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CITY OF SAN DIEGO

WRITTEN TESTIMONY
AND
SUPPLEMENTAL INFORMATION
PRESENTATION BEFORE

THE BASE REALIGNMENT
AND
CLOSURE COMMISSION



City of San Diego
San Diego, California
April 28, 1995

**CITY OF SAN DIEGO
PRESENTATION TO
THE DEFENSE BASE CLOSURE
AND
REALIGNMENT COMMISSION
AT THE
SAN FRANCISCO REGIONAL HEARING
APRIL 28, 1995**

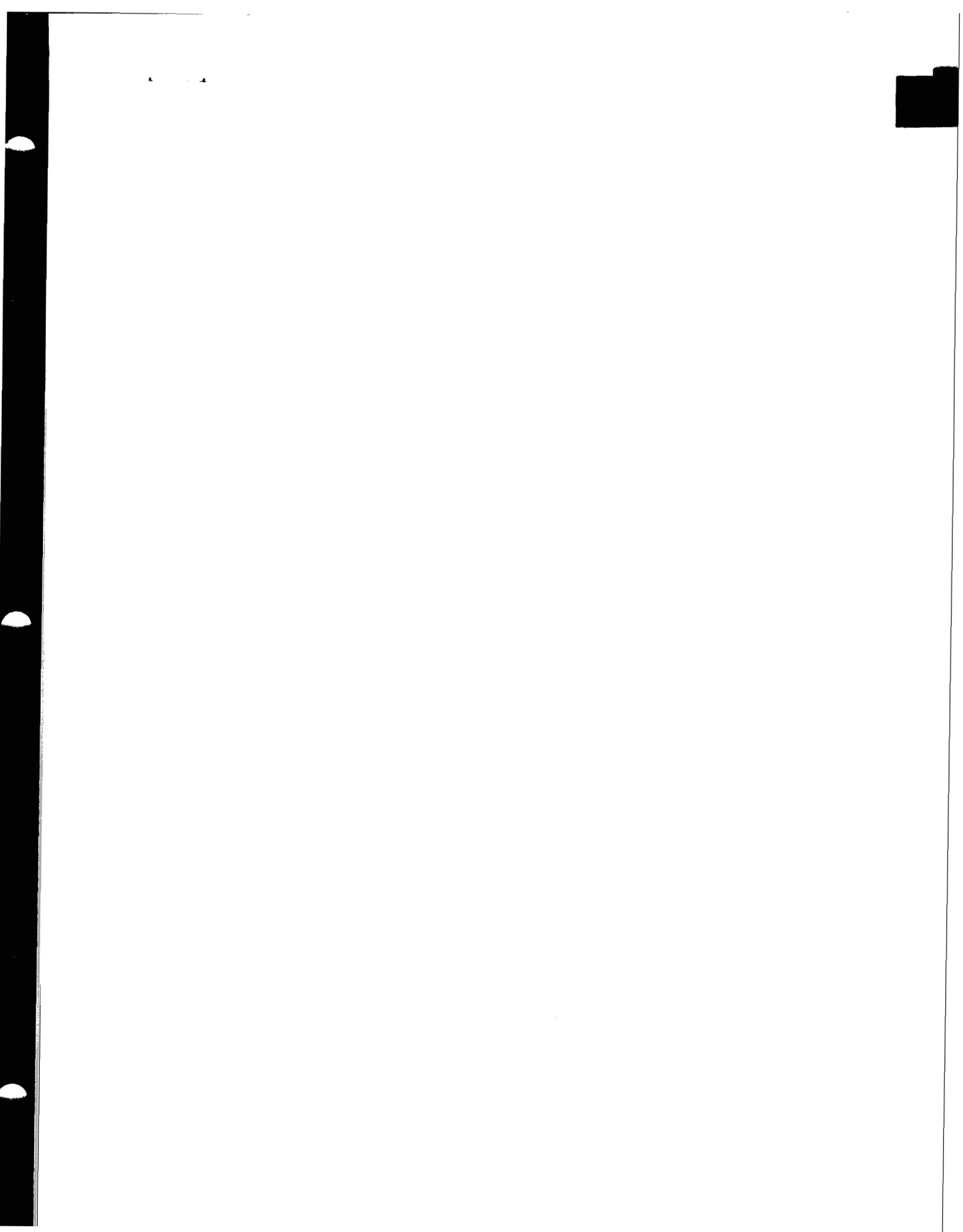
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**TESTIMONY OF SAN DIEGO
COUNCILMAN HARRY MATHIS
BEFORE
THE BASE REALIGNMENT AND CLOSURE COMMISSION
SAN FRANCISCO, APRIL 28, 1995**

Introduction:

Good Afternoon, Mr. Chairman and members of the Commission. I am Harry Mathis. I have the honor to represent the First Council District in the City of San Diego. I will be presenting the views and recommendations of the delegation from the City of San Diego. I am a retired Navy Captain who served on active duty for 28 years. My career included service in the Pentagon as well as command of a nuclear submarine and two bases; the Submarine Base at Pearl Harbor, and the Naval Training Center at Orlando, Florida.

As we begin our discussion concerning base closures in San Diego, we are not unmindful that the San Diego region will benefit from the Department of Defense 1995 base closure and realignment recommendations. We are proud of our ties to the Navy and pleased that the Navy has selected San Diego for the West Coast Mega-Port. We welcome the new missions and neighbors to our community and pledge our continuing support to facilitate their move to San Diego.

Nevertheless, we understand that the principal focus of the BRAC tends to be on base closings; however, the realignment of activities can be extremely important as well. They deserve your close attention. Cumulatively, they can have a significant effect on the long range efficiency and effectiveness of the

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services which is all the more critical as we downsize. Short term savings in ill-advised moves could cost us dearly in the future.

My remarks will address two important Naval Activities which have been identified in the BRAC 95 process as candidates for relocation from the San Diego area: The Naval Health Research Center (NHRC) and the Naval Personnel Research and Development Center (NPRDC).

In both these cases, the recommendation is to move the activity, not eliminate it. In other words, the need for its function is not challenged, and there are presumably savings and efficiencies to be gained by the move. There are no significant potential savings in eliminating long term overhead costs unless something is closing. Here we have a situation where activities are vacating existing spaces and requiring expenditures to move and provide replacement space. We think that if you are going to move a function, not eliminate it, the significant costs associated with the move must be more than offset by future cost savings, and at the very least, sustaining if not improving the mission accomplishment.

The mission in both these cases is also affected by certain critical intangibles including product quality. In addition, personnel considerations are unavoidable because of the potential loss of significant numbers of highly skilled civilian specialists who may simply decide not to relocate from San Diego.

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Naval Health Research Center:

With respect to the Naval Health Research Center, the Department of Defense recommendation represents a substantial deviation from the military value criteria. This center was established in San Diego specifically because of its proximity to the fleet. To perform its mission, it must have ready access to the men and women who comprise our Naval forces. To move it to an inland administrative site which constitutes a headquarters element ignores the nature of the work performed by this organization and the source material for its work.

This is not a process unit, which takes inputs from elsewhere and evaluates them; rather, this unit develops the information upon which it relies for its assessments, evaluations and recommendations. Let me explain.

(SLIDE #1)

NHRC's mission is "to support fleet readiness through research, development, testing, and evaluation on the biomedical and psychological aspects of Navy and Marine Corps personnel health and performance." NHRC's mission clearly identifies it as a medical field operation which can only carry out its function in close conjunction with its customers, i.e. fleet and Marine Corps personnel in their operational environment. Let me emphasize that - in their operational environment.

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To move the NHRC to Memphis, to become an appendage of a purely administrative command like BUPERS (to which, incidentally, it does not report), remote from sailors and marines, is illogical and raises serious questions with respect to any projected savings.

The NHRC mission is not fungible; it cannot be performed just anywhere. The NHRC should be retained in San Diego to enable it to carry out its mission.

(SLIDE #2)

Ironically, the Navy recommendation to the BRAC comes at a time when an initiative is underway by the Department of Defense to consolidate military medical R&D activities under the Armed Forces Medical Research and Development Agency. Under this plan, proposed by ASBREM RDA-21 Medical R&D Consolidation, NHRC command & control and manpower functions would be disestablished and reestablished under a joint agency as Armed Forces Medical Research Unit-3 to retain "customer linked" medical R&D capabilities in San Diego.

(SLIDE #3)

This new joint agency is an OSD Joint Service consolidation, of which this Commission has relatively few examples. The Navy recommendation before you

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goes in the exact wrong direction. Our review of the BSAT minutes reflects that the BSAT did not consider this Joint Services Consolidation, a consideration which would certainly have influenced their recommendation.

The military medical significance of San Diego as the largest Navy and Marine Corps concentration is further underscored in the Department of Defense consolidation proposal which recommends that San Diego become the headquarters for the Armed Forces Military Medical Operations Division. These concepts are clearly at odds with the Navy recommendation now before you to move NHRC to Memphis and place it under BUPERS, an unrelated headquarters.

In the Armed Forces consolidation recommendation, the Department of Defense agreed that the medical mission of NHRC is indeed "customer linked" (their words) and should be retained in the field. We think it is clear that these R&D functions require collocation with the fleet. Otherwise, any savings will be more than offset by travel costs from an institutionally isolated site far from where sailors and marines perform their duties. The removal of medical professionals from the military medical customer to a remote personnel command can only have an adverse effect on the cost and quality of mission performance of this small but important organization.

(SLIDE #4)

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It is no accident that NHRC is currently in San Diego. There is no site better suited than San Diego, with virtually every element of the Navy and Marine Corps warfare capability present. In addition to the operational setting which San Diego provides, there is also an extensive synergistic effect afforded by the presence of first-rate institutions of higher learning, leading medical research facilities, and a world-renowned biomedical industry in San Diego.

(SLIDE #5)

In fact, NHRC doctors are integrated into the faculties of two of San Diego's universities. The opportunities resulting from the richness of the academic and medical research environment in San Diego greatly enhance the effectiveness of NHRC in the accomplishment of its mission. The significance of this enhancement is not reflected in the COBRA program.

Focusing on some of the work performed by the NHRC, it is presently involved in evaluating pre and post gulf war blood samples in the research into the nature and diagnosis of the gulf war syndrome. NHRC is a vital element in research associated with sexually transmitted disease prevention aboard ship, hypothermia, soft tissue monitoring, and other military unique or prevalent illnesses and injuries. NHRC works with operational forces where they work and train, in collaboration with world class local community institutions. It is the

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Navy and all of DOD that benefit from this synergy in San Diego; synergy that will be lost if you approve this move.

Perhaps the most incomprehensible aspect of this proposal is that the GAO estimate of the 20 year net present value of the savings from this recommendation is \$11.4 million. To sacrifice the continuity, synergy, and proximity to the fleet for such small savings does not satisfy the most basic test of common sense, much less adhere to the military value criteria which control your decisions.

The NHRC is relied upon by the entire DOD because of the high quality and resourcefulness of its work, which is a direct result of its proximity to its test subjects. That work is geographically sensitive, and this recommendation is geographically wrong. DOD recognized where this mission should be located in its ASBREM RDA-21 medical R&D consolidation. Support that joint service consolidation decision.

Naval Personnel & Research Development Center:

(SLIDE #6)

I will turn now to the Naval Personnel Research & Development Center (NPRDC). The proposal before you is to close the San Diego facility and relocate

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it to the Bureau of Naval Personnel, Memphis, TN, and to the Naval Air Warfare Center, Orlando, FL.

In plain language, the NPRDC evaluates how we attract the best recruits, train them effectively, mold them into a cohesive unit, retain them on active duty, and develop their skills to capitalize on our investment. The effective integration of women and minorities is but one area in which this organization has worked. Merely bringing diverse sailors and marines together in the military services isn't good enough. We need them to perform as a cohesive, coordinated, combat ready fighting force. Such a force is not created by accident, and the NPRDC is the research and development element in the Navy to evaluate our selection and training criteria, determine their effectiveness, and recommend the techniques, training, and leadership changes which will assure that we obtain the highest military benefit from our most important resource - the men and women of the Navy.

(SLIDE #7)

In 1973, the Navy made a thoughtful and rational decision to create a single research center to significantly improve the conduct of R&D on people-related issues of manpower, personnel, and training. It chose San Diego as an

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unparalleled applied research center, bringing its researchers to a single site within commuting distance of virtually every type of fleet unit and shore facility.

(SLIDE #8)

Additionally, San Diego provided a rich site for academic support, and broad related R&D endeavors and resources. This decision was made in a setting in which mission considerations and cost could be considered without the duress which exists today. For more than twenty years, the wisdom of that decision has been amply validated.

By choosing San Diego, the Navy ensured that the NPRDC could focus on long term R&D efforts, and San Diego provided NRPDC the necessary autonomy to perform objective research, unimpeded by the diversions of headquarters' short term priorities.

(SLIDE #9)

We note that the NPRDC operates like an independent business within the Navy. It is funded by each research project and receives no operating budget funds. Thus, it is the customer desiring the research services who pays the freight. The funds received are a function of NPRDC's ability to perform high quality research; and produce useful, high impact products at a reasonable cost.

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One must question, then, how the costly move of this activity thousands of miles away from its very customer and research source could contribute favorably to the cost and quality of the services it provides. This is especially relevant under a questionable proposal which will take a minimum of 4 years to pay back, but in fact will make the services of NPRDC more costly and less desirable. This is a common sense consideration which must not be abandoned by strict reliance on the COBRA data which is only as good as its input.

(SLIDE #10)

I urge you to direct your staff to examine the data calls from the NRPDC, and the COBRA inputs supplied by the Navy. The Navy's projected cost of operations in Tennessee and Florida is less than the telephone bill in San Diego. This has no credibility.

As an independent business, NPRDC's continued success is related to the cost and value of its product. Spending money to adversely impact both -- flies in the face of logic, business acumen, and good common sense. The decision to create NPRDC in San Diego was a good one then, and it remains so today. Moving it to pay homage to questionable and relatively insignificant savings without regard to the real world consequences which will clearly result would be tragic and unnecessary.

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No one is questioning the need for NPRDC and its products. As a former Navy Captain and Commanding Officer, let me assure you that the relevance of NPRDC is greater in times like these. The need for a more affordable, more capable personnel force has never been greater.

(SLIDE #11)

NPRDC is a unique and high quality team. 80% of the research staff hold advanced degrees, with an average tenure of over 13 years. Their substantial experience in the field is of immense value to manpower, personnel, and training R&D. With a modest annual budget of about \$25M, their programs have had substantial leverage, affecting 400,000 active duty personnel and \$25B in personnel and training costs. Should the decision be made to move, the organizational effectiveness would be both decimated and devastated by the loss of those deciding not to relocate. What an irony that those who evaluate such personnel impacts would be so adversely impacted with such scant rationale.

Conclusion:

In citing the cases of NRHC and NPRDC, I have pointed out that the potential savings involved and the justifications used by the Service have a hollow ring, created by the pressure of the BRAC process.

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I have purposely avoided alluding to economic impacts on the local community. They are certainly there, but they are far less relevant than the military value of having these activities provide their vital services in the most cost effective way. The evidence demonstrates that these activities should remain in the field where they belong, in close proximity to their customers in order to retain the clarity and relevance of their work. Today, more than ever, decisions must be made in the public interest which serve the cost effective quality of the results, not some cosmetic reorganization with imagined or at best, questionable cost benefits. There is no reasonable justification for these moves when the results cannot be defended on either a cost-saving or mission-enhancement basis.

I want to again emphasize that the relocation of NHRC and NRPDC are not like base closings. Indeed, the projected long term savings of the proposed relocation of NHRC and NRPDC do not hold up as significant factors, and in fact will prove to be more expensive in the long run in terms increased cost and reduced efficiencies. I urge the Commission to recognize these fundamentals and retain these activities in San Diego where they can continue to do their best work in the most cost effective manner.

Thank you for your time and attention. I am now available for any questions.

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COUNCILMAN HARRY MATHIS
BEFORE
THE BASE REALIGNMENT AND CLOSURE COMMISSION
SAN FRANCISCO, APRIL 28, 1995**

After listening to an earlier presentation which raised points relative to San Diego, I believe it is both important and necessary that the San Diego community comment. We are proud of our ties to the Navy and pleased that the Navy has selected San Diego as the West Coast Mega-Port. We are equally proud of our private sector shipyard workers and believe that shipyard jobs are to be valued whether they are in the Public or Private sector.

CARRIER HOMEPORTING:

THE CNO has made it very clear that the quality of life of its personnel is one of its top priorities. As a former Naval officer, an essential element of that quality of life is the quality of the support facilities. San Diego meets these criteria and, indeed, the Navy and previous commissions have examined every alternative and supported the homeporting of carriers in San Diego. The supporting facilities in Long Beach are no longer in existence. The proposal to revisit Long Beach as a homeport does not withstand even casual scrutiny. The Naval Station is gone. The hospital has been closed and is in a state of disrepair. Military support requirements for sailors and their dependents have been dismantled and deactivated. The simple truth is that Long Beach can no longer

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support minimum essential homeporting requirements.

According to the Navy, any proposal which would homeport a Naval vessel inside the shipyard must take into account the noise, dirt, poor air quality and unacceptable quality of life for the sailors who would be captives of such an adverse environment. These factors, regardless of cost implications, should deter you from giving consideration to this proposal.

(SLIDE FROM GAO REPORT FOR REP HORN)

When you look at the comparative costs associated with homeporting in Long Beach vs San Diego, it is clear that homeporting in Long Beach is economically insupportable. The General Accounting Office, in a carefully considered response to Congressman Stephen Horn's inquiry, has identified numerous operational, environmental, and financial justifications for adhering to previous base closure decisions pertaining to Long Beach. This slide demonstrates the financial implications of the GAO evaluation.

(DREDGING SLIDE)

Dredging: It has been suggested that in order to accommodate additional carriers at North Island, expensive dredging operations will be required. As this Commission is undoubtedly aware, dredging is a fact of life for virtually any deep

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draft vessel. Both Long Beach and San Diego will require dredging operations for berthing areas and turning basins. The issue becomes one of cost.

The Navy has budgeted for dredging operations at North Island and has commenced the required environmental studies. As your staff has been briefed, the dredging at North Island will commence in January 1996. The dredge material being removed in San Diego is clean. Local ocean front communities are actively and aggressively seeking to obtain this dredge material to replace erosion losses at their beaches. It has been determined that the San Diego dredged material is environmentally safe and can be disposed of locally and with significant benefit to the surrounding communities, and at substantial cost savings.

By way of comparison, the historic activities associated with the water front in Long Beach have been of an industrial nature. As a consequence, the Navy estimates that approximately 28 per cent of the dredge material in Long Beach would be unsuitable for off-shore disposal, which is the cheapest way to dispose of such material. In the case of contaminated dredge material, the cost of disposal is twenty times more expensive. To avoid such high costs, the Army Corps of Engineers would have to locate nearby contained fill areas. Thus, even if the quantity of dredging to be accomplished in San Diego is three times the quantity in Long Beach, the disposition of dredged material is more difficult, environmentally complex, and more costly in Long Beach.

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OPERATIONAL TEMPO AND QUALITY OF LIFE:

A question has arisen pertaining to the distance between Long Beach Naval Shipyard and the San Diego Mega-Port. It has been alleged that the rules were manipulated to demonstrate that Long Beach is outside the acceptable travel distance for ships homeported in San Diego and repaired in Long Beach.

The issue is not what best serves the interests of the public yard workers. Rather, the issue is the impact on our sailors, who will be faced with the alternative of commuting up to four hours a day, incurring family separations or relocating families during availabilities. These are unnecessary and stress producing choices for a fleet which is already stretched because of increasing operational at sea requirements and decreasing resources. If we are going to require our sailors to spend more time at sea, away from their families, common decency and good leadership require us to maximize family time when ships are not at sea. Retaining ships proximate to their homeport during repair, maintenance and overhaul operations does just that, and at no additional cost to the taxpayer.

SHIP REPAIR ISSUES:

The question comes up time and time again as to whether this Commission may consider and take into account in its deliberations the capacity and capabilities of Private Sector Shipyards in determining whether to adopt the Department of

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Defense recommendation to close the Long Beach Naval Shipyard. We believe it is clear, that not only does this Commission have the authority to consider such information, but the duty to consider such data as well.

The Defense Base Closure and Realignment Act of 1990, as amended ("Act") establishes specific procedures for making recommendations for base closures and realignments; among other things, the Act requires the Secretary of Defense to adopt final selection criteria and a force structure plan. In adopting the final selection criteria for this 1995 round of closures, the Secretary adopted, in identical form the selection criteria used during both the 1991 and 1993 round of closures. When first introducing these criteria in 1991, the Secretary of Defense published in the Federal Register a "policy guidance" that elaborates upon the otherwise simple language of the eight criteria. In that guidance, the Secretary stated that the capacity of the Private sector was included in Final Criteria Number one and four. See 56 FR 6374-76 (1991).

While the Department of the Navy did not formally take Private Sector Shipyard capacity into account when fashioning its Shipyard recommendations, it is clear that the recommendation to close Long Beach Naval Shipyard was made against the backdrop of significant West Coast Private Sector Shipyard capacity. For example, in the recently released General Accounting Office Report entitled: Analysis of DOD's 1995 Process and Recommendations for Closure and Realignment, the GAO pointed out that Navy intended to move much of the work

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of the Long Beach Naval Shipyard to the private sector. Moreover, in his recent testimony before this Commission on April 17, 1995, Mr. Nemfakos acknowledged that the Navy relied upon West Coast private sector shipyards and stated:

It was an issue of asking ourselves the question, if we close Long Beach Naval Shipyard, the work that has to be done in the local area - is there a capability to do the work in the local area. And that was it. And our assurance was based on the fact of the very successful record of the private sector in competing in public-private competitions for surface ships in that area.

PRIVATE SECTOR SHIPYARDS CAPABILITY AND CAPACITY:

At the request of the Commission staff, we have asked the San Diego Private Ship Repair Association to analyze the capacity and capability of West Coast Private Sector Shipyards to address the Navy's requirements. A copy of this analysis will be provided to your staff as soon as it is completed. However, it is clear, even in advance of receiving the capacity analysis of all West Coast Shipyards, that there is significant excess West Coast Private Sector shipyard capacity to address the Navy's requirements. Together with the surviving West Coast public yards, every known Navy requirement including both Routine Availabilities and Emergent Availabilities can be met.

The presence of Drydock Number 1 at Long Beach Naval Shipyard has been

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raised as a matter of concern. The issue is the ability to meet routine and emergent requirements for large deck vessels on the West Coast. To properly address this issue, several factors must be considered:

1. Drydock Number 1 is equivalent to the formerly public, now private drydock at Hunters Point. In fact, USS ENTERPRISE, a nuclear carrier was drydocked at Hunter's Point in mid-1985, when Hunters Point was available to private contractors.
2. Modern nuclear carriers require 10.5 months of drydock every six years. The remaining West Cost public yard has more than enough capacity to satisfy this requirement for all West Coast nuclear carriers.

With these factors in mind, the Navy and GAO is satisfied that emergency availabilities for carriers can be met with Bremerton and Pearl Harbor. Emergency rescheduling can be accomplished at public shipyards for carrier requirements. While the USS MACHINIST is available for relocation to San Diego, the Navy has concluded that such an undertaking is neither required nor economically viable.

The simple truth is that nuclear carriers require far less major work necessitating a drydock than the last generation of carriers. For example, modern nuclear carriers are scheduled for refueling every fifteen years, can be maintained for many requirements by replacing components and can be repaired without a drydock using such techniques as underwater welding and cofferdams.

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One of the benefits of a modern Navy is significantly more reliable equipment, less disruptive maintenance requirements and quicker and easier repair capability. The American taxpayer bought these benefits, and that taxpayer is entitled to the savings which can be achieved by eliminating unnecessary testimonials to an era past.

COMPETITION BETWEEN THE PUBLIC AND THE PRIVATE SECTOR:

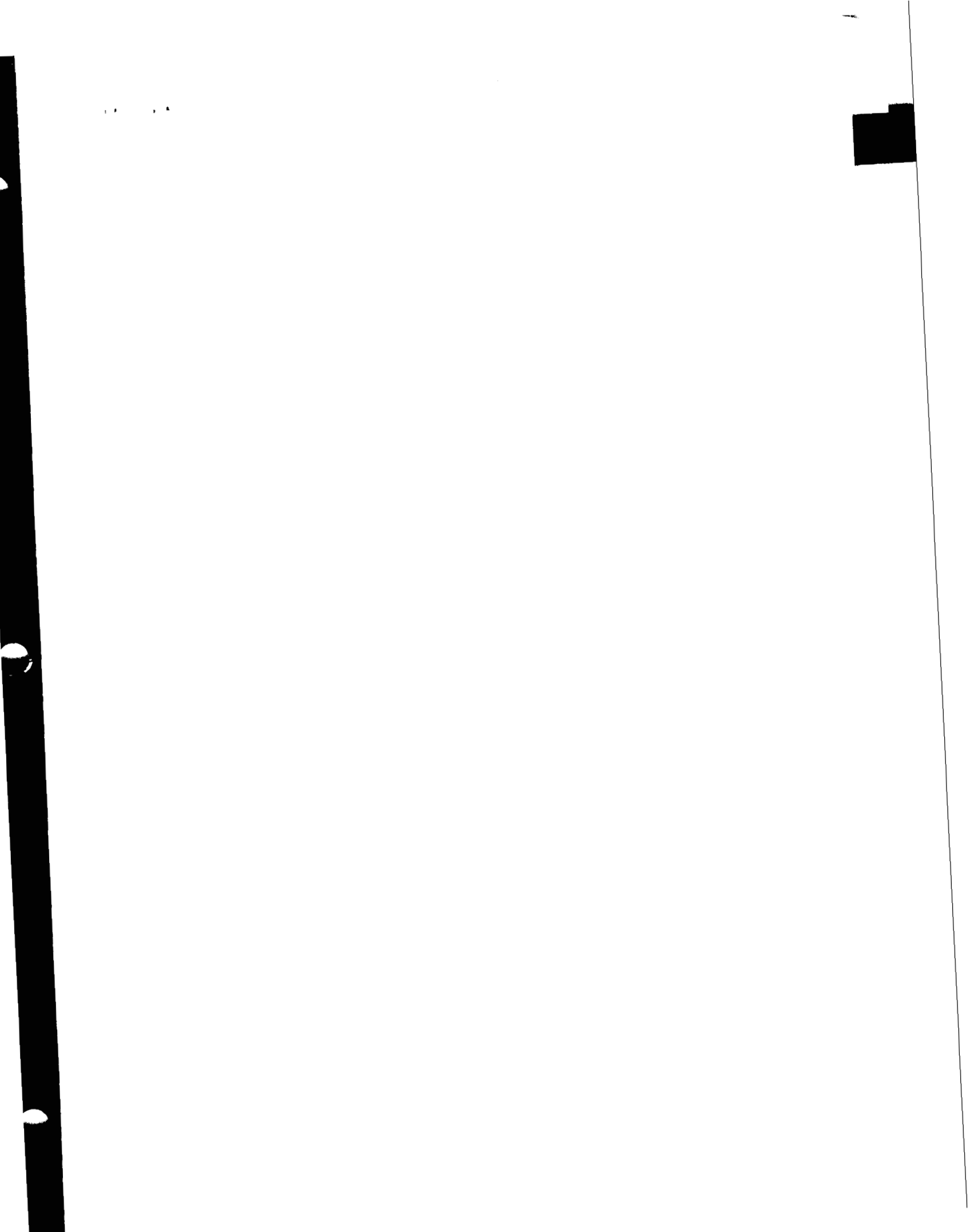
It has been suggested that without a Naval Shipyard in Southern California to keep the private yards honest, the costs of ship maintenance will rise. That simply is not the case.

First, there is intense company-to-company competition in the West Coast private ship repair industry. This competition has forced the private yards to become highly efficient providers of quality repair and maintenance services to the Navy with the result that the private yards have overwhelmingly won the Navy's public-private competitions for non-nuclear surface ship repair.

The lack of a public yard in the area would not have any effect on ship repair prices. The Naval Shipyard section of the FY 1994 fourth quarter depot maintenance operations indicators report shows that the most recent indices for cumulative labor hour data shows the direct labor rate in Long Beach at \$88.36. This contrasts with an average similar private sector rate in San Diego at \$35.00.

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The same report shows that the Long Beach Shipyard used 3,475,000 direct hours. Those hours cost the Navy \$185,426,000.00 more than they would have spent in the private shipyards. We looked further at what causes the major difference in these two rates. A major factor is the non-direct hours. 1430 of the 3100 public yard employees are indirect support personnel. This is far above anything experienced in private industry.





*To Support Fleet Readiness Through Research, Development, Testing,
And Evaluation On The Biomedical And Psychological Aspects Of Navy
And Marine Corps Personnel Health And Performance.*

ISSUE:**DISPOSITION OF THE
NAVAL HEALTH RESEARCH CENTER****BRAC-95
RECOMMENDATION:**

Disestablish NHRC in San Diego and relocate necessary functions, personnel, and equipment to the Bureau of Naval Personnel at Memphis, TN.

**ASBREM RDA-21 MEDICAL
R&D CONSOLIDATION
RECOMMENDATION:**

Disestablish NHRC Command & Control and Manpower functions and consolidate with HQ, Armed Forces Medical Research & Development Agency.

Establish Armed Forces Medical Research Unit-3 to retain customer linked medical R&D capabilities in San Diego, CA

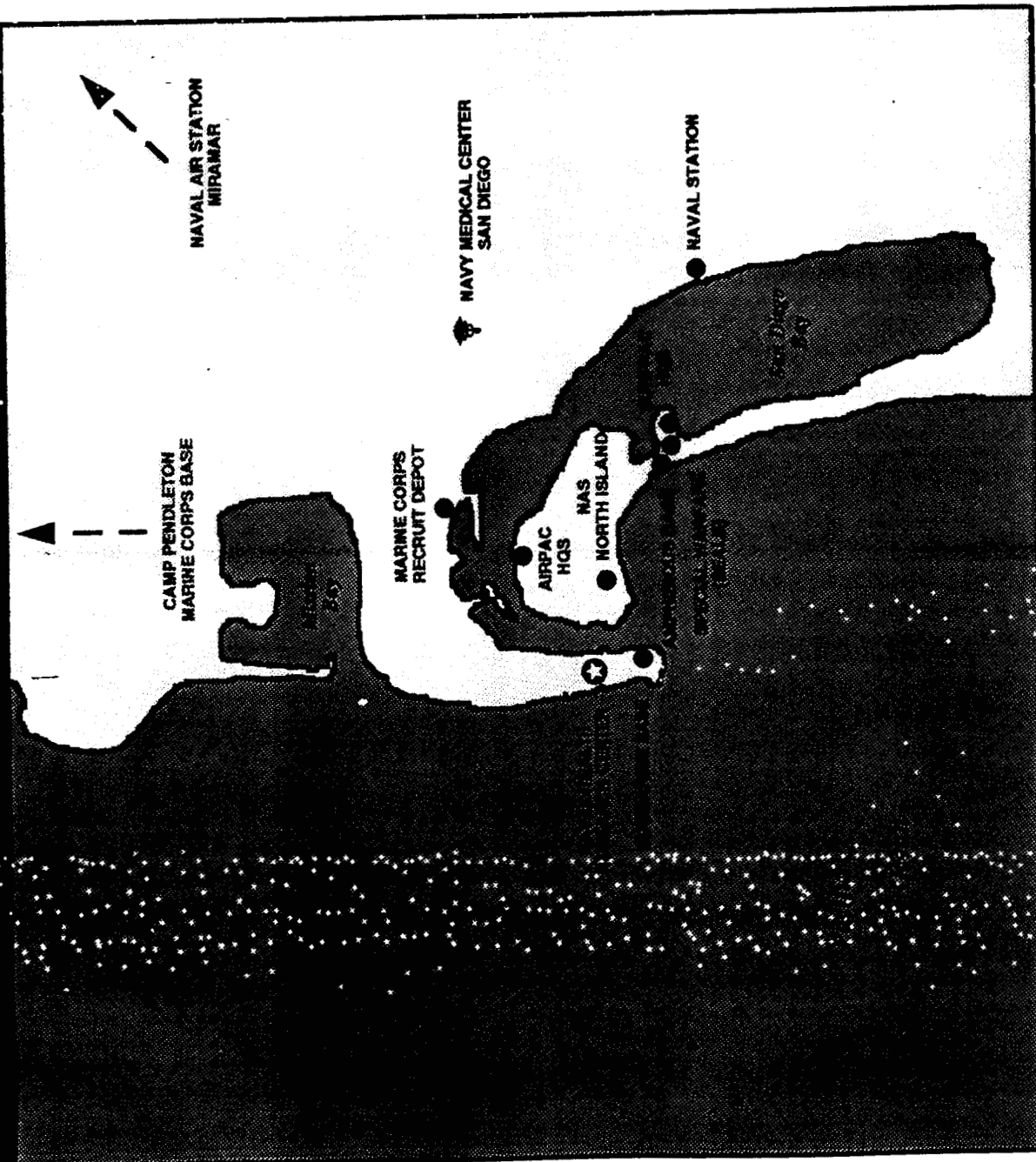
PRESENTATION OVERVIEW:

- **NHRC Chain of Command**
- **NHRC Research Programs**
- **Importance of Location to Medical R&D Mission**
- **Armed Forces Medical Research and Development Agency Consolidation**

ARMED FORCES MEDICAL RESEARCH AND DEVELOPMENT AGENCY

- Armed Services Biomedical Research Evaluation and Management (ASBREM) Committee has joint coordination and oversight of all military medical R&D.
- In November, 1994 the ASBREM Committee report entitled "**Consolidation of Defense Medical Research and Medical Materiel Development**" recommended the consolidation of all DoD medical R&D into a single **Armed Forces Medical R&D Agency (AFMRDA)**.
- ASBREM consolidation report also recommended **NHRC be established under the AFMRDA** as the Armed Forces Medical Research Unit-3 (AFMRU-3) to retain customer linked R&D capabilities in San Diego.
- In November, 1994, the Assistant Secretary of Defense (Health Affairs) and Director, Defense Research and Engineering recommended implementation of the AFMRDA consolidation and directed that "**The proposed medical research laboratory consolidation should be considered by the Military Departments in their BRAC 95 analyses.**"
- The tri-service advance team for AFMRDA is currently in place at Ft. Detrick, MD and recommends that the agency sustain an NHRC-like capability (i.e., AFMRU-3) in San Diego.
- A **Joint Service Agreement** to establish the AFMRDA has been drafted. Consolidation completion date is 1 Oct 96.

Operational Navy in the San Diego Area



Operational Participation San Diego

SITES

Naval Base Ships

MCRD

Submarine Base

Navy Medical Center

SEALs

Camp Pendleton Marines

CURRENT STUDIES

**Telemedicine, Computer Assisted Diagnosis,
Sexually Transmitted Disease Prevention,
Health Care for Women Aboard Ships**

Soft Tissue Injury Prevention and Rehabilitation

Circadian Rhythm Countermeasures aboard Submarines

**HIV Research, Critical Care Monitoring,
Reproductive Outcomes**

**Hypothermia, Biomedical Enhancement,
Biomedical Protective Equipment Evaluation**

**Respiratory Disease Epidemics, Injury Reduction,
Microclimate Cooling to Prevent Heat Stress**

Community Partnerships

UC San Diego

**Epidemiology of Gulf War Illness, Reproductive Outcomes,
Health Care for Women Aboard Ship, Alertness Monitoring,
Head and Neck Strain in Combat Aviators**

San Diego State University

Soft Tissue Injury, Smoking Cessation, Thermal Stress

Children's Hosp

Biomechanical Factors in Soft Tissue Injury

Salk Institute

Alertness Monitoring

Applied medical research requires direct access to operational units. For example:

**Operational Participation
San Diego**

SITES

Naval Base Ships

MCRD

Submarine Base

Navy Medical Center

SEALs

Camp Pendleton Marines

CURRENT STUDIES

**Telemedicine, Computer Assisted Diagnosis,
Sexually Transmitted Disease Prevention,
Health Care for Women Aboard Ships**

Soft Tissue Injury Prevention and Rehabilitation

Circadian Rhythm Countermeasures aboard Submarines

**HIV Research, Critical Care Monitoring,
Reproductive Outcomes**

**Hypothermia, Biomedical Enhancement,
Biomedical Protective Equipment Evaluation**

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Soft Tissue Injury, Smoking Cessation, Thermal Stress

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Biomechanical Factors in Soft Tissue Injury

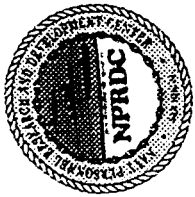
Salk Institute

Alertness Monitoring



Why was NPRDC Established?

- **Serve as principal Navy RDT&E organization for Manpower, Personnel, & Training**
- **Provide the Center with increased autonomy to maintain integrity of the research function and to advise higher echelons objectively**
- **Integrate all personnel-related research in one location to achieve the greatest cross-utilization of research talent**
- **Increase interaction with the Navy's RDT&E and university communities**
- **Put researchers closer to the prime users of research products ... THE FLEET**

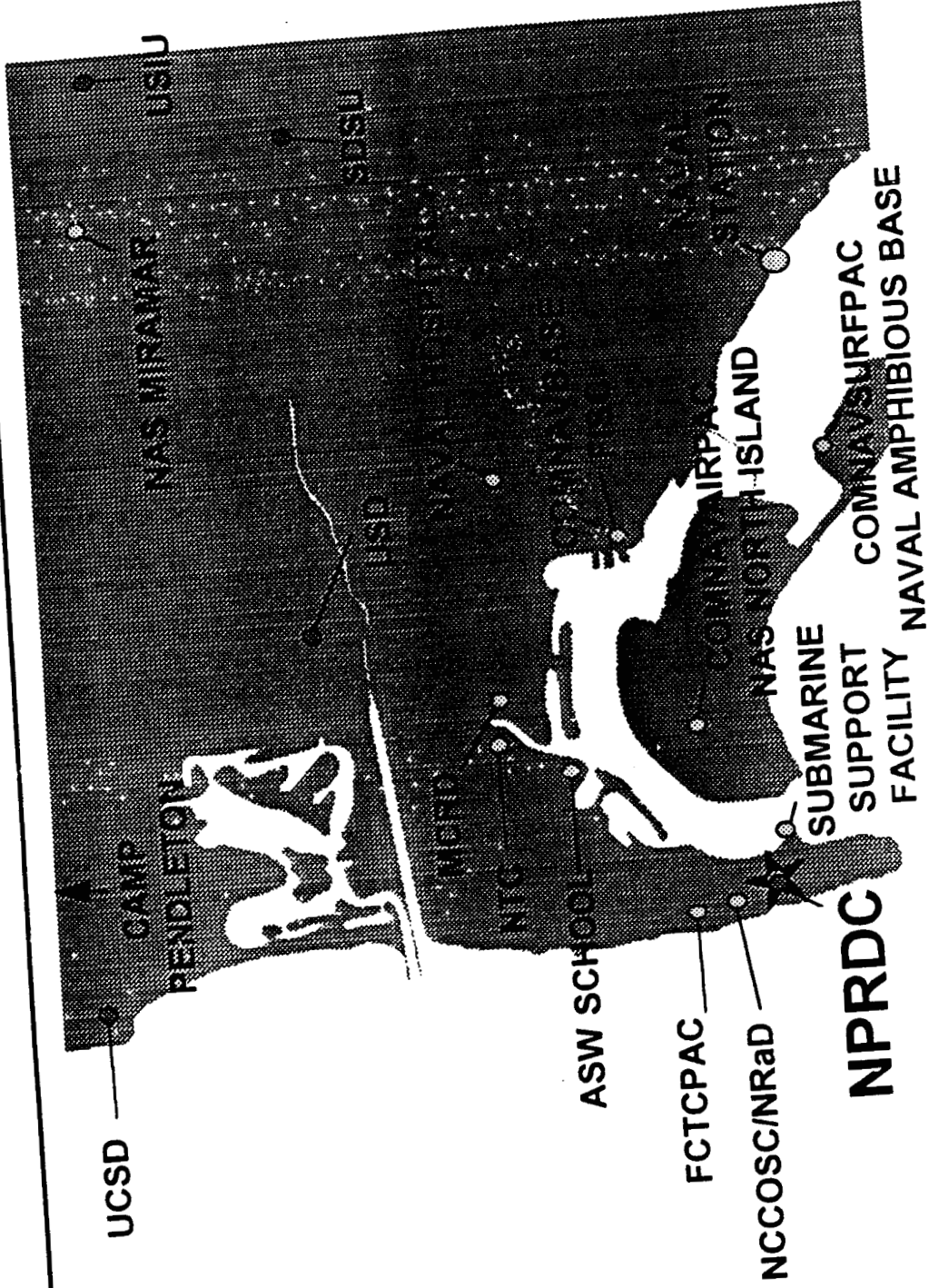


Mission

- To provide products and services specifically directed at improving Department of the Navy
 - Personnel Manpower Requirements
 - Recruiting
 - Testing
 - Selection & Classification
 - Management & Organization
 - Motivation
 - Training
 - Other issues



Major Naval Facilities & Universities in San Diego





NPRDC Funding

FY95 Funding: \$26.7 Million

- **All funding comes in response to project tasking**
- **Navy provides no operating support funds**
- **Funding is expected to grow in FY96-99**



COBRA Estimated Costs and Savings

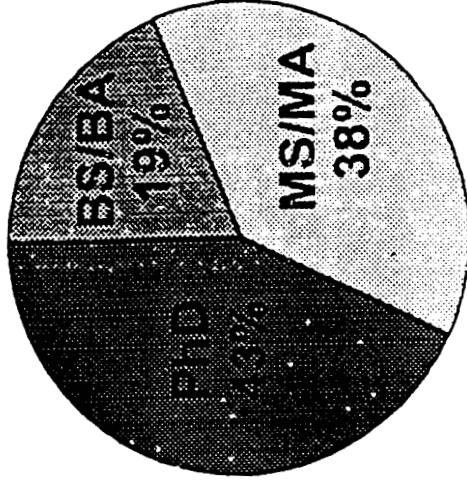
Real Property Maint	\$ 270	\$ -	\$ -
Command Office	270	-	-
ADP Support	300	-	-
Equip Maint	100	-	-
Civ Pers Services	6	-	-
Accounting/Fin	12	-	-
Phone	255	-	-
Other Utilities	245	-	-
Supply & Storage	82	-	-
Training/Awards	75	-	-
Total: BOS Costs/Savings	\$1,615 K	\$234	\$1,381 K
Other Savings			\$544 K



Researcher Skills

- Personnel Research
- Psychologists
- Operations Research Analysts
- Mathematicians
- Statisticians
- Economists
- Computer Scientists/Specialists
- Instructional Technologists
- Military Subject-matter Experts

College Degrees



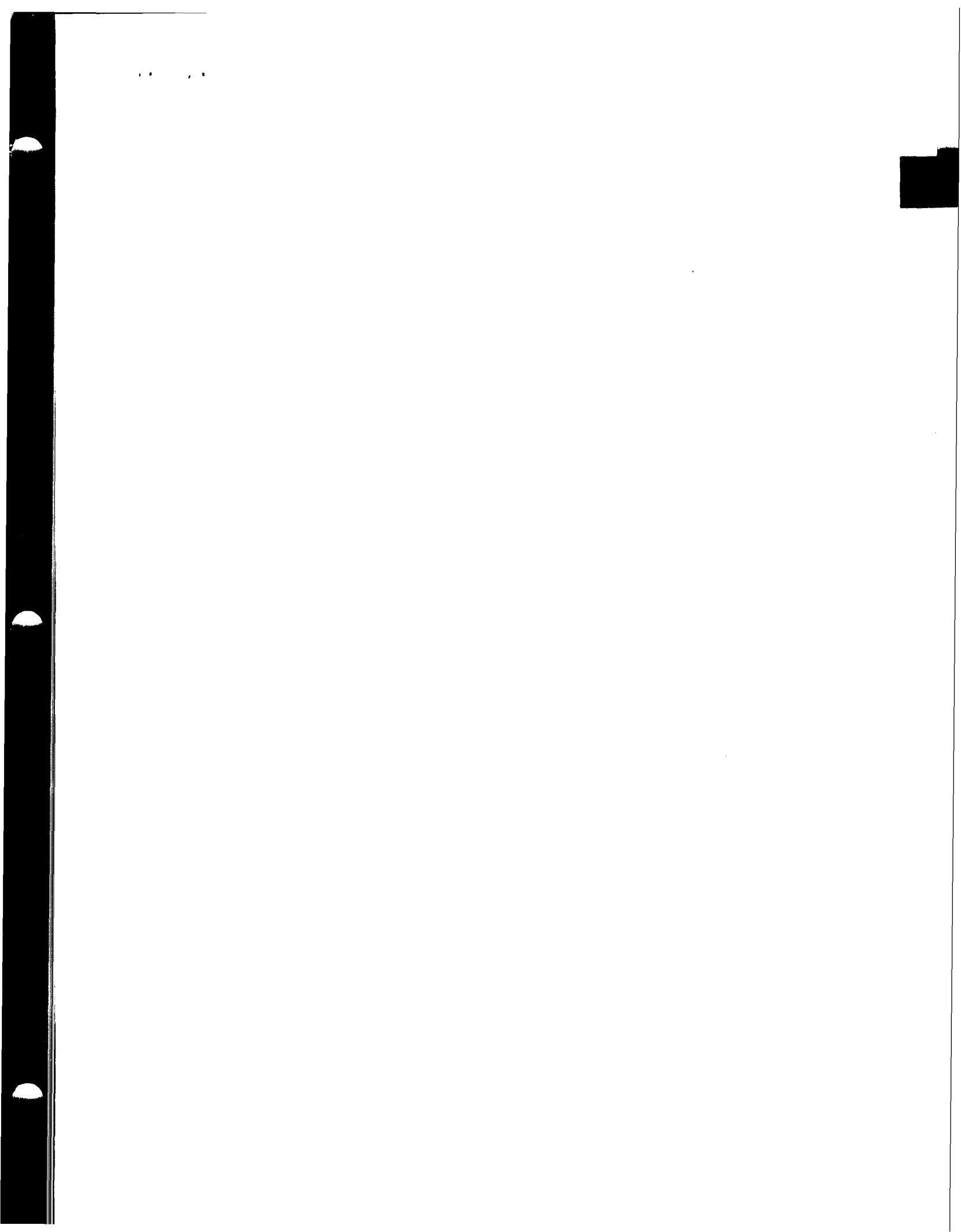
Average Number
of Years at
NPRDC = 15

DOLLARS IN MILLIONS

Number of carriers		Infra-structure cost	Difference from baseline	Recurring annual costs	Difference from baseline
Long Beach	North Island				
0	3	\$546.1	0	\$0.3	0
1	2	706.2	\$160.1	25.4	\$25.1
2	1	739.2	193.1	27.7	27.4
3	0	828.6	282.5	29.7	29.4

Source: Navy

GAO/NSIAD-95-146R Nuclear Carrier Homeporting



Congress of the United States

Washington, DC 20515

April 27, 1995

The Honorable Alan J. Dixon
Chairman
Defense Base Closure and Realignment Commission
1700 North Moore Street
Suite 1425
Arlington, Virginia 22209

Dear Mr. Chairman:

We are writing in support of the Naval Health Research Center and the Navy Personnel Research and Development Center in San Diego. We urge the Commission to closely review these closure recommendations.

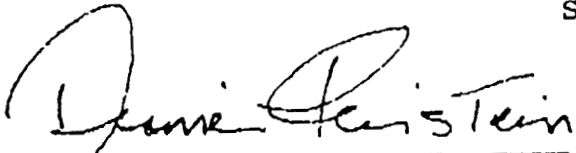
With regards to the Naval Health Research Center (NHRC), there is an apparent discrepancy between Navy and Department of Defense initiatives. As you know, the Navy has recommended the closure of NHRC. Meanwhile, the Defense Department is in the final phase of establishing the Armed Forces Medical Research and Development Agency, which plans to retain the functions of NHRC in San Diego as a separate unit. This unit will also be the headquarters of the Military Operational Medicine Directorate of the Armed Forces Agency. Since the Defense Department planned to retain this facility, we strongly urge the Commission to consider its removal from the base closure list.


In the case of the Naval Personnel Research and Development Center, there are logical reasons for its location in San Diego. Placing these activities away from headquarters but near large fleet concentrations is advantageous to ensure a robust R & D effort and to assist sailors and officers with daily requirements. As for cost savings, the current facility occupies space in a Navy building in San Diego and will likewise occupy Navy space at NAS Memphis. As for its operating budget, the Naval Personnel Center is funded by the customer for whom it performs projects, as it will be at its proposed new location. With no apparent financial savings from the proposed move and with the logical reasons for the Center's location in San Diego, we urge you to consider removing this facility from the base closure list.

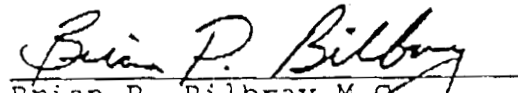
The Honorable Alan J. Dixon
April 27, 1995
Page 2

We appreciate your re-evaluation of the proposed closures of the Naval Health Research Center and the Navy Personnel Research and Development Center in San Diego. Thank you for your attention to this matter.

Sincerely,


Dianne Feinstein U.S.S.


Barbara Boxer U.S.S.


Brian P. Bilbray M.C.

BOB FILNER
50TH DISTRICT, CALIFORNIA

504 CANNON BUILDING
WASHINGTON, DC 20515
TEL (202) 225-8045
FAX (202) 225-8073

333 F STREET, SUITE A
CHULA VISTA, CALIFORNIA 91910
TEL (619) 422-5963
FAX (619) 422-7291



PUBLIC WORKS AND
TRANSPORTATION COMMITTEE

VETERANS' AFFAIRS
COMMITTEE

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES

April 11, 1995

The Honorable Alan J. Dixon
Chairman
Defense Base Closure and Realignment Commission
1700 North Moore St #1425
Arlington, VA 22209

Dear Mr. Dixon:

An important matter has come to my attention regarding your proposal to move the scientists, staff, and biomedical research functions of the Naval Health Research Center from San Diego, California to Millington, Tennessee. This relocation seriously threatens medical research underway at the Center, which does research collaboratively with the School of Medicine at the University of California, San Diego and with San Diego State University--on topics ranging from Gulf War Syndrome, to AIDS, to the health of women sailors and soldiers in the Navy and Marine Corps.

The Naval Health Research Center is a center of excellence, involving approximately 150 scientists and staff. It has a long and distinguished history of research and significant linkages to the academic community. The Center is widely recognized for its work on HIV and AIDS, some of which is being done with input from Dr. Jonas Salk who is located in San Diego. The Center also is conducting the Navy's most comprehensive study to date of women's health, surveying shipboard exposures and illnesses in 10,000 Navy women and male controls.

I have been told that a recent review by the National Academy of Sciences of Gulf War Syndrome studies indicated that only one investigation had notable scientific merit--that study was the major Gulf War Syndrome study that is being conducted by this Naval Health Research Center. As mentioned earlier, this Gulf War Syndrome Study and the Women's Health Study are being conducted in collaboration with the local universities. The Center also collaborates with the Army and Air Force on major projects in the field of women's health, with a strong tri-service orientation.

The Center is currently operated by the Department of the Navy in San Diego, but is slated to be renamed and reconstituted as Armed Forces Medical Research Unit #3 (San Diego) in mid-1996. From that point in time forward, it will be funded through the Department of the Army and other sponsors. Under the terms of this transition from the Naval Health Research Center to Armed Forces Medical Research Unit #3 (San Diego), the Center would continue its important collaborative research on Gulf War Syndrome, HIV, women's health, and other topics. During the interim, the unit would normally remain under the jurisdiction of the Department of the Navy's Bureau of Medicine and Surgery.

The Honorable Alan J. Dixon
April 11, 1995

However, if the Naval Health Research Center is moved to Tennessee before it is reconstituted as Armed Forces Medical Research Unit #3 (San Diego), it will undoubtedly cease to operate. Its success depends on access to the Fleet and on the work of the distinguished scientists who are its principal investigators. Several key investigators have said that they cannot move at this state of their scientific career to a non-medical, non-academic setting distant from the Fleet and the populations they are studying. Several hold joint appointments in the University of California School of Medicine and San Diego State University.

With the Center's demise, the nation's most scientifically accredited study of the Gulf War Syndrome will suffer seriously or will vanish, as will its ongoing work on HIV and women's health. The move to Tennessee is unnecessary, as adequate space has been identified in San Diego for the Center to continue its research, and its funding will continue until it assumes its new role as Armed Forces Medical Research Unit #3 (San Diego). It furthermore has been estimated that the cost of running the Center will be less if it remains in San Diego, since Tennessee is distant from Fleet operations, and considerable more travel support would be needed than if the Center remained at its present location.

The decision to move this Center was predicated on the expectation by BRAC that its workload would be decreased. In fact, Congressional interest in the health status of military women and the Gulf War Syndrome have doubled the workload and funding of this Center during the past three years. The workload of the Center is expected to increase rather than decline in the future.

Please reconsider this proposed move. I would hope that you leave the Naval Health Research Center in place in San Diego under its usual Navy Bureau of Medicine and Surgery supervision, pending its planned transition to Armed Forces Medical Research Unit #3 (San Diego) in 1996.

I would appreciate your response by fax (202-225-9073).

Sincerely,



BOB FILNER
Member of Congress

BF/ss
167436



SUSAN GOLDING
MAYOR

April 26, 1995

Mr. Alan Dixon, Chairman
Base Realignment and Closure Commission
1700 N. Moore Street
Suite 1425
Arlington, Virginia 22209

Chairman Dixon:

I am requesting that your Commission review the closure and relocation decisions of the Navy as they pertain to the Naval Health Research Center and the Navy Personnel Research Development Center from San Diego.

The Naval Health Research Center has been recommended by the Navy for closure. It appears that this action was undertaken due in part to the future establishment of the Armed Forces Medical Research and Development Agency (AFMRDA). However, AFMRDA plans to retain the function of NHRC in San Diego as AFMRDA Unit 3. I ask you, why spend an estimated \$10.4 million to move this unit and another \$800,000 a year for travel to and from San Diego if the sphere of their work is focused on the Navy in San Diego and apparently will continue to be focused here?

The Naval Personnel Research and Development Center (NPRDC) in San Diego was also placed on the closure list. The decision to relocate this facility to Memphis, Tennessee makes no fiscal sense. NPRDC is supported by the customers for whom they perform projects-as they will be if they move to Memphis. If their major customer is the Navy in San Diego, how can the estimated \$7.8 million that it would cost to move them and the annual travel expenditures to and from San Diego prove financially prudent?

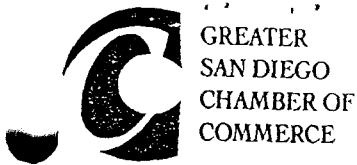
On behalf of the City Council of San Diego, we would appreciate your serious re-evaluation of these two proposed closures.

Sincerely,

A handwritten signature in cursive script that reads "Susan Golding".

SUSAN GOLDING
Mayor
City of San Diego

SG/tj/cw



GREATER
SAN DIEGO
CHAMBER OF
COMMERCE

Emerald Shapery Center
402 West Broadway, Suite 1000
San Diego, California 92101-3585
619. 232. 0124 FAX 619. 234. 0571

A Catalyst for Change

April 25, 1995

The Honorable Alan J. Dixon
Chairman
Base Realignment and Closure Commission
1700 North Moore Street, Suite 1425
Arlington, Virginia 22209

Dear Chairman Dixon:

Two Research and Development Centers located in San Diego are recommended for closure by the Secretary of Defense.

NHRC

The Naval Health Research Center (NHRC) is to be closed and the functions and personnel moved to Memphis, TN, to be integrated into the Bureau of Naval Personnel (BUPERS). NHRC employs approximately 130 civil servants, military officers, and on-site contractors the majority of whom hold advanced degrees in medicine, physiology or psychology. The center is widely known for its work on HIV and AIDS, women's health issues, Gulf War Syndrome, and other military health research. The organization is a unit of the Bureau of Medicine and Surgery (BUMED).

First, the proposal to transfer this military medical function to an administrative headquarters such as BUPERS makes no sense. The work of NHRC is not related (only 3% of their work is done for BUPERS).

Second, the work of NHRC is integrated into the academic and medical fabric of San Diego. Many of the staff hold adjunct teaching positions in the local universities. Approximately 15-20 graduate students are employed at NHRC at any given time. In addition, post-doctoral and summer faculty programs bring in world-class talent.

Third, and most important, while the BRAC side of DoD recommended closure, the Joint side of DoD is busy establishing the Armed Forces Medical Research and Development Agency (AFMRDA) to consolidate all military medical research activity into one organization. NHRC is included in this new organization as AFMRDA Unit No. #3 and as the location for the Military Medicine Operations Division of AFMRDA - both located in San Diego.

Chairman Dixon
April 25, 1995
Page Two

Based on the three points enumerated above, it makes no sense to close NHRC. It should be removed from the base closure list and allowed to transition to its new joint service function.

NPRDC

In 1973, the Navy combined the Navy Personnel and Training Research Laboratory located in San Diego with the Naval Personnel Research and Development Laboratory located within the Bureau of Naval Personnel in Washington, D.C. to form the Navy Personnel Research and Development Center (NPRDC). NPRDC was located on Point Loma in San Diego, California.

The Navy chose San Diego as the site for NPRDC because it offered an unparalleled applied research setting. The San Diego location brought together all manpower, personnel and training researchers in a single location within commuting distance to virtually every type of fleet unit and shore facility. This proximity to the operational Navy would contribute to the success of NPRDC's research program: these ships, squadrons, maintenance facilities, schoolhouses, and medical units represent users of the research products, test beds for technology demonstrations and sources of subjects for research projects.

San Diego was chosen also because it offered a rich academic environment from which NPRDC could draw consultants and graduate students to support its research programs, and provide teaching and learning opportunities for its staff. It was also a site where other Navy R & D was being conducted and where many hi-tech facilities including software and hardware firms could have a significant effect on the ability to produce state-of-the-art MPT research products.

By choosing San Diego, the Navy also wanted to ensure that NPRDC could focus on long-term R & D efforts. Experience with the research activity located in BUPERS suggested that daily headquarters' priorities tended to capture research functions and deploy them on non-R & D tasks. Locating in San Diego provided NPRDC the autonomy necessary to deliver effective research products for the entire Navy and Marine Corps.

The reasons the Navy used to justify the establishment of NPRDC in San Diego are still valid. Splitting it up and moving it to BUPERS in Memphis and to the Training Division in Orlando based on questionable and, in actuality, insignificant savings will destroy the function which is supposedly to be saved.

As far as budget is concerned, NPRDC operates like an independent business within the Navy. It receives no operating budget funds, but instead is funded for each research project. All of its funding comes from customers desiring research services. No funds

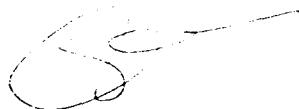
Chairman Dixon
April 25, 1995
Page Three

are received which are targeted to support base operations, salaries, travel, computers, supplies, etc. The funds received depend on the ability to perform high quality research and produce useful, high impact products at a reasonable cost.

Summary

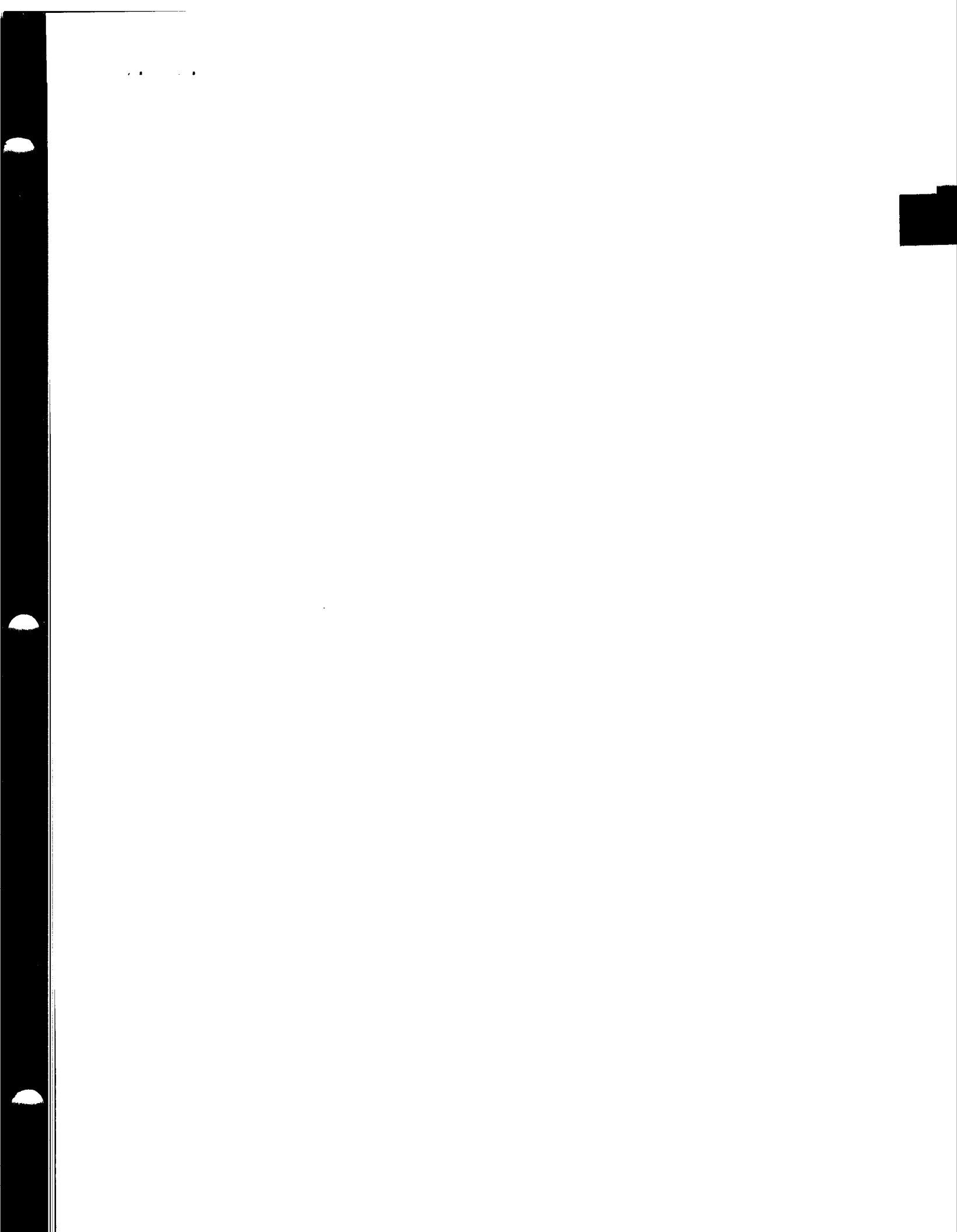
In both these cases, the recommendation is to move functions, not eliminate them. The activities would vacate space in San Diego and require expenditures to provide new space. Since the functions would remain, their costs would remain. With no visible savings, with obvious reasons to remain located in San Diego in order to perform their tasks (a position the Navy has taken for many years), and, in the case of NHRC, the impending transfer to a joint command, it makes little sense to move these two organizations as contemplated by BRAC-95. I urge the Commission to recognize the reality of the situation and retain NHRC and NPRDC in San Diego where they can actually accomplish their research in the very productive way that they have and at the lowest effective cost.

Sincerely,



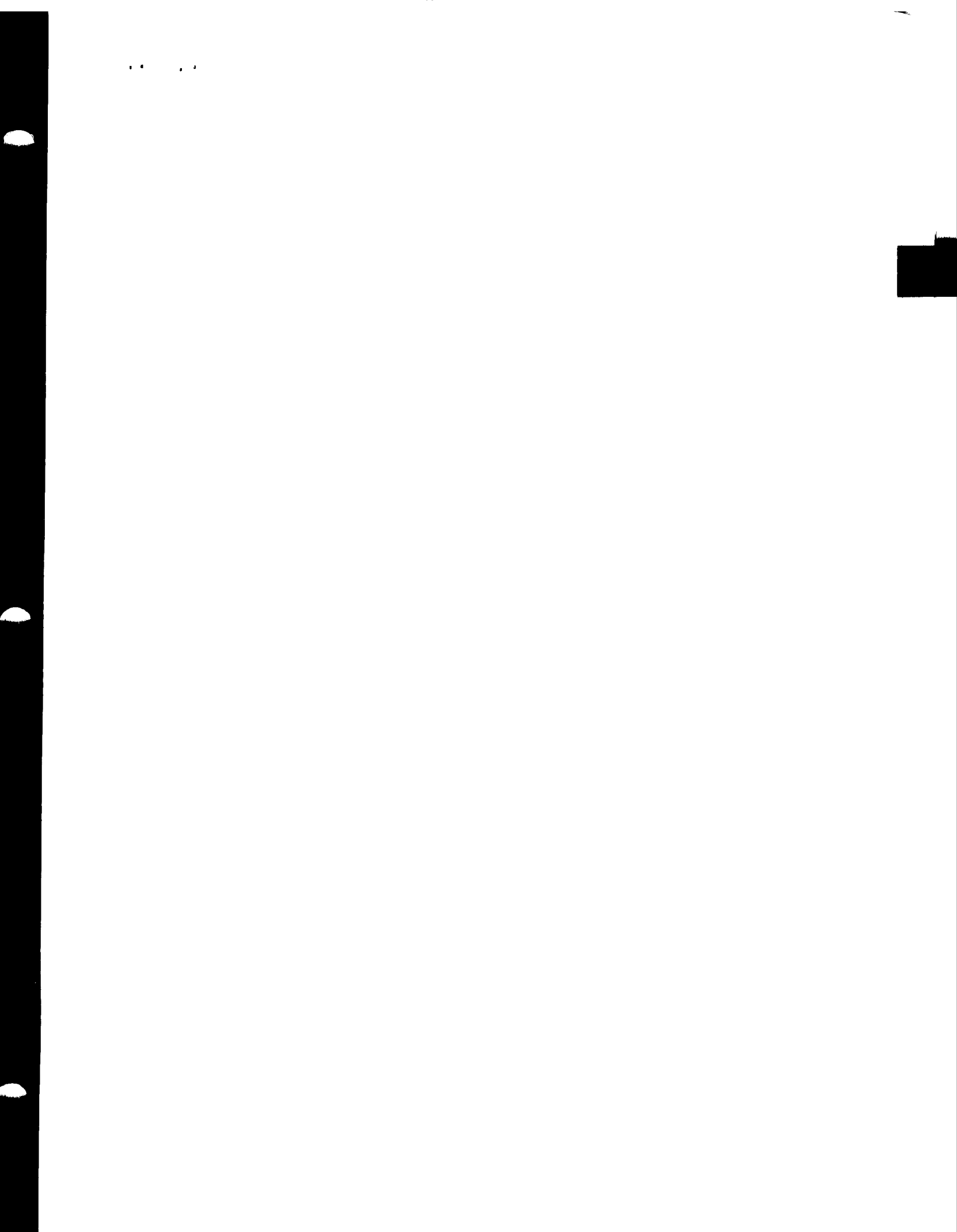
Gilbert A. Partida
President

GAP/psm



Naval Health Research Center Summary Points

- The Mission of NHRC is to support Fleet Readiness thru Research and Development, Testing and Evaluation on the Biomedical and Psychological aspects of Navy and Marine personnel.
- NHRC is a medical field operation which can only carry out its mission in close conjunction with its customers, i.e., fleet and Marine Corps personnel in their operational environment.
- NHRC is being consolidated into a DoD directed tri-service Armed Forces Medical Research and Development Agency. This consolidation realizes the objectives of BRAC-95 while preserving a critical medical capability.
- This DoD agency needs the medical research capabilities of NHRC in San Diego to perform customer linked medical R&D for the western U.S., Hawaii and Pacific Rim.
- A unique synergistic relationship exists with major academic institutions such as University of California, San Diego, San Diego State University and world class medical research facilities such as the Salk Institute and Children's Hospital of San Diego.
- The BSAT was unaware of the DoD consolidation when it made its recommendations.
- Co-location with BUPERS is illogical from the perspectives of geography and command relationships.





OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

NOV 1994

MEMORANDUM FOR SECRETARY OF THE ARMY
SECRETARY OF THE NAVY
SECRETARY OF THE AIR FORCE

SUBJECT: Medical R&D Laboratory Consolidation

On 1 November 1994, we met with the Service Acquisition Executives to review a proposal developed through the Armed Services Biomedical Research, Evaluation and Management Committee (ASBREM), for a jointly staffed, consolidated Armed Forces Medical Research and Development Agency under the Army as Executive Agent. We recommend that this consolidation, depicted in the attachment, be implemented.

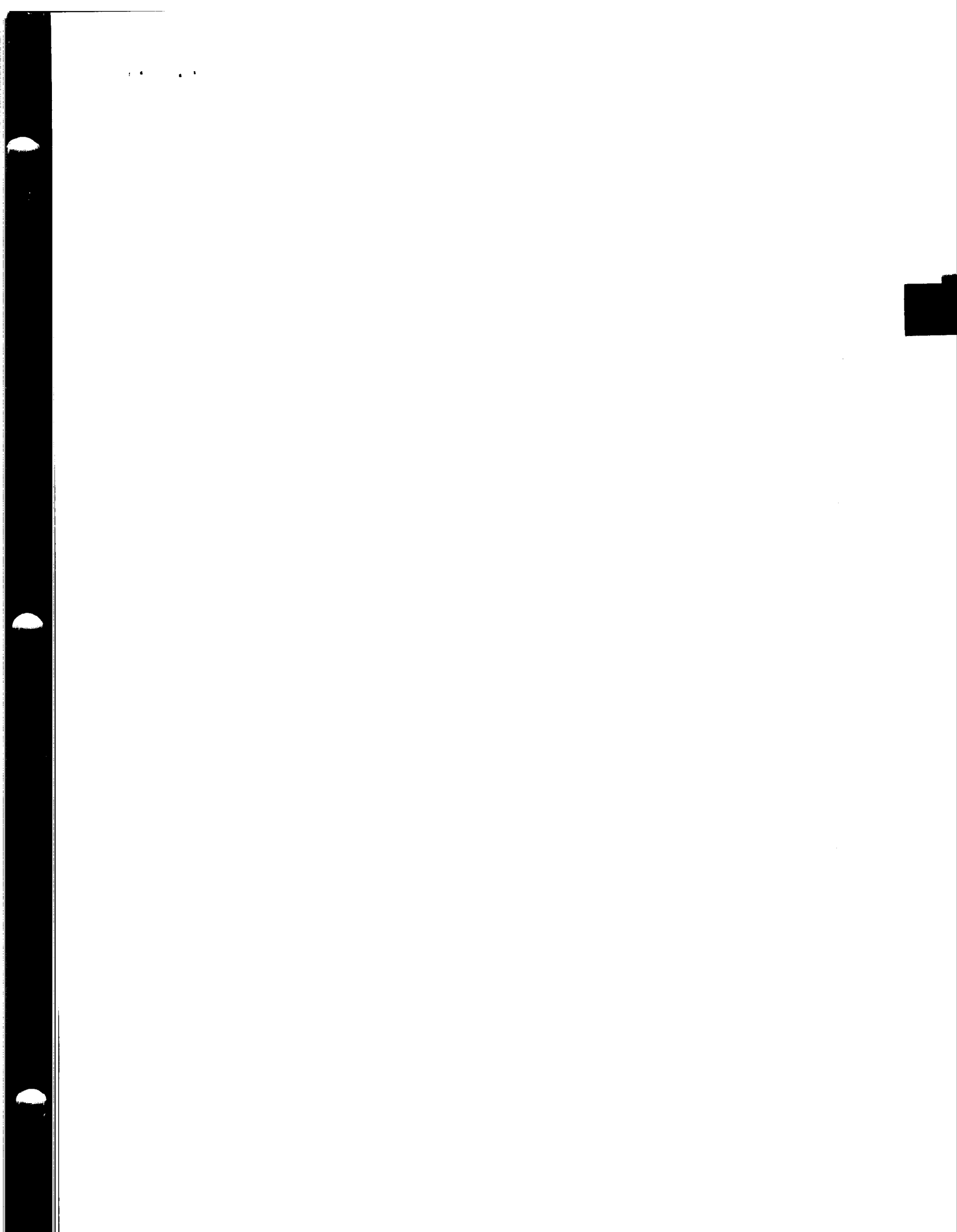
The proposed organization would serve as the single agency for DoD medical R&D, including Military Operational Medicine, as shown in the attachment. Biomedically related research falling outside the defined mission areas and execution responsibility of the new organization would continue to be coordinated by ASBREM, under the DoD Reliance process.

