) are scheduled to reorganize under a different timetable.

## 4.1 Aerospace Guidance & Metrology Center (AGMC), Newark AFB, Ohio

### 4.1.1 OVERVIEW

**HISTORY/MISSION:** This installation was opened in 1962 as the 2802nd Inertial Guidance and Calibration Group. The installation was formally recommissioned in 1968 as the Aerospace Guidance and Metrology Center with a work force of less than 3,000. Today the annual operating budget is over \$160M. In addition to inertial guidance and navigation systems, its mission has been expanded to include aircraft altitude, heading and reference systems, displacement gyroscopes, atomic clocks, borescopes, fuel saving computers, and software management.

**LOCATION:** The Center is situated in central Ohio, 30 miles east of Columbus. It is located in Licking County, six miles north of I-70, on the southern border of the city of Heath.

**SIZE:** The installation covers about 80 acres and includes facilities and plant equipment valued at \$300M. Maintenance operations are housed in a wide-span building covering more than 16 acres with over 151,164 SF of environmentally controlled areas. Most of the environmentally controlled areas consist of separate, isolated buildings within the main structure.

**WORK FORCE/PAYROLL:** Newark Air Force Base currently employs more than 2,600 personnel including about 80 active duty military personnel, and 140 reserve personnel. The base has an annual payroll of \$85M.

### 4.1.2 DEMOGRAPHIC DATA

**POPULATION:** The total work force population at the AGMC is drawn from eight surrounding counties: 75 percent Licking County, 10 percent Franklin County, and 15 percent from Delaware, Knox, Coshocton, Muskingum, Perry, and Fairfield Counties.

**SKILL BASE:** Newark AFB employees are highly skilled. Nineteen percent have as a minimum a bachelors degree. The majority of AGMC's direct workers are two year graduates in mechanics or electronics from three area technical colleges, or have some college credits. Skills are in mechanics, electronics, engineering, and instrumentation.

**TRANSPORTATION ACCESS:** All shipping and receiving of products and supplies are by military or commercial trucking. The area is serviced by one railroad and four highways with access to the interstate highway systems.

**ENVIRONMENTAL CONSTRAINTS:** AGMC operates within the limitations and under the guidelines of many federal and state environmental regulations; however, these regulations do not constrain nor impede the AGMC mission. The current physical condition of the environment at AGMC is within the EPA limitations in all categories.

## LOCAL INDUSTRIES:

COMPETITIVE - None.

COMPLEMENTARY - Overall, the Newark area offers a wide range of businesses to complement the mission of AGMC. Electronic shops, machine and tooling businesses, and other supply firms are frequently called upon to assist where time is a factor in meeting certain deadlines.

### 4.1.3 TECHNOLOGICAL ENHANCEMENTS

MANUFACTURING TECHNIQUES/PROCESSES: AGMC's current manufacturing capability is limited with the emphasis in the conventional machine shop on maximum repair capability. The machine skills are tool makers, general machinists, machine operators, and sheet metal workers. These individuals are proficient on light to medium machine tools, such as, lathes, milling machines, ID, OD, surface grinders, drill presses, and light to heavy duty sheet metal machines. Also, the "B" room (Beryllium Machine Shop) does manufacture and repair of Beryllium products used in missile guidance systems.

REPAIR TECHNIQUES/PROCESSES: Some of the new techniques and processes at AGMC are:

The Computer Aided Design and Drafting (CADD) system is replacing manual drafting, thus enhancing drafting operations with increased accuracy.

AGMC's machining operation will receive latest state-of-the-art milling with the aid of CNC, to enable design storage for further use.

In order to reduce the consumption of Freon TF-113 (for cleaning inertial parts), the use of clysonic cleaners has been tested and implemented at AGMC by using pure water and biodegradable detergent in the cleaning of inertial components and parts. Many cleaning processes at AGMC have already been converted to this process instead of using hazardous chemicals and solvents.

Module testing using Digital-Analog Module Test System (DAMTS) and GenRad 2271 "in-circuit module tester" is now in use at AGMC.

In order to perform fast noncontact measurements and statistical analysis of measurement data, the Lasermike Model 183 is now in use at AGMC.

Three Plastic Bead Stripping Systems are now in place at AGMC. The intent is to reduce, as much as possible, human exposure to the chemicals often used in stripping epoxy, paints and coatings from inertial parts prior to reassembly. These bead stripping systems are used mainly on rework of aircraft parts and not on missile parts. This is because of the beryllium content of most missile parts.

AGMC has a laser technology enhancement project using a laser to measure the flatness of the Minuteman Computer memory disc to an accuracy of four micro inches.

The AFLC Electro-Static Discharge Technology Center is located at AGMC and is responsible for developing specifications for, and performing the first article testing on ESD control devices for the command.

In the area of metrology, the Directorate of Metrology manages the Air Force Metrology and Calibration Program and operates the primary Air Force Measurement Standard Laboratory. The Directorate also acts as the single Air Force point of contact with the National Institute of Standards and Technology and the US Naval Observatory. It maintains measurements standards and accuracies that affect nearly every operational system from jets to commissary scales. The Directorate also maintains some national standards because its experience and expertise exceeds that of any other agency, including the National Institute of Standards and Technology.

AGMC is currently investigating the use of infrared, non-contact testing to predict the remaining life of electronic components. A thermal image data base and computer-based decision support system will identify degraded components which, while still operational during the repair process, may have a short useful life remaining.

## 4.2 Aerospace Maintenance & Regeneration Center (AMARC), Davis-Monthan AFB, Arizona

### 4.2.1 OVERVIEW

**HISTORY/MISSION:** In order to provide a suitable location for vast numbers of surplus aircraft no longer needed in the Army Air Force operational inventory, the 4105th Army Air Force Base Unit was established at Davis-Monthan AFB in April 1946 to store aircraft and prepare them for one-time flight to depot for overhaul. The creation of the United States Air Force as a separate service in 1947 prompted a reorganization and name change and also saw reclamation in support of active flying units added to the center's mission. During the Korean conflict, the center provided aircraft and aircraft parts. At the cessation of hostilities, an influx of aircraft came into the center for storage. In February 1965 the center was renamed the Military Aircraft Storage and Disposition Center (MASDC) and assumed the role of storage facility for aircraft from all services. The mid-1960s also saw an escalation of the Vietnam conflict, and the center was again tasked with providing aircraft and parts. As the Southeast Asia conflict started winding down, vast quantities of aircraft were once more funneled into MASDC for storage and reclamation. At the end of fiscal year 1973, the center's inventory ballooned to an all-time high of 6,080 stored aircraft. The post-Vietnam conflict period saw the addition of several significant logistical programs at the center. Beginning in 1976, a series of ongoing drone programs were initiated to restore F-102, F-100, and F-106 fighter aircraft as remotely controlled targets. In 1981, a storage facility was added at Norton AFB, California, to preserve Titan II, Thor, and Atlas missiles used by the Space Division for its satellite launches. The center's name was changed in October 1985 to the Aerospace Maintenance & Regeneration Center to underscore the dynamic aspect of AMARC's mission and the fact that it is an active industrial complex which primarily promotes the regeneration of aerospace assets.

AMARC's peacetime mission is storage, maintenance-in-storage, regeneration (by flyaway and overland shipment), reclamation, and preparation for disposal. Contingency tasking includes priority parts removal for all services and Navy flyaway and Army overland withdrawal of aircraft. AMARC was selected as the elimination site of the Ground Launched Cruise Missiles (GLCMs) and associated items, and to date has eliminated 222 GLCMs, 222 launch canisters, 52 transporter-erector-launchers (TEs), 51 training launch canisters, and 16 driver training vehicles (DTVs) to comply with the Intermediate Range Nuclear Forces (INF) treaty between the United States and the Soviet Union. Major programs include the F-100 and F-106 drone programs, KC-135 aircraft for re-engining support program, Titan missile storage and withdrawal, reclamation, and production tooling storage. In fiscal year 1989, AMARC processed into storage 345 aircraft while withdrawing (for the services) 157 aircraft. During this same period, over 145,740 aircraft and engine parts were reclaimed. AMARC's output is the sum of parts and aerospace vehicles placed back into service. That sum in fiscal year 1989 was \$387.5M. Considering that it cost \$27.0M to operate the center, that is a \$14.35 return for each dollar invested.

LOCATION: AMARC is located within the city limits of Tucson, Pima County, Arizona.

SIZE: AMARC consists of 2,562 acres with 67 real property buildings valued at \$8,235,671. Total square feet - 581,594 as follows: 451,479 shop space, 69,263 warehouse space, 60,852 administrative space. Number of aircraft stored (as of 1 October 1989) - 2,731 valued at \$7.065B. Approximate number of production tooling pieces stored - 51,000 valued approximately at \$550M.

WORK FORCE/PAYROLL: For fiscal year 1989 AMARC's payroll was \$19,626,620 for civilian employees and \$250,594 for military employees. Population was 640 as of 30 September 1989.

#### 4.2.2 DEMOGRAPHIC DATA

POPULATION: The total work force population at the center is 640 and is totally drawn from Pima County which is where the city of Tucson is located and is the second largest county in Arizona.

SKILL BASE: The center draws its work force from a large number of retirees from the military services. These individuals acquired training while in the military services and many worked in more than one functional area. The center is able to hire at the journeyman level. Approximately 90 percent of its employees can be categorized as highly skilled, which reduces the need for required initial training. Training is normally required for certification on newly received aircraft.

TRANSPORTATION ACCESS: The area is serviced by one major interstate highway (I-10) that intersects with I-19 for overland service to the Arizona/Mexico border. There is one major commercial airport and two small craft airports. The Southern Pacific railroad has a major spur that services the Tucson area.

ENVIRONMENTAL CONSTRAINTS: Currently there is no environmental legislation that is affecting this center's mission. The main environmental concern is the pollution of both the ground water and sewer systems due to improper disposal of individual waste and chemicals. The state has initiated annual vehicle testing to meet Environmental Protection Agency air quality requirements in order to combat air pollution.

#### LOCAL INDUSTRIES:

COMPETITIVE - Garret Industries, Hughes Aircraft Company and Learjet Corporation, Tucson, Arizona; Pinal Airport, Marana, Arizona.

COMPLEMENTARY - None.

## 4.3 Ogden Air Logistics Center (OO-ALC), Hill AFB, Utah

### 3.4.1 OVERVIEW

**HISTORY/MISSION:** In August 1935 Congress passed the Wilcox-Wilson Bill (Public Law 26) which provided for the addition of new permanent Air Corps stations and depots. A supplemental Military Appropriation Act of 1 July 1939 authorized \$8M for the Ogden Air Depot. The Ogden Air Depot was renamed Hill Field on 1 December 1939, in recognition of Major Ployer P. Hill, who lost his life on 30 October 1935 while testing the prototype of the famed B-17 "Flying Fortress."

Construction was well under way when Colonel Morris Berman arrived on 7 November 1940, thus activating the base and becoming the Ogden Air Depot's first commanding officer. Four 7,500 foot runways were completed by 1 September 1941, and maintenance began on several A-20s and Lockheed Hudsons at the same time. The B-24, the first major workload for the base, entered a production line on 14 February 1943, and by 6 July 1943 maintenance had reached its goal of completing one bomber per day.

During World War II the name of the Ogden Air depot changed three times: It became Ogden Air Service Command, then Ogden Air Technical Service Command, and on 22 July 1946, Ogden Air Materiel Area (OOAMA). After the war Ogden's major workload became aircraft storage and disposal.

The US Air Force came into being on 18 September 1947 with passage of the Armed Services Unification Act of 1947, and on 5 February 1948 Hill Field was renamed Hill Air Force Base. In the 10 years that followed, Hill's facility size and workload increased significantly because of the onset of the Korean Conflict and the changes in its mission to accommodate several squadron activities, and with the transfer of the Ogden Arsenal on 1 April 1955 from the Army to the Air Force. Additionally, in the 1950s jet aircraft began to replace the aging B-29s and B-26s. OOAMA began modifications on the F-89 as well as inspection and repair of the F-84 in 1953. With the completion of a new runway in 1957 OOAMA received the F-102 Delta Dagger interceptor and the RF-101. In 1957 Ogden also entered into the missile business with the assignment as prime maintenance source on the BOMARC supersonic interceptor missile. In January 1959 OOAMA was assigned prime managerial responsibility for the SM-80 Minuteman Intercontinental Ballistic Missile. In 1965 Ogden was also assigned responsibility for the LGM-25 Titan II Missile.

On 9 January 1962 AFLC designated OOAMA as the system support manager for the F-4C tactical fighter. On 1 April 1974 OOAMA was renamed the Ogden Air Logistics Center. HQ AFLC designated OO-ALC as system manager for the Advance Intercontinental Ballistic Missile (MX) system in 1975. In December 1976 Ogden was designated the system and maintenance manager for the new F-16 multinational fighter.

Today, OO-ALC has five unique major Air Force missions: System support of strategic missiles; management and storage of non-nuclear air munitions; system management of the F-16; system management of the F-4

and RF-4; and management of such items as photographic and reconnaissance equipment, flight simulators and trainers, and landing gear wheels, brakes, and struts. Ogden Air Logistics Center is the primary repair source for repair of the F-16, F-4 airframes and the Minuteman and Peacekeeper missiles. In January 1988 they produced the first C-130 aircraft and are programmed to PDM 30 per year. In addition the depot is accomplishing the refurbishment of the OV-10 for the system manager at SA-ALC.

**LOCATION:** OO-ALC is located in the population center of Utah, about 30 miles north of Salt Lake City, Utah, via Interstate Highway 15, 15 miles south of Ogden and is 4,800 feet above sea level.

**SIZE:** The industrial complex consists of 273 buildings distributed over 6,666 acres. The maintenance shops and hangars equate to 3.1 million SF of work area. Facility value is in excess of \$140M. Plant equipment value is in excess of \$409M.

**WORK FORCE/PAYROLL:** The industrial complex has 6,585 civilian employees, with an annual payroll of \$249.5M. There are 424 military in the work force, with an annual payroll of \$7.4M.

#### 4.3.2 DEMOGRAPHIC DATA

**POPULATION:** The total industrial complex work force is drawn from seven surrounding counties: Davis County 34 percent; Salt Lake County 28 percent; Weber County 30 percent; and the remaining 8 percent from Cache, Box Elder, Utah, and Morgan Counties.

**SKILL BASE:** Approximately 40 percent of the work force are initially unskilled, 40 percent are moderately skilled, and about 20 percent can be categorized as highly skilled.

**TRANSPORTATION ACCESS:** OO-ALC has two major highways (I-15 and I-80), three railroads, one major commercial airport (Salt Lake City Airport), and one small craft airport.

**ENVIRONMENTAL CONSTRAINTS:** The total environmental picture is closely scrutinized with two areas that merit special attention: OO-ALC lies in an air quality nonattainment area for certain pollutants; hence, emissions are monitored and scrubbed where necessary and waste water released into local sewage systems must meet Utah water quality standards.

#### LOCAL INDUSTRIES:

**COMPETITIVE -** The following list of industries do compete for some of OO-ALC's labor force.

Delta Airlines  
United Airlines  
McDonnell Douglas  
Lockheed Missiles and Space Company

Williams International  
Morton Thiokol Incorporated  
Hercules Incorporated  
Internal Revenue Service Center  
Defense Depot Ogden

COMPLEMENTARY - The following list is a small part of the companies and industries that supply services and material to the base.

Pacific Power Company  
Mountain Fuel Supply Company

AT & T Telephone  
Weber Basin Water

#### 4.3.3 TECHNOLOGICAL ENHANCEMENTS

Productivity, Reliability, Availability, and Maintainability (PRAM) Projects.

Microwave & Digital/Analog Design & Test Station  
Eddy Current measurement of Bearing Surfaces  
Improved PK-1000 Automatic Test Station  
Universal Analog Diagnostic Module Using Neural Network (Prop.)  
Image Scanner  
Neural Radiant Energy Detection System  
Surface Mount Repair on Advanced Electronics  
Radome Automated Laser Paint Stripping System  
Digital Multimedia Information Systems (DMIS) integrated into RMATS  
Automatic Test Station

Repair Technology (REPTECH) Projects.

Automated Aircraft Paint Removal  
Automated Screw Removal, Deriveting and Drilling Cell  
NDI of Military Circuit Boards after ESS  
Universal Engine Test Cell  
Performance Evaluation Equipment for Electro-Optic & IR Imaging  
X-ray computer-aided tomography

Maintenance Systems Technology (MST) Project.

Programmable external gap grinder  
Small parts bead blast system

Depot Maintenance Industrial Fund (DMIF) Projects - Initial Procurement of New Technology.

Parts delivery system  
Parts storage and retrieval system  
Investment casting  
Automated maneuverable radiography  
Electronic quality verification center

Methods/Process Development.

Cure/processing of advanced composite repairs  
X-ray facility  
Cell sealing robot  
Binary Cutter Location/Distributed Numerical Control (BCL/DNC)  
Catalytic Incinerator at Purge  
Expert System for Automatic Test Equipment (ATE)  
Replacement of 1,1,1 trichloroethelene as cleaner

Other Initiatives.

Engineering services contract  
Corrosion Management Expert System

## 4.4 Oklahoma City Air Logistics Center (OC-ALC), Tinker AFB, Oklahoma

### 4.4.1 OVERVIEW

**HISTORY/MISSION:** Early in 1941 a group of Oklahoma City businessmen and civic leaders learned that the War Department planned to locate a maintenance and supply depot in the central United States. They purchased 960 acres of land and took a 50-day option on an additional 480 acres to be used as the War Department saw fit. On 8 April 1941 the order was officially signed awarding the depot project to Oklahoma City. In 1942 the new installation was named Tinker Field in honor of Major General Clarence L. Tinker. Tinker's industrial plant repaired B-17 and B-24 bombers and engines, and fitted B-29s for combat during World War II. In 1946 Tinker expanded to include the Douglas Aircraft Plant and was named Oklahoma City Air Materiel Area (OCAMA).

During the Korean Conflict, OCAMA gave materiel support to the US effort there. The rest of the fifties were noted for base expansion and new management responsibilities. OCAMA undertook complete system management of the latest Air Force weapons, the B-52 bomber and the KC-135 tanker. In 1958, the most encompassing project in Tinker's history took place when hundreds of B-47s flew in for wing modification.

In the 1960s, OCAMA responded to crises as it steadily increased its role in management of weapons systems. It provided substantial aid to the Air Force in the Berlin Crisis of 1961 and in the Cuban Missile Crisis of October 1962. Throughout the Vietnam Conflict, Tinker provided significant logistics support, especially for the B-52 bombers. In 1974, the depot was renamed the Oklahoma City Air Logistics Center (OC-ALC).

Today, OC-ALC provides worldwide logistics support for a variety of weapons systems, including B-1B, B-52, A-7D, multi-purpose C-135 series, C-137, E-3, and E-4 aircraft. OC-ALC also manages the Short Range Attack Missile (SRAM), Air Launched Cruise Missile (ALCM), Ground Launched Cruise Missile (GLCM) and the Harpoon Missile. The center manages 16 kinds of aircraft engines including the TF30, TF33, TF41, J57, J79, F101, F108, and F110, and approximately 135,000 accessory items. Two unique management assignments are: The center operates the only inland Aerial Port of Embarkation (APOE) in the Air Force in the receipt, processing, and shipping of cargo to overseas destinations; and the ALC is the System Program Office (SPO) for the Worldwide Airborne Command Post.

**LOCATION:** OC-ALC is located at Tinker AFB in the southeastern Oklahoma City metropolitan area. It lies between Interstate 40 on the north and Interstate 240 on the south. It is five miles east of Interstate 35.

**SIZE:** Tinker AFB has a total of 5,001 acres and 709 buildings that enclose approximately 14.2 million SF of floor space. The industrial complex is responsible for depot level maintenance, and has 48 buildings with 4.6 million SF, and plant equipment valued at \$275M.

WORK FORCE/PAYROLL: Tinker AFB work force totaled 26,039 in FY89 with a payroll of \$676.7M. This figure consists of 7,200 military and 17,657 civilians employees. (Maintenance work force and payroll are 8,000 and \$272M, respectively.)

#### 4.4.2 DEMOGRAPHIC DATA

POPULATION: The total work force population in FY89 at Tinker AFB was 26,039. Over 97 percent of Tinker's employees reside in eleven counties surrounding the base. Oklahoma County has the greatest number of Tinker employees, over 70 percent of the work force.

SKILL BASE: Forty percent of the work force are from an urban industrial community, initially unskilled or semi-skilled, and require training. However, unique to this center is Tinker's in-house aircraft maintenance vocational/technical training program in which the employees can complete intermediate skill training in a short period of time. Approximately 35 percent of the work force are moderately skilled, and are from Tinker's industrial/aviation pool. Approximately 25 percent are highly skilled and come from military/civil aerospace related industries in the general recruiting area.

TRANSPORTATION ACCESS: Transportation access to Tinker AFB is:

Truck. The installation is accessible by four major highways from six directions.

North and South	-	Interstate 35
East and West	-	Interstate 40
Northeast	-	Turner Turnpike (I-44)
Southwest	-	H E Bailey Turnpike

Rail. The installation is served by one major rail system, the AT and SF Railroad, with five participating railroad companies.

Air. The installation is served by one major commercial airport and four small craft airports. The OC-ALC Aerial Port of Embarkation is operated around the clock, seven days per week, and is equipped to handle general, outsize, and oversized cargo aboard civilian and military aircraft.

ENVIRONMENTAL CONSTRAINTS: Each of the Federal environmental laws has corresponding State and local laws and other regulatory requirements which impact the depot.

The Clean Air Act and the attendant requirements for asbestos control require the base to clean up emissions to the air to comply with permits, clean asbestos from a variety of locations (this has been and will continue to be very expensive), and limit the processes and chemicals which are used on base in maintenance and operations. The Clean Water Act requires that wastewater be treated and clean before it is discharged into the streams leaving the base. Currently, the base is discharging within its permitted limits. An interim Federal Facilities Compliance Agreement between

Tinker AFB, Region VI EPA, and the Oklahoma Water Resources Board stipulates that Cease and Desist Orders on the base's wastewater treatment facilities may be issued if Tinker AFB does not comply with permits. Such orders would cause the base to cease all maintenance activities which generate the wastewater stream involved. RCRA, TOSCA, SARA, and NEPA all in their own way have an impact on resource requirements as well. Hazardous waste and material must be handled appropriately which costs money, manpower, and space. The base is currently involved in an extensive cleanup effort of old hazardous waste disposal sites. This is an expensive program and constrains the available space on base. Safe drinking water requirements impact the base in that most of the water on base comes from wells located on the base and run by the base.

Physical conditions of the environment surrounding the base constrain the installation. The base sits atop the Garber-Wellington Aquifer and constitutes a major part of its recharge zone. This is a critical factor and constrains the activity which can take place above the aquifer. The base must ensure no hazardous chemicals enter the aquifer. Another physical condition of the base relating to the environment is the fact that prevailing winds make compliance with air quality standards easier. Additionally, the fact that the base is not surrounded yet on all sides by residential areas or even industry makes problems normally encountered with noise less of a problem.

#### LOCAL INDUSTRIES:

COMPETITIVE - Major industries/organizations competing for skills and resources in this area:

##### Aviation related

Mike Monroney Aeronautical Center  
Federal Aviation Administration (FAA)  
Gulfstream Aerospace Corporation

##### Industrial

Hertz	AT&T
Ralston-Purina	Xerox
CMI	Chromalloy
General Motors (GM) Assembly Plant	
Hitachi	

COMPLEMENTARY - Supportive industries that provide products and services are:

##### Contractor

Avitech, Inc	Butler Heat/Air
Property SVC	Dynateria, Inc
Eason & Smith	RCA Service Co
Advance Manufacturing Co	Trane Co
BFA Sales	Magic Dust
Speciality Repair	IBM

Raytheon  
T. J. Murphy  
American Maid  
Nor-Cal Engr  
South Penn Auto

Evans Electric  
Oklahoma University  
Computer Power  
Abor Ipsen Ind  
Summerfield  
Containers

#### 4.4.3 TECHNOLOGICAL ENHANCEMENTS

##### MANUFACTURING TECHNIQUES/PROCESSES:

Flexible Repair Center (FRC). Flexible Manufacturing Systems (FMS) are a major innovation in modernizing and increasing production in new part manufacturing. The FRC is being designed to use FMS concepts in a repair environment. Unattended workstations are to be established so while an operator is loading parts, the machine tool can continue to produce parts. The Inspection Driven Repair Operations Planning System (IDROPS) will provide detailed operation information such as feeds, speeds, areas to be cut, material to be removed, and tolerances to maintain. This will allow for the minimum of material removal (to maintain structural integrity) and quickset repair sequence. The Cell Management System will schedule, monitor, and track parts and resources within the FRC. This will dictate system timing and download programs into the component workstations.

An obvious benefit will be a more efficient rework process. The faster turnaround of parts will be a result of the quicker throughput because of less idle time for the machine tools. A smaller in-process inventory can be maintained because of the fast turnaround of parts. This will mean less engines taken out of service and scheduled into the repair pipeline. The surge capability will be greatly enhanced because of the FRC (FMS concept) being able to handle large lot sizes at a moment's notice.

##### REPAIR TECHNIQUES/PROCESSES:

Case Resizing. This machine was procured to help reduce some of the rework needed on large parts due to out-of-roundness and shrinkage during service. This machine can expand parts that have shrunk beyond Technical Order limits, which saves them from being condemned or machined back to size which decreases service life. This reduces machining time and keeps a part in service longer. Presently, the case resizer is operational on the J57 first stage air sealing ring and the TF30 compressor case.

This machine will not eliminate the plating or buildup processes for parts completely, but it will help to reduce premachining on many parts because of out-of-roundness. This is important when considering the service life of the part. With less metal removal, the parts will naturally last longer.

Rejuvenation of Static Components. Rejuvenation is emerging as the technological innovation to return old engine components to a like new condition. Presently, repair of old components is a difficult process, as the parent metal experiences material degradation from fatigue, distortion, and material loss, requiring extensive repairs. Unsuccessful repair efforts result in condemnation or limited restoration. Rejuvenation will provide

heat treatment, activated diffusion healing, and low distortion welding making it less crack prone, therefore extending the life of the component, and enhancing efficiency and productivity.

**Laser Holography Inspection System.** A Laser Holography Inspection System has been installed for the inspection of abradable airseals. This system will inspect for debonds between the parent metal and its abradable airseal. Often these coatings do not fully bond to the parent metal and fail during machining or in operation. Defective coating accounts for approximately 50 percent of the rejected parts. No economical standard NDI method can detect delaminated coatings. This results in lost machining and labor time. The Laser Holography System inspects plasma spray coated airseals before machining. This will eliminate failures occurring during machining due to debonding. Laser Holography will decrease reject rates and engine failures by detecting defective coatings before machining and assembly. Laser Holography will also save the lost time due to failures.

**Blade Repair Facility.** Ground breaking was December 1986 with construction completed in June 1989. The Jet Engine Blade Repair Facility houses more than 125,000 SF of floor space, cost \$33.6M, and is being utilized by the Propulsion Division of the Oklahoma City Air Logistics Center. The facility houses the latest technology for cleaning, inspection, repairing and classifying compressor and turbine blades used in jet engines. Savings are realized through flow time reduction in blade repair which leads to shorter flow time for an engine in overhaul. Most importantly, the facility can produce five million blades a year compared to three million blades previously. It is expected that the facility will save the Air Force enough money to pay for itself in four and one-half years.

**Rotor Stacking Process Cell.** Engine components are often being physically located off center during assembly or stack-up. Each component may individually be in tolerance, but each little shift within a tolerance adds up during engine rotor stack-up. The end result is a high vibration reject rate. The Rotor Stacking Process Cell is being implemented to increase repair efficiency and reduce the vibration rejection rates from 20-45 percent to 5 percent in rebuilt TF30 gas turbine engines.

The cell, using lasers for speed and accuracy, will be able to dimensionally inspect and determine the serviceability of major rotating components (hubs, spacer, disks, shafts). This measurement data will then be used by a computer to select parts and the orientation of each part in a stack, establishing the straightest centerline stack possible from existing parts.

**Advanced Composite Repair Facility.** OC-ALC's Advanced Composite Repair Facility was established to support future workload for the repair of advanced composite airframe structures entering the depot. The facility is a one story structure covering 81,000 SF. Estimated annual savings on this investment is \$1.5M. The new facility will allow for scheduled, timely repairs at a minimum cost to the Air Force of the latest state-of-the-art weapons systems. Specifically, this facility will provide the capability to repair advanced composites (fiberglass, graphite, boron, Kevlar) and bonded aluminum honeycomb on the B-1B and KC-135, assuring a minimum turnaround rate will be accomplished. Expected benefits from this facility

are increased depot capabilities, efficient use of scarce resources, labor productivity, less rework, and increased throughput.

B-1B Avionics Facility/Land Acquisition. OC-ALC will begin construction in FY89 of a new B-1B Avionics Facility with construction scheduled to be completed in FY91. The new facility will cover 85,000 SF and be used to support the B-1B workload taken on by OC-ALC in October 1988. Total cost of the facility is \$12.2M; however, total annual savings are estimated to be \$71.4M. Most of the savings are realized through the use of a dedicated organic facility as opposed to the contracting out of the workload, or the alteration of existing facilities. The facility will provide a completely organic capability to repair and test B-1B electronic weapons systems to maintain combat readiness. The facility will contain environmentally controlled areas for test and overhaul of B-1B avionics, radar, antenna arrays, and radomes, and will use advanced computerized test consoles.

Consolidated Fuel Control Test Facility. The single story 63,000 SF facility will enable the Air Force to support the national defense on a timely basis. This project will provide a state-of-the-art centralized test system. The new facility will provide safe and energy efficient environmentally controlled areas and will be arranged so that minimum transport time is realized between overhaul and testing functions. Total annual savings on the investment is expected to be \$34M.

#### OTHER PLANNED TECHNOLOGICAL ENHANCEMENTS

Flexible manufacturing system.  
Two bay large aircraft paint removal system.  
Automated system for cleaning jet engine fuel manifolds.  
Laser blade repair cell.  
Reverse machining center.  
Automated compressor and turbine blade measurement.  
Rejuvenation of rotating engine components.  
Automated molydag system.  
Assembly verification stands.  
Automated blade removal.  
Computerized control for heat treat.

## 4.5 Sacramento Air Logistics Center (SM-ALC), McClellan AFB, California

### 4.5.1 OVERVIEW

**HISTORY/MISSION:** Construction of the War Department's Sacramento Air Depot began on 29 June 1936, when the Army Quartermaster Corps appointed a constructing Quartermaster for the installation. On 1 Dec 1939 the War Department changed the new installation's name to McClellan Field. The US Air Force became an independent service in 1947, and on 3 February 1948 McClellan Field became McClellan Air Force Base. Eventually the base became the headquarters for Sacramento Air Materiel Area (SMAMA) and then evolved into the home of the Sacramento Air Logistics Center. What started with an investment of \$7M has grown in value to over a billion dollars in facilities and equipment.

SM-ALC's Industrial Complex comprises the largest group of workers with over 6,167 personnel. SM-ALC is responsible for accomplishing depot level repair for EF/F/FB-111, A-10, F-15, T-37, KC-135, and A-7 aircraft, ground communication/electronic systems, electronic warfare, software, navigation and radar systems. Also included as part of the mission is the manufacture or repair of a vast array of aerospace related items. In addition, the industrial complex has technology repair center responsibility to overhaul and repair more than 6,500 different line items such as hydraulic and electrical components, flight control components, flight instruments, and various ground and airborne generators in support of inventory management programs Air Force-wide.

Since McClellan AFB opened, the task of keeping US military aircraft flying had become remarkably complex based upon high technology aircraft and systems. McClellan remained one of five centers of AFLC, managing those weapons and systems assigned through the depot modernization effort of the last 1960s and early 1970s. With development of technology repair centers in the command, McClellan assumed worldwide responsibility for the maintenance and management of USAF electrical components, communications-electronics systems, fluid drive accessories, and tactical shelters.

**LOCATION:** The base is approximately five miles north of Sacramento, California, the state capital. To the north is Roseville, California; to the east, Folsom/Rancho Cordova, California.

**SIZE:** McClellan Air Force Base consists of 2,917 acres with 131 maintenance buildings and 200 shops occupying 3.3 million SF of space. Facility value is \$594M. Plant equipment value is \$235M.

**WORK FORCE/PAYROLL:** The industrial complex has a total work force of 6,167 which includes 95 military. Annual payroll is \$225M.

### 4.5.2 DEMOGRAPHIC DATA

**POPULATION:** Of the total industrial complex work force, 84 percent live in Sacramento County, 9.3 percent come from nearby Placer County, and seven other distant counties combine to provide the remaining 6.7 percent.

**SKILL BASE:** The major portion of the work force comes from the local area; recruited from academia, local industries, the military services and the general public. Of the total military and civilian workforce at McClellan, 66.3 percent have achieved college credit, Bachelor's degrees, or Master's degrees. This reinforces the relationship between an employee's skill level and his or her level of education. McClellan presently employs 67 percent professional, skilled, and semi-skilled workers.

**TRANSPORTATION ACCESS:** McClellan AFB, located on the west coast, serves the entire continent, as well as the Far East and the Pacific basin. There are five major air terminals located within an hour's drive. These terminals offer complete local and international service. Sacramento is the hub of rail transportation for the West Coast with Southern Pacific and interconnecting lines running in all directions. There is a deep water port at Sacramento with direct access to the Pacific shipping routes via the Sacramento Deep Water Channel. Sacramento is serviced by Interstate Highways 5 and 80 and California Highways 50 and 99.