The Military Departments are requested to proceed with the detailed planning, staffing, and review required to effect this consolidation. ASBREM, augmented to reflect the stakeholder interests in the proposed agency, will provide oversight to the planning process. It is our intent that the process proceed as an effort of co-equals, leading to infrastructure reductions while preserving both essential medical R&D capabilities and Service interests.

The proposed medical research laboratory consolidation should be considered by the Military Departments in their BRAC 95 analyses.

Stephen C. Joseph, M.D., M.P.H.
Assistant Secretary of
Defense (Health Affairs)

Anita K. Jones, Ph.D.
Director, Defense Research
and Engineering



**ARMED SERVICES BIOMEDICAL RESEARCH
EVALUATION AND MANAGEMENT
(ASBREM) COMMITTEE
MEDICAL RDA-21
PROJECT OFFICE**

REPORT

**CONSOLIDATION OF
DEFENSE MEDICAL RESEARCH AND
MEDICAL MATERIEL DEVELOPMENT**

NOVEMBER 1994

Subject: ASBREM Medical RDA-21 Project Report

medical materiel acquisition life-cycle plans, programs, and budgets. Existing command-and-control and program management responsibilities for Defense medical RDT&E should be consolidated within the HQ, AFMRDA as the Armed Forces Medical Materiel Development Activity. The AFMRDA program management would be aligned into four management pillars: (1) Medical NBC Defense, (2) Combat Casualty Care, (3) Military Operational Medicine, and (4) Military Infectious Disease Research. Medical Materiel development should continue to be the responsibility of the Army Medical Materiel Development Activity, but it should be realigned under the AFMRDA. The AFMRDA structure (TAB 7) should consist of a Headquarters with the four management pillars (e.g., research directorates), a development activity, field research divisions aligned in support of the directorates, and medical research units managed separately from the research functions they support. Headquarters and Directorate staff requirements should be minimized through outsourced technical and analytical support. The missions and functions of the four directorates are shown at TAB 8. Organizational detail, laboratory, and BRAC impacts are displayed in Table 3.

Table 3. ASBREM Medical RDA-21 Project Office Proposal

Organization	Status	Proposal
HQ, Armed Forces Medical R&D Agency	<ul style="list-style-type: none"> • Does not exist 	<ul style="list-style-type: none"> • Establish at Fort Detrick, MD • Establish Army Acquisition Executive as DoD Executive Agent • Collocate with HQ, USAMRMC in new HQ Building planned in Army MEDCOM MCA program • Consolidate Army, Navy and AFRRRI command and control • Consolidate DoD medical RDT&E program management aligned into four Directorates: Medical NBC Defense, Military Operational Medicine, Combat Casualty Care, and Military Infectious Diseases Research; and designate Director as PM with DoDD 5000 series responsibility and authority for Defense Medical Materiel
HQ, U.S. Army Medical Research and Materiel Command	<ul style="list-style-type: none"> • Subordinate Command, U.S. Army MEDCOM • Army medical RDA management HQ 	<ul style="list-style-type: none"> • Disestablish & consolidate R&D management functions in HQ, AFMRDA • Retain Army medical materiel acquisition & logistics functions at USAMRMC and collocate with HQ, AFMRDA

Subject: ASBREM Medical RDA-21 Project Report

Organization	Status	Proposal
HQ, Naval Medical Research and Development Command	<ul style="list-style-type: none"> • Navy medical RDT&E management HQ 	<ul style="list-style-type: none"> • Disestablish & consolidate RDT&E management functions in HQ, AFMRDA
U.S. Army Medical Materiel Development Activity	<ul style="list-style-type: none"> • Defense medical materiel developer for Army and Joint requirements • BRAC 91 consolidation site for medical materiel research 	<ul style="list-style-type: none"> • Disestablish and re-establish as the AFMRDA Medical Materiel Development Activity & Deputy PM for Medical Systems
Armed Forces Radiobiology Research Institute	<ul style="list-style-type: none"> • DoD Component lab for ionizing radiation bioeffects S&T 	<ul style="list-style-type: none"> • Disestablish command & control (C&C) and management of program (MP) functions and consolidate C&C functions with HQ, AFMRDA - MP in NBC Directorate • Establish Armed Forces Medical Research Unit (AFMRU) - 1 at AFRI to sustain S&T capabilities
Naval Aeromedical Research Laboratory	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Military Operational Health technology focus 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish as Field Office of AFMRU-9 to sustain customer linked medical R&D capabilities in Division of Health & Performance
Naval Biodynamics Laboratory	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Military Operational Health technology focus 	<ul style="list-style-type: none"> • Disestablish and close
Naval Dental Research Institute	<ul style="list-style-type: none"> • Naval medical RDT&E lab • To accommodate Army program (BRAC 91) as collocation • Military Dentistry technology focus 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Combat Casualty Care Directorate • Establish AFMRU-2 at Great Lakes • Consolidate Army and Navy program execution • Become part of Division of Maxillofacial Trauma and Dental Disease Prevention and Treatment

Subject: ASBREM Medical RDA-21 Project Report

Organization	Status	Proposal
Naval Health Research Center	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Conducts medical RDT&E in Infectious Diseases, Mil Op Health and Combat Casualty Care technology areas 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish AFMRU-3 to retain customer linked R&D capabilities in Divs of Health & Performance and Environmental Medicine
Naval Medical Research Institute	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Conducts medical RDT&E in Infectious Diseases, Medical Biological Defense, Mil Op Health, and Combat Casualty Care technology areas • BRAC 91 collocation site for Army blood research 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate; Combat Casualty Care Directorate, and Infectious Diseases Directorate • Consolidate medical RDT&E functions at new Forest Glen lab (AFMRU-9)
Naval Submarine Medical Research Laboratory	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Conducts medical RDT&E in Mil Op Health technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish AFMRU-17 to sustain customer linked medical R&D capabilities in Div of Health & Performance
Army Aeromedical Research Laboratory	<ul style="list-style-type: none"> • Army medical RDT&E lab • Conducts medical RDT&E in Mil Op Health technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish AFMRU-4 to sustain customer linked medical R&D capabilities in Divs of Health & Performance and Systems Health Hazards

Subject: ASBREM Medical RDA-21 Project Report

Organization	Status	Proposal
Army Medical Research Institute of Chemical Defense	<ul style="list-style-type: none"> • Army medical RDT&E lab • Conducts medical RDT&E in Medical Chemical Defense and Medical Biological Defense technology areas 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in NBC Directorate • Establish AFMRU-5 to sustain medical RDT&E capabilities in Div of Chemical Defense
Army Dental Research Detachment	<ul style="list-style-type: none"> • Detachment of WRAIR • To collocate with NDRI (BRAC 91) 	<ul style="list-style-type: none"> • Consolidate with AFMRU-2 • Becomes part of the Division of Maxillofacial Trauma and Dental Disease Prevention and Treatment
Army Research Institute of Environmental Medicine	<ul style="list-style-type: none"> • Army medical RDT&E lab • Conducts medical RDT&E in Mil Op Health technology area • BRAC 91 collocation site for Air Force heat physiology research 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish AFMRU-6 to sustain customer linked medical R&D capabilities in Divs of Health & Performance and Environmental Medicine
Army Medical Research Institute of Infectious Diseases	<ul style="list-style-type: none"> • Army medical RDT&E lab • Conducts medical RDT&E in Infectious Diseases and Medical Biological Defense technology areas 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in NBC Directorate • Establish AFMRU-7 to sustain medical RDT&E capabilities in Div of Biological Defense
Army Institute of Surgical Research	<ul style="list-style-type: none"> • Army medical RDT&E lab • Conducts medical RDT&E in Combat Casualty Care technology Area • Moves into new building adjacent to new Brooke Medical Center • BRAC 91 consolidation site for Army trauma research 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Combat Casualty Care Directorate • Establish AFMRU-8 to sustain medical RDT&E capabilities in Divs of Mechanical Trauma & Burn Injury

Subject: ASBREM Medical RDA-21 Project Report

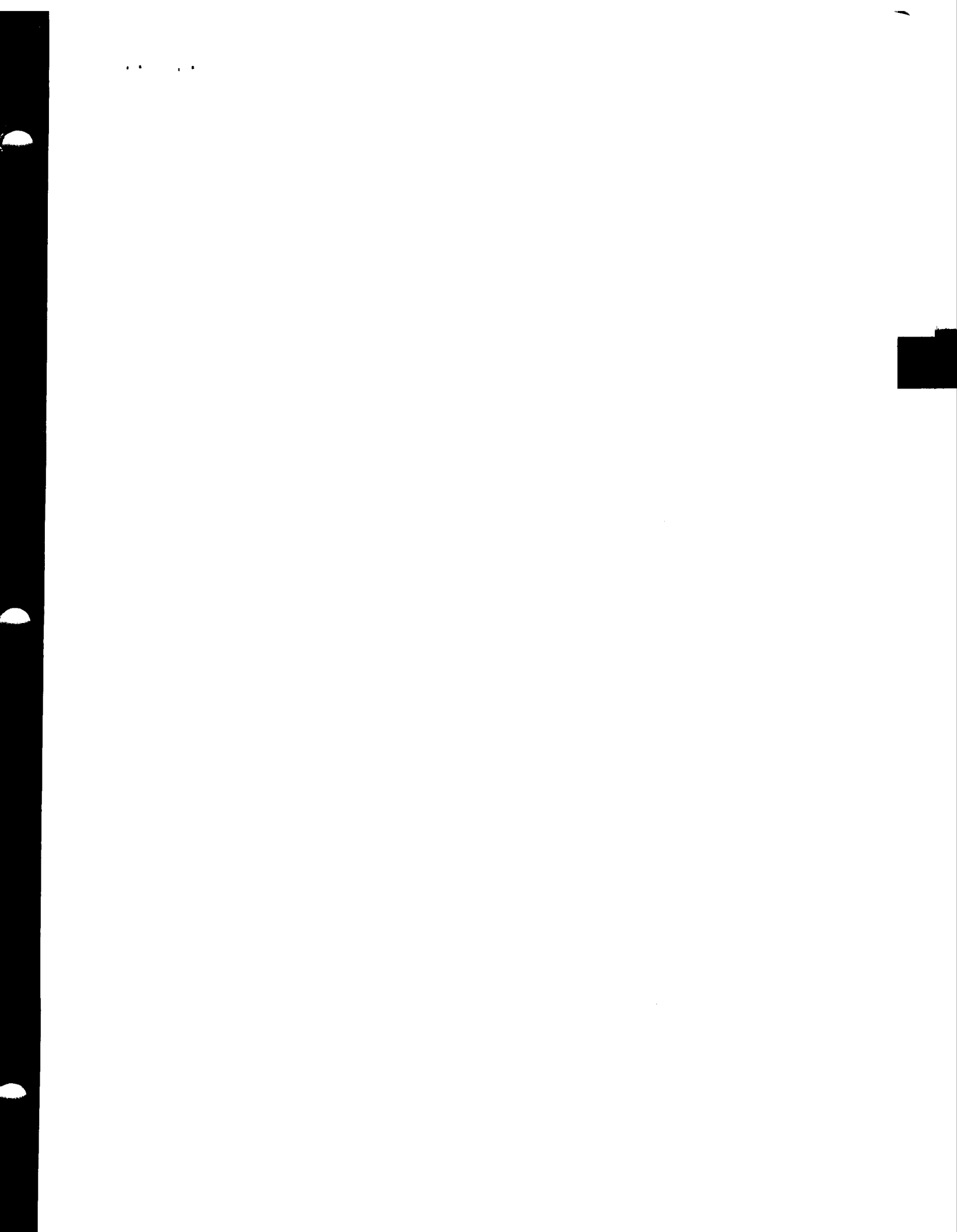
Organization	Status	Proposal
Walter Reed Army Institute of Research	<ul style="list-style-type: none"> • Full spectrum Army medical RDT&E lab • Conducts medical RDT&E in all Defense medical technology areas 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases, Combat Casualty Care, and Mil Op Medicine Directorates • Consolidate and sustain medical RDT&E capabilities at AFMRU-9 (under construction to replace existing WRAIR) at Forest Glen lab
OVERSEAS LABORATORIES & DETACHMENTS †		
Naval Medical Research Unit -2 (Indonesia)	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-10 and sustain medical RDT&E capabilities
Naval Medical Research Unit-3 (Egypt)	<ul style="list-style-type: none"> • Naval medical RDT&E lab • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-11 and sustain medical RDT&E capabilities
Armed Forces Research Institute of the Medical Sciences - WRAIR SFA (Thailand)	<ul style="list-style-type: none"> • Army medical RDT&E detachment • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-12 and sustain medical RDT&E capabilities

Subject: ASBREM Medical RDA-21 Project Report

Organization	Status	Proposal
WRAIR-SFA (Kenya)	<ul style="list-style-type: none"> • Army medical RDT&E detachment • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions (WRAIR) and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-13 and sustain medical RDT&E capabilities
WRAIR-SFA (Brazil)	<ul style="list-style-type: none"> • Army medical RDT&E detachment • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions (WRAIR) and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-14 and sustain medical RDT&E capabilities
WRAIR-SFA (Germany)	<ul style="list-style-type: none"> • Army medical RDT&E detachment • Conducts medical RDT&E in Mil Op Health technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions (WRAIR) and consolidate C&C functions with HQ, AFMRDA - MP in Mil Op Medicine Directorate • Establish AFMRU-15 and sustain medical RDT&E capabilities
Naval Medical Research Detachment (Peru)	<ul style="list-style-type: none"> • Naval medical RDT&E detachment • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish C&C and MP functions (NMRI) and consolidate C&C functions with HQ, AFMRDA - MP in Infectious Diseases Directorate • Establish AFMRU-16 and sustain medical RDT&E capabilities
Naval Medical Research Detachment (Kenya)	<ul style="list-style-type: none"> • Naval medical RDT&E detachment • Conducts medical RDT&E in Infectious Diseases technology area 	<ul style="list-style-type: none"> • Disestablish and close • Consolidate functions under AFMRU-13

*Realignment of OCONUS activities requires coordination with CINCs and Department of State

II.b.3 Resource Management. Subject to ASBREM Board guidance and approval, the HQ, AFMRDA should be responsible for development of Defense Medical Materiel Modernization Plans that are fully responsive to, and relevant sections integrated with, OSD and Military Department modernization and master plans and the Defense Technology Area Plan.



7 Apr 95
CAPT Robert Carter
Medical R&D consolidation office
Ft Detrick, MD
(301) 619-7217 (DSN 343)

ISSUE: What is the role of the Naval Health Research Center (NHRC), San Diego, in the consolidation of all military medical R&D into the Armed Forces Medical R&D Agency (AFMRDA)?

BACKGROUND:

- Consolidation being coordinated through Armed Services Biomedical Research Evaluation and Management Committee, established by congress in 1980.
- Consolidation endorsed by USD(A), ASD(HA), DDR&E, Service Assistant Secretaries RDA, and Service Surgeons General.
- Objective: maintain essential medical R&D capabilities not available from other sources while reducing redundancy and unifying the DOD medical R&D facility chain of command.
- NHRC provides unique capability:
 - to medical fleet support and medical readiness (e.g., casualty rate projection, epidemiologic health threat R&D, medical/dental allowance list development)
 - to operating forces (e.g., biomedical R&D for special forces, injury reduction R&D, deployable expertise)
 - to Navy BUMED (e.g., Navy HIV data base, organizational policy support, smoking cessation R&D, and health promotion R&D)
- NHRC's value is dependent upon location in San Diego; it is the only DOD medical R&D facility on the west coast!
 - proximity to multiple operational and training communities
 - ties to necessary data bases (took decades to establish)
 - access to assets/support at Navy teaching hospital and environmental & preventive medicine unit
 - liaison with CINC and TYCOMs re: medical R&D requirements
- Consolidated DOD medical R&D will need NHRC-like capability in San Diego.

DISCUSSION:

- Alternative cities are unsuitable to sustain NHRC capability (e.g., Memphis TN, Natick MA, Forest Glen MD) in AFMRDA.
- Availability of other facilities in San Diego would enable NHRC to vacate barracks per BRAC; however, these barracks are not affected by BRAC-95 actions.

RECOMMENDATION: Sustain NHRC-like capability in the San Diego area and consolidate it within the Armed Forces Medical R&D Agency.

AFMRDA point paper

7 Apr 95
CAPT Robert Carter
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Ft Detrick, MD
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RECOMMENDATION: Sustain NHRC-like capability in the San Diego area and consolidate it within the Armed Forces Medical R&D Agency.

AFMRDA point paper

Information Paper

Naval Health Research Center

Issue: BRAC-95's recommendation and justification for closure of the Naval Health Research Center (NHRC), and for relocation of NHRC functions and personnel outside the Navy medical organization, are inconsistent with technical capabilities now residing at NHRC and with the RDT&E mission currently performed by that laboratory.

Reference: DON BRAC-95 Analysis and Recommendations, Attachment X-17.

Background: BRAC-95 recommends disestablishment of NHRC, and relocation of necessary functions, personnel, and equipment to the Bureau of Naval Personnel (BUPERS) at Memphis, TN.

BRAC-95's justification for disestablishment and relocation of NHRC includes anticipated reduction in technical center workloads; subsequent excess capacity for technical center activities; and alignment of laboratory personnel and performance-related research activities with BUPERS, the "principal organization responsible for Naval military personnel and the primary user of the laboratory's RDT&E products."

Closure of the NHRC laboratory is a reasonable course of action, but it is important to maintain a medical research and development capability in the San Diego area. Medical scientists currently employed at NHRC are engaged in efforts to enhance the health and safety of Naval and Marine Corps forces in land, sea, and special warfare operational environments. This unique RDT&E program involves frequent, close interaction with the medical community and various Naval operational forces.

Recommendation:

- Preserve medical RDT&E assets, now located at NHRC, within the medical community.
- Maintain this medical RDT&E effort in the San Diego area.
- Disestablish NHRC through the medical laboratory consolidation plan jointly developed by ASD(HA), DDR&E, Service Acquisition Executives, and Services Surgeons General. This plan will establish an Armed Forces Medical Research and Development Agency (AFMRDA), consolidating essential Service medical RDT&E capabilities into a single medical R&D organization.

DoD print page

Discussion:

- The medical RDT&E mission currently performed in San Diego will not be affected by the downsizing of local Navy operational commands

Decreases in Navy operational activities in the San Diego area will not reduce the essential RDT&E workload now being performed, or cause subsequent excess capacity for these activities. This medical RDT&E effort, unlike the technical efforts of many Navy R&D technical centers, is not funded through Navy Industrial Funding, and does not depend on local Navy activities to maintain either funds or taskings. The great majority of RDT&E funds for this program comes directly from Navy research and development accounts. The essential medical RDT&E mission now assigned to NHRC can be fully executed in San Diego, despite a down-sized local operational force. The program depends on interaction with a representational cadre of Navy operational personnel, and this group will continue to be available in the San Diego area after Navy downsizing is complete.

- Medical technologies are distinct from BUPERS' manpower/personnel technologies

BRAC-95 is accurate in noting a similarity between some activities within the medical program and the performance-related research activities of BUPERS. However, medical RDT&E efforts and BUPERS' research elements are not interchangeable. The medical program at NHRC is not equipped or staffed to conduct the manpower and personnel initiatives commonly carried out within the mission of BUPERS. DDR&E's science and technology management structure recognizes the fundamental distinction between medical and manpower/personnel technologies.

The medical RDT&E program conducted in San Diego is based on biomedical technologies and must remain aligned with the medical community for effective execution. Currently, the program at NHRC interacts actively with local medical organizations, such as Naval Medical Center San Diego and Naval Environmental Preventive Medicine Unit 5. These associations allow for collaborative sharing of medical expertise, and integration of Navy medical RDT&E with both the clinical and the preventive and environmental medicine communities. These linkages are critical to the success of RDT&E efforts in epidemiology, occupational health, and HIV surveillance.

- Navy operational forces, not BUPERS, are the primary users of medical RDT&E products

BUPERS is a beneficiary of some medical research activities, but primarily through the impact of medical research products on military personnel, within their operational environments. Major

customers of the medical RDT&E program include fleet medical officers, PACFLT, SPECWAR, and the Fleet Marine Force.

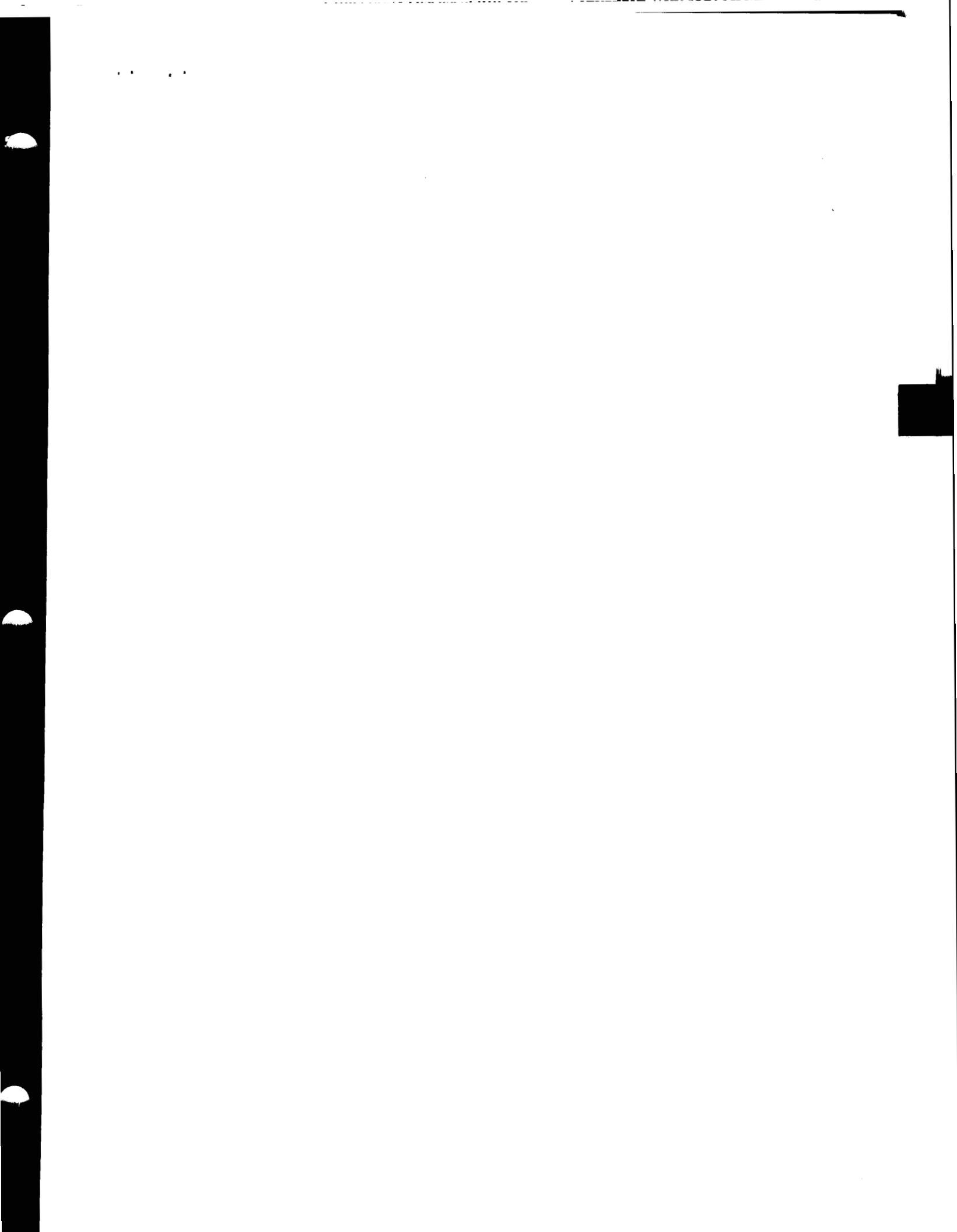
Frequent interactions with fleet medical officers are required for the medical RDT&E efforts, such as: shipboard health promotion; medical evacuation at sea; training of shipboard independent duty hospital corpsmen; health care requirements for women at sea; behavioral interventions to reduce sexually transmitted diseases during deployment; and telemedicine.

Similarly, coordination with fleet and Marine operational units is required for medical RDT&E efforts concerning, for example: heat stress aboard ship; cold weather field studies; physical readiness standards for specific operational communities; injury analysis and intervention; combat casualty documentation; and soft tissue injury assessments. Access to the SEAL community, and to a unique SEAL Delivery Vehicle simulator, is essential for studies concerning underwater hypothermia, SEAL performance enhancement, and biomedical protective equipment.

Maintaining the association of the medical RDT&E program and fleet medical, PACFLT, SPECWAR, and FMF operational forces is essential for ensuring end-product utility, customer acceptance, and transition of research products. The program requires a close proximity to training facilities, ships, submarines, aircraft, shore-based commands, and command and control facilities. Location of the program in the San Diego area allows cost-efficient access to these essential Navy operational groups; attempting to achieve this interaction from Memphis, TN, would be cost-prohibitive.

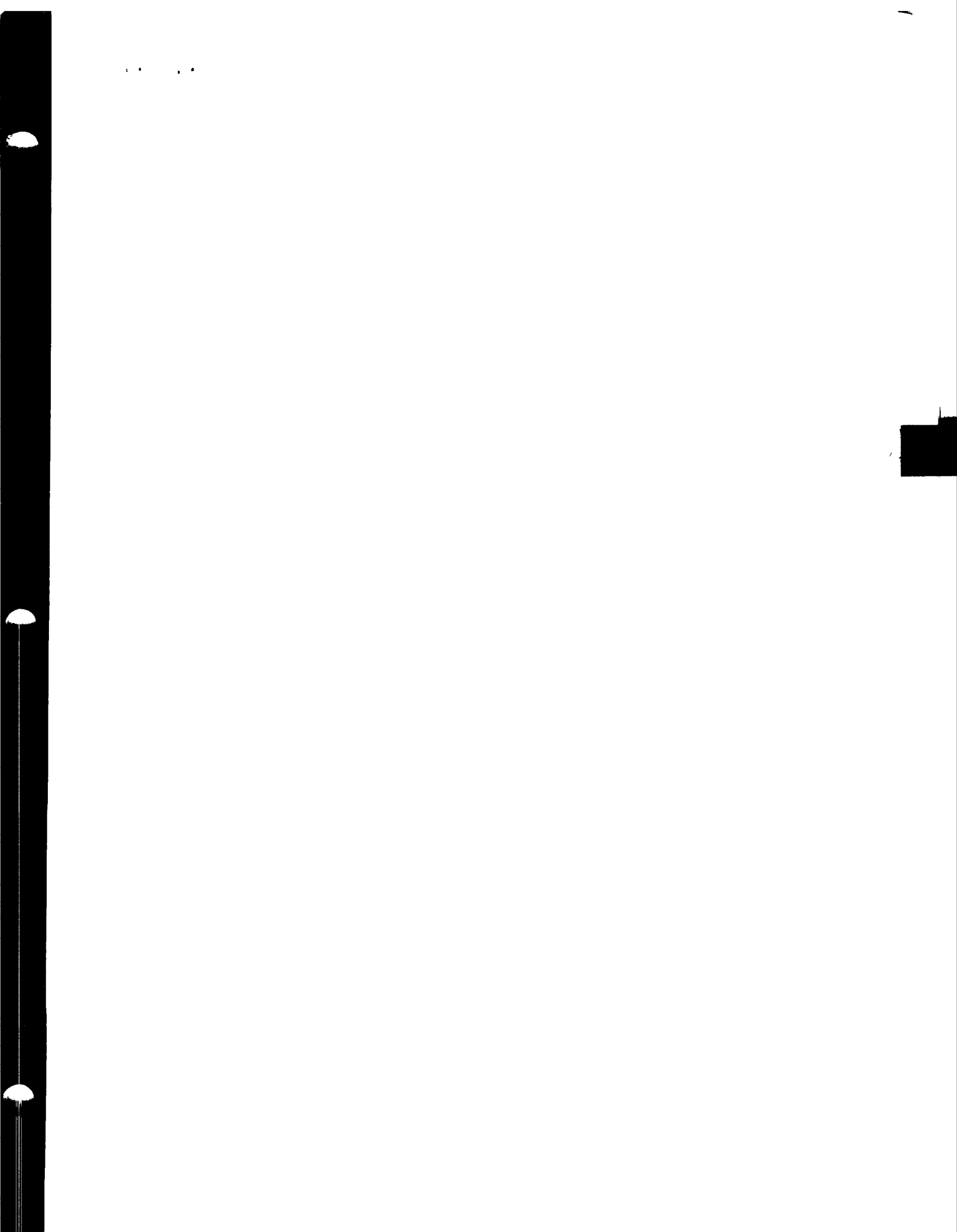
- Maintenance of essential medical RDT&E capability and disestablishment of NHRC can be accomplished through plans already established by DoD's medical and RDT&E leadership

The medical RDT&E capability and resources now located in San Diego are critical to DoD's biomedical RDT&E program. The AFMRDA plan developed by DoD's medical and RDT&E leadership includes disestablishing NHRC but retaining essential operational medical RDT&E capabilities and vital interactions with the San Diego-based Fleet, Special Forces, and Fleet Marine Corps. This approach will enable continued development of meaningful products for the Navy operational community, and accomplish the economies intended by the initial BRAC recommendation.



The Naval Personnel Research and Development Center Summary Points

- The mission of the Naval Personnel Research and Development Center is to conduct applied research in manpower, personnel and training for the Navy and the Marine Corps. The development of improved recruiting, retention, training, and unit cohesion techniques is a primary focus of the efforts of NPRDC.
- The location of the Center in San Diego puts the researchers close to the prime users of its products...The Fleet.
- Retention of NPRDC in San Diego is a prudent decision, because of the proximity of the customers, synergy with related private sector assets and questionable savings.
- NPRDC was created in San Diego, because of the sheer size of the Navy in San Diego, institutes of higher education and high tech companies that are located here. San Diego is the only location that offers these.





DEPARTMENT OF THE NAVY

BUREAU OF NAVAL PERSONNEL

WASHINGTON, D.C. 20370

*cc - JTC
C. H. R. K*

IN REPLY REFER TO
Pers-A3p-jz
Ser: A3/186
3 NOV 1972

From: Chief of Naval Personnel
To: Chief of Naval Operations

Subj: Establishment of Naval Manpower, Personnel and Training Research
and Development Center

Ref: (a) OPNAVINST 5450.169A

Encl: (1) CNP Memo Pers-A3/154 of 2 Aug 1972
(2) Fact and Justification Form

1. The Bureau of Naval Personnel RDT&E effort is currently conducted at the Naval Personnel Research and Development Laboratory, Washington, D. C. and at the Naval Personnel and Training Research Laboratory, San Diego. Agreement has been reached with ASN(R&D) and OP-98 to consolidate the two BuPers laboratories into a Center located in San Diego as indicated in enclosure (1).

2. For the reasons outlined in enclosure (2) and in accordance with reference (a) it is proposed that a Naval Manpower, Personnel and Training Research and Development Center located at San Diego be established. It is further requested that the proposed Center be established in January 1973. The phased consolidation is planned for completion by July 1973.

*Correspondence
and backup
for establish-
ing NPRDC
1972*

DAVID H. BAGLEY

Fact Sheet On: Naval Manpower, Personnel and Training Research and Development Center, San Diego, California

Background

The Bureau of Naval Personnel (BuPers) has developed a research capability to support the areas of manpower requirements determination, personnel administration and training. This capability was developed since World War II at two activities located in Washington, D. C. and San Diego, California. In December 1968 the Washington activity was established as the Naval Personnel Research and Development Laboratory, and in August 1969 the San Diego activity became the Naval Personnel and Training Research Laboratory. At the request of the Deputy Chief of Naval Operations (Development), advice and guidance of the Navy Research Advisory Committee (NRAC) was provided to facilitate development of the laboratories into highly productive and scientifically oriented components of the Navy laboratory system.

As a result of the NRAC recommendations and review by the Assistant Secretary of the Navy (Research and Development); Director, Research, Development, Test and Evaluation (CNO); and the Chief of Naval Personnel, agreement was reached to consolidate the two BuPers laboratories into a Center with headquarters at San Diego as part of a broader concept of a total Navy manpower, personnel and training research capability responsive to Navy-wide "people" requirements.

Mission

To conduct a Navy-wide program of analysis, research, development, test, evaluation, systems integration, and fleet support in behavioral sciences, principally for manpower, personnel, education and training, and to conduct investigations into related fields of science and technology.

Nature of Action

Recommended action is requested to establish a Naval Manpower, Personnel and Training Research and Development Center at San Diego effective not later than January 1973. Begin phased transfer of functions, and 170 civilian and military personnel from Naval Personnel and Training Research Laboratory, San Diego to the Center in January 1973. The Center will temporarily occupy the current spaces and facilities of the San Diego Laboratory plus three additional barracks type buildings. Complete transfer of functions and personnel to Center at San Diego by July 1973 and disestablish Naval Personnel and Training Research Laboratory. Begin phased transfer of research and development functions and 85 civilian and military personnel from BuPers and the Naval Personnel Research and Development Laboratory, Washington, D. C. (located at Navy Yard) to the Center at San Diego beginning in January 1973.

Concurrently, complete transfer of remaining operational functions and 97 civilian and military personnel from Naval Personnel Research and Development Laboratory to Naval Personnel Program Support Activity, Washington by July 1973 and disestablish Naval Personnel Research and Development Laboratory, Washington. All recommended actions for the foregoing are planned to be effected by July 1973.

Reasons for Action

There is a long term need for a Navy manpower, personnel and training research and development to be elevated in level of effort, broadened in scope, strengthened in quality, coordinated as a total Navy capability and responsive to Navy-wide requirements. The consolidation of the two BuPers laboratories into a Center near the fleet and other Navy activities is a constructive step in this direction.

The following reasons are submitted in support of the proposed action:

(a) Provides for more efficient use of available resources by putting professional staff in one location where greatest cross utilization of research talent can be achieved and possible duplication of effort eliminated

(b) Provides for a clear distinction between functions by putting research in a separate location from operational (non-research) functions.

(c) Provides effective use of available resources by allowing concentrated effort to be applied to the Navy's critical personnel and training problems at a time when the All Volunteer Force is being established.

(d) Reduces the number of Navy employees in the National Capitol area, and puts researchers closer to the prime users of the research product -- the fleet.

(e) Provides for greater economy of operation by reducing administrative overhead, requiring only one administrative department, one statistical department, computer facility, and library. Estimated annual savings of \$289,347.

(f) Meets the need for an improved, autonomous, scientific personnel RDT&E laboratory. The proposed action will provide elevation in status and functions, professional development, responsibility, authority and visibility by concentrating effort in one Center.

(g) Reduces echelons of review and evaluation. By providing the Center with increased management authority and responsibility and reducing headquarters management staff, the proposed action will eliminate non-essential review echelons, reduce management workload, maximize RDT&E capability, and enhance the quality and timeliness of research results.

(h) Responds more effectively to personnel, training, and manpower needs of the Department of the Navy. Navy-wide goals, objectives and requirements relating to manpower and training programs require continuing personnel research. The proposed action will enable the Center to coordinate and integrate personnel research more effectively, increase interaction with the Navy's RDT&E community, plan programs and evaluate resources to meet needs, and expedite necessary decisions and implementation.

(i) Provides better and more effective program management, and will enable the Center to assist and advise higher echelons more objectively on all matters concerning manpower, personnel, education and training programs and policies.

(j) Creates a strong single research center with field offices close to consumers at Memphis and Norfolk and possible other East coast locations.

(k) Provides a suitable location to attract and retain professional personnel including an attractive civilian community, environment conducive to R&D, and close to colleges and universities, major transportation facilities, quality school systems, and excellent recreational facilities. In addition, the Center will be close to many consumers - naval and fleet facilities and other laboratories.

Impact of the Action

The formation of the Naval Manpower, Personnel and Training Research and Development Center will have little geographic impact on the Naval Personnel and Training Research Laboratory, San Diego since many of the functions and personnel will be transferred to the Center in the same location. The Center will occupy the space and facilities of the present laboratory plus additional space expected to be provided by the host activity. The Naval Personnel Research and Development Laboratory, Washington will transfer approximately 35% of its staff to the Center at San Diego. It is estimated that 15% of the Washington Laboratory staff would not choose to transfer to the Center. Fifty percent will remain in Washington at the Naval Personnel Program Support Activity and occupy a proportionate amount of the space at the Navy Yard; the remaining space will be available for other use. There will be no direct impact on the operating forces.

Personnel Data

a. For proposed Naval Manpower, Personnel and Training Research and Development Center, San Diego

(1) Civilian. The planned civilian employee ceiling is 288 with estimated annual salaries including benefits totaling \$5,022,048. Civilian positions will be obtained by transfer of 158 positions from Naval Personnel and Training Research Laboratory, San Diego, by transfer of 114 positions from Naval Personnel Research and Development Laboratory, Washington and 16 positions from the Bureau of Naval Personnel. It is anticipated that 200-230



Navy Personnel Research and Development Center

The Navy Personnel Research and Development Center (NPRDC), located in San Diego, California, conducts applied research in manpower, personnel, and training (MPT) issues for the Navy and Marine Corps. NPRDC develops better ways to attract qualified people to the naval services, to select the best candidates, to assign them where they are needed most, to train each one effectively and efficiently, and to better manage personnel and training resources. By combining a deep understanding of operational requirements with first-rate scientific and technical expertise, NPRDC develops new, useful technologies for solving people-related problems. The outcome is a more affordable, more capable personnel force.

NPRDC currently employs about 170 military and civilian personnel. The Center's researchers represent a variety of scientific disciplines including operations research, applied mathematics, statistics, behavioral and cognitive science, economics, and computer science. Over 80% of the research staff holds advanced degrees. With an average tenure of over 13 years, NPRDC researchers also bring substantial experience to MPT R&D. NPRDC teams with numerous private contractors, other DoD labs, and university consultants to execute an annual budget of over \$25 million. Through this modest research budget, NPRDC's program has substantial leverage, affecting over 400,000 active duty personnel and \$25 billion in personnel and training costs.

NPRDC's research program emphasizes the development of new technologies in:

- * Workforce Management
- * Personnel and Organizational Assessment
- * Classroom and Afloat Training

The Workforce Management program develops large-scale mathematical models and information systems to support effective personnel planning and policy analysis, construct recruiting strategies, schedule training classes and reserve training seats for sailors, and make cost-effective and people-oriented job assignments. Most of the tools used by the Navy and Marine Corps to manage their personnel resources were developed by NPRDC.

The Personnel and Organizational Assessment program develops methods critical for selecting and classifying new recruits, measuring personnel and organizational

performance, and assessing attitudes about personnel issues. The program focuses on innovative, computerized selection and vocational aptitude test development, assessment of officer and enlisted personnel attitudes through surveys, and the integration of women and minorities in the Naval workforce.

The Classroom and Afloat Training program exploits advanced instructional and computer-based training technologies in developing new ways to teach complex warfighting skills. Areas of emphasis include: simulation-based training systems which incorporate high fidelity models of physical phenomena (e.g., ocean environment) to provide advanced training in complex skills, such as anti-submarine warfare; use of multimedia technologies to develop automated Navy classrooms; and development of video teletraining technologies to deliver training world-wide.

Organizationally, NPRDC reports to the Chief of Naval Personnel, but serves dozens of other customers including: Chief of Naval Education and Training (CNET), Headquarters, U.S. Marine Corps; Naval Air Systems Command; Naval Sea Systems Command; Office of Naval Research; and the Assistant Secretary of Defense (Personnel & Readiness).

While located principally on Point Loma in San Diego, NPRDC also has liaison offices in Washington, DC and Pensacola, Florida.

For additional information on NPRDC, please contact:

Commanding Officer, NPRDC
53335 Ryne Road
San Diego, CA 92152-7250
(619) 553-7812



GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-261075

April 21, 1995

The Honorable Stephen Horn
House of Representatives

Dear Mr. Horn:

On December 30, 1994, and in subsequent meetings, you requested that we provide information related to the possible homeporting of up to three Nimitz-class nuclear aircraft carriers at the North Island Naval Air Station, San Diego, California; the Long Beach Naval Shipyard, California; or both. On April 6, 1995, we briefed you on the information we had gathered. You asked us to provide a summary of our briefing, even though some aspects of our work had not been completed, and update our information where possible to present the most recent data available. This letter responds to your request.

Enclosure 1 provides information on the Navy's homeporting plans and policies for aircraft carriers and their relation to ship maintenance requirements and quality-of-life issues. Enclosure 2 discusses the inclusion of the Long Beach Naval Shipyard in the San Diego homeport area. Enclosure 3 presents the Navy's cost estimates for the various homeporting options. Enclosure 4 discusses major cost items and the assumptions on which the cost estimates were based. Enclosure 5 identifies the advantages and disadvantages associated with homeporting carriers in San Diego or Long Beach. Enclosure 6 discusses the Navy's draft environmental impact statement relating to the relocation of one nuclear aircraft carrier from the Alameda Naval Air Station, California, to North Island. Enclosure 7 discusses the need for a Nimitz-class aircraft carrier-capable drydock at North Island and the status of the Navy's plans to move a floating drydock capable of accommodating big-deck amphibious ships to San Diego.

To obtain this information, we interviewed officials from the Chief of Naval Operations, Pacific and Atlantic Fleets, and the Office of the Assistant Secretary of the Navy for

GAO/NSIAD-95-146R Nuclear Carrier Homeporting

APR-24-95 MON 07:59

TEL:

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Apr 25 '95

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P.04/17
P.03

B-261075

Research, Development, and Acquisition. We also met with officials from the Naval Facilities Engineering Command, Naval Sea Systems Command, Long Beach Naval Shipyard, city of Long Beach, and port authority of Long Beach.

In addition, at our request, the Navy conducted studies on the (1) infrastructure and recurring annual costs for facilities needed to homeport the three Nimitz-class carriers and (2) the advantages and disadvantages of homeporting the carriers at North Island versus Long Beach. We used the information in these studies in our work; however, we were not able to verify the accuracy of the information because the studies were only recently received.

- - - -

If you have any questions, please contact me on (202) 512-8412. Major contributors to this letter are George Jahnigen, Edwin Soniat, Willie Cheely, and Patricia Blows.

Sincerely yours,



David R. Warren
Director, Defense Management
and NASA Issues

Enclosures - 7

TEL:

FAX NO.

Apr 25 '95

10:50 No.004 P.04
P.05/17

ENCLOSURE 1

ENCLOSURE 1

THE NAVY'S HOMEPORTING PLANS AND POLICIES
FOR AIRCRAFT CARRIERS

PLANS

The Navy has designated San Diego as a major homeport and plans to concentrate a major portion of its Pacific Fleet ships in that area. As of November 1994, San Diego was the homeport to 70 of the 101 Navy ships located on the West Coast. Two of the 70 ships were conventional aircraft carriers. Long Beach was the homeport to five ships at that time, but none of them were carriers. As a result of a 1991 Base Closure and Realignment Commission decision to close the Long Beach Naval Station, Long Beach will no longer be a Navy homeport after the three ships currently assigned to the homeport leave.

The Chief of Naval Operations approved a proposal in May 1994 that called for the retention of six aircraft carriers in the Pacific. Three of the carriers were to be homeported at the North Island Naval Air Station, San Diego, California; one in Everett, Washington; one in Bremerton, Washington; and one in Yokosuka, Japan. By the year 2005 all of these carriers--except for the one homeported in Japan--will be Nimitz-class nuclear aircraft carriers. According to the Navy, the approved carrier homeporting plan considers ship deployment schedules, facility modernization plans, ship maintenance requirements, and quality-of-life issues.

POLICIES

To minimize the amount of time military personnel are separated from their homes and families, the Navy started a program in 1985 to eliminate excessive operating tempo, as well as achieve long-standing personnel tempo of operations (PERSTEMPO) limits. To accomplish this, the Navy established three PERSTEMPO goals:

- The length of any deployment, including transit time, will not exceed 6 months (180 days).
- Before beginning a new deployment, ship personnel will spend a minimum of 2 months in their homeport for every month the ship is deployed.
- A ship and its crew will spend a minimum of 50 percent of the time over a 5-year period in their homeport.

A ship is considered in violation of the PERSTEMPO goals when these criteria are not met.

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ENCLOSURE 1

ENCLOSURE 1

The Commanders-in-Chief of the Pacific and Atlantic Fleets assign ships to a homeport, subject to approval by the Chief of Naval Operations, and establish homeport clusters (i.e., a grouping of ports where proximity permits an individual to be at home overnight rather than aboard a ship). Any ship away from its designated homeport or homeport cluster for more than 8 weeks is considered deployed.

To meet the PERSTEMPO requirements, the Navy has a policy to perform maintenance on ships in the ship's designated homeport, if a ship's planned maintenance period is for 6 months or less. If the maintenance period is planned for more than 6 months, the ship will be assigned to a naval shipyard or private sector yard. If a ship's maintenance is performed at a ship maintenance or repair activity other than the ship's homeport, the new shipyard or activity becomes the ship's new homeport while the maintenance is being performed. About every 6 years, aircraft carriers homeported in San Diego would be homeported (on a staggered basis) at Puget Sound Naval Shipyard in Bremerton, Washington, for about 10-1/2 months for major maintenance action, called a "drydocking phased incremental availability."

Naming a new homeport when ships are repaired out of their normal homeport conforms with the Navy's PERSTEMPO instruction, but for sailors with families this practice is inconsistent with the program's goals. In these cases, sailors go to a new homeport while their families may still remain at the old homeport in anticipation of the ship's return. Quality-of-life improvements would be derived if a ship were repaired at a facility closer to the original homeport. For example, if a San Diego based-carrier were repaired at the Long Beach rather than the Puget Sound Naval Shipyard, crew members could go home more easily.

Another difficulty in complying with the PERSTEMPO program goals was created during the 1980s when the Secretary of the Navy directed the expansion of three homeport areas--Norfolk, Virginia; New York, New York; and Seattle, Washington--for short-term maintenance actions (i.e., less than 6 months). The Navy said this action was taken to ensure adequate competition among ship repair activities in the private sector. Under this arrangement, Norfolk was to include all repair activities up to and including Baltimore, Maryland; New York was to include all activities down to Philadelphia, Pennsylvania; and Seattle was to include all activities down to Portland, Oregon. Expansion of the San Diego homeport area to include Long Beach was not considered because the Navy believed private sector competition in the San Diego area was adequate.

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P.07/17

ENCLOSURE 1

ENCLOSURE 1

The Navy recognizes that, under the expanded homeport policy, it cannot always meet the PERSTEMPO policy goals when maintenance work is being done at shipyards within the clusters. For example, in 1994, the Secretary of the Navy proposed a new policy called the "sequential bid area" that would make the definition of a homeport area consistent throughout the Navy. Under this new proposed policy, the expanded homeport areas would be abolished, and the definition of homeport bidding areas would be aligned with the fleet commander's definition for homeport areas for PERSTEMPO requirements. This proposal is being reviewed within the Navy.

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ENCLOSURE 2

ENCLOSURE 2

LONG BEACH COULD BE INCLUDED IN SAN DIEGO'S HOMEPORT AREA

The Navy could decide to expand San Diego's homeport area to include Long Beach. However, it has not chosen to do so. The fleet commanders have determined that the primary factor that should be considered when determining a homeport area or cluster is a sailor's ability to spend the night at home. However, they have not established specific criteria, such as distance or commute time, for doing so. However, fleet officials have informally made such determinations. They believe that a commuting time of about 1 hour each way is reasonable and consistent with the spirit of the Navy's PERSTEMPO goals. Since the average commute time between San Diego and Long Beach is about 2 hours each way, the Commander-in-Chief of the Pacific Fleet has declined to include Long Beach in the San Diego homeport area or cluster.

On April 17, 1995, the Navy provided us with a document that stated that the Commander-in-Chief of the Pacific Fleet had recently approved a new policy that "homeport clusters shall be established for ports that are within a 75-mile radius and less than 1-1/2 hours one-way travel time using normal modes of travel for the region." We are uncertain whether the policy is currently in effect.

The document also showed that, in March 1992, the Commander of the Naval Surface Forces in the Pacific requested specifically that Long Beach and San Diego be in the same homeport cluster, but the request was disapproved by Commander-in-Chief of the Pacific Fleet. The Commander believed such an action would have an adverse impact on the quality-of-life of the ships' crews. The Secretary of the Navy supported the Commander's decision. A similar request had previously been made by the 1991 Base Closure and Realignment Commission in its report to the President that recommended the closure of the Long Beach Naval Station.

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ENCLOSURE 3

ENCLOSURE 3

COST COMPARISON OF HOMEPORTING OPTIONS FOR NIMITZ-CLASS AIRCRAFT CARRIERS

To respond to your request, we asked the Navy to conduct a study that developed and compared infrastructure and recurring costs for facilities needed to homeport up to three Nimitz-class nuclear aircraft carriers at the Long Beach Naval Shipyard, the North Island Naval Air Station or both. To accomplish this, facility and other requirements for homeporting the nuclear carriers were defined. Cost estimates were developed by comparing baseline facility standards, as set forth in various Navy documents, to what currently exists or would be required at each installation. Costs associated with ship maintenance and fleet operations were not addressed.

According to the study, the Navy's current plan to homeport all three nuclear carriers at North Island is the lowest cost option, and homeporting three nuclear carriers at Long Beach is the highest cost option. The costs associated with each option, expressed in terms of infrastructure and recurring annual operating costs, as well as the cost difference from the lowest cost option, are shown in table 3.1. Annual operating costs include shore support staffing, crew training and lost time, and base operating support costs.

Table 3.1: Costs of Homeporting Options

Dollars in millions

Number of carriers		Infra-structure cost	Difference from baseline	Recurring annual costs	Difference from baseline
Long Beach	North Island				
0	3	\$546.1	0	\$0.3	0
1	2	706.2	\$160.1	25.4	\$25.1
2	1	739.2	193.1	27.7	27.4
3	0	828.6	282.5	29.7	29.4

Source: Navy

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ENCLOSURE 4

ENCLOSURE 4

COST ISSUES

There are a number of assumptions made in the Navy's study that affect the associated cost results. For a number of these areas, we have not seen sufficient support to enable us to make a judgment on their reasonableness or validity. We focused our analysis on the hypothetical three carrier option at Long Beach, because this was the option where we had the greatest number of unresolved questions.

TRANSIENT SHIP/INTERIM HOMEPORTING REQUIREMENTS

The Navy estimated it would cost about \$137 million for dredging, upgrading an existing transient aircraft carrier berth, and constructing a new berth capable of accommodating Nimitz-class aircraft carriers at San Diego, even if all three nuclear carriers were homeported in Long Beach. The Navy believes that these actions are necessary because, after closure of the Naval Air Station Alameda, California, North Island will be the only West Coast aircraft carrier homeport with a collocated airfield which, it believes, is necessary to offload disabled aircraft. The Navy also believes that the same facilities will be needed on an interim basis to homeport the U.S.S. Stennis when it arrives on the West Coast in 1998, because appropriate carrier berthing facilities at Long Beach will not likely be ready at that time.

We asked the Navy for any studies and/or statistics that supported their position. While the Navy provided us with a document that highlighted the benefits of having a port with a collocated airfield, it could not provide any statistics on the number of disabled aircraft offloaded over the last few years. In lieu of such information, we held discussions with Pacific and Atlantic Fleet officials. These officials said that, typically, very few disabled planes were offloaded after deployments. One Atlantic Fleet official estimated that, on the average, one plane was offloaded over three deployments. Furthermore, we were told that there are other alternatives for getting disabled aircraft to an aircraft maintenance depot. For example, a disabled aircraft could be trucked (with the wings folded up), airlifted by helicopter, or barged to the maintenance depot.

Regarding the interim homeporting requirement, the Navy identified two possible options: the Puget Sound Naval Shipyard or San Diego. The Navy rejected the shipyard option based on projected port loading at the shipyard during and after the arrival of the U.S.S. Stennis and the likelihood that new base support facilities would have to be constructed. The Navy stated that a more detailed study would be required to firm up the basis for the rejection.

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ENCLOSURE 4

ENCLOSURE 4

We asked the Navy for details supporting its reasoning that the facilities at Long Beach could not be made ready in time to support the homeporting of the U.S.S. Stennis and that the Puget Sound Shipyard option was not likely to be viable. The Navy has not yet provided the requested information.

FAMILY HOUSING REQUIREMENTS

The Navy study estimated an additional 1,708 units would have to be constructed at a total estimated cost of about \$258 million to meet housing needs at Long Beach. Other information suggests that some of these costs could be avoided. According to the Navy study, the homeporting of three Nimitz-class aircraft carriers would increase the housing demand in Long Beach by the year 2000 by an estimated 7,500 units--from a projected total of about 1,250 units to 8,750 units. Available housing for the Long Beach area was estimated to be 7,042 units, of which 1,042 units are currently controlled by the Long Beach Shipyard. The Navy's expected share of private sector housing for rent within a one hour commuting distance that was assumed to be adequate and affordable, was projected to be about 6,000 units based on 1988 data.

A 1995 study conducted by a public accounting firm shows that over 27,000 housing units that meet the Navy's criteria are currently available in the Long Beach area. The study stressed that units in high-crime areas were not included in this total.

Also, as a result of a 1993 base closure decision, military family housing at the El Toro Marine Corps Air Station could possibly be made available to satisfy the projected Long Beach housing shortfall. However, use of the El Toro housing units would require a reversal of the prior Base Closure and Realignment Commission decision as well as an adjustment of any projected savings associated with the decision. El Toro is located about 30 miles south of Long Beach and, based on our own driving tests, within a one-hour drive from the shipyard during rush hour. Data we obtained show that there are currently 1,188 units of housing at the El Toro Marine Corps Air Station. At present most of these units are occupied, but with the closure of the Air Station the units should become available for other uses beginning in July 1998. Two hundred and sixteen of the units are classified as substandard because they do not contain the required number of square feet. An additional 119 units are being screened for lead paint and asbestos contamination.

BASE SUPPORT COSTS OTHER THAN FAMILY HOUSING

According to the Navy, adequate supporting facilities are required to maintain a reasonable level of service to the nuclear carriers and their crews. Facilities required range from cafeterias and

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ENCLOSURE 4

ENCLOSURE 4

officers clubs to theaters, child care centers, and parking facilities. For the homeporting options considered, total costs ranged from a low of about \$167 million for the North Island option to a high of about \$224 million for the Long Beach option.

Documents provided by the Navy raised certain questions about the reasonableness of these costs.

-- The Navy study states a need for a \$38 million, 4,000 vehicle parking structure to satisfy parking needs associated with the three Long Beach homeported carrier option. However, information provided by the shipyard shows that there are currently over 4,500 empty parking spaces in the yard, primarily because of major reductions in the number of ships and military and civilian personnel since 1991. At that time, there were 35 ships and over 22,800 military and civilian personnel assigned to the shipyard. Currently, there are three ships homeported in Long Beach and the number of military and civilian personnel assigned is about 5,800. We have not verified the shipyard's number, however, based on our observations there is a large amount of unused parking space at the shipyard.

-- The Navy study estimated it would take about \$52 million to construct new facilities or upgrade existing facilities up to standards mainly in four base support areas--medical and dental space; administrative office space; enlisted dining space; and enlisted bachelor quarters. We have not validated the Long Beach data or the data in the cost comparison study. According to shipyard data, the cost to bring these facilities up to standard, however, would be only about \$3.6 million. Most of this amount is to bring the administrative space up to compliance with current seismic codes. The remaining cost is for installing fire sprinkler systems in the affected buildings.

DISPOSAL OF DREDGED MATERIAL

Dredging costs may be overstated to some extent. According to the Navy study, about 2.5 million cubic yards of dredging would be required at Long Beach to deepen the berthing area and create an acceptable turning basin for NIMITZ-class aircraft carriers. The Navy, based on experience at other Naval activities in Southern California, assumed that about 702,000 cubic yards of that total would be unsuitable for off-shore disposal and that the cost of inland disposal would be about \$100 per cubic yard. The normal off-shore disposal cost is \$5 per cubic yard. Using these estimates, the additional cost of dredging disposal would be about \$67 million. The Navy study states, however, that this cost may not have to be incurred if the unsuitable material could be safely used in nearby projects.

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ENCLOSURE 4

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We discussed the reasonableness of the Navy's disposal cost figures with officials from the Long Beach Port Authority and the Army Corps of Engineers. They told us that it would be highly unusual for unsuitable dredge material to be disposed of inland. They stated that, when they faced similar situations, they made every effort to dispose of such material in nearby contained fill areas. Such fill areas are often available due to periodic dredging and fill projects by the ports of Long Beach and Los Angeles.

INTERMEDIATE MAINTENANCE FACILITY

The study states that a new 6,000 square feet valve repair facility would have to be constructed to support any aircraft carriers homeported in Long Beach. This is because of the closure of a shore intermediate maintenance activity as part of the closure of the Long Beach Naval Station. Total cost of the facility is estimated at about \$7.4 million. The North Island option does not incur this cost, it has such a facility on a barge that is moored adjacent to the ships.

Under the three carrier option for Long Beach, there appears to be no need for the valve repair facility at North Island. It seems reasonable that the barge could be moved to Long Beach and, therefore, no costs for such a facility would have to be incurred.

OTHER COST ISSUES

The Navy's desire to do as much maintenance as possible in the homeport has led to a proposal to establish new depot maintenance capacity at the North Island in San Diego, while drawing down excess capacity in shipyards.

Data we obtained showed that the Navy is planning three military construction projects valued at about \$112 million over a 3-year period starting in fiscal year 1996. These projects involve constructing and equipping depot maintenance facilities for the repair and maintenance of nuclear and non-nuclear propulsion plant systems and components. The Navy projects to accomplish the maintenance work with up to 900 Puget Sound Naval Shipyard workers on temporary duty. The Navy is also studying the feasibility of placing similar facilities at other nuclear carrier homeports in Mayport, Florida, and Everett, Washington.

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ENCLOSURE 5

ENCLOSURE 5

HOMEPORTING IN SAN DIEGO VERSUS LONG BEACH

We asked the Navy to provide us with the pros and cons of homeporting in San Diego versus Long Beach. The information provided is summarized below.

ADVANTAGES OF SAN DIEGO

The Navy sees three major advantages of homeporting carriers at the North Island Naval Air Station: the existence of San Diego as a "megaport," maintenance advantages, and quality of life considerations. Regarding the first, the Navy cites the significant infrastructure at San Diego that provides (1) ready access to a nearby fleet training center; (2) cross-training opportunities for sailors while in North Island; and (3) coordinated, centralized logistics support. In addition, the Navy said that North Island is a proven homeport for Pacific Fleet aircraft carriers; has an operational airfield that can support air wing logistics and aircraft on- and offloadings; contains an extensive and efficient transportation network; and is adjacent to the southern California training area.

Regarding the maintenance advantage, the Navy believes the San Diego area offers great opportunities for implementation of its proposed regional maintenance initiative. The proposed depot maintenance facility for nuclear carriers' propulsion systems and components will be ready to service the U.S.S. Stennis when it arrives in 1998; and extensive ship and aircraft intermediate maintenance capability is available at North Island.

Finally, the Navy believes that the quality of life for the sailors is excellent in the San Diego area because of its extensive infrastructure--hospitals, commissaries, exchanges, recreational facilities, and family service centers. Also, the Navy believes there is plenty of affordable housing in good neighborhoods.

DISADVANTAGES OF SAN DIEGO

The Navy recognized two disadvantages of homeporting at San Diego. First, it noted that ships would need to be homeported at the Puget Sound Naval Shipyard, located about 1,300 miles away, for about 10.5 months every 6 years for maintenance that requires a drydock. This would have an adverse impact on the quality-of-life of the sailors, since they would be unable to return very often to San Diego. Second, although the Navy states that the San Diego area offers affordable housing in good areas, it also states that there is a long waiting list for government-furnished housing.

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ADVANTAGES OF LONG BEACH

The Navy states that it would have easy access to the open ocean from Long Beach. Also, Long Beach has an existing industrial infrastructure that can support Nimitz-class carrier maintenance. Furthermore, the Navy states that carriers could be drydocked at Long Beach, which would eliminate the need for a homeport change every 6 years as would be the case if the carriers were homeported at North Island. Using available Navy budget data, we determined that the Navy could save \$20 million in permanent change of station costs for each carrier drydocking.

DISADVANTAGES OF LONG BEACH

The Navy pointed out three problems to homeporting the carriers at Long Beach. First, several prior Base Closure and Realignment Commission decisions would have to be reversed, and some or all of the cost savings associated with these decisions would not be realized. These cost savings are significant. For example, projected annual cost savings amounting to about \$265 million could be lost if the proposed and prior Commission actions involving Long Beach are not implemented. In addition, revising these decisions would create excess carrier berthing capacity that would be difficult to support in an era of reduced defense budgets.

Second, the Navy believes that the dredging work and radiological maintenance facilities needed to support carrier homeporting would not be ready in time to support the U.S.S. Stennis if it arrives as scheduled in 1998, necessitating temporary homeporting elsewhere. The Navy states that Long Beach does not provide easy access to training facilities.

Third, the Navy does not believe a shipyard industrial environment is a desirable atmosphere for homeporting a ship and its crew because of noise, dirt, poor air quality, and traffic congestion. One quality-of-life factor cited by the Navy for Long Beach was not consistent with other data we obtained. To illustrate, the Navy states that it costs more for housing in Long Beach than in San Diego. However, according to a national cost-of-living index, housing costs in Long Beach are 48 percent above the national average, and in San Diego they are 71 percent above the national average.

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ENVIRONMENTAL IMPACT STATEMENT

You also asked our view on whether the Navy's draft Environmental Impact Statement is in compliance with the National Environmental Policy Act (NEPA). Under this act, the Navy's Environmental Impact Statement (EIS) must address the foreseeable environmental impacts, including cumulative impacts, of the Navy's actions. The Navy's draft EIS, which is subject to future modifications, addresses the impact caused by the relocation of one nuclear carrier (CVN) to North Island and the cumulative impact of homeporting two additional carriers at that same location. As to the two additional carriers, the draft EIS notes that "if the Navy makes a proposal to homeport CVNs at North Island (Naval Air Station), the appropriate NEPA analysis will be prepared. Modification to existing facilities and infrastructure would be needed to accommodate the additional two CVNs."

This statement suggests a "tiering" of EISs regarding the stationing of additional carriers at North Island. Tiering is encouraged by the Council on Environmental Quality regulation 40 C.F.R. 1502.20 and is authorized by OPNAVINST 5090.1B, for Navy use in situations involving "the planning for the use of long-term staged construction for the establishment of a new installation to homeport and operate a class of vessels with a subsequent tiered analysis as each stage is programmed and proposed...."

In summary, because the draft EIS does address the cumulative impact of homeporting two additional carriers at North Island, there seems to be no basis for concluding that the NEPA impact statement requirement is not being properly addressed.

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ENCLOSURE 7

ENCLOSURE 7

NEED FOR LARGE DRYDOCK IN SAN DIEGO

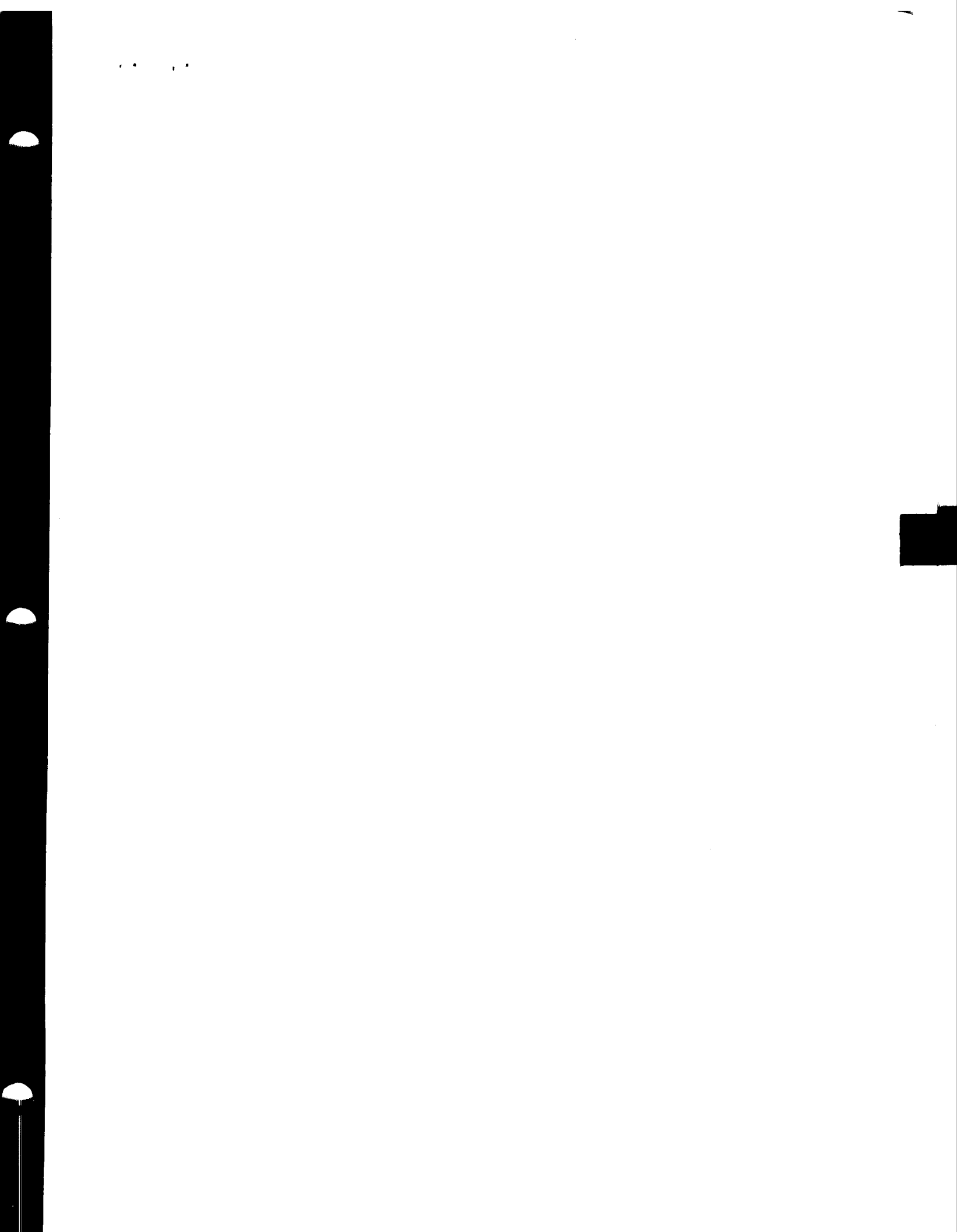
According to the official position of the Navy, it does not need to construct a nuclear carrier-capable drydock at San Diego. Further, the Navy did not need to construct one in the past and will not need to in the foreseeable future. Navy officials state that the planned carrier maintenance periods that require drydocking will be conducted at the Puget Sound Naval Shipyard.

In early 1994, the Commander of the Pacific Fleet received an unsolicited proposal from Pacific Shipbuilding and the San Diego Chamber of Commerce Proactive Stance Committee officials to build carrier-capable drydock at the North Island Naval Air Station. The proposal indicated that private sector sources would provide the upfront financing for the project and that the government would be expected to lease back the facility.

Although fleet officials believed at that time that a carrier-capable drydock would be desirable and possibly even essential if Long Beach closed and drydock 1 were no longer available, they were concerned about the cost of the proposed drydock. They questioned whether the Navy could pay the estimated \$25 million to \$50 million annual cost of the proposed lease-back arrangement. We have not yet determined the ultimate disposition of the proposal.

The Commander of the Pacific Fleet also studied the possibility of moving a floating drydock, capable of handling big-deck amphibious ships, from Pearl Harbor to San Diego. The reason for the study was the fleet's concern about the possible closure of the Long Beach Shipyard and its large drydock. The cost to move the drydock (called the Machinist), renovate it, and install it in San Diego was estimated at over \$60 million. The Fleet decided not to proceed with the project because of this cost and instead, to rely on available private and public sector facilities to drydock these ships.

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3/30/95

SAN DIEGO

NAVY BASELINE DREDGING REQUIREMENTS				
PROJECT	TOTAL QUANTITY (CY) ²	QUANTITY (CY) TO BE PLACED AT EACH NEAR SHORE DISPOSAL SITE ¹		
		IMPERIAL BEACH	DEL MAR	OCEANSIDE
TURNING BASIN	1,741,000	1,741,000	0	0
MAIN CHANNEL	6,082,000	1,682,000	2,200,000	2,200,000
TOTAL	7,823,000	3,423,000	2,200,000	2,200,000

TAB A

¹ Based on current U. S. Navy program budget. Subject to revisions to reflect actual federal legislative action.

² Based on current U. S. Navy planning estimates. Subject to revision to reflect actual regulatory requirements.

4/06/95

SUMMARY OF DIFFERENTIAL DISPOSAL COSTS				
PROPOSED DISPOSAL SITE		COST (PER CY) TO DISPOSE AT SITE OTHER THAN THESE NEAR SHORE LOCATIONS		
		IMPERIAL BEACH	DEL MAR	OCEANSIDE
IMPERIAL BEACH	NEAR SHORE	\$0.00	\$0.00	\$0.00
	BEACH	\$4.02 ¹	\$1.34 ¹	\$0.00 ¹
MISSION BEACH	NEAR SHORE	\$0.00 ²	\$0.00 ²	\$0.00 ²
	BEACH	\$4.02 ^{1 2}	\$1.34 ^{1 2}	\$0.00 ^{1 2}
TORREY PINES	NEAR SHORE	N/A ³	N/A ³	N/A ³
	BEACH	\$6.41 ¹	\$3.72 ¹	\$2.16 ¹
DEL MAR	NEAR SHORE	\$2.68	\$0.00	\$0.00
	BEACH	\$6.70 ¹	\$4.02 ¹	\$2.46 ¹
SAN ELIJO LAGOON	NEAR SHORE	N/A ³	N/A ³	N/A ³
	BEACH	\$6.97 ¹	\$4.29 ¹	\$2.73 ¹
BATIQUITOS LAGOON	NEAR SHORE	N/A ³	N/A ³	N/A ³
	BEACH	\$7.51 ¹	\$4.82 ¹	\$3.26 ¹
AGUA HEDIONDA	NEAR SHORE	N/A ³	N/A ³	N/A ³
	BEACH	\$7.90 ¹	\$5.21 ¹	\$3.65 ¹
BUENA VISTA	NEAR SHORE	N/A ³	N/A ³	N/A ³
	BEACH	\$8.07 ¹	\$5.39 ¹	\$3.83 ¹
OCEANSIDE	NEAR SHORE	\$4.24	\$1.56	\$0.00
	BEACH	\$8.26 ¹	\$5.58 ¹	\$4.02 ¹

¹ This would be in addition to a fixed cost of \$600,000 for mobilization and demobilization of equipment to support placement of material directly on the beach.

² Pending the determination of the environmental viability of this disposal option.

³ Determined to be an environmentally unsuitable disposal option.

ILLUSTRATIVE SAND VOLUMES AND COSTS
OF BEACH REPLENISHMENT USING
MATERIAL FROM NAVY'S
CARRIER HOMEPORTING DREDGING PROJECT

Potential Deposition Site ¹	Shoreline Initially Benefitted ²	Initial Fill Volume ³	% of Total ⁴ Volume, Less Site A & A.1	Illustrative ⁵ Volumes, Assuming 8 mcy Total	Illustrative Costs Assuming 3/30/95 Disposal and Cost Data (\$ Millions)
A. North of Tijuana River Mouth (near shore)	Imperial Beach/ South Coronado	1.7	--	1.7	0
A.1 Mission Beach (near shore)	San Diego	1.5	6	.4	0
B. South of Penasquitos Lagoon (on shore)	Torrey Pines and La Jolla Shores, City of San Diego	3.5	13	.8	5.7
C. South of San Dieguito River (near shore)	Del Mar	2.5	9	.6	0
D. South of San Elijo Lagoon (on shore)	Solana Beach	2.0	7	.4	3.4
E. South of Bataquitos Lagoon (on shore)	Encinitas	6.1	23	1.4	7.3
F. South of Agua Hedionda Lagoon (on shore)	South Carlsbad	2.9	11	.7	6.1
G. South of Buena Vista Lagoon (on shore)	North Carlsbad	3.0	11	.7	3.3
H. South Oceanside between Wisconsin Street and Buckaneer Beach (near shore)	South Oceanside	<u>5.4</u>	<u>20</u>	<u>1.3</u>	<u>0</u>
		28.6 mcy	100%	8.0 mcy	\$25.8

¹ General location of site. Specific sites for analysis within each general location to be determined by Navy.

² Shoreline segment immediately adjacent to feeder beach, in direction of net littoral drift.

³ Source: Shoreline Preservation Strategy (SPS) Appendix 1. Volumes in millions of cubic yards.

⁴ Calculated by dividing the initial fill from each of the sites A.1 through H, by the total initial fill from sites A.1 through H, 26.9 million cubic yards.

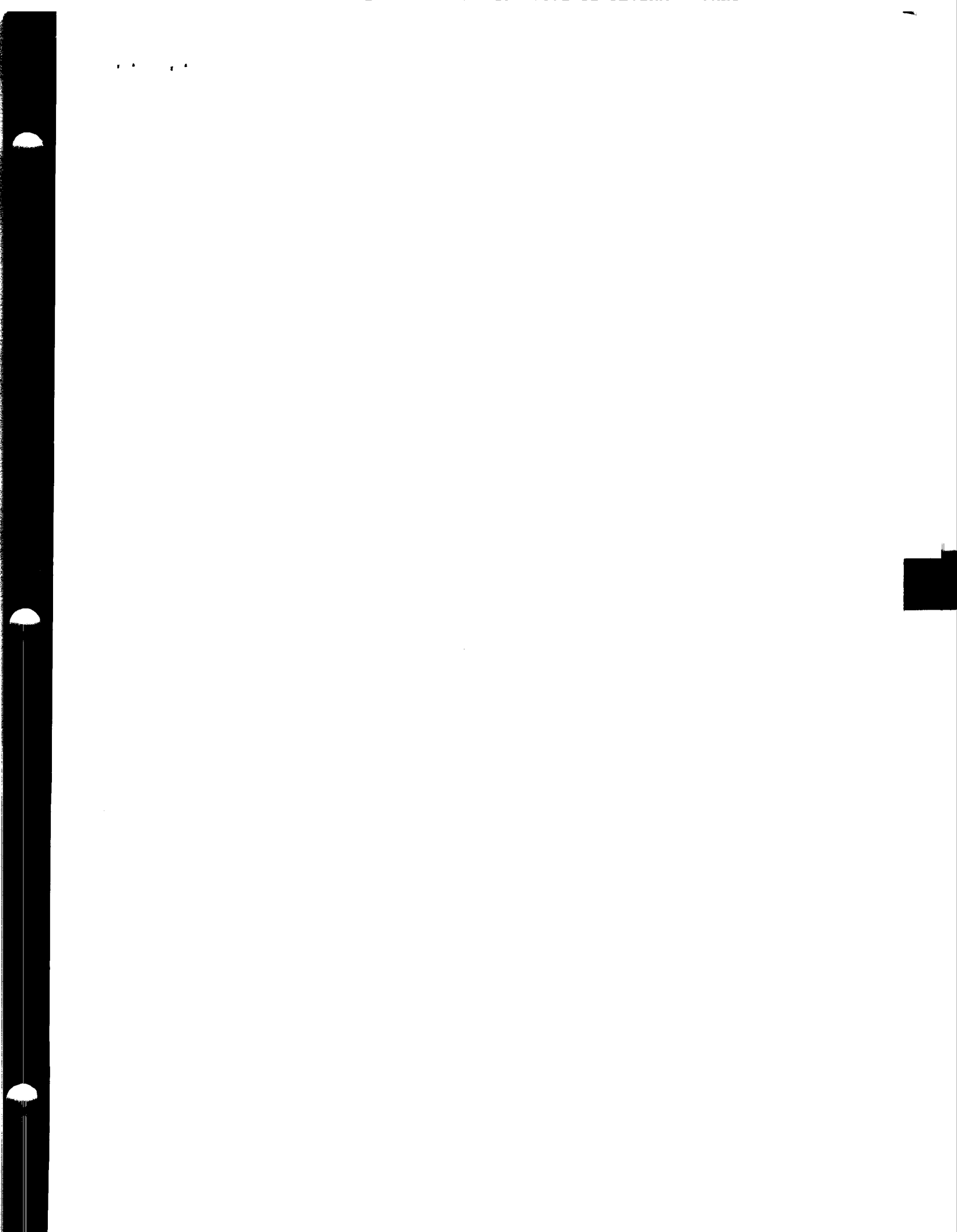
⁵ Calculated by multiplying the percentages from the preceding column by 6.3 mcy for sites A.1 through H.

DREDGE MATERIAL DISPOSITION COSTS

	<u>Quantity</u>	<u>Costs</u>	
Long Beach ¹	2,500,000 CY	702,000 CY @ \$100 =	\$ 70,200,000
		1,798,000 CY @ \$5 =	<u>8,990,000</u>
			\$79,190,000
San Diego ²	7,823,000 CY	7,823,000 CY @ \$5 =	\$39,115,000

¹GAO letter to Congressman Stephen Horn, April 21, 1995.

²Southwest Division, Naval Facilities Engineering Command. Calculations dated 30 March 1995.



CVN Homeporting Program At NASNI

● PROJECT SUMMARY

- FY95 P-549 Dredge Turning Basin \$19M
- FY96 P-700 Wharf - Phase I \$57M
- FY96 P-701 Controlled Indust. Fac. \$43M
- FY97 P-702 Ship Maint. Fac. \$27M
- FY97 P-706 Dredge Outer Channel \$25M
- FY98 P-703 Maint. Support Fac. \$15M
- FY98 P-706A Dredge Inner Channel \$24M

99-00 P 700A Phase II \$80M

CVN Homeporting Program At NASNI

■ CONSTRUCTION

■ SCHEDULE SUMMARY

- Finish P-706A 1 JUL 98
- Finish P-701 1 OCT 98
- Finish P-702 1 OCT 98
- Finish P-703 28 DEC 98

CVN Homeporting Program At NASNI



■ CONSTRUCTION

■ SCHEDULE SUMMARY

- EIS ROD 5 DEC 95
- Start P-701 22 DEC 95
- COE Dredge Permit 3 FEB 96
- Start P-549 22 FEB 96
- Start P-700 22 FEB 96
- Finish P-549 7 MAY 97
- Finish P-700 16 SEP 97
- Finish P-706 1 DEC 97

*60 days delay
to allow
"Note - permit"
process to respond*



CVN
HOMEPORTING
PLAN FOR
SOUTHERN
CALIFORNIA



CNO-APPROVED CVN HOMEPORING PLAN

After closure of NAS Alameda, directed by 1993 BRAC, CVN's will be homeported in San Diego and PACNORWEST

Long Beach not selected as a future Navy homeport

- Long Beach is in excess to Navy's homeport requirements
 - > NAVSTA closure recommended by DoD, directed by 1991 BRAC
 - > Homeported ships being relocated to other areas

- Long Beach Naval Shipyard is in excess to Navy's depot level maintenance infrastructure requirements
 - > Shipyard recommended for closure by DoD, to be considered by 1995 BRAC
 - > Projected cost savings from closure won't occur if retained as a CVN homeport, and retention would necessitate reversal of previous DoD and BRAC decisions

NAVSHIPYD LONG BEACH AS A HOMEPORT

Shipyard industrial environment is not a desirable atmosphere in which to homeport a ship and its crew

- Extensive industrial development planned for Long Beach harbor exacerbates existing problems

- > Noise
 - > Dirt
 - > Poor air quality, frequent smog alerts
 - > Increased traffic congestion and inadequate parking
 - > Undesirable neighborhood: no recreational or civic facilities within walking distance of shipyard (on Terminal Island)
- Navy attempts to minimize time ships must spend in an industrial environment to times of major maintenance availabilities

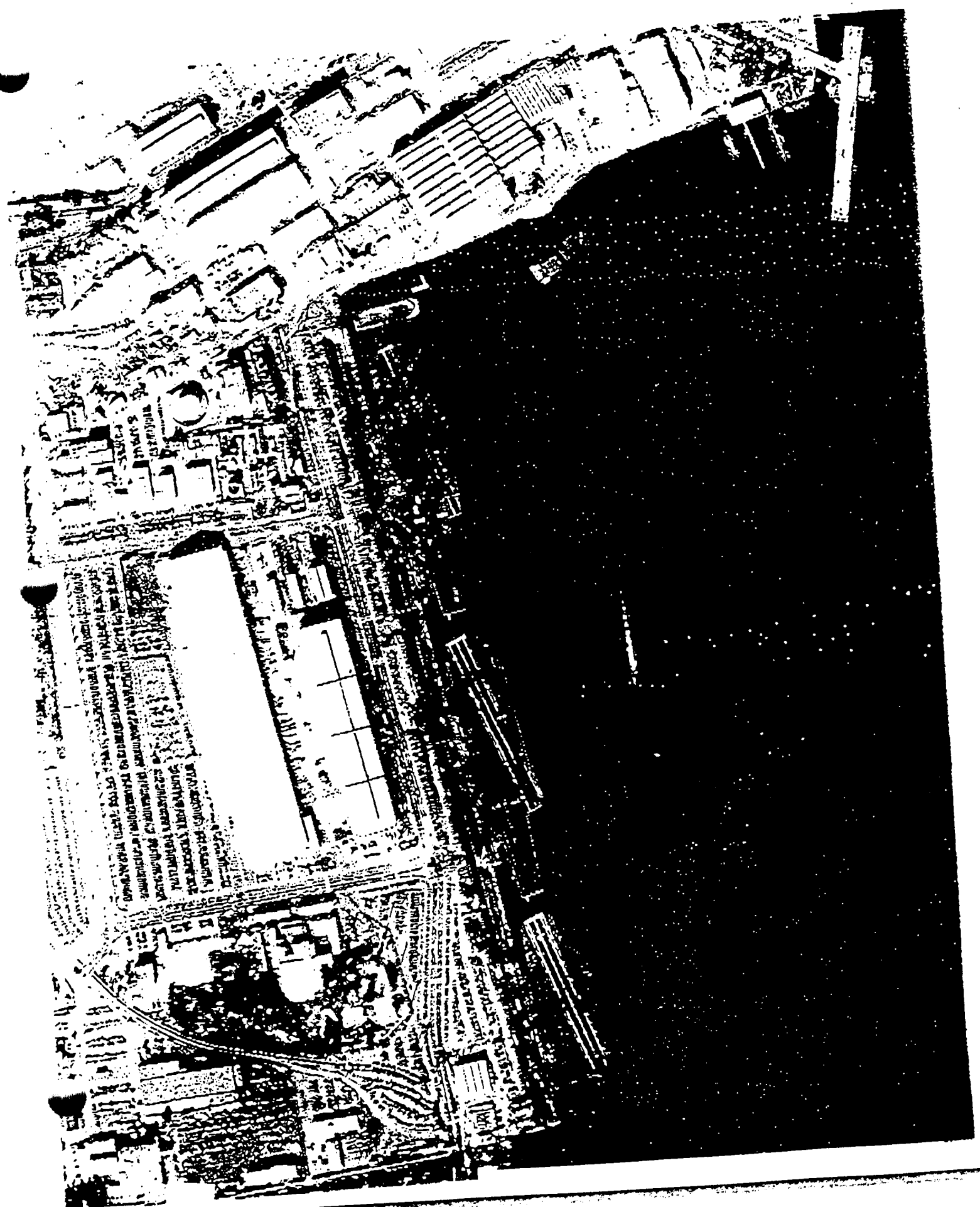
NAS NORTH ISLAND AS A HOMEPORT

Synergy of a Naval Air Station and aircraft carriers

- Both are naval aviation commands; NAS staff understands unique carrier and air wing problems and requirements
- Co-located airfield with facilities for carrier Beach Detachments
 - > Following closure of NAS Alameda, NAS North Island will be the only PACFLT carrier homeport with co-located military airfield
 - > Must continue as a CVN-capable port regardless of CVN homeporting decisions

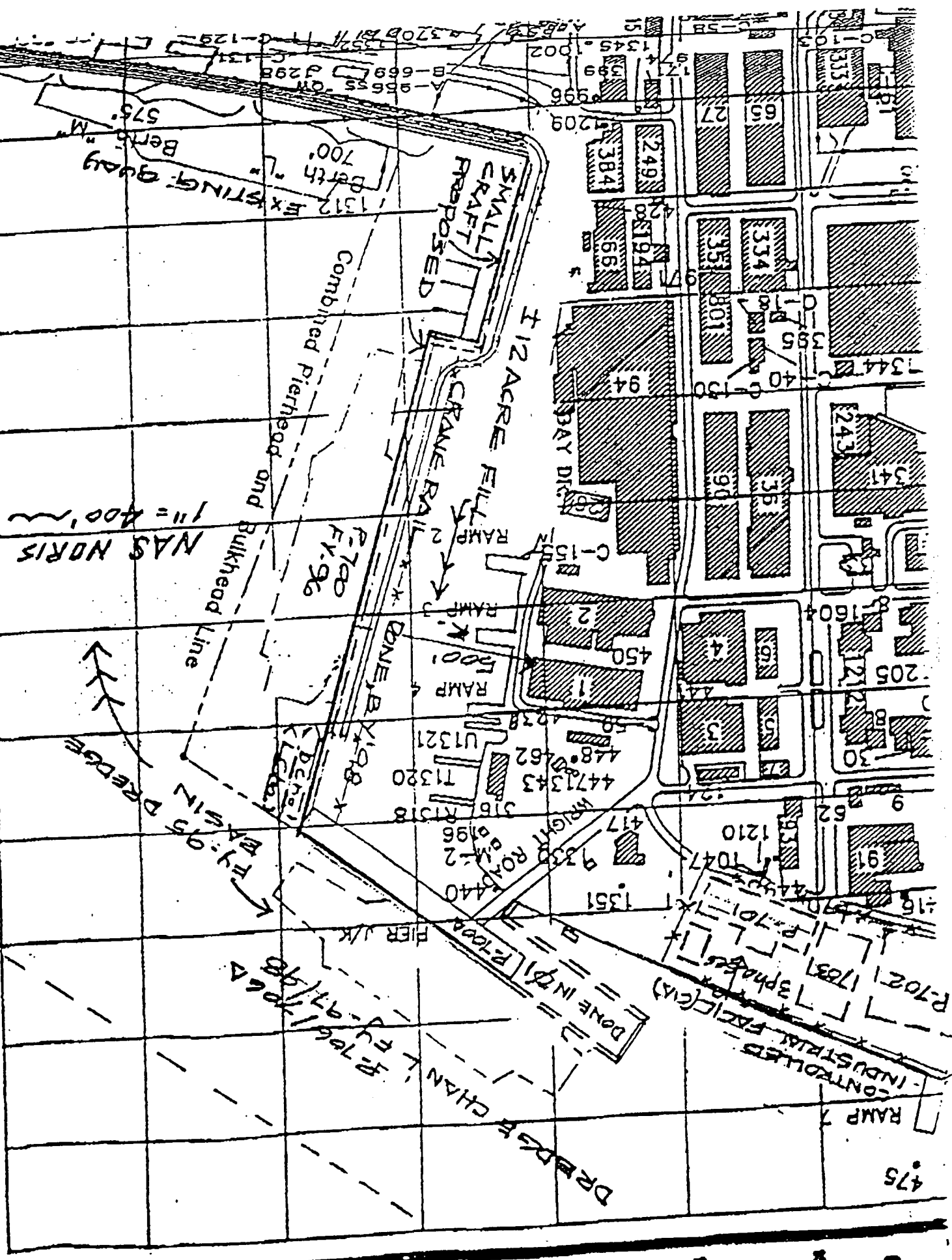
Major aircraft carrier homeport on west coast

- Has previously functioned as homeport for three aircraft carriers
- Major portion of base infrastructure devoted to full personnel support and enhancement of quality of life while minimizing impact of industrial activities





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LONG BEACH REGIONAL ISSUES

Higher cost of living, lower standard of living for same out-of-pocket expenses

No affordable housing within a reasonable commuting distance

- Long commuting times result in reduced work hours aboard ship
- Personnel moving to Long Beach rent, they don't buy
- Large percentage of homeported crews elect to be geographical bachelors; some have lived as far away as Riverside (75 miles)

No opportunity for sea/shore rotation to "homestead" - a major retention factor

- Personnel in San Diego with orders to Long Beach often keep families in San Diego

- > Example: TARAWA currently has only 19 families residing in the Long Beach area, other married personnel maintain residence in San Diego and commute

SAN DIEGO REGIONAL ISSUES

Pacific Fleet "Megaport"

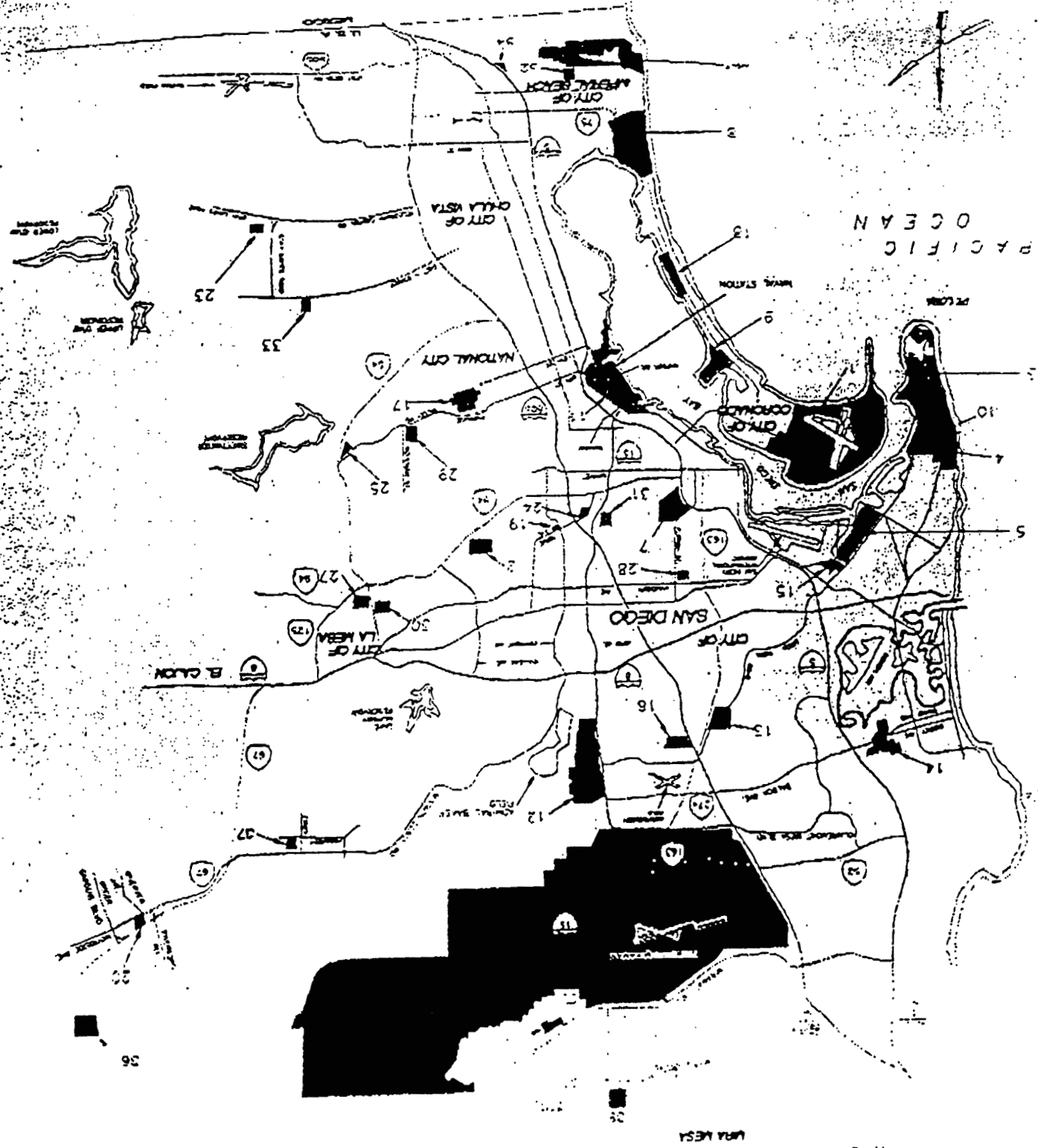
- **Site of Fleet Training Center (shore-based schools)**
- **Coordinated, centralized logistics support; greater efficiency**
- **Mutual support and cross-training opportunities with other ships**
- **Strong community support**
- **Extensive, efficient transportation network**
- **Major Navy support infrastructure**
- **Adjacent to Southern California Operational Training Area**

REPORTABLE STATISTICS FY 91-93

(SOURCE BRAC DATA CALL 38)

	LBNS	NASNI	INCREASE (DECREASE)
ARSON	37	3	34
BLACK MARKET	0	0	0
COUNTERFEIT	0	0	0
POSTAL	3	1	2
CUSTOMS	1	291	(290)
BURGLARY	321	18	303
LARCENY (ORDNANCE)	1	1	0
LARCENY (GOVT PROPERTY)	864	627	237
LARCENY (PERSONAL)	735	794	(59)
LARCENY (VEHICLE)	95	59	36
WRONGFUL DESTRUCTION	1147	931	216
BOMB THREAT	157	19	138
EXTORTION	1	0	1
ASSAULT	437	231	206
DEATH	6	4	2
KIDNAPPING	4	0	4
NARCOTICS	102	54	48
PERJURY	UNK	0	
ARMED ROBBERY	11	5	6
TRAFFIC ACCIDENTS	1196	756	440
SEX ABUSE (CHILD)	8	5	3
INDECENT ASSAULT	11	15	(4)
RAPE	17	4	13

PACIFIC OCEAN



LAKEVIEW

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OFF BASE HOUSING

(SOURCE BRAC DATA CALL 38)

	LONG BEACH AREA		SAN DIEGO AREA	
	HIGH	UTILITIES	HIGH	UTILITIES
EFFICIENCY APT	850	55	521	29
1 BEDROOM	1000	80	581	32
2 BEDROOM	1000	80	700	34
3 BEDROOM	1400	100	823	62

ASSUME A SECOND CLASS PETTY OFFICER (E-5) MARRIED WITH 2 CHILDREN
RENTING A TWO BEDROOM APARTMENT

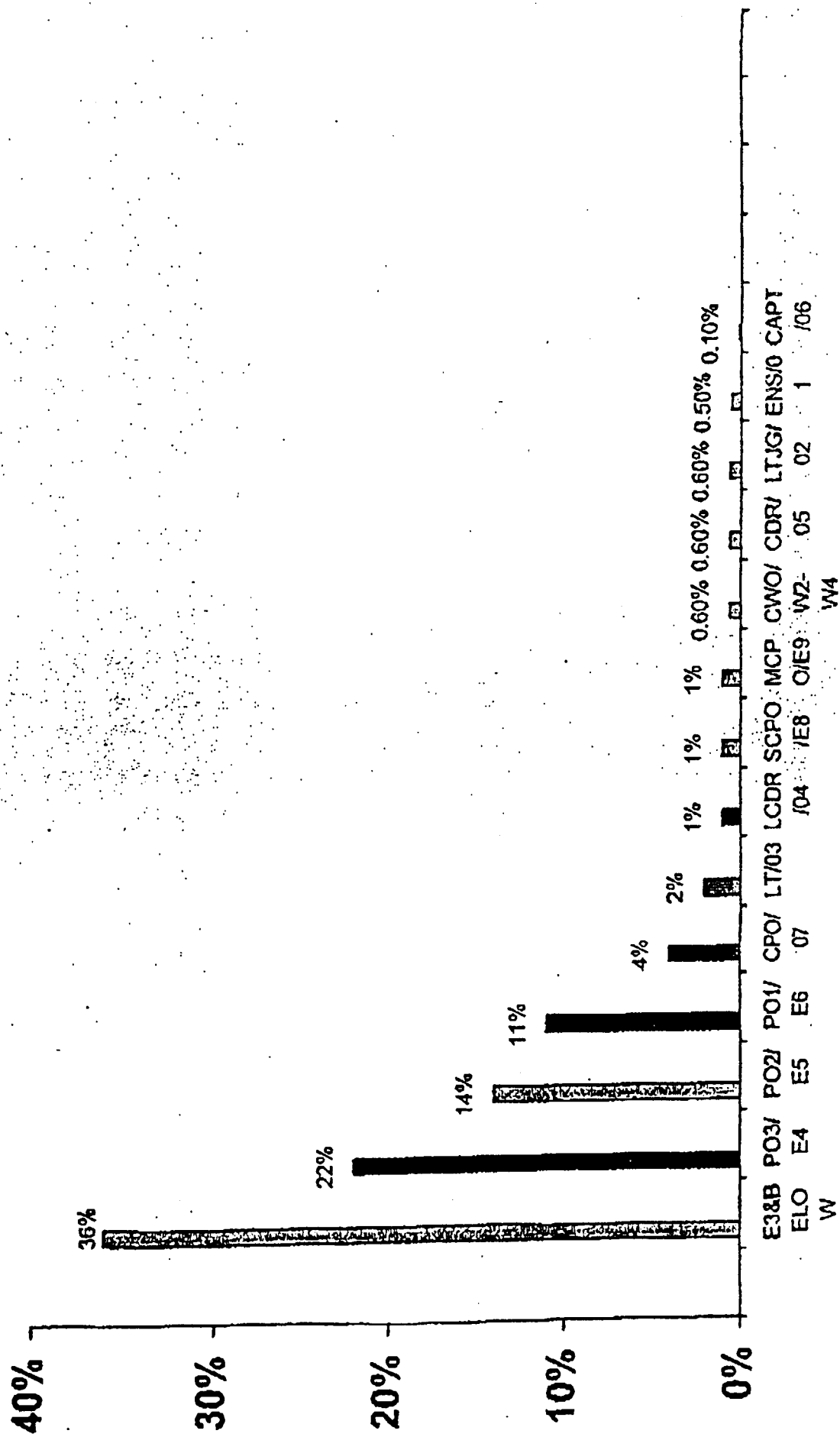
	LONG BEACH AREA	SAN DIEGO AREA
BAQ	426.30	426.30
VHA	358.55	261.55
TOTAL	<u>784.85</u>	<u>687.85</u>
2 BEDROOM	1000.00 + 80 = 1080.00	700.00 + 34 = 734.00
ADDL COST	<u>295.15</u>	<u>46.15</u>

OFF BASE HOUSING

(SOURCE BRAC DATA CALL 38)

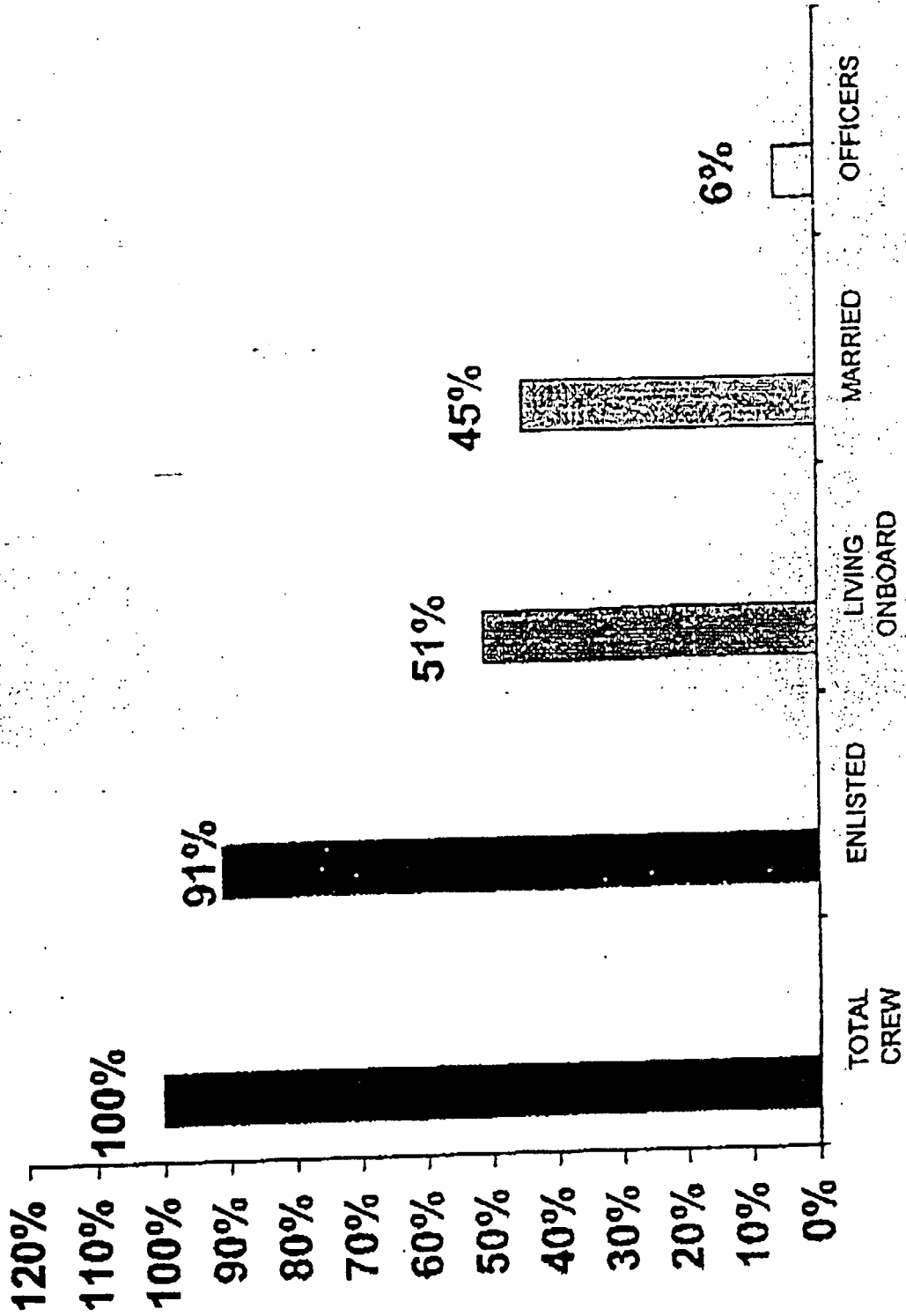
UTILIZING CURRENT BRAC DATA CALL CRITERIA, THE LONG BEACH HOUSING MARKET IN THE 2 - 4+ BEDROOM CATEGORY IS CLOSED TO THE AVERAGE E-5 WITH DEPENDENTS ASSUMING COMBINED BAQ/VHA MEE'S 90 - 110% OF MONTHLY MORTGAGE COSTS. HOWEVER, THE SAME E-5 WOULD QUALIFY FOR 223-2 BEDROOM 24-3 BEDROOM AND 3-4 BEDROOM HOMES (APRIL 94) IN THE SAN DIEGO AREA .

CREW PROFILE (PAY GRADE)



E3&B PO3/ PO2/ PO1/ CPO/ LT/03 LCDR SCPO MCP CWO/ CDR/ LTJG/ ENS/0 CAPT
 ELO E4 E5 E6 E7 E8 E9 W2 W3 W4 W5
 /04 /E8 O/E9 W2-05 02 1 /06

CREW PROFILE



CREW PROFILE

- AVERAGE AGE: 22
- # PARKING SPACES DESIRED: 1800

MAINTENANCE CONSIDERATIONS

After nuclear maintenance facility built, NAS North Island and San Diego will have full CVN-related maintenance capability

- Ship maintenance will be less expensive than at Long Beach

Major Ship Intermediate Maintenance Activity on west coast at San Diego
(none at Long Beach)

Tenant commands at NAS North Island include the Naval Aviation Depot and Aircraft Intermediate Maintenance Department

- Experienced in carrier-unique, safety of flight systems/repairs (i.e., catapults, arresting gear, landing aids systems, aircraft servicing systems, etc.)

Considerable opportunities for the new Regional Maintenance Initiative
(none in Long Beach)

SUMMARY

Between San Diego and the Pacific Northwest, all Pacific Fleet CVN homeporting requirements are satisfied

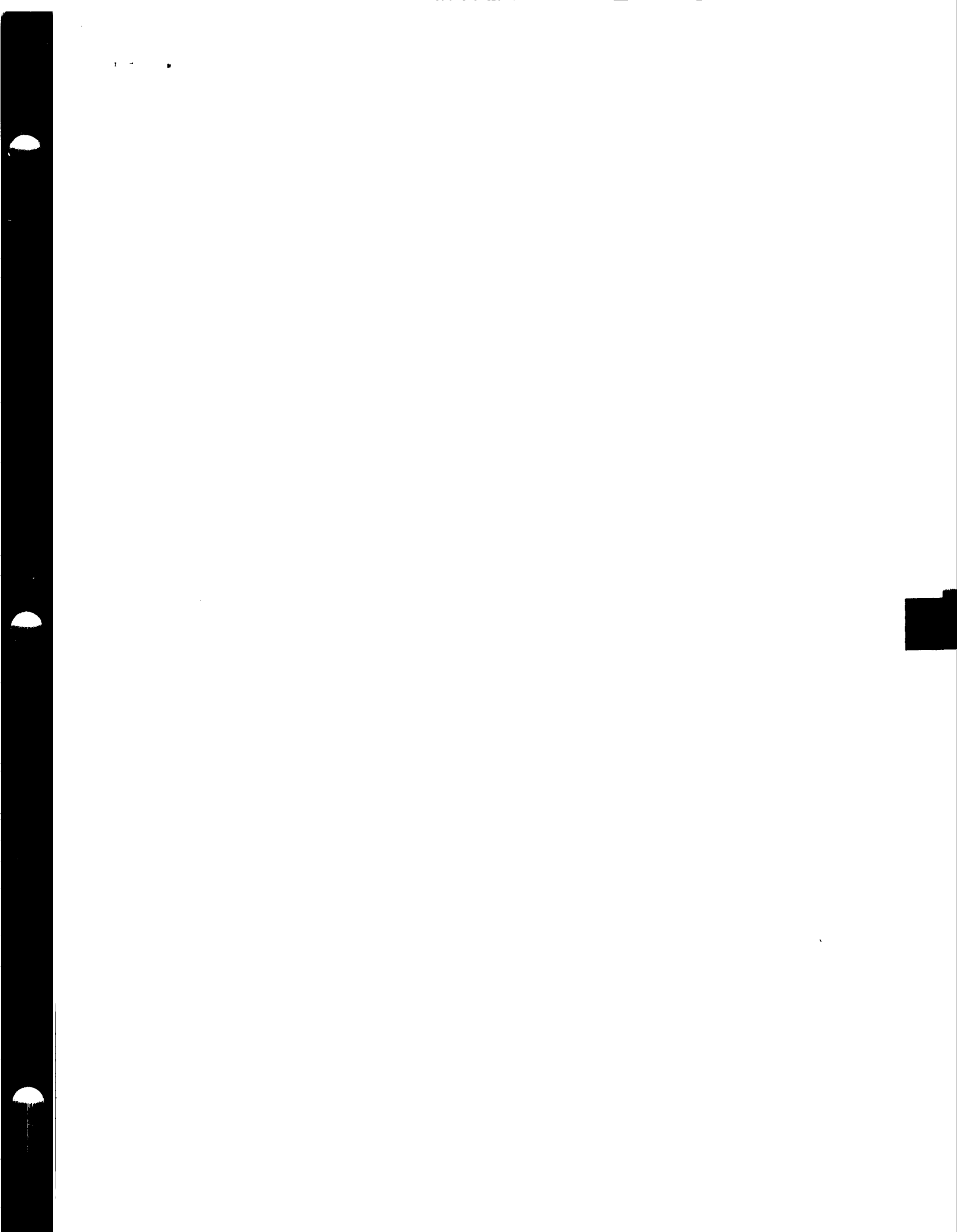
- Long Beach is not required and is in excess of requirements

Between San Diego and Puget Sound Naval Shipyard, all Pacific Fleet CVN maintenance requirements will be met after the nuclear repair facility is built at NAS North Island (would also be required at Long Beach)

- Long Beach is not required and is in excess of requirements

San Diego is the homeport of choice for CVNs in Southern California due to its advantages in the issues of most importance to Navy personnel:

- Quality of Life and Desirable Lifestyle
- Cost of Living
- Family Stability
- Professional Development
- Local Support Capabilities for Military Benefits



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1 question in the Air Force category, on ALCs. Regarding
2 maximum potential capacity, the chairman asked a question at
3 the beginning of the hearing about that. I just wanted to
4 clarify it for myself.

5 I know it's measured on a single shift, versus two
6 or three shifts. My question is, what year are we using for
7 single-shift capacity: what we're currently doing, what we
8 did in '91 or '88, when it was at a peak?

9 GENERAL KLUGH: The joint cross-service group did
10 base the analysis on one shift, 40-hour week. We based it on
11 the current program funded work load for year of 1999.

12 COMMISSIONER STEELE: Thank you.

13 Switching to Navy, the GAO mentioned this morning
14 that, though they didn't see substantive data to back it up,
15 they felt that the Navy looked at private-sector shipyard
16 capacity on the West Coast when analyzing decisions, and
17 they -- I believe they were either uncertain or they didn't
18 think the Navy looked at the private-sector capacity at all
19 on the East Coast. I just wondered if you could address the
20 private-sector shipyard capacity.

21 MR. NEMFAKOS: Commissioner Steele, I,
22 unfortunately, was busy answering the request for information

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1 and wasn't here to listen to the GAO testimony. I hope what
2 they meant to say was that, in making its decision on Long
3 Beach Naval Shipyard, the Department of the Navy had a good
4 understanding of the private-sector capabilities, dealing
5 with the issue, would there be support for non-nuclear work
6 of surface ships in that particular area.

7 We did not analyze private-sector capacity on the
8 West Coast, just as we didn't analyze private-sector capacity
9 on the East Coast, in the context of, here's how many labor
10 hours of capacity they have.

11 It was an issue of asking ourselves the question,
12 if we close Long Beach Naval Shipyard, the work that has to
13 be done in the local area -- is there a capability to do the
14 work in the local area. And that was it.

15 And our assurance was based on the fact of the very
16 successful record of the private sector in competing in
17 public-private competitions for surface ships in that area.

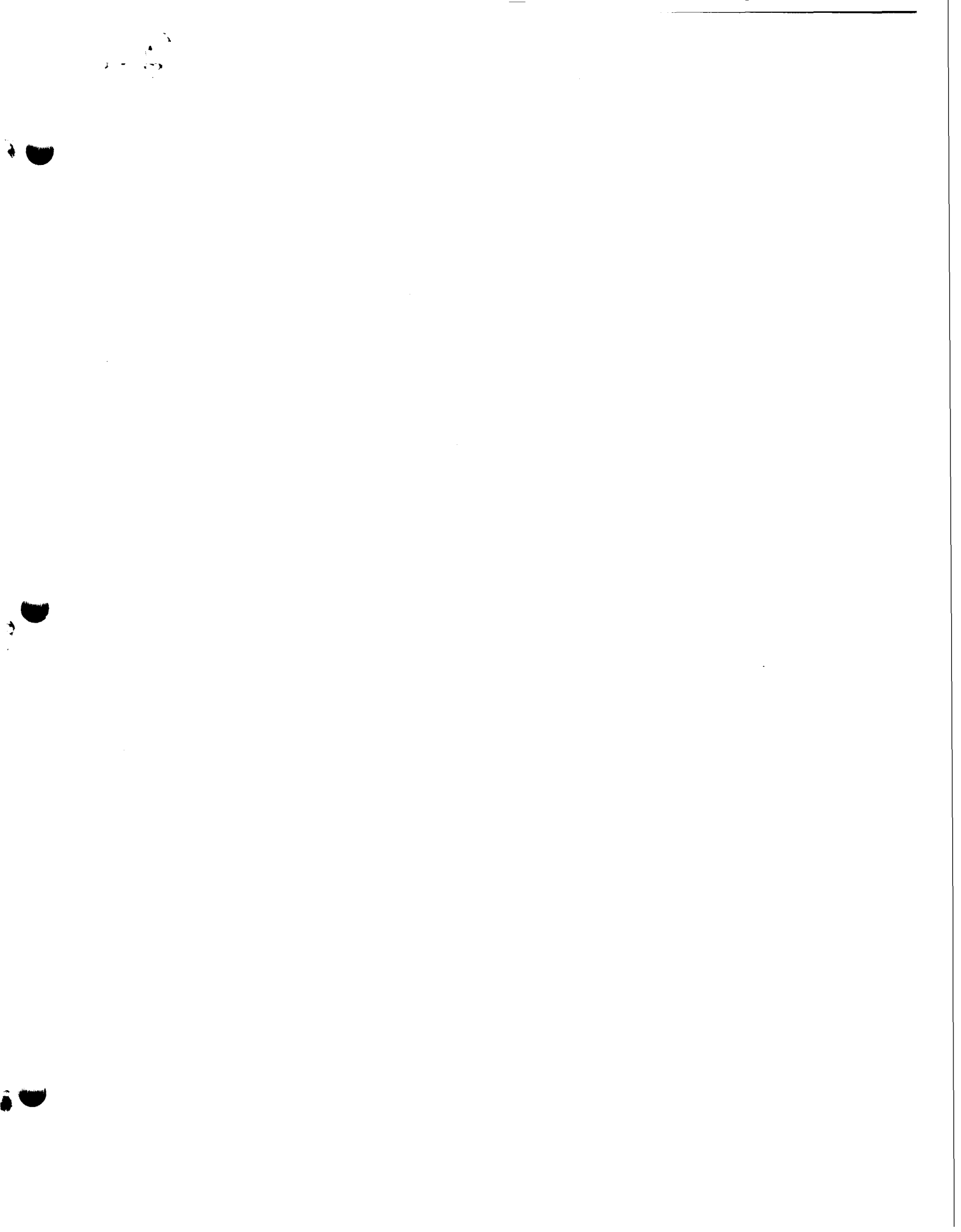
18 COMMISSIONER STEELE: Okay. This doesn't take into
19 consideration private-sector capacity -- this question -- but
20 the COBRA for shipyard scenarios that you ran on the
21 alternative 1 indicates that virtually all of Portsmouth's
22 work load can be moved to Norfolk for a cost of \$100 million.

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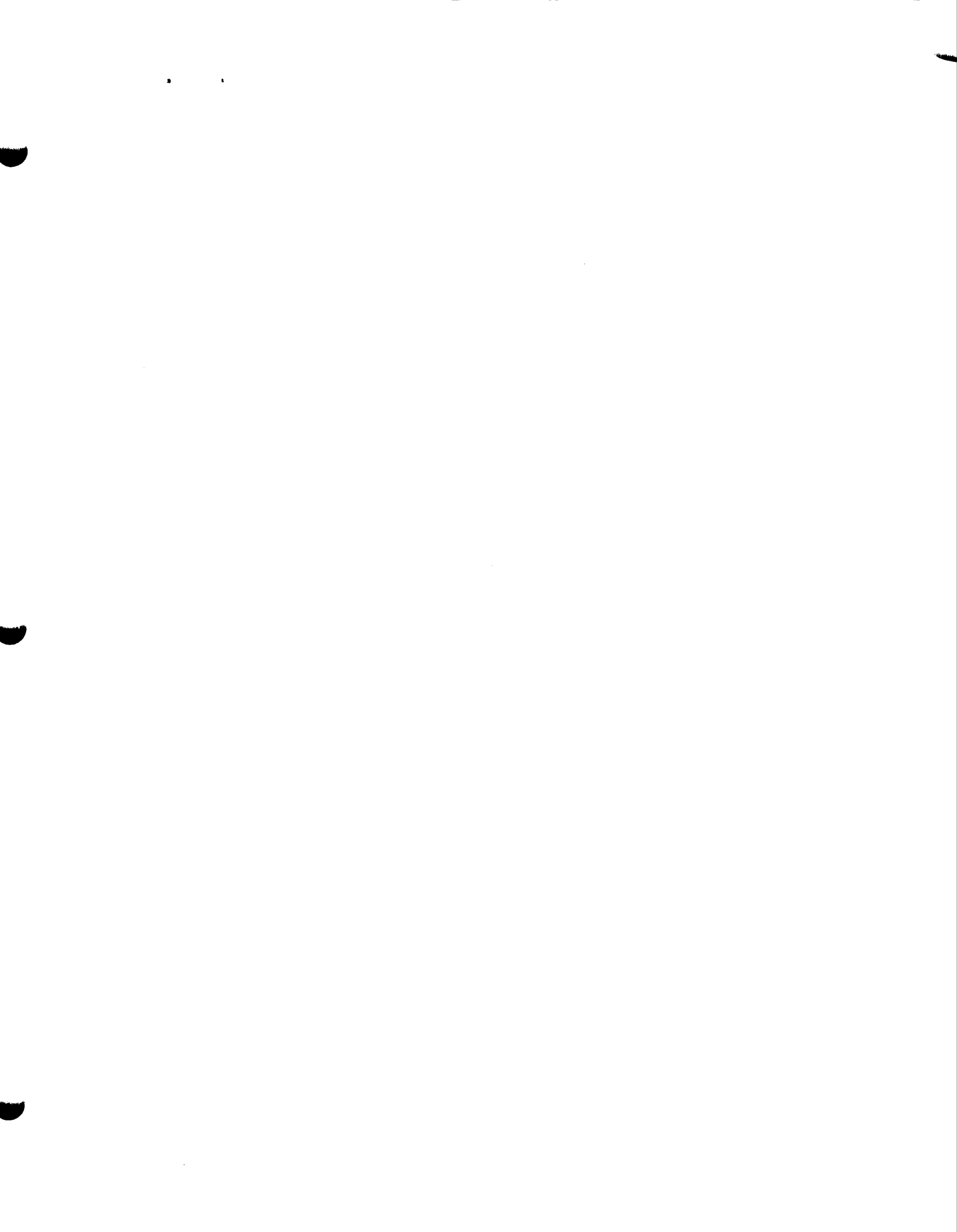
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4	D, E, H
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8	F
9	F, G
10	F
11	F
12	F
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16	I; C*; D*
19	J; K; C*
20	B/UC
21	L



TESTIMONY

THE COMMITTEE TO RETAIN THE SIERRA ARMY DEPOT

GIVEN TO THE 1995 BASE REALIGNMENT AND CLOSURE COMMISSION

DURING THE SAN FRANCISCO REGIONAL HEARING

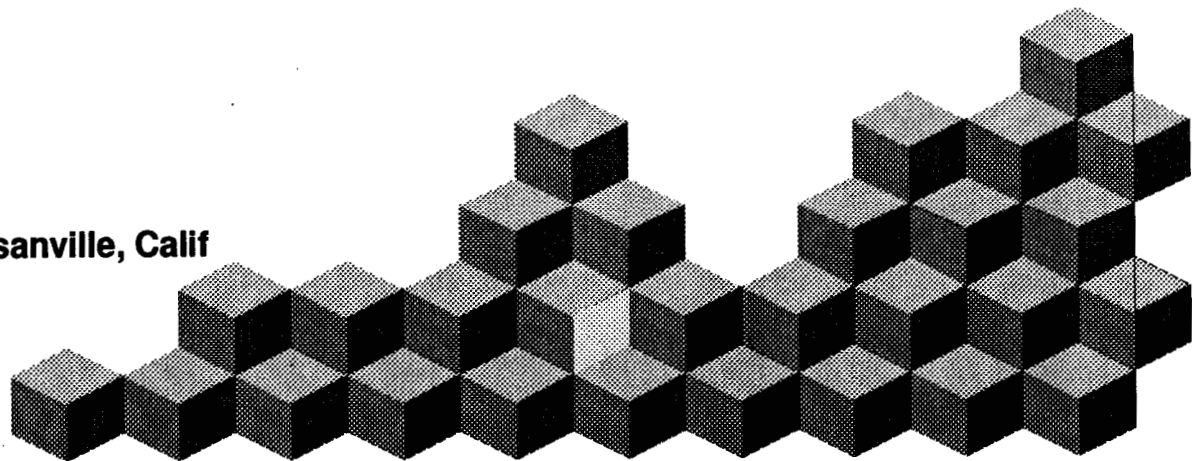
APRIL 28, 1995

THE SIERRA ARMY DEPOT

THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION

**Community Presentation — 1995 BRAC Commission
Regional Hearing — San Francisco
April 28, 1995**

The County of Lassen & City of Susanville, Calif



SLIDE 1

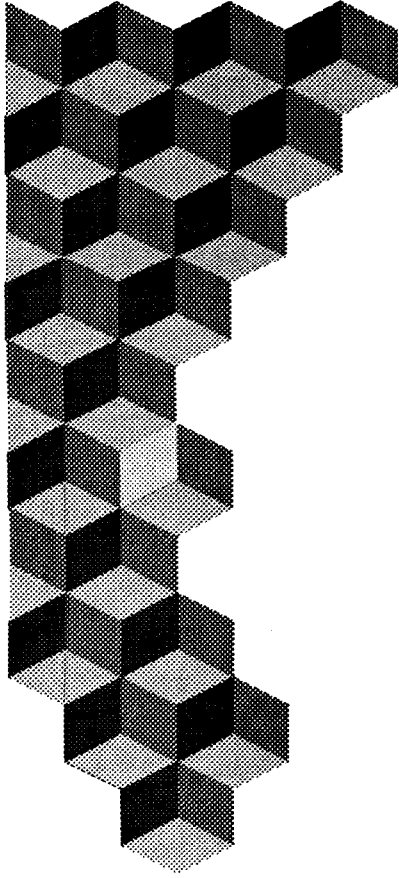
GOOD AFTERNOON MY NAME IS JACK LENSING, CHAIRMAN OF THE COMMITTEE TO RETAIN THE SIERRA ARMY DEPOT (SIAD) AND PAST PRESIDENT OF THE LASSEN COUNTY CHAMBER OF COMMERCE. I'M PLEASED TO HAVE LYLE LOUGH, LASSEN COUNTY SUPERVISOR AND JAMES JESKEY, MAYOR OF THE CITY SUSANVILLE SPEAKING WITH ME THIS MORNING.

THE MATERIALS WE HAVE PROVIDED AND THIS PRESENTATION WILL POINT OUT THE CAPABILITIES SIAD POSSESSES WHICH WERE NOT ADEQUATELY ASSESSED IN THE ARMY'S DELIBERATION. ALSO, WE'LL ADDRESS WHY THE PROJECTED ONE-TIME COSTS ARE ESTIMATED TO BE TOO LOW AND ANTICIPATED MANPOWER AND RECURRING SAVINGS ARE TOO HIGH. THESE TWO ELEMENTS ALONE COMBINE TO MAKE SIAD'S REALIGNMENT A BAD BUSINESS DECISION FOR THE TAXPAYER. HOWEVER, THERE ARE MANY MORE FAILINGS IN THE ARMY'S BRAC 95 PROCESS AND METHODOLOGIES. IT IS THESE AREAS WE'LL SPEND MOST OF OUR TIME HIGHLIGHTING. WE HOPE THAT BY THE END OF THE PRESENTATION YOU'LL AGREE THAT SIAD'S LOCATION, EFFICIENCIES, AND CAPABILITIES MAKE IT "THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION."

THE PERFECT FIT

OVERVIEW

- ◆ Strengths – The Sierra Army Depot's
- ◆ Weaknesses – The Army's Analysis
- ◆ Recommendation – Expand The Ammunition Storage Function



SLIDE 2

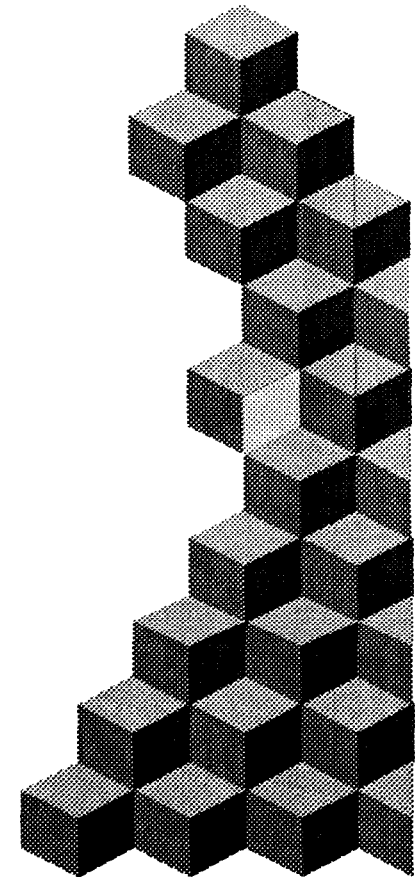
AS WE STUDIED THE PROCESS THAT PUT SIAD ON THE BLOCK, WE CAME TO REALIZE THE ARMY FAILED TO CREDIT SIAD PROPERLY FOR ITS MANY STRENGTHS, SOME UNIQUE OR SHARED BY ONLY A COUPLE OF INSTALLATIONS. AT THE SAME TIME, THE ARMY FAILED TO ENSURE ITS WORK WAS COMPLETED USING ACCURATE DATA AND FOLLOWING LOGICAL CONSTRUCTS THROUGHOUT THEIR ANALYSES. WE'LL ADDRESS THESE TWO AREAS IN DETAIL.

PUTTING THE BOTTOMLINE UPFRONT, WE BELIEVE SIAD SHOULD NOT BE DOWNSIZED. IN FACT, WE THINK ITS MANY ATTRIBUTES DEMAND AN EXPANSION OF BOTH THE OPERATION PROJECT STOCKS AND AMMUNITION STORAGE MISSIONS. BY THE TIME THE ARMY ADDS BACK THE PERSONNEL NECESSARY TO SUPPORT THE OPERATION PROJECT STOCKS MISSION, THE POTENTIAL TO LEVERAGE AN ACCEPTED BUSINESS PRINCIPLE – ECONOMY OF SCALE – SHOULD PROVIDE SUFFICIENT INCENTIVE TO GROW, NOT REDUCE THE MISSION.

STRENGTHS

“...Maintain the Army's power projection capability;...Retain affordable, world-class power projection platforms as enduring installations.” *Army Guidance, BRAC 95 Report, Vol III*

- ◆ LOWEST Ammunition Rates in Industrial Operations Command
- ◆ BEST Proximity to West Coast Ports
- ◆ ONLY Depot in West with On-Site C-5 Capable Airfield
- ◆ FINEST Demilitarization Capabilities in the Army
- ◆ ONLY Western Depot Served by Two Major East-West Rail Lines
- ◆ UNLIMITED Expansion Capability
- ◆ IDEAL Climate for Munitions Storage



SLIDE 3

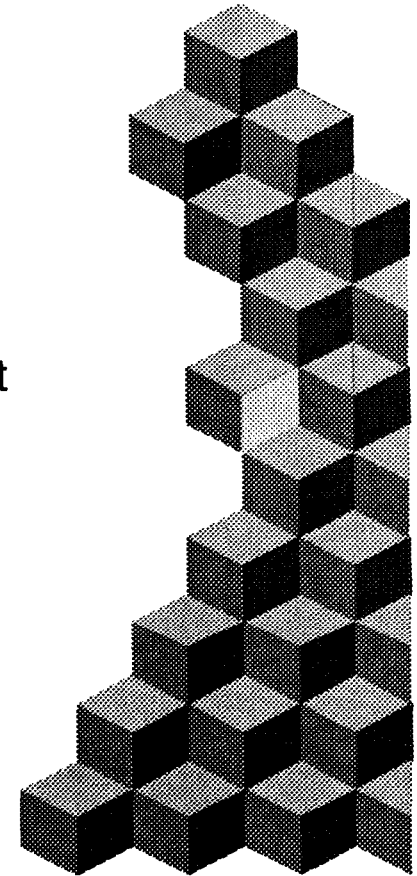
THESE ARE SOME OF THE SPECIFIC STRENGTHS SIAD HAS TO OFFER WARFIGHTING COMMANDERS, JOINT PLANNERS AND TAXPAYERS. I'D LIKE YOU TO NOTE THE ARMY'S GUIDANCE SHOWN AT THE TOP OF THE SLIDE.

THE ESSENCE OF AFFORDABLY PROJECTING AMERICA'S MILITARY POWER IS REPRESENTED ON THIS SLIDE. LOWEST COSTS, BEST LOCATION, AN ON-SITE AIRFIELD CAPABLE OF HANDLING THE LARGEST OF OUR AIR FORCE'S AIRCRAFT, AND A DEMIL CAPABILITY THAT WILL DO 31% OF ALL DOD'S WORK THIS YEAR. ADD THE TWO MAIN LINES FOR THE MAJOR EAST-WEST RAILROADS, AN UNLIMITED ABILITY TO EXPAND THE OPERATION, AND AN IDEAL CLIMATE TO STORE THE RAPIDLY GROWING MUNITIONS STOCKPILE OF ALL SERVICES AND ITS CLEAR SIAD IS A WORLD-CLASS POWER PROJECTION PLATFORM . THEREFORE, IT SHOULD BE CAREFULLY PROTECTED IN THE NATIONAL INTEREST, NOT THROWN AWAY BY QUESTIONABLE, SHORT TERM EXPEDIENCIES.

STRENGTHS — EFFICIENCY & CAPABILITY

MEANS SIAD = MOST “BANG FOR THE BUCKS”

- ◆ FY 95 Cost/Hour
 - Over \$10 per Hour Lower Than Closest Competitor
 - 3 of 8 Depots Cost More Than Twice As Much
- ◆ FY 95 Cost/Ton
 - Over \$19 per Ton Cheaper Than Closest Competitor
 - \$435 per Ton Less Than Average of \$807
- ◆ **Largest** Capacity for Open Burn and Open Detonation of Any Depot
 - 35 Times Greater Than Closest Competitor
- ◆ **Only** Military Facility That Can Burn Large Rocket Motors
 - Supports Navy Schedule To Meet START Requirements



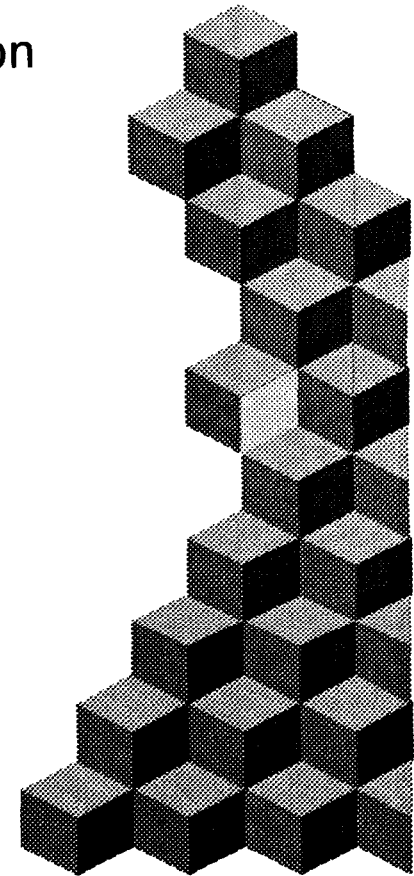
SLIDE 4

WE'RE NOT GOING TO DWELL ON EACH OF THE STRENGTHS, BUT DO WANT TO UNDERSCORE THE MAGNITUDE OF DIFFERENCE BETWEEN SIAD AND THE OTHER DEPOTS IN TWO AREAS: COSTS AND DEMIL CAPABILITY. AS YOU CAN SEE, SIAD IS OVER \$10 PER HOUR CHEAPER THAN ITS CLOSEST COMPETITOR. ALSO, WITH A SAVINGS OF \$19 PER TON THE TAXPAYER WILL SAVE A TIDY AMOUNT (OVER HALF A MILLION) ON SIAD'S FY 95 DEMIL PROGRAM. WHEN AN INSTALLATION COSTING SO MUCH LESS THAN THE AVERAGE IS REMOVED FROM THE SYSTEM, THE ONLY WAY THE EXPENSES CAN GO IS UP. MOREOVER, LOOK AT THE ENORMOUS CAPACITY FOR DEMIL SIAD HAS -- 35 TIMES GREATER THAN THE NEXT MOST CAPABLE. LET ME REPEAT THAT, 35 TIMES GREATER! WE'VE INCLUDED TWO CHARTS IN YOUR MATERIALS SHOWING WHAT THIS REALLY MEANS. THAT IS, THE AMOUNT OF MATERIAL WHICH CAN BE DEMILED IN ONE DAY AT SIAD WILL TAKE FROM 35 TO 1400 DAYS TO COMPLETE AT OTHER INSTALLATIONS. THESE TWO CHARTS SHOULD HIGHLIGHT THE NEED FOR KEEPING THIS CAPABILITY. FINALLY, SIAD HAS BEEN A KEY CONTRIBUTOR TO THE NAVY'S ABILITY TO MEET INTERNATIONAL TREATY OBLIGATIONS FOR THE DESTRUCTION OF LARGE ROCKET MOTORS. WE DO NOT KNOW OF ANY OTHER FACILITY THAT CAN MEET THEIR NEEDS.

WEAKNESSES

DEPT OF THE ARMY (DA) BRAC ANALYSIS

- ◆ Categorization
- ◆ Conflicting Studies of Ammunition Storage and Demilitarization Requirements
- ◆ Data Used in BRAC Analysis
- ◆ Costs and Savings Estimates Produced
- ◆ Use of Tiering Study as Foundation for Ammunition Storage Facility Analysis
- ◆ Data Used in Tiering Study

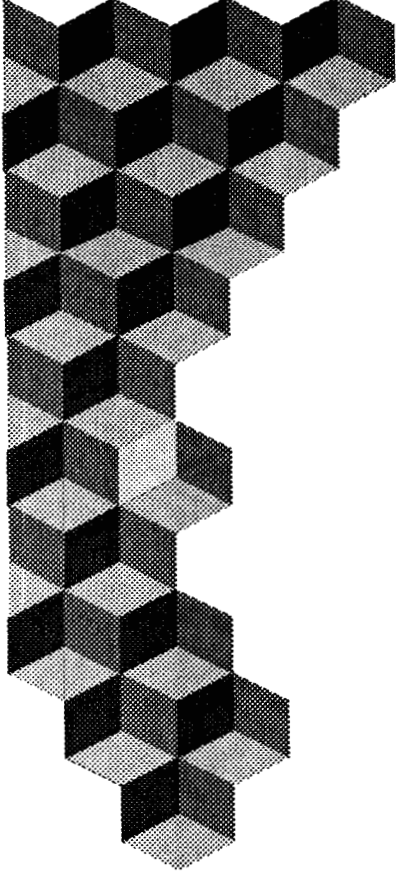


SLIDE 5

NOW TURNING TO THE NEXT MAJOR AREA – PROBLEMS WITH THE ARMY'S PROCESS FOR AMMO STORAGE FACILITIES. THE ARMY'S PROCESS WAS SPECIFICALLY CRITICIZED IN LAST WEEK'S GAO REPORT FOR "THE ACCURACY OF SOME DATA USED IN THE MILITARY VALUE ANALYSIS FOR AMMUNITION STORAGE INSTALLATIONS" (GAO REPORT, PG 78). IN THEIR REVIEW, THEY VALIDATED EXISTENCE OF SOME DATA INACCURACIES. WE BELIEVE THESE PROBLEMS ARE SIGNIFICANT FACTORS FOR SIAD. ADDITIONALLY, WE BELIEVE THERE ARE OTHER MAJOR WEAKNESSES NOT IDENTIFIED BY THE GAO. THE ERRORS RANGE FROM THOSE ASSOCIATED WITH INCORRECT CLASSIFICATION OF INSTALLATIONS; THE FAILURE TO RESOLVE QUESTIONS RAISED BY CONFLICTING STUDIES; THE USE ON BAD DATA; GARBAGE IN - GARBAGE OUT COBRA ANALYSIS; AND BASING THE MILITARY VALUE ANALYSIS ON A SERIOUSLY FLAWED, SUBORDINATE STUDY.

BRAC 95 FLAWED – CATEGORY WRONG CATEGORY

- ◆ SIAD evaluated as ammunition storage installation
- ◆ Over 55% of mission dedicated to Operational Project Stocks (Ops Stocks)
- ◆ Responsible for 5 of Army's 16 Ops Stock Items
- ◆ Army's Center of Technical Excellence



SLIDE 6

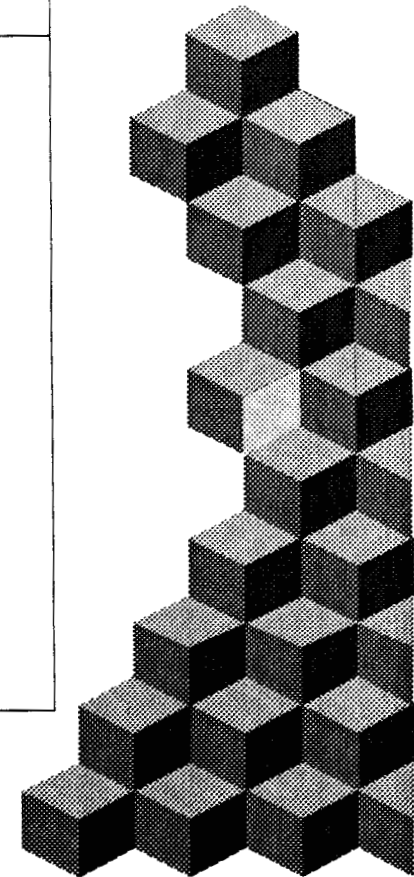
THE FIRST PROBLEM IS THAT THE ARMY USED A MISSION AREA – MUNITIONS STORAGE – TO CHARACTERIZE THE FUNCTION OF THE ENTIRE INSTALLATION AND ITS WORKFORCE. OBVIOUSLY, THIS STEMMED FROM A LACK OF APPRECIATION FOR WHAT ACTUALLY TAKES PLACE AT SIAD AND LED THE ANALYSTS TO MAKE BAD ASSUMPTIONS. THESE ASSUMPTIONS, AS REFLECTED IN THE COBRA ANALYSES, LED THE ARMY'S LEADERSHIP TO BELIEVE THE COSTS ARE LOWER AND THE SAVINGS HIGHER THAN POSSIBLE – WE'LL ADDRESS THE MAGNITUDE OF THESE ERRORS LATER.

BEFORE WE LEAVE THIS SLIDE, IT'S IMPORTANT TO NOTE THE OPS STOCK MISSION IS ONE WHICH HAS BEEN INCREASING. CURRENTLY SIAD MAINTAINS 5 OF THE 16 OPS STOCK ITEMS IN THE ARMY INVENTORY. AS THE ARMY'S CENTER OF TECHNICAL EXCELLENCE FOR OPS STOCKS, ITS REASONABLE TO EXPECT MUCH OF THE MATERIAL MOVED AS A RESULT OF BRAC TRANSITIONS WOULD COME THIS WAY. ALSO, AS OUR ARMY TRANSITIONS TO A CONUS BASED FORCE AND RETURNS WITH ITS EQUIPMENT, THE REQUIREMENT WILL GROW. THIS IS ALL TO SAY THAT SIAD WILL CONTINUE TO A VITAL PIECE OF THE ARMY WELL INTO THE FUTURE. WE THINK ITS MORE EFFECTIVE TO SPREAD THE SUNK COSTS OF KEEPING THE GATES OPEN ACROSS A LARGER, NOT SMALLER, OPERATION.