**LOCAL INDUSTRIES:** SM-ALC is the hub of a highly developed area with industry leaders in technologies such as electronics, space-age propulsion systems, exotic aerospace fuels, advanced computer sciences and plastics.

#### COMPETITIVE -

Mather Air Force Base  
(closure 1993)  
Sacramento Army Depot  
(proposed closure study)  
Hewlett Packard  
Polytherm Plastics  
Folsom Research, Inc  
Aerojet General Corporation

Army Corps of Engineers  
California State Government  
Minnesota Mining &  
Manufacturing  
Sacramento County Offices  
Sacramento Municipal  
Utility  
Cable Data  
Intel Corporation

#### COMPLEMENTARY -

Sperry Corp System  
Management Group  
Tayko Industries  
Varion Associates  
Modern Machine Works  
Teletype Corporation  
Texas Instruments  
General Electric  
Control Data  
Dalmo Victor

Industrial Rework  
Raytheon Support Services  
Wang Laboratories  
Advanced Countermeasure  
System  
LT. & T. Avionics Division  
Robert H. Hutton Associates  
Radio Shack (Tandy Corp)  
Kierulff Electronics, Inc  
Bobnreen Consultants, Inc  
Westinghouse Electric  
Supply

**ENVIRONMENTAL CONSIDERATIONS:** A listing of State and local environmental legislation affecting SM-ALC day-to-day operations include:

California Environmental Quality Act (CEQA)  
(Environmental-Impact Assessment/Statements)  
California Water Quality Laws and Porter-Cologne Act  
California Air Pollution Control Laws and Regulations  
CAL-OSHA Program (Work Environment)  
California Pesticide Laws and Regulations  
California Hazardous Waste Control Laws and Regulations  
California Administrative Code Titles 22823  
Sacramento County Code Sect 6.34  
Yolo County Code Title 6 Chapter 11  
Placer County Code Title 6

The following is a list of regulations which govern all storage, handling, transportation and disposal of hazardous waste.

California Administrative Code (CAC) Title 22 ACRA  
California Administrative Code (CAC) Title 23 Underground Tank  
Code of Federal Regulation (CFR 40 part 199 to 399) RCRA  
Code of Federal Regulation (CFR 40 part 761) TSCA-PCB  
Code of Federal Regulation (CFR 49 part 100 to 177) DOT  
Environmental Compliance Assessment Management Program  
(ECAMP-Air Force Audit)  
MCAFB 19-4

Problem: There is no specific regulation that outlines proper handling of contaminated soil except CERCLA.

The following details some of the base's efforts to change its methods concerning the handling of hazardous materials, as well as the positive results of these changes. Some of these changes were spurred by legislative actions, while others were initiatives undertaken independently by SM-ALC. The EPA, the State of California's Department of Health Services, and the Sacramento County Air Resources Board all interact with SM-ALC in monitoring waste water treatment facilities, the ground water treatment plant, and CAC adherence. The Directorate of Environmental Management, the first organization of its kind in the Air Force, was formed to monitor all environmental programs at the base, and as a result of its success, the Command has set up similar organizations at all AFLC bases.

SM-ALC's Groundwater Extraction and Treatment System, on line since 1987, was one of the first of its kind in the United States for aquifer restoration. The plant operates at a 95 percent up time rate and is manned 24 hours a day to ensure that the water discharged meets or exceeds California drinking water standards.

SM-ALC has reduced its hazardous waste by 57 percent over the past three years. This exceeds the DoD goals for reduction by 50 percent in 1992. State-of-the-art technology insertion, product substitution, and an automated approval system for purchase of hazardous chemicals has contributed to this reduction and has also aided in reducing purchase and clean up costs.

Environmental Management also assisted in integrating environmental requirements into the new Advanced Tactical Fighter (ATF), ensuring that hazardous waste generated from maintenance operations is kept to a minimum.

#### 4.5.3 TECHNOLOGICAL ENHANCEMENTS:

##### MANUFACTURING TECHNIQUES/PROCESSES:

- Robotic Wire Harness Fabrication System
- Infrared Imaging for Phased Array Radiation Patterns
- Automated Composite Layup Process
- Optical Mapping System (parts replication, certification)
- Abrasive Water Jet System
- Hot Isostatic System
- Universal Fixturing (robotic)
- Robotic Paint System
- Composite Curing System
- Duct Fabrication Center
- Robotic MIG and TIG Welding
- Robotic Flame Spray
- Laser Reverse Machining System
- Printed Wiring Board Manufacturing

##### REPAIR TECHNIQUES/PROCESSES:

- Robotic Radome Painting
- Neutron Radiography Non-Destructive Testing
- Cold Proof/Structural Integrity Testing
- Microelectronics/Very High Speed Integrated Circuits
- Plastic Bead Blasting
- Computerized Facility Control Systems
- Automated hydraulic pump and motor testing
- Vertical carousel storage system
- Automated match grinding system
- Electronic mapping system
- Hydraulic manifold system
- ADAL coating installation/removal

## 4.6 San Antonio Air Logistics Center (SA-ALC), Kelly AFB, Texas

### 4.6.1 OVERVIEW

**HISTORY/MISSION:** Kelly Air Force Base was the first permanent military airfield in Texas and probably the oldest continuously operating base in the Air Force. It is named in honor of Lieutenant George E. M. Kelly, who crash-landed at Fort Sam Houston in 1911 and became the first American military aviator to lose his life while piloting a military aircraft.

Kelly Field originated in November 1916, when the "Father of Military Aviation" Captain Benjamin Foulois selected the site for the expanding activities of the Aviation Flying Section of the US Army Signal Corps. During World War I, Kelly Field served as a reception and testing center for recruits and as a training center for pilots, mechanics, cooks, and bakers, as well as engineering and supply officers. Most American World War I flyers trained or were processed at Kelly Field. During World War II, Kelly developed into a huge industrial complex that stored and distributed material and modified or repaired aircraft, engines, and related equipment. These adjustments marked the start of a distinct shift in Kelly's mission, which over the next 40 years expanded into a worldwide logistics and support capability.

Kelly Field was renamed Kelly Air Force Base in 1948 after the Air Force became a separate branch of the Armed Services. Throughout the years that followed, the San Antonio Air Material Area (SAAMA) based at Kelly continued to expand its responsibilities. Kelly maintained such aircraft as the B-29, B-36, B-47 and B-58 bombers, numerous types of fighters including the F-102 and F-106, and various cargo planes. The SAAMA evolved into today's San Antonio Air Logistics Center which handles over 50 percent of the Air Force's engine inventory, all Air Force nuclear ordnance, the aerospace fuels used by the Air Force and NASA, and over 240,000 stock items. Approximately 33 B-52 and 16 C-5 aircraft undergo depot level maintenance overhaul or repair each year at the SA-ALC. Approximately 287 aircraft engines, 1,000 gas turbine engines, and 4,566 engine modules are overhauled or repaired each year. Maintenance work centers include: Repair of automatic test equipment, rework of jet engine parts, repair of electronic test equipment, test of aircraft and engines, overhaul accessories (approximately 150,000), and repair of non-powered precision tools. Kelly itself is host to numerous tenant organizations, which collectively make the base not only the largest single employer in San Antonio, but a vital link in the Air Force's worldwide logistics system as well.

**LOCATION:** SA-ALC is located in Bexar County on the southwest side of San Antonio, Texas. I-10 provides east/west access and I-35 provides north/south access from San Antonio to the entire Southwestern United States. The Missouri Pacific railroad adjoins SA-ALC to the south and provides a spur track for rail service.

**SIZE:** SA-ALC covers 4,000 acres, with 504 buildings occupying 13.9 million SF of floor space.

**WORK FORCE/PAYROLL:** Approximately 25,500 full time personnel are assigned to Kelly AFB, including 20,600 civilians and 4,900 military. A \$610M annual payroll has an important impact on the local economy.

#### 4.6.2 DEMOGRAPHIC DATA

**POPULATION:** Approximately 25,500 personnel are employed at Kelly AFB. Breakdown by counties are: Bexar, 95 percent; Bandera, 0.2 percent; Medina, 1.3 percent; Frio, 0.1 percent; Kendal, 0.4 percent; Comal, 0.3 percent; Guadalupe, 0.8 percent; Wilson, 0.5 percent; Atascosa, 1.0 percent; and other surrounding counties, 0.4 percent.

**SKILL BASE:** More than 400 distinctively different job series are represented in the SA-ALC work force. These include managers, scientists, logisticians, accountants, engineers, lawyers, transportation and financial experts, computer specialists, purchasing agents, item managers, equipment specialists, clerks, warehouse people, mechanics, maintenance workers, and many more. The center employs 1,250 skilled engineers and engineering technicians.

**TRANSPORTATION ACCESS:** SA-ALC is a major DOD supply depot served by interstate highways, a transcontinental rail line, and unsurpassed military airlift facilities that can accommodate the largest military and civilian transport aircraft. Over 572,590 different items of USAF inventory, valued at \$3.3B, are stored and distributed each year. Seven thousand tons of supplies are received and shipped each month by air freight and truck transport.

**ENVIRONMENT CONSTRAINTS:** SA-ALC adheres to the full range of EPA and RCRA rules/regulations as well as those state laws administered by the Texas Water Board (TWB). These laws cover air and water discharges as well as the disposal of solid waste.

SA-ALC recently opened a new storage facility in East Kelly to accommodate the "90 day on-site" storage rules for hazardous industrial wastes. This facility has been granted a two year interim operating permit by the TWB.

SA-ALC also has several on-going initiatives to reduce the volume of hazardous wastes that are generated. One of these is the Ion Vapor Deposition System which will substitute aluminum coatings for the toxic cadmium now used on some jet engine components. Another longer range initiative is the possible use of plasma spray of chromium rather than electroplating which will reduce the volume of chromium waste that is generated.

#### LOCAL INDUSTRIES:

**COMPETITIVE -** Locally, none of the industries are considered in competition with SA-ALC.

**COMPLEMENTARY -** Very few local industries complement SA-ALC. The approximately 9,000 contractors and suppliers come from outside the metropolitan area of San Antonio.

## TECHNOLOGY ENHANCEMENTS

**MANUFACTURING TECHNIQUES/PROCESSES:** The robotics and laser application studies have yielded projects such as the Robotic Shot Peen/Grit Blast Cell and the Laser Driller Cutter. Ion Vapor Deposition will replace cadmium with aluminum. This project, along with the Chrome Plating Line Monitor, is designed to improve productivity and reduce environmental pollution.

**REPAIR TECHNIQUES/PROCESSES:**

The PACER LIGHT program enables us to recreate obsolete or unavailable sheet metal airframe components.

The Cryogenic Spin Test Facility subjects jet engine discs to  $-375^{\circ}\text{F}$  temperatures to prolong their useful life and reduce depot maintenance requirements.

The Automated Plasma Spray System integrates grit blast and plasma spray processes into robotic cells that reduce environmental hazards.

The Auto Prompting Inspection System utilizes coordinate measurement machines to lead operators through an inspection checklist prior to overhaul of gas turbine engine components. Parts are automatically accepted as is, condemned as scrap, or routed through the appropriate rework procedures based on computer generated decisions.

The Drop Bottom Heat Treating Furnace accomplishes rapid parts transfer from the furnace to the quench tank which eliminates warping due to transfer delays.

Fluoride Ion Cleaning is a procedure for cleaning titanium and super strength alloys by deoxidation prior to brazing. Hydrogen fluoride gas is the source for the fluoride ions that effectively remove the oxides.

Diffusion Bonding utilizes localized heat and pressure at the bond line. The bonding is done in a vacuum chamber using either resistance or induction coils as the heat source.

Jet Kote Hypersonic Spray uses a unique combination of heat and velocity that produces a wear surface coating surpassing other thermal spray processes.

Real Time Radiography inspects parts in real time, thereby eliminating the delays and rework caused by exposing and developing x-ray film.

The Thermal Spray Robot is a 6-axis articulated arm robot fitted with a special mini-gun capable of plasma spraying in restricted area of aircraft parts.

Retirement for Cause/Non-Destructive Evaluation provides high speed eddy current and ultrasonic inspection for cracks in critical rotating parts in

engine parts. Life expectancy can be determined by actual analysis rather than through calculation as was formerly necessary.

## 4.7 Warner Robins Air Logistics Center (WR-ALC), Robins AFB, Georgia

### 4.7.1 OVERVIEW

**HISTORY/MISSION:** As a result of the city of Macon and Bibb County floating bonds worth \$100,000 early in 1941, these municipalities purchased and donated 3,000 acres of land to the Federal Government in an effort to influence the Army Air Corps to establish a maintenance and supply depot there.

During the defense build-up preceding World War II, the middle Georgia area was picked for the maintenance/supply depot primarily because of its level land and abundant pure water.

WR-ALC's primary mission is to support peacetime mission essential maintenance requirements, and ensure mobilization capability to support a wartime scenario. Specifically, the mission is to modify, repair, and overhaul weapon system's components/equipment and to provide worldwide support for the Operating Commands. WR-ALC is the primary repair source for the C-141, C-130 and F-15 airframes. In addition, airborne electronics, gyroscope, parachutes, life support systems, and propellers are also maintained within its extensive industrial complex.

**LOCATION:** Robins AFB is geographically located near the center of the state of Georgia, approximately 100 miles south of Atlanta, 15 miles south of Macon, and adjacent to the city of Warner Robins.

**SIZE:** Robins AFB covers 8,550 acres. The Industrial Complex occupies 69 buildings totaling 7.2 million SF. The maintenance facilities are valued at \$473M. Equipment replacement value is \$578M.

**WORKFORCE/PAYROLL:** Robins AFB workforce totaled 19,988 in FY89 with a payroll of \$603M. This figure consists of 3,964 military and 16,024 civilian employees, including tenants. The maintenance workforce and payroll was 6,809 and \$230.6M, respectively.

### 4.7.2 DEMOGRAPHIC DATA

**POPULATION:** The city of Warner Robins has grown from a population of some 50 people in 1941 to 50,000-plus in 1989. The majority of the workforce comes from Warner Robins/Houston County and Macon/Bibb County. Some 23 other counties contribute to the total workforce and share in the economical benefits.

**SKILL BASE:** Over 6,800 dedicated, trained maintenance personnel, with approximately 200 different skills, work day and night to support their assigned weapon systems. An existing vocational cooperative education program provides a steady source for aircraft, sheet metal and electronic skills as the manpower needs arise.

**TRANSPORTATION ACCESS:** There is one major Interstate highway (I-75) located approximately five miles west of Robins AFB. In addition, this

base has one railroad system and a municipal airport supporting transportation requirements.

**ENVIRONMENTAL CONSTRAINTS:** WR-ALC has no environmental constraints. WR-ALC is in an attainment area and is currently meeting all criteria.

**LOCAL INDUSTRIES:**

**COMPETITIVE -** Major industries/organizations competing for skills and resources in this area:

Aviation/Electronics	McDonnell-Douglas
Grumman	Southeast Airlines
Zantop Airlines	Northrop Corp
Honeywell	Gould, Inc
Boeing	TRW
Five Star Electronics	Space Age Manufacturing
Industrial -ITT	AT&T
Southern Bell	Brown & Williamson
R & R Tool	Bartlett Sheet Metal
Swartz & Son, Inc	

**COMPLEMENTARY -** The majority of the competitive industries are the same supporting industries that provide products and services.

**4.7.3 TECHNOLOGICAL ENHANCEMENTS**

**MANUFACTURING TECHNIQUES/PROCESSES:**

Multi-layer printed circuit boards  
Fastener manufacturing systems  
Flexible printed wiring

**REPAIR TECHNIQUES/PROCESSES:**

Hybrid circuit repair  
Ivadizer  
Adhesive/bonding of avionics modules  
Small aircraft finish application robotic installation (Safari)  
Printed circuit board manufacture  
F-15 wiring analyzer



DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380-0001

IN REPLY REFER TO

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11 Apr 90

MEMORANDUM FOR MR. ROBERT MASON, DIRECTOR MAINTENANCE POLICY

Subj: Marine Corps Option Paper

Attached is an option paper which addresses the Army proposal to close our two Marine Corps depot maintenance activities and transfer their workload to Army depots. The Army proposal was not accompanied by an analytic justification. Our option paper contains the results of a detailed, in depth analysis of the costs and readiness implications of accepting the Army proposal.

Acceptance of the Army proposal would not contribute to reduced costs or increased efficiency for DOD. To the contrary, doing so would have an adverse impact on Marine Corps readiness, increase transportation costs, reduce Marine Corps flexibility in maintaining our present high readiness, increase equipment rebuild turnaround time, and result in a net cost over FY 1991-1995 of \$194,932,000. The Army recommendation is clearly not in the best interests of national defense.

Although our analysis was performed in an extremely short time and all costs were derived as precisely as possible, a few readers may quarrel with some of the amounts we used. However, none may object to the underlying premise of each cost category analyzed. Questions regarding the analysis may be referred to my assistant, Mr. Robert K. Riggs, 696-1024.

W. G. CARSON, JR.  
Lieutenant General, U.S. Marine Corps  
Deputy Chief of Staff  
for Installations and Logistics

*Robert K. Riggs*

DOD DEPOT MAINTENANCE CONSOLIDATION STUDY  
OPTION IDENTIFICATION/EVALUATION  
UNITED STATES MARINE CORPS  
EXECUTIVE SUMMARY

1. OPTION NUMBER: M-010

2. SHORT TITLE: Close Two Marine Corps Depot Maintenance Activities (DMA).

3. NARRATIVE DESCRIPTION: It has been proposed to close both Marine Corps DMAs and transfer all work to the Army. This proposal assumed that considerable cost savings would be realized by increasing utilization of Army facilities and reduction of overhead operating expenses for the Marine Corps.

4. SCOPE OF THE PROPOSAL: Transfer to Army depots the annual Marine Corps depot maintenance program requirements of approximately 1,600,000 direct labor hours for rebuild of over 50,000 principal end items and secondary reparable components on over 1,000 production lines each year.

5. CUSTOMER SERVICE IMPACT: In-depth analysis indicates closing the two Marine Corps DMAs and transfer of Marine Corps depot level maintenance workload to the Army will:

- Reduce/eliminate quick response logistics capability
- Increase equipment down time
- Substantially increase operating costs
- Decrease combat equipment readiness
- Reduce the Commandant of the Marine Corps' flexibility in control of resources

6. ESTIMATED NET SAVINGS: None. The cost to close the two Marine Corps DMAs are provided in detail in the attached, and are summarized as follows for a five year period:

Cost Elements:

- Production equipment relocation cost	\$ 9,930,000
- Personnel redistribution cost	19,802,000
- Facilities development cost	8,775,000
- Logistics management cost	6,504,000
- Transportation cost increase	38,789,000
- Inventory cost increase	50,546,000
- New personnel cost	5,652,000
- Production cost increase	63,237,000
- Alternate training cost	6,099,000
Total Cost to Close Two Depots	\$209,334,000

Savings Elements:

- Military Construction cost savings	\$5,910,000
- Base Operations Support	8,491,000

Net Savings Over Five Years: (\$194,932,000)

7. IMPLEMENTATION TIME AND DIFFICULTY: Closure of the two Marine Corps DMAs could be accomplished over a six-year transition period during which industrial equipment is relocated, personnel terminated, and start-up of production activated at the appropriate Army activity. Funding requirements for closure cost would exceed \$118,000,000 in the first two years, not including environmental cleanup which could well exceed \$25,000,000. Closure activity would require close coordination with the Army depots receiving Marine Corps workload and substantial adjustments within the Marine Corps logistics system, many of which are beyond the scope of this analysis. ?

8. PRIMARY ADVANTAGES: None. Represents \$195,000,000 unrecoverable costs to DoD.

9. PRIMARY DISADVANTAGES: Many:

- Increased transportation costs
- Reduced combat equipment readiness
- Reduced Marine Corps logistics flexibility
- Increased equipment rebuild turn around time
- Recurring increase in operating cost of \$25,000,000 per year
- Increased unit rebuild costs over 13 percent
- Increased cost of Marine Corps military technical training
- Will never produce savings to offset cost of closure

10. OTHER CONSIDERATIONS: Closure of the two Marine Corps DMAs does not in any way contribute to reducing cost or increasing efficiency. The Marine Corps is small, highly efficient, specifically organized to accomplish its particular mission, including depot maintenance of its combat essential equipment. In addition to the \$195,000,000 unrecoverable cost to close, the adverse impact on combat equipment readiness, and the reduction in Marine Corps operating flexibility in a fast changing world situation, closure of the two Marine Corps depots is clearly not in the best interest of the nation.

11. RECOMMENDATION: In view of the above, and the following, it is recommended that the Marine Corps Depot Maintenance Activities be excluded from any further consideration for consolidation or closure.

- Marine Corps DMAs are operated at over 91 percent capacity utilization.
- Closure of Marine Corps DMAs will degrade Fleet Marine Force combat essential equipment readiness
- Marine Corps DMAs have maintained Fleet Marine Force combat essential equipment readiness at over 90 percent
- The \$195,000,000 5-year cost to close the two depots will never be recouped.
- Closure results in a \$25,000,000 recurring operating cost increase each year.

11 April 1990

I. OPTION NUMBER: M-010

II. SHORT TITLE: Cost Analysis of Closing Both Marine Corps Depot Maintenance Activities and Transferring Their Workload to Army Depots.

III. NARRATIVE DESCRIPTION:

A. The Marine Corps has two Depot Maintenance Activities (DMAs); one each at the Marine Corps Logistics Bases, Barstow, CA, and Albany, GA, located within one transportation day from the primary CONUS operating forces they support. The DMAs are the only Logistics Base activities which are industrially funded. Although some workload consolidations by equipment type exist, the two DMAs repair virtually the same categories of equipment. Workload consists of a wide spectrum of ground equipment, with relatively small quantities of each type. The Army operates specialty maintenance depots with each depot's workload consisting of a large volume of equipment, but with a small variety of types at each depot. Marine Corps DMA capacity is fully utilized at 91 percent. The Army has facilitated their depot program to a degree greater than their need, resulting in only a 62 percent capacity utilization rate. As a result, Army depots could absorb Marine Corps workload. Doing so, however, would close the two Depot Maintenance Activities and eliminate an organic depot maintenance capability for the Marine Corps.

B. The need for the Commandant of the Marine Corps to establish and control his priorities for primary weapon systems depot level maintenance must be reemphasized. For that basic reason the Marine Corps must object to the relinquishment of his responsibilities to another Service Chief for any arbitrarily selected commodity, without an accompanying analytic justification and an accommodation regarding the Commandant's readiness responsibilities. No analytic justification has been provided to date. Although readiness issues are paramount, this paper was compiled to provide the missing analysis. It examines costs involved in closing the two Marine Corps DMAs and giving the Army the mission of providing depot maintenance support to the Marine Corps.

C. This analysis proves there are no savings associated with closing the two Marine Corps activities and transferring their workload to Army depots. In fact, the opposite is the case. The result of this option would be additional nonrecurring closing and annual recurring costs. These added costs are associated with transferring workload from inexpensive facilities to those which are more expensive, and the need to perform extraordinary management actions, as described below to ensure warfighting readiness is not degraded. Added five-year costs total \$194,932,000. These costs are described in paragraph VI and summarized in enclosure (1).

(1) The reasons for the lack of savings in the Army proposal are that available Marine Corps DMA capacity is fully utilized, reducing general and administrative and production engineering costs; and the two Marine Corps activities have achieved an extremely efficient direct-to-indirect labor ratio, i.e., their indirect expenses are a small percentage of their direct labor costs. Although the Army depot's actual rates are unknown to the Marine Corps, it is unlikely that their overhead structure and direct-to-indirect ratio are as good because of the Army's much lower and less efficient capacity utilization rate. Some Army rate estimates are made later in this paper.

(2) Although the reader may quarrel with some of the costs listed herein, none may object to the underlying premise of each cost category analyzed.

IV. SCOPE OF THE PROPOSAL: The Army has proposed that their maintenance depots be transformed into "centers of excellence," consolidating equipment by commodity for repair at a specified depot. They have further proposed that their depots become the single source of repair for all DOD ground equipment. The proposal, if adopted, would result in the transfer of all workload now maintained at the two Marine Corps DMAs, thereby causing them to be closed. Although the absorption of Marine Corps workload is alleged to create monetary savings for DOD, none have been identified. This paper examines the viability of the Army proposal, primarily from a financial viewpoint.

V. CUSTOMER SERVICE IMPACT: Readiness would suffer unless some extraordinary management actions were taken to compensate for the loss of Marine Corps control over an organic depot maintenance workload. Taken in isolation, the loss of the two Marine Corps DMAs would result in less responsive customer support to the Marine Corps, as this analysis will prove. Paragraph VII below describes the reasons for our readiness degradation claims, and includes management actions, and costs thereof, which the Marine Corps would be obliged to take to compensate for the depot maintenance capability loss.

VI. ESTIMATED NET SAVINGS: None. Our analysis reveals added DOD costs for the transfer of industrial plant equipment, relocation and severance of personnel, new facilities development, increased management attention, increased transportation requirements, increased weapon system and equipment inventories, personnel hiring and training at new sites to accommodate the transferred workload, and, in this case, increased costs in terms of higher rates for the actual repair of Marine Corps equipment. A summary of these costs is depicted in Figure 1 on the following page and described in succeeding paragraphs.

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SUMMARY OF  
COST ANALYSIS OF PROPOSAL TO CLOSE  
DMA'S ALBANY AND BARSTOW  
(\$000)

COSTS:

ELEMENTS	YEAR CLOSED					TOTAL
	FY-91	FY-92	FY-93	FY-94	FY-95	
Move IPE	9,930					9,930
Move/Sever	19,802					19,802
People						
Facilities	8,775					8,775
Weapon System	1,225	1,262	1,300	1,339	1,379	6,504
Management						
Transportation	7,306	7,525	7,751	7,983	8,223	38,789
Inventory	35,623	3,562	3,672	3,786	3,903	50,546
New Hires	5,652					5,652
Production	11,911	12,268	12,636	13,015	13,406	63,237
Alt. Training	<u>1,149</u>	<u>1,183</u>	<u>1,219</u>	<u>1,255</u>	<u>1,293</u>	<u>6,099</u>
Totals	101,373	25,800	25,578	27,378	28,204	209,334

SAVINGS:

ELEMENTS	FY-91	FY-92	FY-93	FY-94	FY-95	TOTAL
MILCON	5,910					5,910
BOS	<u>1,600</u>	<u>1,648</u>	<u>1,697</u>	<u>1,747</u>	<u>1,799</u>	<u>8,491</u>
Totals	7,510	1,648	1,697	2,630	2,711	14,401

NET SAVINGS: (93,863) (24,152) (24,881) (25,631) (26,405) (194,932)

\*Multiyear costs escalated at 3 percent per year.  
\*Numbers may not add due to rounding.

Figure 1

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VII. NEGATIVE NET SAVINGS DISCUSSION.

A. Assumptions. Prior to an examination of the lack of savings involved in closing the two Marine Corps DMAs and transferring Marine Corps depot level maintenance workload to the Army, the basic assumptions used in our analysis must be described. They are:

(1) That materiel readiness factors in the Marine Corps will be maintained at their present high level, above 90 percent.

(2) That interservicing the entire depot maintenance requirement would result in increased management effort by Marine Corps logistics managers to ensure readiness is not degraded. Specific management factors involved are discussed in subsequent paragraphs.

(3) That Army depots and Marine Corps DMA's operate strictly within DOD industrial fund policy, and both structure their rates in accordance with that policy.

(4) As required by DOD policy, both the Army depots and Marine Corps DMA's fold into their rate structure general and administrative, production engineering, and all other overhead costs needed to support their industrial fund. These costs for the Marine Corps include all the commonly understood categories such as utilities, local transportation, training, minor construction, facilities maintenance, etc. In addition, since the Marine Corps Logistics Bases are not operated under the industrial fund concept, all support provided by the host Logistics Base is reimbursed by the industrial fund. This reimbursement also includes the salaries of those individuals working in Base offices (otherwise appropriation funded) that directly support the industrially funded DMA mission. The DMAs industrially fund the salaries of those individuals directly supporting the two activities who work in the Logistics Bases' civilian personnel offices, contracts divisions, comptroller divisions, consolidated Depot Maintenance Directorate, and other organizations providing support. In accordance with DOD policy, all support provided to the DMAs is funded or reimbursed from the Marine Corps Industrial Fund, except for military construction.

(5) Since Marine Corps DMA's have attained the difficult-to-achieve DOD goal of a 1.5-to-1.0 direct-to-indirect ratio, it is assumed for purposes of this analysis that Army depots experience the same ratio, i.e., each 1.5 direct labor hours of workload potentially transferred to the Army would require expensing at least 1.0 indirect hour. In other words, all personnel at Army depots are fully occupied with present workload in accordance with good management principles.

(6) Since the Army and Marine Corps follow DOD industrial fund policy in structuring rates, both fold all overhead costs into their rates, and both have a 1.5-to-1.0 direct-to-indirect cost ratio, each 1.5 direct labor hours of workload potentially transferred to the Army would require expensing at least 1.0 indirect hour.

(7) That Army depots experience the same process time for like items as do Marine Corps activities. It is possible that longer production lines could decrease processing time.

However, these potential advantages would be cancelled and overshadowed by built-in capacity utilization inefficiencies, not improved by relatively small Marine Corps additive workloads, and higher rates at Army depots. In addition, potentially added Marine Corps workload would be distributed to up to seven Army depots. The amount added to any one depot would add little, if any, to any perceived efficiencies.

(8) That an Army depot would need to establish a maintenance capability for the two Marine Corps peculiar equipment families addressed in this paper, e.g., AAV7A1 Assault Amphibious Vehicle Family and Light Armored Vehicle Family, not to mention the many other Marine Corps peculiar principal end items and reparable components.

(9) The same principal end item of Marine Corps equipment repaired at an Army depot would be returned to the Marine Corps. Components of end items must be the same as well, or another identical in configuration.

(10) That the DMA requirement to support in-stores principal end item and component care-in-store, preparation for shipment, modification installations, and other support to the Logistics Bases would remain; only depot-level maintenance responsibilities would transfer. The Marine Corps Logistics Bases store all prepositioned war reserve principal end items, as well as components. They also hold that portion of the principal end item allowances of organized Reserve units not required for current training purposes.

(11) That Marine Corps costs related to transportation and repair of secondary depot level reparables would add to the costs reflected herein for principal end items.

B. METHODOLOGY. Actual FY 1990 costs were used when known in every case. When not known, data from other years were used, e.g., the FY 1988 DOD 7220.29H data base, information from Process Action Team briefings, or reasonable estimates. In each case, the source of the data is identified. These costs were used against a notional master work schedule containing Marine Corps primary weapon systems in quantities which approximate a typical annual workload. Although not all types of equipment maintained by the Marine Corps DMAs are included, the notional master work schedule does include a representative sample and is realistic.

C. ELEMENTS OF COST SAVINGS TABLE. Listed below are amplifications and descriptions of the derivation of costs depicted in Figure 1.

(1) Move IPE. Marine Corps DMAs repair a broad spectrum of ground equipment at each DMA. Industrial plant equipment (IPE) types range from the heavy metal working machine tools, to large gymnasticators for recoil mechanism performance testing, to electronic automated test equipment consoles, to thousands of test measurement diagnostic equipment items. Each of these items must be removed, preserved, packaged, shipped, received at the new location, unpacked, installed, tested, and repaired when needed, all before they can be placed into use. Not all IPE may be needed at the new installation, but those involved with Marine Corps peculiar equipment maintenance certainly will. All IPE, however, must be removed, preserved, packed, and shipped somewhere. The FY 1991 cost determined for this element was \$9,930,000. (See TAB A of the enclosure for further details.)

(2) Move/Sever People. Both Marine and civilian personnel work in our DMAs. All Marines would be transferred to another geographic location, since like military billets do not exist at the Marine Corps Logistics Bases. Assuming a phased transition of workload to Army depots, the transfer of Marines could be managed so as to occur at their scheduled rotation dates. Permanent change of station costs for Marines were not included in closing costs in this analysis. However, they were for civilians. A recent survey of DMA civilians revealed that only 10 percent would agree to relocate away from their homes in Albany, GA, or Barstow, CA. With 16 percent eligible for retirement, another 18 percent who would elect to take early retirement if offered, leaves 56 percent who by necessity would have to be severed. Civilian personnel reductions are already being taken at both Logistics Bases, leaving no alternative but severance for those unwilling to relocate and unable to retire. Civilian movements, terminal leave, and severance pay costs totalled \$19,801,860. (See TAB B of the enclosure for further details.)

(3) Facilities. Regardless of the amount of unused facility space in Army depots, some new facilities must be developed and constructed at the new depot sites. These would replicate those now in existence at Marine DMA's which are one-of-a-kind in DOD, and needed to support repair of Marine Corps peculiar tactical equipment.

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(a) The equipment sample used in this analysis included the Light Armored Vehicle (LAV) family and the Assault Amphibious Vehicle (AAV) family. Facilities requirements for these two Marine Corps peculiar weapon systems were the only ones addressed in this analysis. It is estimated that at least \$8,775,000 would be needed to replicate facilities for these two Marine Corps peculiar weapon systems. The list of facilities requirements is at TAB C of the enclosure.