BRAC 95 FLAWED – CONFLICTING STUDIES

WHOLESALE AMMUNITION STOCKPILE PROGRAM (WASP) vs BRAC

WASP	BRAC
Covered Storage Critical	Removes Another 5 Million Square Feet
Covered Storage in Short Supply	Indicates Storage Surplus
Demilitarization Critical Because Storage Facilities Full	Closes Largest Demil Facility (SIAD)



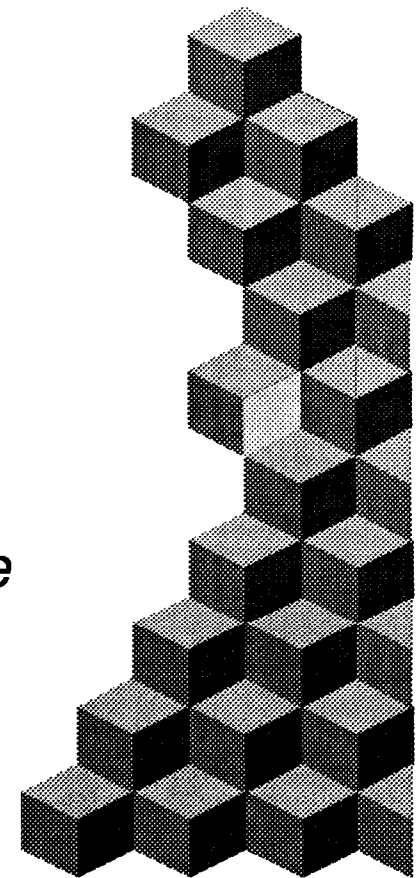
SLIDE 7

ONE OF THE STUDIES REFERENCED IN THE ARMY'S DOCUMENTATION IS CALLED THE WHOLESAL AMMUNITION STOCKPILE PROGRAM OR WASP. IT WAS COMPLETED WITH PARTICIPATION FROM EACH OF THE SERVICES AND TOOK A COMPREHENSIVE LOOK AT THE CURRENT (FY94) AND FUTURE STOCKPILE MANAGEMENT FUNDING DILEMMA. ITS FOCUS: CONCERN THAT "DEGRADATION IN STOCKPILE SAFETY, READINESS, AND QUALITY WAS OCCURRING BASED UPON THE REDUCED LEVEL AT WHICH ESSENTIAL STOCKPILE READINESS FUNCTIONS WERE BEING ACCOMPLISHED." AS YOU CAN SEE, BOTH THE WASP AND THE ARMY'S BRAC STAFF ADDRESSED SIMILAR ISSUES. HOWEVER, WE'RE AT A LOSS TO UNDERSTAND HOW THESE TWO ANALYSES CAN COME TO SUCH DIAMETRICALLY OPPOSED CONCLUSIONS. BASED ON SAVANNA'S REGIONAL HEARING, WE UNDERSTAND YOUR STAFF IS ALREADY WRESTLING WITH THE STORAGE CAPACITY QUESTION, SO WE'RE NOT GOING TO DELVE INTO THIS FURTHER AT THIS TIME.

BRAC 95 FLAWED – SIAD DATA

DATA IN ERROR

- ◆ Six of Seventeen Attribute Values Wrong
- ◆ Represents 35% Error Rate
- ◆ When Corrected and Rescored, SIAD Moves from Number 7 to Number 3
- ◆ Reconciliation of Differences With the Installation Was Not Done — Could Have Prevented Use of Bad Data
- ◆ *“...questions were raised concerning accuracy of some data used in the military value analysis for ammunition storage installations.”* GAO's BRAC 95 Report, Pg 77



SLIDE 8

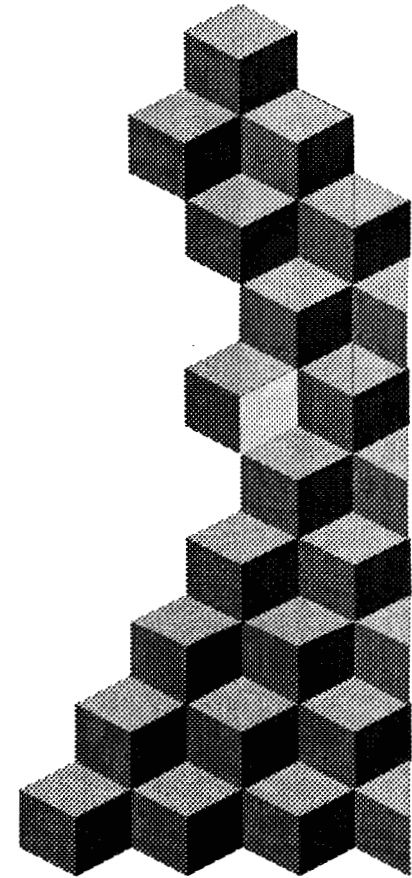
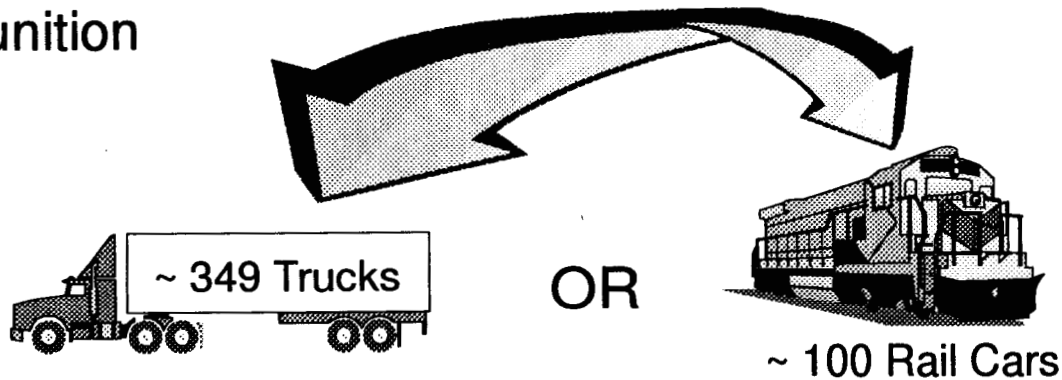
NOW, HERE ARE SOME POINTS WHICH SCREAM FOR ATTENTION. THE DATA USED IN 6 OF 17 AREAS WAS WRONG. SIMPLY, IRREFUTABLY INCORRECT IN 35% OF THE CASES. IN FACT, THE SITUATION WAS SO BAD, THAT THE GAO RAISED IT IN BOTH THEIR REPORT AND TESTIMONY TO YOU LAST WEEK. THE QUOTATION IS FROM THEIR REPORT, BUT WE FEEL SURE YOU HAVE A BETTER APPRECIATION FOR THIS AREA THAN THE WORDS CONVEY.

WE'VE INCLUDED A MATRIX WHICH IDENTIFIES THE ERRORS FOR SIAD IN THE MATERIALS WE'VE PROVIDED. IT ALSO SHOWS HOW, IF THE CORRECT DATA IS USED, SIAD'S RANKING MOVES FROM NUMBER 7 UP TO NUMBER 3. OF SPECIAL NOTE IS THAT THE ARMY CONTRIBUTED TO THIS PROBLEM BY DEPARTING FROM THEIR PROCEDURES IN PREVIOUS BRAC ROUNDS. UNLIKE BRAC 91 AND 93, THE DEPARTMENT OF THE ARMY MADE NO EFFORTS TO RECONCILE DIFFERENCES BETWEEN WHAT THEY CHOSE TO USE AND THE DATA SUBMITTED BY THE INSTALLATION. HAD THEY DONE SO, THERE WOULD HAVE EITHER BEEN NO BAD DATA USED, OR NO OPPORTUNITY FOR COMMUNITIES TO RAISE THE QUESTION. BECAUSE THEY DID NOT – WE ARE – AND BELIEVE THE GAO'S REPORT SUPPORTS THE ASSERTION.

BRAC 95 FLAWED – SIAD DATA

ERROR IN AMMO STORAGE DATA

- ◆ DA BRAC Staff Used 1.940 million Square Feet
- ◆ SIAD Validated 1.997 million Square Feet of Covered Storage*
- ◆ Delta Could Accommodate Additional 7,239 Tons of Ammunition



***Does Not Include Earth Covered Storage Capability**

SLIDE 9

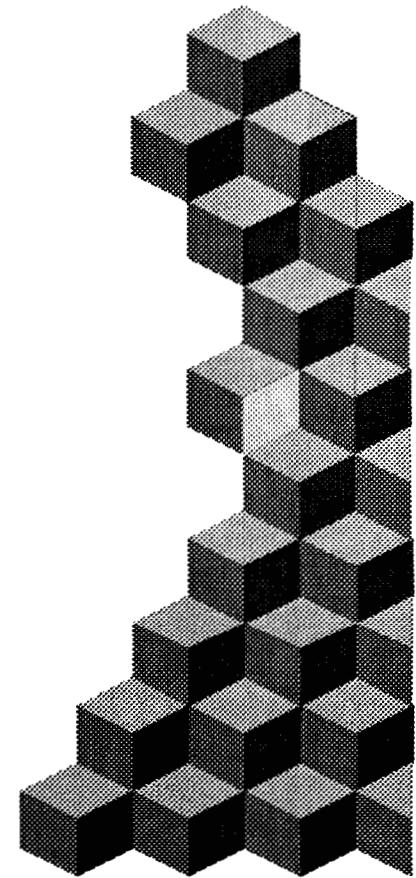
THE FIRST ATTRIBUTE MEASURED IN THE ARMY'S ANALYSIS WAS ABOUT 57,000 SQUARE FEET IN ERROR. THIS RESULTED WHEN SIAD INCORRECTLY USED THE CATEGORY DEFINITIONS PROVIDED. THE FACT REMAINS HOWEVER, THAT THE NUMBER USED IN THE ARMY'S ANALYSIS WAS WRONG. IT WOULD SEEM THE PROCESS OF DATA COLLECTION, CERTIFICATION, AND VALIDATION SHOULD HAVE CAUGHT THIS MISTAKE. PERHAPS, IF THE DEPARTMENT OF THE ARMY HAD TAKEN SOME EFFORTS TO RECONCILE APPARENT ERRORS WITH THE INSTALLATION, BAD DATA WOULD NOT BE FOUND IN SUFFICIENT AMOUNTS TO WARRANT THE GAO'S COMMENTS.

IN THIS CASE, THE DIFFERENCE BETWEEN THE FIGURES REPRESENTS A SIGNIFICANT TONNAGE OF MUNITIONS STORAGE CAPACITY.

BRAC 95 FLAWED – SIAD DATA

ERROR IN AVAILABLE WORKFORCE DATA

- ◆ SIAD Reported 157,275
- ◆ DA BRAC Staff Used 10,082
- ◆ SIAD Validated 157,275
- ◆ SIAD Has Much More Robust Resource Pool Than Credited



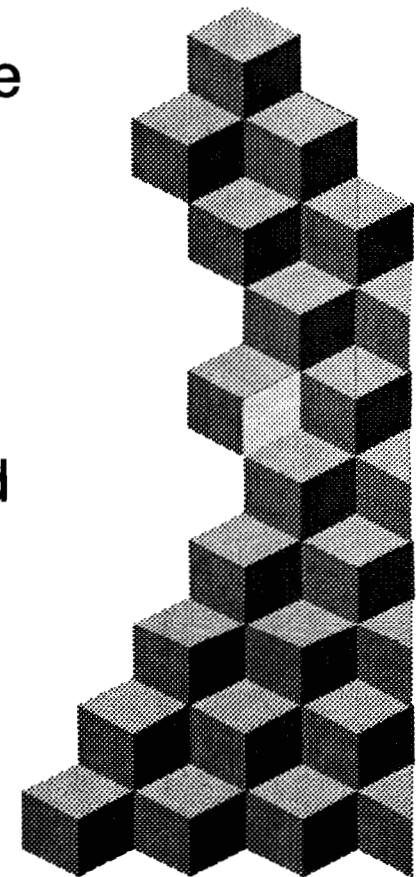
SLIDE 10

THIS CHART REFLECTS THE DIFFERENCE BETWEEN INCLUDING THE RENO, NEVADA AREA IN THE ECONOMIC AREA OF SIAD FOR BRAC 95. OBVIOUSLY, ADDING THE RENO AREA HAS A DRAMATIC EFFECT OF SIAD RESOURCE POOL FOR ASSESSING AVAILABLE WORKFORCE. WE BELIEVE THAT, BASED ON USING THE "DETERMINATION OF ECONOMIC AREAS" GUIDANCE FROM DOD POLICY MEMORANDUM THREE (APPENDIX C, PG C-85 TO THE DOD REPORT) THAT THE RENO AREA SHOULD HAVE BEEN INCLUDED IN SIAD'S ECONOMIC AREA – IT WAS DURING BRAC 93. IN FAIRNESS, WE HAVE TO ACKNOWLEDGE THE EFFORTS DOD MADE TO ENSURE CONSISTENCY OF DATA MEASUREMENT ACROSS INSTALLATIONS. HOWEVER, ALTHOUGH CONSISTENCY CAN BE A VIRTUE, TOO RIGID AN APPROACH DISTORTS, NOT CLARIFIES, THE ANALYSIS.

BRAC 95 FLAWED – SIAD DATA

ERROR IN INFRASTRUCTURE DATA

- ◆ Cost of Landfill Used
 - SIAD Reported \$110 Off-base & \$37 On-base
 - DA BRAC Staff Used \$110
 - SIAD Uses On-base Facility @ \$37
- ◆ Indication of Possible Out-year Constraint Invalid



SLIDE 11

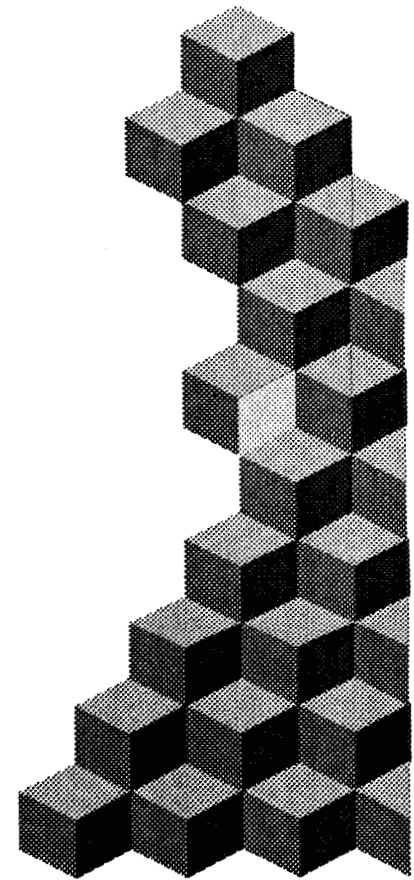
ONE FINAL EXAMPLE OF DATA ERRORS. SIAD REPORTED TWO NUMBERS FOR THE COST OF USING A LANDFILL. THE HIGHER APPLIES TO AN OFF-BASE SITE, THE LOWER TO THE ON-BASE LOCATION. THEY ALSO INDICATED THEY USED THE ON-BASE SITE AT \$37, NOT THE MORE EXPENSIVE ONE OFF-BASE. HOWEVER, THE ARMY ANALYSIS USED THE \$110 FIGURE WHICH LED TO AN INDICATION OF POSSIBLE OUT-YEAR PROBLEMS WHICH IS INCORRECT.

AGAIN, RECONCILIATION WOULD HAVE PREVENTED THIS.

BRAC 95 FLAWED – SIAD DATA

ERRORS IN OTHER DATA SETS

- ◆ Deployment Network
- ◆ Maintenance Flexibility
- ◆ Facility Average Age
- ◆ Excess Capacity Storage
- ◆ Encroachment



SLIDE 12

THERE WERE ADDITIONAL ERRORS IN THESE ATTRIBUTE AREAS. INSTEAD OF WALKING THROUGH EACH ONE, WE'VE PROVIDED A CHART SHOWING THE DIFFERENCES BETWEEN WHAT SIAD REPORTED AND THE DA BRAC STAFF USED. IN ALL CASES, SIAD HAS VALIDATED THEIR ORIGINAL INPUT. IN SOME CASES, THE VALUE IS EVEN HIGHER THAN ORIGINALLY SUBMITTED.

ONE FINAL POINT BEFORE LEAVING THE ISSUE OF BRAC DATA ACCURACY. THERE MAY BE EVEN MORE ERRORS THAN WE'VE NOTED. THE REASON I SAY THIS IS THE DIFFICULTY WE'VE HAD OBTAINING THE CERTIFIED DATA USED IN THE ANALYSIS. IN FACT, WE UNDERSTAND THAT EVEN THE DEPOT STAFF HAS STILL NOT RECEIVED A COPY OF THE DATA ACTUALLY USED BY THE ARMY IN THE ANALYSIS. WE KNOW THAT NEITHER SENATOR'S FEINSTEIN OR BOXER, NOR CONGRESSMAN HERGER HAVE RECEIVED THIS INFORMATION, IN SPITE OF REPEATED ATTEMPTS BY THEIR STAFFS TO OBTAIN IT.

WE HAD EXPECTED THE DEPARTMENT OF THE ARMY TO BE MUCH MORE RESPONSIVE TO REQUESTS FOR INFORMATION ABOUT THE PROCESS. AFTER ALL, IT'S SUPPOSE TO BE AN OPEN ONE – IT DOESN'T APPEAR THE ARMY SHARES THIS VIEW.

BRAC 95 FLAWED — COST & SAVINGS

ARMY'S PROJECTIONS \neq REALITY

- ◆ Costs Understated: \$64M – \$117M
 - ~146,000 Tons of Ammo in Issueable Status Must Be Moved (\$38M – \$91M)
 - ~79,000 Tons of Ammo in Demil Account Must Be Destroyed
 - ▶ \$19M if Done at Cheapest Depot (SIAD)
 - ▶ Up to \$24M (Plus Transportation Expenses) More if Completed Elsewhere
- ◆ Personnel Savings Overstated by 34%, Inflating Savings by ~\$5.7M per year
 - Army Estimated 240 Civilian Personnel to Remain
 - ▶ Shorts SIAD 48 Positions for Operational Project Stocks
 - ▶ Shorts SIAD 218 Positions for Fire Protection, Security, Engineering, Legal, Maintenance, etc...
 - ▶ Shorts SIAD 10 Positions for Radiation Survey Mission
 - Real Number is 518 (512 Civilian + 6 Military) Positions



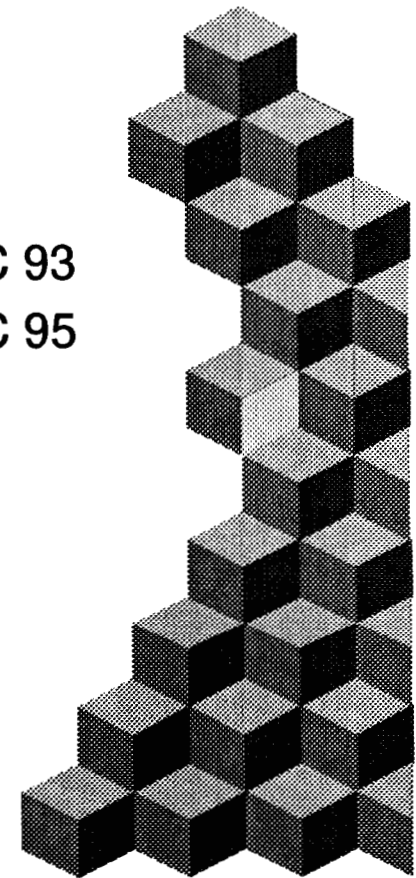
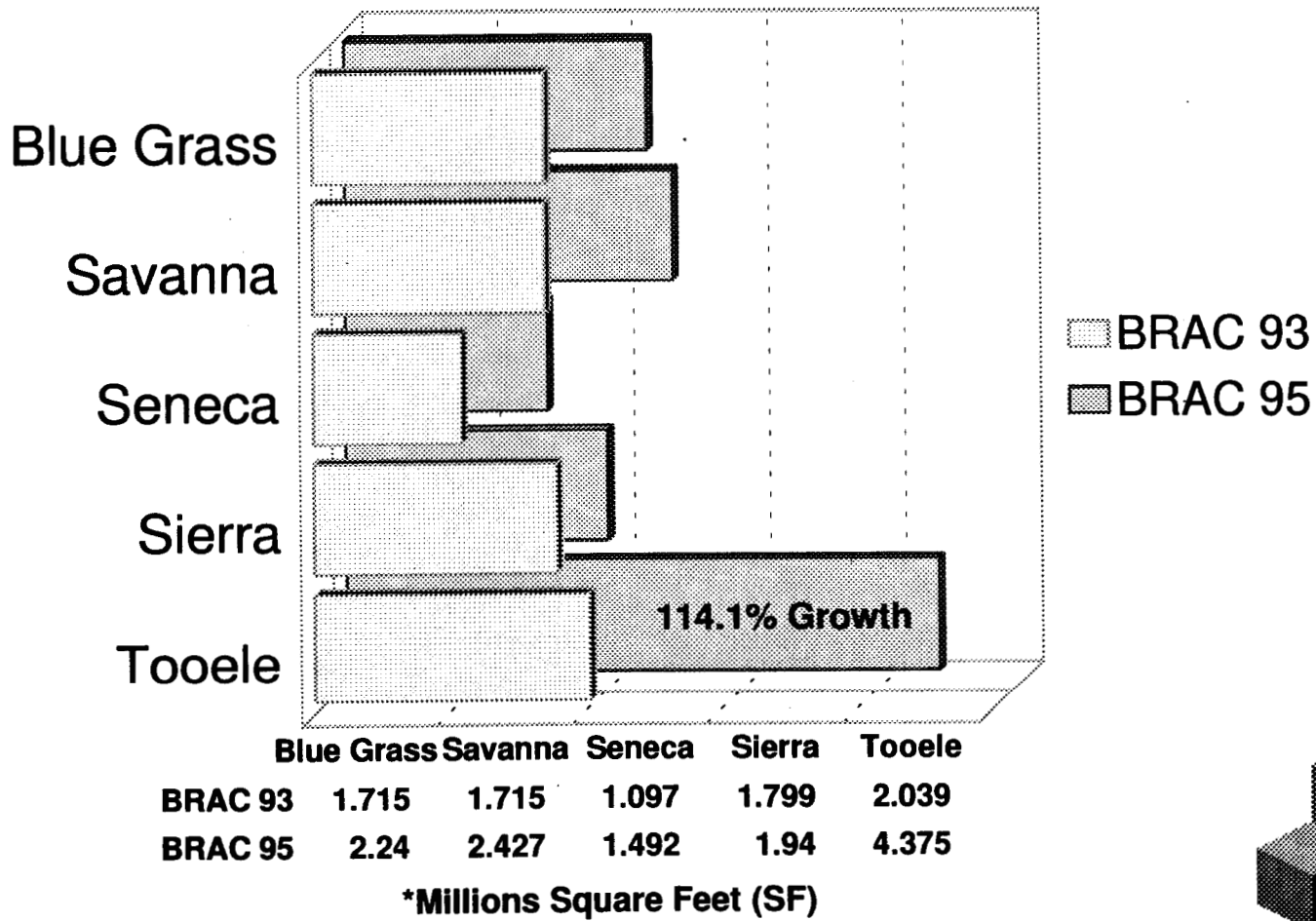
SLIDE 13

HERE, WE SEE THE IMPACT OF BAD DATA ON THE OUTPUT OF THE COBRA MODEL. FIRST, THE COSTS: THE ARMY FAILED TO ACKNOWLEDGE THE EXPENSE OF MOVING AMMUNITION WHICH WILL NOT BE DESTROYED. THIS IS, AS THEY SAY, THE GOOD STUFF AND WILL COST BETWEEN \$38 AND \$91 MILLION, DEPENDING WHERE ITS MOVED. ALSO, THERE ARE DOLLARS ASSOCIATED WITH DEMILING SIAD'S CURRENT INVENTORY. EVEN IF COMPLETED AT SIERRA, WITH THE ATTENDANT COST SAVINGS, ITS STILL \$19 MILLION. THESE ARE TWO OF THE LARGER AREAS OVERLOOKED.

THE PERSONNEL SAVINGS ARE PARTICULARLY TROUBLING BECAUSE THE ARMY'S RECOMMENDATION FAILS TO LEAVE ENOUGH PEOPLE IN PLACE TO DO THE JOB NECESSARY. A DETAILED LOOK AT HOW THIS OCCURRED IS IN YOUR MATERIALS. IN A NUT SHELL, THE ARMY HAS SHORTED THE DEPOT 518 PEOPLE. THIS ERROR WILL REDUCE THE STEADY STATE SAVINGS BY APPROXIMATELY 34% PER YEAR. (THAT \$5.7 MILLION, GIVE OR TAKE, IS A SUBSTANTIAL PIECE OF EVEN BILL GATES' PERSONAL INCOME TAXES.)

BRAC 95 FLAWED – OTHER INSTALLATION DATA

LARGE DIFFERENCES BETWEEN BRAC 93 & BRAC 95
STORAGE CAPABILITY FIGURES*



SLIDE 14

ERRORS IN THE DATA ARE NOT UNIQUE TO SIAD. THIS CHART SHOWS THE MUNITIONS STORAGE CAPACITY CREDITED TO FIVE LOCATIONS IN BOTH BRAC 93 AND 95. IT WOULD SEEM TO US THAT THIS TYPE OF ASSET WOULD BE RELATIVELY FIXED. WE REALLY DON'T UNDERSTAND HOW THIS KIND OF CAPACITY COULD CHANGE SO MUCH. SIERRA HAD THE SMALLEST CHANGE, WITH AN INCREASE OF ABOUT 7.8%. THE NEXT LOWEST WAS AT 30% WHILE TOOELE GREW AN AMAZING 114% BETWEEN THE TWO BRACS. THIS KIND OF GROSS INCONSISTENCY SHOULD CERTAINLY WARRANT THE COMMISSION'S SCRUTINY PRIOR TO ACCEPTING THE ARMY'S RECOMMENDATION.

BRAC 95 FLAWED – PROCESS

“Ammunition storage facilities support the operational requirement of ‘power projection.’”
Army BRAC 95 Report, Vol III, pg 58

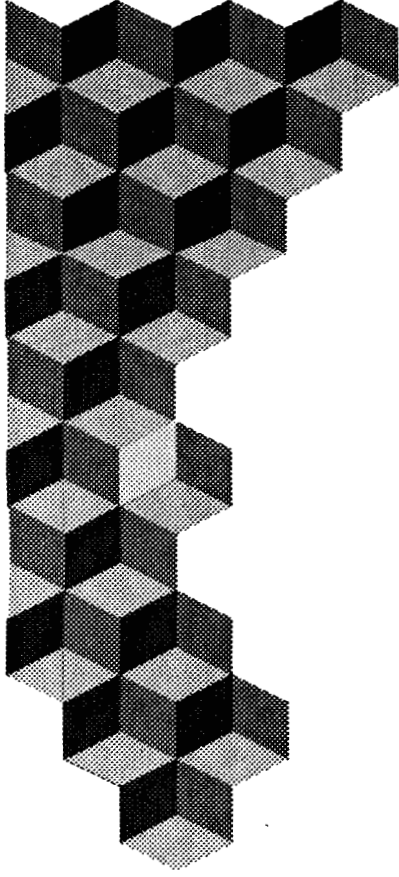
HOWEVER POWER PROJECTION MEASURED SUPERFICIALLY

◆ Measure of Merit = Distance to Airfields, Ports, Railheads, and Interstate Highways

◆ No Consideration of Outload Capability

◆ No Consideration of Cost

◆ No Consideration of Efficiency



SLIDE 15

WE'VE ALSO IDENTIFIED PROBLEMS WITH THE ARMY'S BRAC PROCESS. FOR EXAMPLE, THE ARMY'S REPORT STATES THAT "AMMUNITION STORAGE FACILITIES SUPPORT THE OPERATIONAL REQUIREMENT OF POWER PROJECTION." HOWEVER, THE BRAC ANALYSIS FAILED TO USE ANY MEANINGFUL MEASURES OF MERIT TO ASSESS THE ABILITY TO PROJECT POWER.

FIRST, THEY ONLY EVALUATED DISTANCES TO AIRFIELDS, PORTS, RAILHEADS, AND INTERSTATE HIGHWAYS. THEY DID NOT MEASURE THE ABILITY TO PREPARE, LOAD, OR DELIVER MUNITIONS TO ANY OF THESE TRANSPORTATION NODES. (WE'LL SKIP THE NEXT BULLET AND ADDRESS THE ISSUE OF OUTLOAD CAPACITY LATER.) SECOND, THEY IGNORED THE COST DIFFERENCES BETWEEN INSTALLATIONS. THIS PENALIZED COST EFFECTIVE DEPOTS AND REWARDED THE MORE EXPENSIVE ONES.

FINALLY, NO WEIGHT WAS GIVEN TO THE EFFICIENCY OF MOVING THE MUNITIONS. CERTAINLY, SIAD'S TWO MAIN RAIL LINES CAN FEED MATERIAL TO THE WESTERN PORTS FASTER THAN OTHER INSTALLATIONS WITHOUT SUCH DIRECT ACCESS. ALSO, THEIR ON-SITE AIRFIELD ALLOWS TREMENDOUS RESPONSIVENESS FOR TIME CRITICAL ITEMS.

BRAC 95 FLAWED – PROCESS

AMMO STORAGE ANALYSIS BASED ON TIERING STUDY

- ◆ Tiering Study Integration With BRAC Analysis — Square Peg in a Round Hole
- ◆ Study Emphasized Areas Not Addressed by BRAC and Failed To Measure That Were
- ◆ Data Not Certified IAW Requirement to Use Certified Data for BRAC Analysis
- ◆ Data Not Valid



SLIDE 16

ANOTHER CRITICISM OF THE ARMY'S BRAC PROCESS IS THAT THE MUNITIONS STORAGE FUNCTION WAS BASED A SUBORDINATE PRODUCT CALLED THE "TIER DEPOT ANALYSIS." IT TOO HAS LARGE PROBLEMS. AND THE DECISION TO INSERT ITS RESULTS IN THE BRAC PROCESS INTRODUCED FATAL ERRORS INTO THE ARMY'S ANALYSIS.

FOR EXAMPLE, ONLY FOUR OF THE TIERING STUDY'S MEASURES WERE EVEN ADDRESSED IN THE BRAC MATRIX. AS PREVIOUSLY MENTIONED THOSE FOUR MEASURES OF MERIT WERE LOOKED AT ABOUT AS SUPERFICIALLY AS WAS POSSIBLE.

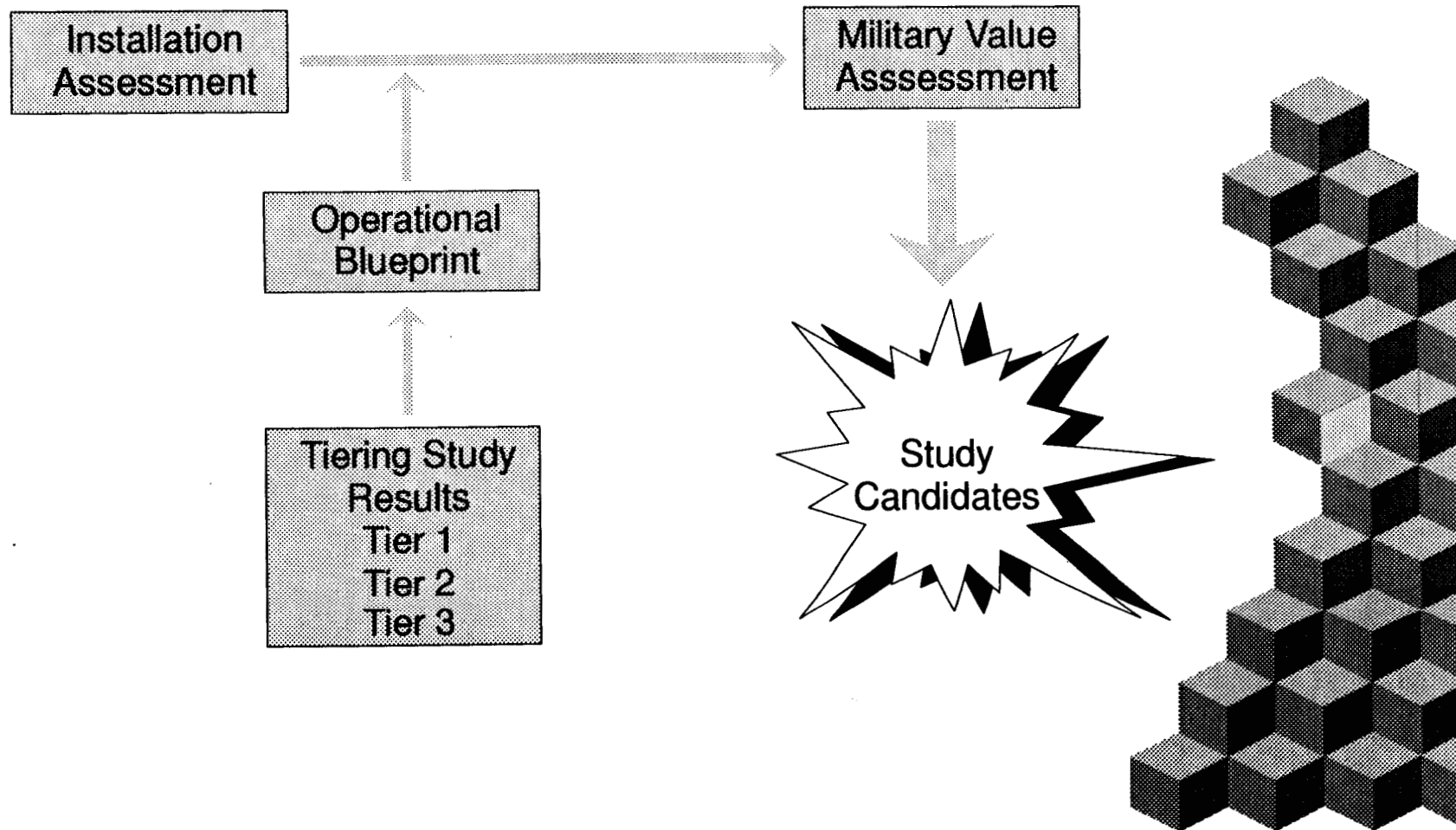
MOST IMPORTANTLY, THE DATA USED IN THE TIERING STUDY DOES NOT APPEAR TO HAVE BEEN CERTIFIED IAW THE LAW, DOD POLICY, OR THE ARMY'S PROCESS, DIAGRAMMED ON PAGE 3 OF THEIR REPORT, VOL II. IF THIS IS CORRECT, AND WE BELIEVE IT IS, THE ARMY BASED IT'S BRAC RECOMMENDATIONS ON NON CERTIFIED DATA IN VIOLATION OF PUBLIC LAW 101-510, AS AMENDED.

FINALLY, AND ALMOST AS IMPORTANTLY, THE DATA USED WAS NOT CORRECT.

STUDY INTEGRATION — THE PLAN

“The MVA provides the basis for identifying BRAC study candidates and is summarized below.”

Army BRAC 95 Report, Vol III, pg 59



SLIDE 17

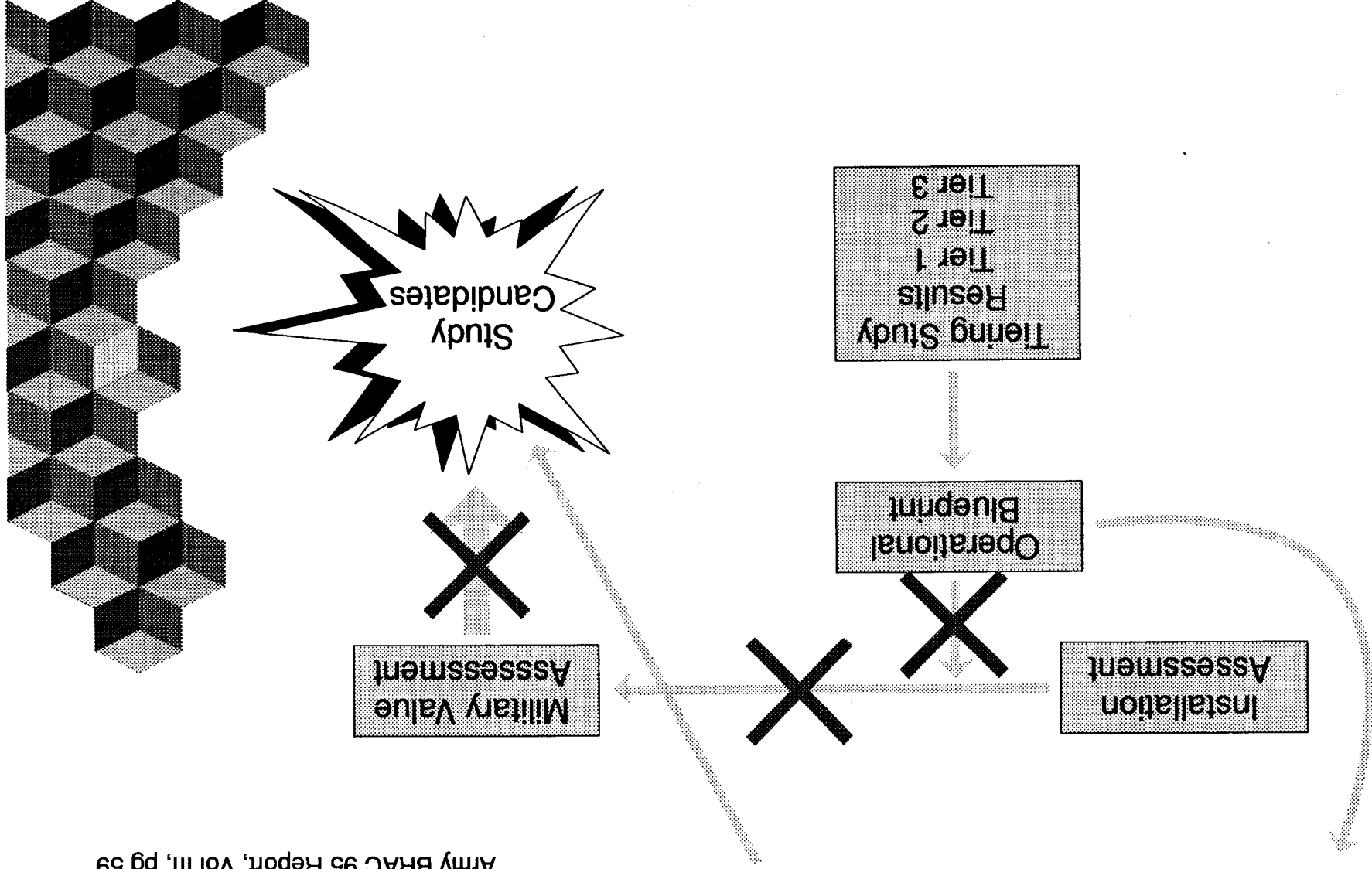
THIS IS A REPRESENTATION OF THE ARMY'S PROCESS FOR AMMO STORAGE INSTALLATIONS AS SHOWN IN THEIR REPORT, VOL III, PG 59. WE'RE NOT GOING TO BELABOR THIS POINT, BUT WANT TO EMPHASIZE THE ROLE OF THE MILITARY VALUE ASSESSMENT AS QUOTED AT THE TOP OF THE SLIDE. IN THE ARMY'S PROCESS, QUOTE THE MVA PROVIDES THE BASIS FOR IDENTIFYING BRAC STUDY CANDIDATES UNQUOTE. THIS DID NOT HAPPEN WITH THE AMMO STORAGE FACILITIES. ALTHOUGH TWO INSTALLATIONS NOT ADDRESSED BY THE TIERING STUDY WERE INCLUDED AS BRAC STUDY CANDIDATES, THEY WERE SUBSEQUENTLY ELIMINATED FROM CLOSURE OR REALIGNMENT CONSIDERATION BASED ON THEIR CHEMICAL MUNITIONS DEMIL CAPABILITIES. ESSENTIALLY, INSTALLATIONS WITH CHEMICAL DEMIL CAPABILITIES WERE CATEGORICALLY EXCLUDED.

THE NEXT SLIDE SHOWS HOW THE INTEGRATION OF THE TIERING STUDY RESULTS AND THE BRAC ANALYSIS FAILS TO COMPLY WITH THE ARMY'S PROCESS.

STUDY INTEGRATION — THE RESULT

“Operational Blueprint — Eliminate Tier 3 (Caretaker) Installations”

Army BRAC 95 Report, Vol III, pg 59



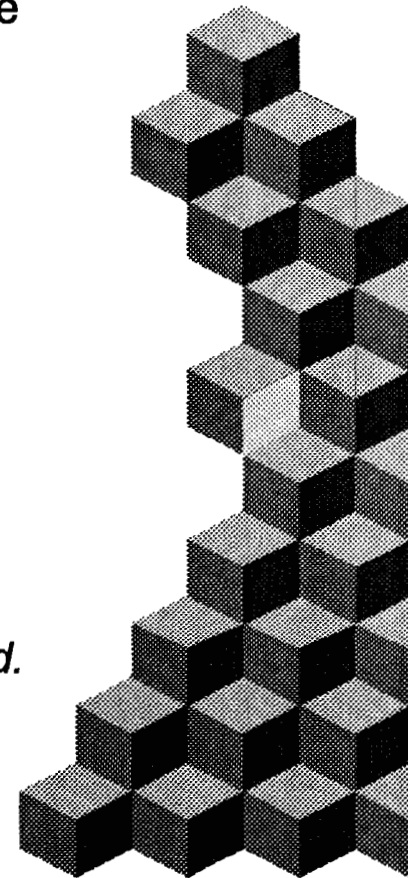
SLIDE 18

SINCE THE OPERATIONAL BLUEPRINT FOR THIS CATEGORY SPECIFICALLY DIRECTS THE ELIMINATION OF TIER 3 INSTALLATIONS, NO TIER 1 OR 2 FACILITIES WERE EVER AT RISK. AS PREVIOUSLY STATED, THE TIERING STUDY, NOT THE INSTALLATION ASSESSMENT, NOR THE MILITARY VALUE ANALYSIS, DETERMINED WHICH INSTALLATIONS WERE TIER 1, 2, OR 3. THEREFORE, THE OPERATIONAL BLUEPRINT DEMANDED THE BRAC STUDY CANDIDATES INCLUDE ALL INSTALLATIONS CLASSIFIED BY THE TIERING STUDY AS TIER 3, AND IGNORE THE REMAINDER. IN SHORT, THE PURPOSE OF THE ARMY'S BRAC 95 PROCESS, AS IT RELATED TO MUNITIONS STORAGE INSTALLATIONS, WAS TO ELIMINATE FACILITIES ALREADY SETUP FOR CLOSURE OR REALIGNMENT BY ANOTHER STUDY. THE TIER 3 INSTALLATIONS NEVER HAD A CHANCE. THEY WENT DIRECTLY FROM BEING IDENTIFIED BY ONE BAD ANALYSIS TO BEING SELECTED FOR CLOSURE OR REALIGNMENT BY ANOTHER. AND AGAIN, WE'D LIKE TO POINT OUT THAT THE CERTIFIED DATA THE ARMY COLLECTED FOR BRAC WAS AN INPUT TO THE INSTALLATION ASSESSMENT PROCESS. (ARMY REPORT, VOL 2, PG 3). WHEN THE TIER 3 INSTALLATIONS BYPASSED THIS PROCESS, THE CERTIFICATION CHAIN WAS BROKEN.

OH YES, AND THE DATA WAS INACCURATE.

TIERING STUDY FLAWED – DATA OTHER ERRORS

- ◆ SIAD Has Missile Maintenance Capability— No Credit Given
- ◆ SIAD Has Inspection/Test Capability — No Credit Given
- ◆ SIAD Demil Capability Shorted By 220,000 Pounds Net Explosive Weight (NEW)
 - Question: *“Why was SIAD’s OB/OD capability listed at only 20,000 pounds NEW when it is actually 240,000 pounds?”*
 - Response: *“...Sierra was ranked among the highest for its demil.... Adding additional OB/OD capacity would have had no effect on the final tiering.”* B/G Holmes, DCS, Ammunition, March 2, 95 Ltr to Congressman Herger
- ◆ Later Response: *“Data used for evaluation and analysis purposes was gathered from information available at HQ AMCCOM and HQ DESCOM.... Thus it was assumed to be accurate, correct, and valid. There was no need for audit.”* B/G Holmes, DCS, Ammunition, March 2, 95 Ltr to Congressman Herger



SLIDE 19

A FEW OTHER ERRORS IN THE TIER ANALYSIS RESULTED FROM NO, OR TOO LITTLE, CREDIT BEING GIVEN FOR SIGNIFICANT FUNCTIONS. THE DEMIL CAPACITY ERROR SHOULD HAVE BEEN OBVIOUS TO THE ARMY STAFF SINCE IT'S WELL KNOWN THAT SIERRA HAS THE MOST CAPABILITY IN THE ARMY. HOWEVER, THE WORST THING ABOUT THE TIER ANALYSIS IS THAT EVEN WHEN THE LEADERSHIP ACKNOWLEDGED THAT THE DATA USED WAS WRONG, THEY MADE LIGHT OF IT. THEY SEEMED MORE CONCERNED ABOUT PROTECTING THEIR PROCESS THAN HAVING USED INACCURATE DATA TO BASE THEIR DECISIONS ON.

HOWEVER MUCH GEN HOLMES WISHED HIS DATA WAS "ACCURATE, CORRECT, AND VALID," IT WAS NOT. THE EXAMPLE OF THE DEMIL CAPACITY POINTS THAT OUT FAIRLY DIRECTLY. THEREFORE, IF THE DEMIL VALUES WERE INCORRECT, HOW MUCH MORE OF THE DATA WAS IN ERROR? SHOULDN'T THE DISCOVERY OF A MISTAKE IN DATA ASSUMED TO BE SO PURE HAVE TRIGGERED SOME SORT OF REVIEW? WE THINK SO, BUT IT DID NOT. INSTEAD THE ARMY STOOD ON A PAT STATEMENT TO THE EFFECT THAT "THERE WAS NO NEED FOR AUDIT." AGAIN, THIS FLAWED DATA DROVE THE TIER PLACEMENTS AND THAT IS WHAT DROVE THE BRAC RECOMMENDATIONS.

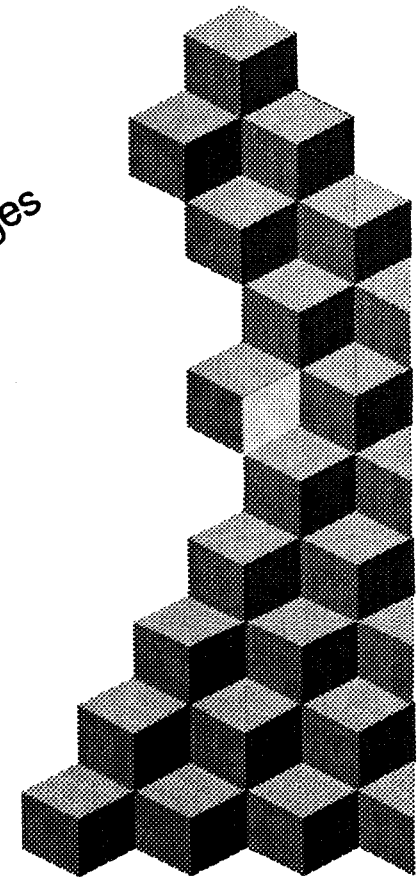
TIERING STUDY FLAWED – PROCESS

OUTLOAD CAPABILITY MEASURED INCORRECTLY

- ◆ Capability Function of Many Things
 - Benefits From Difficult to Acquire Assets
 - ▶ Rail Line Availability
 - ▶ Airfield Proximity
 - ▶ Interstate Highway Access
 - Suffers From Easy to Fix Shortages
 - ▶ Too Little Material Handling Equipment
 - ▶ Too Few People
 - ▶ Lack of Sufficient Rail Cars & Trucks
- ◆ Emphasis Placed on Problems Caused by Easy Fix Deficiencies
- ◆ Little Credit For Having Difficult to Acquire Infrastructure
- ◆ Focus Appears To Be Backwards

Physical Constraints

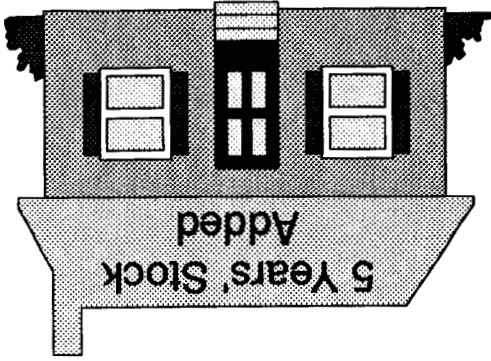
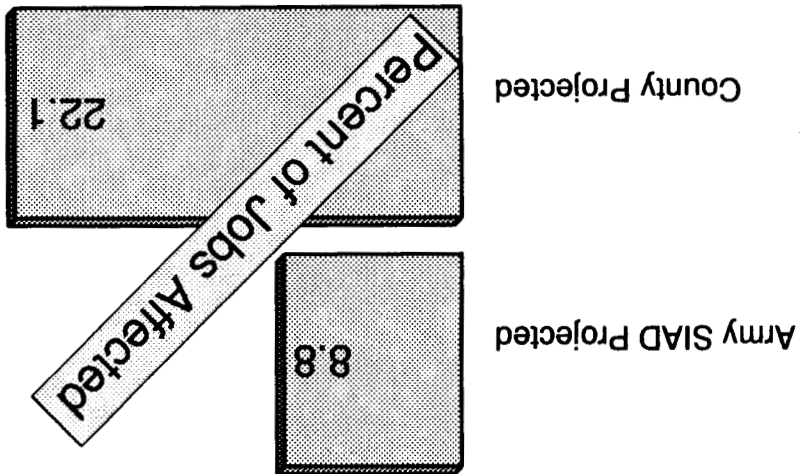
Leadership Challenges



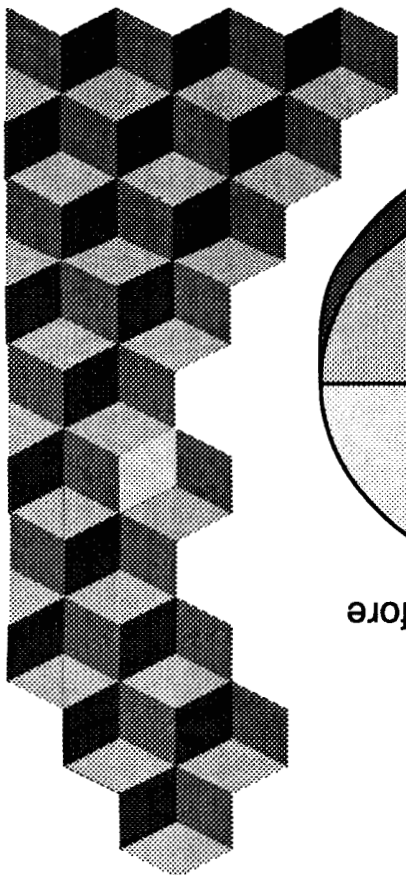
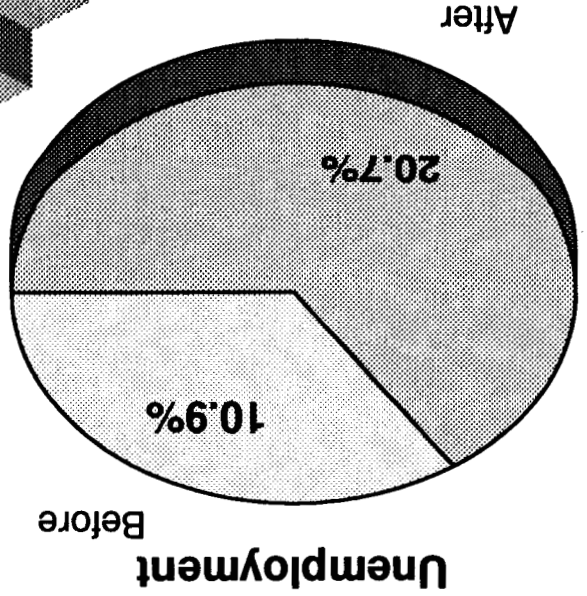
SLIDE 20

A FEW MINUTES AGO, WE MENTIONED OUTLOAD CAPABILITY. THIS CAPABILITY IS SYNONYMOUS WITH THE POWER PROJECTION ELEMENT AS DEFINED IN THE TIER DEPOT ANALYSIS. POWER PROJECTION WAS THE MOST IMPORTANT ATTRIBUTE IN THE TIER STUDY, BUT THE ARMY EMPHASIZED THE WRONG ELEMENTS. WE BELIEVE THAT THE PRESENCE OF VERY EXPENSIVE INFRASTRUCTURE CAPABILITIES – USUALLY REFERRED TO AS PHYSICAL CONSTRAINTS – IS MUCH MORE IMPORTANT THAN THE NUMBER OF FORKLIFTS OR TRUCKS ON STATION. EQUIPMENT, PEOPLE AND VEHICLES CAN BE OBTAINED OR REDISTRIBUTED WITH A LITTLE LEADERSHIP INITIATIVE – IT'S PRETTY HARD TO BUILD A MAJOR RAIL LINE TO THE FRONT GATE AND AIRFIELDS ARE VERY EXPENSIVE. YET, THIS IS WHAT THE ARMY DID. THEY WEIGHTED THE ACTIVITIES, I.E., THOSE THINGS DEPENDENT ON PEOPLE, EQUIPMENT, ETC. HEAVILY, WHILE THEY GAVE LITTLE WEIGHT TO THE LACK OF PHYSICAL CONSTRAINTS.

ECONOMIC IMPACT



DEVASTATING



SLIDE 21

JUST A COUPLE OF QUICK COMMENTS ABOUT THE ECONOMIC IMPACT THE ARMY'S RECOMMENDATION WILL HAVE ON OUR COMMUNITIES. OVER 22% OF OUR JOBS WILL BE AFFECTED, IT WILL DOUBLE UNEMPLOYMENT, AND PUT ABOUT 5 YEARS WORTH OF HOUSING STOCK ON THE MARKET IN A SHORT TIME. DEVASTATING IS THE ONLY WORD WE COULD FIND TO CAPTURE THE EFFECT. MOREOVER, WHILE THE DEPARTMENT OF DEFENSE AND ADMINISTRATION HAVE GOOD INTENTIONS FOR HELPING COMMUNITIES REUSE THE FACILITIES, THERE'S LITTLE PROSPECT FOR REUSE ON SIAD. AFTERALL, ITS AN EXTREMELY REMOTE INSTALLATION – JUST THE KIND OF PLACE WE USED TO WANT TO KEEP OUR AMMUNITION. WE DON'T SEE ANY REALISTIC CHANCE, FOR THE FORESEEABLE FUTURE, OF HAVING A VIABLE REUSE FOR THE INSTALLATION IF THE ARMY'S RECOMMENDATION STANDS.

ENOUGH SAID, THERE'S MORE DETAILED INFORMATION PROVIDED.

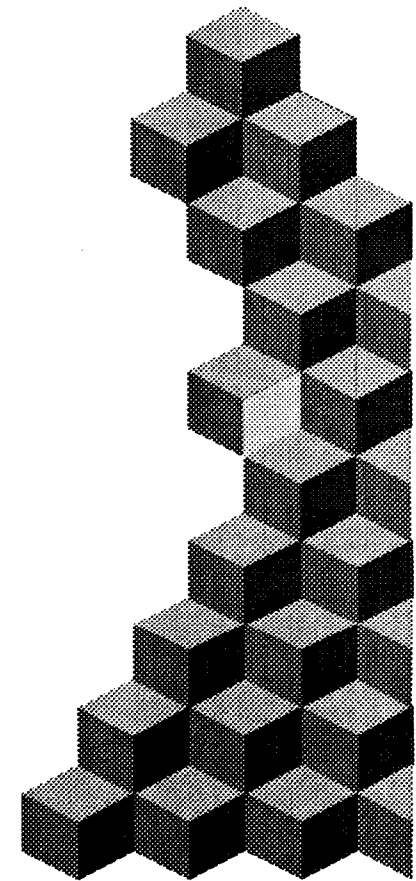
SUMMARY

◆ STRENGTHS

- Location
- Environment
- Freedom from Encroachment
- Storage
- Costs
- Demilitarization

◆ WEAKNESSES

- BRAC Data Used
- DA BRAC Staff Analysis
- Tiering Study



SLIDE 22

TO WRAP THIS UP, WE BELIEVE THE REAL STRENGTHS OF SIAD ARE LARGELY THINGS WHICH CAN NOT BE REPLICATED IN ANOTHER PLACE. FIRST, SIAD IS EXTRAORDINARILY WELL SERVED BY TRANSPORTATION SYSTEMS. ALSO, THERE ARE NO BETTER CLIMATIC CONDITIONS FOR MUNITIONS STORAGE. SECOND, SIERRA IS SOLID ENVIRONMENTALLY. WITH 10-YEAR PERMITTING BY THE NATION'S MOST STRINGENT REGULATORS (CALIFORNIA EPA) JUST A FEW MONTHS OFF, THERE SHOULD BE NO QUESTION OF THE VIABILITY OF SIERRA'S DEMILITARIZATION PROGRAM. ADDITIONALLY, THE TESTING ON ENVIRONMENTAL EFFECTS OF OPEN BURN/OPEN DETONATION DEMIL BEING DONE AT DUGWAY PROVING GROUNDS IS POSITIVE. THIRD, THE REMOTENESS OF SIAD AND THE COUNTY'S MILE WIDE PUBLIC SAFETY ZONE FURTHER PROTECTS IT FROM ENCROACHMENT. ADD THE FOURTH LARGEST STORAGE, LOWEST COSTS, AND HIGHEST DEMIL CAPACITY AND YOU HAVE A WORLD CLASS POWER PROJECTION PLATFORM.

HOWEVER THE RETENTION OF SUCH A VALUABLE NATIONAL ASSET HAS BEEN PUT AT RISK BY CONFLICTING STUDIES, BAD DATA, FLAWED ANALYSIS, AND RESULTS ORIENTED EXERCISES. AS TAXPAYER'S WE CAN NOT AFFORD TO SACRIFICE THE ADVANTAGES OF SIAD ON THE ALTER OF SUCH POOR STAFF WORK.

RECOMMENDATION

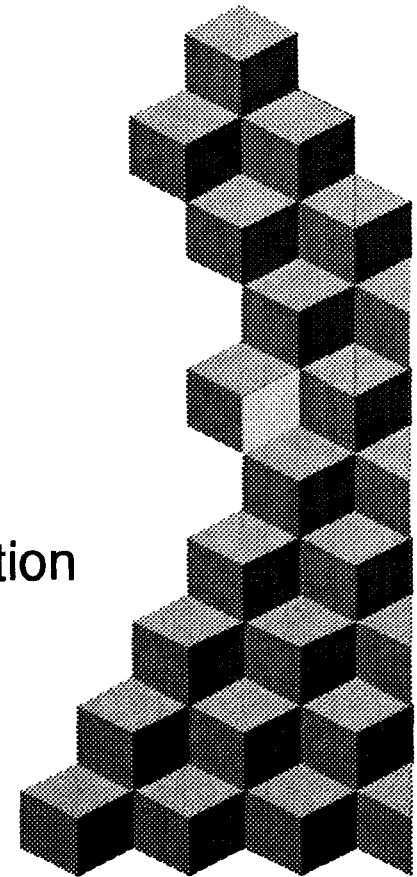
- ◆ *“...Retain affordable, world-class power projection platforms as enduring installations.”*

Army Guidance, BRAC 95 Report, Vol III



SIERRA FITS THE GUIDANCE

- ◆ Retain The Sierra Army Depot and Expand the Ammunition Storage Function



SLIDE 23

AS WE SAID AT THE BEGINNING, THE SIERRA ARMY DEPOT MATCHES THE ARMY GUIDANCE TO RETAIN AFFORDABLE, WORLD-CLASS POWER PROJECTION PLATFORMS. WE UNDERSTAND THE NEED TO CLOSE INEFFICIENT AND OUT-MODED OPERATIONS. HOWEVER, CLOSURE OF SUCH AN EFFICIENT PROFIT CENTER TO MAINTAIN MORE COSTLY ALTERNATIVES IS NOT ONLY ARGUABLE, IT DEFIES COMMON SENSE.

SIAD TRULY IS "THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION." WE URGE YOU TO REVERSE THE ARMY'S RECOMMENDATION FOR REALIGNMENT AND, IF THE OPPORTUNITY PRESENTS ITSELF, EXPAND THE MUNITIONS STORAGE MISSION.

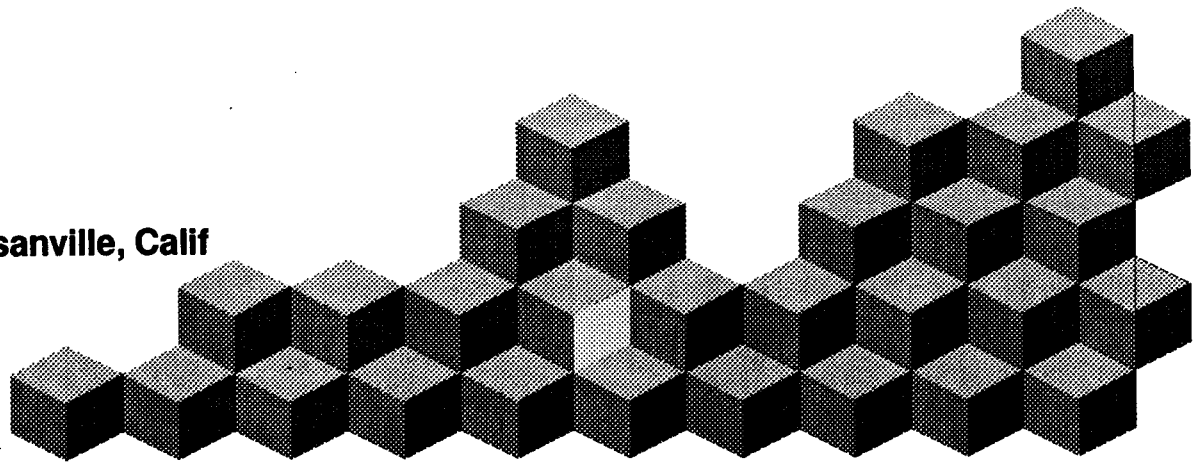
THANK YOU FOR THE OPPORTUNITY TO PRESENT OUR VIEWS. WE TRUST YOU'LL REVIEW THIS MATERIAL CAREFULLY DURING YOUR DELIBERATIONS. WE ALSO UNDERSTAND HOW DIFFICULT A TASK THE COMMISSION FACES AND APPRECIATE YOUR EFFORTS TO MAKE THE BEST POSSIBLE DECISIONS IN A COMPLICATED PROCESS.

THE SIERRA ARMY DEPOT

THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION

**Community Presentation — 1995 BRAC Commission
Regional Hearing — San Francisco
April 28, 1995**

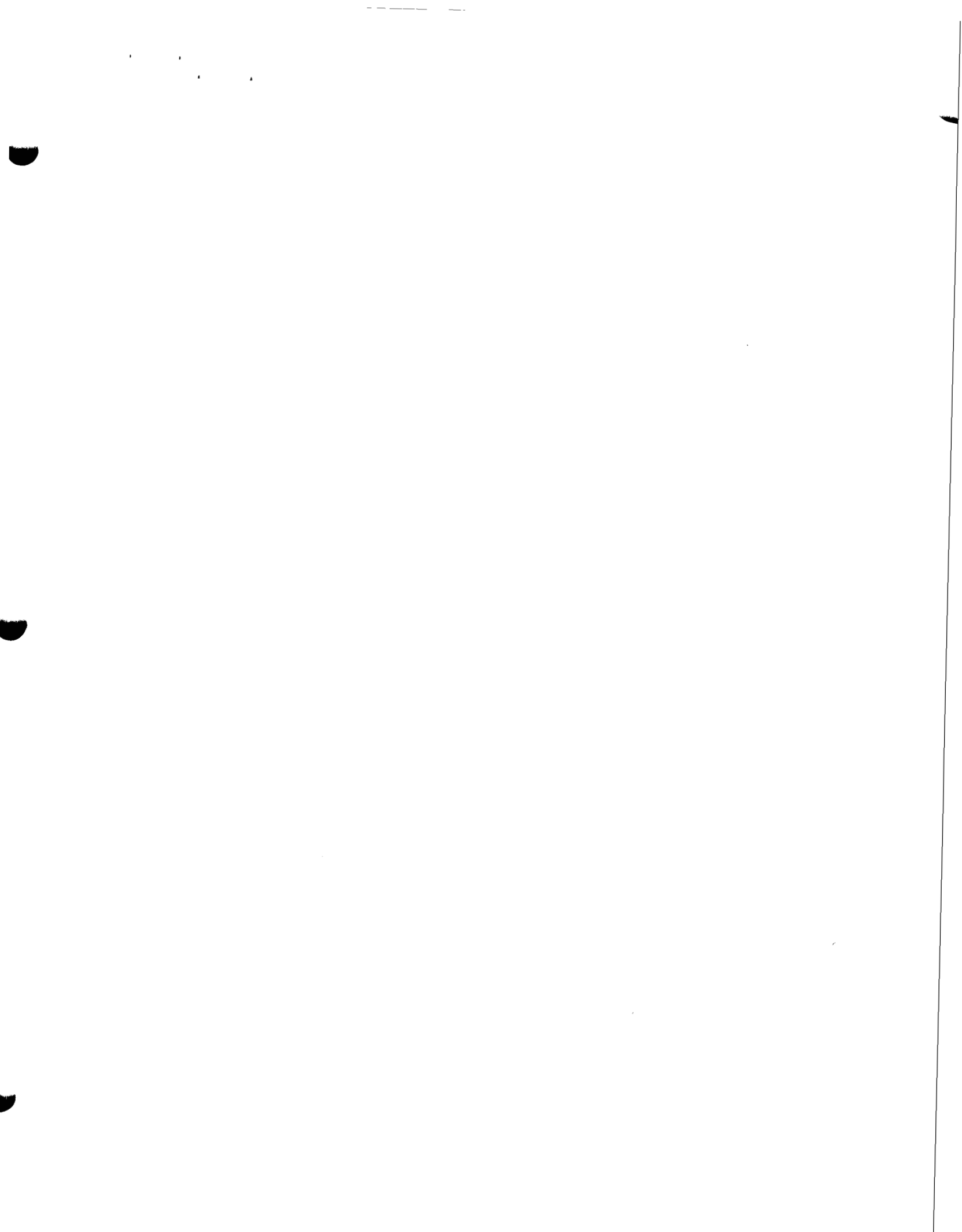
The County of Lassen & City of Susanville, Calif



SLIDE 24

WE'D BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE IN THE TIME WHICH REMAINS.





**BASE REALIGNMENT AND CLOSURE COMMISSION
REGIONAL HEARING - SAN FRANCISCO
APRIL 28, 1995**

STATEMENT BY THE HONORABLE WALLY HERGER (CA-2)

Thank you, Chairman Dixon, for the opportunity to testify on behalf of Sierra Army Depot. I sincerely regret not being able to testify in person, however, I look forward to personally testifying in June before the Base Realignment and Closure Commission in Washington D.C.

Sierra Army Depot has been extremely fortunate to have long standing and strong support from Governor Pete Wilson, Senator Dianne Feinstein, Senator Barbara Boxer and other Members of Congress. Their efforts are very much appreciated.

May I also express gratitude to Commissioner Wendi Steele, who spent a full day at Sierra Army Depot viewing the facilities and gathering data about the mission, military value, cost benefits versus savings, and economic impact.

I wish to thank and commend Commissioner Steele for her diligence and professionalism. Her first hand knowledge and insight will be invaluable as you examine the case for Sierra Army Depot.

Without reviewing the entire Army Tiering Study and subsequent Army BRAC process, with which you are by now very familiar, I would like to simply say that it is important to use correct and certified information in the rating or ranking process. That information includes accurate cost figures pertaining to shipping, receiving and transportation, as well as higher costs associated with increased rates from other installations, higher demilitarization costs, and higher manhour costs directly related to less efficient operations. It also includes proximity to ports, highways, railways, airfields and training areas, as well as transportation capabilities, unique demilitarization abilities and the expansion ability of the depot.

It is difficult enough to justify existence without having inaccurate and flawed data being used. Sierra Army Depot has the best shipping, receiving and storage rates in the Depot System Command for Fiscal Year 1995. It has the best demil costs per ton and best demil rates for Fiscal Year 1995 according to the Armament, Munitions and Chemical Command and the Depot Systems Command respectively. It has the largest demilitarization capabilities and 31 percent of the demil workload, forecasted at 40 percent by Fiscal Year 1996. Yet flawed data in both the 1995 Army BRAC and Tiering Study cloud the actual potential of SIAD.

In addition, Sierra Army Depot has been placed within a different grouping of installations for comparison since 1993 Army BRAC, evaluated on different criteria since 1993 Army BRAC, and rated on only one half of the depot's mission and activity. Operational Stock Projects account for more than half the Sierra Army Depot mission, yet the costs savings associated with realigning the base do not consider this fact. Critical manpower and funding shortfalls, associated with the Department of Army recommendation to eliminate the Conventional Ammunition mission and reduce it to a depot activity, underestimate manpower, base support and radiation survey positions. Civilian savings alone were overstated by 34 percent. Implementation costs were also understated by an estimated \$101 million.

Verifying and documenting these inaccuracies has been a demanding process since the Army has been less than forthcoming in providing requested information. For example, the Army tiering study was secured through a Freedom of Information Act request. Even the General Accounting Office has been unsuccessful in gaining information from the Army regarding inconsistencies surrounding Sierra Army Depot. Documents supposedly made available by the Army in the BRAC reading room were often found to be unavailable or misfiled.

I know how easy it is for the Army to close an installation based on politics, but it is in the best interest of the nation that your Congressional task charges you to eliminate politics from the judgement you will make.

In the upcoming weeks you will be hearing and viewing a great deal of data regarding many of the exact informational discrepancies concerning Sierra Army Depot. Therefore, I would like to concentrate on its military value, cost versus savings, and economic impact.

In regards to military value, there are a number of considerations.

Sierra Army Depot is geographically in the best strategic location. It is closest to all modes of transportation, specifically air, highway, rail and port, which are critical when essential ammunition and stocks need to be shipped. Recent highway and rail upgrades have enhanced this capability.

Only one half of the entire activity at Sierra Army Depot was evaluated, thereby reducing some of its most significant competitive advantages. SIAD was evaluated as an ammunition storage installation, but 55 percent of its mission is operational stock.

By the Army's own admission, it cannot close Sierra Army Depot because it is home to the Army's three largest operational stocks valued at \$1.2 billion. Not only does SIAD have the skilled personnel, quality storage, excellent location, and labor/transportation cost advantages to handle these missions, but the Army readily admits moving Operational Project Stocks is cost prohibitive.

Retaining an enclave for the Operational Project Stocks mission and the static storage of ores will have a domino effect which will affect more than just the ammunition storage mission. Loss of property in the realignment will affect training abilities by the California Army National Guard. It will also affect Air Force National Guard units which use the runway for training. The reduction of personnel at the depot will also have a devastating ripple effect throughout the county and the state. It would seem to be in the best interests of the National Defense and the taxpayer to make even more efficient use of an already safe, cost effective and ideally located installation, which in regards to Operational Project Stocks, is referred to by the Army as a Center of Technical Excellence.

Power projection figures were unfairly weighed by the Army, causing Sierra Army Depot to appear less competitive. Heavy weighting on arbitrary factors was applied, which dropped SIAD's storage capability from fourth largest overall to sixth in the Tiering Study. In addition, some figures in the Tiering Study, 1993 Army BRAC, and 1995 Army BRAC studies were inconsistent for comparison purposes. For example, SIAD listed only equipment actually on base for determining outload capability, while other depots included equipment that could be brought to base from surrounding areas.

Not only does Sierra Army Depot have the largest demilitarization capacity, but also the most cost efficient rate of demil. This unique combination allows the facility the flexibility to handle Start I and Start II demil requirements, as well as conventional ammunition demil activities in an environmentally responsible manner. Underground detonation requirements and total allowable open detonation limits will severely hamper the Army's ability to demil unsafe ammunition stockpiles. Specific types of explosive detonations are capable only at Sierra Army Depot. Cluster Bomb Units, Multiple Launched Rocket Systems, 155 millimeter Improved Conventional Munitions Projectiles and eight inch Improved Conventional Munitions projectiles all have submunitions which make it unsafe to detonate underground. Facilities which detonate these munitions are forced to do so in far smaller quantities at exceedingly greater costs. Large missile rocket motors, in the 50,000 to 68,000 pound range, requiring demil can only be handled at SIAD.

Sierra Army Depot is the only depot with an on base air field and it has the capacity to handle any aircraft. Recently, three C-141s were handled simultaneously. In the past, the Air Force has utilized this strip for training purposes and transporting ammunition stock quickly and economically. Brig. Gen. Robert J. Brandt, Assistant Adjutant General for the California National Guard, has written that he's concerned about the extreme economic damage to the local community, as well as losing a valuable military asset.

Based on these factors, Sierra Army Depot's military value is substantial. Its strategic location, cost effectiveness, transportation capabilities, demilitarization ability and storage capacity make it a model for military preparedness and excellence.

The one time closing cost/projected savings/return on investment figures being cited by the Army are riddled with errors. The Army includes a \$4.3 million dollar savings from a Special Weapons Military Police Force reduction that already is slated to drop from the budget in Fiscal Year 1995. The projected savings figures fail to adequately account for operational stock mission personnel requirements to provide quick and efficient support in times of military emergency. The Army omits cost comparison with other depots that have significantly higher labor, transport, and demil costs. They also excluded costs for transportation of currently stored ammunition to new, as yet undetermined storage locations, and neglected to mention having to transport ammunition considerably further distances at higher costs, in either or both directions. It also appears the Army overlooked the Wholesale Ammunition Stockpile Plan, that indicates there is no excess storage capacity in the depot system. This ammunition storage realignment will further reduce that storage capability by about five million square feet. Finally, the recommendation forgets that Sierra Army Depot has the best demil costs/capacity in the system, so any demil elsewhere will be more expensive, less efficient and may be delayed further due to lack of permits, requiring even more funds for longer storage periods.

When precise figures for these factors are inserted into the equation, the Army's savings and return on investment disappear. SIAD projects an estimated \$101 million cost above Army estimates, and reductions in approximated cost savings make the return on investment a deficit situation.

Sierra Army Depot is located in Herlong, California, on the Eastern side of Lassen County. It is a small, sparsely populated, very rural area of the nation.

Sierra Army Depot is the single largest employer accounting for 10 percent of the personal income for the entire county. SIAD's payroll is almost twice that of all the

manufacturing establishments in Lassen County combined.

At \$5 million annually, Sierra Army Depot's procurement is almost equal to all the combined manufacturing establishment procurement in the entire county.

Lassen County already has an unemployment rate of 11.2 percent, far above the national average of 5.5 percent. By the Army's own estimates, realigning SIAD will add seven to eight percent to the current unemployment rate. Local calculations indicate that local unemployment will rise to 22.1 percent through direct and indirect job losses at the depot, a 10.9 percent increase.

More populated and diversified communities may be able to absorb an eight to 11 percent rise in unemployment. In Lassen County, that large an increase would be devastating.

One example would be the impact to the local school system. Such a realignment could result in such drastic enrollment reductions that the Fort Sage Unified School District would shrink 60-70 percent, endangering its very existence. The alternative means transporting students 40-50 miles to other schools, taxing classrooms, teachers, students and families.

A major realignment of Sierra Army Depot, which is tantamount to closure, would be catastrophic to Lassen County. Service and retail sales would be affected to the tune of nearly \$33 million, or about 30 percent of the county's retail sales. With economic impact of this magnitude, it is critical that the Commission compassionately consider the complete picture.

Despite all the obstacles, we are optimistic that when BRAC reviews the facts, considers the consequences, and evaluates the Army's decision, the strengths and advantages of Sierra Army Depot will stand on their own merit.

I strongly urge your careful deliberation of this critical issue, and respectfully request that Sierra Army Depot be removed from the realignment list based on the issues of military value, cost versus savings and economic impact. I also ask that in reversing the realignment decision, you earnestly examine the concept of expanding the ammunition storage mission at SIAD.

Thank you.

**BASE REALIGNMENT AND CLOSURE COMMISSION
REGIONAL HEARING - SAN FRANCISCO
APRIL 28, 1995**

**STATEMENT BY MICHAEL J. DIGIORDANO
FIELD REPRESENTATIVE FOR THE HONORABLE WALLY HERGER (CA-2)**

Thank you, Chairman Dixon, for the opportunity to testify on behalf of Sierra Army Depot. I am here today to offer a written statement from the Honorable Wally Herger, who represents California's Second Congressional District, which includes Lassen County and Sierra Army Depot.

The Congressman's statement specially addresses military value, cost versus savings, and the economic impact of a major realignment at Sierra Army Depot. I would respectfully request that this statement be entered into the official record as part of the testimony for these regional hearings.

However, I would like to take a few moments of your time to reiterate our concern regarding the data used as criteria for rating or ranking bases during the Army's evaluation process. Since the Tiering Study process first began, there have been problems with the accuracy of the information used. As we've questioned findings, more evidence came to light which cast shadows on already suspicious figures. The more we challenged the process, the more disturbed we became that black and white numbers, complicated formulas, and a subjective or indefinite weighting system are glossing over the facts which make Sierra Army Depot the ideal location for an ammunition stockpile.

We are still troubled with the projected shortfall of ammunition storage capability. This closure and realignment process will further reduce that capacity by some 5 million square feet.

We are also apprehensive about the loss of the best and most cost effective demilitarization function within the Department of the Army. Loss of Sierra Army Depot's demil mission will have significant impact on certain types of munitions and rocket motor demolition required by the Reduction and Limitation of Strategic Arms talks, commonly referred to as the START I and START II treaties.

Furthermore, there is concern that extra costs associated with transportation, shipping, demil and storage are not being considered in the return on investment formula. Between added personnel, and the cost increase required to have other installations handle Sierra Army Depot's mission, there appears to be substantial cost outlays and no cost savings.

The military value of Sierra Army Depot is strategic and the documentation presented supports that conclusion. With the most ideal location, the most efficient labor costs, the finest transportation capabilities, the greatest demilitarization capacity, and fourth largest storage volume overall, it is a model for military preparedness and excellence.

Your support in bringing this information to the forefront is greatly appreciated. Thank you.





STATE OF CALIFORNIA
OFFICE OF THE LIEUTENANT GOVERNOR

GHAY DAVIS
LIEUTENANT GOVERNOR

April 24, 1995

Hon. Allan Dixon
Chairman
Base Realignment and Closure Commission
1700 N. Moore Street #1425
Arlington, VA 22209

Dear Mr. Dixon:

The proposed realignment of the Sierra Army Depot in Herlong, California, as detailed in the Department of Defense's 1995 Base Closure and Realignment recommendations, would be an unnecessary and ultimately devastating economic blow to an already struggling rural county. As California's Lieutenant Governor and as a person committed to getting this state's economy back on track, I respectfully request that you explore all alternatives before accepting the Department of Defense's realignment recommendation.

A careful, detailed economic evaluation of the realignment proposal will clearly illustrate that the Department's projected monetary savings and bureaucratic streamlining pale in comparison to the lost jobs and failed businesses left behind in Lassen County. The 839 jobs the Department of Defense projects as lost due to realignment represents 8.8% of the entire civilian employment in Lassen County. Currently, the county has an unemployment rate of 10.9%. The mathematics here are all too simple -- 20.7% unemployment virtually overnight. This figure does not include those jobs that will be lost outside the depot from businesses relying on the Depot and Depot personnel for much of their revenue.

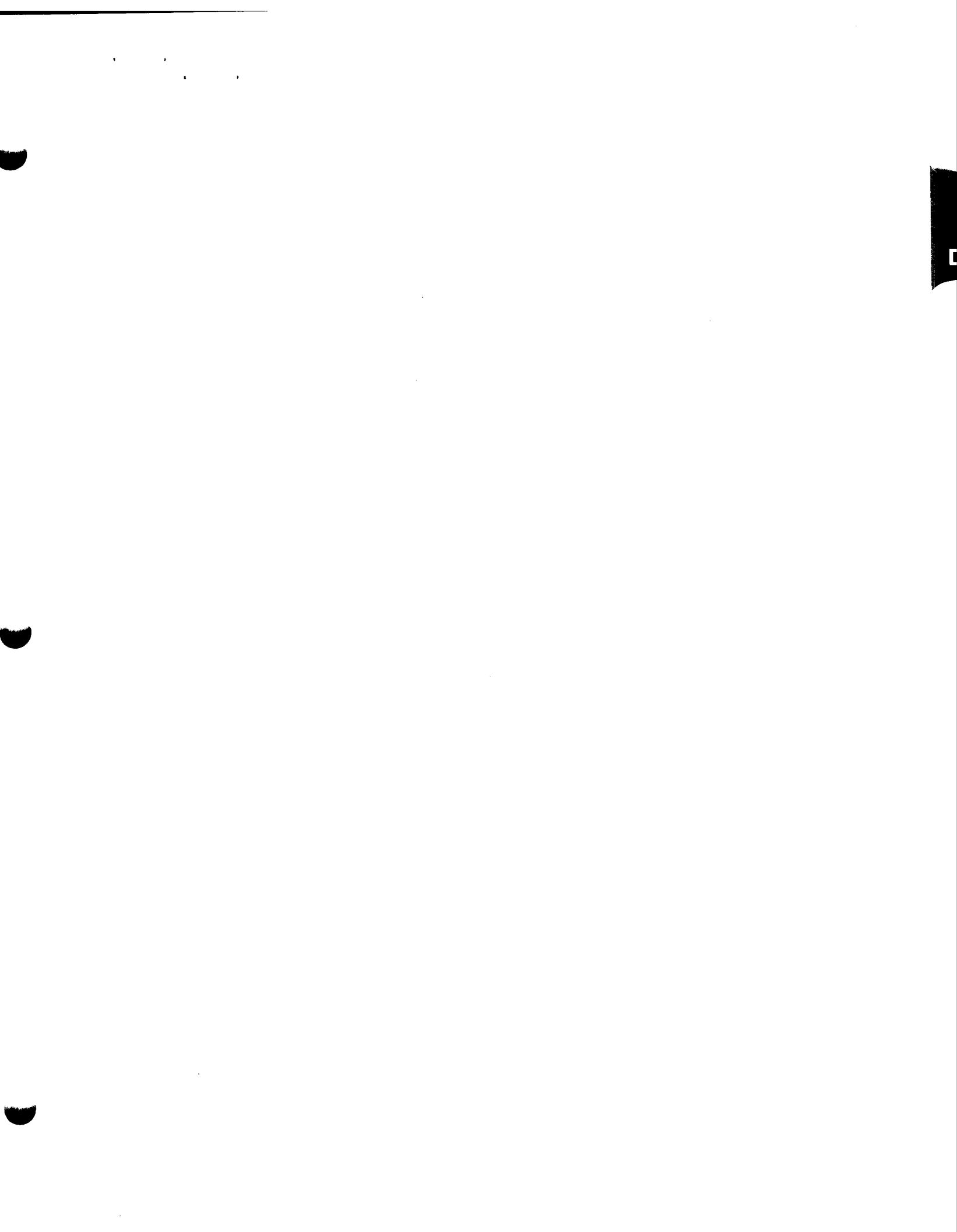
The Sierra Army Depot is Lassen County's single largest employer in terms of payroll at \$36 million annually, accounts for 9.5% of the County's total personal income, and has almost twice the payroll (\$19.6 million) of all the manufacturing establishments in the county combined. And since the schools of Fort Sage Unified School District are located on the Sierra Army Depot site, the proposed realignment could reduce the levels of enrollment to a point where closure of the local high school and elementary schools is the only remaining option.

I fully recognize and appreciate the extremely difficult decisions you and your fellow commissioners will have to make over the course of 1995, decisions exacerbated in California by the many military installations already realigned and closed. There just isn't much left to cut or streamline that will not cause extreme economic hardship to the people living on and around the remaining facilities. California, however, has shouldered far more than our fair share of defense cutbacks in recent years, with many of our communities still grappling with the twisted economies left behind. Those proposed for 1995, such as the Sierra Army Depot realignment, must be reviewed with this broader picture clearly in mind.

I appreciate your close attention to this matter and look forward to working with you and other commissioners as you move ahead with your difficult task. Please let me know if I can be of further assistance.

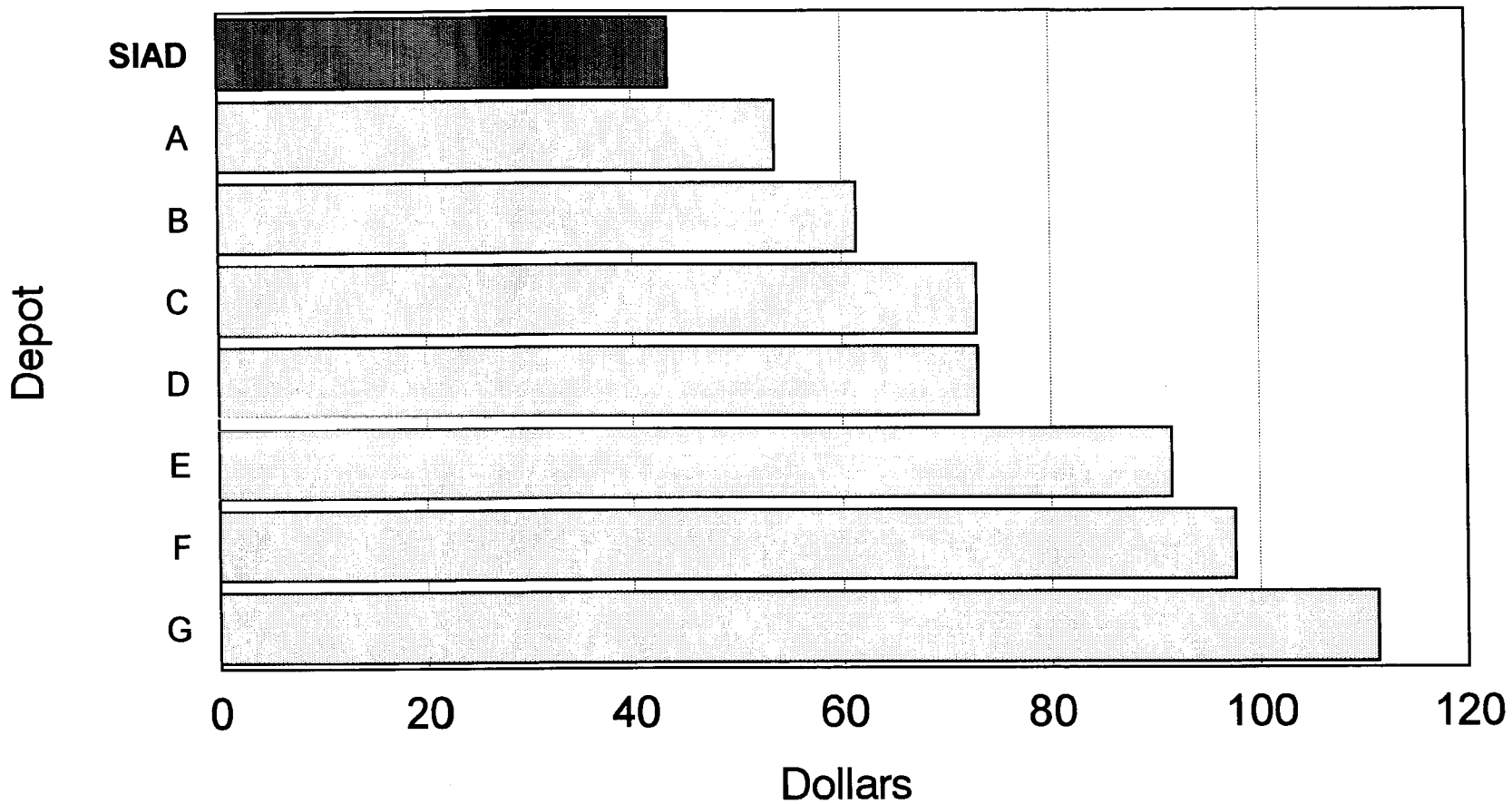
Best Regards,

Gray Davis
GRAY DAVIS



FY 95 Demilitarization Fixed Rate

Costs per Hour

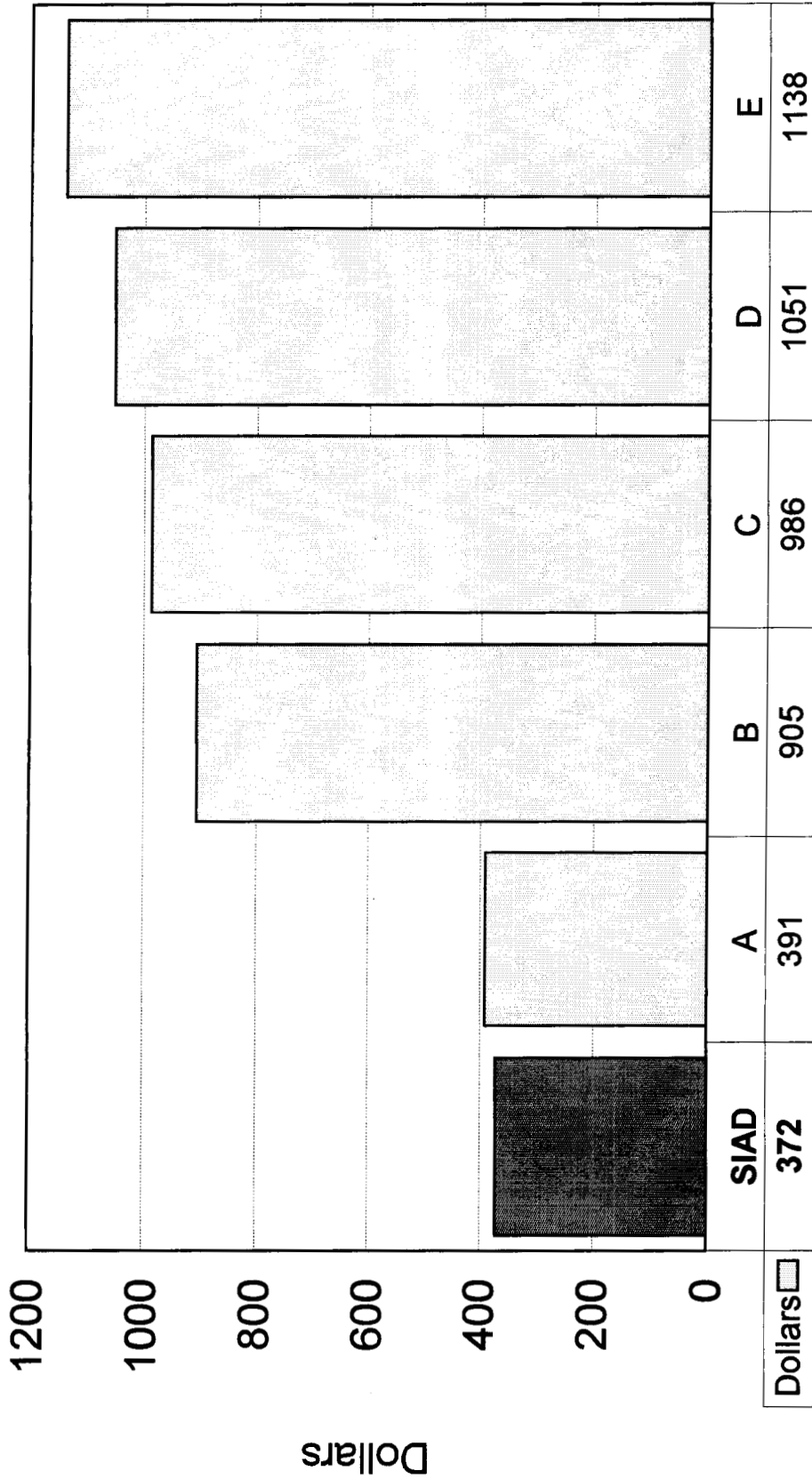


	SIAD	A	B	C	D	E	F	G
Dollars	43.5	53.7	61.4	73	73.1	91.6	97.7	111.3

Source: DESCOM FY 95 Rate File

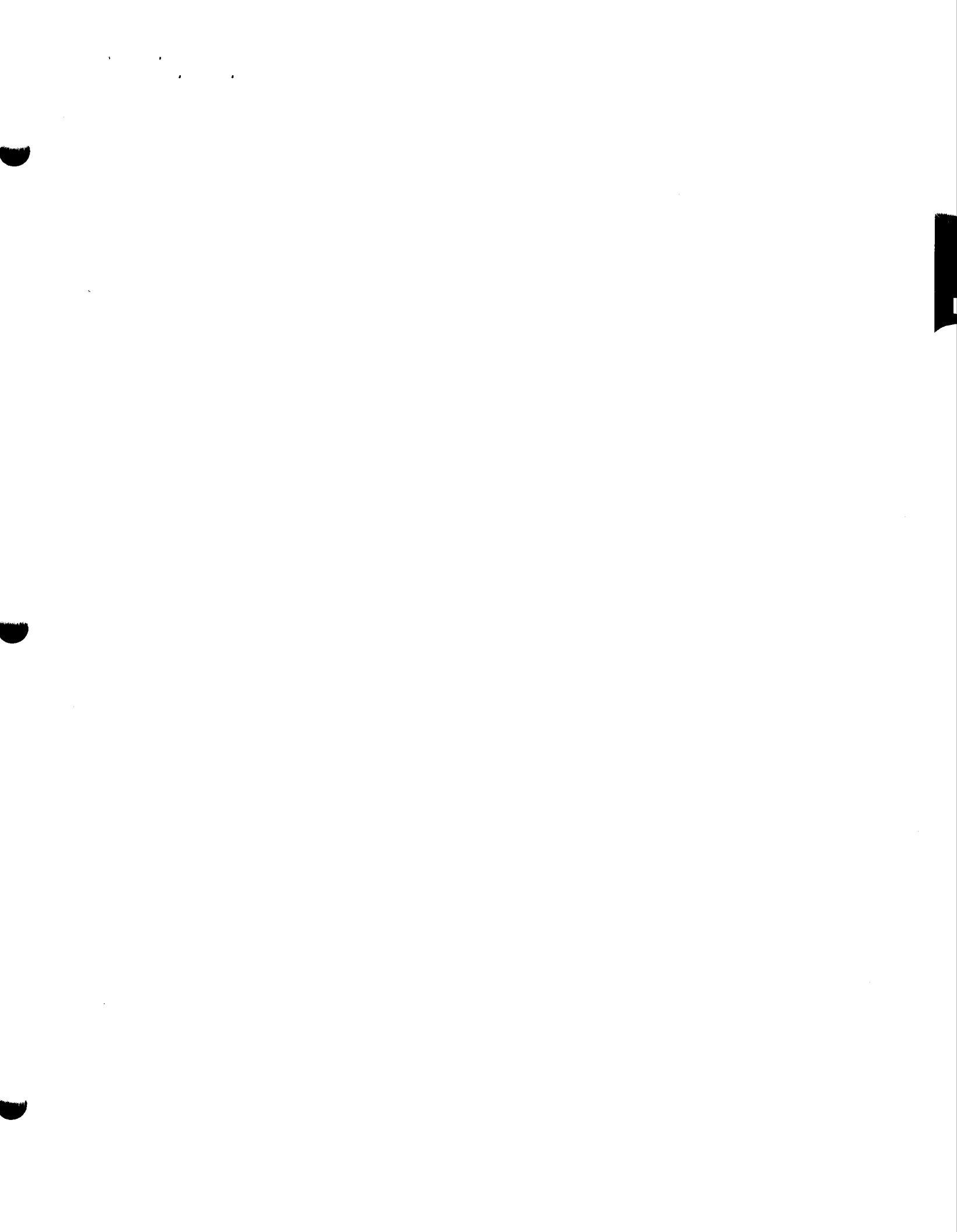
FY 95 Demilitarization

Costs per Ton



Depot

Source: AMCCOM FY 95 Demil Business Plan



CONVENTIONAL AMMUNITION DEMIL CAPABILITIES

Installation	Open Burning	Open Detonation Limits
SIAD	100,000 lbs x 1 Site	10,000 lbs x 14 Sites
A	5,000 lbs x 34 Sites	100 lbs (5,000 lbs*) x 19 sites
B	5,000 lbs x 1 Site	180 lbs x 15 Sites
C	50 lbs x 15 Sites	15 lbs (1,000 lbs*) x 22 sites
D	4,000 lbs x 3 Sites	50 lbs (500 lbs*) x 14 Sites
E	11,000 lbs x 1 Site	100 lbs (3,000 lbs) x 4 Sites
F	By Permit Only	100 lbs* x 30 Sites

*Detonation limits under Earth Cover

'95 Army BRAC (SIAD DATA)

Anno Storage+	Reserve Training	Deployment Net	Available Workforce	Maintenance Flex++	Facility		Infrastructure	Permanent Facilities	Quantity Distance	Environment Capacity
					Average Age	Percent				
1.940	**	**	157,275	1, 8, 2	44	**	51	1, 0	**	
1.940	3.6	6.9	10,082	1	48	2.8	51	0	5.9	
1.997			157,275	8	44		51	0		

Reported

DA Score

SIAD Validated*

* = As of March 1995. (Validations available in SIAD BRAC File) ** = Was part of a DA scoring model (Not computed locally)
 + = in millions (Square Feet) ++ = SIAD claims 8, DA offered 2, was scored a 1 +++ = Off base and on base costs. SIAD received credit for off base cost, not the cheaper rate on base ++++ = Distance to rail (Based on guidance from HQ)

Excess Capacity Storage	Buildable Acres	Encroachment	IMA Workforce	BOPS/ Mission Pop	MCA Cost Factor	Cost Of Living Index	Infrastructure (Landfill Costs)+++	Deployment Network	++++
76	10600	6.2	1010	26882	1.43	97	110	1	
1366	10600	6.1			1.43		37	0	

Reported

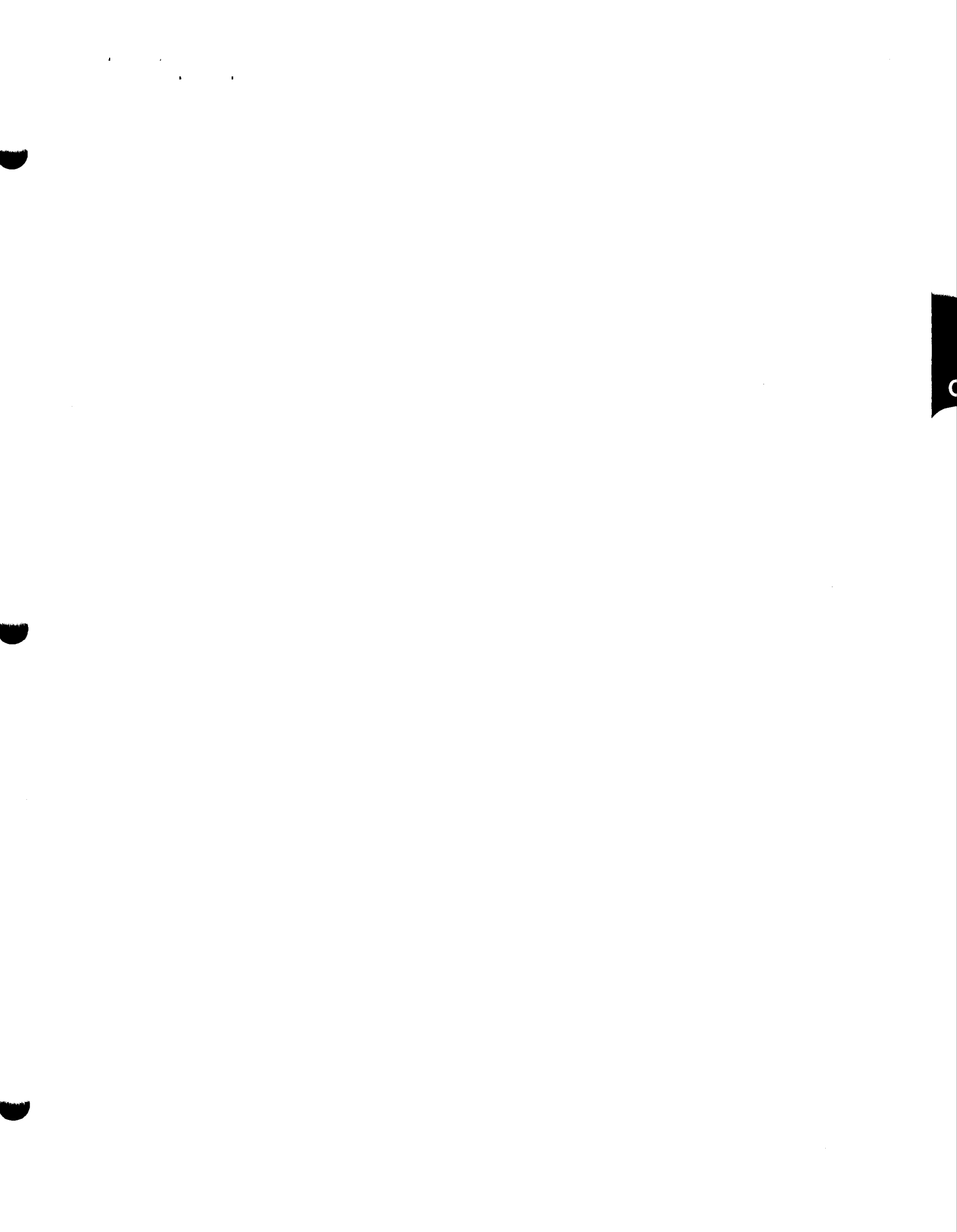
DA Score

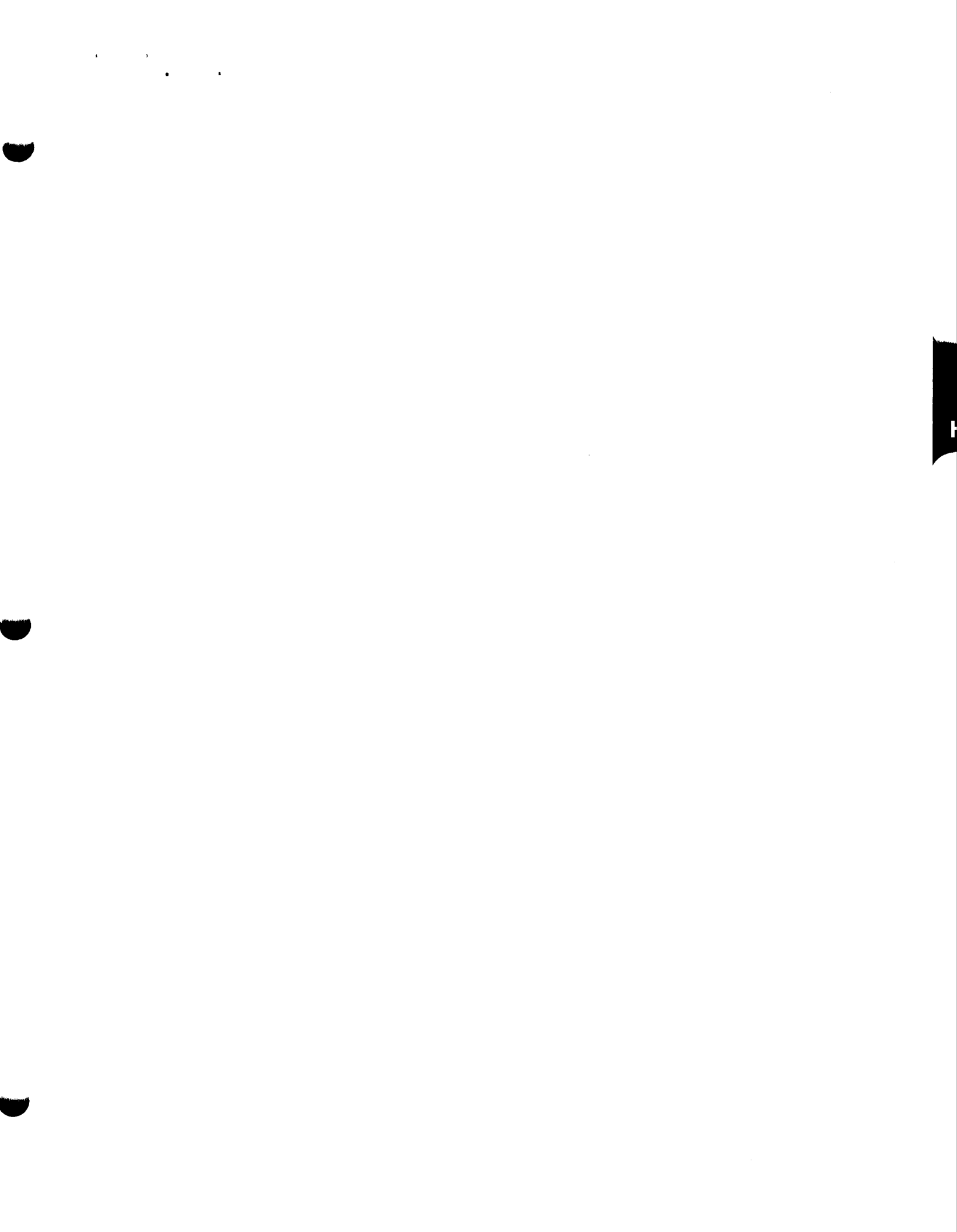
SIAD Validated

1995 BRAC

	Ammo Storage			Reserve Training	Deployment Network	Available Workforce	Facilities		Infrastructure	Percent Permanent Facilities	Quantity Distance	Environmental Capacity
	Storage	Reserve Training	Deployment Network				Maintenance Flex	Average Age				
BGAD	2240	3.2	8.1	224637	8.0	49	2.1	94	0	8.6		
HAAP	7662	.6	5.7	2747	0	50	7.1	96	0	8.5		
SVDA	2427	2.8	5.5	8170	2.0	57	5.6	96	0	7.6		
SIAD	1940	3.6	6.9*	10082	1.0*	48*	2.8*	51	0	5.9		
TEAD	4375	10.0	7.6	11883	9.0	45	8.8	59	0	9.4		
UMDA	1801	.7	9.3	27975	0	51	3.5	68	0	9.2		
SEDA	1492	4.3	9.6	15451	9.0	47	2.2	97	0	8.2		
PUDA	2164	0	6.8	48905	0	49	3.3	74	0	8.9		

*=Inaccurate data with major disconnect







DEPARTMENT OF THE NAVY
STRATEGIC SYSTEMS PROGRAMS
1801 JEFFERSON DAVIS HWY
ARLINGTON, VA 22241-8382

IN REPLY REFER TO
17 April 1995

From: Director, Strategic Systems Programs
To: Commanding Officer, SIAD/Sierra Army Depot,
(Attn: SDSSI-CO), Herlong, CA 96113

Subj: LETTER OF APPRECIATION

1. I wish to express my appreciation for the many contributions your organization has made to the Fleet Ballistic Missile Program in the area of large rocket motor disposal. As newer missile systems have been introduced into the Fleet and arms control has required reduced force levels, the capability to demilitarize and dispose of the older rocket motors has become an issue of great importance.

2. From 1991 through 1994, your activity provided a valuable service to this country by demilitarizing and disposing of approximately 370 POSEIDON (C-3) first stage motors. The elimination of these motors has resulted in a substantial cost avoidance to the government by reducing the requirement for the construction, maintenance, and monitoring of additional motor magazines. In addition, the elimination of the entire inventory of C-3 first stage motors before START Entry-Into-Force last December has provided benefits in terms of reduced treaty reporting and inspection requirements.

3. As the Department of Defense continues to downsize, increased demand is placed on those very few activities that have the necessary permits to treat energetic material through the open burn and open detonation process. We look forward to working with you in future demilitarization efforts, including the maintenance of a contingent disposal capability for United Kingdom Polaris motors; disposal of various small ordnance items; disposal of Strategic Target System motors which are being stored for the Army at our Strategic Weapons Facility at Bangor, Washington; and, feasibility studies for possible future demilitarization of TRIDENT I (C-4) third stage motors. Your experience and expertise in this area continues to be a valuable asset to our program.

G. P. NANOS, JR.
Rear Admiral, U.S. Navy



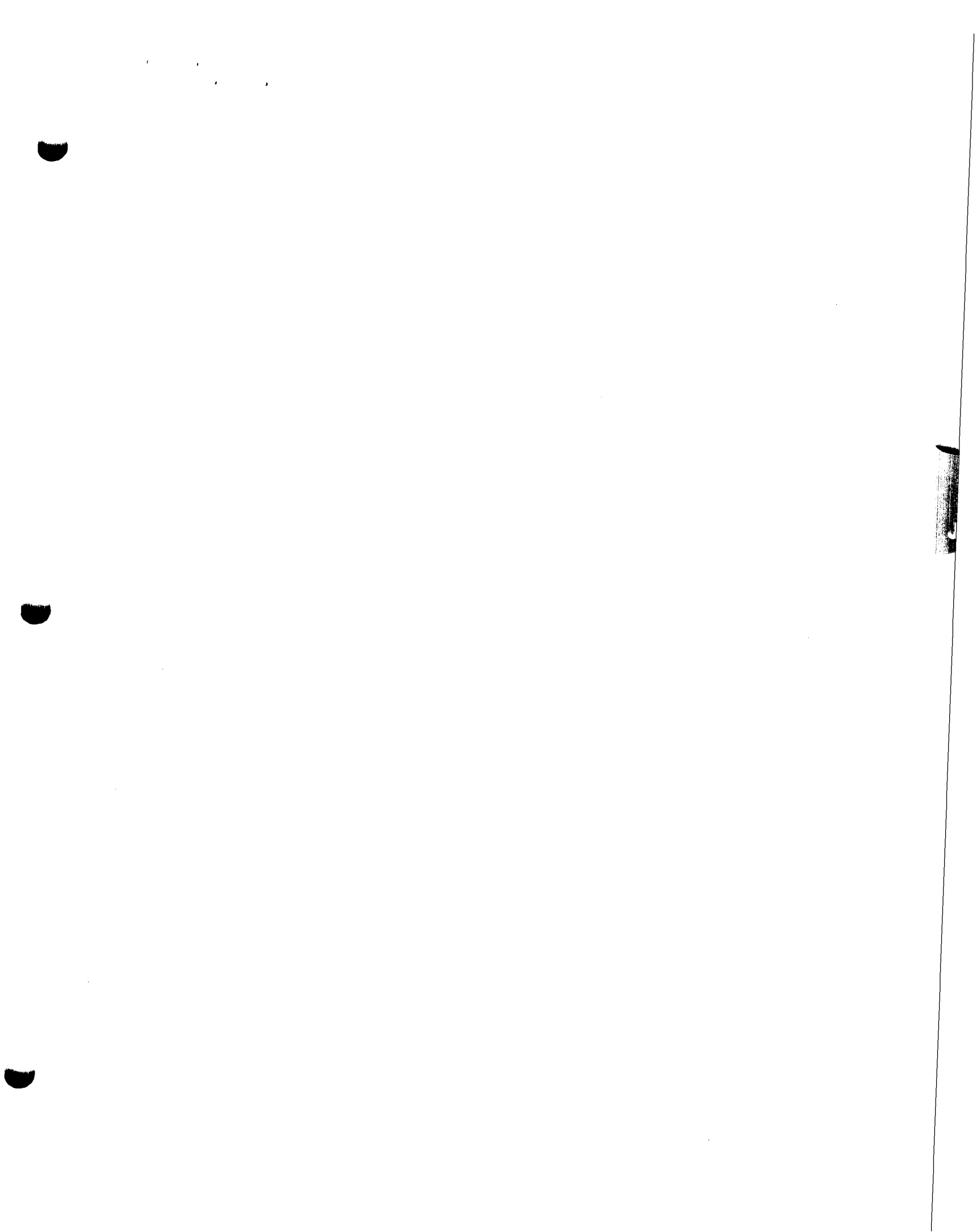
Measures of Merit — Tier Analysis Element to Army BRAC Attribute*

Measured Within Tier Analysis as The Element:

Measured in Army BRAC Analyses Under the Attribute Of:

Power Projection (5)	Container (4) S/t per Day		Not measured	
	Break Bulk (2) S/t per Day		Not measured	
	70/30 Split (3) S/t per Day		Not measured	
	Transportation (1) Good/Fair/Poor		Not measured	
		Truck (2) Good/Fair/Poor	Msn Rqmts & Op Rd'ness (450)	Distance to Highway (10)
	Rail (3) Good/Fair/Poor	Msn Rqmts & Op Rd'ness (450)	Distance to Railhead (30)	
	Air (1) Good/Fair/Poor	Msn Rqmts & Op Rd'ness (450)	Distance to APOE (30)	
Storage (4)				
	Net Sq Ft (2)		Msn Rqmts & Op Rd'ness (450)	
	ECM Sq Ft (1)		Ammunition Storage (240)	
			Not measured	
Location (3)				
	To SPOE (4) # Rail Transit Days		Not measured	
	To APOE (3) Actual Mileage		Not measured	
	To Training (2) Avg Milage to Major Sites		Not measured	
	\$\$ to SPOE (1) \$\$ per Container/BB (rail/motor)		Not measured	
Cost (3)				
	Receipt/Issue (4) \$ per S/t		Not measured	
	Inventory (3) \$ per Grid		Not measured	
	Surveillance (2) \$ per Lot		Not measured	
	Maintenance (1) \$ per Manhour		Not measured	
Maintenance (2)				
	Missiles (4) Facilities ?		Not measured	
	Multi-Use Bldg (3) Number		Not measured	
	NEW Limits (2) Pounds		Not measured	
	Sq FT Available (1) All maint Bldg		Not measured	
Inspection/Test (2)				
	Function Test (4) Existing Capabilities		Not measured	
	Missiles (3) Existing Capabilities		Not measured	
	Modern Survl (2) Existing Capabilities		Not measured	
	X-Ray Facility (1) Existing Capabilities		Not measured	
Demil (1)				
	RRR (3)		Not measured	
		Disassembly Capabilities		Not measured
		Unique Capability Capabilities		Not measured
		APE 1236 Capabilities		Not measured
		Wash/Steam or Melt Out Capabilities		Not measured
	OB/OD (2) S/T		Not measured	
	Demil in Stg (1) S/T		Not measured	

*Numbers in parentheses indicate relative weight given. The higher the number, the higher the importance.



Regional Totals (actual)

	Power Projection (Outload)	Power Projection (Trans)	Storage	Location	Cost*	Mainte- nance**	Inspection Test***	Demil	Total	Overall Score
Hawthorne	3	3	1	2	1	1	1	1	13	1
Sierra	2	2	3	1	3	3	3	2	19	3
Tooele	1	1	2	3	2	2	2	3	17	2

Regional Totals (adjusted)

	Power Projection (Outload)	Power Projection (Trans)	Storage	Location	Cost*	Mainte- nance**	Inspection Test***	Demil	Total	Overall Score
Hawthorne	3	3	1	2	2	1	?	1	13	2
Sierra	2	1	2	1	1	3	?	2	12	1
Tooele	1	1	3	3	3	2	?	3	16	3

* = assumes best in Army ** = assumes capability w/o missile *** = Unknown (SIAD wasn't rated but has capability)

Totals (adjusted)(raw)

	Power Projection (Outload)	Power Projection (Trans)	Storage*	Location	Cost**	Mainte- nance***	Inspection Test	Demil	Total	Overall Score
Anniston	10	6	7	4	8	7	4	8	54	8
Blue Grass	4	1	8	6	9	6	5	6	45	6
Crane	2	1	3	8	2	2	2	4	24	2
Hawthorne	9	11	1	3	5	3	2	1	35	4
Letterkenny	7	9	9	2	6	11	1	7	52	7
McAlester	1	1	2	9	3	1	4	2	23	1
Red River	8	7	10	10	4	8	4	9	60	10
Seneca	11	10	11	5	11	10	5	10	73	11
Sierra	6	4	4	1	1	9	5	3	33	3
Savanna	5	7	5	11	10	5	4	11	58	9
Tooele	3	4	5	7	7	4	4	5	39	5

* = without ECM consideration ** = With SIAD as best in Army *** = Without missile maintenance consideration

Totals (adjusted)(tier)

	Power Projection (Outload)	Power Projection (Trans)	Storage*	Location	Cost**	Mainte- nance***	Inspection Test	Demil	Total	Overall Score
Anniston	10	6	7	4	9	5	5	8	54	7
Blue Grass	4	1	8	7	8	7	9	6	50	6
Crane	2	1	3	8	2	2	1	4	23	1
Hawthorne	9	11	1	2	5	3	1	1	33	3
Letterkenny	8	9	9	3	6	11	1	9	56	8
McAlester	1	1	2	9	4	1	7	3	28	2
Red River	7	7	10	10	3	8	6	7	58	9
Seneca	11	10	11	5	11	10	9	10	77	11
Sierra	6	4	4	1	1	9	9	2	36	4
Savanna	5	7	5	11	10	6	4	11	59	10
Tooele	3	4	5	6	7	4	8	5	42	5

* = without ECM consideration ** = With SIAD as best in Army *** = Without missile maintenance consideration

Totals (actual)(raw)

	Power Projection (Outload)	Power Projection (Trans)	Storage	Location	Cost	Mainte- nance	Inspection Test	Demil	Total	Overall Score
Anniston	10	9	4	4	7	2	4	8	48	7
Blue Grass	4	4	7	6	8	9	5	6	49	8
Crane	2	2	3	8	1	3	2	4	25	2
Hawthorne	9	10	2	3	4	5	2	1	36	3
Letterkenney	7	8	6	2	5	6	1	7	42	5
McAlester	1	1	1	9	2	1	4	2	21	1
Red River	8	7	9	10	3	4	4	9	54	9
Seneca	11	11	11	5	11	11	5	10	75	11
Sierra	6	6	7	1	9	10	5	3	47	6
Savanna	5	5	10	11	10	8	4	11	64	10
Tooele	3	3	5	7	6	7	4	5	40	4

Totals (actual)(tier)

	Power Projection (Outload)	Power Projection (Trans)	Storage	Location	Cost	Mainte- nance	Inspection Test	Demil	Total	Overall Score
Anniston	10	6	4	4	8	1	5	8	46	5
Blue Grass	4	1	7	7	7	9	9	6	50	8
Crane	2	1	3	8	1	5	1	4	25	1
Hawthorne	9	11	2	2	4	6	1	1	36	3
Letterkenny	8	9	7	3	5	4	1	9	46	5
McAlester	1	1	1	9	3	3	7	3	28	2
Red River	7	7	10	10	2	2	6	7	51	9
Seneca	11	10	11	5	11	11	9	10	78	11
Sierra	6	4	6	1	9	10	9	2	47	7
Savanna	5	7	9	11	10	8	4	11	65	10
Tooele	3	4	5	6	6	7	8	5	44	4

Power Projection (Outload)

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
container/break bulk/70-30 container/break bulk/70-30 '93/'95/tier study/raw data

Anniston

Blue Grass

Crane

Hawthorne

Letterkenny

McAlester

Red River

Seneca

Sierra

Savanna

Tooele

Army BRAC '93	Army BRAC '95	Tiering Study			Raw Data			Ranking
		container/break	bulk/70-30	container/break	bulk/70-30	'93/'95/tier study/raw data		
		11.6	1.6	(20.4) 7.2	2.9	0.8	(10.9) 7.2	??/??/10/10
		23.6	7.4	(50.5) 19.5	5.9	3.7	(29.1) 19.5	??/??/4/4
		8.8	22.0	(60.2) 29.4	2.2	11.0	(42.6) 29.4	??/??/2/2
		10.4	2.4	(20.6) 7.8	2.6	1.2	(11.6) 7.8	??/??/9/9
		6.0	6.8	(23.3) 10.5	1.5	3.4	(15.4) 10.5	??/??/8/7
		44.0	10.8	(87.8) 33.0	11.0	5.4	(49.4) 33.0	??/??/1/1
		8.4	5.6	(24.2) 10.2	2.1	2.8	(15.1) 10.2	??/??/7/8
		1.2	2.0	(6.2) 3.0	0.3	1.0	(4.3) 3.0	??/??/11/11
		12.8	3.8	(27.1) 10.5	3.2	1.9	(15.6) 10.5	??/??/6/6
		22.4	3.4	(48.2) 14.4	5.6	1.7	(21.7) 14.4	??/??/5/5
		13.2	16.8	(55.5) 25.5	3.3	8.4	(37.2) 25.5	??/??/3/3

Power Projection (Trans)

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
'93/'95/tier study/raw data

Anniston		9	9	??/?/9/9
Blue Grass		11	11	??/?/4/4
Crane		11	11	??/?/2/2
Hawthorne		5	5	??/?/10/10
Letterkenny		7	7	??/?/8/8
McAlester		11	11	??/?/1/1
Red River		8	8	??/?/7/7
Seneca		6	6	??/?/11/11
Sierra		10	10	??/?/6/6
Savanna		8	8	??/?/5/5
Tooele		10	10	??/?/3/3

Power Projection (Trans)

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
'93/'95/tier study/raw data

Anniston

Blue Grass

Crane

Hawthorne

Letterkenny

McAlester

Red River

Seneca

Sierra

Savanna

Tooele

Army BRAC '93	Army BRAC '95	Tiering Study	Raw Data	Ranking <small>'93/'95/tier study/raw data</small>
		9	9	??/??/9/9
		11	11	??/??/4/4
		11	11	??/??/2/2
		5	5	??/??/10/10
		7	7	??/??/8/8
		11	11	??/??/1/1
		8	8	??/??/7/7
		6	6	??/??/11/11
		10	10	??/??/6/6
		8	8	??/??/5/5
		10	10	??/??/3/3

Location

	Army BRAC '93	Army BRAC '95	Tiering Study	Raw Data	Ranking '93/'95/tier study/raw data
Anniston			73.1	29.4	??/?/4/4
Blue Grass			58.4	24.8	??/?/7/6
Crane			50.2	21.3	??/?/8/8
Hawthorne			77.7	31.8	??/?/2/3
Letterkenny			73.8	32.4	??/?/3/2
McAlester			50.0	19.2	??/?/9/9
Red River			43.4	17.7	??/?/10/10
Seneca			60.6	26.6	??/?/5/5
Sierra			100.8	40.1	??/?/1/1
Savanna			41.6	16.8	??/?/11/11
Tooele			59.6	23.4	??/?/6/7

Anniston

Blue Grass

Crane

Hawthorne

Letterkenny

McAlester

Red River

Seneca

Sierra

Savanna

Tooele

Costs

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
'93/'95/tier study/raw data

Anniston		42.8	20.2	??/??/8/7
Blue Grass		44.2	18.7	??/??/7/8
Crane		85.9	33.4	??/??/1/1
Hawthorne		53.9	24.8	??/??/4/4
Letterkenny		52.6	24.2	??/??/5/5
McAlester		63.6	27.7	??/??/3/2
Red River		69.0	27.3	??/??/2/3
Seneca		30.3	11.9	??/??/11/11
Sierra		38.9	16.8	??/??/9/9
Savanna		36.4	14.7	??/??/10/10
Tooele		49.5	20.9	??/??/6/6

Maintenance

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
'93/'95/tier study/raw data

Anniston

Blue Grass

Crane

Hawthorne

Letterkenny

McAlester

Red River

Seneca

Sierra

Savanna

Tooele

		w/o missile//w/ missile	w/o missile//w/ missile	
		22.8 66.8	11.4 22.4	??/??/5/1/7/2
		21.2 21.2	11.9 11.9	??/??/7/9/16/9
		44.8 44.8	22.0 22.0	??/??/2/5/2/3
		33.8 33.8	18.4 18.4	??/??/3/6/13/5
		6.5 50.5	3.5 14.5	??/??/11/4/11/6
		57.9 57.9	33.3 33.3	??/??/1/3/1/1
		17.4 61.4	8.6 19.6	??/??/8/2/8/4
		7.0 7.0	3.7 3.7	??/??/10/11/10/11
		10.5 10.5	4.6 4.6	??/??/9/10/9/10
		21.7 21.7	13.9 13.9	??/??/16/8/15/8
		29.0 29.0	14.0 14.0	??/??/4/7/4/7

Inspection/Test

Army BRAC '93 Army BRAC '95 Tiering Study Raw Data Ranking
'93/'95/tier study/raw data

Anniston

Blue Grass

Crane

Hawthorne

Letterkenny

McAlester

Red River

Seneca

Sierra

Savanna

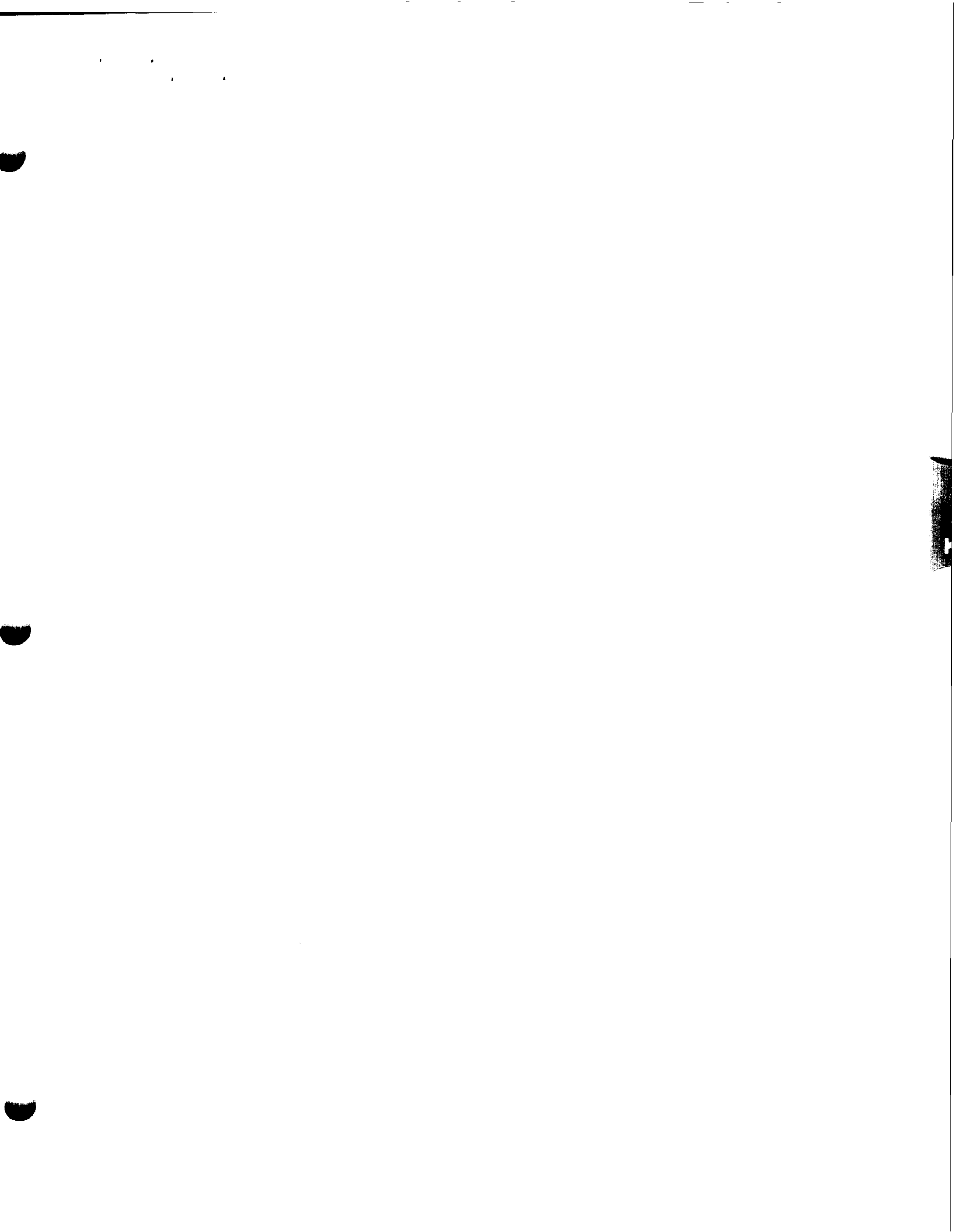
Tooele

		3	1	??/??/5/4
		0	0	??/??/9/5
		6	2	??/??/1/2
		6	2	??/??/1/2
		6	3	??/??/1/1
		2	1	??/??/7/4
		3	1	??/??/6/4
		0	0	??/??/9/5
		0	0	??/??/9/5
		4	1	??/??/4/4
		1	1	??/??/8/4

Demil

	Army BRAC '93	Army BRAC '95	Tiering Study	Raw Data	Ranking
Anniston			25.5	10.6	??/??/8/8
Blue Grass			29.3	11.1	??/??/6/6
Crane			35.6	14.4	??/??/4/4
Hawthorne			45.8	22.9	??/??/1/1
Letterkenny			24.8	11.0	??/??/9/7
McAlester			40.2	20.4	??/??/3/2
Red River			26.9	9.4	??/??/7/9
Seneca			22.5	8.1	??/??/10/10
Sierra			44.7	19.7	??/??/2/3
Savanna			20.8	7.8	??/??/11/11
Tooele			34.1	13.5	??/??/5/5

'93/'95(tier study/raw data)



Congress of the United States
Washington, DC 20515

February 21, 1995

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FEB 23 1995

Lassen County
Department of Community Development

Brig. General William R. Holmes
Deputy Chief of Staff for Ammunition
U.S. Army Material Command
5001 Eisenhower Avenue
Alexandria, VA 22333

Dear General Holmes:

Thank you for briefing our staff and providing an update on the Army's Tier Depot Analysis.

Our staffs have reviewed the quantitative data for the Tier Depot Analysis and the accompanying data for the tiering process, as well as the information which resulted from the meeting. We believe that the information used for decision making in the tiering process may have been inaccurate, incomplete, inconsistent and invalid.

Following the discussion at the February 15 meeting, it was recommended we follow up with a list of our specific questions. Based on that recommendation, the following questions are submitted for your reply:

It is our understanding that original guidance from the Army Material Command listed Sierra Army Depot as a Tier II facility. Tooele and Blue Grass moved from Tier III installations to Tier I depots. What factors were considered to change the final outcome?

Was any cost analysis ever conducted to determine what the total cost of implementing the Tiering Plan will be to the Department, and what were those figures?

We have been told repeatedly that cost is the driving force in determining which installations will survive. If that is the case, why was cost rated as the fourth most important factor in the study?

Seventeen factors are used in the Base Realignment and Closure analysis to rate the military worth of ammunition depots. Since power projection was determined to be the most important factor in the Tier Depot Analysis, why was it not listed as one of the factors BRAC used to measure the value of ammunition storage facilities?

If power projection is a critical factor, were the facts that SIAD has a significant outload capability, is the closest to the western port, has an on-site airfield that is C-5 capable, has access to two major railroads, and serves as a safe haven for the port at Concord considered, and were those factors fairly weighed? If so, how?

Who determined the weighting factors for the seven areas considered by the Army and what was their specific justification? If other services had input, was it suggestive or were they allowed to rank each facility based on their needs?

Why was power projection weighted the heaviest when it can be so easily influenced by acquiring additional equipment and facilities?

Why would the Army want to remove an excellent power projection installation which has the best proximity to the port in the west, and be forced to ship ammunition further at an increased cost and with additional time required?

You indicated that if a facility was in the best location but does not provide adequate mission support, it is of limited value. If power projection was so important, the quantitative data for the tier analysis under power projection indicated Hawthorne to be the second largest storage facility, but with little or no transportation capability. Hawthorne still managed to rank third overall, despite the fact it falls under the criteria described by the general as being useless. Why was the weighting system overly biased to the point the figures overlook obvious shortcomings and better facilities just because the figures say so?

Clearly, power projection was weighted so heavily it determined the outcome of the study. Pro-rated figures were used in storage capability, but seemed to be ignored in things like missile maintenance. Yet the large storage capability and transportation figures weighted as such clearly show the weighting system to be flawed. What steps will the Army take to re-evaluate this study and validate its findings?

Since SIAD is on the east-west rail route, any ammunition shipped from other installations to the western port must pass SIAD's front gate. Since the objective of the Integrated Ammunition Management Plan was to develop a storage base and ammunition policies resulting in a smaller, safer stockpile on fewer installations using less manpower, how does it make economic sense to add transportation cost, additional handling from a more expensive facility?

The stated objectives of the management plan were to reduce costs and increase efficiency. How will eliminating the ammunition depot with the best rate of efficiency reduce costs or enhance efficiency?

The Army has already eliminated significant ammunition storage capacity in the west in previous BRAC rounds while eastern depots were largely left untouched. Why would the Army want to take out additional capacity in the west, when western installations have the best climatic conditions for ammunition storage?

Why did the Army choose to designate a Tier III facility in the western region at all, considering there are only three remaining ammunition installations in that region?

The Tiering Depot Analysis was designed to support a two major regional conflict scenario. How can the Army still be confident it can support two simultaneous major regional conflicts after implementation of this plan?

Why do we need three geographic regions to support two major regional conflicts?

With drawdowns, the Army has a growing stockpile of obsolete munitions. With this increasing requirement, why would we give up the installation that has the best demilitarization capability in the Army?

There are apparently tests being conducted at the Dugway Proving Grounds in controlled environments which indicate the environmental impact of open burn/open detonation is less of a hazard than previously thought. As California has tougher clean air standards than the federal government, why are we spending more money to demilitarize munitions and using the environmental concerns to support that reasoning?

Just because demilitarization is funded from different Army procurement funds, does not mean that it is excluded from being paid for by the taxpayer. Why were demilitarization costs excluded from cost factors?

Since SIAD is only one of two installations that has an on-site airfield, why was air capacity rated as only fair?

Since SIAD is served by two major railroads, has an excellent internal rail system recently upgraded to the tune of \$4 million, why was it rated only fair?

Why was SIAD's OB/OD capability listed at only 20,000 pounds of net weight explosive when it is actually 240,000 pounds?

Why did SIAD receive no credit for a modern ammunition surveillance facility when one was under construction and ERAC gave it credit?

With the best demilitarization capability in the Army and being first in two of the seven categories by which the Army made its recommendations, how can the Army justify the fact SIAD was listed as having poor overall capabilities?

SIAD was fourth in storage capability, did not receive credit or proper credit for other capabilities (such as outload capability, transportation, or inspection/test capability) and was misrepresented in other capabilities such as demilitarization. Again, how was this data obtained, was it audited, and how was it validated?


Based on labor/transportation costs SIAD ranked most efficient in the depot system for fiscal year 95. Partial year data was used for evaluating SIAD. Why was partial year data utilized regarding SIAD, when the Army is obliged by law to use full year data for evaluation?


Why is maintenance rated twice as important as demilitarization when there is more money in the fiscal year 95 budget for demilitarization than for ammunition maintenance?

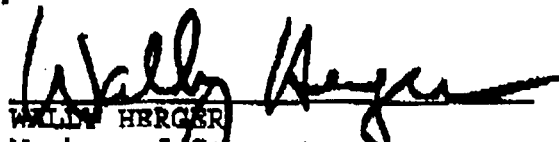
How does the tiering study impact the ERAC process? How will the information gathered for the study be used by ERAC?

These questions are a result of data made available by both the Army and through our own research. As you have indicated your willingness to assist us in this matter, we would appreciate your immediate attention to this request.

Sincerely,


BARBARA BOXER
U.S. Senator


DIANNE FEINSTEIN
U.S. Senator


WALLY HERGER
Member of Congress

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DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIAL COMMAND
5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22304-0001



March 02, 1995

REPLY TO
ATTENTION OF

RECEIVED

MAR 03 1995

Lassen County
Department of Community Development

Honorable Wally Herger
House of Representatives
Washington, D.C. 20513

Dear Congressman Herger:

On February 15, 1995, I discussed the Army's depot tiering concept with members of your staff.

Your letter of February 21, 1995 requested clarification of some points and provided some follow-on questions.

Enclosed please find the responses to your questions. I trust this information will be of assistance.

Sincerely,

William R. Holmes
Brigadier General, U.S. Army
Deputy Chief of Staff
for Ammunition

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Question #1: It is our understanding that original guidance from the Army Materiel Command listed Sierra Army Depot as a Tier II facility. Tooele and Blue Grass moved from Tier III installations to Tier I depots. What factors were considered to change the final outcome?

Response: No original guidance was furnished by the Army Materiel Command (AMC) to establish specific depots at specific tier levels. The only initial guidance that AMC provided to the U.S. Army Armament and Ammunition Command (AMCCOM) was to develop a concept which could be utilized in meeting the Army Chief of Staff's, objective of "achieving a smaller, safer ammunition stockpile with fewer installations using less manpower". AMCCOM internally developed such a concept for utilization during a feasibility simulation in November 1993. At that point in time no indepth analysis, no participation by the other Services and no data calls from the installations had been conducted. Tiering was still only a "Concept." Once the concept was determined to be feasible, the detailed analysis, data collection, etc. was conducted. During this process, several installations were adjusted within the Tiers, based on qualitative and quantitative factors.

Question #2: Was any cost analysis ever conducted to determine what the total cost of implementing the Tiering Plan will be to the Department, and what were those figures?

Response: Within the context of a total assessment of the Army ammunition program, a cost analysis of the tiering concept was conducted. This analysis used average rate factors for receipts/issues/transportation etc,. As part of the total Army's Operation Maintenance account for the ammunition program, a near term investment of \$206.0M in FY 96-98 will result in anticipated savings of \$56.8M in FY99 and a \$70M cost avoidance in FY99 and beyond. This analysis was not a detailed depot by depot cost/economic comparison.

Question #3: We have been told repeatedly that cost is the driving force in determining which installations will survive. If that is the case, why was cost rated as the fourth most important factor in the study?

Response: The criteria used for analysis were the criteria considered critical in the management and operation of the

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ammunition stockpile. The operational requirement of power projection was identified as the most important, and was the top weighted factor in the tiering analysis. Cost is very important, however the critical factors of power projection, storage capacity, and geographic location were rated higher.

Question #4: Seventeen factors are used in the Base Realignment and Closure analysis to rate the military worth of ammunition depots. Since power projection was determined to be the most important factor in the Tier Depot Analysis, why was it not listed as one of the factors BRAC used to measure the value of ammunition storage facilities?

Response: The Installation Assessment for the Ammunition Storage category for BRAC, included 17 measurable elements of installation utility called attributes. Of those 17 attributes, four of them were further broken down in greater detail: infrastructure, environmental carrying capacity, reserve training, and deployment. The deployment attribute was a compilation of four subfactors: miles to rail transportation, miles to air transportation, miles to sea transportation, and miles to highway. The power projection capability is reflected in the deployment attribute of the installation assessment.

Question #5: If power projection is a critical factor, were the facts that SIAD has a significant outload capability, is the closest to the western port, has an on-site airfield that is C-5 capable, has access to two major railroads, and serves as a safe haven for the port at Concord considered, and were these factors fairly weighed? If so, how?

Response: Power projection is indeed a critical factor considered in the analysis. The factors considered under Power Projection were depot outloading capability, transportation support, proximity to sea and air ports of embarkation and training sites. Safe haven capability was not considered since our movement planning, coordination and execution process is based on factors such as port receipt and through-put capability as well as depot outloading capability. This coordination process results in shipments to the port which meet their agreed upon capability and the use of safehaven is very minimal. In the planning process safe havens are not considered. Outload capability was

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included under power projection criteria. SIAD ranked 6th out of the 11 installations in outloading capability, and was at least 40% below that of the number one ranked installation. Rail/truck/air strip were measured under power projection and SIAD was given appropriate credit for their air and rail facilities. Their location and proximity to air and sea embarkation points, as well as, proximity to training areas were rated under the criteria entitled location.

Question #6: Who determined the weighing factors for the seven areas, considered by the Army and what was their specific justification? If other services had input, was it suggestive or were they allowed to rank each facility based on their needs?

Response: Weighted factors were developed by Joint Service, AMCCOM, DESCOM and AMC personnel and were based on criteria considered critical to management of the ammunition stockpile. Input from other Services was fully considered in finalizing the analysis.

Question #7: Why was power projection weighted the heaviest when it can be so easily influenced by acquiring additional equipment and facilities?

Response: It was considered that the capability to meet the Services power projection requirements was the most critical to National Defense. The study was conducted in a logical, non-biased, constant perspective. Given the uncertainty of funding available for application within AMC for strategic mobility improvements, consideration of infrastructure improvements were not considered.

Question #8: Why would the Army want to remove an excellent power projection installation which has the best proximity to the port in the west, and be forced to ship ammunition further at an increased cost and with additional time required?

Response: The analysis determined that SIAD is not an excellent power projection source. Notwithstanding minimal cost differences, Toole depot has approximately three times the outload capability as Sierra and can ship more ammunition to the west coast port than Sierra in the 1st 30 days of a contingency.

Question #9: You indicated that if a facility was in the best location but does not provide adequate mission support, it is of limited value. If power projection was so important, the quantitative data for the tier analysis under

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power projection indicated Hawthorne to be the second largest storage facility, but with little or no transportation capability. Hawthorne still managed to rank third overall, despite the fact it falls under the criteria described by the general as useless. Why was the weighing system overly biased to the point the figures overlook obvious shortcomings and better facilities just because the figures say so?

Response: Hawthorne, based on a quantitative score only, would have been designated a Tier I installation. This installation ranked highest primarily due to its large storage capability. However, after considering Hawthorne's power projection and transportation capability, it was qualitatively determined that it should be a Tier II installation. With the tremendous requirement for AMC to store over 3 million short tons of ammunition, it was not feasible to make Hawthorne a Tier III installation and lose the largest storage capacity in the Army..

Question #10: Clearly, power projection was weighted so heavily it determined the outcome of the study. Pro-rated figures were used in storage capability, but seemed to be ignored in things like missile maintenance. Yet the large storage capability and transportation figures weighted as much clearly show the weighing system to be flawed. What steps will the Army take to reevaluate this study and validate its findings?

Response: The Integrated Ammunition Stockpile Management Plan is not a static plan. Changes in doctrine, threat, requirements, and international conditions may influence the feasibility of fully implementing the plan as originally written. As changes occur, the Plan will be reevaluated and updated as required.