(b) Other items of equipment that are similar but

not identical to Army equipment exist in this analysis's notional master work schedule. One is the Logistics Vehicle System, basically an articulated version of the Army's High Mobility Expanded Tactical Truck (HMETT). Although similar, they are at least 30 percent different. Another example is the Marine Corps M60A1 tank; the Army maintains the M60A3. There will be additional facilitization costs for these weapon systems, but data to determine their magnitude is unavailable to the Marine Corps.

(c) Although the Army obviously has overbuilt their depot facilities, it is evident that some additional facilitization would be required beyond that which is identified in this paper. However, without knowledge of specific depots and their capability, a dollar value for additional facility construction costs cannot be made. This paper does, however, identify known costs regarding Marine Corps unique facilities needed to repair Service peculiar equipment. See TAB C of the enclosure for further details.

(4) Weapon System Management. The Army's consolidation into geographically dispersed centers of excellence would result in a significantly increased transportation and management challenge for the Marine Corps. The time that equipment items are in transportation and repair pipelines and lost to the Marine Corps inventory would become larger (described in detail in paragraphs VII.C.(5) and VII.C.(6) below). To accommodate the increased management effort, Marine Corps personnel would be needed at each Army depot to perform a liaison and on-site technical assistance function, additional weapon system and item management personnel would be added, and Maintenance Interservice Support Office (MISO) Depot Maintenance Interservice Support Agreement (DMISA) negotiators would be required to oversee and manage equipment in this more complex environment. As an example of the personnel economies experienced with the present DMA structure, the Marine Corps MISO consists of just one negotiator. One is obviously insufficient to manage DMISAs with the entire Marine Corps workload repaired at up to seven Army depots. As described in paragraph VII.B.(6) below, repair cycle time would increase by 25 percent, and use of formal DMISA procedures requires greater management oversight. The Marine Corps would require 35 additional personnel to perform these added functions. Additional FY 1991-1995 cost for these 35 billets is \$6,504,000. (See TAB D of the enclosure for further details.)

(5) Transportation. It might be argued that efficiencies result when consolidating types of equipment at a single depot. That could be the case with large volumes of like equipment; but not with limited quantities of Marine Corps peculiar items. In fact, previous studies comparing Army and Marine Corps repair costs have concluded that workload consolidations and exchanges save money primarily when

transportation costs can be reduced. That proves true in this case as well. The Army's consolidation of workload by equipment commodity would increase transportation costs to the Marine Corps by \$7,306,430 in FY 1991, according to the notional master work schedule used in this analysis, or about 7 percent more than the Marine Corps annual equipment maintenance budget. Instead of transporting tactical equipment to a single depot within a one-day transportation time from each major CONUS user, the Army's organization requires equipment to be transported much longer distances and to all the major Army depots, depending on the equipment commodity involved. Figures 2 and 3, to be found on succeeding pages, depict the differences in transportation requirements. It is readily apparent that forcing the Marine Corps to use Army depots would add significant transportation costs and complexity. Added costs total \$38,789,000 over the period FY 1991-1995. Tab E of the enclosure contains details, including a list of equipment used in the notional master work schedule. Procedures used:

(a) A typical master work schedule was prepared which included 24 typical major weapon system categories. Quantities included were representative of average annual requirements in normal workload times.

(b) Actual shipment costs were obtained for many of the items; others were determined from appropriate transportation rate tables. All costs considered shipment from the requirement's source to the rebuild activity and return.

(c) Costs for all shipments were examined from the three primary CONUS Marine Corps requirements generators to their adjacent DMA, as is now the case. These costs were compared with projected shipments to applicable Army depots. The differences were then displayed. The three primary requirements sources were Camp Lejeune, NC (CLNC), Camp Pendleton, CA (CPCA), and Blount Island Command (BIC), Jacksonville, FL, the Maritime Prepositioning Ships biennial maintenance site. An Army depot was assigned based on the commodity to be maintained there, as described during Army briefings at Depot Maintenance Consolidation Study Process Action Team meetings. Army depots for the equipment we used in our analysis were Tooele, Red River, Letterkenny, Anniston, and Tobyhanna. None of these are rumored to be under consideration for closure by the Army. Other Army depots could be used for different mixes of equipment on any given annual master work schedule.

(d) A significant additional transportation cost that could not be precisely quantified involved the repair of components.

UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE CURRENT SHIPMENT PLAN

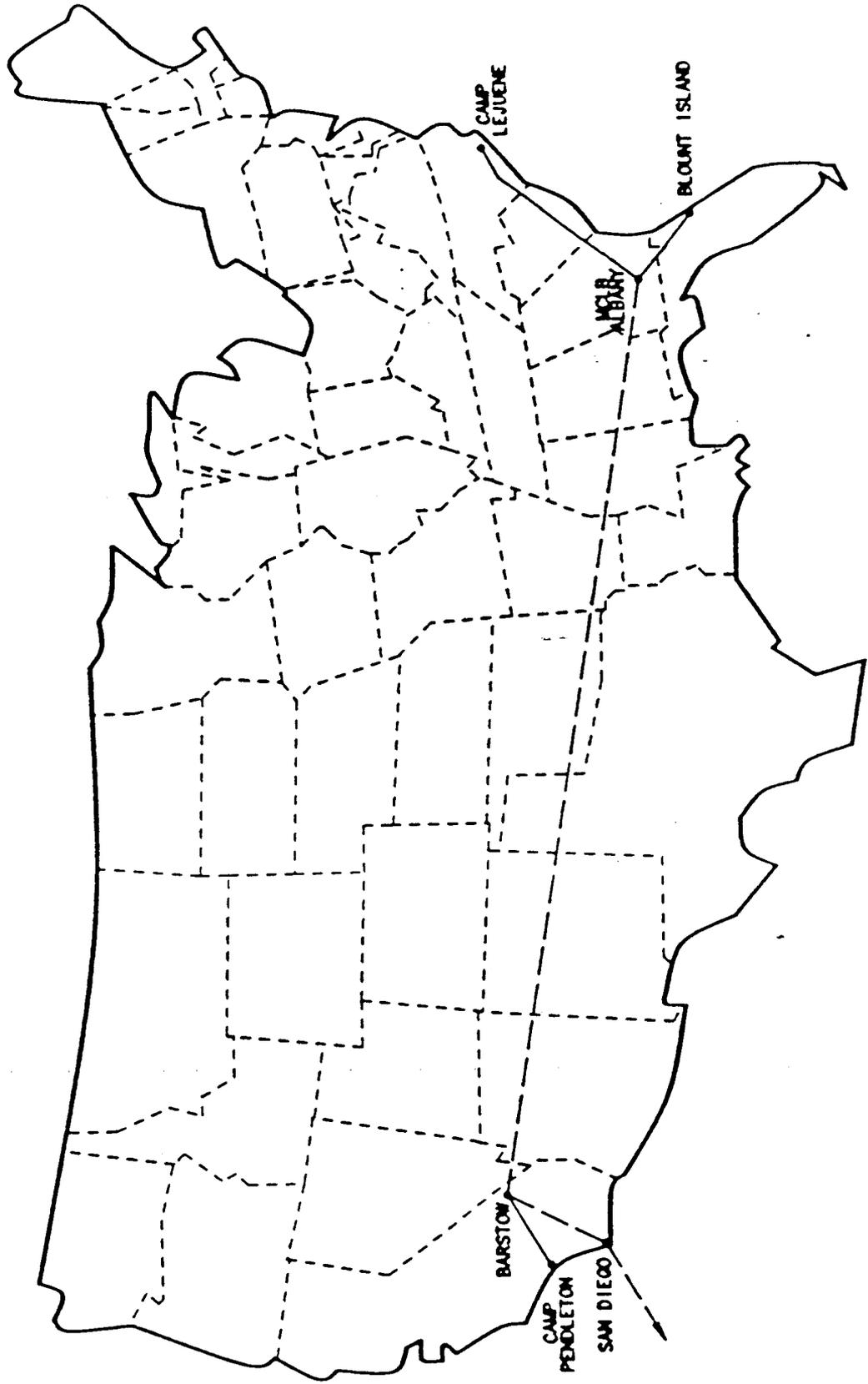


Figure 2

# UNITED STATES MARINE CORPS DEPOT MAINTENANCE SHIPMENT PLAN ARMY DEPOT MAINTENANCE SUPPORT.

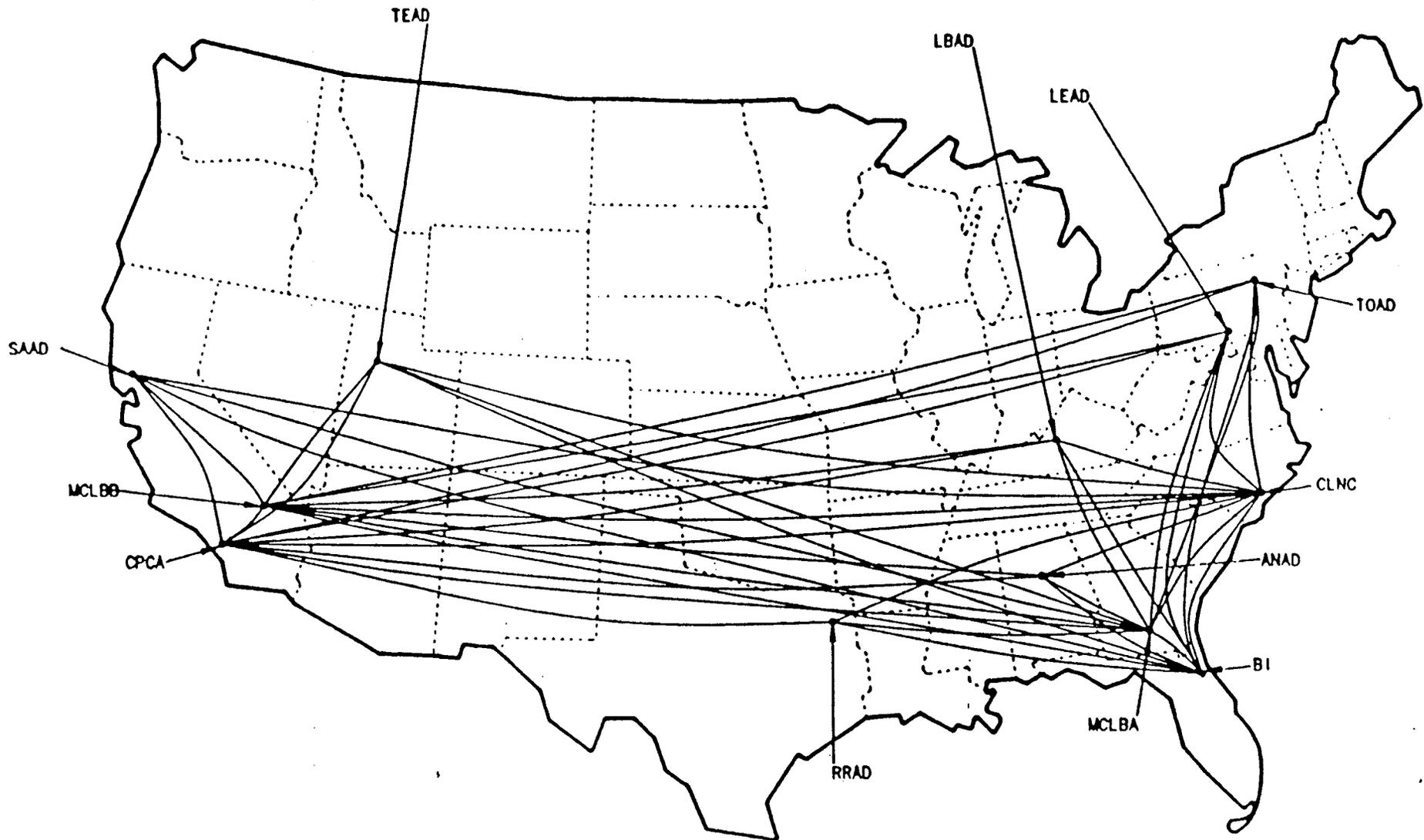


Figure 3

1. Marine Corps DMAs repair all components of a given weapon system at the same location as the principal end item, avoiding added transportation and associated expenses. The Army removes components from the end item at their primary depot and ships the components to the applicable specialized depot for repair. Once made ready for issue, components are returned to the primary depot and then mated with the repaired end item.

2. Marine operating forces and the Marine Corps Logistics Bases hold secondary depot level reparable (components) needing repair. At present these components are shipped to a single DMA for repair. The DMA is within a one-day transportation time from each CONUS operating force, and directly on the logistics base for system reparable. According to the Army concept, the Forces and Logistics Bases would ship their defective components much longer distances to the applicable Army depot, sometimes across the nation.

3. Whether components are removed at Army depots and shipped to another repair site, or these reparable are shipped from Marine Corps operational forces, they must be packaged, packed, preserved, and transported to their destinations. Upon arrival, they are unpacked, repaired, packaged again and shipped to their original destinations, all at considerable cost. However, there was insufficient time and resources to precisely quantify this cost as well. Therefore, for this analysis these costs were estimated at an additional 25 percent.

(6) Inventory Increases. One prerequisite maintained throughout the course of the Process Action Team study was that warfighting readiness could not be compromised. If the Army's proposal were to be accepted, Marine Corps readiness would be reduced unless extraordinary measures were taken by the Marine Corps. Several factors were considered in the effort to quantify needed principal end item inventory increases to maintain readiness at its currently high level, above 90 percent:

(a) The time Marine Corps equipment would be in transit to the much more distant Army depots, often all the way across the nation, would be significantly greater than now. Transportation time would increase not only for principal end items between Marine Corps operating forces and Army depots, but for components of these end items as they are transported between Army depots for repair. In addition, transportation times were included in this analysis for separate components shipped from operating forces floats and supply system reparable at the Logistics Bases to Army depots for repair. This increase in transportation time is estimated to average at least 10 days each way.

(b) There would be an additional increase in repair processing time merely because of the more complex DMISA process involving the diversity of equipment in the entire Marine Corps annual workload, all repaired at several Army depots. The DMISA, a contractual-like document, must be negotiated between the Army and Marine Corps for all workload repaired by the Army. Each change to workload, costs, delivery dates, etc., must be negotiated and reflected in the DMISA. The inability of the customer to deliver on schedule a carcass for repair frequently occurs, and each such incident requires a DMISA change. Should the Marine Corps require a quick reaction repair of a major weapon system to meet an urgent contingency, another DMISA change must occur. The number of master work schedule changes in a year can be high. For example, during FY 1988 the Marine Corps master work schedule directed the repair of about 26,000 items at DMA Albany alone. During that year sufficient changes were made in the master work schedule to affect 28,000 items of equipment, with each change dictated by the need to maintain readiness. Today, those changes can occur quickly and informally through the command chain, with follow up documentation. Use of the more complex DMISA will add to processing time. Assuming on-site Marine Corps personnel were added at each Army depot to facilitate the process, and the DMISA could be negotiated in such a manner as to provide maximum flexibility regarding changes, the added processing time for equipment is estimated at 15 days.

(c) As a result of these two factors alone, increased transportation time and the more complex DMISA process, the average repair cycle time for Marine Corps equipment would increase by about 35 days from the present Marine Corps experience of 140 days. These 35 days, a 25 percent increase, were not accounted for by acquisition managers when the original weapon system's acquisition objective was formulated in preparation for initial procurement. As a result, insufficient quantities were acquired to maintain current readiness, if required to use the Army's consolidated depot maintenance concept. Although consolidation efficiencies could possibly provide some offsets for common items, there would be none for Marine Corps peculiar equipment. The largest workload drivers on the equipment list for this analysis were Marine Corps peculiar items.

(d) A conservative analysis was performed on the notional, 24-item master work schedule described earlier in the transportation portion of this analysis. The analysis gave the Army the benefit of the doubt and assumed that they could achieve efficiencies for equipment common to both Services. Their longer production lines and familiarity with common equipment, plus a supply of spares and repair parts designed to support common equipment, could possibly result in efficiencies that might offset the liabilities of increased transportation times and formal working relationships between the two Services. However,

that would not be the case with Marine Corps peculiar equipment. The Assault Amphibian Vehicle family (AAV7A1), Light Armored Vehicle family (LAV), and the AN/TPB-1 and AN/TPS-63 Radar Sets are Marine Corps peculiar and were among the 24 items in the notional annual workload used in this analysis. Many other items additive to the notional list are peculiar to the Marine Corps as well. Quantities repaired by the Marine Corps are insufficient to institute long production lines, but supply support is adequate considering Marine Corps repair cycle times with Marine Corps DMA's. The Army could achieve no offsetting efficiencies for Marine Corps peculiar equipment, nor for equipment which is partially peculiar, i.e., a different model, series, or type, or a different physical configuration of the same item.

(e) The Marine Corps has an average repair cycle time of 140 days for equipment repaired in the DMAs. This figure includes transportation time from CONUS as well as OCONUS Force units. That time increases to 175 days when maintained in Army depots, for the reasons described previously. The 35 additional days Marine Corps peculiar equipment is out of the Forces wartime allowance inventories must be compensated for to ensure readiness is not degraded.

1. Figure 4 lists the portion of the notional master work schedule quantity which applies to a Marine Corps 140-day or an Army 175-day repair cycle time. The additional time an item is out of the Marine Corps inventory is identified in the Shortfall column. The quantities of equipment identified must be acquired and added to the Marine Corps inventory to prevent operating forces from experiencing shortfalls in authorized quantities of equipment.

2. Other Marine Corps items exist which are not common with the Army; others have only partial commonality, etc. The dollar value requirement for increased inventory to maintain readiness would be higher than indicated here. For the four equipment families listed in Figure 4, the added acquisition cost for FY 1991 totals \$35,623,040. Estimated annual costs for new equipment procurements in succeeding years totals \$50,546,040 over the period FY 1991-1995.

3. Projected Force drawdowns might produce equipment to satisfy this requirement; however, the likelihood that equipment made available would identically match the added requirement is not quantifiable until specific drawdowns are identified. In addition, Force drawdowns may be effected in units other than those primary combat units holding the peculiar equipment identified here. Tab F of the enclosure contains additional details.

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 ADDED INVENTORY REQUIREMENT  
 FOR LONGER REPAIR CYCLE TIMES (RCT)

<u>End Item</u>	<u>MWS Qty</u>	<u>Unit Cost</u>	<u>140-Day RCT</u>	<u>175-Day RCT</u>	<u>Short-Fall</u>
AAV7A1 Family	273	\$1,100,000	105	131	26
AN/TPB-1D	4	\$ 950,556	1	2	1
AN/TPS-63	4	\$ 291,111	1	2	1
LAV FAMILY	79	\$ 825,909	31	38	7

Figure 4.

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(7) New Hires. Unless the Army has employees at their depots not being utilized, they will need to hire additional personnel to accommodate the new Marine Corps workload. The Marine Corps would not transfer Marines to Army depots, as discussed later in the paragraph describing the need for alternative training for Marines. Civilians must be hired to accommodate the added workload. There is a cost associated with hiring new personnel. After deducting the direct labor hours associated with principal end item supply support functions which must remain at the host Marine Corps Logistics Bases, about 1,595,000 direct labor hours of workload would transfer to the Army. Dividing that number by 1700 hours, the hours per year an employee is available for work after deducting holidays, annual leave, etc., a total of 938 production equivalents are required. Assuming a direct-to-indirect ratio of 1.5-to-1.0, 625 additional indirect personnel are required to support the 938 direct workers, or 1563 in all. Some employees will transfer from the Marine Corps to Army depots, 129 as determined from a recent survey, leaving net new hires at 1434. The cost of transferring an employee to another geographic location, when averaged across all new hires in a given year, is \$2,603.06. Civilian personnel office costs to process new hires per employee averages \$425.13, and some minimal new employee training, almost always needed, will cost an additional \$913.44 per worker. Total estimated cost to hire the new employees at Army locations is \$5,652,297. (Tab G includes details.)

(8) Production. Although Army repair rates are unknown to the Marine Corps, certain informed estimates can be made. Analysis of DOD 7220.29H cost data reveals an average cost per direct labor hour for the nine major Army depots was \$65.22 in FY 1988. Army input at a recent Process Action Team meeting included a chart depicting current depot expensing rate per direct labor hour, noting the current rate at \$63.80. The Anniston Army Depot rate quoted in writing to the Marine Corps

for the repair of a Marine Corps Armored Vehicle Launched Bridge was \$70.44 per hour. The lowest rate of the three is \$63.80. The Marine Corps rate during FY 1989 was \$56.33. With a cost differential of \$7.47 per hour in favor of the Marine Corps, transfer of 1,594,531 direct labor hours results in an added FY 1991 repair cost of \$11,911,147. The increase over the period FY 1991-1995 is \$63,237,000. (Added details are in Tab H of the enclosure.)

(9) Alternative Training for Marines. Marines, both officers and senior noncommissioned officers, are assigned to DMAs for training purposes in production jobs, as quality control workers, and in supervisory positions. Without the benefit of Marine Corps DMAs, alternative advanced training would need to be provided. Since all Marines are riflemen, these Marines receive their military subjects training during short absences from their primary duties at the DMAs. This factor must be considered in any analysis.

1. One alternative considered was to place Marines in Army depots. It was determined that there was no benefit to the Marine Corps for this alternative. While technical training might be received, Marine Corps military general subjects training would not be available. Marines working in the DMAs receive their military training during temporary absences from their work repairing equipment. Marine military training is accomplished at their host Marine Corps Logistics Base along with other Marines stationed there. Although absences from repair functions detract from their maintenance productivity, that loss is counterbalanced by the maintenance training they receive. The Marine military training can be provided only by Marines at a Marine Corps installation. In addition, overhead costs associated with placing 370 Marines in multiple Army locations would show, in a cost-benefit analysis, cost outranking benefit. It was determined that there was no benefit to the Marine Corps for this alternative; Marines would not be assigned to Army depots.

2. Formal DoD schools for this purpose do not exist. Alternative factory training could be contracted for to maintain the training capability not provided by the DMAs. Costs for this training would approximate \$3,100 per year per Marine. The DMAs presently have 370 Marines serving in training positions, resulting in an increased cost for training, should the DMAs close, of \$1,148,000 per year, or \$6,099,000 over the FY 1991 through FY 1995 period.

(10) MILCON. The only approved DMA military construction projects are in the FY 1991 program. None exist during FY 1992 through FY 1995.

(11) BOS. The FY 1991 Industrial Fund Overview indicates approximately \$30,000,000 as Base Operations Support (BOS) costs for the Marine Corps. That figure, submitted in accordance with Navy Comptroller direction, includes total general and administrative costs, not all of which are applicable to support provided by the base. Of the above amount, approximately \$10,000,000 can be termed as true base operations support costs. These costs are reimbursements to the host Logistics Bases for services provided to the DMAs that are additive to those appropriation funded services needed to support other Base functions. Of this \$10,000,000, approximately 20 percent, or \$2,000,000, would remain at the Logistics Bases to support the logistical functions required by the base, e.g., preparation for shipment, care in store, modification application, etc., of end items and components of equipment in stores. Transferred workload will require some added base operations support expenses from the new Army depot, e.g., more utilities, waste removal, telephones, etc. The Army uses a factor of 20 percent to reflect base operations support efficiencies gained in consolidating workload at a single depot from several others. Using that factor, base operations support savings could be estimated at 20 percent of the \$8,000,000 now spent for this purpose. A total of \$1,600,000 is estimated as the first year's savings.

VIII. IMPLEMENTATION TIME AND DIFFICULTY: Implementation time would be dependent on the time needed to facilitate appropriate Army depots for repair of Marine Corps peculiar equipment, as described in paragraph VII.B.3 above. Military Construction monies must be used. This type of funding has an approximate four-year lead time. Assuming an additional two years would be required to contract for and construct test ponds, facilities to house four-axle chassis dynamometer, test tracts, etc., a phased approach over a total of six years would be required to fully implement the Army proposal.

IX. PRIMARY ADVANTAGES: Transferring Marine Corps workload to the Army would result in the assignment of work to several depots. Doing so might marginally affect their capacity utilization rate. Even so, the fractionally improved utilization rate would have little affect on reducing overhead expenses, causing no significant reduction in costs to their customers.

X. PRIMARY DISADVANTAGES: Disadvantages include the loss of a vital tool used by the Commandant of the Marine Corps to maintain readiness, and the exorbitantly higher costs associated with transferring workload from an inexpensive facility to one which is more expensive, and the need to perform the extraordinary management actions described above to ensure warfighting readiness is not denigrated.

XI. OTHER CONSIDERATIONS: None.

XII. SUMMARY: There are no savings or efficiencies to be gained to DoD from closing two low cost, fully workloaded depot maintenance activities and transferring their workload to depots which are more costly and whose capacity is not fully utilized. In fact, the opposite is the case; initial and recurring costs are high. This proposal is clearly not in the best interests of national defense.

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB	COST ELEMENTS	YEAR CLOSE (DOLLARS IN THOUSANDS)					TOTAL COST
		FY-91	FY-92	FY-93	FY-94	FY-95	
A	PRODUCTION EQUIPMENT: (REMOVAL/SHIPMENT/INSTALLATION/ TEST/REPAIR/TRAINING)	\$9,930	\$0	\$0	\$0	\$0	\$9,930
B	PERSONNEL REDISTRIBUTION: (RELOCATION, SEVERANCE, RETRAINING, ETC)	\$19,802	\$0	\$0	\$0	\$0	\$19,802
C	FACILITIES DEVELOPMENT: (TEST POND, 4 AXLE CHASSIS DYNO, X DRIVE TRANS DYNO, ETC.)	\$8,775	\$0	\$0	\$0	\$0	\$8,775
D	LOGISTICS MANAGEMENT RESOURCES: (DMISA'S, SHIPMENTS, WKLD PLAN/SCHED FUNDING, ASSET TRACKING, MGMT)	\$1,225	\$1,262	\$1,300	\$1,339	\$1,379	\$6,504
E	TRANSPORTATION: (COST INCREASES)	\$7,306	\$7,525	\$7,751	\$7,983	\$8,223	\$38,789
F	INVENTORY INCREASES: (TO MAINTAIN CRITICAL COMBAT EQUIPMENT READINESS AT 90%)	\$35,623	\$3,562	\$3,672	\$3,786	\$3,903	\$50,546
G	NEW PERSONNEL COSTS: (RECRUIT, HIRE, TRAIN, EMPLOY, 1434 NEW EMPLOYEES)	\$5,652	\$0	\$0	\$0	\$0	\$5,652
H	PRODUCTION COSTS: (HIGHER RATES AT ARMY ACTIVITIES) (NO SAVINGS FROM SPACES REDUCED BECAUSE OF IND FUND BILLING METHODS)	\$11,911	\$12,268	\$12,636	\$13,015	\$13,406	\$63,237
I	ALTERNATE TRAINING FOR MARINES	\$1,149	\$1,183	\$1,219	\$1,255	\$1,293	\$6,099
J	COST SAVINGS - MILCON	(\$5,910)	\$0	\$0	\$0	\$0	(\$5,910)
	- BASE OPERATIONS	(\$1,600)	(\$1,648)	(\$1,697)	(\$1,747)	(\$1,799)	(\$8,491)
	TOTALS	\$93,863	\$24,152	\$24,881	\$25,632	\$26,405	\$194,932

Multi year costs are inflated at 3% per year.

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB A PRODUCTION EQUIPMENT:

REMOVAL, PRESERVATION, PACKAGING, SHIPMENT, RECEIPT UNPACKING INSTALLATION, TESTING, REPAIR, PRODUCTION DEMONSTRATION. OPERATOR TRAINING, ETC OF PRODUCTION EQUIPMENT.	ESTIMATED COST
o 12 AUTOMATIC TEST SYSTEMS VALUED OVER \$9,500,000. ESTIMATED AVERAGE COST TO RELOCATE, INSTALL, TEST, TRAIN ETC.: \$50,000 PER SYSTEM.	\$600,000
o 12 LARGE HEAVY DUTY COMPUTER CONTROLLED CNC MACHINES VALUED OVER \$3,500,000. AVG COST TO RELOCATE = \$40,000 EACH	\$480,000
o 270 INDUSTRIAL METAL WORKING MACHINE TOOLS RANGE IN AGE FROM 30 YEARS TO BRAND NEW RANGE IN VALUE FROM \$25,000 TO \$350,000 VALUED OVER \$32,000,000. AVEG COST TO RELOCATE = \$10,000 EACH	\$2,700,000
o OVER 15,000 TEST MEASUREMENT DIAGNOSTIC EQUIPMENT ITEMS AND PRODUCTION MACHINES RANGE IN AGE FROM NEW TO 15 YEARS. MANY UNIQUE TO PARTICULAR OPERATIONS, ALL NEEDED FOR PRODUCTION OF MARINE CORPS WORKLOAD. value over \$75,000,000 AVERAGE VALUE \$5,000 EACH, AVG COST TO RELOCATE \$400 EACH.	\$6,000,000
o 3 LARGE GYMNASTICATORS FOR RECOIL MECHANISM PERFORMANCE TESTING. ESTIMATED VALUE OVER \$1,200,000.	\$150,000
o ESTIMATED TOTAL COST FOR PRODUCTION EQUIPMENT	\$9,930,000

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB B PERSONNEL REDISTRIBUTION:

o POPULATION DISTRIBUTION:	ALBANY	BARSTOW	TOTAL	RETAINED	TRANSFER/ SEVER
CIVILIAN	792	810	1602	316	1286
MILITARY OFFICER	7	9	16	0	16
MILITARY ENLISTED	153	156	309	0	309
TOTAL MILITARY	160	165	325	0	325
TOTAL PERSONNEL	952	975	1927	316	1611

o CIVILIAN PERSONNEL:	ALBANY	BARSTOW	TOTAL
RETIREMENT 16%	101	105	206
EARLY RETIREMENT 18%	113	118	231
RELOCATION 10%	63	66	129
SEVERANCE (TERMINATION) 56%	353	367	720
TOTAL	630	656	1,286

o PCS COST ESTIMATES: \*

CIVILIAN PCS COST:

AVERAGE PER CIVILIAN PER MOVE @ ALBANY      \$31,339.50      129      \$4,042,796

\* SOURCE MCO F7000.14 MC COST FACTORS MANUAL

PCS COST TOTAL

\$4,042,796

o TERMINAL LEAVE COSTS:

AVERAGE ANNUAL LEAVE BALANCE PER EMPLOYEE	125
AVERAGE HOURLY RATE PER EMPLOYEE	\$12.43
NUMBER EMPLOYEES ENTITLED TO TERMINAL LEAVE	1157

ESTIMATED ANNUAL LEAVE COST	<u>\$1,797,689</u>
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o SEVERANCE PAY COMPUTATIONS: \*\*

AVERAGE HOURLY WAGE	\$12.43
AVERAGE WEEKLY COST	\$497.20
AVERAGE LENGTH OF SERVICE (YEARS)	20
AVERAGE AGE OF EMPLOYEE TO BE SEVERED (YEARS)	43

\*\* see FPM Supplement 990-2 BOOK 550 PAGE 52

COMPUTATION:

1 WEEK BASE PAY * YEARS SERVICE UP TO 10	\$4,972.00
2 WEEK BASIC PAY * YEARS SERVICE OVER 10	\$9,944.00
BASIC SEVERANCE ALLOWANCE (BSA)	\$14,916.00
ADD 10% OF BSA PER YEAR OVER AGE 40	\$4,474.80
TOTAL SEVERANCE PAY (AVERAGE) PER EMPLOYEE	<u>\$19,390.80</u>

TOTAL SEVERANCE PAY	720	<u>\$13,961,376</u>
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TOTAL PCS COST	\$4,042,796
TOTAL TERMINAL LEAVE	\$1,797,689
TOTAL SEVERANCE PAY	<u>\$13,961,376</u>

GRAND TOTAL	<u><u>\$19,801,860</u></u>
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UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB C FACILITIES DEVELOPMENT:	ESTIMATED COST
o TEST POND FOR PRODUCTION PERFORMANCE TESTING/ROAN ANALYSIS OF THE LIGHT ARMORED VEHICLE FAMILY (LAV)	\$2,000,000
o TEST POND FOR PRODUCTION PERFORMANCE TESTING/ROAN ANALYSIS OF THE AMPHIBIOUS ASSUALT VEHICLE FAMILY (AAV7A1) (IF REBUILT/ROANED AT A LOCATION DIFFERENT FROM THE LAV)	\$2,000,000
o PRODUCTION PERFORMANCE TESTING/ROAN DIAGNOSTIC ANALYSIS OF AAV7A1 CROSS DRIVE AUTOMATIC TRANSMISSIONS (HARDWARE COULD BE TRANSFERRED FROM ALBANY, REDUCE COST \$400,000)	\$1,400,000
o INLINE TRANSMISSION DYNAMOMETER REQUIRED FOR PRODUCTION PERFORMANCE TESTING AND IROAN PERFORMANCE AND DIAGNOSTIC ANALYSIS OF INLINE AUTOMATIC TRANSMISSION IN THE LAV FAMILY OF LIGHT ARMORED VEHICLES. (HARDWARE COULD BY TRANSFERRED FROM USMC, REDUCE COST \$80,000)	\$350,000
o FOUR AXLE CHASSIS DYNAMOMETER FOR PRODUCTION PERFORMANCE TESTING AND IROAN DIAGNOSTICS ANALYSIS OF THE LIGHT ARMORED VEHICLE (LAV) (USMC ASSETS TO BE RETAINED FOR CIS/PFS).	\$500,000
o VEHICLE TEST SLOPE FOR DRIVE TRAIN COMPONENT PERFORMANCE TESTING AND FIRE CONTROL SYSTEM PERFORMANCE ANALYSIS.	\$125,000
o ONE MILE CONCRETE OVAL VEHICLE TEST TRACK FOR PERFORMANCE TESTING AND IROAN DIAGNOSTIC EVALUATION OF THE AAV7A1 FAMILY AND THE LAV FAMILY OF VEHICLES.	\$900,000
o 25MM TEST FIRE RANGE FOR PERFORMANCE TESTING AND TURRET ELECTRONICS DIAGNOSTIC ANALYSIS OF THE LAV-25 LIGHT ARMORED VEHICLE.	\$250,000
o ADDITIONAL ENGINE DYNAMOMETERS FOR INCREASED ENGINE REBUILD WORKLOAD REQUIREMENTS. (OLD USMC HARDWARE AVAILABLE FOR RELOCATION)	\$1,250,000
o TOTAL ESTIMATED FACILITY DEVELOPMENT COSTS AT ARMY ACTIVITIES:	\$8,775,000