Question #11: Since SIAD is on the east-west rail route, any ammunition shipped from other installations to the western port must pass SIAD's front gate. Since the objective of the Integrated Ammunition Management Plan was to develop a storage base and ammunition policies resulting in a smaller, safer stockpile on fewer installations using less manpower, how does it make economic sense to add transportation cost, additional handling from a more expensive facility?

Response: See responses #5 and #8.

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Question #12: The stated objectives of the management plan were to reduce costs and increase efficiency. How will eliminating the ammunition depot with the best rate of efficiency reduce costs or enhance efficiency?

Response: With centralization of activities, efficiencies will occur. See response #1 above.

Question #13: The Army has already eliminated significant ammunition storage capacity in the west in previous BRAC rounds while eastern depots were largely left untouched. Why would the Army want to take out additional capacity in the west, when western installations have the best climatic conditions for ammunition storage?

Response: There is little disagreement that the western U.S. does afford excellent climatic conditions for storage, however ammunition is designed, built and packaged to withstand adverse conditions for extended periods of time without marked degradation to the items themselves. Because of this, the storage environment afforded by any of the Army CONUS depots provides outstanding protection of ammunition items. Reviews and assessments of ammunition items by condition versus location has proven that the east versus west environment has negligible impact on the ammunition.

Question #14: Why did the Army choose to designate a Tier III facility in the western region at all, considering there are only three remaining ammunition installations in that region?

Response: It was determined that two ammunition depot type installations were sufficient to meet the Army's needs at end state.

Question #15: The Tiering Depot Analysis was designed to support a two major regional conflict scenario. How can the Army still be confident it can support two simultaneous major regional conflicts after implementation of this plan?

Response: Based on the munitions movement requirements utilized and the timeline associated with distribution to theater, the Tiering structure would be capable of meeting the support requirements of two regional conflicts.

Question #16: Why do we need three geographic regions to support two major regional conflicts?

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Response: Each installation has a role in support of any regional contingency. The analysis showed that, at end state, the depots could support the requirements of our Services during contingency operations. Regional distribution (three regions) fully supports area training requirements and provides an active installation or installations within the proximity of sea ports of embarkation with supporting power projection requirements.

Question #17: With drawdowns, the Army has a growing stockpile of obsolete munitions. With this increasing requirement, why would we give up the installation that has the best demilitarization capability in the Army?

Response: As the military enters the twenty first century, we are planning on changing the methods of eliminating those munitions for which we no longer have a use. We will, as prudent stewards of resources, concentrate on Resource Recovery and Reclamation, R3, in order to reutilize materiel contained within the demilitarization stockpile. Additionally, increasingly restrictive Federal, state and local environmental regulations make it prudent for the Army to evolve to R3. Naturally, this will greatly reduce our reliance upon open burn/open detonation (OB/OD) as a method of eliminating any unneeded stock.

Question #18: There are apparently tests being conducted at the Dugway Proving Grounds in controlled environments which indicate the environmental impact of open burn/open detonation is less of a hazard than previously thought. As California has tougher clean air standards than the federal government, why are we spending more money to demilitarization munitions and using the environmental concerns to support that reasoning?

Response: All Army installations that conduct OB/OD operations are doing so under interim environmental permits. At one point, the Federal EPA was considering a retraction of all OB/OD interim permits based upon unknown environmental impacts. The testing at Dugway and elsewhere is attempting to quantify the potential impacts of OB/OD. The testing remains in the preliminary stages and only a few items have actually been tested. Many munitions cannot be safely or cost effectively processed by OB/OD and must be disposed of utilizing modern technology.

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Question #19: Just because demilitarization is funded from different Army procurement funds, does not mean that it is excluded from being paid for by the taxpayer. Why were demilitarization costs excluded from cost factors?

Response: Since the study was geared toward the twenty first century, and the Army's stated position is to utilize R3 as much as possible, at that point in time, cost associated with todays OB/OD was not considered relevant.

Question #20: Since SIAD is only one of two installations that has an on-site airfield, why was air capacity rated as only fair?

Response: SIAD airlift capability was rated as fair, since it only has the capability of handling a single C-5A and is not as efficient as Air Force channel airlift. Sierra's proximity to Air Mobility Command installations was considered because both peacetime and wartime airlift requirements are shipped through those installations. Such installations are expressly designed to meet airlift needs.

Question #21: Since SIAD is served by two major railroads, has an excellent internal rail system recently upgraded to the tune of \$4 million, why was it rated only fair?

Response: Internal rail infrastructure was considered a part of Power Projection and ratings were based on data provided by Sierra.

Question #22: Why was SIAD's OB/OD capability listed at only 20,000 pounds of net weight explosive when it is actually 240,000 pounds?

Response: SIAD's OB/OD demil capacity is 14 pits, 8 at 100,000 lbs net explosive weight and 9 at weights ranging from 5,820-7,428 lbs of Class Division 1.1 explosives. The burning grounds have a 100,000 pound limit per burn. The actual amount of demilitarization that can be performed at the installation is dependant upon several factors that include: the mix of ammunition, the availability of ammunition/components, weather conditions and workforce availability. Sierra was ranked among the highest for its demil capability. Adding additional OB/OD capacity would have had no effect on the final tiering.

Question #23: Why did SIAD receive no credit for a modern ammunition surveillance facility when one was under construction and BRAC gave it credit?

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Response: Credit was not accorded Sierra for a modern surveillance facility because functions completed by surveillance at SIAD could readily be done at several other locations on the installation or at other installations. The low weight given to test and surveillance in the analysis would have not altered the final outcome of the analysis.

Question #24: With the best demilitarization capability in the Army and being first in two of the seven categories by which the Army made its recommendations how can the Army justify the fact SIAD was listed as having poor overall capabilities?

Response: Sierra was primarily rated poor because of limited storage capability and power projection. See response # 17.

Question #25: SIAD was fourth in storage capability, did not receive credit or proper credit for other capabilities (such as outload capability, transportation, or inspection/test capability) and was misrepresented in other capabilities such as demilitarization. Again, how was this data obtained, was it audited, and how was it validated?

Response: Data used for evaluation and analysis purposes was gathered from information available at HQ AMCCOM and HQ DESCOM. In most instances this information came from records and reports provided directly by the installation. Thus it was assumed to be accurate, correct, and valid. There was no need for audit.

Question #26: Based on labor/transportation costs SIAD ranked most efficient in the depot system for fiscal year 95. Partial year data was used for evaluating SIAD. Why was partial year data utilized regarding SIAD, when the Army is obligated by law to use full year for evaluation?

Response: Any data used in conducting the Tiering Analysis was consistently developed for the entire storage base and was current at the time the analysis was conducted.

Question #27: Why is maintenance rated twice as important as demilitarization when there is more money in the fiscal year 95 budget for demilitarization than for ammunition maintenance?

Response: The funding level for ammunition maintenance is currently at a low level because the Services are meeting ammunition requirements from the surpluses generated by the revised world threat scenario and the subsequent downsizing

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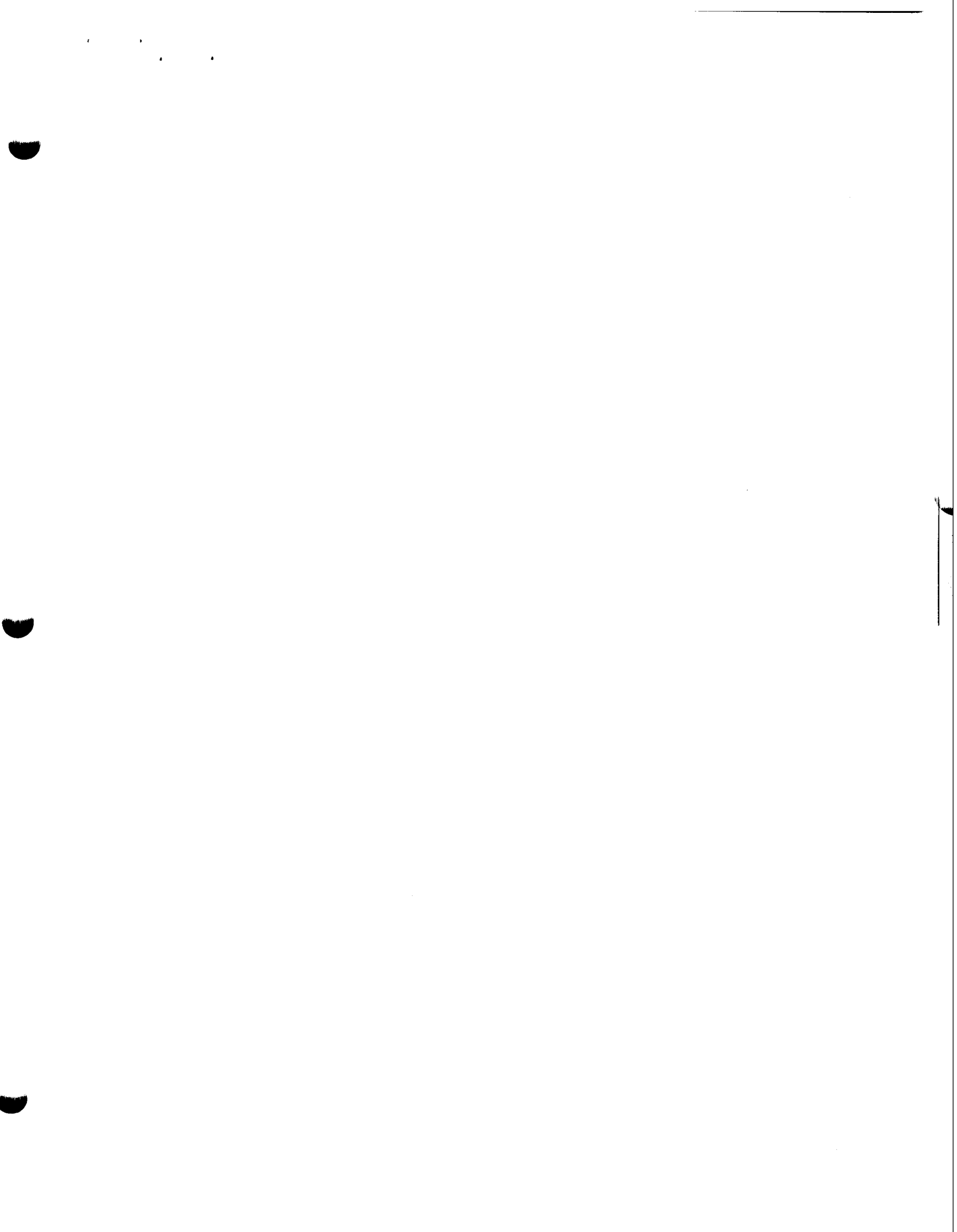
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of the military. The importance of maintenance will increase as the surpluses are consumed in training and operations. The requirement to perform maintenance directly impacts on readiness. Demil has an indirect effect on readiness, providing storage space and reducing storage costs. In the longer term, demil will decline as the backlog of ammunition is reduced and as new generations into the demil account decline. At that point in time, maintenance requirements may well exceed demil requirements in terms of dollars as well as priority.

Question #28: How does the tiering study impact the BRAC process? How will the information gathered for the study be used by BRAC?

Response: The tiering study was integrated in the Army Stationing Strategy which provided an operational context within which the BRAC planning and analysis was conducted. The strategy permitted the Army to balance various, and often competing, considerations and to ensure that the BRAC recommendations were developed without incurring unacceptable risks to the Army's operational requirement.



March 3, 1995

THE ECONOMIC IMPACT OF REALIGNMENT AT SIERRA ARMY DEPOT

Labor Force

Civilian employment in the entire county is 9,500. Department of Defense figures indicate that 839 jobs would be lost by realignment at SIAD. This accounts for 8.8% of the entire civilian employment in Lassen County. It accounts for more than three times the total county-wide employment in agriculture. It accounts for more than three times the total county-wide employment in mining and construction. It accounts for about 1.5 times the number of people in manufacturing. This figure also accounts for more people than in Lassen County manufacturing and agriculture combined.

There are currently 1125 persons unemployed in Lassen County, with the unemployment rate at 10.9%. Should those 839 civilians employed at the Sierra Army Depot be added to the labor force, the unemployment rate would rocket to 20.7%, almost double its current level.

In the Lassen County economy, there are three jobs in the tertiary economy (service and retail) for every two jobs in primary employment. This may mean that up to an additional 1,259 retail/service jobs could be lost if the primary jobs at the Sierra Army Depot are lost.

The compound effect, then would be that 2098 jobs or 22.1% of the total labor force jobs would be affected. The total number of jobs would be reduced from 10,675 to 8,577.

Buying Power

The payroll of the Sierra Army Depot is \$36 million annually. Total personal income in Lassen County is \$379 million. The Depot is the single largest employer in terms of payroll in Lassen County, even larger than the California Correctional Center whose payroll currently is \$33 million annually.

Hence, the Depot's payroll accounts for 9.5% of the total county personal income. The payroll of the Sierra Army Depot is almost twice that of the payroll (\$19.6 million) of all the manufacturing establishments in the county combined.

At \$5 million annually, the procurement at Sierra Army Depot is almost equal to all the combined manufacturing establishments within the county, which spend \$5.7 million on capital expenditures.

Based on the buying patterns of the entire county, the 839 jobs scheduled to be eliminated may directly account for retail expenditures in the following manner:

Apparel	\$ 1,096,127
General Merchandise	3,301,470
Drug/Food Stores	2,342,768
Restaurants	2,499,825
Home Furnishings	1,020,871
Building Materials	1,976,301
Auto Dealers	3,602,496
Service Stations	1,613,068
Other retail	2,885,923
Total	\$20,338,849

This accounts for 18.5% of the total retail sales within Lassen County. Add to this the amount the Depot spends on direct procurement (\$1.3 million in Lassen County), and the Depot accounts for 20.1% of the retail economy.

Because service and retail jobs are likely not to affect an entire household, the loss of service/retail jobs do not have as profound an effect on the sales economy, but the loss is still substantial. The compound effect, considering the effect on all tertiary (retail/service jobs), has the potential to be losses in retail sales of:

Apparel	\$ 2,009,567
General Merchandise	6,052,695
Drug/Food Stores	4,567,743
Restaurants	4,583,012
Home Furnishing	1,871,597
Building Materials	3,623,219
Auto Dealers	6,604,576
Service Stations	2,957,363
Other retail	5,290,860
Total	\$32,790,632

These cumulatively account for 30% of the total retail sales in Lassen County.

The cumulative impact of the loss of these sales, at a minimum, could mean the closure of six restaurants, one major food purveyor, three convenience stores, two service stations, one major general merchandiser, one building supply dealer, an automobile sales dealership, and seven specialty stores. It would probably also mean the loss of some accounting firms, lawyers, counselors, daycare facilities, and other service firms, but the magnitude of that effect is difficult to forecast.

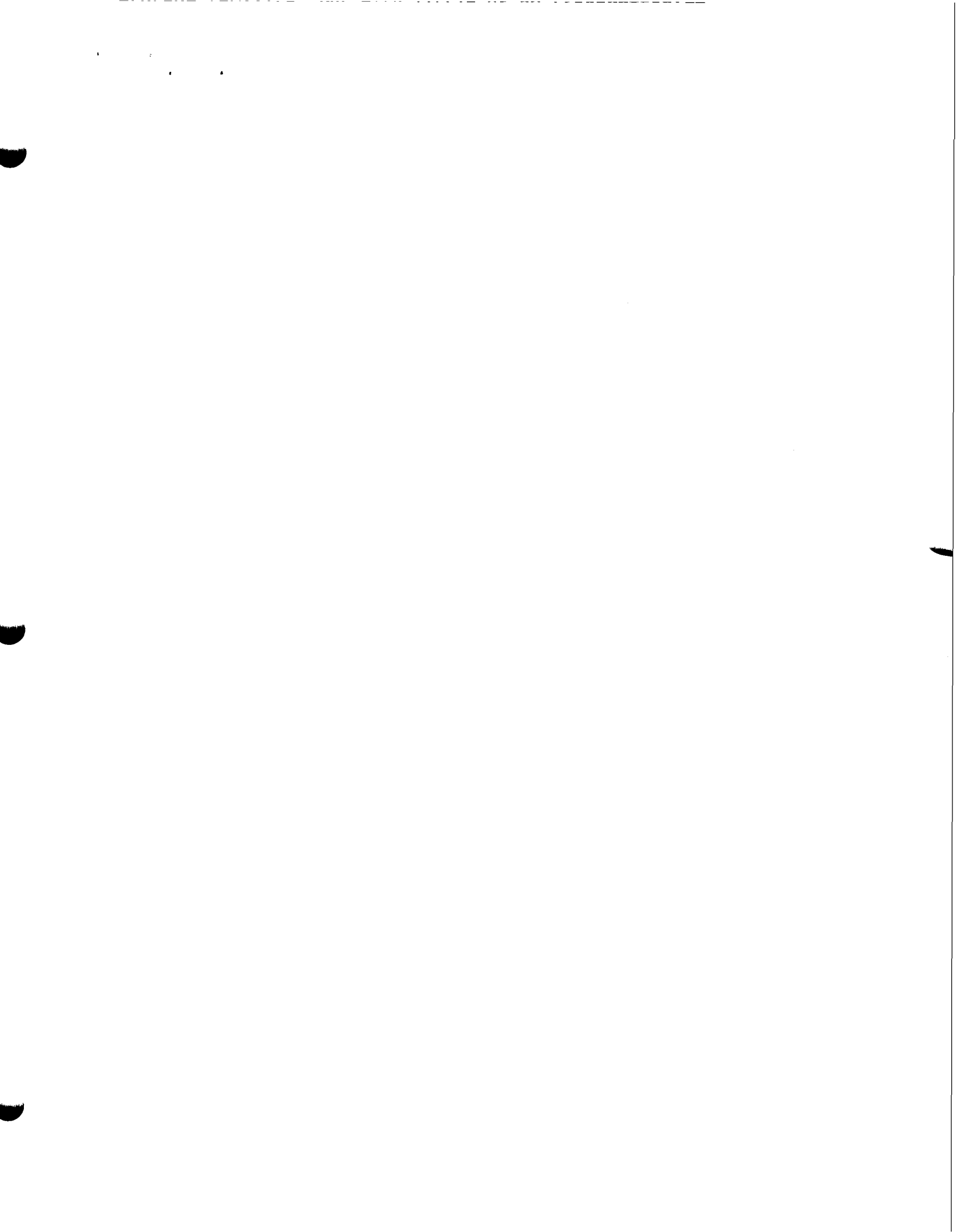
Since the schools of the Fort Sage Unified School District are located on the Sierra Army Depot, the realignment could

reduce the levels of enrollment to a point spelling the closure of Herlong High School and possibly the closure of elementary schools in the southern part of Lassen County.

Housing Market

Provided that employees of the Sierra Army Depot could not find employment elsewhere in the county, and with the assumption that most workers, particularly the white collar workers, would re-locate to other Federal installations, there would be 420 dwelling units on the market in the south county and 252 dwelling units on the market in the Susanville/Janesville area.

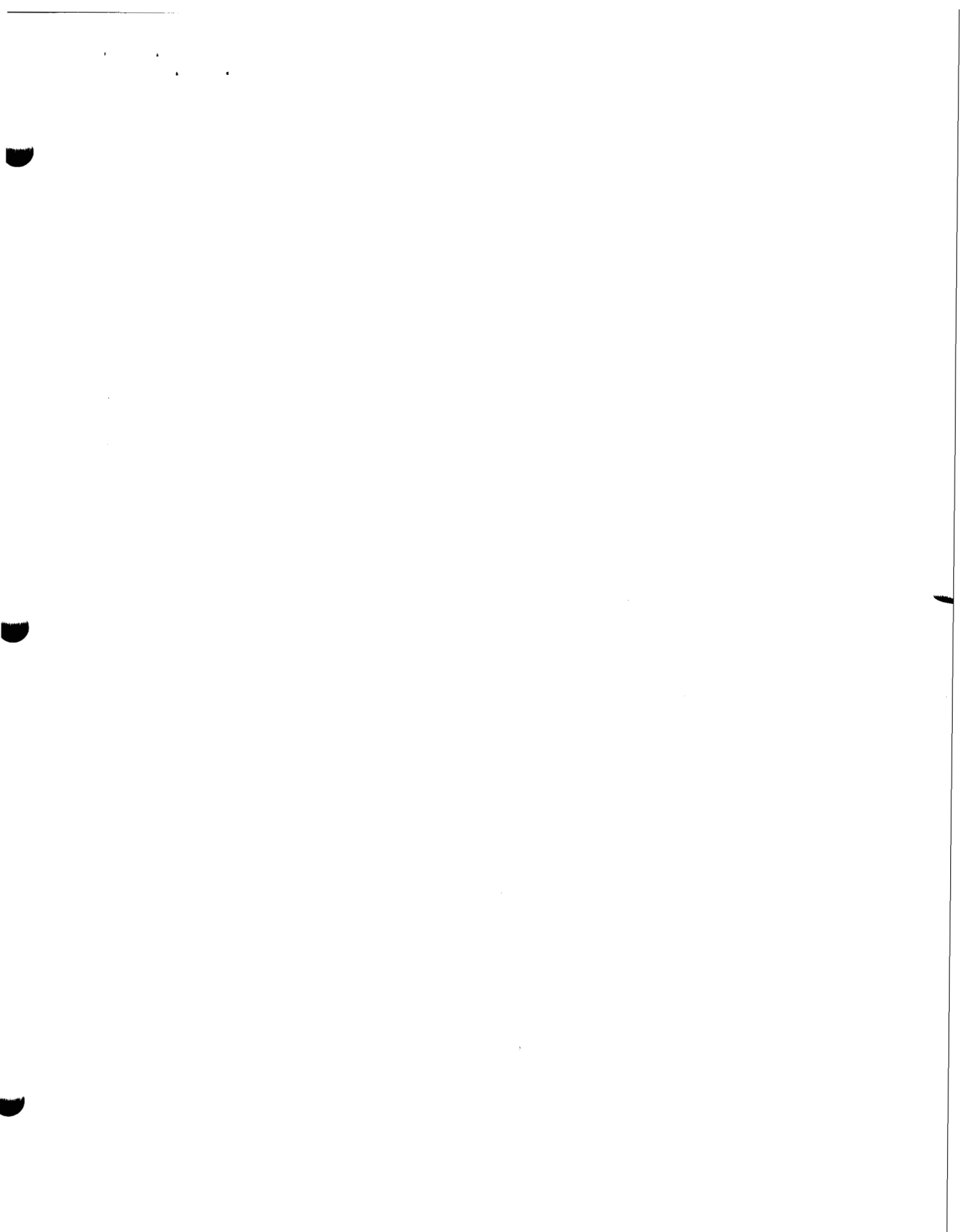
Past trends have shown that about 151 dwelling units a year are added to the housing stock within all of Lassen County. This means that five years' worth of housing stock would suddenly become available. That event could have a profound effect on the construction and building industry. There are currently 425 persons employed in construction and about 36 licensed contractors who would be adversely affected by a sudden glut of houses on the housing market.



COMMUNITY COMMENTS

THE TAXPAYERS OF LASSEN COUNTY AND NEIGHBORS OF THE SIERRA ARMY DEPOT
 (\$ Denotes Increased Cost of Operation for Taxpayer)

<p><u>Lowest Ammunition Rates in Industrial Operations Command.</u></p>	<p>Closure of efficient profit centers to maintain more costly alternatives defies common sense.</p>	<p>\$</p>
<p><u>Best Proximity to West Coast Ports.</u></p>	<p>Staging ammunition at installations further to the East will increase both the costs and shipping time to get the material to the Warfighting Commanders.</p> <p>The trains used will pass the SIAD enroute.</p> <p>Ideally situated as Safe Haven Naval Weapons Station Concord.</p>	<p>\$</p>
<p><u>Only Depot in West with On-site Airfield.</u></p>	<p>C-5 capable airfield provides tremendous flexibility to Joint Contingency Planners for rapid deployment or support of requirements at hot spots around the world.</p> <p>Capability offers unique Joint Service opportunities.</p> <p>Aircraft from the West Coast Mobility base (Travis AFB) must fly over SIAD to reach storage locations further to the East.</p> <p>They then would overfly it again to support operations in the Pacific and beyond.</p>	<p>\$</p> <p>\$</p>
<p><u>Finest Demilitarization Capabilities in the Army.</u></p>	<p>California Environmental Protection Agency to issue 10 year permit for Open Burn/Open Detonation - Fall 1995</p> <p>Lowest Costs.</p> <p>Highest capacity.</p> <p>Completing 31% of all DoD FY 95 Requirement.</p>	<p>\$</p>
<p><u>Only Western Depot Served by Two Major East-West Rail Lines.</u></p>	<p>Upgrade of aging long spur lines and the recurring cost of maintenance are not required.</p>	<p>\$</p>
<p><u>Unlimited Expansion Capability.</u></p>	<p>Protected from encroachment by Lassen County General Plan and zoning restrictions.</p> <p>One mile Public Safety zone provides added buffer to prevent incompatible land use surrounding Depot perimeter.</p>	<p></p>
<p><u>Ideal Climatic Conditions for Storage.</u></p>	<p>Open storage allows large quantities of munitions to be maintained with no infrastructure investment.</p> <p>Significant room for expansion of storage mission.</p>	<p>\$</p>



STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, Governor

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

400 P STREET, 4TH FLOOR
P.O. BOX 806
SACRAMENTO, CA 95812-0806
(916) 322-0504



April 25, 1995

The Honorable Tim Leslie
Member of the Senate
State Capitol, Room 4081
Sacramento, California 95814

STATUS OF PERMITTING AND ENFORCEMENT FOR SIERRA ARMY DEPOT'S OPEN
BURN/OPEN DETONATION UNIT AND DEACTIVATION FURNACE UNIT

Dear Senator Leslie:

This is in response to your recent inquiry requesting an update of the Sierra Army Depot's open burn/open detonation unit and deactivation furnace unit permit status.

Sierra Army Depot's 1989 permit application for the OB/OD unit was reviewed by the United States Environmental Protection Agency (U. S. EPA), and revised in 1991. The Department of Toxic Substances Control (DTSC), having become an authorized state, assumed the lead on the permit review in 1992. A revised permit application was submitted in 1994. The present permit application will require only minor changes before a Completeness Determination can be issued. The deactivation furnace permit application has been reviewed and has received a Completeness Determination.

A draft permit is presently being prepared for the hazardous waste activities. It is planned to have the draft permit ready for public notice upon completion of the EIR process.

Enforcement inspections at the facility have shown that the facility is very cooperative, and as a whole, in compliance with hazardous waste laws and regulations. The facility was last inspected on April 19, 1995. The inspection was a focussed Compliance Evaluation Inspection, and there were no violations discovered during the inspection.

If you have any further questions, please contact me at (916) 322-0504.

Sincerely,

Bob Borzelleri
Bob Borzelleri
Chief Deputy Director



Department of Agriculture

County of Lassen



• AGRICULTURE

• WEIGHTS & MEASURES

• UNDERGROUND STORAGE TANKS

• PREDATORY ANIMAL

• AIR POLLUTION

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KENNETH R. SMITH, Commissioner
175 Russell Avenue
Susanville, CA 96130

FEB 07 1995

☎ (916) 251-8110

February 7, 1995

Lassen County
Department of Community Development

TO: Bill Bixby, CAO
Bob Sorvaag, Community Development Director

FROM: Ken Smith, Ag. Commissioner/APCO *Ken*

RE: Sierra Army Depot

The Sierra Army Depot operates several sources under a District Air Permit to Operate. These sources include: 9 spray paint booths, 2 boilers, 4 degreasers, 2 abrasive blasters, a waste paper incinerator, a deactivation furnace, and an open burning/detonation facility. The Permit to Operate for these sources includes several conditions requiring submission of meteorological and processing data on a regular basis. Additionally, any special activity that results in toxic emissions is required to be reviewed by the District.

The Sierra Army Depot also operates 36 underground storage tanks by permit through my office. Permit conditions require submission of quarterly inventory reconciliation reports and submission of annual tank test results. Over 70 tanks have been closed at the depot since 1986.

Through a cooperative arrangement with the Sierra Army Depot, my department deploys several Gypsy Moth and Japanese Beetle traps at the depot in an effort to monitor the presence of exotic pests that, if established, would pose a serious threat to Lassen County's agricultural and forestry industries.

Compliance with these permits and conditions has been excellent. I have been able to maintain a close working relationship with the Environmental and Administrative Divisions at the depot.

On May 12/13, 1993, the California Environmental Protection Agency conducted a multi-media inspection at the Sierra Army Depot. This included inspections by the Air Resources Board, the Regional Water Quality Board, the Department of Pesticide Regulation, the Department of Toxic Substances, etc.. Based on this multi-media inspection, several minor recommendations were made to the Air Pollution Control District that would strengthen the District's oversight of the operations at the depot. Those recommendations have been implemented. Inspections by the other agencies, revealed no major problems at the depot.

A health risk assessment has been performed at the depot as a result of the RCRA permitting process for the deactivation furnace. Attached are some of the data that summarizes the risks resulting from operation of various sources at the depot. Generally, the risk for a Maximally Exposed Individual range from less than 1 per million to less than 10 per million. This falls within acceptable limits established by most districts in California, including the South Coast AQMD.

Attachments





DEPARTMENTS OF THE ARMY AND AIR FORCE
OFFICE OF THE ADJUTANT GENERAL
CALIFORNIA NATIONAL GUARD
9800 GOETHE ROAD - P.O. BOX 288101
SACRAMENTO, CALIFORNIA 95828-0101



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APR 26 1995

Rob
Lassen County
Department of Community Development

Dear David,

I share Senator Leslie's and your concern over the possible closing of the Sierra Army Depot and the extreme economic damage the closing would cause the local community. The California Army National Guard has used the depot for training for many years and consider it a valuable military asset.

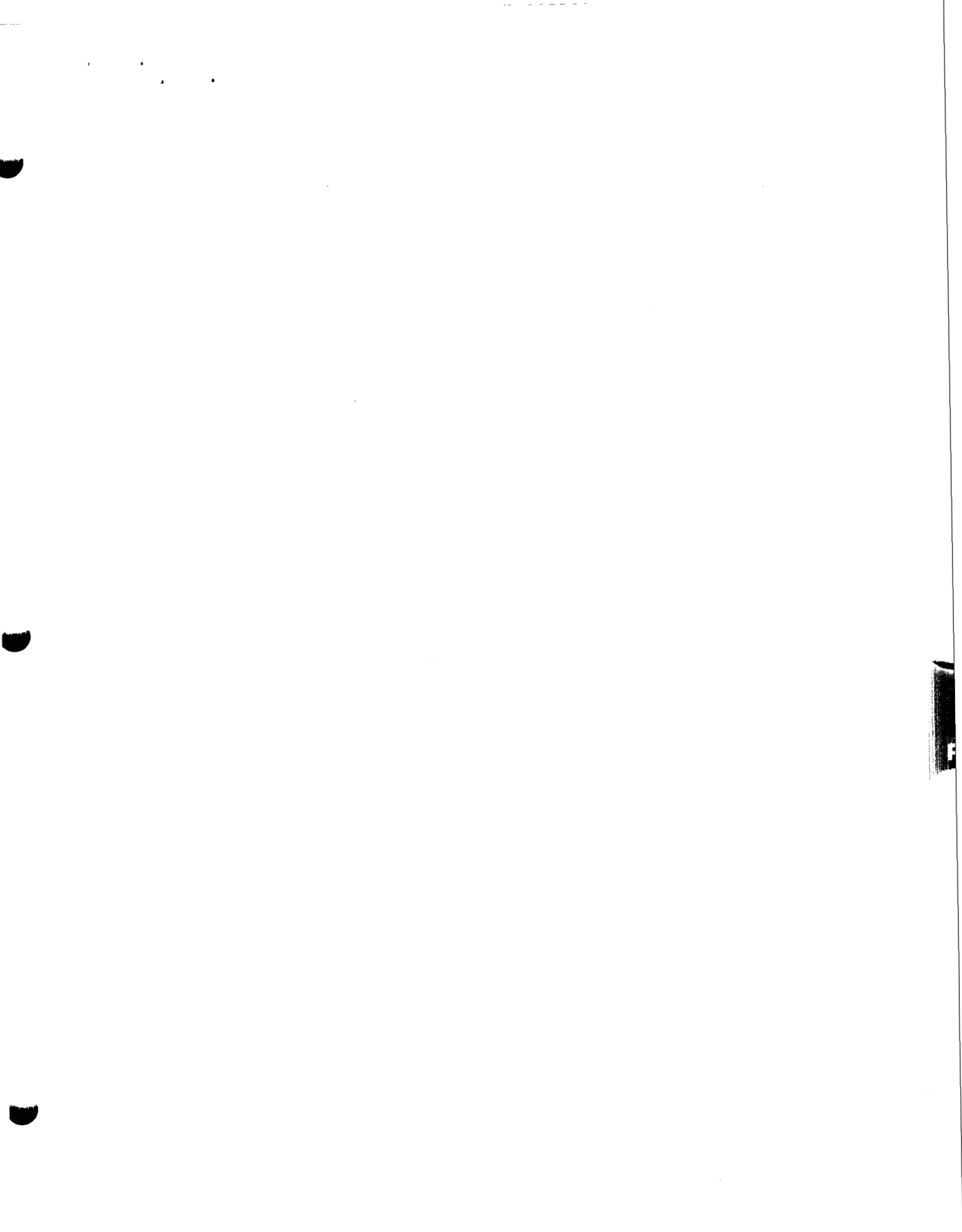
Due to procedural omissions, the officials who evaluated the Depot were not completely informed of it's exceptional and invaluable resources.

The installation has an airfield that can and does support the Air Force's largest transport cargo planes which routinely utilize the airfield. The installation's accessibility both air and rail make it invaluable.

As soon as I'm at the Pentagon, which will be in the near future, I will stop and visit with Mr. Mike Walker, Assistant Secretary of the Army, (Installations, Logistics and Environment) and his Chief of Staff, COL Paul Humphrey and will bring the importance and attributes of the Sierra Army their special attention.

Thank you for your interest and be assured that we are eager to assist Senator Leslie in resolving this issue in a manner favorable to the Californians who depend on the base for their livelihood.

Robert J. Brandt
Robert J. Brandt
Brigadier General
Assistant Adjutant General





LASSEN COUNTY

HEALTH AND HUMAN SERVICES DEPARTMENT

ADMINISTRATION • 545 HOSPITAL LANE • SUSANVILLE, CA 96130 • (916) 251-8128

- | | | | | | |
|---|---|--|---|--|---|
| <input type="checkbox"/> ALCOHOL & DRUG
476 Alexander Ave.
Susanville, CA 96130
(916) 251-8112 | <input type="checkbox"/> MENTAL HEALTH
555 Hospital Lane
Susanville, CA 96130
(916) 251-8108 | <input type="checkbox"/> PUBLIC GUARDIAN
720-A Richmond Rd.
Susanville, CA 96130
(916) 251-8337 | <input type="checkbox"/> PUBLIC HEALTH
555 Hospital Lane
Susanville, CA 96130
(916) 251-8183 | <input type="checkbox"/> VETERANS SERVICE
Memorial Building
Susanville, CA 96130
(916) 251-8192 | <input type="checkbox"/> WELFARE
P.O. Box 1359
Susanville, CA 96130
(916) 251-8152 |
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April 21, 1995

Jack Lensing
Chairman, Committee
to Retain The Sierra
Army Depot

Dear Jack;

I would just like to submit to you some information on the very good and supportive relationship that the Lassen County Alcohol and Drug Program has had and continues to have with Sierra Army Depot.

As with many of his predecessors, the individual in charge of Community and Counseling Services at the depot, Jim Phillips, has been very supportive of all the programs of prevention, intervention and treatment and recovery that Lassen County offers. Just as importantly, he has consistently had the support of the Base Commander, whom ever that person has been, through the years to continue to develop and maintain a strong and supportive relationship with us.

Jim sits on both the S.A.F.E. Coalition (Substance Abuse Free Environment) and the Lassen County Alcohol and Drug Advisory Board and he is an active member of each. It was through his support and others like him that we were able to garner the needed data and input to develop a \$1,300,000.00 grant that is currently serving adolescents and their families throughout Lassen and Plumas Counties. When the S.A.F.E. Coalition decided upon a mascot for the Alcohol and Drug Program, Jim came to the rescue. The mascot, "UNEE", the alcohol and drug free unicorn, a very important and wonderful way to access smaller children and draw them into alcohol and drug prevention activities, Jim obtained "Drug Demand Reduction Funds" with which to pay for a somewhat expensive but very professionally made costume. Further, even though the Base has maintained ownership of "UNEE", Jim and the Colonel have allowed us easy and continuous access to this very effective tool. The result is that every school child from kindergarten through the sixth grade attending any school located anywhere in Lassen County gets visits from "UNEE" and hears a healthy prevention message at a very impressionable age.

While always advocating for services for the South County area, (Doyle and Herlong), Jim and his staff have consistently given

We Support a Drug Free Lassen County



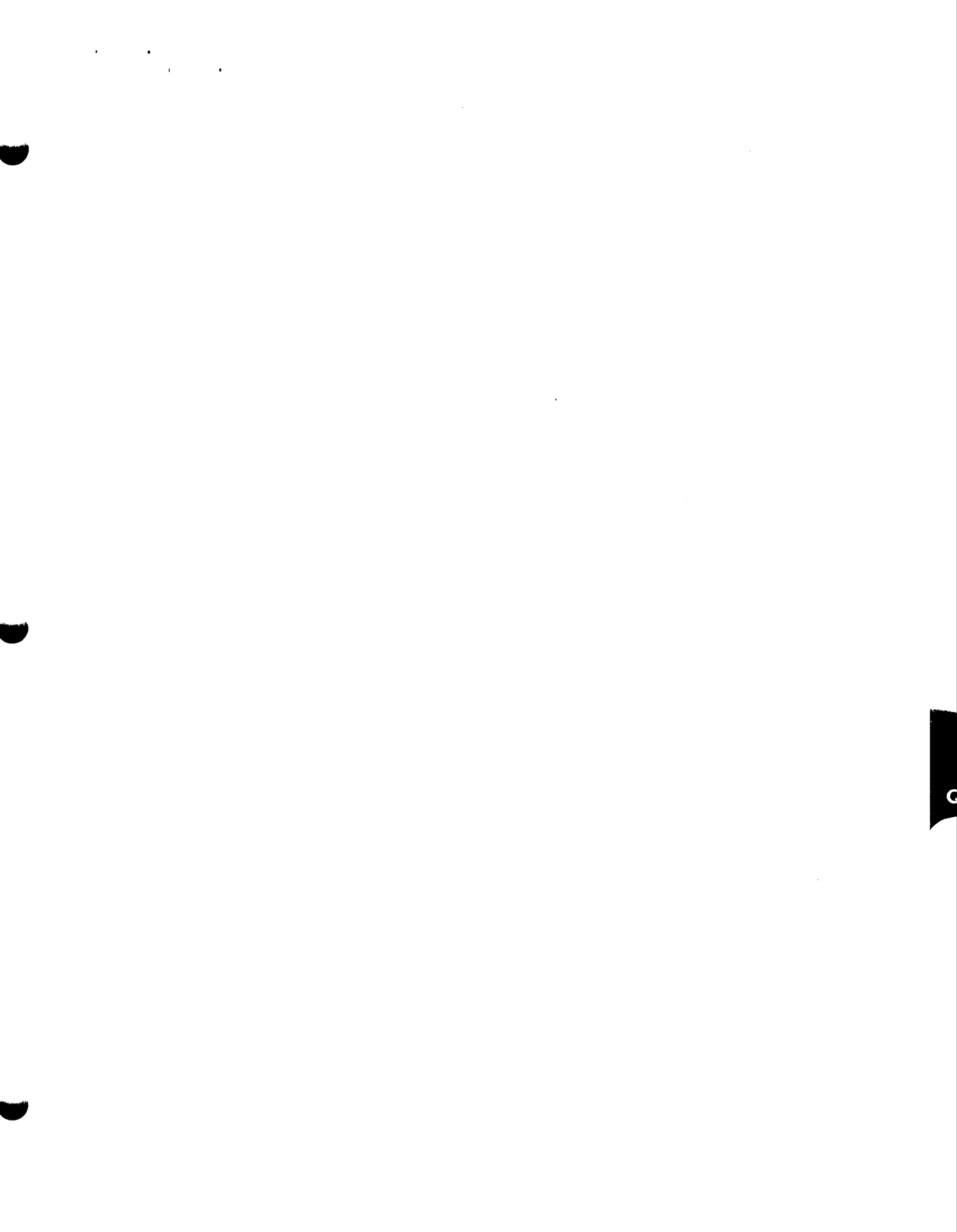
input and constructive ideas to help overcome the substance abuse problem throughout Lassen County. They routinely participate in the planning and participate in activities that impact all citizens of Lassen county.

The support that Sierra Army Depot has given to the Lassen County Alcohol and Drug Program over the years has been invaluable and would be sorely missed if no longer available.

Sincerely

Michael J. Beard

Michael J. Beard
Deputy director



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MAR 24 1995

23 March 1998

SDSSI-ENV

Sierra Army Depot Environmental News

Lassen County
Department of Community Development

Sierra Army Depot was the first non-national priority list (non-NPL) installation in the United States to develop a Federal Facility Site Remediation Agreement with environmental regulators (California Environmental Protection Agency in this case) to clean up sites that were contaminated with potentially hazardous wastes from past work practices. Sierra is working as rapidly as possible to clean up the areas that have been identified as sites with contamination. Sierra was also the first non-NPL installation in the United States to obtain a record of decision (ROD) to begin the clean up of a site.

Sierra Army Depot has an active Hazardous Waste Minimization Program (HAZMIN). The program is designed to reduce the amount of hazardous waste generated by the depot. This is being done by using less toxic materials to clean parts, to paint parts, and various other activities. Sierra is also recycling hazardous waste.

The depot's environmental office is working with the Bureau of Land Management, U.S. Fish and Wildlife, Forest Service, and the California Department of Fish and Game to protect various wildlife on and near the installation. Many of the power poles have been made eagle proof to prevent the Golden Eagle from electrocuting themselves. This project was completed with the help of a Boy Scout Troop from Susanville. The Boy Scouts also built bush piles for habitat improvements on the installation. They used tree trimmings to protect and allow for homes for some of the smaller creatures such as rabbits or quail. The depot built windbreaks on the installation to help prevent wind erosion as well as provide habitat for the various kinds of wildlife. Sierra Army Depot is also working with Lassen County on a noxious weed program for the area.

The Sierra Army Depot Environmental Office has established a working relationship with the University of Nevada, Reno, and graduate students are working with them. The students are working on their masters thesis while helping with reports and doing work on the groundwater contamination on the depot. Sierra continues to work with the University of Nevada to coordinate more programs at Sierra that would benefit both the installation and the university.

The Environmental Office is also working with the California Regional Water Quality Control Board - Lahontan Region to establish a wetland near the depots sewage ponds which will be used as part of the treatment system as well as provide a large habitat for birds and other animals in the area.

Sierra Army Depot reinforced environmental awareness with its employees through annual training and by working with employees at various sites.

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

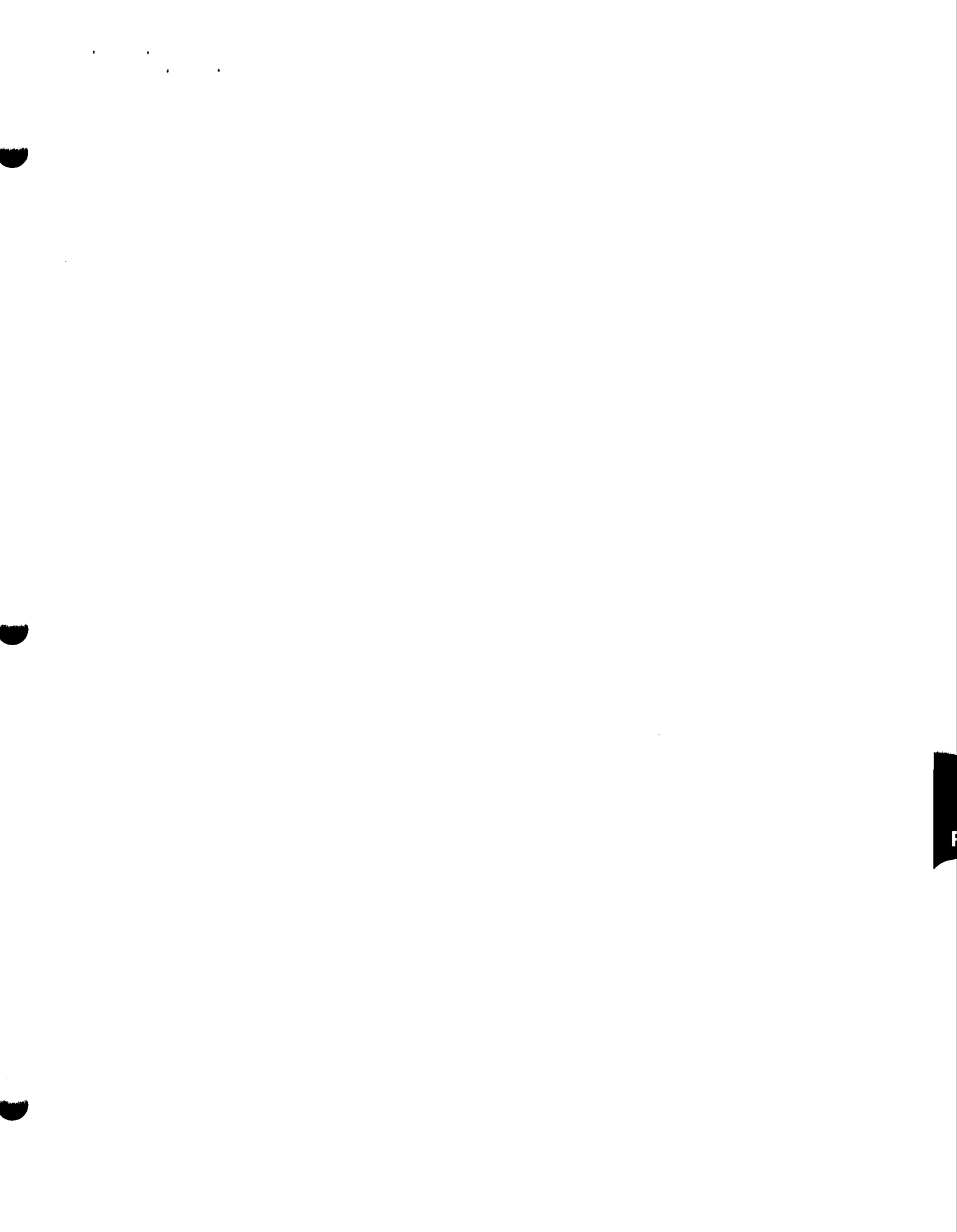
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To	BOB SORVAAG	From	ANDY RIESS
Dept./Agency	PLANNING	Phone #	FRIDAY HOME 257-9173
Fax #	257-4898	Fax #	827-4631

Employees use this information to do their jobs and to offer suggestions. The employees of Sierra Army Depot are environmentally concerned, and they are doing their best to comply with the environmental regulations to protect their health, the local community, and the environment.

The Environmental Office has established a good rapport with the federal, state and local environmental regulators. This has been accomplished with honesty and hard work to comply with the various environmental laws. Sierra Army Depot is able to complete its mission by taking serious its role as environmental steward over the land it occupies and its neighbors through compliance, restoration, prevention, and conservation.


JAMES M. RYAN
Chief, Environmental
Management Division



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APR 05 1995

Lassen County
Department of Community Development

To: Whom It May Concern

From: West Patton Village Community Service District

Subject: Water and Sewage Services

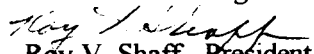
This District procures water and sewage services for the housing project adjacent to the depot. The project includes some 150 privately owned housing units. The official title of the project is West Patton Village but commonly referred to as Title IX. The project was constructed as defense rental housing in 1954 under Title IX of the Wherry Act. The water and sewage system of the project was connected to the Sierra Army Depot's water and sewage system.

During the decade of the Sixties, the original sponsor of the Project defaulted and the Federal Housing Administration sold off individual housing units to private buyers. At the same time, the West Patton Village Community Services District was created to procure water and sewage services from Sierra Army Depot for distribution and sale to the privately owned housing units.

The District's current contract with Sierra Army Depot was signed in January 1972. These services take care of approximately 465 people. Of the 153 homes, 74 are owned by retired people, most of whom worked for and retired from Sierra Army Depot. The remainder are owned by Sierra Army Depot employees.

Without the water and sewage services provided by Sierra Army Depot, West Patton Village would be uninhabitable because these essential services cannot be provided from any other source or in any other way. We respectfully request that agencies deciding the fate and future of Sierra Army Depot be informed of these arrangements and this community's dependence on Sierra Army Depot.

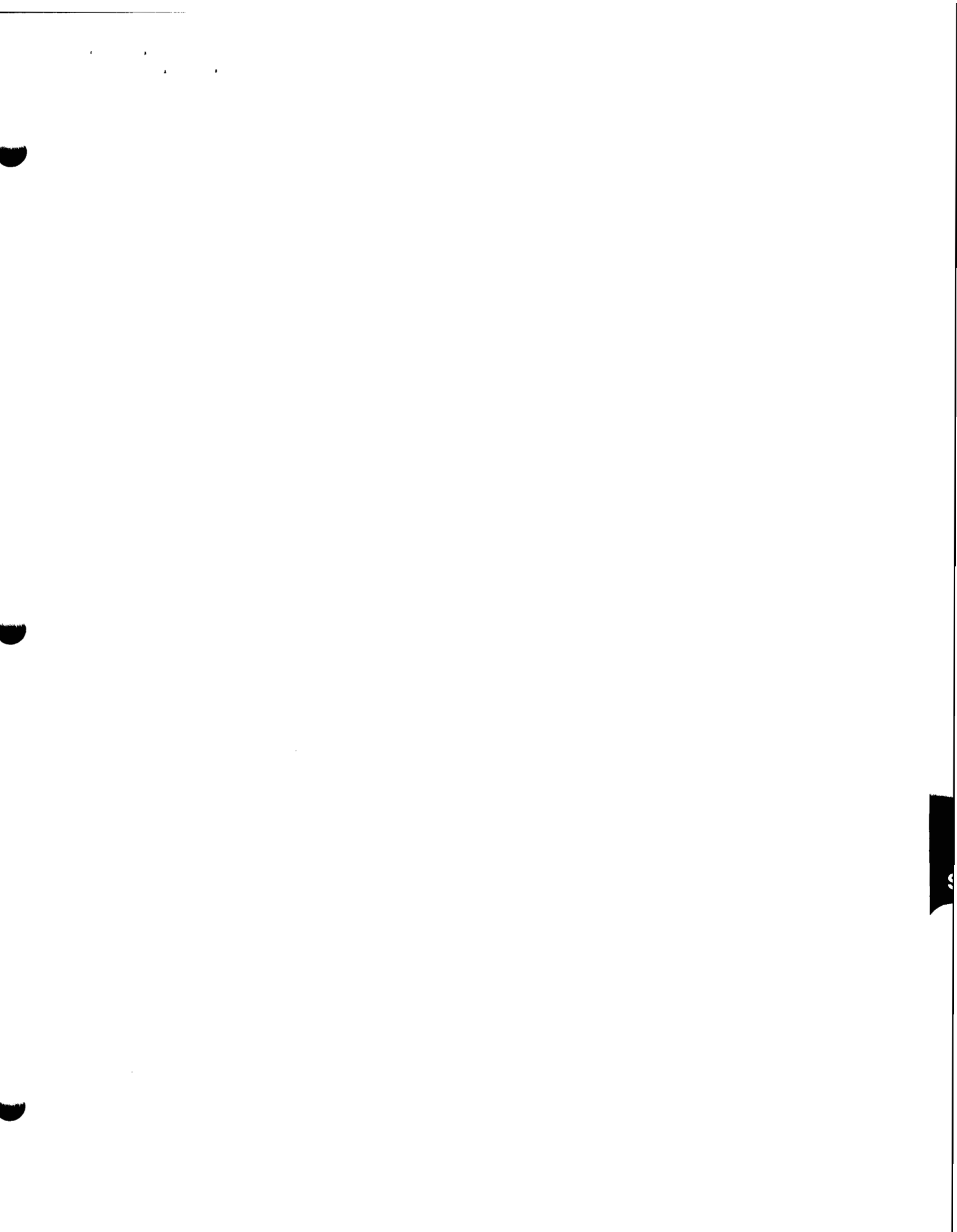
Sincerely,
West Patton Village Community Services District


Roy V. Shaff, President
4 April 1965

Copies To:
Col. Donald D. Whitfield II, Depot Commander
Sierra Army Depot

Robert Sorvag, Planning Director
Lassen County

Larry Rogers, Chairman
Lassen County Chamber of Commerce





Lassen County Chamber of Commerce

P.O. Box 338 • 84 N. Lassen Street • Susanville, CA 96130 • (916) 257-4323

VIA FACSIMILE

January 26, 1995


Linda Zukeran
Public Affairs
Concord Naval Weapons Station
10 Delta Street
Concord CA 94520

Dear Ms. Zukeran:

As Chairman of the Committee to Retain the Sierra Army Depot in Lassen County, I would appreciate your providing me a letter of confirmation that SIAD is considered a "safe haven" by the Navy since it is the closest depot of its kind in transport proximity to the Concord Naval Weapons Station.

Your response to this request will greatly assist our effort to develop information on SIAD that is necessary to establish military value and thus avoid potential operational changes that could lead to base closure.

Sincerely,


Jack Lensing,
President

JL:nes

cc: Congressman Wally Herger
Governor Pete Wilson
Judy Ann Miller, Assistant to the Governor
Colonel Don Whitfield, Commander, Sierra Army Depot
Lyle Lough, Lassen County Supervisor, District 5

RECEIVED



MAR 03 1995

DEPARTMENT OF THE NAVY

NAVAL WEAPONS STATION

CONCORD, CALIFORNIA 94520-5000

Lassen County
Department of Community Development

IN REPLY REFER TO:

1100

20:NFJ:br

Ser 20-012

23 FEB 1995

From: Commanding Officer, Naval Weapons Station Concord,
10 Delta Street, Concord, CA 94520-5000
To: Mr. Jack Lensing, Lassen County Chamber of Commerce,
P.O. Box 338, 84 N. Lassen Street, Susanville, CA 96130

Subj: SIERRA ARMY DEPOT, SAFE HAVEN

Ref: (a) Your ltr of 26 Jan 95

1. This letter is in response to reference (a). Pamphlet 385-1 titled "Safety and Security for Safe Haven and Refuge" issued by Military Traffic Management Command Headquarters, Office for Safety and Security in Falls Church, Virginia, identifies all safe havens in the United States. Sierra Army Depot is specifically listed in this pamphlet as a safe haven. For further information you may contact Mr. Robert Jones at MTMC at (703) 756-1089.

2. Designation of Sierra Army Depot as a safe haven is determined by the Commander, Armament Munitions and Chemical Command (AMCCOM). Their address and point of contact is:

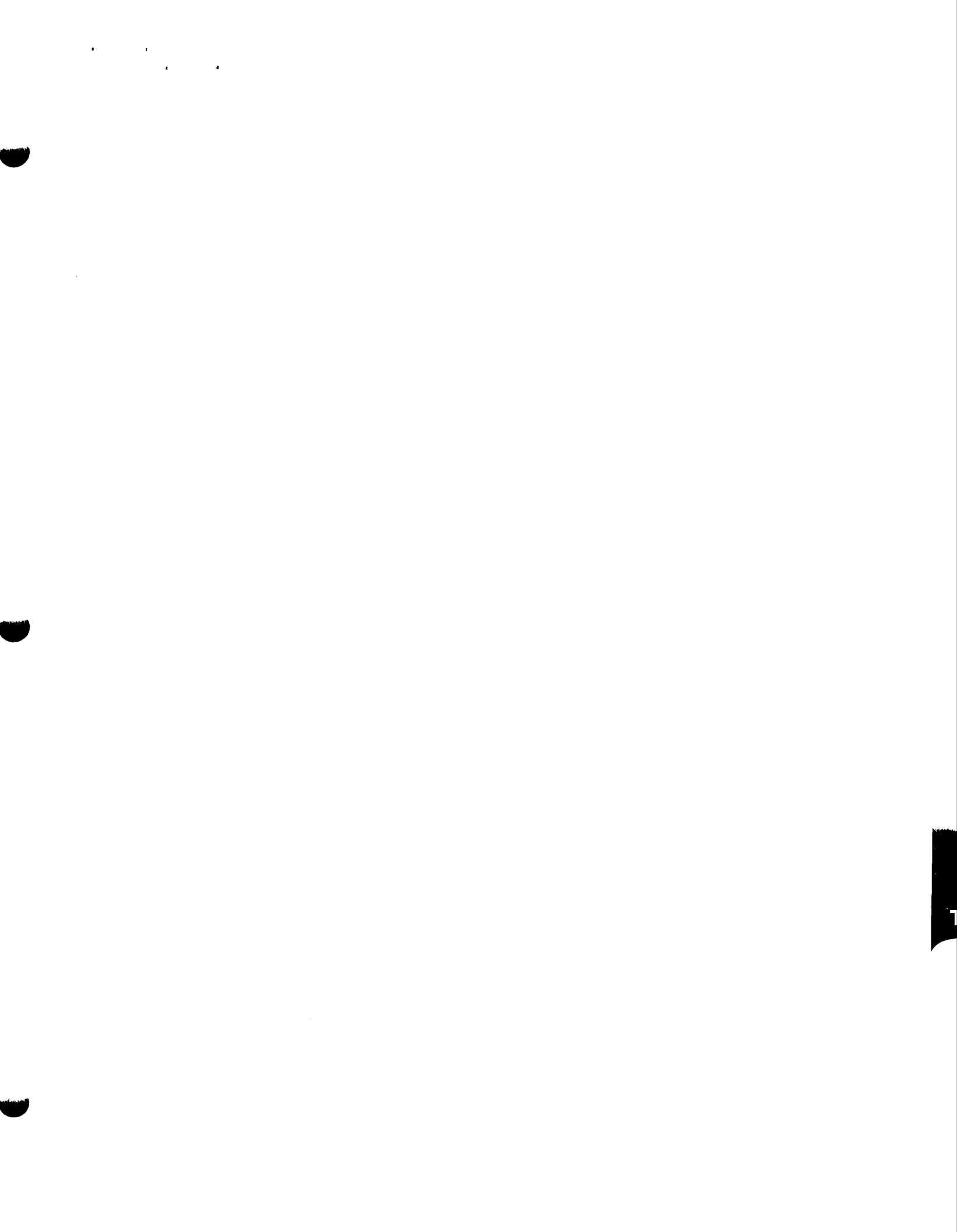
Commander
US Army Armament, Munitions and Chemical Command
Attention: AMSMC-TM (Mr. Daniel Stackwick)
Rock Island, IL 61299-6000

(309) 782-5824 FAX: (309) 782-6811

3. Thank you for your inquiry and I hope I have been of some assistance.


R. B. LANNING

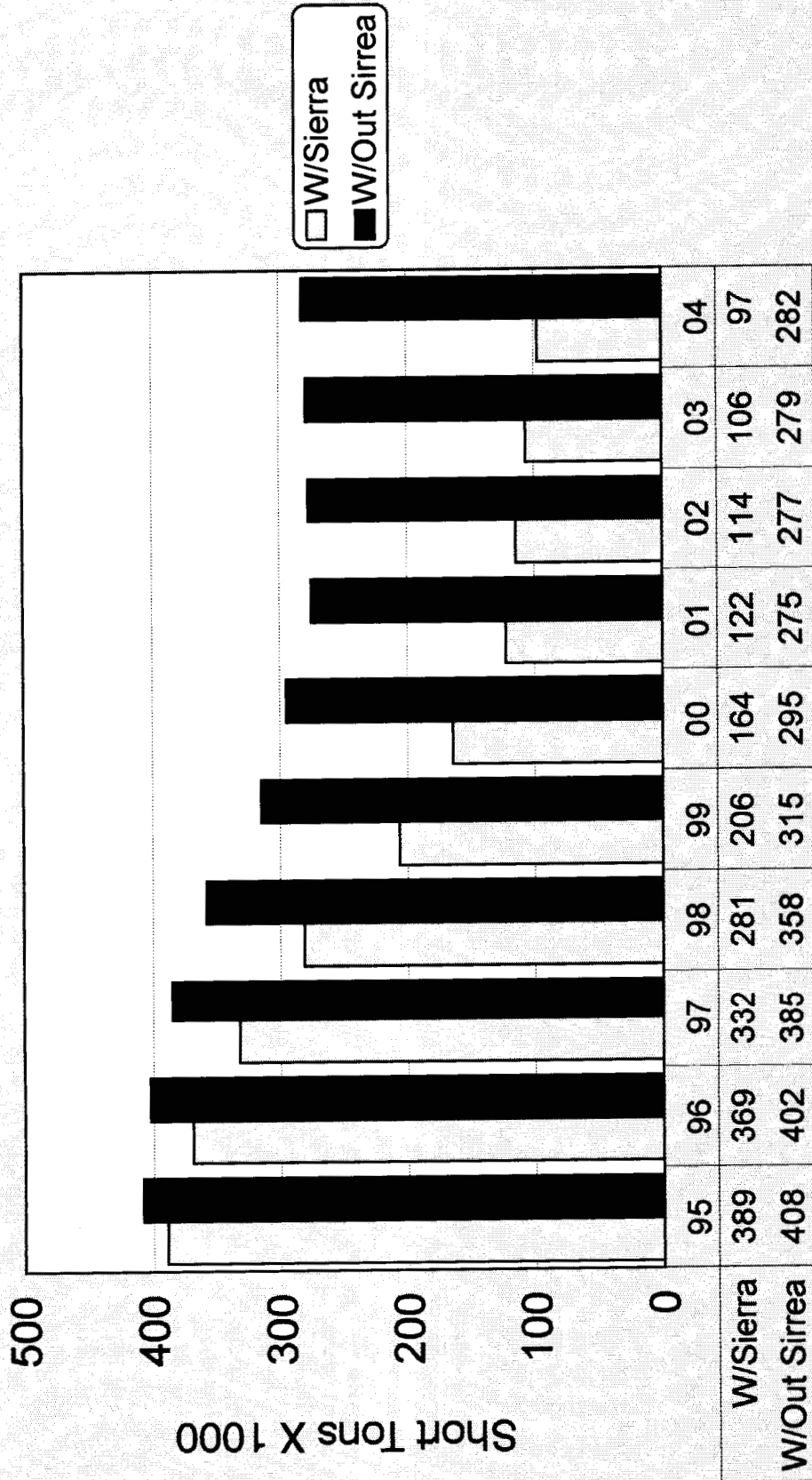
Copy to:
NAVORDCENPACDIV
AMCCOM
Sierra Army Depot



DEMIL BACKLOG

SAID EXECUTING 32% OF WORKLOAD

Assumes Loss of SIAD's Capability in FY98.

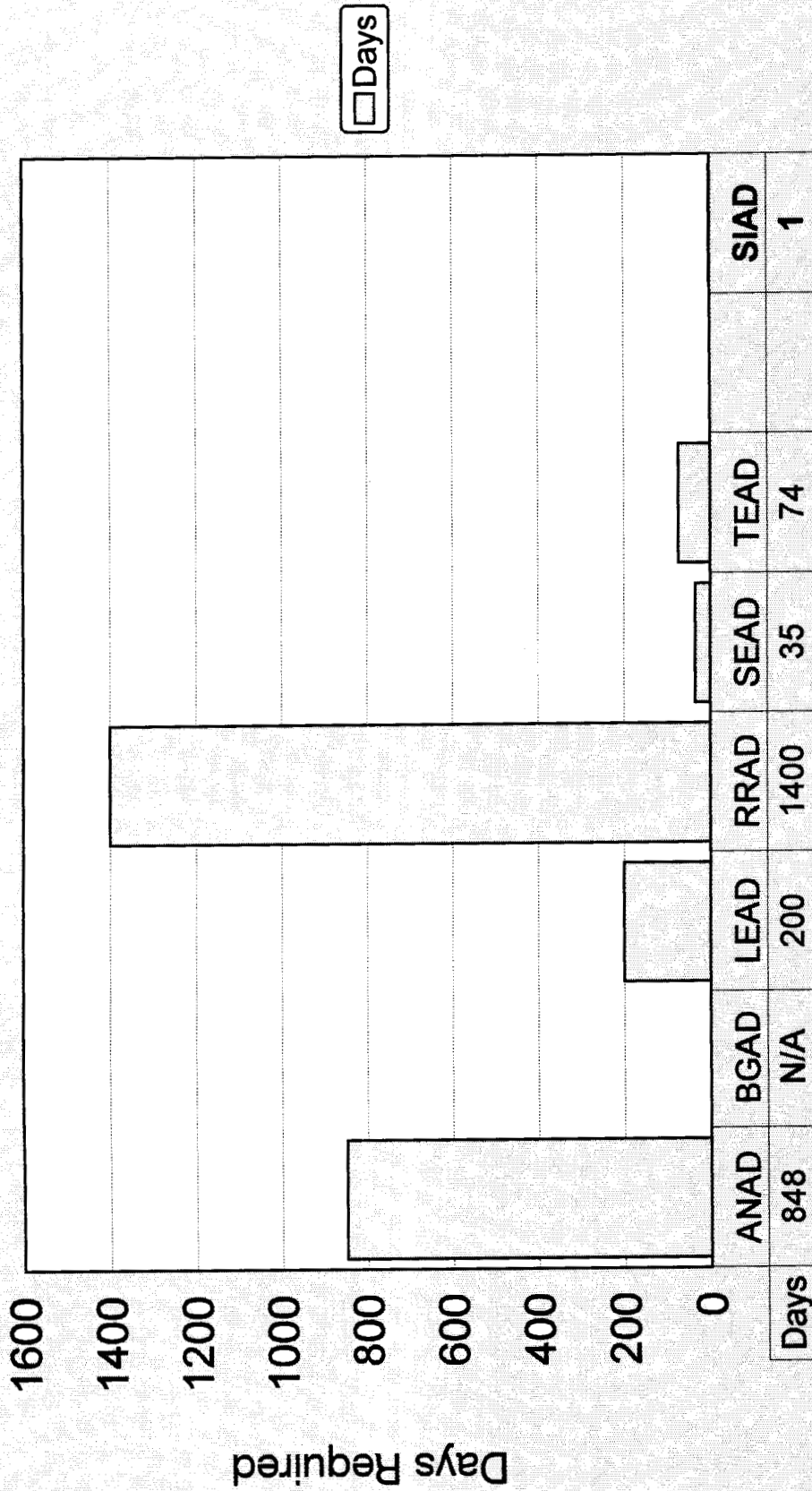


Fiscal Year

Source: Integrated Stockpile Management Plan (1994)

Conventional Ammo Demil Capabilities

Days Required to Demil 140,000 Pounds



Depot

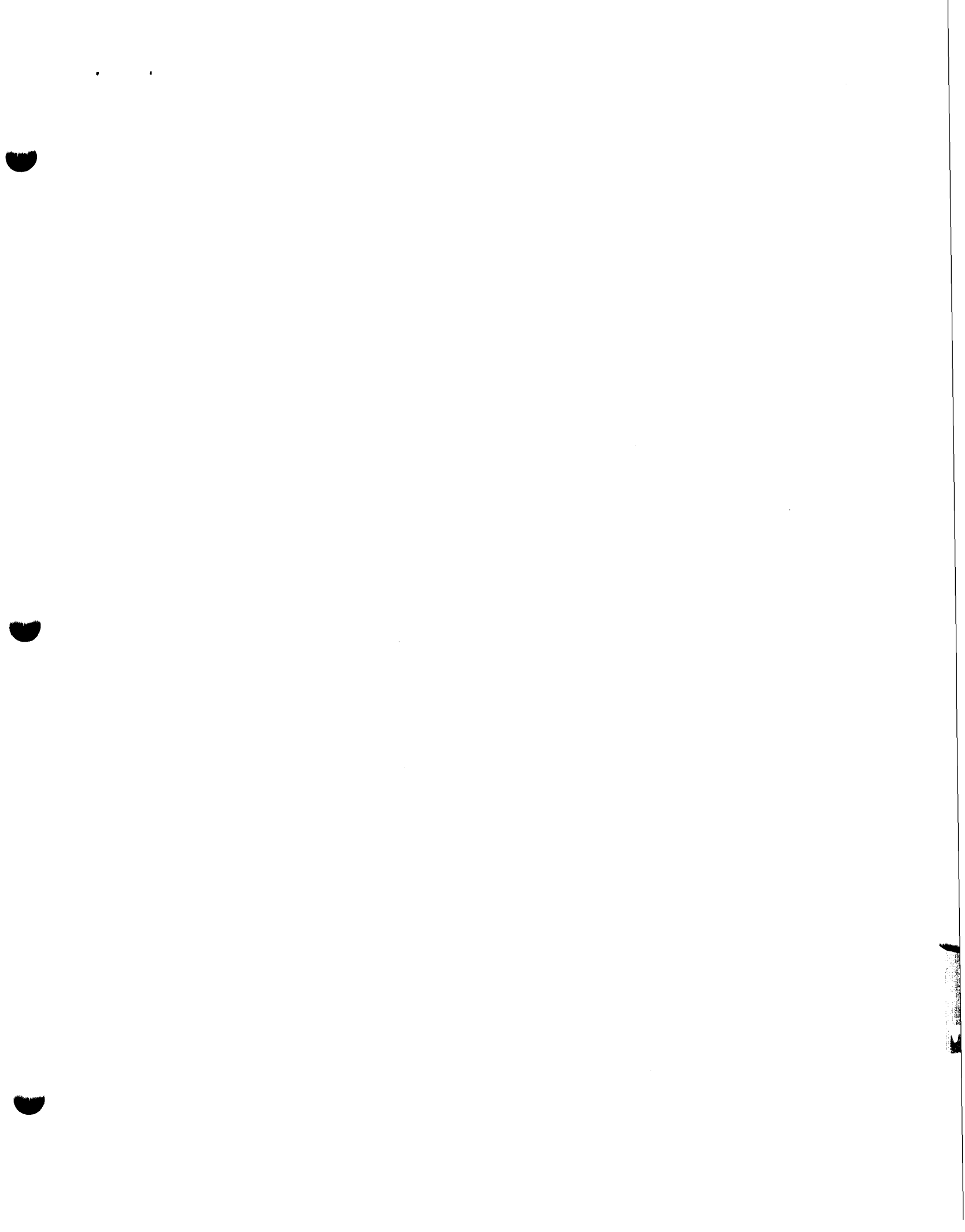
FY 95 Demil Program

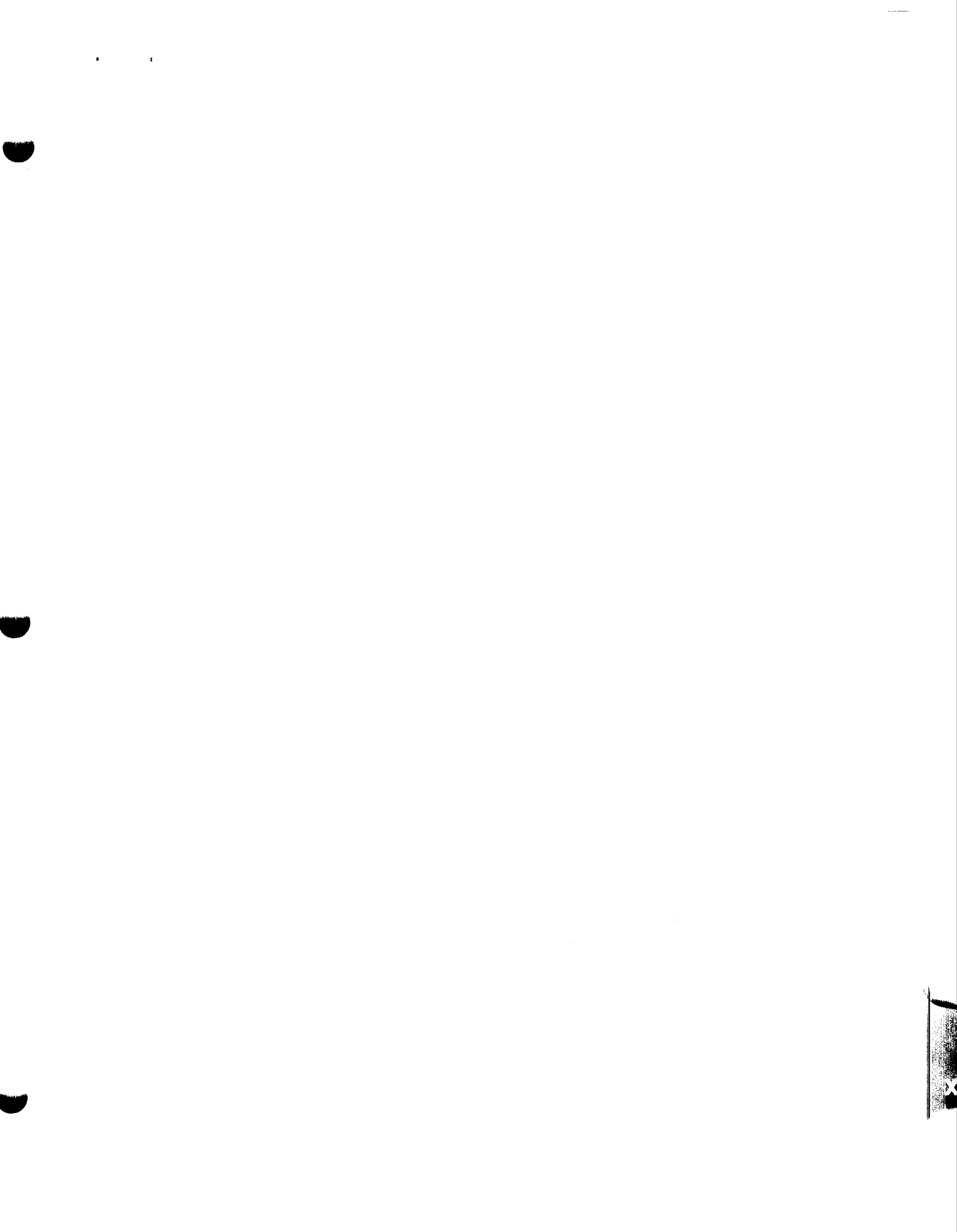
Installation	Tons	Percent of Program
SIAD	28200	31.6
HWAD	19200	21.5
DFAD	4700	5.3
TEAD	4200	4.7
LEAD	2200	2.5
RRAD	1100	1.2
ANAD	850	1
OTHERS	28700	32.2
(20 INSTALLATIONS)		
TOTAL	89150	100

Source: AMCCOM FY95 Demil Business Plan

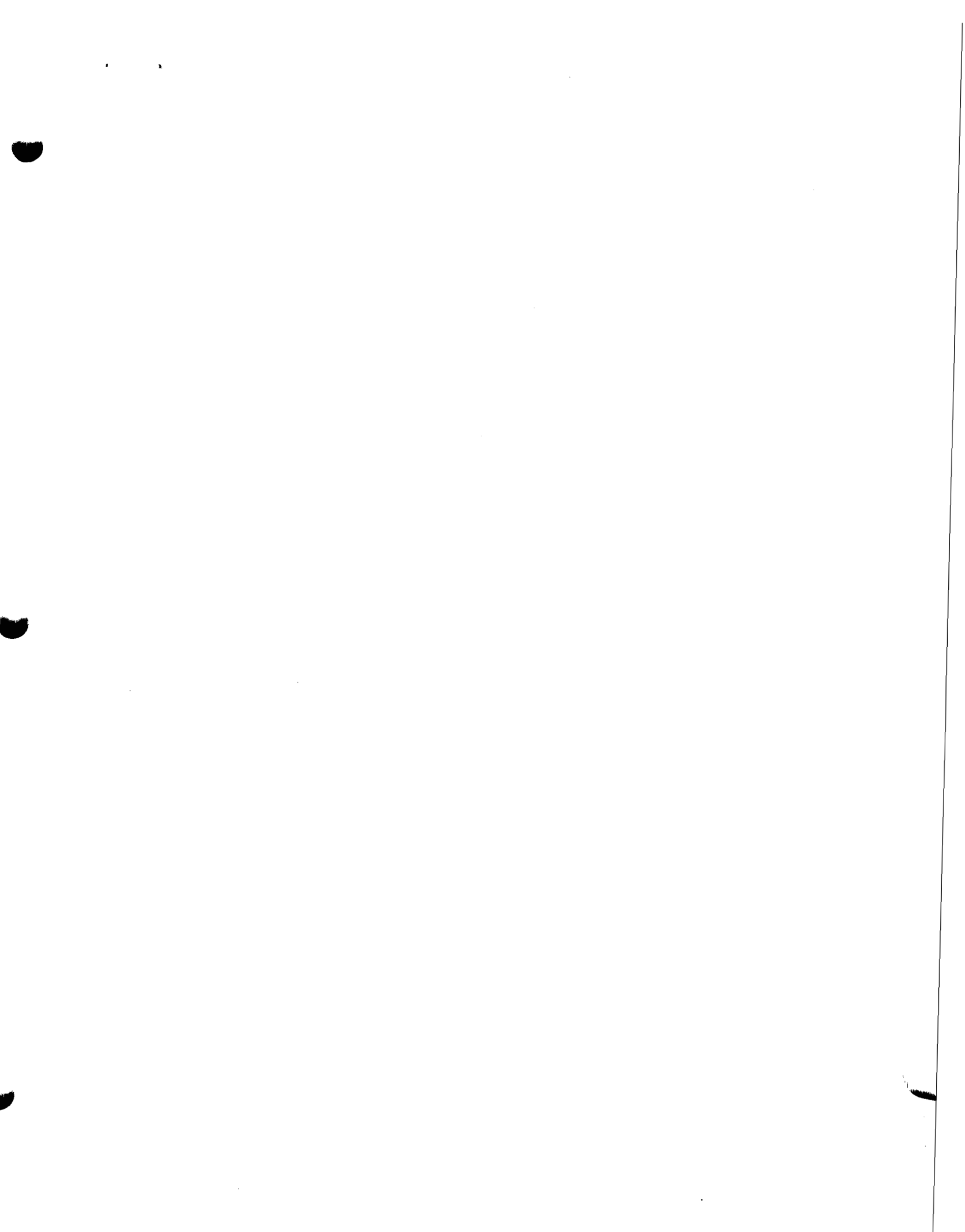












Document Separator

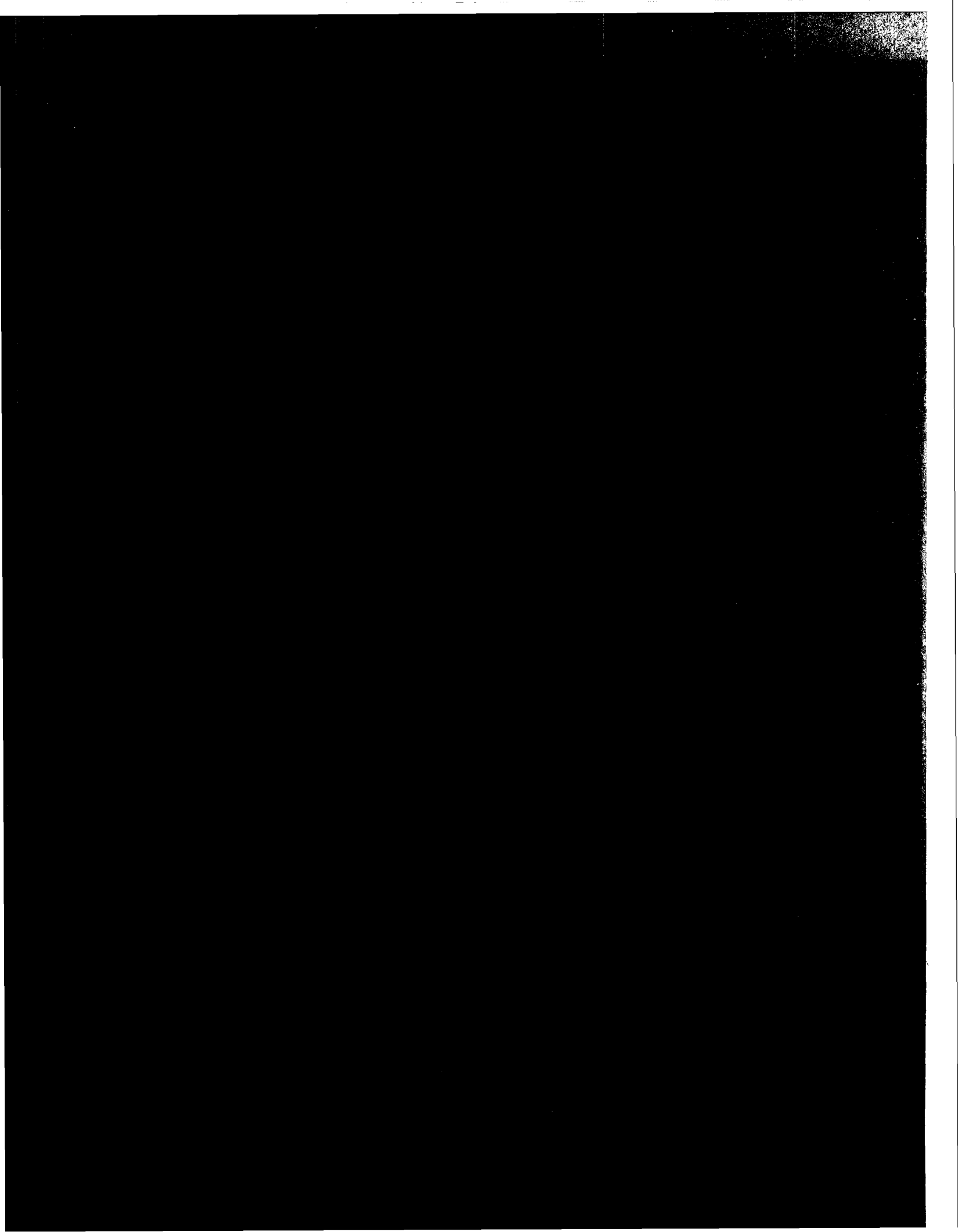


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To Be Added	Z

TESTIMONY

THE COMMITTEE TO RETAIN THE SIERRA ARMY DEPOT

GIVEN TO COMMISSIONER STEELE

DURING THE BRAC COMMISSION VISIT

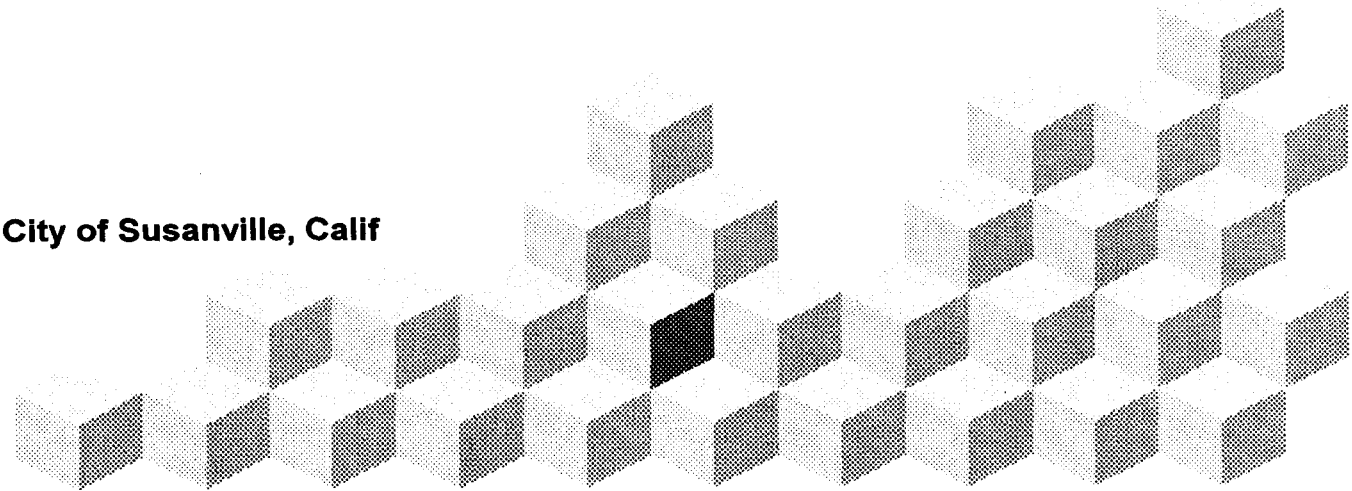
APRIL 25, 1995

THE SIERRA ARMY DEPOT

THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION

Community Presentation to Commissioner Steele
April 25, 1995

The County of Lassen & City of Susanville, Calif



SLIDE 1

GOOD MORNING MY NAME IS JACK LENSING, CHAIRMAN OF THE COMMITTEE TO RETAIN THE SIERRA ARMY DEPOT (SIAD) AND PAST PRESIDENT OF THE LASSEN COUNTY CHAMBER OF COMMERCE. I'M PLEASED TO HAVE LYLE LOUGH, LASSEN COUNTY SUPERVISOR AND JAMES JESKEY, MAYOR OF THE CITY SUSANVILLE SPEAKING WITH ME THIS MORNING. ALSO, WE WANT TO MAKE SURE WE THANK THE DEPOT PERSONNEL FOR THEIR SUPPORT OF THE COMMUNITY, NOT JUST TODAY, BUT ALL THE TIME.

AS YOU'VE ALREADY HEARD, SIAD HAS CAPABILITIES WHICH WERE NOT ADEQUATELY ASSESSED IN THE ARMY'S DELIBERATIONS WHICH LED TO THEIR BRAC 95 RECOMMENDATION TO REALIGN THE DEPOT. MOREOVER, THE PROJECTED ONE-TIME COSTS ARE ESTIMATED TO BE TOO LOW AND ANTICIPATED MANPOWER AND RECURRING SAVINGS ARE TOO HIGH. THE COMBINATION MAKES SIAD'S REALIGNMENT A BAD BUSINESS DECISION FOR THE TAXPAYER. BECAUSE THE DEPOT STAFF HAS DONE SUCH A SUPERB JOB OF POINTING OUT THESE, AND MANY OTHER, FAILINGS, WE'RE NOT GOING TO DWELL HEAVILY UPON THEM. ALTHOUGH WE'LL OVERLAP A LITTLE ON A COUPLE OF KEY POINTS, WE'RE GOING TO SPEND MOST OF OUR TIME HIGHLIGHTING OTHER SIGNIFICANT ISSUES. WE HOPE THAT BY THE END OF THE DAY YOU'LL AGREE THAT SIAD'S LOCATION, EFFICIENCIES, AND CAPABILITIES MAKE IT "THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION."

THE PERFECT FIT

OVERVIEW

- ◆ Strengths – The Sierra Army Depot's
- ◆ Weaknesses – The Army's Analysis
- ◆ Recommendation – Expand The Ammunition Storage Function



SLIDE 2

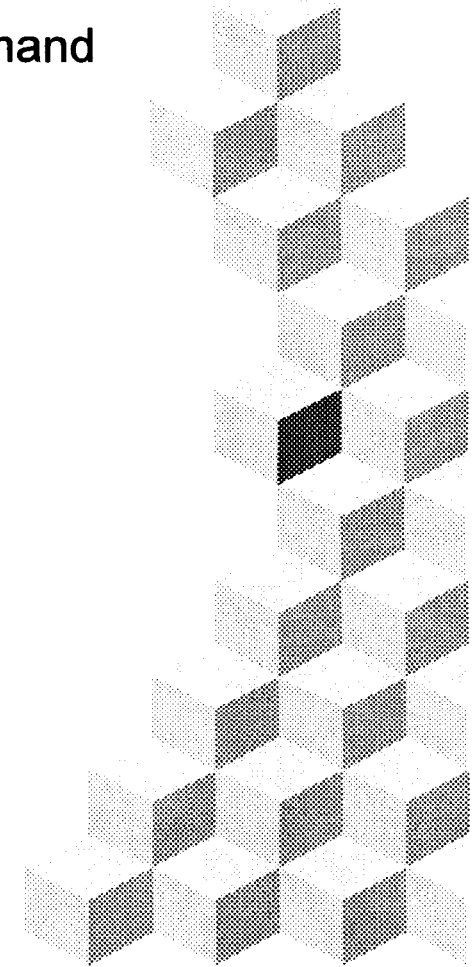
AS WE STUDIED THE PROCESS THAT PUT SIAD ON THE BLOCK, WE CAME TO REALIZE THE ARMY FAILED TO CREDIT SIAD PROPERLY FOR ITS MANY STRENGTHS, SOME UNIQUE OR SHARED BY ONLY A COUPLE OF INSTALLATIONS. AT THE SAME TIME, THE ARMY FAILED TO ENSURE ITS WORK WAS COMPLETED USING ACCURATE DATA AND FOLLOWING LOGICAL CONSTRUCTS THROUGHOUT THEIR ANALYSES. WE'LL ADDRESS THESE TWO AREAS IN DETAIL.

PUTTING THE BOTTOMLINE UP FRONT, WE BELIEVE SIAD SHOULD NOT BE DOWNSIZED. IN FACT, WE THINK ITS MANY ATTRIBUTES DEMAND AN EXPANSION OF BOTH THE OPERATION PROJECT STOCKS AND AMMUNITION STORAGE MISSIONS. BY THE TIME THE ARMY ADDS BACK THE PERSONNEL NECESSARY TO SUPPORT THE OPERATION PROJECT STOCKS MISSION, THE POTENTIAL TO LEVERAGE AN ACCEPTED BUSINESS PRINCIPLE – ECONOMY OF SCALE – SHOULD PROVIDE SUFFICIENT INCENTIVE TO GROW, NOT REDUCE THE MISSION.

STRENGTHS

“...Maintain the Army's power projection capability;...Retain affordable, world-class power projection platforms as enduring installations.” *Army Guidance, BRAC 95 Report, Vol III*

- ◆ LOWEST Ammunition Rates in Industrial Operations Command
- ◆ BEST Proximity to West Coast Ports
- ◆ ONLY Depot in West with On-Site C-5 Capable Airfield
- ◆ FINEST Demilitarization Capabilities in the Army
- ◆ ONLY Western Depot Served by Two Major East-West Rail Lines
- ◆ UNLIMITED Expansion Capability
- ◆ IDEAL Climate for Munitions Storage



SLIDE 3

THESE ARE THE AREAS THE DEPOT STAFF HAS BEEN, OR WILL BE, DISCUSSING TODAY. I'D LIKE YOU TO NOTE THE ARMY'S GUIDANCE SHOWN AT THE TOP OF THE SLIDE.

THE ESSENCE OF AFFORDABLY PROJECTING AMERICA'S MILITARY POWER IS REPRESENTED ON THIS SLIDE. LOWEST COSTS, BEST LOCATION, AN ON-SITE AIRFIELD CAPABLE OF HANDLING THE LARGEST OF OUR AIR FORCE'S AIRCRAFT, AND A DEMIL CAPABILITY THAT WILL DO 31% OF ALL DOD'S WORK THIS YEAR. ADD THE TWO MAIN LINES FOR THE MAJOR EAST-WEST RAILROADS, AN UNLIMITED ABILITY TO EXPAND THE OPERATION, AND AN IDEAL CLIMATE TO STORE THE RAPIDLY GROWING MUNITIONS STOCKPILE OF ALL SERVICES AND ITS CLEAR SIAD IS A WORLD-CLASS POWER PROJECTION PLATFORM . THEREFORE, IT SHOULD BE CAREFULLY PROTECTED IN THE NATIONAL INTEREST, NOT THROWN AWAY BY QUESTIONABLE, SHORT TERM EXPEDIENCIES.

WEAKNESSES

DEPT OF THE ARMY (DA) BRAC ANALYSIS

- ◆ Categorization
- ◆ Conflicting Studies of Ammunition Storage and Demilitarization Requirements
- ◆ Data Used in BRAC Analysis
- ◆ Use of Tiering Study as Foundation for Ammunition Storage Facility Analysis
- ◆ Data Used in Tiering Study

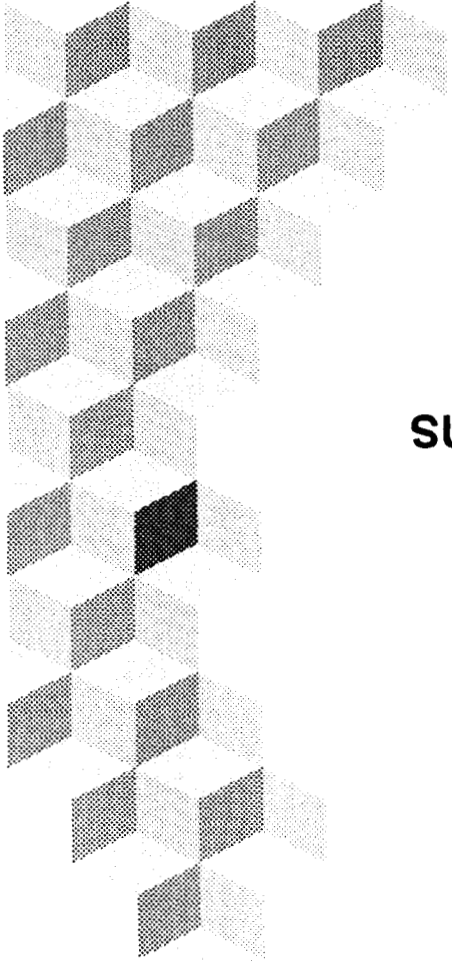


SLIDE 4

HERE'S THE HEART OF WHAT WE'D LIKE TO ADDRESS THIS MORNING. THE ARMY'S PROCESS WAS SPECIFICALLY CRITICIZED IN LAST WEEK'S GAO REPORT FOR "THE ACCURACY OF SOME DATA USED IN THE MILITARY VALUE ANALYSIS FOR AMMUNITION STORAGE INSTALLATIONS." (GAO REPORT, PG 78) IN THEIR REVIEW, THEY VALIDATED EXISTENCE OF SOME DATA INACCURACIES. WE BELIEVE THESE PROBLEMS ARE SIGNIFICANT FACTORS FOR SIAD. ADDITIONALLY, WE BELIEVE THERE ARE OTHER MAJOR WEAKNESSES NOT IDENTIFIED BY THE GAO. IN TOTAL, THE ERRORS RANGE FROM THOSE ASSOCIATED WITH INCORRECT CLASSIFICATION OF INSTALLATIONS, THE FAILURE TO RESOLVE QUESTIONS RAISED BY CONFLICTING STUDIES, AND THE USE ON BAD DATA; THROUGH TO BASING THE MILITARY VALUE ANALYSIS ON A SERIOUSLY FLAWED, SUBORDINATE STUDY.

BRAC 95 FLAWED – CATEGORY WRONG CATEGORY

- ◆ SIAD evaluated as ammunition storage installation
- ◆ Over 55% of mission dedicated to Operational Project Stocks (Ops Stocks)
- ◆ Responsible for 5 of Army's 16 Ops Stock Items
- ◆ Army's Center of Technical Excellence



SLIDE 5

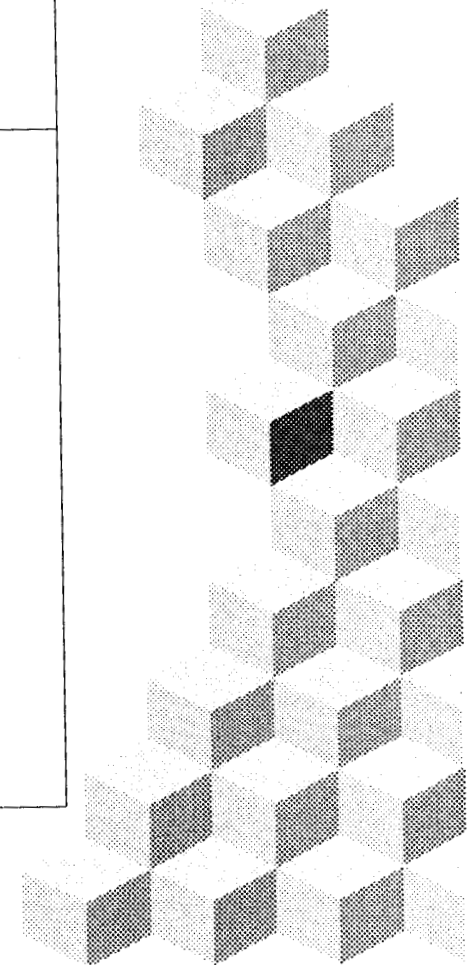
THE FIRST PROBLEM IS THAT THE ARMY USED A MISSION AREA – MUNITIONS STORAGE – TO CHARACTERIZE THE FUNCTION OF THE ENTIRE INSTALLATION AND ITS WORKFORCE. OBVIOUSLY, THIS STEMMED FROM A LACK OF APPRECIATION FOR WHAT ACTUALLY TAKES PLACE AT SIAD AND LED THE ANALYSTS TO MAKE BAD ASSUMPTIONS. THESE ASSUMPTIONS, AS REFLECTED IN THE COBRA ANALYSES, LED THE ARMY'S LEADERSHIP TO BELIEVE THE COSTS ARE LOWER AND THE SAVINGS HIGHER THAN POSSIBLE.

AS THE DEPOT STAFF HAS HIGHLIGHTED, THERE ARE SIGNIFICANTLY MORE POSITIONS WHICH MUST REMAIN THAN ACKNOWLEDGED. THIS WILL REDUCE THE PROJECTED STEADY-STATE SAVINGS BY APPROXIMATELY 34% PER YEAR. (THAT \$5.7 MILLION, GIVE OR TAKE, IS A SUBSTANTIAL PIECE OF EVEN BILL GATES' PERSONAL INCOME TAXES.) ALSO, IT'S IMPORTANT TO NOTE THE OPS STOCK MISSION IS ONE WHICH HAS BEEN INCREASING. CURRENTLY SIAD MAINTAINS 5 OF THE 16 OPS STOCK ITEMS IN THE ARMY INVENTORY. AS THE ARMY'S CENTER OF TECHNICAL EXCELLENCE FOR OPS STOCKS, ITS REASONABLE TO EXPECT MUCH OF THE MATERIAL MOVED AS A RESULT OF BRAC TRANSITIONS WOULD COME THIS WAY. ALSO, AS OUR ARMY TRANSITIONS TO A CONUS BASED FORCE AND RETURNS WITH ITS EQUIPMENT, THE REQUIREMENT WILL GROW.

BRAC 95 FLAWED – CONFLICTING STUDIES

WHOLESALE AMMUNITION STOCKPILE PROGRAM (WASP) vs BRAC

WASP	BRAC
Covered Storage Critical	Removes Another 5 Million Square Feet
Covered Storage in Short Supply	Indicates Storage Surplus
Demilitarization Critical Because Storage Facilities Full	Closes Largest Demil Facility (SIAD)



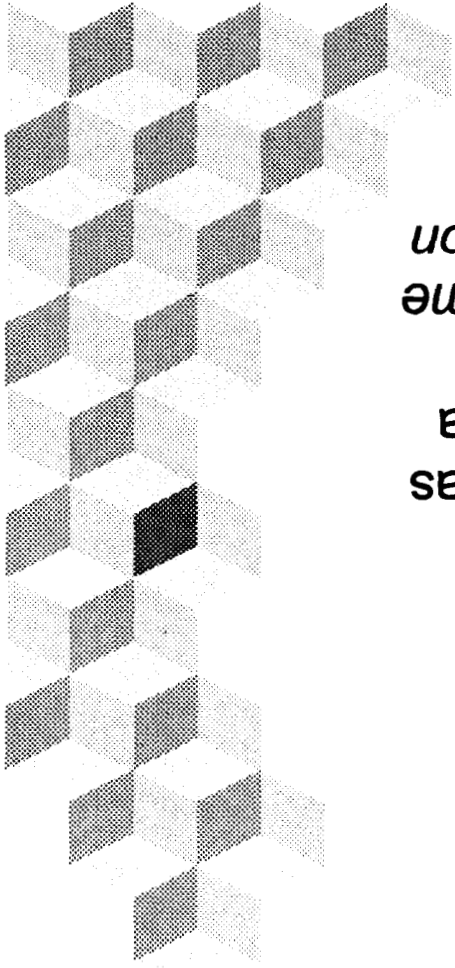
SLIDE 6

ONE OF THE STUDIES REFERENCED IN THE ARMY'S DOCUMENTATION IS CALLED THE WHOLESAL AMMUNITION STOCKPILE PROGRAM OR WASP. IT WAS COMPLETED WITH PARTICIPATION FROM EACH OF THE SERVICES AND TOOK A COMPREHENSIVE LOOK AT THE CURRENT (FY94) AND FUTURE STOCKPILE MANAGEMENT FUNDING DILEMMA. ITS FOCUS: CONCERN THAT "DEGRADATION IN STOCKPILE SAFETY, READINESS, AND QUALITY WAS OCCURRING BASED UPON THE REDUCED LEVEL AT WHICH ESSENTIAL STOCKPILE READINESS FUNCTIONS WERE BEING ACCOMPLISHED." MR. HOFFMAN HIT ON THIS ISSUE FAIRLY WELL. I'D JUST LIKE TO ADD THAT ITS HARD TO UNDERSTAND HOW THESE TWO ANALYSES CAN COME TO SUCH DIAMETRICALLY OPPOSED CONCLUSIONS.

WE PLAN TO PROVIDE MORE DETAILED COMMENTS TO THE COMMISSION ABOUT THIS PLAN.

BRAC 95 FLAWED – SIAD DATA DATA IN ERROR

- ◆ Six of Seventeen Attribute Values Wrong
- ◆ Represents 35% Error Rate
- ◆ When Corrected and Rescored, SIAD Moves from Number 7 to Number 3
- ◆ Reconciliation of Differences With the Installation Was Not Done — Could Have Prevented Use of Bad Data
- ◆ “...questions were raised concerning accuracy of some data used in the military value analysis for ammunition storage installations.” GAO’s BRAC 95 Report, Pg 77



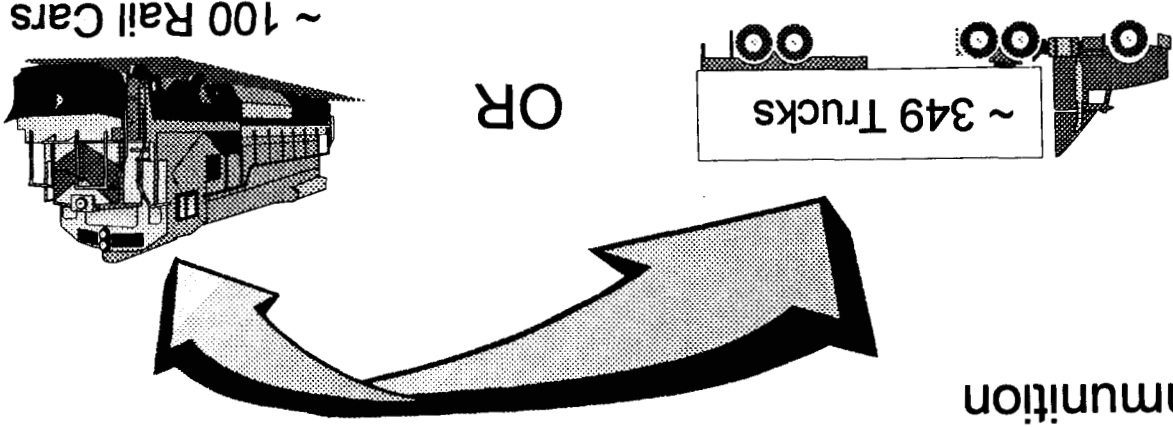
SLIDE 7

NOW, HERE ARE SOME POINTS WHICH SCREAM FOR ATTENTION. THE DATA USED IN 6 OF 17 AREAS WAS WRONG. SIMPLY, IRREFUTABLY INCORRECT IN 35% OF THE CASES. IN FACT, THE SITUATION WAS SO BAD, THAT THE GAO RAISED IT IN BOTH THEIR REPORT AND TESTIMONY TO YOU LAST WEEK. THE QUOTATION IS FROM THEIR REPORT, BUT WE FEEL SURE YOU HAVE A BETTER APPRECIATION FOR THIS AREA THAN THE WORDS CONVEY.

WE'VE INCLUDED A MATRIX WHICH IDENTIFIES THE ERRORS FOR SIAD IN THE MATERIALS WE'VE PROVIDED. IT ALSO SHOWS HOW, IF THE CORRECT DATA IS USED, SIAD'S RANKING MOVES FROM NUMBER 7 UP TO NUMBER 3. OF SPECIAL NOTE IS THAT THE ARMY CONTRIBUTED TO THIS PROBLEM BY DEPARTING FROM THEIR PROCEDURES IN PREVIOUS BRAC ROUNDS. UNLIKE BRAC 91 AND 93, THE DEPARTMENT OF THE ARMY MADE NO EFFORTS TO RECONCILE DIFFERENCES BETWEEN WHAT THEY CHOSE TO USE AND THE DATA SUBMITTED BY THE INSTALLATION. HAD THEY DONE SO, THERE WOULD HAVE EITHER BEEN NO BAD DATA USED, OR NO OPPORTUNITY FOR COMMUNITIES TO RAISE THE QUESTION. BECAUSE THEY DID NOT – WE ARE – AND BELIEVE THE GAO'S REPORT SUPPORTS THE ASSERTION.

BRAC 95 FLAWED – SIAD DATA ERROR IN AMMO STORAGE DATA

- ◆ DA BRAC Staff Used 1.940 million Square Feet
- ◆ SIAD Validated 1.997 million Square Feet of Covered Storage*
- ◆ Delta Could Accommodate Additional 7,239 Tons of Ammunition



*Does Not Include Earth Covered Storage Capability

SLIDE 8

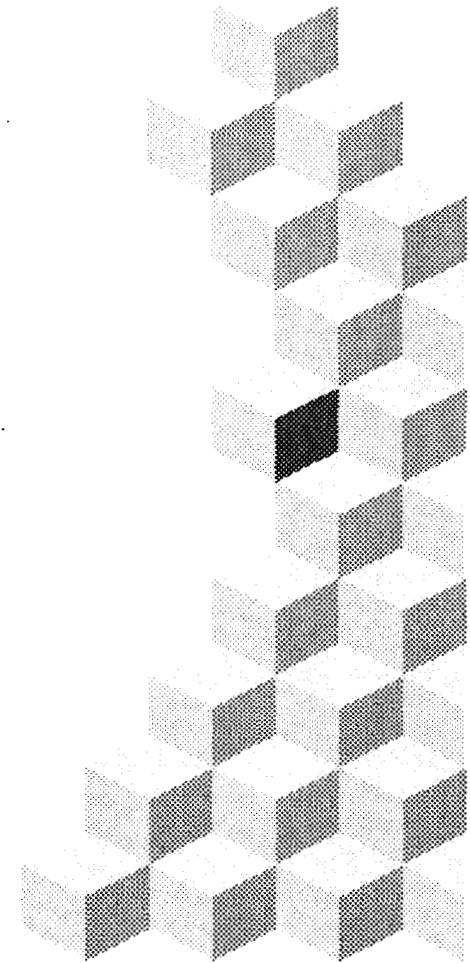
THE FIRST ATTRIBUTE MEASURED IN THE ARMY'S ANALYSIS WAS ABOUT 57,000 SQUARE FEET IN ERROR. THIS RESULTED WHEN SIAD INCORRECTLY USED THE CATEGORY DEFINITIONS PROVIDED. THE FACT REMAINS HOWEVER, THAT THE NUMBER USED IN THE ARMY'S ANALYSIS WAS WRONG. IT WOULD SEEM THE PROCESS OF DATA COLLECTION, CERTIFICATION, AND VALIDATION SHOULD HAVE CAUGHT THIS MISTAKE. PERHAPS, IF THE DEPARTMENT OF THE ARMY HAD TAKEN SOME EFFORTS TO RECONCILE APPARENT ERRORS WITH THE INSTALLATION, BAD DATA WOULD NOT BE FOUND IN SUFFICIENT AMOUNTS TO WARRANT THE GAO'S COMMENTS.

IN THIS CASE, THE DIFFERENCE BETWEEN THE FIGURES REPRESENTS A SIGNIFICANT TONNAGE OF MUNITION STORAGE CAPACITY.

BRAC 95 FLAWED – SIAD DATA

ERROR IN AVAILABLE WORKFORCE DATA

- ◆ SIAD Reported 157,275
- ◆ DA BRAC Staff Used 10,082
- ◆ SIAD Validated 157,275
- ◆ SIAD Has Much More Robust Resource Pool Than Credited



SLIDE 9

THIS CHART REFLECTS THE DIFFERENCE BETWEEN INCLUDING THE RENO, NEVADA AREA IN THE ECONOMIC AREA OF SIAD FOR BRAC 95. OBVIOUSLY, ADDING THE RENO AREA HAS A DRAMATIC EFFECT OF SIAD RESOURCE POOL FOR ASSESSING AVAILABLE WORKFORCE. WE BELIEVE THAT, BASED ON USING THE "DETERMINATION OF ECONOMIC AREAS" GUIDANCE FROM DOD POLICY MEMORANDUM THREE (APPENDIX C, PG C-85 TO THE DOD REPORT) THAT THE RENO AREA SHOULD HAVE BEEN INCLUDED IN SIAD'S ECONOMIC AREA – IT WAS DURING BRAC 93. IN FAIRNESS, WE HAVE TO ACKNOWLEDGE THE EFFORTS DOD MADE TO ENSURE CONSISTENCY OF DATA MEASUREMENT ACROSS INSTALLATIONS. HOWEVER, ALTHOUGH CONSISTENCY CAN BE A VIRTUE, TOO RIGID AN APPROACH DISTORTS, NOT CLARIFIES, THE ANALYSIS.

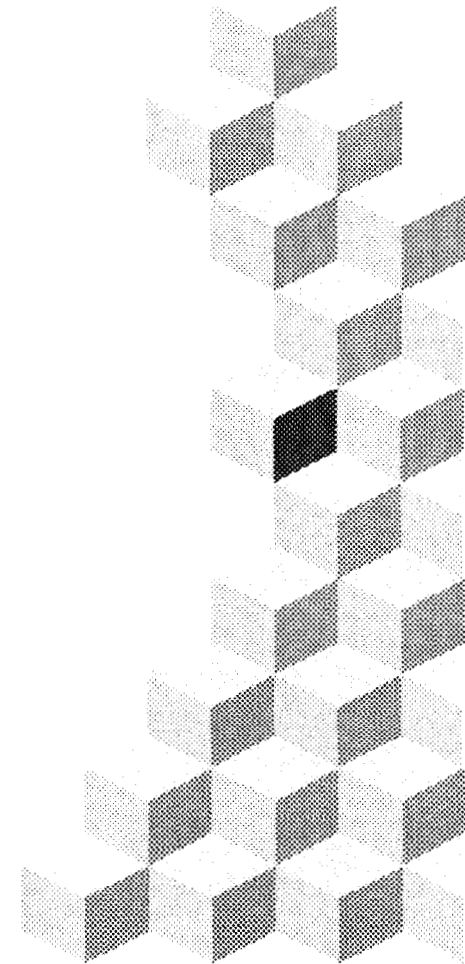
BRAC 95 FLAWED – SIAD DATA

ERROR IN INFRASTRUCTURE DATA

◆ Cost of Landfill Used

- SIAD Reported \$110 Off-base & \$37 On-base
- DA BRAC Staff Used \$110
- SIAD Uses On-base Facility @ \$37

◆ Indication of Possible Out-year Constraint Invalid



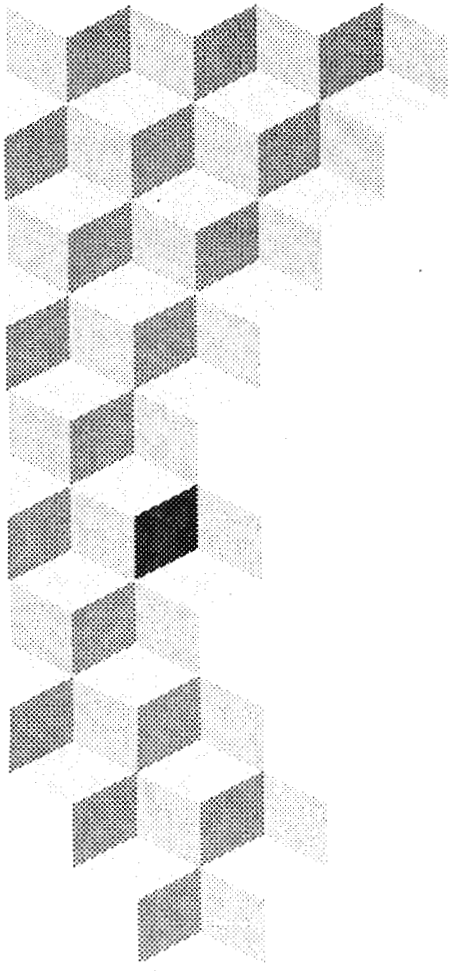
SLIDE 10

ONE FINAL EXAMPLE OF DATA ERRORS. SIAD REPORTED TWO NUMBERS FOR THE COST OF USING A LANDFILL. THE HIGHER APPLIES TO AN OFF-BASE SITE, THE LOWER TO THE ON-BASE LOCATION. THEY ALSO INDICATED THEY USED THE ON-BASE SITE AT \$37, NOT THE MORE EXPENSIVE ONE OFF-BASE. HOWEVER, THE ARMY ANALYSIS USED THE \$110 FIGURE WHICH LED TO AN INDICATION OF POSSIBLE OUT-YEAR PROBLEMS WHICH IS INCORRECT.

AGAIN, RECONCILIATION EFFORTS WOULD HAVE PREVENTED THIS.

BRAC 95 FLAWED – SIAD DATA ERRORS IN OTHER DATA SETS

- ◆ Deployment Network
- ◆ Maintenance Flexibility
- ◆ Facility Average Age
- ◆ Excess Capacity Storage
- ◆ Encroachment



SLIDE 11

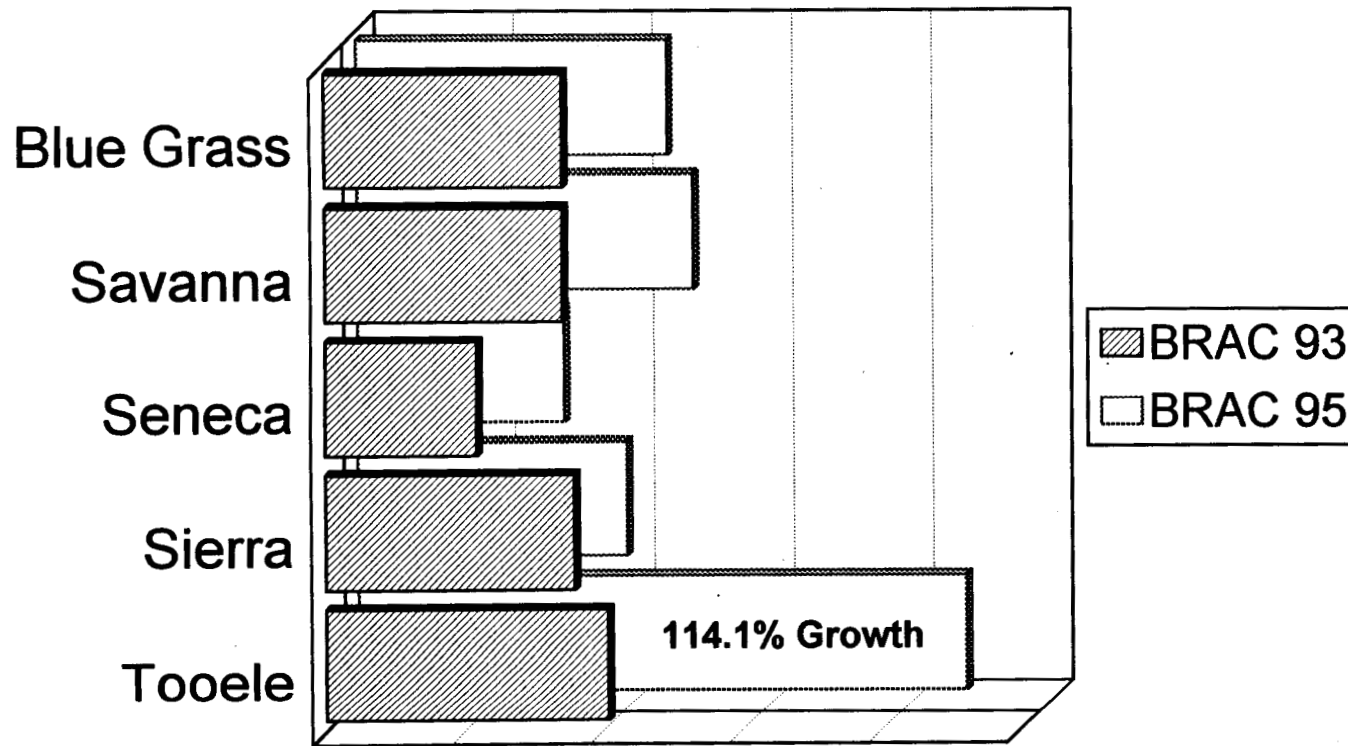
THERE WERE ADDITIONAL ERRORS IN THESE ATTRIBUTE AREAS. INSTEAD OF WALKING THROUGH EACH ONE, WE'VE PROVIDED A CHART SHOWING THE DIFFERENCES BETWEEN WHAT SIAD REPORTED AND THE DA BRAC STAFF USED. IN ALL CASES, SIAD HAS VALIDATED THEIR ORIGINAL INPUT. IN SOME CASES, THE VALUE IS EVEN HIGHER THAN ORIGINALLY SUBMITTED.

ONE FINAL POINT BEFORE LEAVING THE ISSUE OF BRAC DATA ACCURACY. THERE MAY BE EVEN MORE ERRORS THAN WE'VE NOTED. THE REASON I SAY THIS IS THE DIFFICULTY WE'VE HAD OBTAINING THE CERTIFIED DATA USED IN THE ANALYSIS. IN FACT, WE UNDERSTAND THAT EVEN THE DEPOT STAFF HAS STILL NOT RECEIVED A COPY OF THE DATA ACTUALLY USED BY THE ARMY IN THE ANALYSIS. WE KNOW THAT NEITHER SENATOR'S FEINSTEIN OR BOXER, NOR CONGRESSMAN HERGER HAVE RECEIVED THIS INFORMATION, IN SPITE OF REPEATED ATTEMPTS BY THEIR STAFFS.

WE HAD EXPECTED THE DEPARTMENT OF THE ARMY TO BE MUCH MORE RESPONSIVE TO REQUESTS FOR INFORMATION ABOUT THE PROCESS. AFTERALL, IT'S SUPPOSE TO BE AN OPEN ONE – IT DOESN'T APPEAR THE ARMY SHARES THIS VIEW.

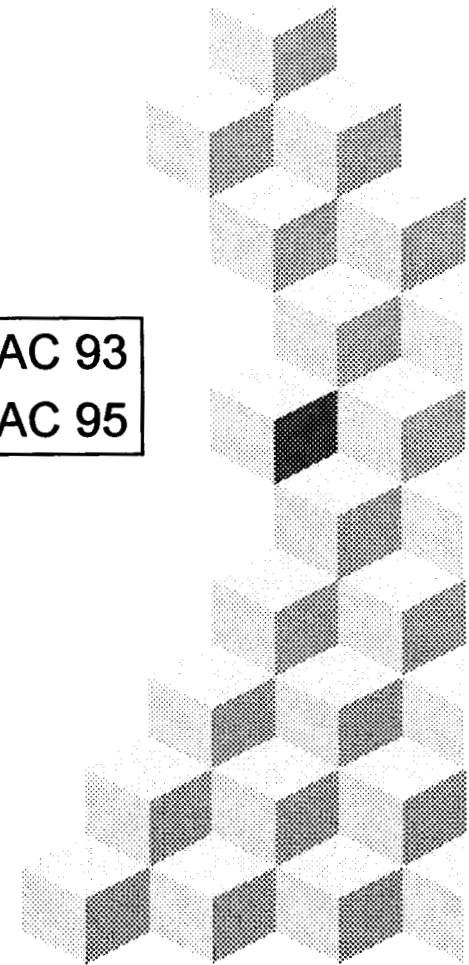
BRAC 95 FLAWED – OTHER INSTALLATION DATA

LARGE DIFFERENCES BETWEEN BRAC 93 & BRAC 95 STORAGE CAPABILITY FIGURES*



	Blue Grass	Savanna	Seneca	Sierra	Tooele
BRAC 93	1.715	1.715	1.097	1.799	2.039
BRAC 95	2.24	2.427	1.492	1.94	4.375

*Millions Square Feet (SF)



SLIDE 12

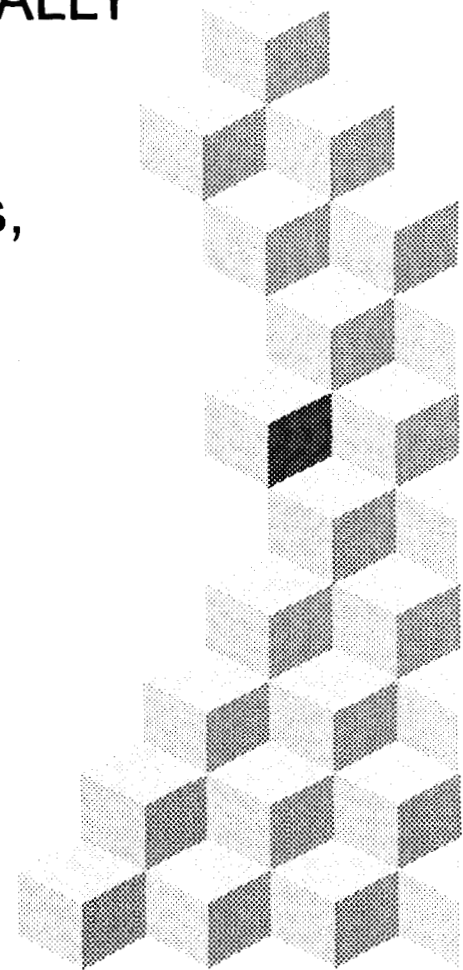
ERRORS IN THE DATA ARE NOT UNIQUE TO SIAD. THIS CHART SHOWS THE MUNITIONS STORAGE CAPACITY CREDITED TO FIVE LOCATIONS IN BOTH BRAC 93 AND 95. IT WOULD SEEM TO US THAT THIS TYPE OF CAPACITY WOULD BE RELATIVELY FIXED. WE REALLY DON'T UNDERSTAND HOW THIS KIND OF CAPACITY COULD CHANGE SO MUCH. SIERRA HAD THE SMALLEST CHANGE, WITH AN INCREASE OF ABOUT 7.8%. THE NEXT LOWEST WAS AT 30% WHILE TOOELE GREW AN AMAZING 114% BETWEEN THE TWO BRACS. THIS KIND OF GROSS INCONSISTENCY SHOULD CERTAINLY WARRANT THE COMMISSIONS SCRUTINY PRIOR TO ACCEPTING THE ARMY'S RECOMMENDATION.

BRAC 95 FLAWED – PROCESS

“Ammunition storage facilities support the operational requirement of ‘power projection.’” Army
BRAC 95 Report, Vol III, pg 58

HOWEVER POWER PROJECTION MEASURED SUPERFICIALLY

- ◆ Measure of Merit = Distance to Airfields, Ports, Railheads, and Interstate Highways
- ◆ No Consideration of Outload Capability
- ◆ No Consideration of Cost
- ◆ No Consideration of Efficiency



SLIDE 13

WE'VE ALSO IDENTIFIED PROBLEMS WITH THE ARMY'S BRAC PROCESS. FOR EXAMPLE, THE ARMY'S REPORT STATES THAT "AMMUNITION STORAGE FACILITIES SUPPORT THE OPERATIONAL REQUIREMENT OF POWER PROJECTION." HOWEVER, THE BRAC ANALYSIS FAILED TO USE ANY MEANINGFUL MEASURES OF MERIT TO ASSESS THE ABILITY TO PROJECT POWER.

FIRST, THEY ONLY EVALUATED DISTANCES TO AIRFIELDS, PORTS, RAILHEADS, AND INTERSTATE HIGHWAYS. THEY DID NOT MEASURE THE ABILITY TO PREPARE, LOAD, OR DELIVER MUNITIONS TO ANY OF THESE TRANSPORTATION NODES. WE'LL SKIP THE NEXT BULLET AND ADDRESS THE ISSUE OF OUTLOAD CAPACITY LATER. SECOND, THEY IGNORED THE COST DIFFERENCES BETWEEN INSTALLATIONS. THIS PENALIZED COST EFFECTIVE DEPOTS AND REWARDED THE MORE EXPENSIVE ONES.

FINALLY, NO WEIGHT WAS GIVEN TO THE EFFICIENCY OF MOVING THE MUNITIONS. CERTAINLY, SIAD'S TWO MAIN RAIL LINES CAN FEED MATERIAL TO THE WESTERN PORTS FASTER THAN OTHER INSTALLATIONS WITHOUT SUCH DIRECT ACCESS. ALSO, THEIR ON-SITE AIRFIELD ALLOWS TREMENDOUS RESPONSIVENESS FOR TIME CRITICAL ITEMS.

BRAC 95 FLAWED – PROCESS

AMMO STORAGE ANALYSIS BASED ON TIERING STUDY

- ◆ Not All Storage Facilities Considered By Tiering Study
- ◆ Tiering Study Emphasized Areas Not Addressed by BRAC
- ◆ Data Not Certified IAW Requirement to Use Certified Data for BRAC Analysis
- ◆ Data Not Valid



SLIDE 14

ANOTHER CRITICISM OF THE ARMY'S BRAC PROCESS IS THAT THE MUNITIONS STORAGE ANALYSIS WAS BASED ON A SUBORDINATE PRODUCT CALLED THE "TIER DEPOT ANALYSIS." (THE PRODUCT FROM HELL) IT TOO HAS LARGE PROBLEMS. AND THE DECISION TO INSERT ITS RESULTS IN THE BRAC PROCESS INTRODUCED FATAL ERRORS INTO THE ARMY'S ANALYSIS.

FIRST, NOT ALL FACILITIES CONSIDERED BY ARMY BRAC IN THIS CATEGORY WERE CONSIDERED IN THE TIERING STUDY. THIS IMMEDIATELY UNLEVELED THE PLAYING FIELD AND ESSENTIALLY EXCLUDED CERTAIN BASES FROM POTENTIAL CLOSURE OR REALIGNMENT. SECOND, ONLY FOUR OF THE TIERING STUDY'S MEASURES WERE EVEN ADDRESSED IN THE BRAC MATRIX. AS PREVIOUSLY MENTIONED THOSE FOUR MEASURES OF MERIT WERE LOOKED AT ABOUT AS SUPERFICIALLY AS WAS POSSIBLE.

MOST IMPORTANTLY, THE DATA USED IN THE TIERING STUDY WAS NOT CERTIFIED. THEREFORE, THE ARMY BASED IT'S BRAC RECOMMENDATIONS ON NON CERTIFIED DATA IN VIOLATION OF PUBLIC LAW 101-510, AS AMENDED. FINALLY, AND ALMOST AS IMPORTANTLY, THE DATA USED WAS NOT CORRECT.

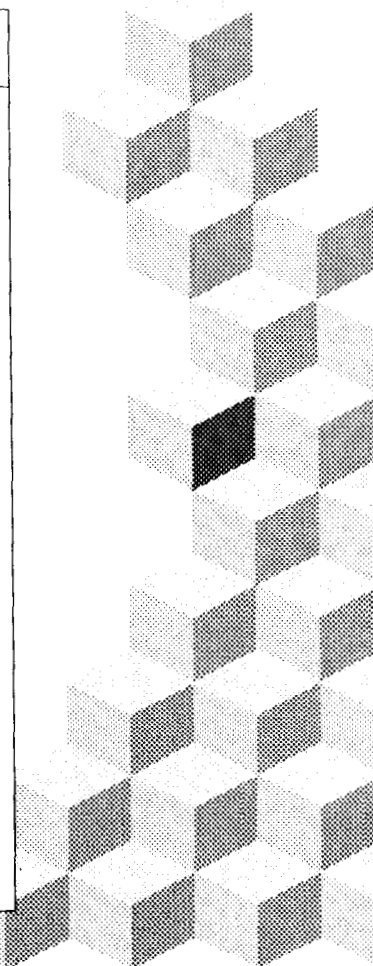
TIERING STUDY FLAWED – PROCESS

“Operational Blueprint – Eliminate Tier 3 (Caretaker) Installations” Army BRAC 95 Report, Vol III, pg 59

HOWEVER

Not All Storage Facilities Considered By Tiering Study*

Tiering Study Installations	BRAC Analysis Installations
Blue Grass Army Depot	Blue Grass Army Depot
Hawthorne Army Ammunition Plant	Hawthorne Army Ammunition Plant
—	Pueblo Army Depot Activity*
Savanna Army Depot Activity	Savanna Army Depot Activity
Seneca Army Depot Activity	Seneca Army Depot Activity
Sierra Army Depot	Sierra Army Depot
Tooele Army Depot	Tooele Army Depot
—	Umatilla Army Depot Activity*



*Equated to Exclusion from Closure/Realignment Consideration

SLIDE 15

COMPARING THE INSTALLATIONS EVALUATED AND PLACED IN "TIER CATEGORIES" BY THE TIER DEPOT ANALYSIS WITH THOSE ON PAGE 113 OF THE ARMY'S BRAC 95, VOL II SHOWS THAT TWO INSTALLATIONS WERE NOT CONSIDERED FOR TIER CLASSIFICATION. SINCE THE OPERATIONAL BLUEPRINT, I.E., THE PURPOSE OF THE MUNITIONS STORAGE BRAC ANALYSIS WAS TO "ELIMINATE TIER III...INSTALLATIONS", THESE TWO FACILITIES WERE EXCLUDED FROM POTENTIAL CLOSURE OR REALIGNMENT. SIMILARLY, THE "TIER I AND TIER II" INSTALLATIONS LISTED ON PAGE 113 WERE ALSO EXCLUDED. THIS MEANS THAT THE ONLY FACILITIES WHICH COULD BE RECOMMENDED FOR CLOSURE OR REALIGNMENT IN THIS CATEGORY DURING BRAC 95 HAD BEEN TARGETED BY THE TIER DEPOT ANALYSIS. IN EFFECT, THE TIER III INSTALLATIONS HAD BEEN SET UP FOR CLOSURE BY A PROCESS WHOLLY OUTSIDE OF THE REQUIREMENTS OF PUBLIC LAW 101-510. THE STATED PURPOSE OF THE MILITARY VALUE ANALYSIS – "SELECTING STUDY CANDIDATES FOR ADDITIONAL STUDY" (ARMY BRAC 95, VOL III, PG 11) – WAS NOT PERFORMED. SINCE THE TIER III INSTALLATIONS HAD BEEN IDENTIFIED BY THE TIER DEPOT ANALYSIS, AND GUIDANCE DIRECTED THE ELIMINATION OF TIER III INSTALLATIONS, THE OUTCOME WAS PREDETERMINED. IN EFFECT, THE ANTICIPATED PRODUCT OF THE MVA WAS ACTUALLY AN INPUT TO IT VIA THE TIER DEPOT ANALYSIS. THE ARMY CONDUCTED A RESULTS ORIENTED EXERCISE TO ATTACK PREVIOUSLY TARGETED INSTALLATIONS. THIS WAS WRONG AND WE DON'T BELIEVE THEY SHOULD BE ALLOWED TO GET AWAY WITH IT.

TIERING STUDY FLAWED – DATA OTHER ERRORS

- ◆ SIAD Has Missile Maintenance Capability— No Credit Given
- ◆ SIAD Has Inspection/Test Capability — No Credit Given
- ◆ SIAD Demil Capability Shorted By 220,000 Pounds Net Explosive Weight (NEW)
 - Question: *“Why was SIAD's OB/OD capability listed at only 20,000 pounds NEW when it is actually 240,000 pounds?”*
 - Response: *“...Sierra was ranked among the highest for its demil.... Adding additional OB/OD capacity would have had no effect on the final tiering.”* B/G Holmes, DCS, Ammunition, March 2, 95 Ltr to Congressman Herger
- ◆ Later Response: *“Data used for evaluation and analysis purposes was gathered from information available at HQ AMCCOM and HQ DESCOM.... Thus it was assumed to be accurate, correct, and valid. There was no need for audit.”* B/G Holmes, DCS, Ammunition, March 2, 95 Ltr to Congressman Herger



SLIDE 16

A FEW OTHER ERRORS IN THE TIER ANALYSIS RESULTED FROM NO, OR TOO LITTLE, CREDIT BEING GIVEN FOR SIGNIFICANT FUNCTIONS. THE DEMIL CAPACITY ERROR SHOULD HAVE BEEN OBVIOUS TO THE ARMY STAFF SINCE IT'S WELL KNOWN THAT SIERRA HAS THE MOST CAPABILITY IN THE ARMY. HOWEVER, THE WORST THING ABOUT THE TIER ANALYSIS IS THAT EVEN WHEN THE LEADERSHIP ACKNOWLEDGED THAT THE DATA USED WAS WRONG, THEY MADE LIGHT OF IT. THEY SEEMED MORE CONCERNED ABOUT PROTECTING THEIR PROCESS THAN HAVING USED INACCURATE DATA TO BASE THEIR DECISIONS ON.

HOWEVER MUCH GEN HOLMES WISHED HIS DATA WAS "ACCURATE, CORRECT, AND VALID," IT WAS NOT. THE EXAMPLE OF THE DEMIL CAPACITY POINTS THAT OUT FAIRLY DIRECTLY. THEREFORE, IF THE DEMIL VALUES WERE INCORRECT, HOW MUCH MORE OF THE DATA WAS IN ERROR? SHOULDN'T THE DISCOVERY OF A MISTAKE IN DATA ASSUMED TO BE SO PURE HAVE TRIGGERED SOME SORT OF REVIEW? WE THINK SO, BUT IT DID NOT. INSTEAD THE ARMY STOOD ON A PAT STATEMENT TO THE EFFECT THAT "THERE WAS NO NEED FOR AUDIT." AGAIN, THIS FLAWED DATA DROVE THE TIER PLACEMENTS AND THAT IS WHAT DROVE THE BRAC RECOMMENDATIONS.

TIERING STUDY FLAWED – PROCESS

OUTLOAD CAPABILITY MEASURED INCORRECTLY

◆ Capability Function of Many Things

■ Benefits From Difficult to Acquire Assets

- ▶ Rail Line Availability
- ▶ Airfield Proximity
- ▶ Interstate Highway Access

Physical Constraints

■ Suffers From Easy to Fix Shortages

- ▶ Too Little Material Handling Equipment
- ▶ Too Few People
- ▶ Lack of Sufficient Rail Cars & Trucks

Leadership Challenges

◆ Emphasis Placed on Problems Caused by Easy Fix Deficiencies

◆ Little Credit For Having Difficult to Acquire Infrastructure

◆ Focus Appears To Be Backwards



SLIDE 17

A FEW MINUTES AGO, WE MENTIONED OUTLOAD CAPABILITY. THIS CAPABILITY IS SYNONYMOUS WITH THE POWER PROJECTION ELEMENT AS DEFINED IN THE TIER DEPOT ANALYSIS. POWER PROJECTION WAS THE MOST IMPORTANT ATTRIBUTE IN THE TIER STUDY, BUT THE ARMY EMPHASIZED THE WRONG ELEMENTS. WE BELIEVE THAT THE PRESENCE OF VERY EXPENSIVE INFRASTRUCTURE CAPABILITIES – USUALLY REFERRED TO AS PHYSICAL CONSTRAINTS – IS MUCH MORE IMPORTANT THAN THE NUMBER OF FORKLIFTS OR TRUCKS ON STATION. EQUIPMENT, PEOPLE AND VEHICLES CAN BE OBTAINED OR REDISTRIBUTED WITH A LITTLE LEADERSHIP INITIATIVE – IT'S PRETTY HARD TO BUILD A MAJOR RAIL LINE TO THE FRONT GATE AND AIRFIELDS ARE VERY EXPENSIVE. YET, THIS IS WHAT THE ARMY DID. THEY WEIGHTED THE ACTIVITIES, I.E., THOSE THINGS DEPENDENT ON PEOPLE, EQUIPMENT, ETC. HEAVILY, WHILE THEY GAVE LITTLE WEIGHT TO THE LACK OF PHYSICAL CONSTRAINTS.

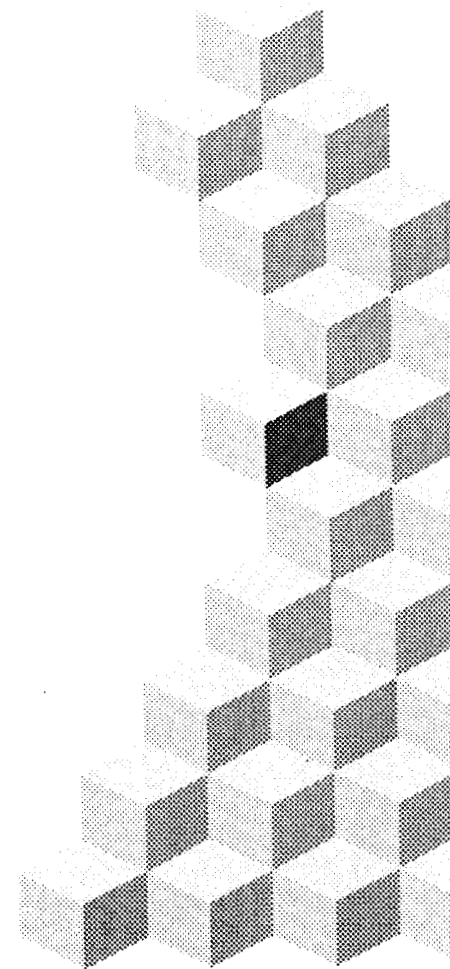
SUMMARY

◆ STRENGTHS

- Location
- Environment
- Freedom from Encroachment
- Storage
- Costs
- Demilitarization

◆ Weaknesses

- BRAC Data Used
- DA BRAC Staff Analysis
- Tiering Study



SLIDE 18

TO WRAP THIS UP, WE BELIEVE THE REAL STRENGTHS OF SIAD ARE LARGELY THINGS WHICH CAN NOT BE REPLICATED AT ANOTHER PLACE. FIRST, SIAD IS EXTRAORDINARILY WELL SERVED BY TRANSPORTATION SYSTEMS. ALSO, THERE ARE NO BETTER CLIMATIC CONDITIONS FOR MUNITIONS STORAGE. SECOND, SIERRA IS SOLID ENVIRONMENTALLY. WITH 10-YEAR PERMITTING BY THE NATION'S MOST STRINGENT REGULATORS (CALIFORNIA EPA) JUST A FEW MONTHS OFF, THERE SHOULD BE NO QUESTION OF THE VIABILITY OF SIERRA'S DEMILITARIZATION PROGRAM. ADDITIONALLY, THE TESTING ON ENVIRONMENTAL EFFECTS OF OPEN BURN/OPEN DETONATION DEMIL BEING DONE AT DUGWAY PROVING GROUNDS IS POSITIVE. THIRD, THE REMOTENESS OF SIAD AND THE COUNTY'S MILE WIDE PUBLIC SAFETY ZONE FURTHER PROTECTS IT FROM ENCROACHMENT. ADD THE FOURTH LARGEST STORAGE, LOWEST COSTS, AND HIGHEST DEMIL CAPACITY AND YOU HAVE A WORLD CLASS POWER PROJECTION PLATFORM.

HOWEVER THE RETENTION OF SUCH A VALUABLE NATIONAL ASSET HAS BEEN PUT AT RISK BY CONFLICTING STUDIES, BAD DATA, FLAWED ANALYSIS, AND RESULTS ORIENTED EXERCISES. AS TAXPAYER'S WE CAN NOT AFFORD TO SACRIFICE THE ADVANTAGES OF SIAD ON THE ALTER OF SUCH POOR STAFF WORK.

RECOMMENDATION

- ◆ *“...Retain affordable, world-class power projection platforms as enduring installations.”*

Army Guidance, BRAC 95 Report, Vol III



SIERRA FITS THE GUIDANCE



- ◆ Retain The Sierra Army Depot and Expand the Ammunition Storage Function



SLIDE 19

AS WE SAID AT THE BEGINNING, THE SIERRA ARMY DEPOT MATCHES THE ARMY GUIDANCE TO RETAIN AFFORDABLE, WORLD-CLASS POWER PROJECTION PLATFORMS. WE UNDERSTAND THE NEED TO CLOSE INEFFICIENT AND OUT-MODED OPERATIONS. HOWEVER, CLOSURE OF SUCH AN EFFICIENT PROFIT CENTER TO MAINTAIN MORE COSTLY ALTERNATIVES IS NOT ONLY ARGUABLE, IT DEFIES COMMON SENSE.

SIAD TRULY IS "THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION." WE URGE YOU TO REVERSE THE ARMY'S RECOMMENDATION FOR REALIGNMENT AND, IF THE OPPORTUNITY PRESENTS ITSELF, EXPAND THE MUNITIONS STORAGE MISSION.