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

**TAB D LOGISTICS MANAGEMENT RESOURCES:**

- o ADDITIONAL PERSONNEL REQUIRED TO MANAGE THE LOGISTICS OF DOING BUSINESS WITH 7 INDIVIDUAL ARMY DEPOTS FOR THE PRODUCTION OF UP TO 100,000 ITEMS ON OVER 1000 DIFFERENT LINES.
- o 29 NEW PIPELINES WILL EXIST FOR SHIPMENT FROM USMC ACTIVITIES TO ARMY DEPOTS.
- o REQUIREMENTS PLANNING, SCHEDULING, FUNDING, DMISA NEGOTIATIONS, SHIPMENTS, ASSET MANAGEMENT, ETC, FOR PEI'S, COMPONENTS OF PEI'S, SDR'S, CALIBRATION REQUIREMENTS, AND SPECIAL SUPPORT PROGRAMS WILL REQUIRE 35 ADDITIONAL LOGISTICS SPECIALISTS AT AN AVERAGE OF \$35,000 PER YEAR PER PERSON.
- o MONITORING AND TRACKING OF EQUIPMENT MOVEMENT, WORK PROGRESS ANALYSIS, SCHEDULE COMPLIANCE EVALUATION, COST CONTROL, MATERIAL/PARTS PROBLEM RESOLUTION, TECHNICAL/ENGINEERING ASSISTANCE, CONFIGURATION MANAGEMENT, MODIFICATIONS, TECHNICAL DATA, REBUILD STANDARDS, QUALITY EVALUATION, EQUIPMENT PERFORMANCE ACCEPTABILITY, ETC. WILL REQUIRE THE FOLLOWING LEVELS OF SUPPORT:

	<u>PERSONNEL</u>	<u>COST</u>
o 14 ONSITE REPRESENTATIVES (TWO AT EACH ARMY ACTIVITY), FOR LIAISON, EQUIPMENT INSPECTION AND ACCEPTANCE.	14	\$490,000
o 3 ADDITIONAL MISO DMISA NEGOTIATORS PLUS 2 SUPPORTING STA	5	\$175,000
o 16 ADDITIONAL WEAPONS SYSTEM MANAGERS.	16	\$560,000
o TOTAL PERSONNEL AND COST	35	\$1,225,000

UNITED STATES MARINE CORPS  
COST TO CLOSE TWO MARINE CORPS  
DEPOT MAINTENANCE ACTIVITIES

TAB E TRANSPORTATION:

- o TRANSPORTATION COST ANALYSIS WAS LIMITED TO 24 CATEGORIES OF EQUIPMENT WHICH CONSTITUTE THE PRIMARY WEAPON SYSTEMS NORMALLY IN THE ANNUAL MASTER WORK SCHEDULE.
- o QUANTITIES IDENTIFIED ARE REPRESENTATIVE OF AVERAGE ANNUAL REQUIREMENTS IN NORMAL WORKLOAD TIMES.
- o ACTUAL SHIPMENT COSTS WERE OBTAINED FOR MANY OF THE ITEMS IDENTIFIED. OTHER SHIPMENT COSTS WERE DETERMINED FROM APPROPRIATE TRANSPORTATION RATE TABLES.
- o ALL SHIPMENTS WERE PLANNED FROM THREE PRIMARY LOCATIONS IN THE MARINE CORPS AND COMPARED WITH THE COST TO SHIP THE EXACT MATERIAL TO THE APPROPRIATE ARMY DEPOT MAINTENANCE ACTIVITY.
- o ALL COSTS CONSIDER SHIPMENT FROM THE SOURCE OF THE WORK TO THE REBUILD ACTIVITY AND RETURN.
- o DETAILED SHIPMENT COST ANALYSIS DATA INDICATES A TRANSPORTATION COST INCREASE OF \$5,845,144 FOR THE 24 CATEGORIES OF PEI IDENTIFIED. \$5,845,144
- o ADDITIONAL COST WOULD INCLUDE TRANSPORTATION OF COMPONENTS OF PEI'S, AND SECONDARY DEPOT REPARABLES FROM ARMY ACTIVITIES DURING REBUILD, AND SDR'S FROM USMC CUSTOMERS THROUGHOUT THE MARINE CORPS. ADDITIONAL COST INCREASES ARE ESTIMATED AT 25% OF THE BASIC DATA. \$1,461,286
- o TOTAL INCREASE IN TRANSPORTATION COSTS \$7,306,430

SUMMARY OF TRANSPORTATION ANALYSIS

END ITEM NOMENCLATURE	INVENTORY QUANTITY	ESTIMATED ANNUAL WORKLOAD	TOTAL TRANSPORTATION COST INCREASE
AAV7A1 FAMILY (IROAN)	1244	273	\$1,142,412
AN/GRC-201	114	12	\$22,760
AN/MRC-110,135,138	3020	148	\$500,172
AN/TPB-1D	16	4	\$1,032
AN/TPS-63	20	4	\$1,032
D7G TRACTOR	45	2	\$9,474
HMMWV	12594	406	\$1,005,420
LAV FAMILY	598	79	\$141,988
LVS FAMILY	1532	155	\$315,892
M800/900 SERIES 5 TON	6933	630	\$1,443,080
MC400R EXCAVATOR	28	2	\$5,844
MC6000 <i>Forklift</i>	648	15	\$47,172
M-109 SP ART	92	25	\$123,148
M-110 SP HOW	85	17	\$51,744
M-114A2 TOWED ART	32	10	\$28,192
M-192E1	61	20	\$113,080
M-198 TOWED ART	446	50	\$125,336
M-30CB FIRE TRUCK	47	6	\$10,616
M-578 RECOVERY	22	8	\$24,660
M-60A1 TANK (IROAN)	738	141	\$514,568
M-870	226	4	\$11,688
M-88	66	11	\$61,430
M-970 FUEL TNKR	325	25	\$62,760
SHELTERS	81	26	\$81,644
TOTALS	29,013	2,073	\$5,845,144

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UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE  
SHIPMENT COST ANALYSIS DATA

INV QTY EQUIPMENT TYPE EST W/L	PRIMARY SOURCE LOCATION	TYPICAL ANNUAL WELD	TRANSP. COST TO ALBANY GEORGIA	TRANSP. COST TO BARSTOW CALIF.	TRANSPORTATION COST TO ARMY POT MAINT. ACTIVITY	ROUND-TRIP DIFFERENCE ARMY VS MC PER UNIT	ROUND-TRIP DIFFERENCE ARMY VS MC ANNUAL WELD
1244	CLNC	96	\$1,616	-----	RRAD \$2,694	\$2,156	\$206,976
AAV7A1 FAMILY	CPCA	105	-----	\$500	RRAD \$3,762	\$6,524	\$685,020
273	BIC	72	\$425	\$5,671	RRAD \$2,164	\$3,478	\$250,416
598	CLNC	27	\$600	-----	RRAD \$1,200	\$1,200	\$32,400
LAV	CPCA	34	-----	\$350	RRAD \$1,663	\$2,626	\$89,284
79	BIC	18	\$400	\$2,525	RRAD \$964	\$1,128	\$20,304
92	CLNC	9	\$1,616	-----	LEAD \$1,060	(\$1,112)	(\$10,008)
M-109 SPA	CPCA	10	-----	\$804	LEAD \$6,530	\$11,452	\$114,520
25	BIC	6	\$425	\$5,898	LEAD \$1,978	\$3,106	\$18,636
85	CLNC	8	\$1,616	-----	LEAD \$800	(\$1,632)	(\$13,056)
M-110 HOW	CPCA	9	-----	\$500	LEAD \$4,100	\$7,200	\$64,800
17	BIC	0	\$425	\$3,788	LEAD \$1,270	\$1,690	\$0
22	CLNC	4	\$1,616	-----	LEAD \$1,059	(\$1,114)	(\$4,456)
M-578 RECOVERY	CPCA	2	-----	\$804	LEAD \$6,530	\$11,452	\$22,904
8	BIC	2	\$425	\$5,897	LEAD \$1,978	\$3,106	\$6,212
446	CLNC	14	\$600	-----	LEAD \$500	(\$200)	(\$7,800)
M-198 TOWED HO	CPCA	24	-----	\$350	LEAD \$2,796	\$4,892	\$117,408
50	BIC	12	\$400	\$2,526	LEAD \$847	\$894	\$10,728

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UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE  
SHIPMENT COST ANALYSIS DATA

INV QTY EQUIPMENT TYPE EST W/L	PRIMARY SOURCE LOCATION	TYPICAL ANNUAL WKLD	TRANSP. COST TO ALBANY GEORGIA	TRANSP. COST TO BARSTOW CALIF.	TRANSPORTATION COST TO ARMY POT MAINT. ACTIVITY	ROUND-TRIP DIFFERENCE ARMY VS MC PER UNIT	ROUND-TRIP DIFFERENCE ARMY VS MC ANNUAL WKLD
M-60A1 TANK	738 CLNC	45	\$1,616	-----	ANAD \$1,530	(\$172)	(\$7,740)
	CPCA	58	-----	\$804	ANAD \$5,230	\$4,852	\$513,416
	141 BIC	38	\$895	\$5,898	ANAD \$1,012	\$234	\$8,892
M-88 RECOVERY	66 CLNC	4	\$1,616	-----	ANAD \$1,845	\$458	\$1,832
	CPCA	5	-----	\$895	ANAD \$6,680	\$11,570	\$57,850
	11 BIC	2	\$895	\$7,760	ANAD \$1,332	\$874	\$1,748
M800/900 SERIES 5 TON TRUCK	6933 CLNC	255	\$700	-----	TEAD \$2,490	\$3,580	\$912,900
	CPCA	310	-----	\$350	TEAD \$782	\$864	\$267,840
	630 BIC	65	\$400	\$2,526	TEAD \$2,418	\$4,036	\$262,340
LVS FAMILY	1532 CLNC	67	\$700	-----	TEAD \$2,490	\$3,580	\$239,860
	CPCA	88	-----	\$350	TEAD \$782	\$864	\$76,032
	155 BIC	0	\$400	\$2,526	TEAD \$2,418	\$4,036	\$0
AN/TPS-63 RADAR	20 CLNC	2	\$700	-----	TOAD \$575	(\$250)	(\$500)
	CPCA	2	\$2,159	-----	TOAD \$2,542	\$766	\$1,532
	4 BIC	0	\$400	\$2,181	TOAD \$877	\$954	\$0
AN/TPB-1D RADAR	16 CLNC	2	\$700	-----	TOAD \$575	(\$250)	(\$500)
	CPCA	2	\$2,159	-----	TOAD \$2,542	\$766	\$1,532
	4 BIC	0	\$400	\$2,181	TOAD \$877	\$954	\$0

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UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE  
SHIPMENT COST ANALYSIS DATA

INV QTY EQUIPMENT TYPE EST W/L	PRIMARY SOURCE LOCATION	TYPICAL ANNUAL WELD	TRANSP. COST TO ALBANY GEORGIA	TRANSP. COST TO BARSTOW CALIF.	TRANSPORTATION COST TO ARMY POT MAINT. ACTIVITY	ROUND-TRIP DIFFERENCE ARMY VS MC PER UNIT	ROUND-TRIP DIFFERENCE ARMY VS MC ANNUAL WELD
114	CLNC	2	\$700	-----	TOAD \$575	(\$250)	(\$500)
AN/GRC-201 COMMUNICATIONS	CPCA	4	-----	\$350	TOAD \$2,542	\$4,384	\$17,536
12	BIC	6	\$400	\$2,525	TOAD \$877	\$954	\$5,724
47	CLNC	2	\$700	-----	TEAD \$2,490	\$3,580	\$7,160
M-530CB FIRE TRUCK	CPCA	4	-----	\$350	TEAD \$782	\$864	\$3,456
6	BIC	0	\$400	\$2,526	TEAD \$2,418	\$4,036	\$0
12,594	CLNC	171	\$700	-----	TEAD \$2,490	\$3,580	\$612,180
HMMWV FAMILY	CPCA	175	-----	\$350	TEAD \$782	\$864	\$151,200
406	BIC	60	\$400	\$2,526	TEAD \$2,417	\$4,034	\$242,040
45	CLNC	1	\$1,500	-----	RRAD \$2,803	\$2,606	\$2,606
D7G TRACTOR	CPCA	1	-----	\$450	RRAD \$3,884	\$6,868	\$6,868
2	BIC	0	\$650	\$5,898	RRAD \$2,250	\$3,200	\$0

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UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE  
SHIPMENT COST ANALYSIS DATA

INV QTY EQUIPMENT TYPE EST W/L	PRIMARY SOURCE LOCATION	TYPICAL ANNUAL WKLD	TRANSP. COST TO ALBANY GEORGIA	TRANSP. COST TO BARSTOW CALIF.	TRANSPORTATION COST TO ARMY POT MAINT. ACTIVITY	ROUND-TRIP DIFFERENCE ARMY VS MC PER UNIT	ROUND-TRIP DIFFERENCE ARMY VS MC ANNUAL WKLD	
M-114A2 TOWED A	32	CLNC	4	\$600	LEAD	\$455	(\$290)	(\$1,160)
		CPCA	6		LEAD	\$2,796	\$4,892	\$29,352
	10	BIC	0	\$400	LEAD	\$847	\$894	\$0
M-192E1 HAWK	61	CLNC	0		LEAD	\$515	(\$4,720)	\$0
		CPCA	20		LEAD	\$3,177	\$5,654	\$113,080
	20	BIC	0		LEAD		\$0	\$0
M-870	226	CLNC	2	\$700	TEAD	\$2,490	\$4,980	\$9,960
		CPCA	2		TEAD	\$782	\$864	\$1,728
	4	BIC	0		TEAD		\$0	\$0
M-970 FUEL TNKR	325	CLNC	10	\$700	TEAD	\$2,490	\$4,980	\$49,800
		CPCA	15		TEAD	\$782	\$864	\$12,960
	25	BIC	0		TEAD		\$0	\$0

03/20/90

UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE  
SHIPMENT COST ANALYSIS DATA

INV QTY EQUIPMENT TYPE EST W/L	PRIMARY SOURCE LOCATION	TYPICAL ANNUAL WKLD	TRANSP. COST TO ALBANY GEORGIA	TRANSP. COST TO BARSTOW CALIF.	TRANSPORTATION COST TO ARMY POT MAINT. ACTIVITY	ROUND-TRIP DIFFERENCE ARMY VS MC PER UNIT	ROUND-TRIP DIFFERENCE ARMY VS MC ANNUAL WKLD	
3020	CLNC	35	\$700		TEAD	\$2,490	\$4,980	\$174,300
AN/MRC-110,135,13	CPCA	41		\$350	TEAD	\$782	\$864	\$35,424
148	BIC	72	\$400	\$2,526	TEAD	\$2,417	\$4,034	\$290,448
81	CLNC	10	\$700		TOAD	\$575	\$1,150	\$11,500
SHELTERS (COMM/RADAR/ETC)	CPCA	16		\$350	TOAD	\$2,542	\$4,384	\$70,144
26	BIC	0			TOAD		\$0	\$0
28	CLNC	1	\$700		TEAD	\$2,490	\$4,980	\$4,980
MC40DR EXCAVATOR	CPCA	1		\$350	TEAD	\$782	\$864	\$864
2	BIC	0			TEAD		\$0	\$0
648	CLNC	6	\$700		TEAD	\$2,490	\$4,980	\$29,880
MC6000 FORKLIFT	CPCA	6		\$350	TEAD	\$782	\$864	\$5,184
15	BIC	3	\$400	\$2,526	TEAD	\$2,418	\$4,036	\$12,108

TRANSPORTATION COST INCREASE FOR 24 SELECTED  
PEI'S \$5,845,144

ADDITIONAL COSTS FOR OTHER PEI'S, PEI COMPONENTS  
FORWARDED TO OTHER ACTIVITIES FOR REBUILD, AND  
TRANSPORTATION OF &DR.S. \$1,948,381

TOTAL INCREASE IN SHIPMENT COSTS \$7,793,525

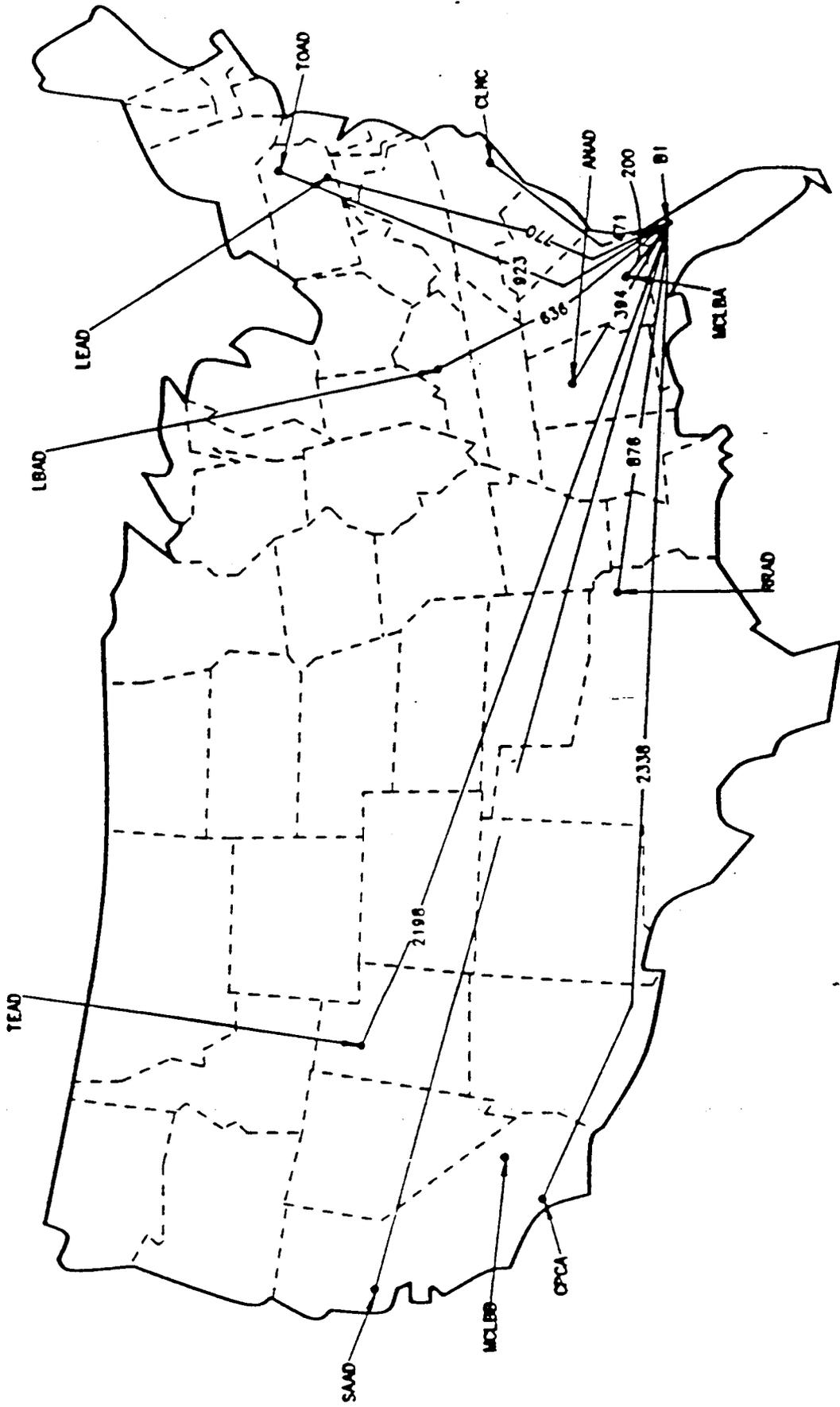
SUMMARY OF TRANSPORTATION ANALYSIS

ITEM NOMENCLATURE	INVENTORY QUANTITY	EST ANNUAL WKLD	WKLD % OF TOT INVENTORY	UNIT COST	NUMBER OF ITEMS IN MAINT		COST INCREASE	ADD ITEMS REQ'D
					@ USMC 140 2.57	@ ARMY 190 1.89		
AAV7A1 FAMILY (IROAN)	1244	273	21.95%	\$1,100,000	106	144	\$41,708,333	38
AN/GRC-201	114	12	10.53%		5	6	\$0	2
AN/MRC-110,135,138	3020	148	4.90%		58	78	\$0	21
AN/TPB-1D	16	4	25.00%	\$1,711,000	2	2	\$950,556	1
AN/TPS-63	20	4	20.00%	\$524,000	2	2	\$291,111	1
D7G TRACTOR	45	2	4.44%		1	1	\$0	0
MPMV	12594	406	3.22%		158	214	\$0	56
LAV FAMILY	598	79	13.21%	\$828,000	31	42	\$9,085,000	11
LVS FAMILY	1532	155	10.12%		60	82	\$0	22
M800/900 SERIES 5 TON	6933	630	9.09%	\$95,000	245	333	\$8,312,500	88
MC400R EXCAVATOR	28	2	7.14%		1	1	\$0	-0
MC6000	648	15	2.31%		6	8	\$0	2
M-109 SP ART	92	25	27.17%	\$996,775	10	13	\$3,461,024	3
M-110 SP HOW	85	17	20.00%	\$1,054,971	7	9	\$2,490,904	2
M-114A2 TOWED ART	32	10	31.25%	\$46,453	4	5	\$64,518	1
M-192E1	61	20	32.79%		8	11	\$0	3
M-198 TOWED ART	446	50	11.21%	\$612,237	19	26	\$4,251,646	7
M-530CB FIRE TRUCK	47	6	12.77%	\$125,000	2	3	\$104,167	1
M-578 RECOVERY	22	8	36.36%	\$1,053,000	3	4	\$1,170,000	1
M-60A1 TANK (IROAN)	738	141	19.11%	\$1,500,000	55	74	\$29,375,000	20
M-870	226	4	1.77%		2	2	\$0	1
M-870	66	11	16.67%	\$1,117,939	4	6	\$1,707,962	2
M-870	325	25	7.69%		10	13	\$0	3
M-870	81	26	32.10%		10	14	\$0	4
TOTALS	29,013	2,073	7.15%		806	1094	\$0	288
							\$102,972,721	576

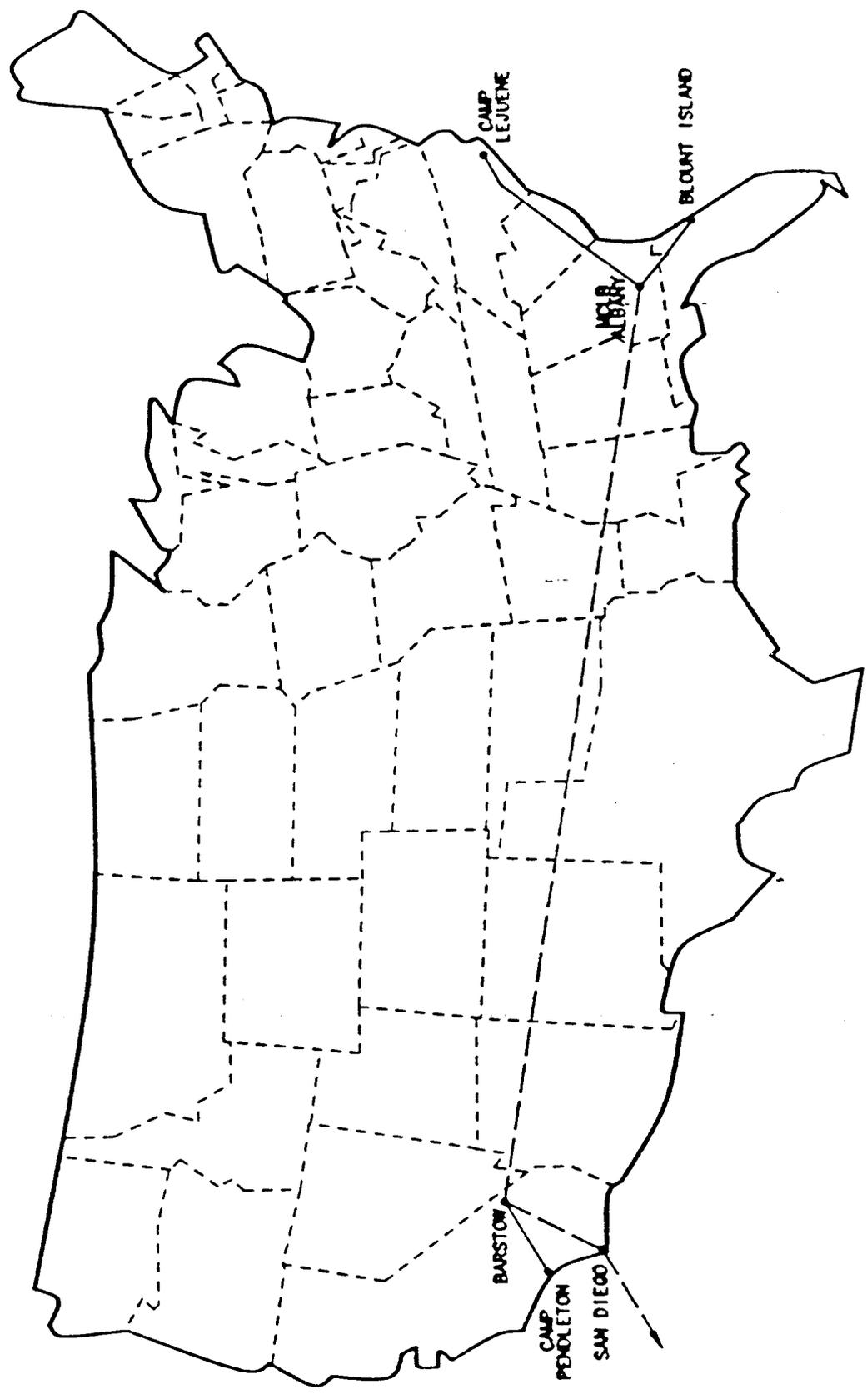
INVENTORY INCREASES NEED TO OFFSET PIPELINE/THROUGHPUT INCREASES.

38 AAV7A1 FAMILY	\$41,708,333
1 AN/TPB-1D	\$950,556
1 AN/TPS-63	\$291,111
11 LAV FAMILY	\$9,085,000
TOTAL	\$52,035,000

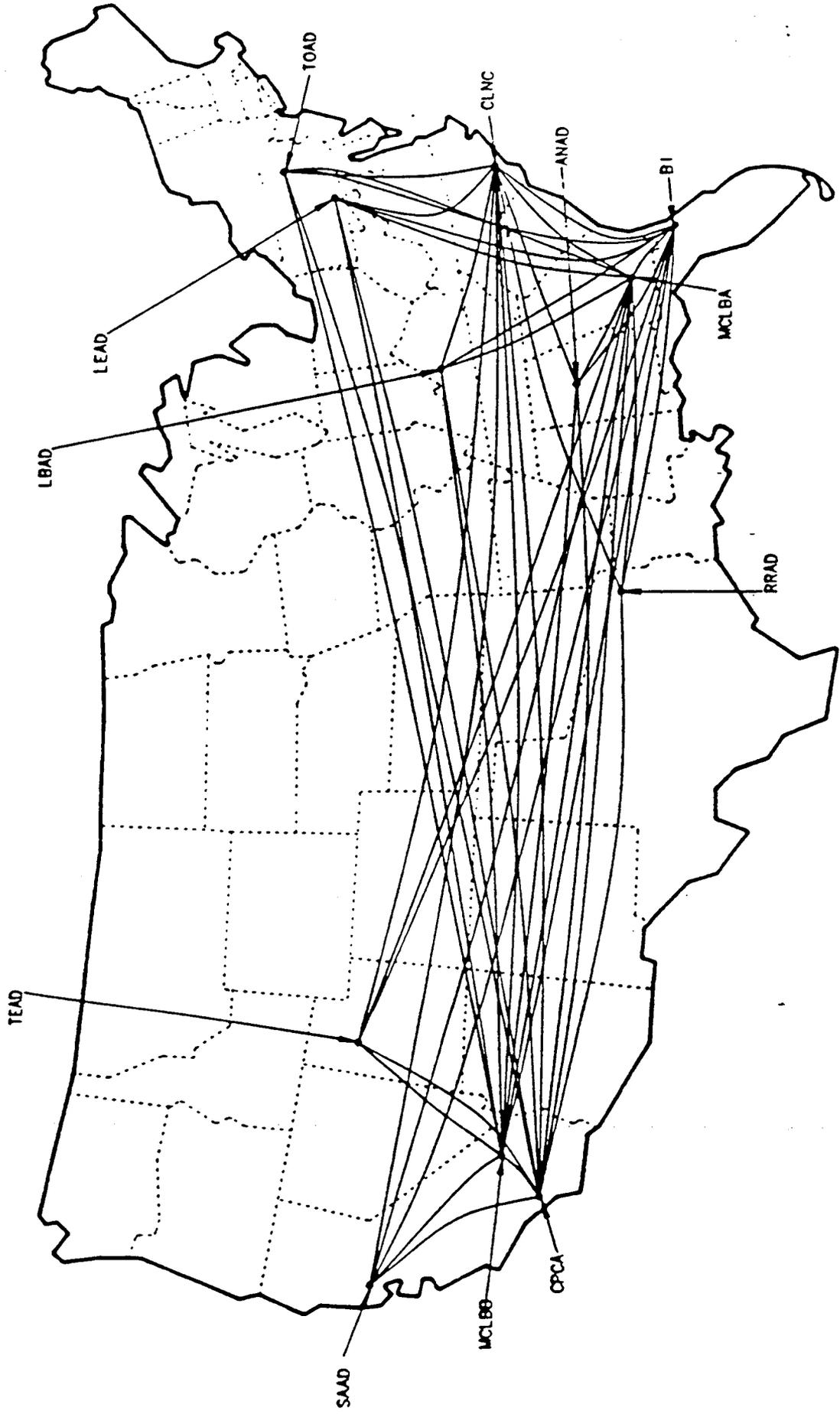
# UNITED STATES MARINE CORPS SHIPPING DISTANCES - BI



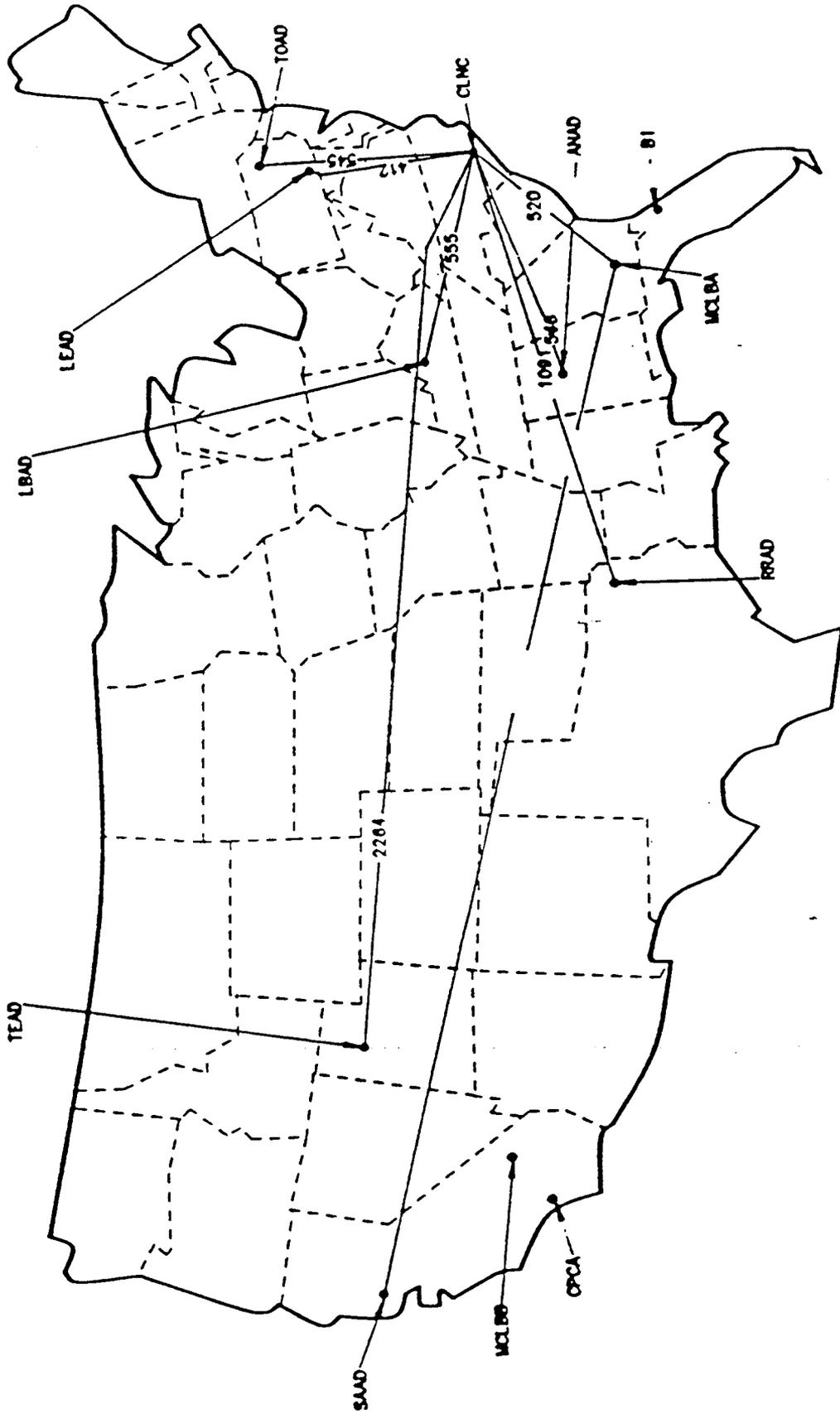
UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE CURRENT SHIPMENT PLAN



UNITED STATES MARINE CORPS  
DEPOT MAINTENANCE SHIPMENT PLAN  
ARMY DEPOT MAINTENANCE SUPPORT.

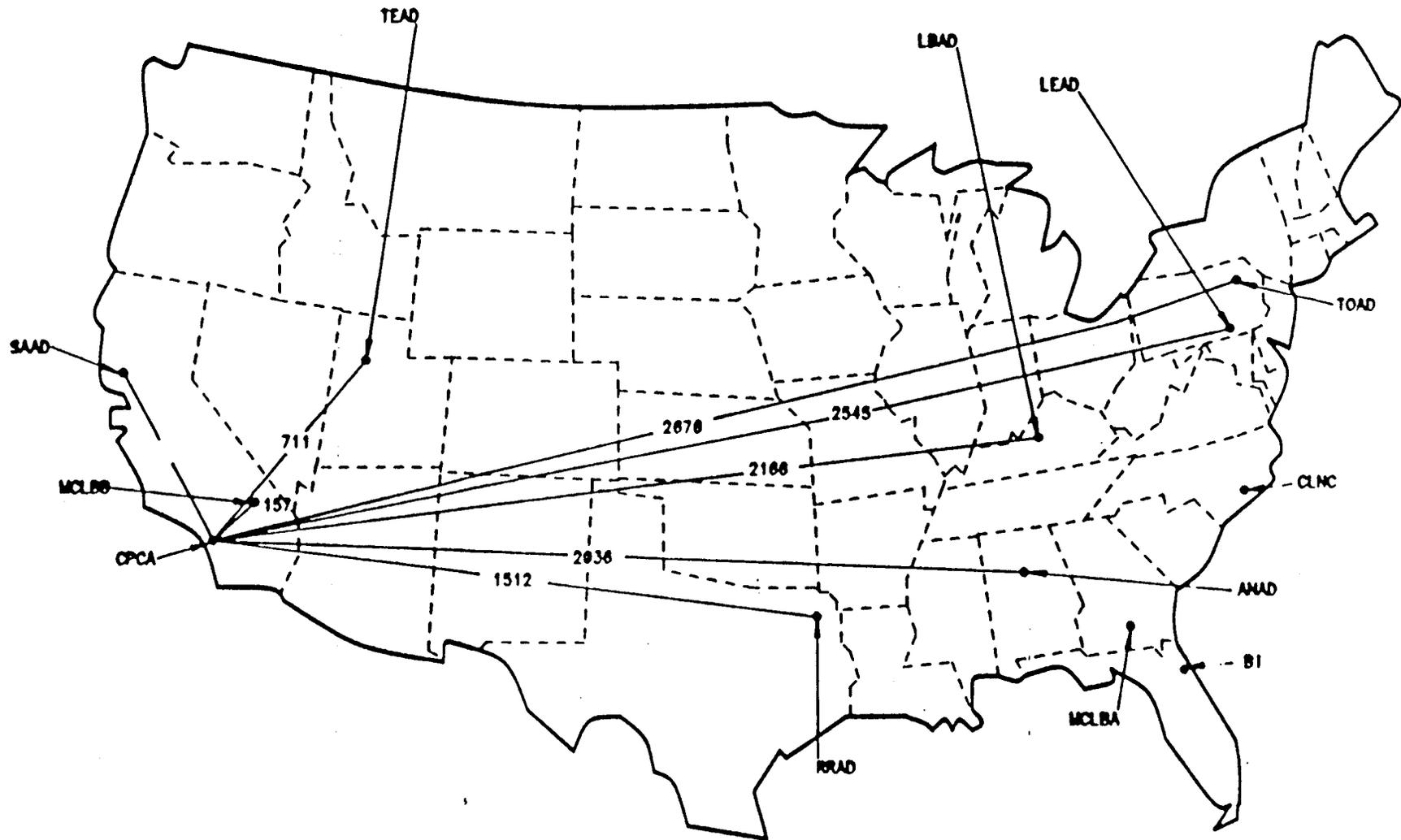


# UNITED STATES MARINE CORPS SHIPPING DISTANCES - CLNC

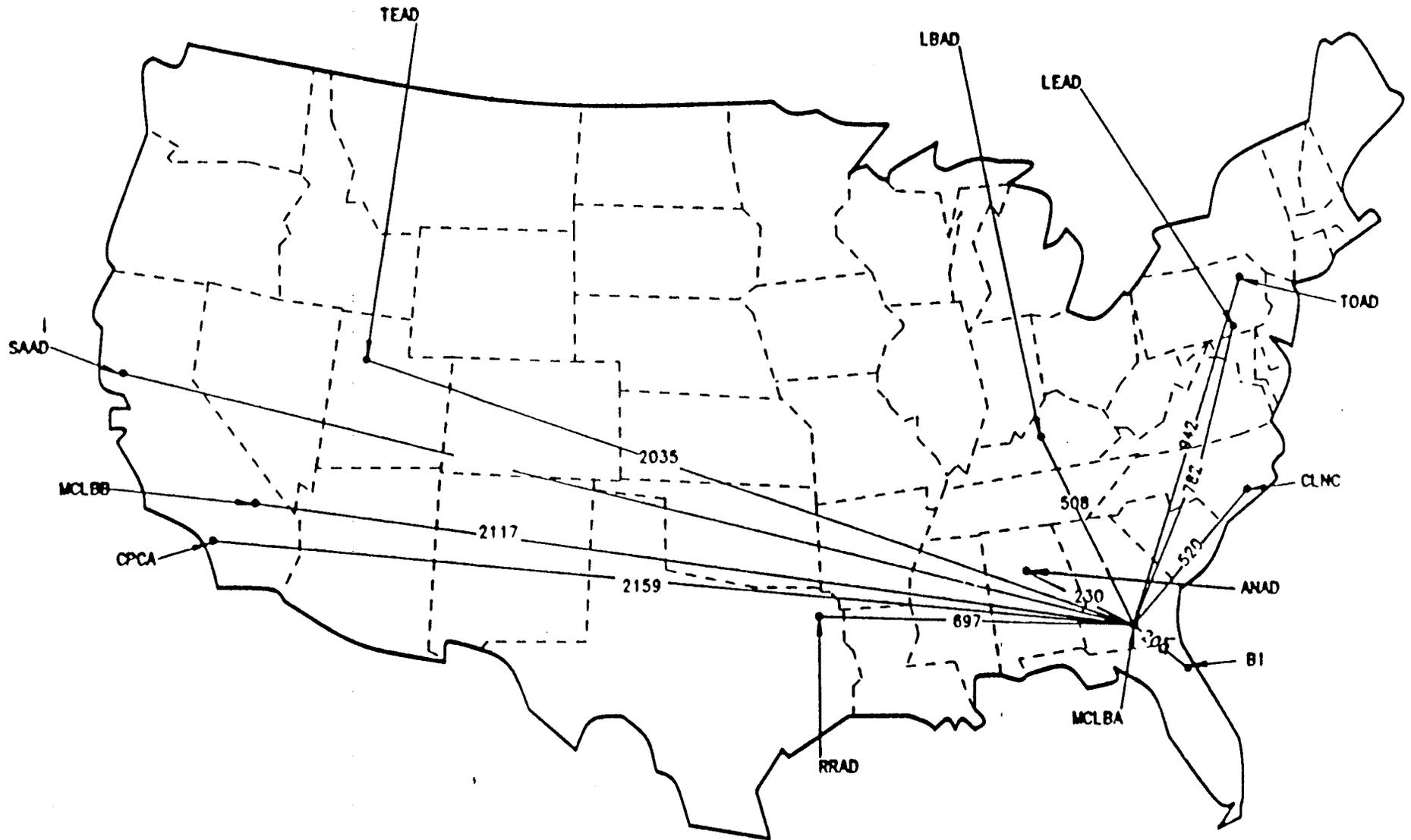


MCLBA Albany \* 520  
 LEAD 109  
 B 55/mar 200  
 720

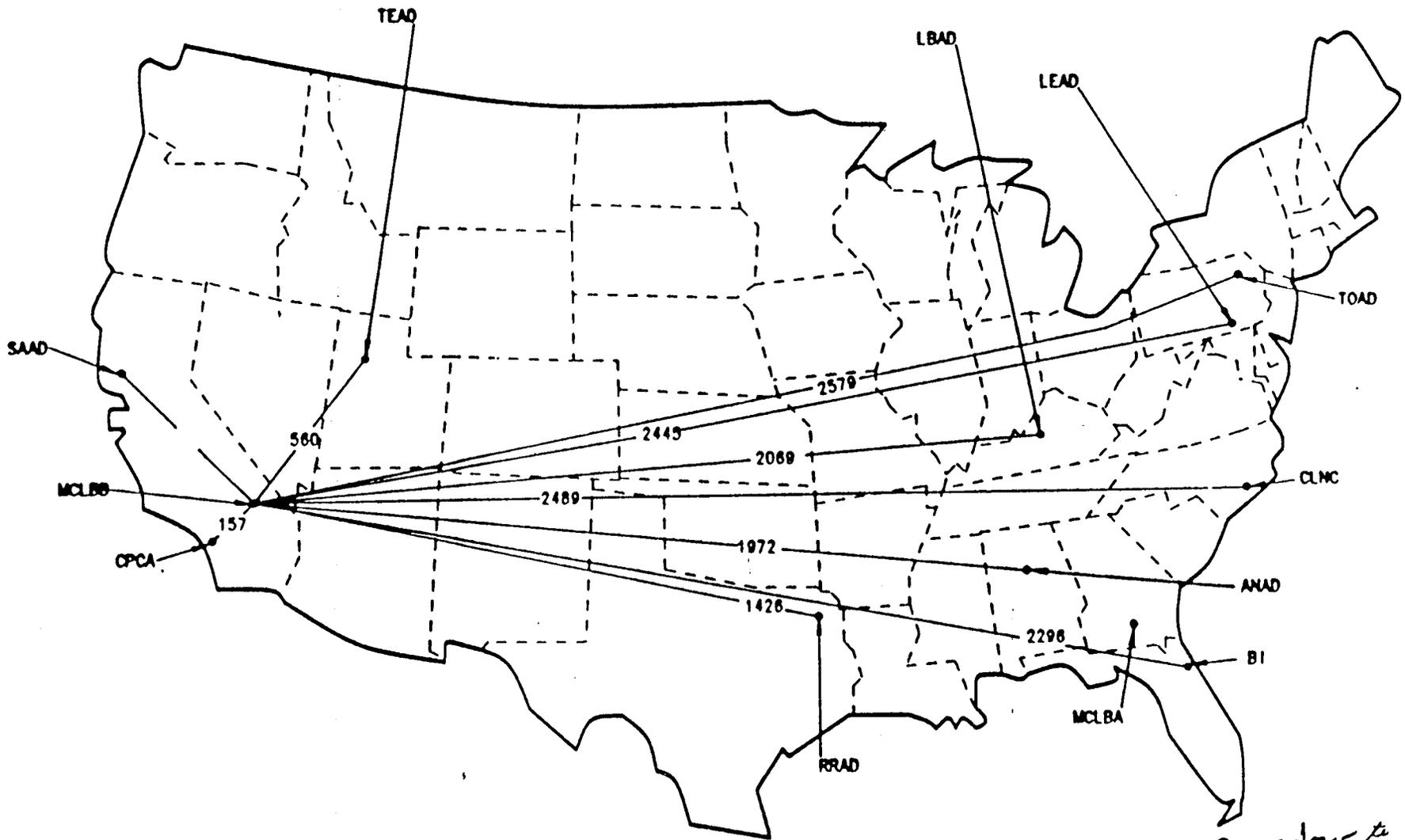
# UNITED STATES MARINE CORPS SHIPPING DISTANCES - CPCA



# UNITED STATES MARINE CORPS SHIPPING DISTANCES - MCLBA



# UNITED STATES MARINE CORPS SHIPPING DISTANCES - MCLBB



Distance Bars for to  
 CLMC 2489  
 BE 2298  
 4787

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB F INVENTORY INCREASES:

o MARINE CORPS CURRENT INVENTORY OF PEI AND SDR IS AS FOLLOWS

PEI	IN-STOCK	\$1,820,000,000
	IN-USE	\$5,605,000,000
	TOTAL	\$7,425,000,000

SDR	IN-STOCK	\$423,400,000
	IN-USE	\$255,500,000
	TOTAL	\$678,900,000

TOTAL INVENTORY VALUE	\$8,103,900,000
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ANALYSIS OF THE IMPACT OF LONGER PIPELINES, ADDITIONAL TRANSPORTATION TIME AND INCREASED THROUGHPUT TIME IN EACH ARMY ACTIVITY ON FOUR COMBAT ESSENTIAL ITEMS SAMPLED INDICATED THAT ADDITIONAL ASSETS WILL BE NEEDED FOR ALL ITEMS PROCESSED TO MAINTAIN OUR CURRENT LEVELS OF COMBAT EQUIPMENT READINESS.

THE SAMPLE INDICATES:

	QTY	UNIT COST	TOTAL COST
AAV7A1 AMPHIBIOUS ASSULT VEHICLE	26	\$1,100,000	\$28,600,000
AN/TPB-1D RADAR SET	1	\$950,556	\$950,556
AN/TPS-63 RADAR SET	1	\$291,111	\$291,111
LAV LIGHT ARMORED VEHICLE FAMILY	7	\$825,909	\$5,781,364
TOTAL FOR FOUR ITEMS SAMPLED			\$35,623,031

UNITED STATES MARINE CORPS  
COST TO CLOSE TWO MARINE CORPS  
DEPOT MAINTENANCE ACTIVITIES

TAB G NEW PERSONNEL COSTS:

TO RECRUIT, FIND, HIRE, TRAIN, EMPLOY 1434 NEW EMPLOYEES TO PERFORM THE WORK CURRENTLY ACCOMPLISHED BY MARINE CORPS PERSONNEL WILL A SUBSTANTIAL AMOUNT. PERSONNEL TO PERFORM THIS WORK ARE NOT AVAILABLE UNEMPLOYED IN ARMY DEPOTS WAITING FOR THE TRANSFER OF

UNLESS ARMY DEPOTS HAVE LARGE NUMBERS OF EXCESS PEOPLE SINGIFICAN PERSONNEL COSTS WILL BE INCURRED TO ACQUIRE THE SKILLS NECESSARY TO REBUILD MARINE CORPS EQUIPMENT. SKILLED, EXPERIENCED HEAVY MOBILE EQUIPMENT MECHNAICS, MACHINISTS, ELECTRONIC TECHNICIANS, RADAR REPAIRMAN, WELDERS, ELECTRICIANS, MACHINISTS, ECT, AND SUPERVISORS OF OVER 78 CIVILIAN OCCUPATIONAL CATEGORIES WILL BE NEEDED.

EXTENSIVE SKILL DEVELOPMENT TRAINING AND HARDWARE SPECIFIC TRAINI WILL BE REQUIRED ESPECIALLY FOR MARINE CORPS PECULIAR ITEMS, AUTOMATIC TEST EQUIPMENT, CNC MACHINES, AND SOFTWARE MAINTENANC AND DEVELOPMENT WILL BE REQUIRED.

WORKLOAD TRANSFER OF 1,594,531 DIRECT LABOR HOURS DIVIDED BY 1700 DIRECT LABOR HOURS PER EMPLOYEE PER YEAR EQUALS 937.96 PRODUCTION EQUIVALENTS ARE REQUIRED.

AT A RATIO OF 1.5:1 DIRECT TO INDIRECT WORKERS 625.31 ADDITIONAL INDIRECT PERSONNEL ARE REQUIRED TO SUPPORT THE 938 DIRECT WORKERS.

TOTAL PERSONNEL REQUIRED FOR WORKLOAD TRANSFERRED IS 1563.27 LESS 129 CIVILIAN EMPLOYEES THAT ARE EXPECTED TO TRANSFER UPON SHUTDOWN OF TWO MARINE CORPS DMA'S. NET NEW HIRES REQUIRED IS 1434.

THE ESTIMATED ONE TIME COST TO HIRE 1434 NEW EMPLOYEES IS:

ESTIMATED AVERAGE COST TO HIRE	\$3,941.63
NUMBER OF PERSONNEL	1,434
ESTIMATED TOTAL COST:	<u>\$5,652,297</u>

HIRING COSTS WERE ESTIMATED AS FOLLOWS:

AVERAGE RELOCATION COST PER EMPLOYEE	\$2,603.06
CIVILIAN PERSONNEL OFFICE COSTS	\$425.13
NEW EMPLOYEE TRAINING	913.44
TOTAL ESTIMATED COST TO HIRE ONE NEW EMPLOYEE	<u>\$3,941.63</u>

UNITED STATES MARINE CORPS  
 COST TO CLOSE TWO MARINE CORPS  
 DEPOT MAINTENANCE ACTIVITIES

TAB H PRODUCTION COSTS:

- o ANALYSIS OF ARMY PROVIDED PRODUCTION COST AT ARMY DEPOT MAINTENANCE ACTIVITIES USING THE DOD 7220.29H COST DATA INDICATES THE AVERAGE COST PER DIRECT LABOR HOUR FOR 9 ARMY DEPOTS WAS \$65.22. DATA CONCERNING THIS ANALYSIS IS ATTACHED.
- o IN THE ARMY INPUT TO THE LAST DATA CALL FOR THE DEPOT CONSOLIDATION STUDY WAS A CHART THAT ILLUSTRATES THE CURRENT DEPOT "EXPENSING RATE" AND PROJECTED A REDUCTION IN COST AS CAPACITY UTILIZATION INCREASED. IT NOTED CURRENT RATE AT \$63.80
- o ATTACHED IS THE ARMY RESPONSE TO A REQUEST FOR REPAIR OF AN AVLB BRIDGE COMPONENT RECENTLY DAMAGED AT ALBANY. THE ARMY LABOR RATE FOR REIMBURSABLE SUPPORT WAS \$70.44 PER HOUR.

o FY-89 DATA FOR THE MARINE CORPS INDICATES:

FY-89 DIRECT LABOR HOURS =	1,944,551
FY-89 AMOUNT BILLED BY MCIF =	\$109,535,480

o COST PER HOUR  $\$109,535,480 / 1,944,551 =$  \$56.33

ARMY RATE AT LEAST \$63.80

o MARINE CORPS WORKLOAD (LESS PREP-FOR-SHIP/CIS) IS 1,594,531 HOURS.

o ARMY AVERAGE BILLING RATE PER DL	\$63.80
MARINE CORPS BILLING RATE PER DLH	\$56.33
COST INCREASE FOR ARMY WORK PER	\$7.47

o COST INCREASE	1,594,531
	\$7.47
	\$11,911,147

UNITED STATES MARINE CORPS  
COST TO CLOSE TWO MARINE CORPS  
DEPOT MAINTENANCE ACTIVITIES

TAB I ALTERNATE TRAINING FOR MARINES

WITHOUT THE BENEFIT OF THE TRAINING CURRENTLY PROVIDED BY THE MARINE CORPS  
DEPOT MAINTENANCE ACTIVITIES, ALTERNATE TRAINING FOR MARINES WOULD BE NEEDED.

WHILE THE MARINE IS ASSIGNED TO THE DMA, THEY ALSO CONTINUE THEIR  
MILITARY SUBJECTS TRAINING.

ALTERNATIVES CONSIDERED:

1. PLACE MARINES IN ARMY DEPOTS. THERE IS NO BENEFIT TO THE MARINE CORPS  
FOR THIS ALTERNATIVE. THE INCREASE IN THE ASSOCIATED OVERHEAD COST IN  
PLACING 370 MARINES IN MULTIPLE ARMY LOCATIONS WOULD SHOW IN A COST  
BENEFIT ANALYSIS, COST OUTRANKING BENEFIT. ADDITIONALLY, MARINE WOULD NOT  
RECEIVE THEIR REQUIRED MILITARY TRAINING. IF THIS ALTERNATIVE WERE ACCEPTED  
MARINES WOULD NOT BE ASSIGNED TO ARMY DEPOTS.

2. CONTRACT FOR FORMAL SCHOOLS OUTSIDE DOD. DOD HAS NO FORMAL SCHOOLS FOR  
THIS PURPOSE. THE FOLLOWING IS THE ESTIMATED COSTS ASSOCIATED WITH CONTRACTING  
SCHOOLS FOR AN AVERAGE OF 370 MARINES PER YEAR.

DEPOT TRAINING COST PER MARINE	\$3,100
AVERAGE NUMBER OF MARINE PER YEAR	<u>370</u>
TOTAL DEPOT TRAINING COST PER YEAR	<u>\$1,147,000</u>

UNITED STATES MARINE CORPS  
COST TO CLOSE TWO MARINE CORPS  
DEPOT MAINTENANCE ACTIVITIES

TAB J COSTS SAVINGS

MILCON:

THE ONLY APPROVED DMA MILITARY CONSTRUCTION  
PROJECTS ARE IN FY 1991.

\$5,910,000

BASE OPERATIONS SUPPORT:

THE MARINE CORPS INDUSTRIAL FUND REIMBURSES THE  
MARINE CORPS LOGISTICS BASES APPROXIMATELY \$10 MILLION  
PER YEAR FOR SUPPORT PROVIDED TO THE DEPOT MAINTENANCE  
ACTIVITY. THIS COSTS ARE ADDITIVE TO THE THOSE APPROPRIATION  
FUNDED SERVICES NEEDED TO SUPPORT OTHER BASE FUNCTIONS.\*

NOT ALL OF THE \$30 MILLION IDENTIFIED IN THE OSD  
INDUSTRIAL FUND OVERVIEW IS FOR BASE OPERATIONS SUPPORT.  
AS DIRECTED BY NAVCOMPT, THE BASE OPERATIONS SUPPORT COSTS  
IDENTIFIES THE MARINE CORPS INDUSTRIAL FUNDS TOTAL  
GENERAL AND ADMINISTRATIVE COSTS. ONLY \$10 MILLION CAN  
BE TERMED AS TRUE BASE OPERATIONS SUPPORT COSTS.  
OF THE \$10 MILLION ONLY \$8 MILLION IS ONLY FOR DEPOT  
MAINTENANCE SUPPORT.

USING THE ARMY FACTOR OF A 20 PERCENT SAVINGS  
TO REFLECT THE BASE OPERATIONS SUPPORT EFFICIENCIES GAINED  
IN CONSOLIDATING WORKLOAD THE ANNUAL SAVINGS IS ESTIMATED  
TO BE \$1,600,000. THE FIVE YEAR SAVINGS IS PROJECTED TO BE

\$8,491,000

TOTAL COSTS SAVINGS FOR FIVE YEARS

\$14,401,000

\*THE FOLLOWING ARE BASE COSTS WHICH ARE REIMBURSED TO THE HOST LOGISTICS BASES:

- ADMIN SUPPORT FOR:

- COMPTROLLER SUPPORT OF THE MARINE CORPS INDUSTRIAL FUND ACCOUNTING SYSTEM
- CIVILIAN PERSONNEL ADMIN SUPPORT
- BASE CONTRACTING OFFICE SUPPORT
- UTILITIES
- WASTE REMOVAL
- DATA PROCESSING SUPPORT
- PUBLIC WORKS SUPPORT
- FIRE PROTECTION
- TELEPHONE
- BASE VEHICLE LEASING

7 October 1992

DATA CALL WORK SHEET FOR MCLB ALBANY

Category----- Weapon System and Material Support

Sub-category-- Industrial Activities

Type ----- USMC Logistics Bases (LOGBASES)

Claimant ----- CMC

3106



*100, RFA 100 100 100*

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**3. COMBAT VEHICLES (CONTINUED)**

Examples of the trade skills available to perform maintenance services on combat vehicle include:

Optical Instrument Repairer  
Electronics Mechanic  
Welder  
Sheetmetal Mechanic  
Sandblaster  
Electro Plating Worker  
Electronic Measurement Mechanic  
Electrical Equipment Repairer  
Machinist  
Mobile Equipment Metal Mechanic  
Painter  
Heavy Mobile Equipment Mechanic  
Mechanical Engineering Technician  
Industrial Engineering Technician  
Electrical Engineering Technician  
Tire Repairer  
Small Arms Repairer

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON COMBAT VEHICLES IS PERFORMED AT THIS LOGBASE?**

MCLB, Albany - 49%  
MCLB, Barstow - 51%

These percentages are based on the total USMC workload.

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON COMBAT VEHICLES IS PERFORMED BY COMMERCIAL MANUFACTURERS OR OTHER DOD DEPOTS?**

Zero percent (0%) of the total Marine Corps annual workload for combat vehicles is performed by commercial manufacturers or other DoD depots.

**C. AUTOMOTIVE EQUIPMENT**

**WHAT TYPES OF AUTOMOTIVE EQUIPMENT ARE WORKED ON AT THE LOGBASE?**

HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) AMBULANCE, M1035	SHOP EQUIP WELDING SET RUNWAY SWEEPER
TOW MSL CARRIER, M-1045/46	TEXTILE REPAIR TRK MOUNTED
CARGO/TRP CARRIER, M-998	TRUCK, VAN
ARMAMENT CARRIER, M-1043	TRUCK (TRK) 5 TON

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

3. AUTOMOTIVE EQUIPMENT (CONTINUED)

LOGISTICS VEHICLE SYSTEM (LVS) CONTAINER HAULER, MK-14	CARGO, M-813
PWR UNIT, MK-48	CARGO, M-923/925
5TH WHEEL, MK-16	CARGO, M-928
CARGO TLR, MK-17	CARGO, M-927
WRECKER, MK-15	WRECKER, M-816
TRAILERS (TLR)	WRECKER, M-936
GENERATOR TLR, M-762	DUMP, M-817
SEMI-TLR VAN	DUMP, M-929
REFUELER, M-970	TRACTOR, M-818
SEMI-TLR M-349	TRACTOR, M-931
CARGO TLR, M-101	CRASH, FIRE, RESCUE TRUCK, P19A
LOW BED TLR, M-870	TRUCK (TRK), 2 1/2 TON FUEL TRK, M-49A2C
CARGO TLR, M-105A2	WATER TRK, M-50A2
CHASSIS TLR, M-353	FIRE TRK, M-530CS
WATER TLR, M-149A2	FIRE TRK, M-530
COMMERCIAL UTILITY CARGO VEHICLE (CUCV) TRK, CARGO M-1028	SHOP SET EQUIP FUEL
TRK, CARGO M-1008	
AMBULANCE, M-1010	

WHAT TYPES ARE PLANNED FOR THIS LOGBASE DURING FY-94 THRU FY-97?

HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV)	SHOP EQUIP WELDING SET
AMBULANCE, M1035	RUNWAY SWEEPER

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

C. AUTOMOTIVE EQUIPMENT (CONTINUED)

TOW MSL CARRIER, M-1045/46

CARGO/TRP CARRIER, M-998

ARMAMENT CARRIER, M-1043

✓ LOGISTICS VEHICLE SYSTEM (LVS)  
CONTAINER HAULER, MK-14

PWR UNIT, MK-48

5TH WHEEL, MK-16

CARGO TLR, MK-17

WRECKER, MK-15

TRAILERS (TLR)

GENERATOR TLR, M-762

SEMI-TLR VAN

✓ REFUELER, M-970

✓ SEMI-TLR M-349

✓ CARGO TLR, M-101

✓ LOW BED TLR, M-870

CARGO TLR, M-105A2

CHASSIS TLR, M-353

WATER TLR, M-149A2

✓ COMMERCIAL UTILITY  
CARGO VEHICLE (CUCV)  
TRK, CARGO M-1028

β TRK, CARGO M-1008

— AMBULANCE, M-1010

TEXTILE REPAIR  
TRK MOUNTED

TRUCK, VAN

✓ TRUCK (TRK) 5 TON  
CARGO, M-813

CARGO, M-923/925

CARGO, M-928

CARGO, M-927

WRECKER, M-816

WRECKER, M-936

DUMP, M-817

DUMP, M-929

TRACTOR, M-818

TRACTOR, M-931

CRASH, FIRE, RESCUE  
TRUCK, P19A

✓ TRUCK (TRK), 2 1/2 TON  
FUEL TRK, M-49A2C

WATER TRK, M-50A2

FIRE TRK, M-530CS

FIRE TRK, M-530

SHOP SET EQUIP FUEL

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**7. AUTOMOTIVE EQUIPMENT (CONTINUED)**

**Number and DLMH by Fiscal Year  
(In Thousands)**

Automotive Equipment (Types)	FY (90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)
Quantity	2	3	3	3	3	3	3	3
Hull/Body, Frame, and Installed Systems	172	229	343	340	272	258	258	258
Engine	4	5	4	4	5	5	5	5
Vehicle and Engine Components and Accessories	1	2	2	2	2	2	2	2
Electronic and Communication Equipment		.02	.007					
Armament								
Support Equipment								
Other	.2							

WORK IDENTIFIED ON THIS CHART IS PERFORMED AT MCLB, ALBANY

**WHAT IS SPECIAL ABOUT THE FACILITIES, EQUIPMENT, OR SKILLS AT THIS LOGBASE FOR WORK ON SPECIFIC AUTOMOTIVE EQUIPMENT?**

Our Multi-Commodity Maintenance Center's facilities and equipment are designed and organized to support a broad range of maintenance services on all Marine Corps ground combat, combat support, and combat service support equipment. Our maintenance capabilities include overhaul, rebuild, IROAN and overflow intermediate-level maintenance. Associated support capabilities include calibration, developing work standards, and design and fielding of automatic test support equipment.

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

2. AUTOMOTIVE EQUIPMENT (CONTINUED)

We employ more than 60 trade skills within the Maintenance Center -- and the majority of our employees are cross-trained to perform in more than one commodity area. Therefore, unlike most DoD depots, MCLB, Albany's Multi-Commodity Maintenance Center is established and manned to perform work on a broad range of ground equipment and to rapidly respond to changing Marine Corps requirements. These capabilities were clearly demonstrated during Desert Shield/Desert Storm and continue today during the on-going reconstitution of the Maritime Prepositioning Force (MPF).

The following is a listing of our special facilities, equipment, and support capabilities to perform maintenance services on automotive equipment:

Vehicle chassis dynamometer  
Vehicle test tracks (concrete and earth)  
Engine dynamometer facility  
Transmission dynamometer facility  
Fuel calibration facility  
Undercoating facility  
Hydraulic test facility  
Metal plating: conversion coating, phosphate coating,  
organic coating  
Electro plating: chrome, cadmium, anodizing  
Radiography capability  
Ultrasonic test capability  
Fiber optics inspection capability  
Spray metalizing capability  
Heat treatment  
Industrial graphic arts capability  
Plasma arc and flame-o-graph metal cutting capability  
Bridge cranes: (1) 75-ton, (2) 30-ton  
Abrasive blast facilities: grit, steel shot, plastic media,  
bicarbonate of soda, glass bead  
Robotic welding  
Extensive type I calibration standards  
Extensive physical dimensional measurements/calibration  
capability

Examples of the trade skills available to perform maintenance services on automotive equipment include:

Electronics Mechanic  
Welder  
Sheetmetal Mechanic  
Sandblaster  
Electro Plating Worker  
Electronic Measurement Mechanic  
Electrical Equipment Repairer

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

AUTOMOTIVE EQUIPMENT (CONTINUED)

Machinist  
Mobile Equipment Metal Mechanic  
Painter  
Heavy Mobile Equipment Mechanic  
Mechanical Engineering Technician  
Industrial Engineering Technician  
Electrical Engineering Technician  
Tire Repairer

WHAT PERCENT OF THE TOTAL ANNUAL WORK ON AUTOMOTIVE EQUIPMENT IS PERFORMED AT THIS LOGBASE?

MCLB, Albany 55%  
MCLB, Barstow 37%

These percentages are based on the total USMC workload.

WHAT PERCENT OF THE TOTAL ANNUAL WORK ON AUTOMOTIVE EQUIPMENT IS PERFORMED BY COMMERCIAL MANUFACTURERS OR OTHER DOD DEPOTS?

Eight percent (8%) of the total Marine Corps annual workload for automotive equipment is performed by commercial manufacturers or other DoD depots.

CONSTRUCTION EQUIPMENT

WHAT TYPES OF CONSTRUCTION EQUIPMENT ARE WORKED ON AT THIS LOGBASE?

BOAT, BRIDGE ERECTION	✓ TRACTOR, D7G	TRACTOR, FULL TRACK
TRACTOR, WHEELED	WELDING MACH (ARC)	WATER PUMP, 350 GPM
✓ SCRAPER, EARTH MOVER	LOADER, SCOOP	DROTT CRANE, 30 TON
CONTAINER HANDLER LIGHT WEIGHT	FORKLIFT ROUGH TERRAIN	SCOOP LOADER, FULL TRACK
PUMP UNIT (MUD HOG)	✓ TRUCK, FORKLIFT	MIXER, CONCRETE
EXCAVATOR, HYDRAULIC	LULL FORKLIFT 10K	ROLLER, MOTORIZED
ROUGH TERRAIN CONTAINER HANDLERS		

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**CONSTRUCTION EQUIPMENT (CONTINUED)**

**WHAT TYPES ARE PLANNED FOR THIS LOGBASE DURING FY-94 THRU FY-97?**

BOAT, BRIDGE ERECTION ✓ TRACTOR, D7G                      TRACTOR, FULL TRACK

TRACTOR, WHEELED                      WELDING MACH (ARC) WATER PUMP, 350 GPM

✓ SCRAPER, EARTH MOVER              LOADER, SCOOP                      DROTT CRANE, 30 TON

CONTAINER HANDLER                      FORKLIFT ROUGH                      SCOOP LOADER,  
LIGHT WEIGHT                      TERRAIN                      FULL TRACK

PUMP UNIT (MUD HOG) ✓ TRUCK, FORKLIFT                      MIXER, CONCRETE

EXCAVATOR, HYDRAULIC              LULL FORKLIFT 10K                      ROLLER, MOTORIZED

ROUGH TERRAIN

CONTAINER HANDLERS

**Number and DLMH by Fiscal Year  
(In Thousands)**

Construction Equipment (Types)	FY (90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)
Quantity	1	1	1	1	1	1	1	1
Hull/Body, Frame, and Installed Systems	39	44	48	47	50	47	47	47
Engine	.01	.4	3	3	4	3	3	3
Vehicle and Engine Components and Accessories	2	5	1	1	1	1	1	1
Other	.6							

WORK IDENTIFIED ON THIS CHART IS PERFORMED AT MCLB, ALBANY

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**D. CONSTRUCTION EQUIPMENT (CONTINUED)**

**WHAT IS SPECIAL ABOUT THE FACILITIES, EQUIPMENT, OR SKILLS AT THIS LOGBASE FOR WORK ON SPECIFIC CONSTRUCTION EQUIPMENT?**

Our Multi-Commodity Maintenance Center's facilities and equipment are designed and organized to support a broad range of maintenance services on all Marine Corps ground combat, combat support, and combat service support equipment. Our maintenance capabilities include overhaul, rebuild, IROAN and overflow intermediate-level maintenance. Associated support capabilities include calibration, developing work standards, and design and fielding of automatic test support equipment.

We employ more than 60 trade skills within the Maintenance Center -- and the majority of our employees are cross-trained to perform in more than one commodity area. Therefore, unlike most DoD depots, MCLB, Albany's Multi-Commodity Maintenance Center is established and manned to perform work on a broad range of ground equipment and to rapidly respond to changing Marine Corps requirements. These capabilities were clearly demonstrated during Desert Shield/Desert Storm and continue today during the on-going reconstitution of the Maritime Prepositioning Force (MPF).

The following is a listing of our special facilities, equipment, and support capabilities to perform maintenance services on construction equipment:

- Laser test range (indoor and outdoor)
- Engine dynamometer facility
- Transmission dynamometer facility
- Vehicle winch test facility
- Vehicle load-lift test facility
- Vehicle test tracks (concrete and earth)
- Metal plating: conversion coating, phosphate coating, organic coating
- Electro plating: chrome, cadmium, anodizing
- Radiography capability
- Ultrasonic test capability
- Fiber optics inspection capability
- Spray metalizing capability
- Heat treatment
- Industrial graphic arts capability
- Plasma arc and flame-o-graph metal cutting capability
- Bridge cranes: (1) 75-ton, (2) 30-ton,
- abrasive blast facilities: grit, steel shot, plastic media, bicarbonate of soda, glass bead
- Robotic welding
- Extensive type I calibration standards
- Extensive physical dimensional measurements/calibration capability

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**D. CONSTRUCTION EQUIPMENT (CONTINUED)**

Examples of the trade skills available to perform maintenance services on construction equipment include:

Welder  
Sheetmetal Mechanic  
Sandblaster  
Electro Plating Worker  
Electronic Measurement Mechanic  
Electrical Equipment Repairer  
Machinist  
Mobile Equipment Metal Mechanic  
Painter  
Heavy Mobile Equipment Mechanic  
Mechanical Engineering Technician  
Industrial Engineering Technician  
Electrical Engineering Technician  
Tire Repairer

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON CONSTRUCTION EQUIPMENT IS PERFORMED AT THIS LOGBASE?**

MCLB, Albany 41%  
MCLB, Barstow 59%

These percentages are based on the total USMC workload.

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON CONSTRUCTION EQUIPMENT IS PERFORMED BY COMMERCIAL MANUFACTURERS OR OTHER DOD DEPOTS?**

Zero percent (0%) of the total Marine Corps annual workload for construction equipment is performed by commercial manufacturers or other DoD depots.

**E. ELECTRONICS AND COMMUNICATIONS SYSTEMS**

**WHAT TYPES OF ELECTRONICS AND COMMUNICATIONS SYSTEMS ARE WORKED ON AT THIS LOGBASE?**

RADIO AN/GRC-201	RADIO AN/MRC-110A	RADIO AN/MRC-138A
RADAR AN/TPS-63	RADAR AN/TPB-1D	RADAR AN/TPS-65
RADAR AN/UPA-60	COMM SYSTEMS AN/UYQ-3A	COMM SYSTEMS AN/MSQ-115
RADIO SET AN/MRC-135A	RADIO SET AN/MRC-140	TELEPHONE TA-838

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**E. ELECTRONICS AND COMMUNICATIONS SYSTEMS (CONTINUED)**

COMM WIRE TA-937	SWITCHBOARD SB-22A	TELEPHONE TA-838A
RADIO SET AN/GRC-160	RADIO SET AN/PRC-77	RADIO SET AN/GRC-193
PUBLIC ADDRESS AN/UIQ-10	MAP GENERATION UNIT	POWER SUPPLY PP-7332
RADIO AN/PRC-41A	RADIO AN/PRC-104	RADIO AN/PRC-68B
RADIO AN/PRC-41	RADIO AN/PRC-68	RADIO AN/GRC-213
RADIO AN/GRC-193A	RADIO AN/PRC-104A	COMPUTER AN/PSC-2
RADIO AN/PRC-68A	RADIO AN/PRC-68B HB	RADIO AN/GRC-193B(V) 1
RADIO AN/GRC-213A(V) 1	RADIO AN/PRC-104B(V) 4	TOOL KIT ELECTRONICS
RADIO AN/VRC-47	RADIO AN/GRC-160	RADIO AN/GRC-193B(V) 3
SWITCHBOARD SB-3865	SWITCHBOARD SB-40	SWITCHBOARD SB-3614 AVT
SWITCHBOARD SB-3614	RADIO SET AN/TTC-42	RECEIVER/TRANSMITTER RT-1523
AMPLIFIER RF AM-7238	AMPLIFIER ADAPTER AM-7239	CONTROL-MONITOR C-11291

**WHAT TYPES ARE PLANNED FOR THIS LOGBASE DURING FY-94 THRU FY-97?**

RADIO AN/GRC-201	✓ RADIO AN/MRC-110A	✓ RADIO AN/MRC-138A
RADAR AN/TPS-63	RADAR AN/TPB-1D	RADAR AN/TPS-65
RADAR AN/UPA-60	COMM SYSTEMS AN/UYQ-3A	COMM SYSTEMS AN/MSQ-115
✓ RADIO SET AN/MRC-135A	RADIO SET AN/MRC-140	TELEPHONE TA-838

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

E. ELECTRONICS AND COMMUNICATIONS SYSTEMS (CONTINUED)

COMM WIRE TA-937	✓ SWITCHBOARD SB-22A	TELEPHONE TA-838A
RADIO SET AN/GRC-160	RADIO SET AN/PRC-77	RADIO SET AN/GRC-193
PUBLIC ADDRESS AN/UIQ-10	MAP GENERATION UNIT	POWER SUPPLY PP-7332
RADIO AN/PRC-41A	RADIO AN/PRC-104	RADIO AN/PRC-68B
RADIO AN/PRC-41	RADIO AN/PRC-68	RADIO AN/GRC-213
✓ RADIO AN/GRC-193A	RADIO AN/PRC-104A	COMPUTER AN/PSC-2
RADIO AN/PRC-68A	RADIO AN/PRC-68B HB	RADIO AN/GRC-193B(V) 1
RADIO AN/GRC-213A(V) 1	RADIO AN/PRC-104B(V) 4	TOOL KIT ELECTRONICS
RADIO AN/VRC-47	RADIO AN/GRC-160	RADIO AN/GRC-193B(V) 3
SWITCHBOARD SB-3614	SWITCHBOARD SB-40	SWITCHBOARD SB-3614 AVT
SWITCHBOARD SB-3865	RADIO SET AN/TTC-42	RECEIVER/TRANSMITTER RT-1523
DEF ALERT RADAR AN/UPS-3	AMPLIFIER RF AM-7238	AMPLIFIER ADAPTER AM-7239
MORTAR BALLISTIC COMPUTER, M-23	CONTROL-MONITOR C-11291	DIG WB TRANS SYS AN/MRC-142

**DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)**

**MISSION AREA**

**E. ELECTRONICS AND COMMUNICATIONS SYSTEMS (CONTINUED)**

**Number and DLME by Fiscal Year  
(In Thousands)**

Electronic and Communications Systems (Types)	FY	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)
Quantity		7	8	7	7	7	7	7	7
Radio		34	51	131	129	76	73	73	73
Radar		41	36	42	42	48	46	46	46
Wire and Communications		34	26	17	17	33	32	32	32

WORK IDENTIFIED ON THIS CHART IS PERFORMED AT MCLB, ALBANY

**WHAT IS SPECIAL ABOUT THE FACILITIES, EQUIPMENT, OR SKILLS AT THIS LOGBASE FOR WORK ON SPECIFIC ELECTRONICS AND COMMUNICATIONS SYSTEMS EQUIPMENT?**

Our Multi-Commodity Maintenance Center's facilities and equipment are designed and organized to support a broad range of maintenance services on all Marine Corps ground combat, combat support, and combat service support equipment. Our maintenance capabilities include overhaul, rebuild, IROAN and overflow intermediate-level maintenance. Associated support capabilities include calibration, developing work standards, and design and fielding of automatic test support equipment.

We employ more than 60 trade skills within the Maintenance Center -- and the majority of our employees are cross-trained to perform in more than one commodity area. Therefore, unlike most DoD depots, MCLB, Albany's Multi-Commodity Maintenance Center is established and manned to perform work on a broad range of ground equipment and to rapidly respond to changing Marine Corps requirements. These capabilities were clearly demonstrated during Desert Shield/Desert Storm and continue today during the on-going reconstitution of the Maritime Prepositioning Force (MPF).

DATA CALL WORK SHEET FOR MARINE CORPS LOGISTICS BASE  
(DATA FOR MILITARY VALUE ANALYSIS)

MISSION AREA

E. ELECTRONICS AND COMMUNICATIONS SYSTEMS (CONTINUED)

The following is a listing of our special facilities, equipment, and support capabilities to perform maintenance services on electronics and communications systems:

Automatic transceiver test system  
Automatic power supply test system  
Digital circuit card tester  
Test program set development capability  
Automatic test system for SB-3614 switchboard  
Test bed for TPB-1D  
Radar test range  
EPROM programming capability  
Alpha, beta, gamma measurement/calibration  
Radiac calibration facility  
Test bed for unit level circuit switch  
Metal plating: conversion coating, phosphate coating, organic coating  
Industrial graphic arts capability

Examples of the trade skills available to perform maintenance services on electronics and communications systems include:

Welder  
Sheetmetal Mechanic  
Sandblaster  
Electro Plating Worker  
Electronic Measurement Mechanic  
Electrical Equipment Repairer  
Machinist  
Mobile Equipment Metal Mechanic  
Painter  
Heavy Mobile Equipment Mechanic  
Mechanical Engineering Technician  
Industrial Engineering Technician  
Electrical Engineering Technician  
Tire Repairer

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON ELECTRONICS AND COMMUNICATIONS SYSTEMS EQUIPMENT IS PERFORMED AT THIS LOGBASE?**

MCLB, Albany 30%

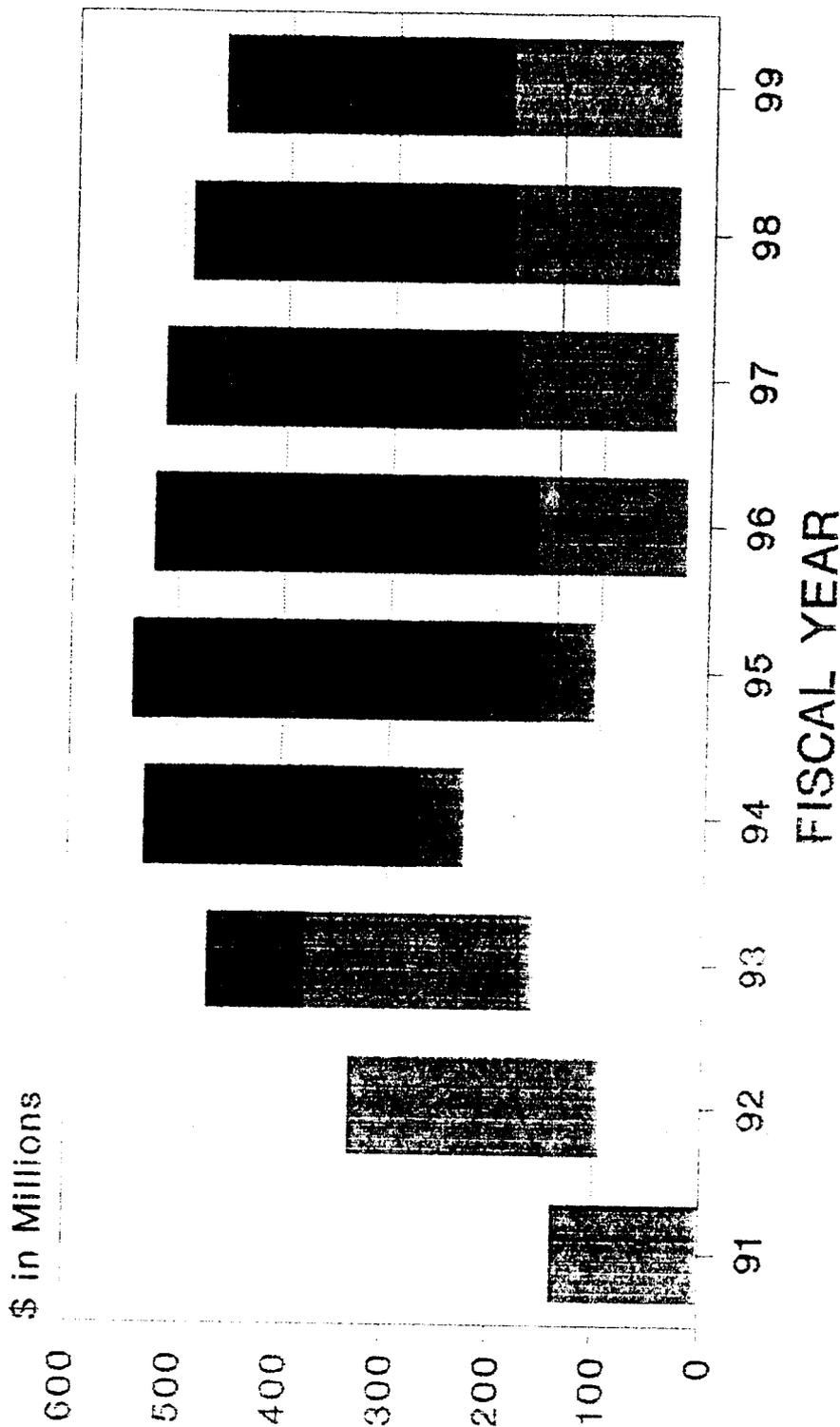
MCLB, Barstow 48%

These percentages are based on the total USMC workload.

**WHAT PERCENT OF THE TOTAL ANNUAL WORK ON ELECTRONICS AND COMMUNICATIONS SYSTEMS IS PERFORMED BY COMMERCIAL MANUFACTURERS OR OTHER DOD DEPOTS?**

Twenty-two percent (22%) of the total Marine Corps annual workload for electronics and communications systems is performed by commercial manufacturers or other DoD depots.

# O&MMC DEPOT MAINTENANCE



**Utilization**      **Carryover**      **Funded**      **Deadlined Equip**  
 Reductions to Marine Corps Budget Base      FY 94 - \$34.6M - MPMC      FY 95 - \$49.2M - MPMC      MPMC \$93M  
 SWA Supplemental Unfunded - \$165M      BRAC SAV \$8M  
 Other Bud \$7M

Source: Patricia Dalton

18 February 1993

MEMORANDUM

From: The Joint Working Group for Ground Equipment and Rotary Wing

Subj: COMPARATIVE COST ANALYSIS BETWEEN DEPARTMENT OF THE NAVY AND DEPARTMENT OF THE ARMY FOR DEPOT GROUND EQUIPMENT AND ROTARY WING MAINTENANCE BY DIRECT LABOR, OVERHEAD, AND COMPONENT COST

The Joint Working Group for the subject study has completed an analysis of the FY 92 actual cost by depot. The following comparative cost analysis between the Department of the Navy and the Department of the Army for ground and rotary wing maintenance has provided the following composite depot rates by direct labor and overhead based on the DOD Cost Comparability Handbook of 23 January 1992 with adjustments to achieve a "level playing field".

	<u>Direct Labor</u>	<u>Overhead</u>	<u>Total</u>
<u>Ground Equipment</u>			
Albany, GA	18.34	19.90	38.24
TOAD Tobyhanna	19.01	23.73	42.74
Barstow, CA	22.97	24.19	47.16
ANAD Anniston	20.13	26.99	47.12
RRAD Red River	17.47	31.96	49.43
LEAD Letterkenny	20.33	34.97	55.30
TEAD Tooele	19.59	48.57	68.16
<u>Rotary Wing</u>			
CCAD Corpus Christi	20.85	32.62	53.47
Cherry Point	21.90	26.85	48.75
Pensacola	22.33	35.04	57.37

The Joint Working Group also developed a list of common components (units) and unit costs based on actual FY 92 cost factors plus actual materiel. The components identified are common to both Departments of the Navy and Army; however, the statements of work used by each Department are different and quantities upon which these costs are based vary. The attachment lists the components used for the purpose of this analysis and the actual unit costs by Service.

  
PATRICIA L. DALTON  
LPP  
Headquarters Marine Corps

  
SAM MUNOZ  
AMC LG-MM  
Army Materiel Command

Source: Patricia Dalton

COMPONENTS

	<u>Army</u>	<u>Marine Corps</u>
AN/GRC-201	-	\$22,013.92
AN/PRC-77	1,162.00	648.75
M101 Trailers	-	1,380.02
Water M149A2	-	3,141.75
M88 Retriever	241,068.75	150,084.57
M16A1 Rifle	-	170.74
M192E2 Launcher	155,449.26	111,699.85
M501E3 Loader	103,432.68	79,028.97
AN/MPQ-50 Pulse Acq. Radar	-	288,987.20

HEADQUARTERS MARINE CORPS ROUTING SHEET (5211)  
 NAVMC HQ-335 (REV. 5-89)

1. DATE 4 Feb 1993

2. OPERATION CODE

ORIGINATOR OR OFFICE  
 ROUTING ROUTE SHEET  
 APPROPRIATE ACTION  
 PRIORITY  
 SIGNATURE  
 COMMENT  
 COMMENDATION  
 INCURRENCE

G-INFORMATION  
 H-RETURN TO Rm 640,CSB  
 I-INITIAL  
 J-DISPOSITION  
 K-DECISION  
 L-RETENTION  
 O-(OTHER) \_\_\_\_\_

3. SUBJECT

EQUIPMENT IMPACT OF THE  
 2001 PLAN

ROUTING-Use numbers to show order of routing

5. OPR COOR	6. ADDRESSEES	7. DATE		8. INITIALS	
		IN	OUT	CONCUR	NON-CONCUR
	COMMANDANT CMC				
	MILITARY SECY				
G	ASST COMMANDANT & ACMC				
	SECY GEN STAFF SGS				
	DIR SPL PROJ SPD				
	DC/S M&RA M&RA				
	DC/S I&L I&L				
	DC/S PP&O P(PS)				
	DC/S AVN A				
	DC/S R&P RP				
	AC/S C412 C412				
A	FDMC FD				
	SJA TO CMC JA				
	LEGIS ASST OLA				
	DIR PA PA				
	DIR AR AR				
	DIR MCH&M HD				
	DNIGMC IG				
	COUNSEL FOR CMC CL				
	MED OFF MED				
	DEN OFF DEN				
	CHAPLAIN REL				
	MCUB MCUB				
	SGTHAJMARCOR SGTHAJ				
G	CG MCCDC MCCDC				
	CG MARCORSYSCOM MCSYSCOM				
	CO HOBN				
	CO MARBKS				
X	DC/S I&L L				
	Asst DC/S I&L L				
	ExecAsst DC/S I&L L				
	Admin Office of DC/S I&L L-1				
	Small&Disadvantaged BusUtilOffice L-2				
	Contracts Div LB				
	Prog&FinMgmtDiv LC				
	Fac&SvcsDiv LF				
	Dir LP Division LP				
	DepDir LP Div LP-1				
	Admin Off LP Div LP-2				
	LogMprStruc Br LPM				
	LogPlans&Ops Br LPO				
	LogPlns&Pol Br LPP				
	LogInfoSys Br LPS				

9. NATURE OF ACTION REQUIRED	ORIGINATOR'S INITIALS	DUE DATE (if any)
ROUTINE		
URGENT		

10. REFERENCES HELD BY (Name, Grade, Office Code, Telephone Extension)

P. Beavins, LtCol, LPM-1, 6-1068/0893

11. REMARKS AND SIGNATURE (If additional space is necessary, attach plain paper)

- The attached paper provides information on the equipment impact of the 2001 Plan.
- Provided for your information and use as appropriate.

R/s  
 R.A. [Signature]

18 Mar 93

FROM MY LIST TO YOURS!

Ernie,  
 Found out where the equipment package might be

P.B.

Sawyer: Patricia Parker

4000  
LPM-1  
2 Feb 93

Subj: EQUIPMENT IMPACT OF THE 2001 PLAN

1. For reference or magnitude purposes the following is a recapitulation of cuts as directed in the 2001 Plan:

- a. CE. Deactivate 6 MEB Headquarters.
- b. GCE. Deactivate one Regimental Headquarters. Net loss of thirteen battalions.
- c. ACE. Deactivate 4 Group Headquarters. Net loss of twenty three squadrons and three battalions.
- d. CSSE. Deactivate 6 BSSG Headquarters. Net loss of five battalions.

2. What is significant with the above list is the phrase "net loss." Most cuts are headquarters that are less equipment intensive. Some "losses" are really transparent because some organizations are merged or consolidated. Third FSSG, for example, shrinks to five battalions in FY-97 from the current eight, but no CSS functions or capabilities are given up. This FSSG can still do its mission but not as long or in as many geographically separate areas.

3. According to the 2001 Plan the FMF shrinks from 116K to 90K by FY-97. The baseline MEF for FY-97 is 38,387 as compared to approximately 45,000 at the start of the FSPG. The FY-97 MEF is smaller in the number of Marines but more lethal due to increased firepower and mobility. For example, the FY-97 MEF has a Combined Arms Regiment (CAR), an MLRS Battalion, Light Armored Reconnaissance Battalion (LAR), three Direct Support Motor Transport Companies and increased communications capability. It is not a valid conclusion that because the manpower of the FMF shrinks by a certain percentage that the associated equipment will be reduced at the same rate. The 2001 Plan also lists the specific equipment assets that need to be acquired to alleviate command and control shortfalls. The items listed in the Plan are based on SWA lessons learned and not based on the size of the FMF. Whatever the size of the MEFs, the equipment listed is the minimum required to operate in a joint and combined operation. The quantities and items listed are above and beyond what the FMF already rates and will cost approximately \$186.8M.

4. Another factor that influences equipment is reconstitution that requires that we field three baseline MEFs as developed by the 2001 Plan. Until detailed study is completed, it appears on the surface that all equipment assets currently on hand will be needed to build to three baseline MEFs. Unknown at this time are the storage and maintenance costs associated with this large

amount of equipment. The CSSE is the first MAGTF element to complete its T/E review thus it is the only concrete data we have to evaluate. Most cuts are from 3d FSSG that loses operators and mechanics to work the equipment. A review of the FMF identified equipment excesses shows that the vast majority of items are either antiquated or not maintenance intensive. It is significant that third FSSG only recommends the reduction of 5 five ton trucks and no HMMWVs. Unanswered at this time is how much of this equipment will be retained on Okinawa as Prepositioned War Reserve assets and what identified excesses are required elsewhere in III MEF.

5. The GCE T/E conference is now scheduled for March 93 but a review of all available 2001 Plan materials revealed the following additions of equipment:

- 1 TOW Section to each infantry battalion
- One TOW Platoon to each infantry regiment
- UAVs added to all infantry regiments and battalions
- 2 LAV-C2s added to each infantry regiment
- 10 five ton trucks added to each infantry regiment
- Division Truck Company retained (100 five tons)
- Combat Support Group (CSG), 3d MarDiv retains the heavy equipment from LAI, CEB and AAV organizations that are disbanded
- A/O of 490 M1A1 tanks
- A/O of 42 MLRS launchers
- Small craft/boats added to 1st and 2d Divisions
- TOW Platoon retained in Tank Battalions
- LAVs: Need 555 LAV-APC models; 28 LAV-C2s; 125 LAV-ADs (These quantities are above and beyond what we currently hold)
- AAVs: 2d MarDiv Bn will have 29 AAVP-7s; 3 AAVC-7s; 2 AAVR-7s in H&S Bn plus 141 AAVP-7s; 6 AAVC-7s; 3 AAVR-7s in the line companies. This battalion will have three line companies as opposed to four line companies in 1st MarDiv. Discussion is ongoing on whether to retain the fourth company in 2d MarDiv to support UDP. Unknown at this time on how many assets will be retained in the CSG, 3d MarDiv. AAVs with 1st MEB are supposed to go away.
- Artillery: 48 - 105s; 90 - 155s in the DS battalions (4x6 batteries). MLRS is supposed to replace the GS battalions but there is discussion now within the GCE to retain some GS

Artillery.

- Trucks: 17 in a Hqs Battery; 6 in a DS Bn Hqs Battery; 20 in each DS Battery; 38 in a Tank Battalion; 17 in an AAV Bn; 13 in a LAV Bn. Appears that any five ton excesses from the GS Arty reduction will be applied to other requirements in the GCE.

6. Unknown also is how much equipment will be set aside for the reserves and their missions of augmentation, reinforcement and reconstitution. As of early February 93 the CE and ACE have not reported any excesses or shortfalls.

R/S  
R.A. [unclear]



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO  
4000  
Ser N4/3U584110  
10 Feb 93

MEMORANDUM FOR THE DEPUTY CHIEF OF STAFF (INSTALLATIONS AND LOGISTICS), U.S. MARINE CORPS HEADQUARTERS

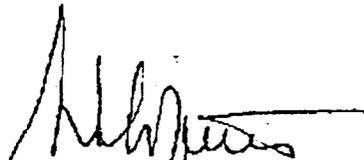
Subj: BASE CLOSURE AND REALIGNMENT PROPOSALS IN SUPPORT OF STREAMLINING OF DEFENSE DEPOT MAINTENANCE ACTIVITIES

Ref: (a) Secretary of the Army draft memo to Secretary of Defense ..

1. I have received an advance copy of reference (a), and I am confused. The memo states that cost data is needed by the Army (as lead service for submitting a combined BRAC recommendation for ground systems and equipment) to determine costs and savings associated with closing facilities and realigning workload between Services, and that they continue to encounter delays in obtaining the cost data. I was under the impression that the Marine Corps has responded fully, including providing depot capacity data to the Army and by participating since early February in an Army-led cost comparability working group. This working group is attempting to level the cost playing field between Army and Marine Corps ground depots. It is my impression, further, that you have provided all information requested by the Army in this effort.

2. I am concerned that Acting Secretary Shannon's proposed memo distracts us from the excess capacity issue. As stated in the meeting on 6 January 1993, between the Military Department Secretaries and all Services, the excess capacity picture is highly skewed, with Army having 8.041 million direct labor hours (DLH) excess vs 96,000 DLH for Marines, 107,000 DLH for Navy, and 823,000 DLH for Air Force.

3. It does not seem that the referenced memo reflects the true progress of on-going work, and I am confused by its tone. If you have any insight into this issue that I am unaware of, please let me know.

  
STEPHEN F. LOFTUS  
Vice Admiral, U.S. Navy  
Deputy Chief of Naval  
Operations (Logistics)

Source: *Fabrice's Room*



## SECRETARY OF THE ARMY

WASHINGTON

9 February 1993

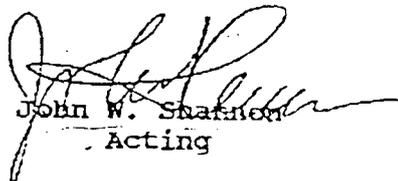
## MEMORANDUM FOR THE SECRETARY OF DEFENSE

SUBJECT: Base Realignment and Closure Proposals in Support of Streamlining of Defense Depot Maintenance Activities—INFORMATION MEMORANDUM

In a January 15, 1993 memorandum, the Service Secretaries responded to the December 3, 1992, Deputy Secretary of Defense's memorandum which directed the Services to prepare integrated Base Realignment and Closure (BRAC) proposals to streamline defense depot maintenance activities.

The Army, designated as lead Service for ground systems and equipment, hosted several meetings to implement the joint review process. Each Service submitted workload and cost data required to start the review. However, the Department of the Navy has indicated an unwillingness to consider cross-servicing for ground systems and equipment. This cross-servicing is essential to ensure DOD retains the most cost-effective ground systems and equipment depots. Without a workable agreement by February 11, 1993, we will be unable to comply with the timelines for submission of an integrated BRAC 93 proposal. The Army remains committed to reducing duplication and underutilized capacity.

We believe the consolidation of depot workload-  
ing which ultimately leads to designation of a single Service executive agent for ground systems and related equipment is the most efficient, least cost approach to depot workloading and will withstand the close scrutiny inherent in the BRAC process. The Army's existing maintenance management structure is well equipped to handle this consolidation and provides the leadership and expertise necessary to sustain our forces in the future. We are ready to get on with the process.

  
John W. Shafer  
Acting

Copies Furnished:  
Chairman, Joint Chiefs of Staff  
Chief of Staff, Army  
ASD(P&L)

*James Patricia Kelly*

In conjunction with BRAC-93 data analysis, it has been stated that closing of the Marine Corps' depot maintenance activities (DMAs) would result in cost efficiency within DoD. Specifically, it has been recommended that the Marine Corps transfer workload from Barstow to Tooele. Marine Corps workload cannot be transferred to any one Army Center of Technical Excellence (CTX) due to specialized workload at each CTX. Tooele Army Depot for example, only performs maintenance on automotive, general purpose, and construction equipment at almost twice the current costs of Marine Corps depots. This was recently proven by a joint Army and Marine Corps group which analyzed costs of operations and included a unit item cost for common equipment at all Army and Marine Corps depots. On 18 February 1993, the group published a memorandum countersigned by both Army and Marine Corps representatives indicating that Marine Corps depots were clearly the most competitive in production costs--Albany \$38.24 and Barstow \$47.16. Tooele Army Depot costs were \$68.16.

The two Marine Corps Logistics Bases are located within one transportation day from the primary CONUS operating forces they support and perform a wide variety of maintenance on all commodity equipments. There is an acknowledged, if unquantifiable, military value in having this critical support in close proximity to the operating forces to maintain readiness.

The logistics bases also perform functions other than depot maintenance in support of the Marine Corps' logistics organizational structure. Each provides support capabilities such as large item storage for prepositioned war reserve stocks, operational readiness float assets owned by the operating forces, and Reserve owned equipment. Additionally, Marine Corps Logistics Base, Albany, GA is the only inventory control point for the Marine Corps and develops and maintains logistics-related automated information systems, provides formal schools training, and has command and control of Blount Island, which performs the maintenance cycle function for the Maritime Prepositioning Ships program. It should also be pointed out that the environment of the Marine Corps Logistics Base, Barstow, CA provides ideal storage capabilities at reduced costs, i.e. low humidity, minimum rainfall, etc. Closure of the maintenance facilities at these logistics bases would not eliminate the requirement to retain and maintain base operations in support of other tenants.

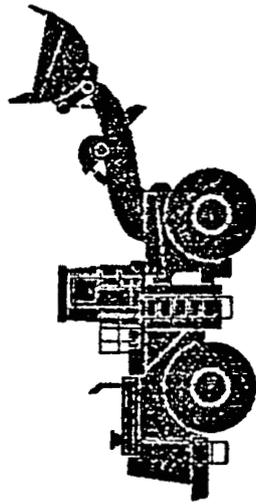
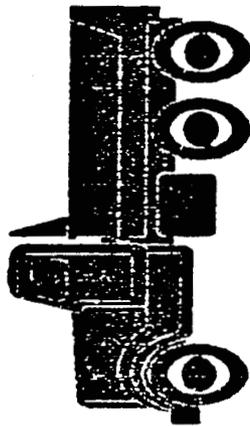
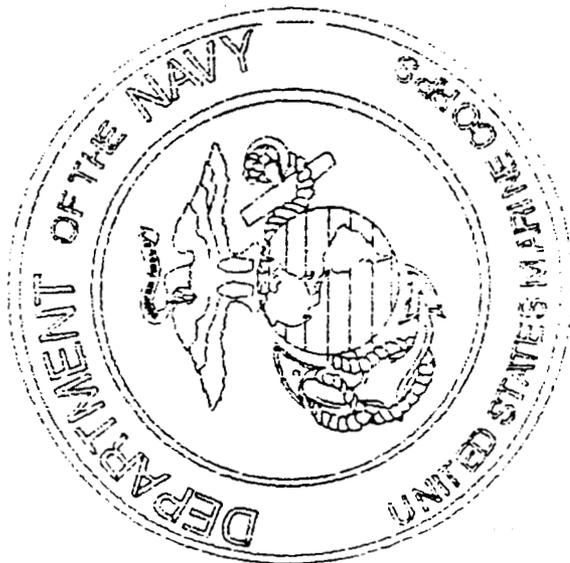
The Army's six ground-oriented, single commodity depots output such as motor transport, communications-electronics, tracked vehicles, etc., is primarily placed in stock pending future issue. Virtually all of the Marine Corps' depot output is applied against Fleet Marine Force operational needs or Maritime Prepositioning Force requirements with little being placed in stock for future issue. As a result, all work is performed against mandated delivery dates to meet force deployment or ships schedules and consists of a wide variety of ground equipment with relatively small quantities of each type. Current Marine Corps experience with Army's depots have resulted in payment of premium costs for production of equipment based on changes to priorities to satisfy shipping schedules and force deployments.

Closing either or both Marine Corps depots would result in moving one percent of the total DoD workload from efficient/economic facilities to costlier Army facilities. Doing so might marginally affect their capacity utilization rate; even so, the fractionally improved utilization rate would have little affect on reducing overhead expenses, causing no significant reduction in costs to their customers.

Consolidation of underutilized Army facilities would appear to be more prudent than closing the Marine Corps' fully utilized facilities as proven in the joint Combat, Artillery, and Tactical (CAT) Vehicles study chartered by the Defense Depot Maintenance Council in 1991. Although transfer of Marine Corps total workload from Barstow to Tooele Army depot would increase Tooele's utilization, Tooele would still remain an underutilized and less efficient and cost effective organization. Recent efforts by the Army and Marine Corps have again validated that the Marine Corps' costs are lower than similar Army depots. Again, additional transportation cost, increased transportation time, and increased density of end items and components would be of marginal benefit.

Source: *John A. ...*

# MARINE CORPS



# DEPOT MAINTENANCE

Source: Patrick L. ...

# TOPICS

- MISSION
- WORKFORCE
- MULTI-COMMODITY DEPOTS
- WORKLOAD
- O&MMC FUNDING LEVELS
- CARRYOVER
- COMPETITION

# MISSION

TO RETURN UNSERVICEABLE EQUIPMENT TO A SERVICEABLE  
CONDITION AND PERFORM OTHER FUNCTIONS AS MAY BE  
DIRECTED.

# WORKFORCE

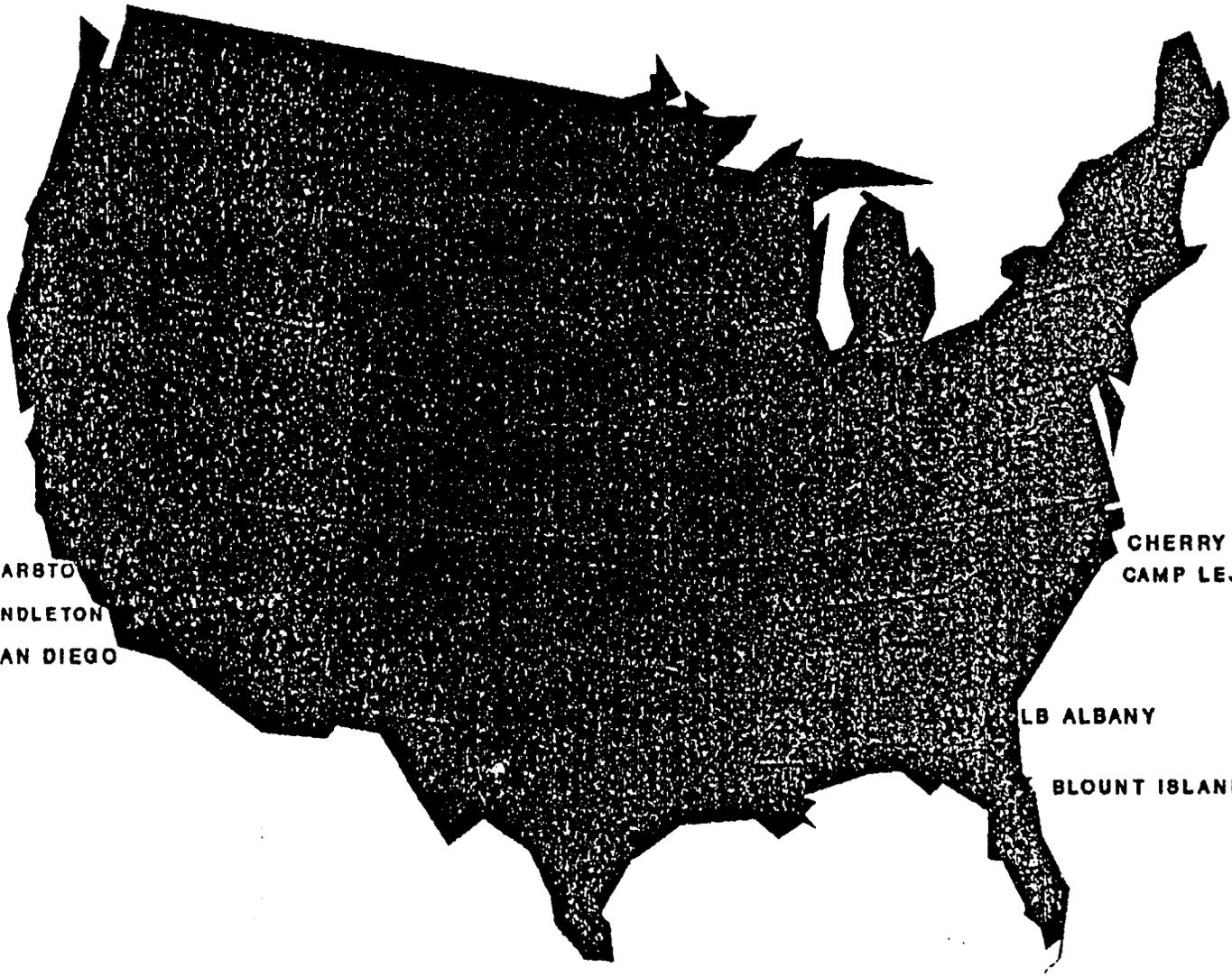
FY 94 AMENDED PRESBUD

FY 1993      FY 1994

CIVILIAN	2,095	1,990
PERMANENT	(1,571)	(1,570)
TEMPORARY	(524)	(420)
MILITARY	20	20

# MARINE CORPS DEPOTS

- o THERE ARE TWO MARINE CORPS DEPOTS PERFORMING MAINTENANCE AND OVERHAUL ON COMBAT VEHICLES, AUTOMOTIVE EQUIPMENT, COMMUNICATIONS/ELECTRONICS, ORDNANCE/MISSILES, CONSTRUCTION, AND GENERAL PURPOSE.
  - o MARINE CORPS LOGISTICS BASE, ALBANY, GA
    - LOCATION IS IN CLOSE PROXIMITY TO:
      - o BLOUNT ISLAND, JACKSONVILLE, FL
      - o CAMP LEJEUNE, NC
      - o CHERRY POINT, NC
  - o MARINE CORPS LOGISTICS BASE, BARSTOW, CA
    - LOCATION IS IN CLOSE PROXIMITY TO:
      - o TWENTYNINE PALMS, CA
      - o WESTPAC
      - o CAMP PENDLETON, CA
      - o SAN DIEGO, CA



MCLB BARSTON  
CAMP PENDLETON  
SAN DIEGO

CHERRY POINT  
CAMP LEJEUNE

ALBANY

BLOUNT ISLAND CMD

# SAMPLE WORKLOAD

- o MISSILES
- o COMBAT VEHICLES
- o AUTOMOTIVE
- o CONSTRUCTION
- o COMMUNICATIONS/ELECTRONICS
- o ORDNANCE
- o GENERAL PURPOSE EQUIPMENT
- o SUPPLY SUPPORT
- o CARE IN STORE
- o PREPARATION FOR SHIPMENT
- o METROLOGY
- o FABRICATION/ENGINEERING SERVICES
- o CALIBRATION
- o QUALITY CONTROL SERVICES
- o TEST SERVICES
- o TECHNICAL ASSISTANCE

## DEPOT MAINTENANCE ACTIVITY CUSTOMERS

<u>CUSTOMER</u>	<u>PERCENT</u>
O&MMC 5TH ECHELON PREPARATION FOR SHIPMENT CARE-IN-STORE OVERFLOW	86.0
O&MMCR	.5
PMC	6.0
ARMY/AIR FORCE/NAVY	1.5
DON STOCK FUND	5.0
ALL OTHER	1.0

# WORKLOAD COMPETITION

## ITEM

## WON BID

FY 1991

AN/TPB-1D RADAR SET  
5 TON TRUCK

LORAL AEROSPACE  
TOOELE ARMY DEPOT

FY 1992

*Light Armored  
Vehicle*  
*Assault Amphib  
Vehicle*  
LAV-25  
AAV-P7A1 TRANSMISSION  
AAV-P7A1 ENGINE  
HMMWV

MCLB, ALBANY, GA  
MCLB, BARSTOW, CA  
MCLB, BARSTOW, CA  
TOOELE ARMY DEPOT

FY 1993

M931 5 TON TRACTOR TRUCK  
M936 5 TON WRECKER TRUCK

# CARRYOVER

PLANNED CARRYOVER IS THAT AMOUNT OF WORKLOAD  
REQUIRED TO MAINTAIN PRODUCTION LINES FROM  
ONE FISCAL YEAR TO ANOTHER.



*LIPD  
for reference  
12/92*

DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380-0001

IN REPLY REFER TO:

L  
11 FEB 1993

MEMORANDUM FOR THE DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)

Subj: BASE CLOSURE AND REALIGNMENT PROPOSALS IN SUPPORT OF  
STREAMLINING OF DEFENSE DEPOT MAINTENANCE ACTIVITIES

Ref: (a) Deputy Chief of Naval Operations (Logistics)  
memo 4000 Ser N4/3U584110 of 10 Feb 93  
(b) Acting Secretary of the Army memo of 9 Feb 93  
(c) Military Department memo for DepSecDef of 15 Jan 93

1. In response to reference (a), I have reviewed reference (b) and am also confused. Marine Corps representatives have been fully cooperating with the Army even before we received Mr. Atwood's memo of 3 December 1992 which designated the Department of the Army as the lead for ground weapons systems and equipment for this effort. Reference (b) alluded that the Services by reference (c) agreed to provide an integrated BRAC 93 proposal. Reference (c) discusses interservicing of workload and states the Services "together determine if workload reallocations would lead to a better final decision" and not an integrated BRAC 93.

2. We submitted all of the required capacity data on time on 29 December 1992. Additionally, we have attended 6 meetings with technical advisors from Albany, Georgia, and Barstow, California, in conjunction with the Army at the Pentagon and the Army Materiel Command in an effort to satisfy the Army's cost data requirement. In my view, the Army has not done a particularly good job of leading these meetings in that they came unprepared with exactly what data was required to proceed with the depot costing evaluation. Consequently, my representatives have had to take the lead in defining costing elements and related data. I also think it is important for you to know that I'm convinced the Army's proposed cross-servicing methodology is flawed in that their current recommended process for evaluating their depots for the BRAC cannot be effectively utilized when crossing service lines.

3. One major obstacle which had to be overcome was the identification of elements utilized by each Service in determining direct labor costs and overhead costs. Army's overhead rates are computed differently than those of the other Services. As of 10 February 1993, these elements have been agreed upon and a composite actual FY 92 rate for direct labor and overhead costs has been exchanged between the Army, the Navy, and the Marine Corps. The joint working group has agreed unanimously that in order to "level the playing field" for all Services, that this data should be audited by an independent audit representative from Defense Contracting Audit Agency.

*James J. ...*

Subj: BASE CLOSURE AND REALIGNMENT PROPOSALS IN SUPPORT OF  
STREAMLINING OF DEFENSE DEPOT MAINTENANCE ACTIVITIES

4. Finally I want you to know that long before we received Mr. Atwood's memorandum, we attempted to initiate a cross-servicing process with the Army that would allow Marine Corps depot maintenance activities to focus on amphibious equipment. While my representatives persisted in developing a workable partnership, the Army was consistently unwilling to cooperate. For example, while the other Services arrived for the meeting to define elements of costs with the appropriate information, the Army representatives were not prepared to provide the information. This continues to occur at every joint meeting and tends to delay the process further.

5. I agree in your assessment of Mr. Shannon's memorandum and the 6 January meeting. Navy and Marine Corps excess capacity is only about 2.5 percent of the Army's; statistically insignificant. Progress has been made and all involved have been participating in the process. Perhaps we should once again get together at our level with General Hammond and General Salomon to ensure this important effort stays on track.

6. In conclusion, the Marine Corps is and will continue to fully cooperate with the Army; but until the playing field is leveled for all of the Services, cost data cannot be fairly evaluated for comparative purposes.

R.A.TJ

R. A. TIEBOUT  
LIEUTENANT GENERAL, U.S. MARINE CORPS  
DEPUTY CHIEF OF STAFF FOR  
INSTALLATIONS AND LOGISTICS

## INFORMATION PAPER

12 March 1993

**SUBJECT: Cost Comparability of Army and Marine Corps Maintenance Depots**

1. **Purpose:** To provide the DCSLOG information on subject.

2. **Facts:**

a. In early February when the Services were attempting to work cross-servicing or an integrated BRAC approach, the Navy and Marine Corps were insistent on using a three step approach; develop actual FY 92 costs per direct labor hour (DLH) for each depot, compare FY 92 actual costs for the same items; and then depot to depot competition in the BRAC process.

b. At the initial meeting with all Services' representatives in attendance, I pointed out the process was seriously flawed due to:

- Army FY 92 costs were grossly distorted by approximately 5000 excess personnel DESCOM had on board.

- Approach did not consider reduced rates from increasing workload at depots with additional capacity.

- The CMP at Tooele was not yet operational in FY 92 and

- That approach would only "run out the clock" for Service inputs due to DOD on 22 Feb 93.

c. After consulting with ODCSLOG and AMC personnel, I agreed the Army would continue to work with the Navy and Marine Corps to preclude allegations of the Army not supporting the cross-servicing or integrated BRAC effort. The Air Force pulled out citing concerns of compromising competition sensitive data.

d. Attached at encl 1 is a copy of the resultant AMC and Marine Corps memo. The Navy included a copy of this in their BRAC 93 report and the Marine Corp recently used it in a meeting with Congressman Hansen (Utah).

**SUBJECT: Cost Comparability for Army and Marine Corps Maintenance Depots**

e. There is no reason to question the accuracy of the actual FY 92 costs for the Army; however, those costs are in practical terms useless in projecting costs for the BRAC 93 period (FY 94-FY 99).

f. Enclosure 2 provides a comparison of actual FY 92 costs, estimated FY 99 costs (FY 93 dollars) and the "out of pocket costs per DLH that DOD would incur from closing LEAD, Barstow, and moving Sacramento Army and Sacramento ALC C&E workload to ANAD, RRAD, and TOAD and TEAD.

R. W

MEMORANDUM

18 February 1993

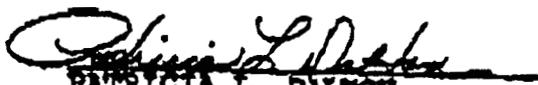
From: The Joint Working Group for Ground Equipment and Rotary Wing

Subj: COMPARATIVE COST ANALYSIS BETWEEN DEPARTMENT OF THE NAVY AND DEPARTMENT OF THE ARMY FOR DEPOT GROUND EQUIPMENT AND ROTARY WING MAINTENANCE BY DIRECT LABOR, OVERHEAD, AND COMPONENT COST

The Joint Working Group for the subject study has completed an analysis of the FY 92 actual cost by depot. The following comparative cost analysis between the Department of the Navy and the Department of the Army for ground and rotary wing maintenance has provided the following composite depot rates by direct labor and overhead based on the DOD Cost Comparability Handbook of 23 January 1992 with adjustments to achieve a "level playing field".

	<u>Direct Labor</u>	<u>Overhead</u>	<u>Total</u>
<u>Ground Equipment</u>			
NISE West San Diego	\$19.67	\$7.30	\$26.97
HAVBLK Portsmouth Albany, GA	20.24	7.45	27.71
TOAD Tobyhanna Bartow, CA	18.34	19.90	38.24
ANAD Anniston	15.01	23.73	42.74
RRAD Red River	22.97	24.19	47.16
LEAD Letterkenny	20.13	26.99	47.12
LEAD Letterkenny	17.47	31.96	49.43
TEAD Toale	20.33	34.97	55.30
TEAD Toale	19.59	48.57	68.16
<u>Rotary Wing</u>			
CCAD Corpus Christi	20.85	32.62	53.47
Cherry Point	24.04	27.34	49.24
Pensacola	22.33	35.16	57.49

The Joint Working Group also developed a list of common components (units) and unit costs based on actual FY 92 cost factors plus actual material. The components identified are common to both Departments of the Navy and Army; however, the statements of work used by each Department are different and quantities upon which these costs are based vary. The attachment lists the components used for the purpose of this analysis and the actual unit costs by Service.

  
 PATRICIA L. DALTON  
 IFF  
 Headquarters Marine Corps

  
 SAM HUNSCHE  
 AMC IG-NM  
 Army Materiel Command

## COMPONENTS

	<u>Army</u>	<u>Marine Corps</u>
AN/GRC-201	-	\$22,019.92
AN/PRC-77	1,162.00	648.75
M101 Trailers	-	1,380.02
Water M149A2	-	3,141.75
M88 Retriever	241,068.75	150,084.57
M16A1 Rifle	-	170.74
M192E2 Launcher	155,449.26	111,699.85
M501E3 Loader	103,432.68	79,028.97
AN/MPQ-50 Pulse Acq. Radar	-	288,987.20

FY 92 ACTUAL COMPARED TO FY 99 ESTIMATED  
 (CLOSURE LEAD/BARSTOW AND TRANSFER SACRAMENTO ALC C&E)

Depot	FY 92		FY 99 Est (FY 93 \$'s DLH)	DOD Costs**
	Actual	Per DLH		PER DLH Transferred
Albany	\$38.24		\$39.77*	NA
Barstow	\$47.16		--	NA
ANAD	\$47.12		\$45.34	\$31.35
RRAD	\$49.43		\$49.27	\$31.71
TOAD	\$42.74		\$35.27	\$27.88
TEAD	\$68.16		\$48.64	\$31.88

Notes: \* Albany costs of \$39.77 (FY 93 dollars) based on 4% increase from FY 92 costs with no significant change in workload.

\*\* Based on closure of LEAD, Barstow, and transfer of Sacramento ALC C&E workload. This is the "out of pocket" costs to DOD per DLH for the work to be performed in ANAD, RRAD, TOAD, and TEAD. Actual rate is higher since "savings are spread over total workload.

FOR OFFICIAL USE ONLY

No. 908

# DEFENSE MANAGEMENT REPORT DECISION

SUBJECT: Consolidating Depot Maintenance

DOD COMPONENTS: Army, Navy, Air Force

ISSUE: Record the conclusions and distribute the savings from the completed depot maintenance consolidation study.

	<u>(TOA, Dollars in Millions)</u>		
	<u>FY 1991</u>	<u>FY 1992</u>	<u>FY 1993</u>
Service Estimate	11,050.1	11,809.1	12,435.8
Alternative Estimate	-15.6	-532.5	-722.3

SUMMARY OF EVALUATION: The purpose of this DMRD is to record the conclusions and distribute the savings from the depot maintenance consolidation study. This study, one of six DMRD decisions deferred by the DepSecDef for further study, involved two DMRDs, Aeronautical Depot Maintenance, and Non-Aircraft Depot Maintenance (DMRDs 908 and 909).

The consolidation study concluded in June 1990, and a memorandum signed by the DepSecDef on June 30, 1990, implemented the study conclusions. The DepSecDef directed:

-The Secretaries of the Military Departments to prepare and submit by July 1, 1990, plans to reduce the cost for the period from FY 1991 through FY 1995 of the depot maintenance operations of their departments by \$1.740 billion through internal streamlining and reducing the size of their maintenance depot infrastructure.

-The Secretaries of the Military Departments jointly to prepare and submit by October 1, 1990, to the ASD (P&L) for approval a coordinated long-range plan for reducing the cost of the depot maintenance operations of the Military Departments by \$2.2 billion.

-The establishment of a Defense Depot Maintenance Council to advise the ASD (P&L) on depot maintenance within the DoD, chaired by ASD (P&L).

A memorandum signed by all of the Service Under Secretaries, dated September 28, 1990, confirmed these goals. However they also stated that installation closures are not addressed in the strategy. The planned reductions are generally not reflected in the industrial fund customer budgets.

ALTERNATIVE ESTIMATE: The alternative estimate is based upon the study results and reduces the Service estimates by \$15.6 million in FY 1991, \$532.5 million in FY 1992, and \$722.3 million in FY 1993. Total savings are \$3.940 billion for FYs 1991-1995, and \$6.805 billion from FY 1991-1997. ?

DECISION \_\_\_\_\_

Date \_\_\_\_\_

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**DMRD Continuation Sheet**

No. 908

**DETAIL OF EVALUATION:**

During the FY 1991 DMRD cycle, two DMRDs were proposed concerning depot maintenance. A DMRD to consolidate aeronautical depot maintenance (DMRD 908) suggested that a single manager be established, with all resources under the control of this single manager, while another DMRD (909) recommended savings through resizing of Navy shipyard facilities and the Army improving their maintenance facilities utilization rates. Summaries of the findings and recommendations of these DMRDs are summarized in the following two paragraphs.

(1) Budget reductions would be realized from consolidation of the management of Aeronautical Depot Maintenance. These savings would result from elimination of General and Administrative (G&A) costs at two closed depots, reductions in ADP support costs, consolidation of headquarters oversight functions, and efficiencies due to improved workload distribution. Estimated savings:

<u>MILDEP</u> (\$ mil)	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>TOTAL</u>
Army	-	15.0	20.0	20.0	20.0	75.0
Navy	-	70.0	120.0	120.0	125.0	435.0
Air Force	-	90.0	140.0	145.0	145.0	520.0
<b>TOTAL</b>	-	175.0	280.0	285.0	290.0	1,030.0

(2) Reductions in shipyard personnel from 79,000 in FY 1983 to 54,000 in FY 1994, as proposed by the Navy's DMR initiatives, would provide sufficient staffing levels to support the efficient operation of only 6 shipyards. As a result, two of the eight organic shipyards should be closed. An Army analysis disclosed an overall maintenance depot utilization rate of only 56 percent for FY 1989. Consolidation of depot management and redistribution of workload should result in the closure of some Army maintenance depots.

<u>MILDEP</u> (\$ mil)	<u>FY91</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>TOTAL</u>
Army	14.9	30.7	46.9	80.1	81.6	254.2
Navy	16.0	33.0	50.5	175.8	271.3	546.6
<b>TOTAL</b>	30.9	63.7	97.4	255.9	352.9	800.8

<b>COMBINED TOTALS (1&amp;2)</b>						
Army	14.9	45.7	66.9	100.1	101.6	329.2
Navy	16.0	103.0	170.5	295.8	396.3	981.6
Air Force	-	90.0	140.0	145.0	145.0	520.0
<b>TOTAL (908&amp;909)</b>	30.9	238.7	377.4	540.9	642.9	1,830.8

The DepSecDef deferred a decision on these two DMRDs and directed that a study be made of the proposals. The studies were completed in May 1990.

FOR OFFICIAL USE ONLY  
DMRD Continuation Sheet

No. 908

On June 30, 1990, the DepSecDef signed the agreement titled "Strengthening Depot Maintenance Activities," a coordinated long-range plan for reducing depot maintenance costs, which mandated savings of \$3.940 billion over 5 years, \$1.740 billion associated with the DMRD 908 and 909 recommendations and an additional \$2.2 billion resulting from supplemental management actions. This agreement resulted in the memorandum for "Strengthening Depot Maintenance Activities", dated September 28, 1990, signed by the three Service Under Secretaries. The strategy to achieve the additional \$2.2 billion in savings includes (1) an increase in interservicing of depot maintenance workloads where cost savings can be achieved, (2) an optimal utilization of depot capacity that ensures efficiency and provides for the infrastructure necessary to meet peacetime and contingency needs, and (3) the implementation of a comprehensive public/private competition program for depot maintenance workloads.

Savings generated by this plan, allocated to each Service by fiscal year are as follows:

<u>FY</u>	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>TOTAL</u>
Army	-3.0	-9.7	-57.7	-100.1	-142.4	-312.9
Navy	-108.8	-167.5	-237.9	-293.6	-345.2	-1153.0
Air Force	-5.9	-81.3	-130.5	-200.1	-301.6	-719.4
Marine Corps	-.2	-.5	-2.6	-4.7	-6.7	-14.7
<b>TOTAL</b>	<b>-117.9</b>	<b>-259.0</b>	<b>-428.7</b>	<b>-598.5</b>	<b>-795.9</b>	<b>-2200.0</b>

In addition, DDMC expects to achieve \$1.740.4 billion in savings by FY 1995. According to the data submitted to ASD (P&L) the distribution of these savings is as follows:

<u>FY</u>	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>TOTAL</u>
Army	24.3	3.5	-43.6	-71.4	-113.2	-200.4
Navy (Air)	-	-50.0	-50.0	-50.0	-50.0	-200.0
Navy (Ship)	78.0	-200.0	-200.0	-300.0	-300.0	-922.0
Air Force	-	-68.0	-105.0	-109.0	-109.0	-391.0
Marine Corps	-	-27.0	-	-	-	-27.0
<b>TOTAL</b>	<b>102.3</b>	<b>-341.5</b>	<b>-398.6</b>	<b>-530.4</b>	<b>-572.2</b>	<b>-1740.4</b>

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DMRD Continuation Sheet

No. 908

The MILDEPs have reported some specific initiative to achieve the \$1,740.4 billion in near-term savings:

-The Army plans to close their Sacramento Depot and move most of the workload to Tobyhanna Depot, also move Letterkenny Depot automotive work to Toole Depot, and improve maintenance depot utilization rates through redistribution of remaining workload.

-The Air Force is streamlining management and production processes, divesting of unneeded resources and performing the work of end items and components at single sites. Also, the Air Force has proposed to either close Sacramento Air Logistics Center or turn it over to the Navy, which could then close their North Island Depot.

-The Navy is undertaking the establishment of one aviation depot maintenance hub on each coast, and reduce all non-hub depots in size by having them perform only technology-specific work. Aircraft will be repaired/overhauled at single sites by aircraft type, and engine work will be performed at no more than three depots. Shipyards will improve direct labor productivity, management of personnel resources, and schedule overhauls to increase efficiency.

-The Marine Corps will cancel plans to establish depot repair capability for their M1 tanks.

A memorandum signed by all of the Service Under Secretaries, dated Sept 28, 1990, confirmed the long-term goals to achieve an additional \$2.2 billion in long-term savings, however, they also stated that installation closures are not addressed in the strategy.

In conjunction with the Services, we have attempted to find in the Services budgets the reductions in depot maintenance prices that should result from this consolidation decision. Except for some Air Force items, we have been unable to identify those reductions in the customer budgets. However, as part of the staffing process for this DMRD, the Services are invited to submit documentation showing how and where these reductions are already reflected in their budget submissions. To the extent this documentation shows that the budgets have been reduced, the alternative estimates will be adjusted. However, the Services should bear in mind that the same documentation must also be used in preparing the Congressional Justification Book for the FY 1992 President's Budget. Therefore, the documentation must be convincing. *no input*

To ensure that the \$3.940 billion in savings are achievable for reporting to Congress specific plans of action, particularly for FY

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**DMRD Continuation Sheet**

No. 908

1991 through FY 1993, must be completed and reported to DoD Comptroller by November 20, 1990. These plans should specify how specific depots will increase their utilization, what depot facilities will be closed, what workload will be interserviced, and what workload will be competed, and what the resource implications are for each depot.

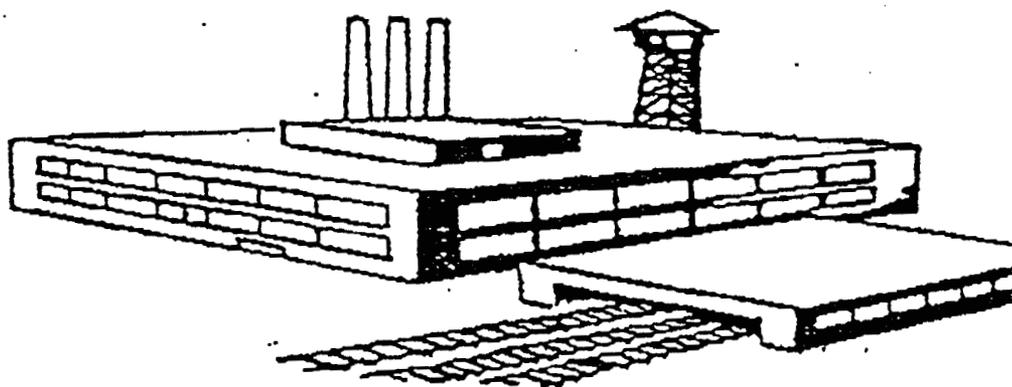
Total savings, by MILDEP, by fiscal year:

<u>FY</u>	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>
Army	21.3	-6.2	-101.3	-171.5	-255.6
Navy	-30.8	-417.5	-487.9	-643.6	-695.2
Air Force	-5.9	-81.3	-130.5	-309.1	-410.6
Marine Corps	<u>-.2</u>	<u>-27.5</u>	<u>-2.6</u>	<u>-4.7</u>	<u>-6.7</u>
TOTAL	-15.6	-532.5	-722.3	-1128.9	-1368.1

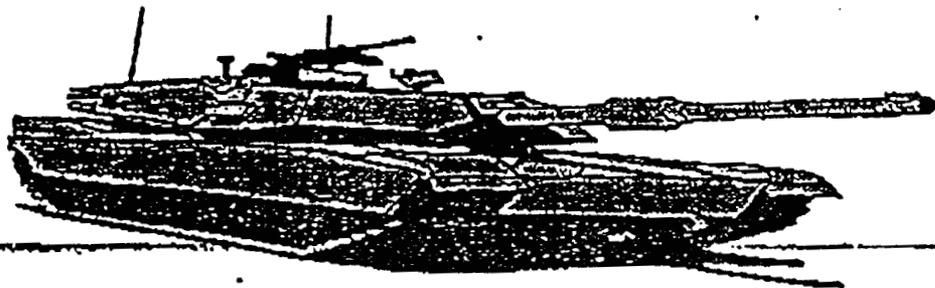
Since the Air Force savings (\$68 million in FY 1992 and \$105 million in FY 1993) appear to be reflected in both the Air Force Industrial Fund and the customer budgets, the proposed estimated savings have been reduced by \$68 million in FY 92 and by \$105 million in FY 93. The Alternative Estimate, therefore reduces the customer budgets by \$632.5 million in FY 1992, and by \$722.3 million in FY 1993. The reductions in FY 1994-1997 remain as stated in the above table. Within 7 days after approval of this DMRD the Services are required to provide to the Comptroller the appropriation breakdown (FYs 1992-1997) for these adjustments.

<u>FY</u>	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>96</u>	<u>97</u>
Army	21.3	-6.2	-101.3	-171.5	-255.6	-263.5	-271.7
Navy	-30.8	-417.5	-487.9	-643.6	-695.2	-716.8	-739.0
Air Force	-5.9	-81.3	-130.5	-309.1	-410.6	-423.3	-436.4
Marine Corps	<u>-.2</u>	<u>-27.5</u>	<u>-2.6</u>	<u>-4.7</u>	<u>-6.7</u>	<u>-6.9</u>	<u>-7.1</u>
TOTAL	-15.6	-532.5	-722.3	-1128.9	-1368.1	-1410.5	-1454.2

S



BRAC '93 OPTIONS  
FOR  
GROUND SYSTEMS / EQUIPMENT DEP



2

## SACRAMENTO AFLC WORKLOAD TO TOBYHANNA

### PLANNING CONSIDERATIONS

- ASSUMED COMPETITION FOR SACRAMENTO ARMY DEPOT WORKLOAD CEASES WITH BRAC '93 APPROVAL
- ARMY WINS COMPETITION UP TO THAT POINT
- ALL SM AFLC WORKLOAD TO TOBYHANNA
  - WHEN DETAILED DATA AVAILABLE, SOME MAY GO TO OTHER CENTERS OF TECHNICAL EXCELLENCE
  - EXAMPLES: ELECTRO-OPTICAL TO ANNISTON; POWER GENERATION TO TOOELE

3

# SACRAMENTO AFLC WORKLOAD TRANSFER (C & E)

### FY99 AIR FORCE C&E

- 2.2M DLH CAPACITY
- 2.1M DLH WORKLOAD
- 95% AT SM AFLC

### FY99 SM AFLC

- 2.1M DLH CAPACITY
- 1.7M DLH WORKLOAD

AIR FORCE LACKS ORGANIC CAPACITY TO PERFORM SM AFLC WORK IN OTHER AFLC(S)

MOVING WORKLOAD TO OTHER AFLC(S)  
 - EXTENSIVE FACILITY MODIFICATION  
 - EXTENSIVE EQUIPMENT FACILITIZATION  
 DOD 3.068M DLH EXCESS OR 33% IN FY99 (C&E ONLY)

DEVELOP ADDITIONAL CAPACITY  
 WRONG ANSWER

**TOBYHANNA HAS FACILITIES, SKILLS AND LOWEST COST**

**ESTIMATE FAC MOD/EQUIP COSTS LESS THAN \$10M**



4

**TOBYHANNA RATE IMPACT FOR TRANSFER  
SM AFLC WORKLOAD  
( FY93 DOLLARS )**

	BASE			NEW		
	RATE	M DLHs	COST(Ms)	RATE	M DLHs	COST(Ms)
FY95	\$39.67	3.52	139.6	\$38.91	3.95	153.7
FY96	39.66	3.52	139.6	37.62	4.47	168.2
FY97	39.54	3.59	142.0	36.73	5.30	194.5
FY98	39.12	3.83	149.8	36.17	5.65	204.4
FY99	38.60	4.18	161.4	35.77	5.90	211.0
<b>totals</b>	<b>18.64</b>	<b>732.4</b>		<b>25.3</b>	<b>931.9</b>	

**TOAD  
UTILIZATION  
66% TO 93%**

$931.9 \cdot 732.4 = \$199.5M$   
 $25.3 \text{ M DLH} - 18.64 \text{ M DLH} = 6.63 \text{ M DLH}$   
 $\$199.5M \text{ DIVIDED BY } 6.63 \text{ M DLH} = \$30.09 \text{ PER DLH}$

**BOTTOM LINE:**  
**DOD COSTS OF PERFORMING SM AFLC WORK AT TOBYHANNA ARMY DEPOT:**  
**\$30.09 PER DLH . EXCLUDING REPAIR PARTS/MATERIAL FY95-FY99**  
**\$28.84 PER DLH FY99 AND BEYOND**



5

# TOBYHANNA RATE IMPACT FROM TRANSFERRING SM AFLC AND BARSTOW WORKLOAD (FY93 DOLLARS)

	BASE			NEW		
	RATE	M DLHs	COST (Ms)	RATE	M DLHs	COST (Ms)
FY95	\$39.67	3.52	139.6	38.66	4.04	156.2
FY96	39.66	3.52	139.6	37.09	4.67	173.2
FY97	39.54	3.59	142.0	36.22	5.50	199.2
FY98	39.12	3.83	149.8	35.62	5.79	206.2
FY99	38.60	4.18	161.4	35.27	6.07	214.1
<b>totals</b>		<b>18.64</b>	<b>732.4</b>		<b>26.07</b>	<b>948.9</b>

**TOAD UTILIZATION**  
**66% TO 96%**

$\$948.9M - \$732.4M = \$216.5M$   
 $26.07 \text{ M DLH} - 18.64 \text{ M DLH} = 7.43 \text{ M DLH}$   
 $\$216.5M \text{ DIVIDED BY } 7.43 \text{ M DLH} = \$29.14 \text{ PER DLH}$

**BOTTOM LINE:**

**DOD COSTS OF PERFORMING SM AFLC AND BARSTOW WORK AT TOAD**

**\$29.14 PER DLH - EXCLUDING REPAIR PARTS/MATERIAL; FY95-FY99**

**\$27.88 PER DLH FY99 AND BEYOND**

6

## CLOSE LETTERKENNY AND BARSTOW

### PLANNING CONSIDERATION

- **WORKLOAD TRANSFERRED BASED ON:**
  - **CENTERS FOR TECHNICAL EXCELLENCE (CTX)**
  - **BEST FIT**
  - **EXCESS CAPACITY**
  - **BALANCE "HARD IRON" DEPOT WORKLOAD (ANAD, TEAD, RRAD)**
- **CONSOLIDATED MAINTENANCE FACILITY**
  - **TRANSFER CMF TYPE COMPONENT WORKLOAD FROM OTHER ARMY DEPOTS**
  - **MAXIMIZE BENEFIT FROM CMF 37% DIRECT LABOR PRODUCTIVITY**
- **NO COST/LOW COST AT GAINING DEPOTS FOR BARSTOW WORKLOAD**
- **LETTERKENNY WORKLOAD MOVED FY95-FY99; 25% ANNUALLY**
- **BARSTOW WORKLOAD MOVED 37% FY95; 63% FY96**

7

**WORKLOAD TRANSFERS**

**FROM LEAD**

TO

	TOAD	ANAD	TEAD	RRAD
MISSILES	.	X	.	.
COMBAT VEHICLES	.	.	.	X
MAJOR ITEMS	.	.	.	X
SECONDARY ITEMS	.	.	.	.
RADAR (SAAD) *	X	.	X	.

**FROM BARSTOW**

MISSILES	.	X	.	.
COMBAT VEHICLES	.	X	.	.
AUTOMOTIVE	.	.	X	.
CONSTRUCTION EQUIPMENTS	.	.	X	.
COMM/EL	X	.	.	.
SMALL ARMS	.	X	.	.
RAIL	.	.	X	.

NOTE: RADAR(SAAD) IS RADAR WORKLOAD FROM SACRAMENTO ARMY DEPOT ORIGINALLY SCHEDULED FOR TRANSFER TO LEAD

8

## ANAD RATE IMPACT FOR TRANSFER LEAD AND BARSTOW WORKLOAD (FY93 DOLLARS)

	BASE			NEW		
	RATE	M DLHs	COST(Ms)	RATE	M DLHs	COST(Ms)
FY95	52.96	2.47	130.7	52.04	2.58	134.2
FY96	52.24	2.65	138.3	46.97	3.53	166.0
FY97	52.72	2.52	133.1	46.42	3.58	166.1
FY98	52.70	2.52	133.3	45.15	3.91	176.5
FY99	52.74	2.52	132.9	45.34	3.85	174.6
<b>totals</b>		<b>12.69</b>	<b>668.3</b>		<b>17.45</b>	<b>817.4</b>

ANAD UTILIZATION  
56% TO 85%

$\$817.4M - 668.3M = 149.1M$   
 $17.45 M DLH - 12.69M DLH = 4.76 M DLH$   
 $\$149.1M \text{ DIVIDED BY } 4.76 DLH = \$31.32 \text{ PER DLH}$

ADDITIONAL COST TO  
PERFORM WORK

**BOTTOMLINE-**

**DOD COSTS OF PERFORMING LEAD AND BARSTOW WORK AT ANAD**  
**\$31.32 PER DLH - EXCLUDING REPAIR PARTS/MATERIAL, FY95-FY99**  
**\$31.35 PER DLH FY99 AND BEYOND**

9

## RED RIVER RATE IMPACT FOR TRANSFER LEAD AND BARSTOW WORKLOAD (FY93 DOLLARS)

	BASE			NEW		
	RATE	M DLHs	COST(Ms)	RATE	M DLHs	COST(Ms)
FY95	46.38	2.64	122.5	46.21	2.67	123.4
FY96	45.05	2.98	134.0	43.55	3.34	145.5
FY97	44.72	3.07	137.4	42.15	3.80	160.3
FY98	48.97	2.17	106.1	47.60	2.36	112.4
FY99	49.07	2.15	105.6	49.27	2.13	104.8
<b>totals</b>		<b>13.01</b>	<b>605.5</b>		<b>14.30</b>	<b>646.4</b>

**RRAD UNCHANGED  
IN FY99  
63%**

$\$646.4M - 605.5M = \$40.9M$   
 $14.30 \text{ M DLH} - 13.01 \text{ M DLH} = 1.29 \text{ M DLH}$   
 $\$40.9M \text{ DIVIDED BY } 1.29 \text{ M DLH} = 31.71 \text{ PER DLH}$

**BOTTOM LINE:**

**DOD COSTS OF PERFORMING LEAD AND BARSTOW WORK AT RRAD  
\$31.71 PER DLH - EXCLUDING REPAIR PARTS/MATERIAL; FY95-FY99**

10

# TEAD RATE IMPACT FOR TRANSFER LEAD, ANAD, RRAD AND BARSTOW WORKLOAD (FY93 DOLLARS)

	BASE			NEW		
	RATE	M DLHs	COST(Ms)	RATE	M DLHs	COST(Ms)
FY95	59.38	.548	32.5	50.21	1.145	57.5
FY96	57.20	.650	37.2	49.53	1.295	64.1
FY97	54.12	.825	44.6	49.12	1.458	71.6
FY98	55.10	.745	41.0	48.79	1.484	72.4
FY99	55.06	.739	40.7	48.64	1.511	73.5
<b>totals</b>	<b>3.507</b>	<b>196.0</b>		<b>6.893</b>	<b>339.3</b>	

**TEAD UTILIZATION  
36% TO 73%**

$\$339.3M - \$196M = \$143.3M$   
 $6.893 \text{ M DLH} - 3.507 \text{ M DLH} = 3.386 \text{ M DLH}$   
 $\$143.3M \text{ DIVIDED BY } 3.386 \text{ M DLH} = \$42.32 \text{ HR}$

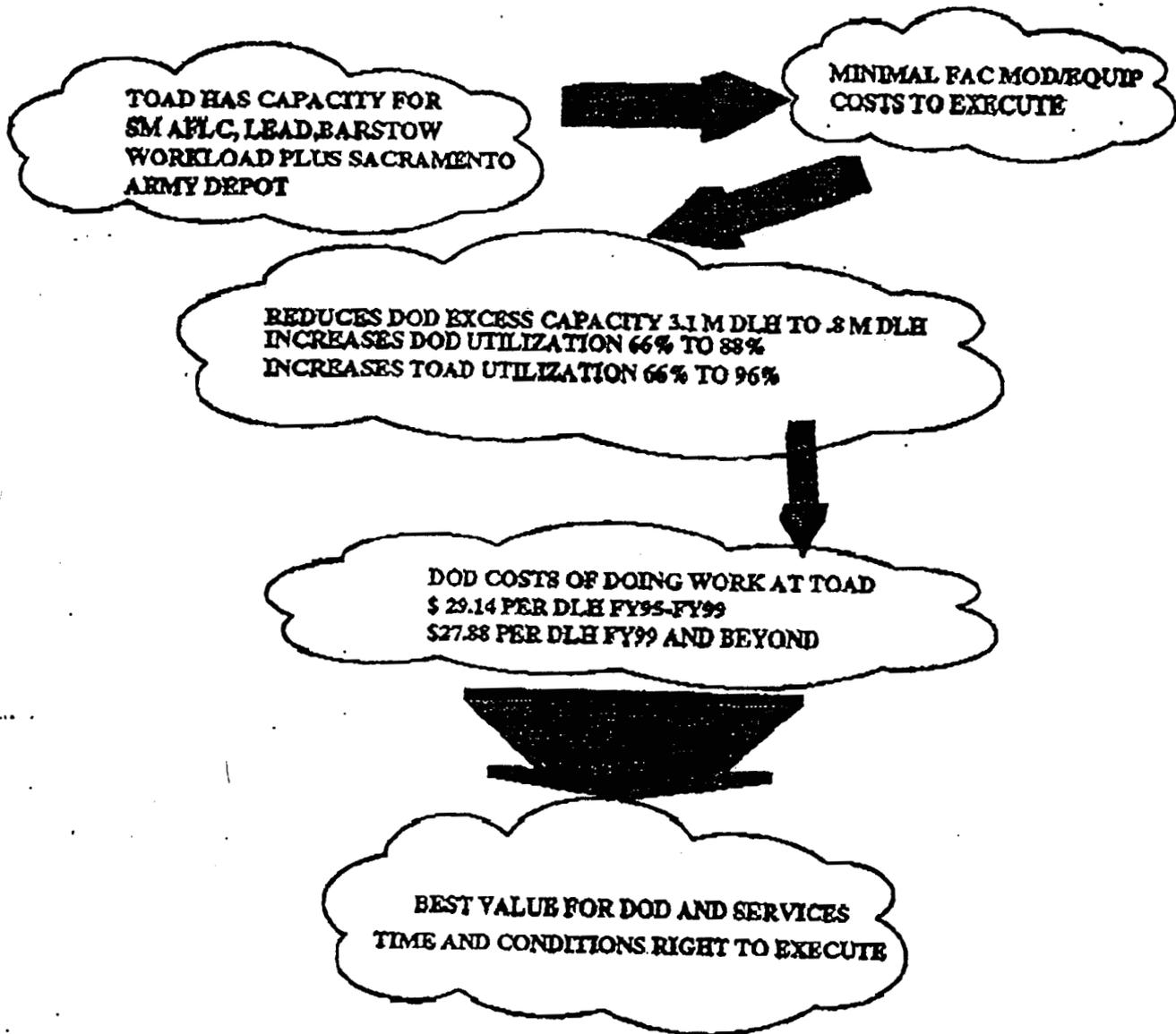
BASE AND NEW RATES  
INCLUDE \$7.5M ANNUALLY  
CMF & OTHER DEPRECIATION.  
IMPACT \$ 13.67 HR - FY95 BASE  
TO \$ 4.96 HR - FY99 NEW

37% EFFICIENCY FACTOR APPLIED TO CMF WORK  
- OTHERWISE, 7,900 M DLH REQUIRED vs 6,893 M DLH  
 $\$144.3 \text{ M DIVIDED BY } 4.393 \text{ M DLH} = \$ 32.85 \text{ HR}$

**BOTTOMLINE:**  
~~DOD COSTS OF PERFORMING ADDITIONAL WORK AT TOOELE~~  
~~\$ 32.85 PER DLH - EXCLUDING REPAIR PARTS/MATERIAL, FY95-FY99~~  
**\$ 31.88 PER DLH FY99 AND BEYOND**

11

# CONCLUSIONS COMM / EL



12

# CONCLUSIONS GROUND SYSTEMS/ EQUIPMENT-EXCLUDING COMM/EL

ANAD, RRAD, TEAD HAVE CAPACITY TO DO BARSTOW WORKLOAD  
FAC MOD/EQUIP COSTS TO MOVE LEAD WORKLOAD IS \$71M

ESTIMATE MINIMAL OR NO COST FOR FAC MOD/EQUIP TO SUPPORT BARSTOW CLOSURE

REDUCES DOD EXCESS CAPACITY IN "HARD IRON" DEPOTS  
5.6 M DLH TO 2.6 M DLH  
INCREASES CAPACITY UTILIZATION 62% TO 77%

DOD COSTS TO TRANSFER ADDITIONAL WORK PER DLH DEPOT

DEPOT	FY95-FY99	FY99 BEYOND
ANAD	\$31.32	\$31.35
RRAD	31.71	NC
TEAD	32.85	31.88

EXCLUDING PARTS AND MATERIALS

BEST VALUE FOR DOD AND SERVICES  
TIME AND CONDITIONS RIGHT TO EXECUTE

13

**RECOMMENDATION**

**DOD INCLUDE THESE CROSS-SERVICE ACTIONS IN BRAC 93**

14

## INFORMATION PAPER

DACS-DMM  
11 March 1993

SUBJECT: Integrated BRAC 93 Status for Maintenance Depots

1. PURPOSE: To update the DCSLOG on subject effort.
2. FACTS: In discussions between Army and OSD personnel, OSD representatives stated an intent to work cross-servicing of depot maintenance before OSD proposals are presented to the BRAC 93 Commission. It was agreed the Army would analyze the rate impact on Army depots if Sacramento ALC commo/elect (C&E) and Marine Corps workload (one or both depots) was transferred to the Army.
  - a. Options other than those outlined above were not evaluated since the Marine Corps, Navy and Air Force have no significant capability to accept workload from closure of Army ground systems/equipment depots.
  - b. Annual savings to DoD of transferring Sacramento ALC workload (C&E) to Tobyhanna would be approximately \$50M (50% cost reduction from Sacramento ALC costs).
  - c. Closing Barstow, in conjunction with Letterkenny and transfer of Sacramento ALC C&E workload, would generate additional annual savings of about \$18.6M (35% reduction from Barstow costs). Under this option the workload would be distributed to Tobyhanna, Anniston, Tooele and Red River Depots.
  - d. Closing Barstow and Albany, in conjunction with Letterkenny and transfer of Sacramento ALC C&E workload, would generate annual savings estimated at \$27.9 million (28% reduction from Barstow and Albany costs) by distributing the workload to Tobyhanna, Red River, Tooele and Anniston.
  - e. Cross-servicing Sacramento ALC C&E, Albany and Barstow work to Army depots would generate annual savings of app \$77.9M in rates alone.
  - f. Estimated savings in para b-e. reflect the difference in rates between losing depots and gaining depots (based on higher workloads) and do not include additional savings associated with canceling construction/equipment projects, etc., at losing depots.
  - g. Closure of Barstow, Albany and transfer of some Pensacola rotary wing and Sacramento ALC C&E workload would result in FY99 capacity utilizations of ANAD 90%, RRAD 82%, TOAD 98%, CCAD 85% and TEAD 91% (Encl 1). Enclosure 2 provides information on additional personnel required to perform this work.

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TO

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TO

MAR-17-1993 10:09 FROM DPCS-DTE-IMD

MAR-18-1993 16:48 FROM

15.

h. Navy indicates approximately .35M DLH on UH-1 and UH-60's currently performed at Pensacola could be transferred to CCAD "unless they find a better deal elsewhere".

i. Enclosure 3 provides information on capacity/workload/utilization of Army depots if no cross-servicing is accomplished and both LEAD and TRAD are closed.

j. Sacramento AIC and Barstow results were briefed to OSD personnel on 3 Mar 93 at which time, they advised a DoD decision had been made to not pursue cross-servicing prior to submitting proposals to the BRAC Commission. Albany was not briefed since the analysis for closing both Marine Corps depots had not been completed.

k. It is difficult under the best conditions to accurately project outyear depot rates when workloads vary significantly. The 4500 or so excess personnel on board within DESCOM, supply transfer to DLA, conversion of non-tactical vehicle (NTV) from government owned to GSA leases, etc., complicate the rate projection process.

l. With actual FY92/93 costs/rates skewed by the factors in para h.; using direct/indirect ratios, regression analysis, populations served, etc., tends to overstate future costs. FY94 and beyond costs could be more accurately calculated by scrubbing FY92 actuals for excess personnel, DLA supply transfer, GSA NTV lease conversion, one-time costs, etc.

m. Estimating FY94 and beyond costs as accurately as possible is crucial as the Army works cross-servicing and/or competition through the BRAC Commission and DDMC processes.

### 3. RECOMMENDED POSITION:

a. Continue to work cross-servicing with the Navy for rotary wing and Air Force for C&E.

b. Consider what the Army position should be if the Navy (rotary wing) and Air Force (C&E) propose to redistribute workload from depot closures to their other depots and contractors without offering the Army an opportunity to compete.

91

# BRAC 93 OPTION CLOSE LEAD, BARSTOW, ALBANY AND TRANSFER SELECTED SACRAMENTO ALC AND PENSACOLA WORK (MILLION DIRECT LABOR HOUR)

DEPOT	FY91			FY94			FY99		
	CAP	WKLD	UTL	CAP	WKLD	UTL	CAP	WKLD	UTL
ANAD	4.3	3.5	80%	4.5	2.5	56%	4.5	4.1	90%
RRAD	3.5	2.4	68%	3.1	2.4	76%	3.1	2.6	82%
TOAD	5.2	3.4	66%	6.3	3.5	55%	6.3	6.2	98%
CCAD	5.2	4.3	84%	5.2	3.4	67%	5.2	4.4	85%
TEAD	2.7	2.1	80%	2.1	1.2	57%	2.1	1.9	91%
LEAD	2.6	2.0	78%	3.1	2.4	79%	0	0	0
TOTALS	23.5	17.7	75%	24.3	15.4	63%	21.2	19.2	91%

- NOTES:
1. LEAD (1.1M DLH), BARSTOW (1.1M DLH), ALBANY (1.2M DLH) WORKLOAD DISTRIBUTED TO ANAD, RRAD, TOAD, AND TEAD.
  2. SACRAMENTO ALC COMMO/ELECT WORK (1.7M DLH) AND SACRAMENTO ARMY WORK (1.6M DLH) TO TOAD.
  3. PENSACOLA UH-1 AND UH-60 WORK (.953M DLH) TO CCAD.

**BRAC 93 OPTION  
CLOSE LEAD, BARSTOW AND  
TRANSFER SELECTED SACRAMENTO ALC AND PENSACOLA WORK  
(MILLION DIRECT LABOR HOUR)**

<u>DEPOT</u>	<u>FY91</u>			<u>FY94</u>			<u>FY99</u>		
	<u>CAP</u>	<u>WKLD</u>	<u>UTL</u>	<u>CAP</u>	<u>WKLD</u>	<u>UTL</u>	<u>CAP</u>	<u>WKLD</u>	<u>UTL</u>
ANAD	4.3	3.5	80%	4.5	2.5	56%	4.5	3.9	85%
RRAD	3.5	2.4	68%	3.1	2.4	76%	3.1	2.1	68%
TOAD	5.2	3.4	66%	6.3	3.5	55%	6.3	6.1	96%
CCAD	5.2	4.3	84%	5.2	3.4	67%	5.2	4.4	85%
TEAD	2.7	2.1	80%	2.1	1.2	57%	2.1	1.5	71%
LEAD	2.6	2.0	78%	3.1	2.4	79%	0	0	0
<b>TOTALS</b>	<b>23.5</b>	<b>17.7</b>	<b>75%</b>	<b>24.3</b>	<b>15.4</b>	<b>63%</b>	<b>21.2</b>	<b>18.0</b>	<b>85%</b>

- NOTES:
1. LEAD (1.4M DLH) AND BARSTOW (1.1M DLH) WORKLOAD DISTRIBUTED TO ANAD, RRAD, TOAD, AND TEAD.
  2. SACRAMENTO ALC COMMO/ELECT WORK (1.7M DLH) AND SACRAMENTO ARMY WORK (1.6M DLH) TO TOAD.
  3. PENSACOLA UH-1 AND UH-60 WORK (.353M DLH) TO CCAD.

# MANPOWER REQUIRED FOR CROSS-SERVICING OPTIONS

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<u>WORKLOAD TRANSFER</u>	<u>FY</u>	<u>ANAD</u>	<u>RRAD</u>	<u>TOAD</u>	<u>CCAD</u>	<u>TEAD</u>
SACRAMENTO #44	95	-	-	404	-	-
	96	-	-	884	-	-
	97	-	-	1608	-	-
	98	-	-	1606	-	-
	99	-	-	1606	-	-
BARSTOW	95	22	-	0	-	870
	96	558	-	103	-	870
	97	558	-	103	-	870
	98	558	-	103	-	870
	99	558	-	103	-	870
BARSTOW AND ALBANY	95	48	199	0	-	745
	96	772	454	0	-	745
	97	772	454	265	-	745
	98	772	454	265	-	745
	99	772	454	265	-	745
PENSACOLA	95	-	-	-	79	-
	96	-	-	-	192	-
	97	-	-	-	240	-
	98	-	-	-	320	-
	99	-	-	-	320	-

ARMY DEPOTS POST BRAC-93  
CAPACITY/WORKLOAD/UTILIZATION  
(MILLION DIRECT LABOR HOURS)

DEPOT	FY91		FY94		FY99	
	CAP	WKLD UTIL	CAP	WKLD UTIL	CAP	WKLD UTIL
ANAD	4.3	3.5 80%	4.5	2.5 56%	4.5	3.2 70%
RRAD	3.5	2.4 68%	3.1	2.4 76%	3.1	3.0 95%
TOAD	5.2	3.4 66%	6.4	3.5 55%	6.3	4.8 76%
CCAD	5.2	4.3 84%	5.2	3.4 67%	5.2	4.0 78%
TEAD	2.7	2.1 80%	2.1	1.2 57%	0	0 0
LEAD	2.6	2.0 78%	3.1	2.4 79%	0	0 0
TOTALS	23.5	17.7 75%	24.3	15.4 63%	19.1	15.0 79%

- NOTES: 1. FY91 AND FY94 DATA FOR CAP/WKLD/UTIL IS STATUS QUO.  
 2. FY88 DATA SHOWS END STATE AFTER CLOSURE OF LEAD (1.4M DLH) AND TEAD (.74M DLH).  
 3. TOAD DATA BASED ON ARMY WINNING ALL SACRAMENTO ARMY WORK (1.6M DLH).  
 4. CCAD DATA BASED ON APACHE AND BLACKHAWK WORK (.78M DLH) MOVED IN-HOUSE FROM CONTRACTORS

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REPLY TO  
ATTENTION OF:DEPARTMENT OF THE ARMY  
SACRAMENTO ARMY DEPOT  
SACRAMENTO, CALIFORNIA 95813  
95813-6066

SDSSA-IR (36-2b)

20 January 1993

MEMORANDUM FOR Chief, Internal Review and Audit Compliance  
Office, Headquarters, U.S. Army Depot System  
Command, Chambersburg, PA 17201-4170SUBJECT: GAO Survey of the Closure of the Sacramento Army Depot  
and the Distribution of Its Maintenance Workload to Other Depots  
through Competition, GAO Code 398095, (AMC Number G9211)

1. Mr. Mark Little of the GAO visited SAAD on 14 January 1993. He visited McClellan AFB earlier in the day. Mr. Little was following up on the status of the workload competition and the drawdown of SAAD. Mr. Little met with Guy Brown, Chief, Integrated Logistics Support Office; Randy Young, Director, Personnel, Community Activities, and Security; Rick Wiley, Chief, IRAC; and Colonel William Grundy, Depot Commander.

2. Mr. Little learned early on 14 January that Tobyhanna Army Depot had won the Airborne Electronics commodity group--the first of the nine groups to be awarded. He said McClellan wanted to appeal the award because TOAD's cost (\$4.6 million) was so much lower than McClellan's (\$5.9 million) or SAAD backup (\$7.6 million). McClellan bid on a 100 percent overhaul standard while they thought Tobyhanna bid on an "Inspect and Repair Only as Necessary" standard. Mr. Little was looking into the following areas:

- What repair standards were being used at SAAD? Did the standards change during the competition process? Answer: Mr. Brown explained the various types of maintenance performed by depots--Overhaul, Repair and Return, Inspect and Advise, Best Commercial Practice, etc. He explained that the customer, in this case CECOM, decided the level of repair on the original work request. Mr. Brown stated that the amount of overhaul may be declining slowly while the other types of maintenance are increasing, but SAAD doesn't track these statistics. He suggested that CECOM would be the best source for this information. Colonel Grundy told Mr. Little that we had asked the Army Audit Agency to look at the adequacy of technical specification documentation in their audit of Configuration Management. They didn't find any significant problems. A copy of the AAA audit report was provided to Mr. Little.

SDSSA-IR (36-2b)

SUBJECT: GAO Survey of the Closure of the Sacramento Army Depot and the Distribution of Its Maintenance Workload to Other Depots through Competition, GAO Code 398095, (AMC Number G9211)

- Were the bids audited? By whom? Did anyone contact SAAD in relation to these audits? Did the audit teams coordinate to make sure their audits were comparable? Answer: We don't know if the bids were audited. SAAD wasn't contacted by anyone conducting audits of the bids.

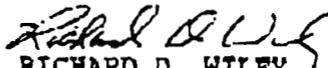
- Why were the bids so far apart in cost and so far below SAAD's actual cost history. Answer: We weren't able to explain the differences. We told Mr. Little that we were only interested spectators in this process and that the best source of information would be Mr. East at CECOM.

- Were SAAD employees allowed to transfer to other depots, thus giving the other depots an edge in the competition process? Answer: There was an initiative to allow SAAD employees to transfer to other depots with critical personnel shortages. Due to the potential for a DESCOM-wide RIF, only one employee has transferred from SAAD to another Depot (Letterkenny) under this program. Actually, McClellan AFB has hired more Depot employees than any other activity--over 40 of SAAD's employees have transferred to McClellan under the Priority Placement Program. Copies of correspondence on the DESCOM employee transfer program were provided to Mr. Little.

3. Mr. Little was basically gathering information to head off anticipated questions from congressional staffers. He thought he would have to go to CECOM to get the answers to some of his questions. He also thought he might compare the bids on a few of the line items to see if there was any indication that different repair standards were used.

4. If you have any questions, or desire additional information, please call Rick Wiley at DSN 839-4162.

FOR THE COMMANDER:

  
RICHARD D. WILEY  
Chief, Internal Review  
and Audit Compliance

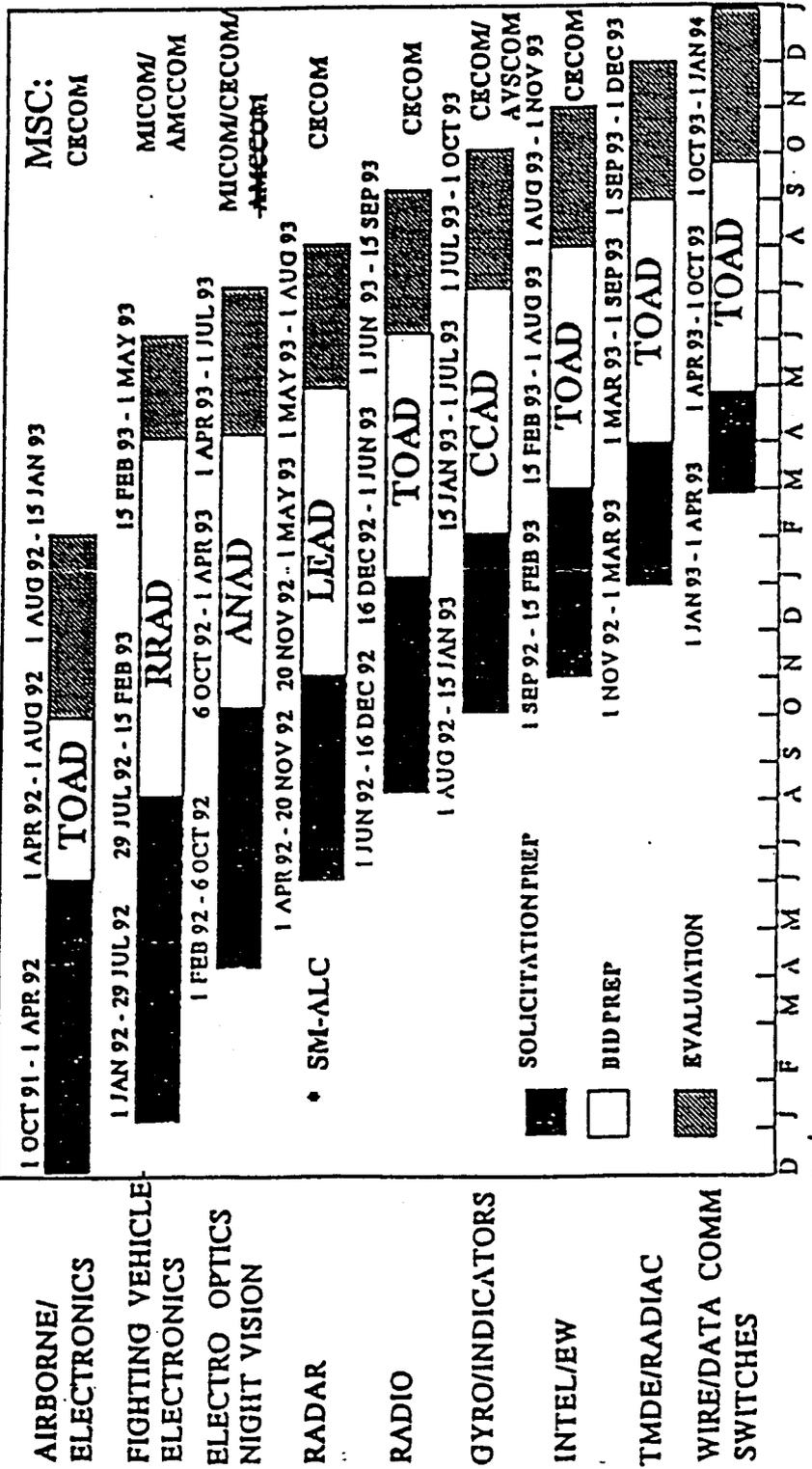
Revised

except for ETD.  
and 1 Tm, all other tasks in ship!



# SACRAMENTO ARMY DEPOT PUBLIC - PUBLIC COMPETITION MILESTONES

GROUPS



91 | 92 | 93 | 94

Baseline Schedule - Future Modifications Based on Continuous Lessons Learned

• Closing With Dignity •