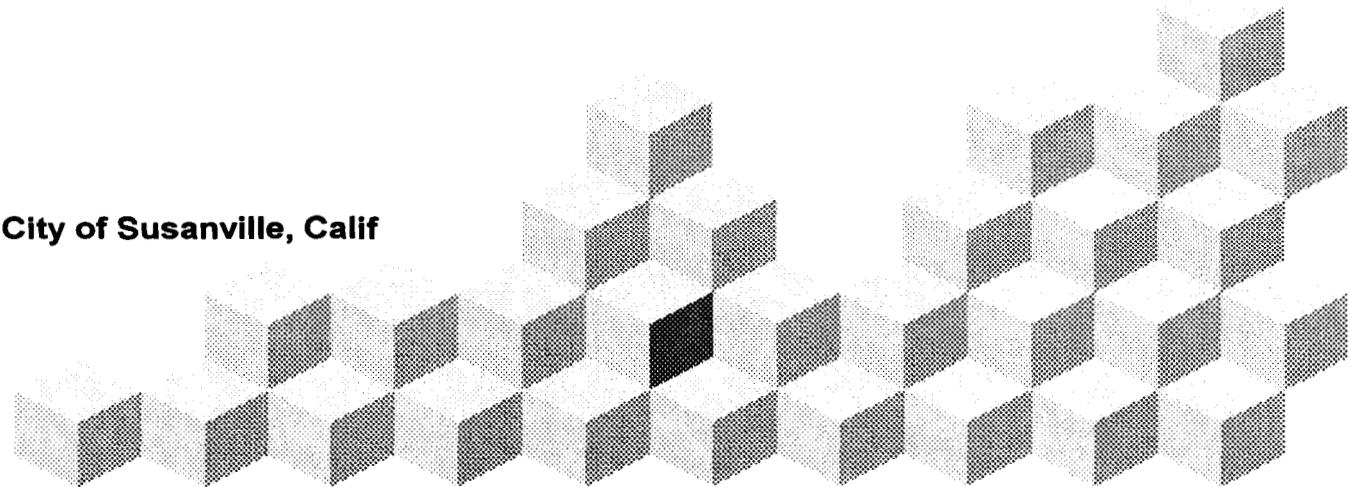
THANK YOU FOR THE OPPORTUNITY TO PRESENT OUR VIEWS. WE HAVE INTENTIONALLY STAYED AWAY FROM ECONOMIC IMPACT COMMENTS IN THIS PRESENTATION, BUT HAVE PROVIDED A COMPREHENSIVE LOOK AT THE DEVASTATION WHICH WILL RESULT FROM THIS ACTION IN YOUR PACKAGE. WE TRUST YOU'LL REVIEW THIS MATERIAL CAREFULLY DURING YOUR DELIBERATIONS. WE ALSO UNDERSTAND HOW DIFFICULT A TASK THE COMMISSION FACES AND APPRECIATE YOUR EFFORTS TO MAKE THE BEST POSSIBLE DECISIONS IN A COMPLICATED PROCESS. [NEXT SLIDE] WE'D BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE.

THE SIERRA ARMY DEPOT

THE PERFECT FIT FOR AMERICA'S ARMY AND THE NATION

Community Presentation to Commissioner Steele
April 25, 1995

The County of Lassen & City of Susanville, Calif



SLIDE 20

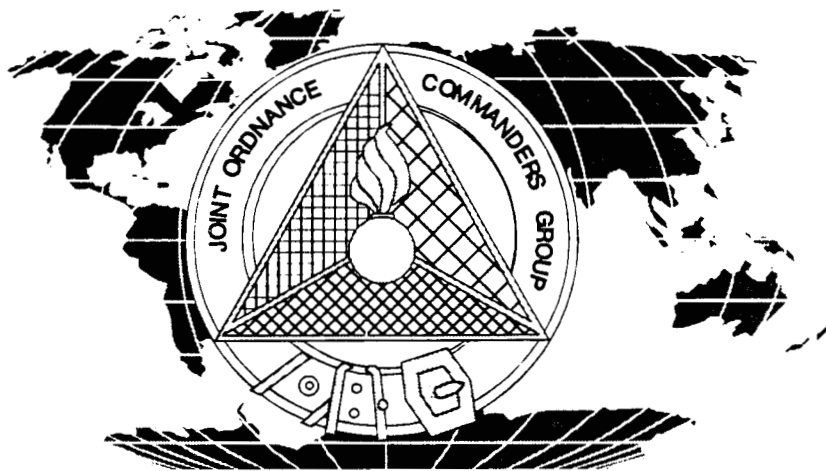
WE'D BE HAPPY TO ANSWER ANY QUESTIONS YOU MIGHT HAVE.





WHOLESALE AMMUNITION STOCKPILE PROGRAM (WASP)

REVIEW AND ASSESSMENT



VOLUME I **EXECUTIVE SUMMARY**

PREPARED BY
WASP REVIEW AND ASSESSMENT TEAM
OCTOBER 1993

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EXECUTIVE SUMMARY

1. **Background.** The Wholesale Ammunition Stockpile Program (WASP) Review and Assessment was initiated at a 20 May 1993 Joint Ordnance Commanders Group (JOCG) Meeting in response to briefings and discussions addressing the FY 93 Operation and Maintenance, Army (OMA) funding dilemma. The Membership's primary concerns centered on the lack of funding being applied in the essential stockpile readiness functions of inventory accountability, surveillance, maintenance, and rewarehousing.

2. **Objectives.** At that meeting, the Chairman, JOCG directed Mr. John L. Byrd, Jr., Director, U.S. Army Defense Ammunition Center and School (USADACS) to form a Joint Service Team to evaluate the impacts on ammunition readiness, explosives safety, and quality of not performing the essential stockpile readiness functions. On 15 June 1993, the JOCG followed through with a formal tasking directing Mr. Byrd to review the condition of the stockpile within the Single Manager for Conventional Ammunition (SMCA) storage base and provide the results of that review to the JOCG and Joint Logistics Commanders (JLC) in the late September- early October 1993 timeframe.

3. **Methodology.** To accomplish a review within the specified time, Mr. Byrd was required to quickly establish a Plan of Action and implementing milestones. Fundamental decisions were made as follows:

a. **Timeline.** The effort was divided into four phases with the results to be briefed to the JLC in October 1993. Those phases included Phase I (14-25 June 1993) Team Direction and Organization; Phase II (28 June - 30 July 1993) Data Collection and Analysis; Phase III (2-27 August 1993) On-Site Assessments; and Phase IV (30 August - 4 October 1993) Presentation and Staffing of Briefings and Reports.

b. **Team Composition.** To accomplish a credible assessment of both SMCA and service-unique Wholesale Stockpile items as directed, the WASP functional teams were assembled using Joint Service civilian and military personnel. Of the 43 major participants, 30 were U.S. Army (USA), 5 U.S. Marine Corps (USMC), 4 U.S. Air Force (USAF), and 4 U.S. Navy (USN). To further assure Joint Service issues were given appropriate consideration, the WASP Team called upon an AD HOC advisory group composed of Chairman, Department of Defense Explosives Safety Board (DDESB); the Executive Director, JOCG; a representative from the JOCG Executive Committee, and Chairpersons from four JOCG Subgroups. The

WASP Team provided the AD HOC Group with briefings and received feedback on three occasions.

c. **Data collection.** At initial planning meetings, the WASP Team decided, based upon time, that the overall analysis of stockpile would have to be limited to those installations with depot-type operations that maintained their custodial records on the automated Standard Depot System (SDS). Using these criteria, the Team was still able to address 93% of the total SMCA wholesale stockpile stored at the following 11 installations: Anniston Army Depot, Alabama; Blue Grass Army Depot, Kentucky; Crane Army Ammunition Activity, Indiana; Hawthorne Army Ammunition Plant, Nevada; Letterkenny Army Depot, Pennsylvania; McAlester Army Ammunition Plant, Oklahoma; Red River Army Depot, Texas; Savanna Army Depot Activity, Illinois; Seneca Army Depot Activity, New York; Sierra Army Depot, California; and Tooele Army Depot, Utah. Although only 11 installations' data were analyzed in detail, the WASP Functional Teams did solicit survey data and a Commander's Assessment from all U.S. Army Materiel Command (AMC) installations with a wholesale ammunition mission.

d. **On-Site Visits.** The WASP Team determined that only three installations could be effectively visited within the available timeframes. Those installations were Anniston Army Depot, Alabama; Sierra Army Depot, California; and Hawthorne Army Ammunition Plant, Nevada. These installations were chosen based upon a variety of factors, some of which included: number of service TOP 20 Items and service-unique items, amount of Southwest Asia (SWA)/European Retrograde returns, amount of unserviceable materiel in storage, increases in lots and tons in storage (Jun 90 - Present), inspection backlogs, fragmented lots in storage, inert materiel in explosive storage, dates of last inventory over two years old, etc. The WASP Team elected to omit direct reference to any individual installation in the functional assessments. Installations are referred to in the body of the report by a non-significant, single alpha character to assist the reader in identifying patterns across individual functional areas.

e. **Item Focus.** Although each of the functional teams was directed to address the issues of readiness, quality, and safety throughout their data collection and on-site efforts, all agreed that a major focus on the items considered most important by the services was needed. To that end, the WASP Team requested that each service provide the TOP 20 items that, in their assessment, needed to be looked at from a safety/readiness standpoint. When the final TOP 20 list was compiled, based upon individual services desires to have each National Stock Number (NSN) of key systems all considered, the total number of TOP 20 items grew to 132 ammunition Department of Defense identification code (DODIC) items.

4. Findings.

a. General.

(1) **Conflict Driven Stockpile Cycle.** As soon as the WASP Team began correlating recent workload and resource levels, it became clear that several diverging trends impacting the stockpile had been operative since the onset of Operation Desert Shield/Storm (ODS). As *Figure 1 (below)* notionally depicts, storage base activity rose dramatically when the conflict

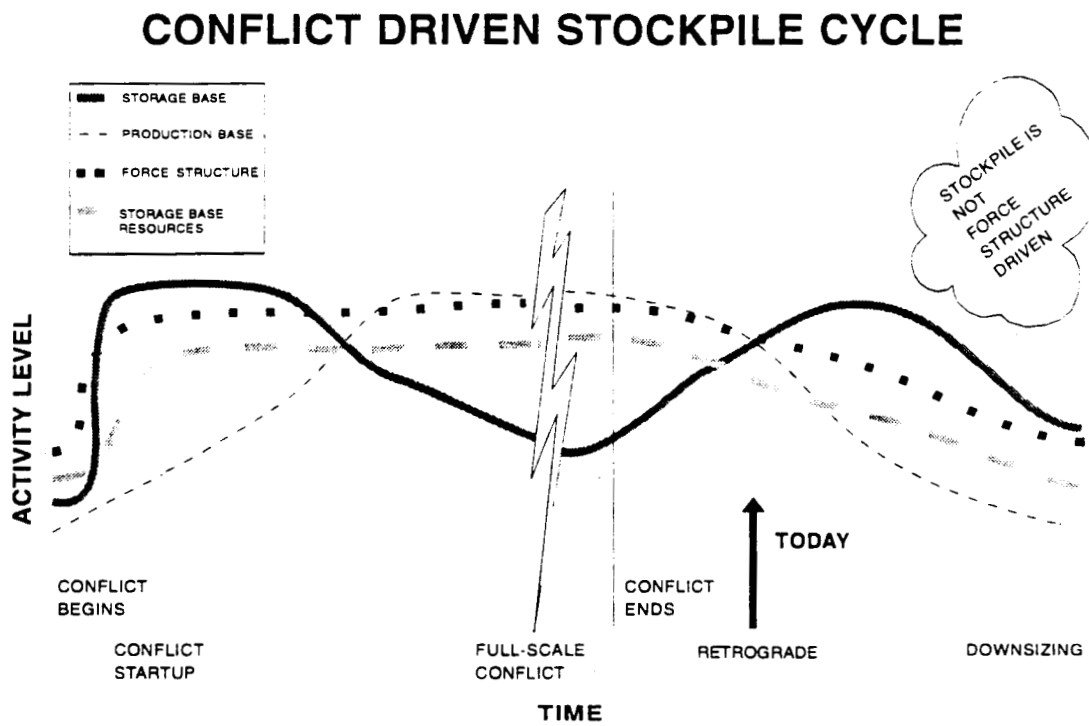


Figure 1

began. That activity fell off after installations satisfied the services' needs for the full scale conflict. Soon after the conflict ended, however, the level of stockpile activity rose to near its highest conflict levels. Those phenomena occurred because SWA retrograde was received, European retrograde continued, Base Realignment and Closure (BRAC) redistribution actions occurred, and receipts from production had not totally stopped.

It is important to note that although storage base activity is still at a very high level, the resources for the storage base, the production base activity, and the force structure have fallen off significantly. Clearly the level of stockpile activity is not force structure driven.

(2) **Ammunition Workload Trends.** To put the relationship between the stockpile level and the current workload into historical or broader perspective, the WASP Team obtained actual data from FY 89-93 and forecast data through FY 96. As *Figure 2 (below)* shows, the tonnages in storage are rising dramatically as the transition to a CONUS-based Army occurs.

It is significant that receipt and issue workload continues to be higher than Pre-ODS levels into at least FY 96. There is also a fundamental difference in the mix of receipts and issues from Pre-ODS to Post-ODS.

By going back further and reviewing FY 85-89, the WASP Team found that receipts and issues were nearly equal. After the conflict, receipts have and are projected to nearly double issues through FY 96.

AMMUNITION WORKLOAD TRENDS

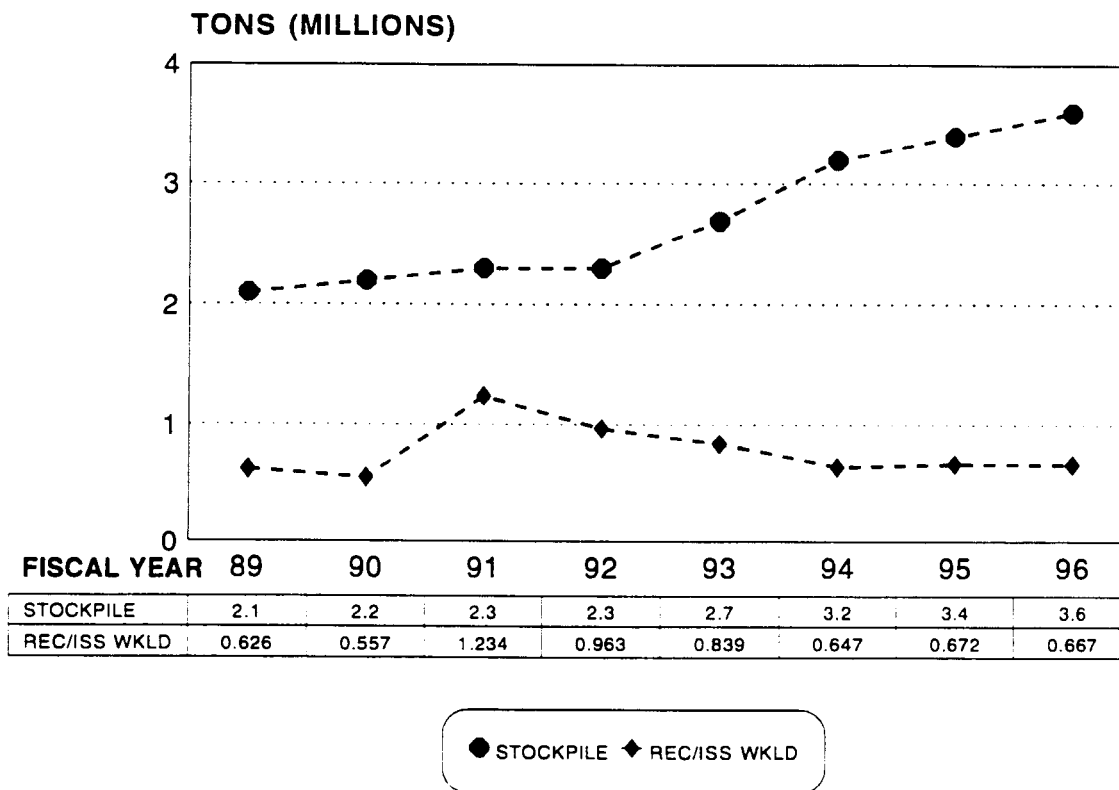


Figure 2

(3) **AMMUNITION RESOURCE TRENDS.** Although somewhat complicated, *Figure 3 (on the next page)* clearly indicates the dilemma facing the SMCA wholesale base. As the top line depicting tons shows, the continental United States (CONUS) wholesale stockpile will grow to some 3.6 million tons by FY 96. At the same time, the next two lines illustrating

AMMUNITION RESOURCE TRENDS

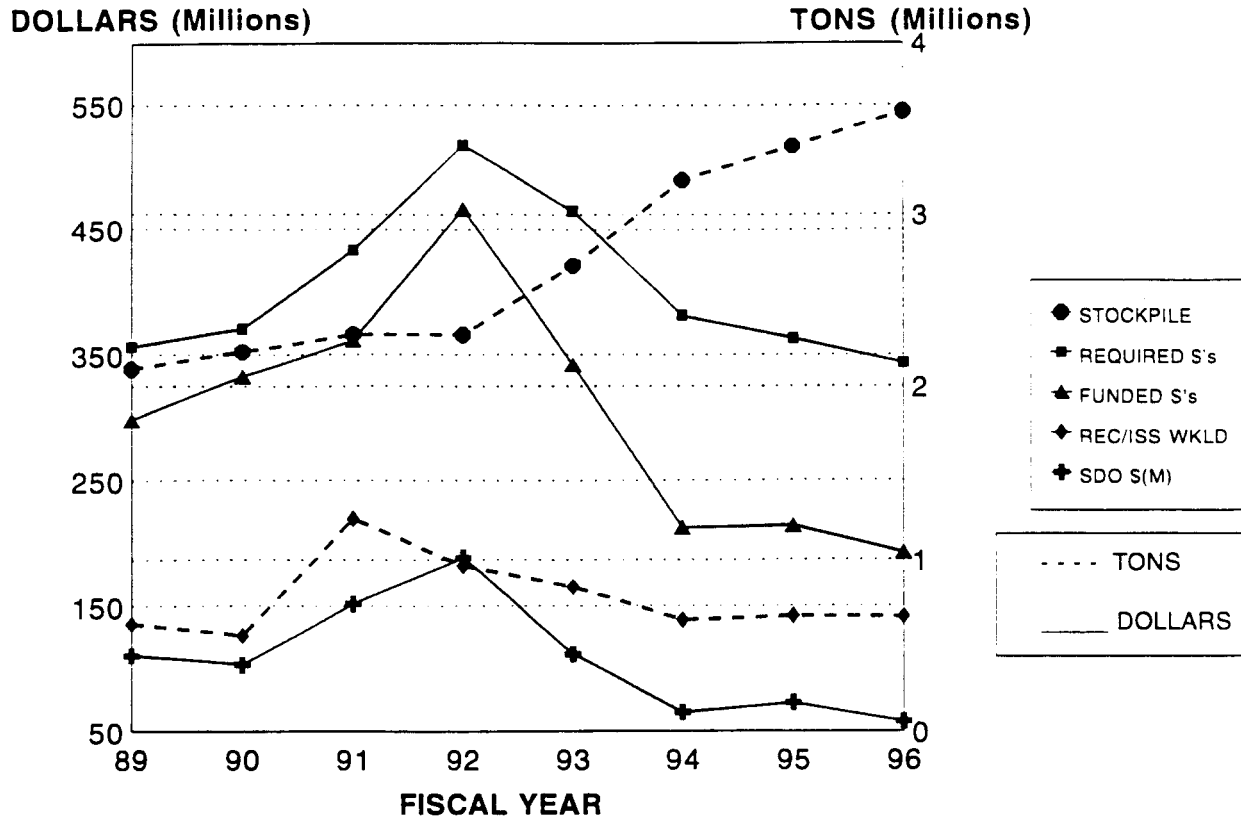


Figure 3

the required and funded programs show dramatic decline. Simply put, the wholesale stockpile doubles between FY 89-96, but the funded programs are almost cut in half. Similarly, the receipt and issue portions of the supply depot operations workload increase slightly during FY 94-96, but the tons handled remain near the FY 89 level. Actual funding falls below FY 89 level - - especially in FY 96.

b. Inventory Accountability.

(1) **SMCA Wholesale Base.** As previously noted, the functional teams began actual work with an agreement to focus efforts primarily on those 11 wholesale installations that operate on the SDS. Those installations contain the bulk of the wholesale SMCA and service-unique assets as well as most of the TOP 20 items upon which the services requested we focus. The statistics describing the SMCA storage base themselves are impressive. Of particular interest and concern to the WASP Team was the degree to which this storage base has been

SMCA WHOLESALe STORAGE BASE

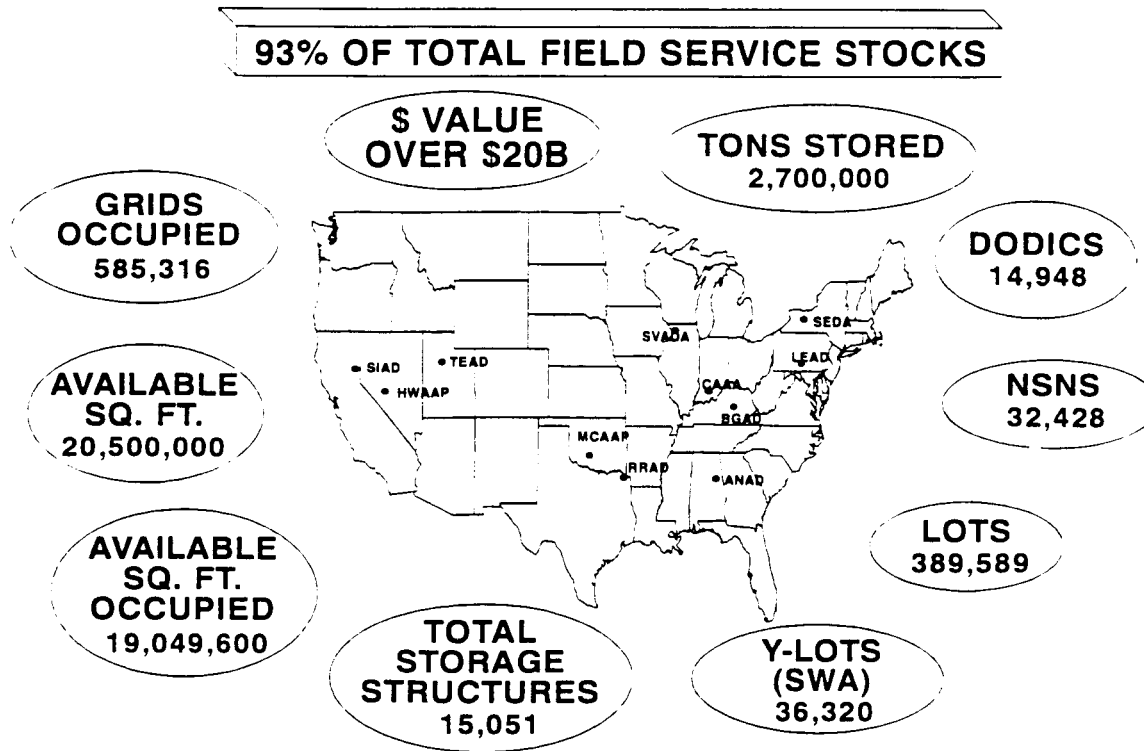


Figure 4

churned by the SWA shipment and retrograde and the European retrograde. As the "Y" lot number in the lower right hand corner of *Figure 4 (above)* shows, today's storage base now includes almost 10% of items that were subjected to the rough handling and climatic extremes of SWA. Additionally, these Y-lots primarily consist of those items needed to "Go-To-War."

(2) **Stratification.** Of the 2.7 million tons in the storage base, shown on *Figure 5 (right)*, approximately 24% are composed of items that are required to be shipped early on in the stages of any conflict or are items the services identified as safety concerns. A significant portion of that 24% consists of stocks that have experienced several handlings in returning from SWA or Europe, are currently stored in less than optimum configurations; i.e., lots

STRATIFICATION			
2.7 MILLION TONS	'TOP 20' OPLAN 1-5 GO-TO-WAR TRAINING	650,000	24%
	WAR RESERVE	1,700,000	63%
	EXCESS		
	DEMIL	350,000	13%

Figure 5

fragmented or block stored, have only been subjected to minimal receipt damage in transit inspections, and have not been inventoried since they returned. A limited number of these stocks have been subjected to specific test programs by U.S. Army Armament Research, Development and Engineering Center (ARDEC), Predictive Technology Branch, and USMC elements at Fallbrook, California. The 13% of items identified for demilitarization are items that are no longer required for readiness, yet must be safely maintained. The 63% in the middle will tend to gravitate to the top or bottom, dependent upon fluctuations in DOD mobilization requirements.

(3) **Physical Survey Completion Rates.** The WASP Team found that decreased supply depot operations funding had effects in inventory accountability as early as FY 90 when inventory programs ceased to be fully funded. As the decline in performance of physical location surveys continued, installations and the inventory control points developed gaps in data needed to research and reconcile discrepancies. The present funding level resulted in the decision to only accomplish physical location survey on Categories I and II security items.

PHYSICAL SURVEY COMPLETION RATES

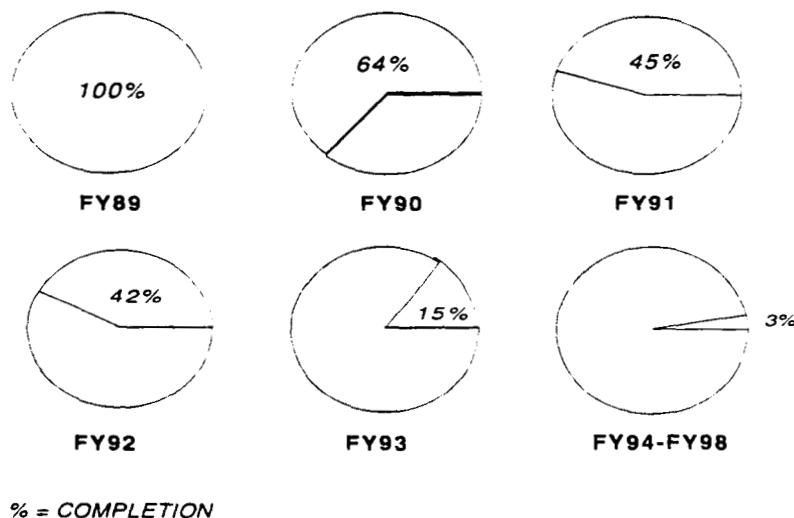


Figure 6

By FY 94, as shown in *Figure 6 (above)*, the physical location survey program will only address the same 3% of the stockpile NSNs each year. Reduction of the survey program to the projected level will result in an inability to audit discrepant records and a loss to the installation commander of a set of "Smart Eyes" in each magazine each year.

(4) **On-Site Analysis.** The final phase of the Inventory Accountability Team's analysis was the on-site visit. After checking over 6,000 total lot locations at the three on-site installations, the Team concluded that the quantity mismatch rate between record and location

ON-SITE ANALYSIS

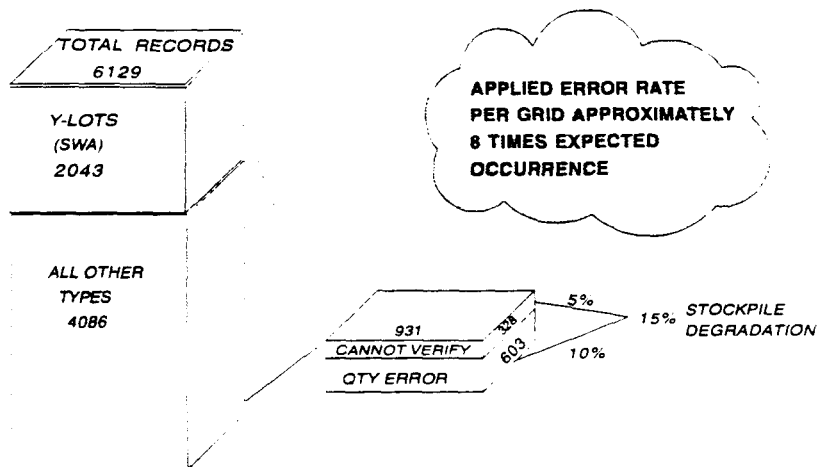


Figure 7

was approximately 10%. In addition, 5% of the time, the count could not be verified due to the way in which materiel was stored. When compared against the historical 98% accuracy goal, the Team observed an error rate per grid location that was approximately 8 times the expected rate as noted in Figure 7 (above). The Inventory Accountability Team expects the error rate to increase due to massive turnover of the stockpile. Each move of munitions, without benefit of inventory, increases chances of record errors and the possibility of undetected theft.

(5) Composite

Materiel Release Order (MRO)

Denials. One of the traditional indicators of declining inventory accuracy is MRO denials. As Figure 8 (right) depicts, the MRO denial rate has doubled since its lowest levels in FY 90. The drop in denials in FY 90 was the result of resorting to manual lot selection to meet critical ODS requirements. Whereas other

COMPOSITE DENIALS

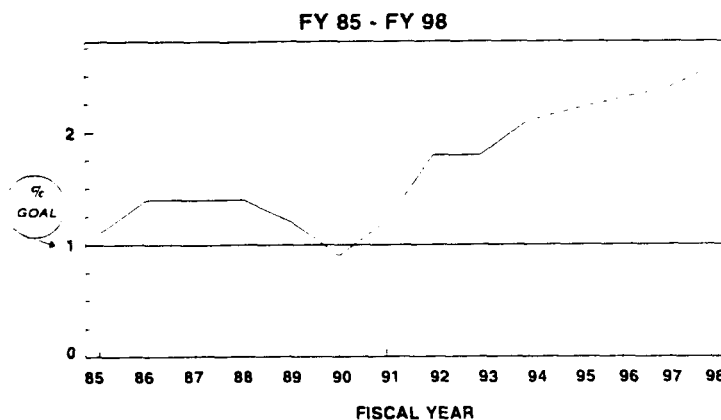


Figure 8

factors such as materiel condition, also cause the decision to deny a shipment, the accuracy and agreement of the accountable National Inventory Control Point (NICP) records and the custodial installation records are key to meeting shipping orders. Without an adequately-funded physical location survey program, the accuracy of the inventory records will decrease and the denial rate will increase. Despite the best efforts of NICP managers to redirect shipments and substitute materiel, and installation personnel to locate items, increased denial rates mean less readiness.

(6) **Auditable Records Available for Reconciliation.** Each year the auditability of the inventory will decrease if the inventory survey program is not accomplished. In FY 91, 100% of all NSNs had been inventoried within the last 2 years. In order to complete a reconciliation, the NICP requires not more than 2 years history be used to find conclusion to a mismatch. Now the percent of ammunition NSNs with a 2-year history availability has begun to decline due to lack of survey program data. As the Pac-Man like void on *Figure 9 (below)* shows, the auditability of NSNs in the stockpile drops to 22% in FY 95 and 3% thereafter.

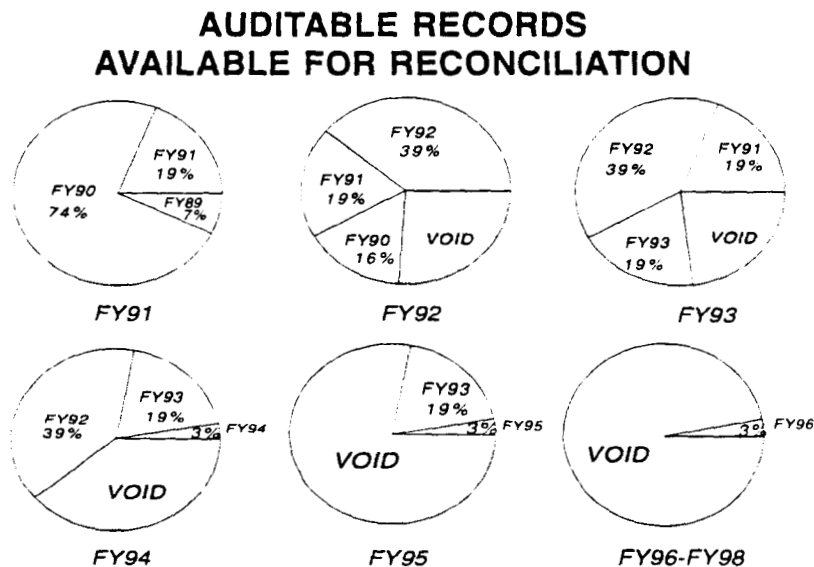


Figure 9

(7) **Lot Substitutions.** Although the WASP Team did use the traditional ways of assessing inventory accuracy previously described, they identified another metric which is a quicker means of getting at a problem area and predicting decreased readiness and increasing cost. The Inventory Accountability Team analyzed total MROs for FY 93 to determine how many times the ammunition lots selected by the SDS computer had to be substituted. As *Figure 10 (on the next page)* shows in FY 93 over half the computer selected lots were not able

LOT SUBSTITUTION REQUIRED

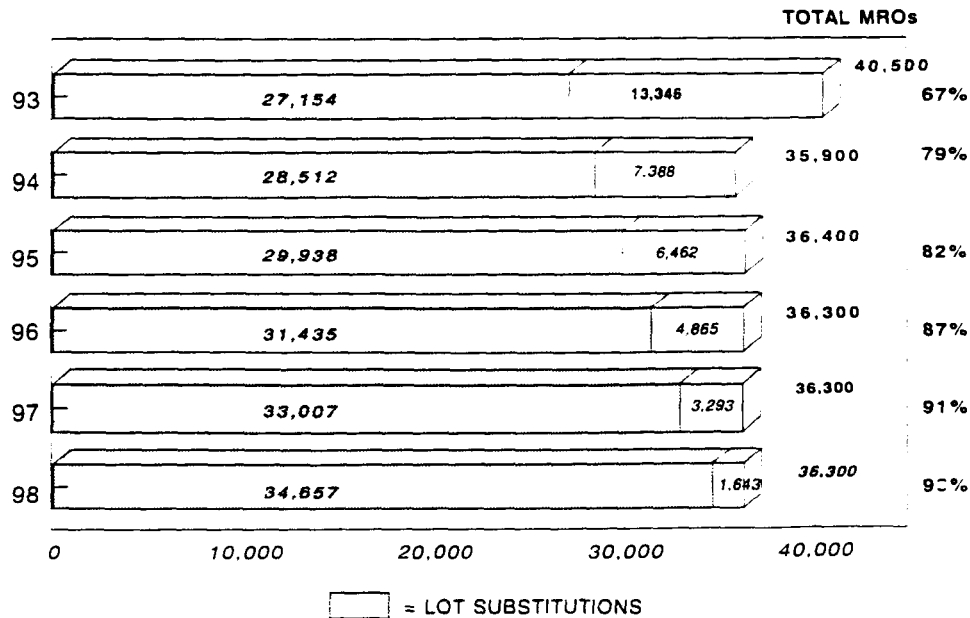


Figure 10

to be issued by the installation. The substitutions were for various reasons including: materiel not in location, materiel reclassified and not shippable, inspection overdue, buried in storage, required repack, etc. Once the installation determines the computer selected lot cannot be shipped, a manual processing intervention is involved resulting in delays, increased man-hour costs per ton, etc. The Inventory Accountability Team predicted 5% per year increase in lot substitutions due to degradation in inventory data alone. The rate of substitution will probably increase even faster if inspection and test funding is not increased.

c. **Surveillance.** Whereas the WASP Inventory Accountability Team assessed the aspect of not performing key functions on balance data and day-to-day operations, the Wasp Surveillance Team focused upon the condition and safety of materiel as reported through key programs. It is important to recognize that ammunition has unique characteristics as described in *Figure 11 (right)* that make a

SURVEILLANCE AMMUNITION CHARACTERISTICS

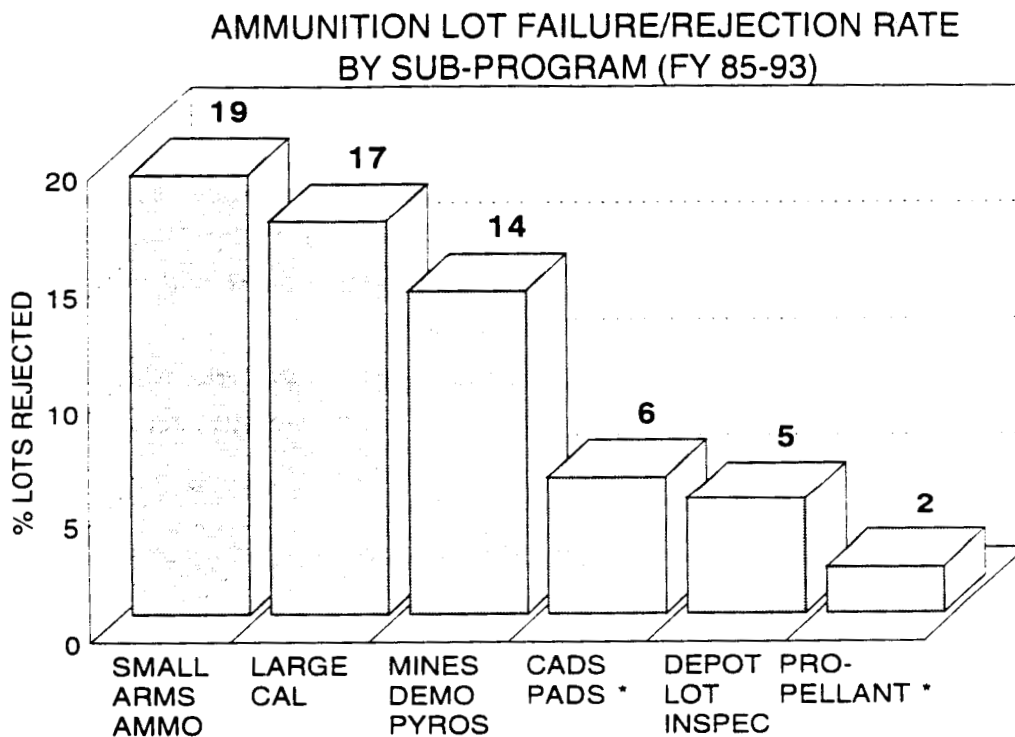
- ONE-SHOT DEVICES/HIGHLY DESTRUCTIVE
- NO COMMERCIAL COUNTERPART
- HIGH RELIABILITY
 - PERFORMANCE
 - SAFETY
- LONG-TERM STORAGE
- VARIABLE DETERIORATION RATE
- MINIMUM FIELD TESTING AND INSPECTIONS
- EXPENSIVE

Figure 11

healthy surveillance program essential.

(1) **Purpose and Function.** The fact that the ammunition commodity is so unique has caused special emphasis to be placed in key program areas. The ammunition stockpile surveillance program is comprised of several major programs. The purpose of these programs is to assure that the condition, performance capabilities, and safety margins of ammunition are known throughout their life cycle. This is accomplished through periodic sampling, inspection, and testing of stocks. Test/inspection results are used to make appropriate stockpile decisions such as identifying items for maintenance and demilitarization, and withdrawing or restricting items considered to be of marginal serviceability.

AMMUNITION STOCKPILE RELIABILITY PROGRAM



* MUST FUND SAFETY PROGRAMS

Figure 12

(2) **Ammunition Lot Failure/Rejection Rate.** The ammunition stockpile reliability program, comprised of several sub-programs, has historically identified serviceability and reliability problems as shown in the rejection rates as depicted on *Figure 12 (above)*. Rejections and failures are usually a function of deterioration over time and/or exposure to harsh

environments. The purpose of these programs is to assure that the condition, performance capabilities, and safety margins of ammunition are known throughout their life cycle.

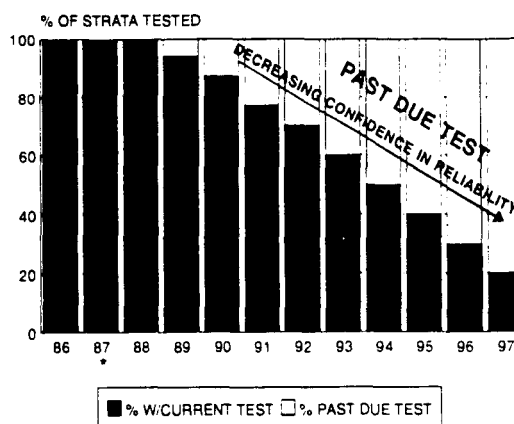
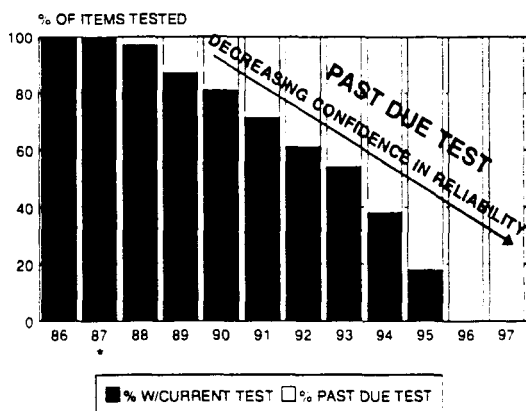
(3) **Ammunition Test Programs.** The current posture of the stockpile with respect to confidence in our knowledge of stockpile condition and safety is fairly healthy. As shown in *Figure 13 (below)*, due to declining availability of funds to support testing, there is a growing backlog of untested large and small caliber ammunition items.

AMMUNITION TEST PROGRAMS

PROJECTED BACKLOG GROWTH AND IMPACTS

** LARGE CALIBER TEST PROGRAM
GROWTH OF ITEMS OVERDUE TEST

** SMALL ARMS TEST PROGRAM
GROWTH OF STRATA OVERDUE TEST



* 90 - 95% CONFIDENCE LEVEL
** AVERAGE TEST INTERVAL IS 5 YEARS

Figure 13

Future funding projections for these items are at their lowest in memory, and by FY 96 and FY 97 for large and small caliber items, respectively, confidence in the knowledge of reliability of nearly all these items will have severely eroded.

(4) **Ammunition Lot Inspection Program.** A similar, but less dramatic, fate is projected for the depot surveillance lot inspection program as *Figure 14 (on the next page)* clearly indicates. At projected funding levels, it is estimated that only 55% of currently serviceable ammunition lots will have been inspected as required. There is currently a backlog

of 51,000 lots of uninspected ammunition and this backlog will grow unabated in the years ahead if left unfunded.

AMMUNITION LOT INSPECTION PROGRAM PROJECTED BACKLOG GROWTH AND IMPACT

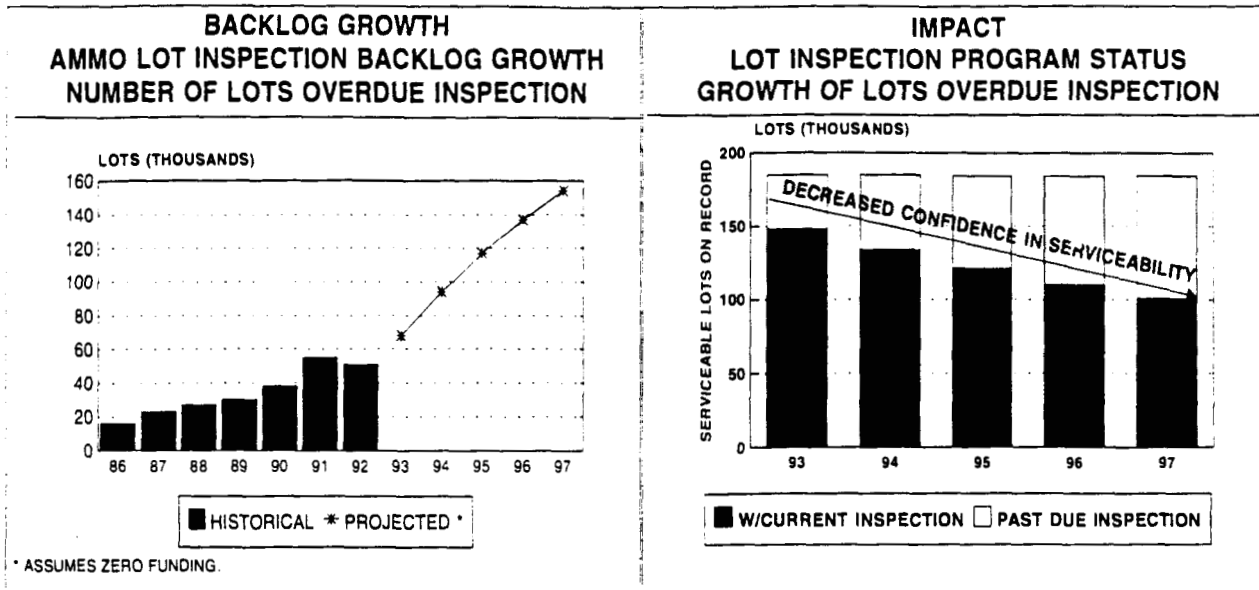


Figure 14

d. **Maintenance.**

(1) **Major Maintenance.** For their part, the ability of the previously-described SMCA surveillance program to provide accurate stockpile condition code data is critical to the proper planning and execution of SMCA maintenance. The services provide funds to the Army to accomplish directed SMCA major maintenance (reimbursable).

While it appears in *Figure 15 (on the next page)* that funding of major maintenance by the services has remained relatively stable, some of the services have been more successful than others in obtaining funding. Even if funding for major maintenance remains stable, losses of personnel available to perform maintenance could negatively impact future deliveries from maintenance.

SMCA MAJOR MAINTENANCE ACCOMPLISHMENTS

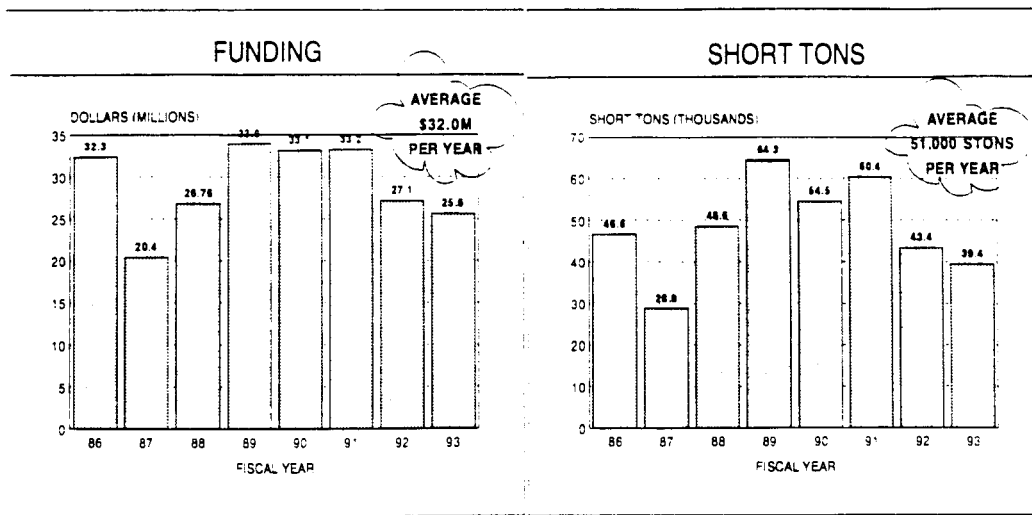


Figure 15

(2) **Minor Maintenance.** As noted on Figure 16 (below), funding of the SMCA's minor/non-reimbursable maintenance has been reduced to the point that only year-end funds are now applied against this SMCA responsibility. Prior to FY 93, installations were provided with bulk funding for minor maintenance projects. In FY 93, no specific minor maintenance funds were programmed for the installations even with increased requirements resulting from SWA and European retrograde.

SMCA MINOR MAINTENANCE HISTORICAL ACCOMPLISHMENTS

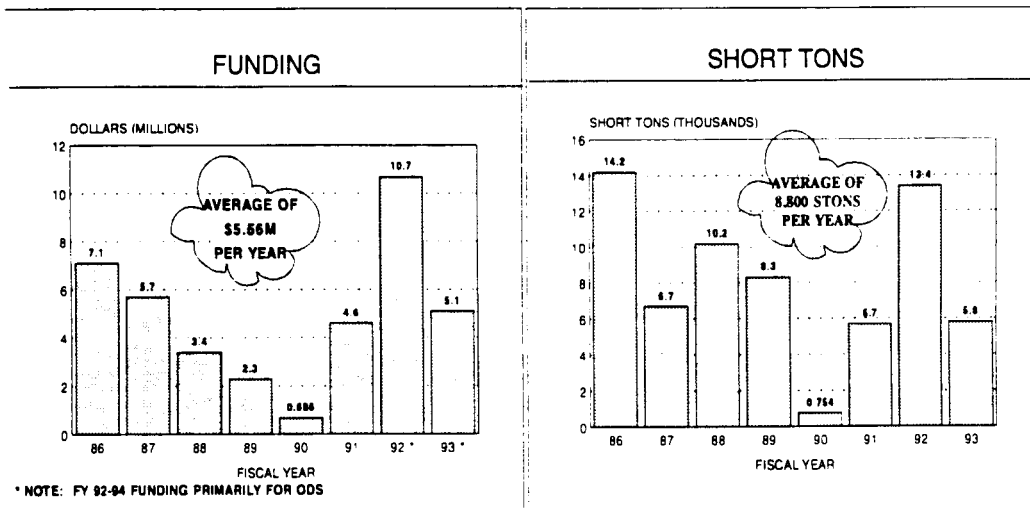


Figure 16

(3) **Maintenance Assessment of TOP 20 Items.** Like the other WASP Teams, the Maintenance Team paid special attention to TOP 20 items that were identified by the services as critical. As shown on *Figure 17 (below)*, 36% of those total assets by short ton (STON) were determined to be non-issuable. The estimated upgrade cost of those identified as unserviceable is \$140 million based upon an average \$800 per STON figure. Accurate surveillance data would be required to assess defects to bring serviceability to the required level of readiness once the actual requirement by item was stated. Estimated new procurement value of the unserviceable identified is approximately \$1.2 billion.

MAINTENANCE ASSESSMENT OF SERVICE TOP 20 ITEMS (By Issuable Status)

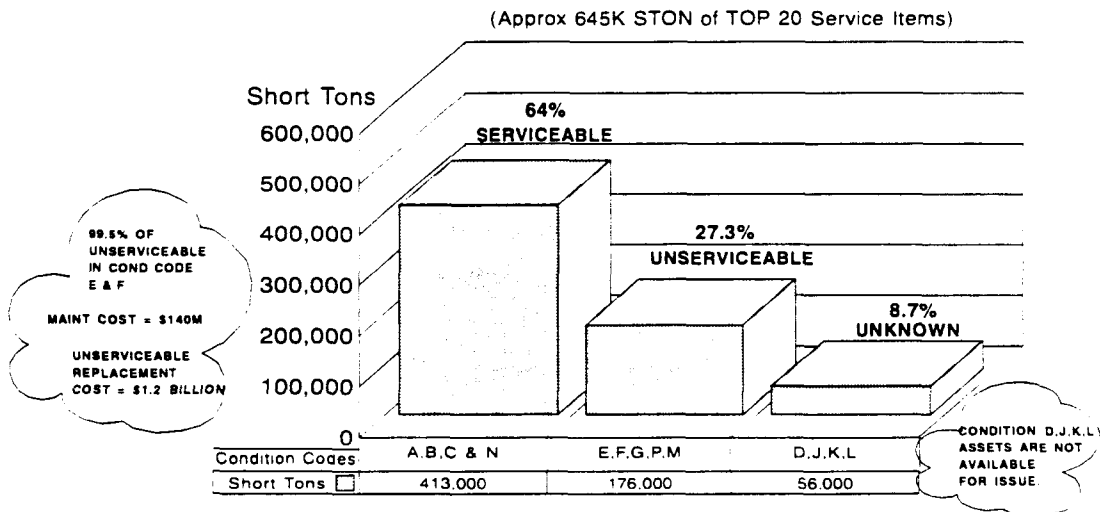


Figure 17

e. **Rewarehousing.** The Rewarehousing Team began its analysis with a broad look at the storage base. Faced with a nearly full wholesale base, no funding for rewarehousing, and unprecedented receipts, the Rewarehousing Team first determined the existing conditions and then identified initiatives to generate space.

(1) **Continued Conditions W/O Rewarehousing.** *Figure 18 (on the next page)* depicts the present condition of the wholesale ammunition stockpile in storage which can be corrected by rewarehousing. The installations attributed their present conditions to two factors. First, the volume of the SWA and European returns. Second, the lack of paperwork for the SWA returns. The installations were forced to unload, segregate by lot, and store the ammunition without knowing if additional quantities of the same lots were going to be received.

CONTINUED CONDITIONS W/O REWAREHOUSING

CONCERNS	NUMBER OF INSTANCES
A. STRUCTURES WITH INCOMPATIBLE MATERIEL	100*
B. STRUCTURES EXCEEDING EXPLOSIVE LIMITS	41
C. MATERIEL IN INADEQUATE SECURED STRUCTURES	3
D. MATERIEL IN OVER-SECURED STRUCTURES	4754
E. LOW QDC MATERIEL IN PREMIUM EXPLOSIVE SPACE	4,738,096 SQ. FT.
F. INERT MATERIEL IN EXPLOSIVE STORAGE SPACE	3,510,082 SQ. FT.
G. TOTAL FRAGMENTED AMMUNITION LOTS IN STORAGE	31725
H. TOP 20 FRAGMENTED LOTS IN STORAGE	4579

* CATALOG DATA ERRORS ACCOUNTED FOR 57.
CONTINGENCY STOCK ACCOUNTED FOR 4

Figure 18

(2) **Lot Fragmentation (TOP 20 Assets).** There are over 4,000 lots of the TOP 20 DODICs scattered or fragmented in storage. *Figure 19 (below)* gives the percentages of fragmented lots for each service for their TOP 20 DODICs. The impact of fragmented lots on readiness is delayed response time and increased shipping costs, resulting from the warehouseman having to go to multiple locations for a single shipment. Fragmented lots on the average increase an installation's shipping standard by 1.0 man-hour per STON.

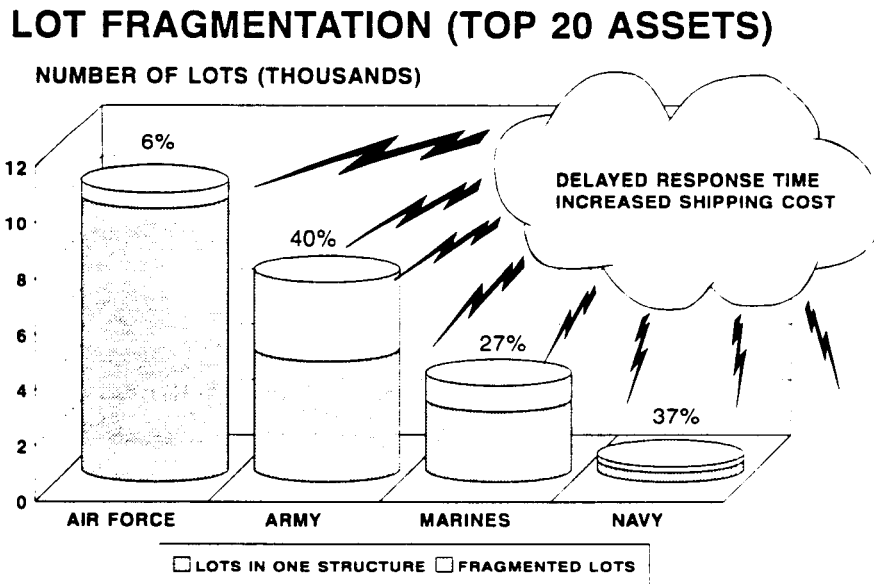


Figure 19

(3) **Outside Storage By "1995"**. Lot fragmentation is an inefficient use of storage space to be avoided whenever possible. As *Figure 20 (below)* indicates, efficient use of storage space is rapidly becoming a must. *Figure 20* also depicts the FY 93 occupancy level and the projections for the outyears if no rewarehousing or space-gaining initiatives are funded. The installations that comprise this chart are the eleven primary U.S. Army Armament, Munitions and Chemical Command (AMCCOM) and U.S. Army Depot System Command (DESCOM) storage depots. A disparity in occupancy levels exists between installations ranging from 66 - 91 %. An installation is considered full when occupancy reaches 90 % of the net storage space available. Receipts are expected to double issues for FY 94 through FY 98. As the FY 95 bar shows, unless rewarehousing dollars are applied, receipts will routinely be going "Outside by 95."

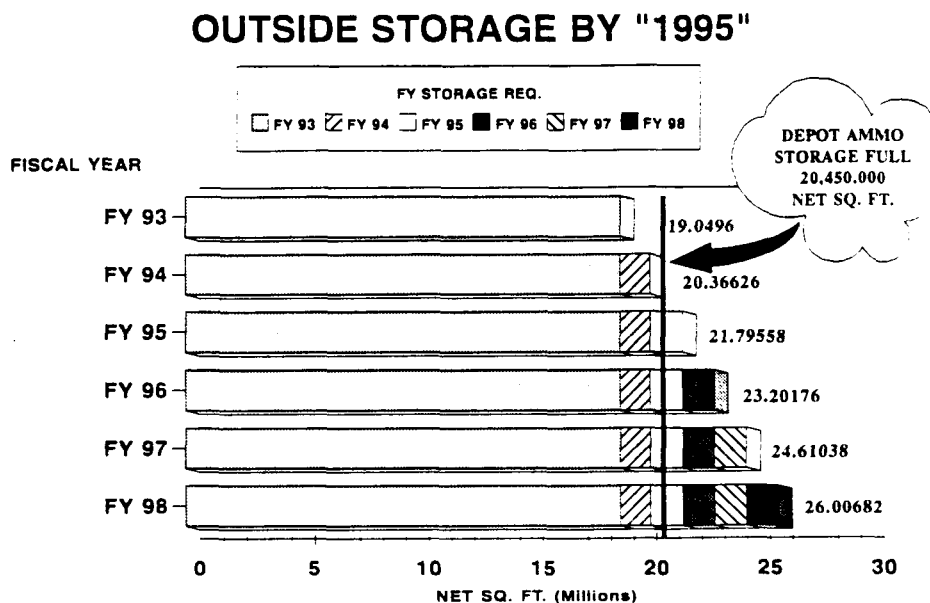


Figure 20

5. Conclusions.

a. **Inventory Accountability.** During the on-site visits, efforts were made to validate the conclusions reached during the data collection phase of the study. *Figure 21 (on the next page)* shows the current posture of the inventory as it was found throughout the data collection and during the on-site visits. Today's accuracy is 13% below the DA established goal and will continue to drop. Data indicate that accountability degradation will worsen over time if funding levels continue at their current rate. By FY 96, it will be difficult to know what we have, where it is located, and what condition it is in. The inventory program as currently arranged is complex

and expensive. It will be extremely difficult to provide future funding to conduct inventory as we have in the past. A real need exists to perform a valid, total, annual inventory. If unable to do so, public law needs to be changed. An organized approach to a simple program for accomplishment of these needs is required. A streamlined, commercial retail-type inventory could satisfy accountability requirements and reduce the current cost requirements.

INVENTORY ACCOUNTABILITY

■ CURRENT POSTURE

- ✓ 85% RECORD ACCURACY TO PHYSICAL COUNT
- ✓ LOCATION SURVEY COMPLETION 15%
- ✓ 77% OF RECORDS CAN BE AUDITED
- ✓ 33% OF MROs PROCESSED WITHOUT LOT SUBSTITUTION
- ✓ INVENTORY CATALOG DATA 90% ACCURATE

■ FUTURE TRENDS BY FY 96 WITH CURRENT FUNDING LEVELS

- ✓ 75% RECORD ACCURACY TO PHYSICAL COUNT
- ✓ SURVEY COMPLETION WILL BE 3% (CAT I & II ONLY)
- ✓ RECORDS CONFIDENCE WILL EXIST FOR ONLY SURVEYED ITEMS
- ✓ LOT SUBSTITUTIONS WILL NEARLY EQUAL MROs PROCESSED
- ✓ INVENTORY CATALOG DATA ACCURACY WILL BE APPROXIMATELY 82%

Figure 21

b. **Surveillance.** As indicated in *Figure 22 (below)*, essential must-fund safety programs and the relatively inexpensive test program for mines, pyrotechnics, and demolition items (\$200K) are funded to requirement at this time.

The significant failure rate (2-19 %) encountered during the last several years for all of these programs warrants serious

concerns over possible program abandonment. In order to avoid losing confidence and knowledge of stockpile reliability and serviceability, (1) action should be taken to prevent further backlog growth of untested/uninspected items and (2) assure that the serviceability and reliability

SURVEILLANCE

MAJOR PROGRAM*	CURRENT POSTURE	FUTURE TRENDS
✓ LARGE CAL TEST	58% TESTED	0% TESTED BY FY 96
✓ SMALL CAL TEST	60% TESTED	20% TESTED BY FY 97
✓ DEPOT SURV LOT INSPECTION	80% INSPECTED	55% INSP BY FY 97
✓ SAFETY TESTING (CADS/PADS & PROPELLANT)	100% FUNDED	100% FUNDED
✓ MINES, PYROS, DEMO TESTING	100% FUNDED	100% FUNDED

* BASED ON HISTORICAL DATA. THERE IS A 2-19% FAILURE RATE FOR LOTS TESTED IN THE STOCKPILE SURVEILLANCE SAMPLING PROGRAMS

Figure 22

of our top warfighter items are always known with a high degree of confidence.

c. **Maintenance.** Based on the specific assessments, the maintenance team concluded that AMCCOM and DESCOM installations at present have sufficient facilities, resources, and manpower to support joint service maintenance requirements. The accomplishment of major maintenance is dependent on each service's funds being provided to SMCA.

Requirements by the services drive accomplishment. Any backlogs are justified to the service by the installation. Workload is based on Integrated Conventional Ammunition Plan (ICAMP) projections which provide stable planning and execution of projects. Non-reimbursable minor maintenance in recent years has been funded at year-end by whatever excess funds were available. On the average, 51% of the annual high priority requirement by all services is funded. Loss of funding for maintenance, Voluntary Early Retirement Authority (VERA)/Voluntary Separation Incentive Pay (VSIP), reorganizations, and Reductions in Force (RIFs) result in loss of skilled and experienced maintenance personnel capable of quality workmanship.

MAINTENANCE

■ CURRENT POSTURE

- ✓ EXISTING CAPACITY AND CAPABILITY CAN SUPPORT MINIMUM REQUIREMENTS
- ✓ MAJOR MAINTENANCE PROGRAM SUPPORT IS STABLE AND SATISFACTORY
- ✓ NON-REIMBURSIBLE MINOR MAINTENANCE FUNDED WITH YEAR-END DOLLARS WITH ACCOMPLISHMENT OF 51% OF ALL SERVICES HIGH PRIORITY

■ FUTURE TRENDS

- ✓ MANPOWER/SKILL LOSSES WILL DEGRADE CAPABILITY TO SUPPORT REQUIREMENTS
- ✓ PLANNED MAINTENANCE (MAJ & MIN) FUNDING LEVELS WILL ACCOMPLISH 30% OF FY 94 AND 26% OF OUTYEAR REQUIREMENTS

Figure 23

As noted in *Figure 23 (above)*, planned levels of funding for services' major and SMCA minor maintenance will accomplish only 30 % of FY 94 and 26 % of the service's outyear high priority maintenance requirements. Use by the activities of a listing of the services "must do" items will assure that those items will receive appropriate prioritization for inspection and maintenance. Funding of the minimum recommended levels of maintenance ensures that the services priority warfighting items are maintained in a ready-to-use condition.

d. **Rewarehousing.** *Figure 24 (on the next page)* depicts the current storage posture of the stockpile in regards to occupancy level and the utilization of space. The future occupancy levels

REWAREHOUSING

■ CURRENT POSTURE

- \ 93% OF AVAILABLE SPACE IS OCCUPIED
- \ 75% OF OCCUPIED SPACE IS OPTIMIZED
- \ 79% OF "TOP 20" LOTS ARE CONSOLIDATED
- \ 97% OF STOCKPILE IS UNDER COVERED STORAGE

■ FUTURE TRENDS

- \ 100% OCCUPANCY OF COVERED STORAGE SPACE DURING FY 95
- \ 21% OF STOCKPILE IN OPEN STORAGE IN FY 98

Figure 24

are based on no funding for rewarehousing or space-gaining initiatives. The amount of ammunition assets that will be stored outside in the future is driving the need to more effectively utilize current storage space. A potential source of ammunition storage exists at various installations. The installations have existing structures which can be upgraded for ammunition storage. Optimization of vertical storage space can be enhanced by the use of storage aids/tools to fully utilize the capacity of structures.

e. **Explosives Safety.** Generally, explosives safety has not declined significantly despite reduced resources. This is attributable to the design of most items having considered probable unfavorable storage, handling, and use conditions. Additionally, there is a long-standing ammunition community commitment to employee training regarding the inherent hazards of ammunition operations. As emphasized in *Figure 25 (below)*, personnel turnover driven by reshaping will increase the level of risk in the future due to the loss of expertise. If materiel is moved to outside storage, initial risk will increase as will the level of damage should a mishap occur. Without adequate funding in future test and inspection programs, the end user will be presented with

EXPLOSIVES SAFETY

■ CURRENT POSTURE

- \ SUCCESSFULL EXPLOSIVES SAFETY PROGRAM-LOW ACCIDENT RATE
- \ STOCKPILE (AMMUNITION ITEMS) SAFE FOR STORAGE
- \ TRAINING PLANS IN PLACE AND ARE EFFECTIVE

■ FUTURE TRENDS

- \ VERA/VISIP, REALIGNMENT AND REORGANIZATION = PERSONNEL TURMOIL
- \ INCREASING RISK (PERSONNEL SAFETY) WITH LOSS OF EXPERTISE
- \ INCREASING RISK (EXPLOSIVES SAFETY) WITH OUTSIDE STORAGE
- \ INCREASING RISK IF STOCKPILE RELIABILITY PROGRAM REMAINS UNFUNDED
 - TO USER
 - IN STORAGE

Figure 25

materiel for which the confidence level in basic reliability is unknown or surely declining. To assure continued safe operations throughout the ammunition life cycle, the baseline stockpile readiness functions should be funded, and a continued emphasis on ammunition training should be maintained.

READINESS

■ CURRENT POSTURE

- ✓ RESOURCES FOCUSED ON SHIPPING/RECEIVING
- ✓ MINIMAL INVENTORY/REWAREHOUSING DONE
- ✓ MEETING QUALITY/SAFETY REQUIREMENTS
- ✓ RELYING ON SKELETON/TEMPORARY WORKFORCE
- ✓ SUSTAINABILITY CAPACITY SHOWING SIGNS OF DEGRADATION

■ FUTURE TRENDS

- ✓ WITH PROJECTED RESOURCES - READINESS WILL DECLINE
- ✓ SUPPORT TO CUSTOMERS WILL SUFFER AND BECOME MORE EXPENSIVE
- ✓ INTEGRITY/ACCURACY OF MANAGEMENT DATA WILL DETERIORATE

Figure 26

f. **Readiness.** As *Figure 26 (above)* describes, based on limited resources, most efforts are focused on meeting shipping and receiving requirements. Some inventory is being accomplished on Categories I and II security items.

Rewarehousing is generally being done only to facilitate receipt and shipment actions. The materiel to be provided to the customer are generally of acceptable quality and day-to-day operations are conducted safely. Individual installations are beginning to be "One Deep" in key jobs and some installations are relying heavily on temporary employees to do routine work.

The previous posture is eroding and symptoms of degradation are visible in key management indicators: e.g., denials, lot substitutions, etc. Despite having a dedicated workforce with a long history of responsive support, the ammunition organizations will become increasingly unable to provide responsive, efficient support to customers as resources decline. Once again, funding a baseline level for stockpile readiness functions will preclude loss of existing support capability.

g. **Summary.** All functional, safety, and readiness conclusions from previous pages are summarized at *Figure 27 (on the next page)*. It reflects our current posture and depicts future trends based on the current projected funding level. Our current posture reflects an inventory accountability program that is beginning to slip, a decreasing level of confidence in the reliability of the stockpile, a maintenance capacity/capability that is adequate to meet projected

requirements, a stockpile being stored safely, but a sustainability that is showing signs of deterioration. In the future, we anticipate our inventory accountability problems to continue to mount, stockpile reliability confidence level will continue to decline, maintenance capability will decline, and the volume of "Go-To-War" assets requiring maintenance will continue to increase.

Our available storage space will be full, we will be forced to store an increasingly large portion of the stockpile outside, personnel and facilities will be at greater and greater levels of risk from a degrading stockpile, and our "Go-To-War" readiness posture will become more and more suspect.

The body of the WASP Report includes plans of action to resolve our major concerns with the way the program is headed. These plans include: revamping our current inventory program to provide an appropriate level of accountability, performing testing and inspection on our warfighters to gain an acceptable level of confidence in their reliability, performing maintenance on the service-designated high priority assets to keep them in a "Go-To-War" status, promoting the use of storage aids and providing management tools that will enable the storage base to be used more efficiently, and finally, providing the needed funding and personnel resources to support the services in their need for power projection.

SUMMARY

■ CURRENT POSTURE

- ✓ INVENTORY ACCOUNTABILITY SLIPPING
- ✓ STOCKPILE CONFIDENCE LEVEL SLIPPING
- ✓ ADEQUATE MAINTENANCE CAPACITY/CAPABILITY
- ✓ MAJORITY OF STOCKPILE OPTIMALLY STORED IN COVERED SPACE
- ✓ STOCKPILE SAFETY STORED
- ✓ SUSTAINABILITY ON THE DECLINE

■ FUTURE TRENDS

- ✓ INVENTORY PROBLEMS CONTINUE TO MOUNT
- ✓ STOCKPILE CONFIDENCE LEVEL CONTINUES TO DECLINE
- ✓ MAINTENANCE CAPABILITY DECLINES/REQUIREMENTS INCREASE
- ✓ COVERED SPACE FULL/GROWING LEVELS OF ASSETS STORED OUTSIDE
- ✓ PERSONNEL/FACILITY RISK FACTORS INCREASING
- ✓ READINESS WILL CONTINUE TO DECLINE

Figure 27

MAJOR RECOMMENDATIONS

■ INVENTORY ACCOUNTABILITY

- ✓ ORGANIZE PLAN FOR RESTRUCTURING INVENTORY

■ SURVEILLANCE

- ✓ FOCUS PROGRAM ON READINESS OF DEFINED WARFIGHTER ITEMS

■ MAINTENANCE

- ✓ DEVELOP STRATEGIC MAINTENANCE PLAN IDENTIFYING WARFIGHTER MAINTENANCE REQUIREMENTS

■ REWAREHOUSING

- ✓ INSTITUTE STORAGE SPACE MANAGEMENT UTILIZATION PROGRAM USING MODERN TECHNOLOGY

■ GENERAL

- ✓ PROMOTE NEW WAYS OF DOING BUSINESS; RED TEAM, MIDAS, VISTA, ETC.
- ✓ SUPPORT INITIATIVES TO REDUCE STOCKPILE; E.G., TRAINING, DEMIL. FMS. STOCKPILE CONVERSION

Figure 28

6. Recommendations.

a. **Major Recommendations.** As a result of the individual and collective assessments, the WASP Team has a series of major recommendations as illustrated on *Figure 28 (above)*. In the area of Inventory Accountability, the confidence in accountable records is in danger of dropping to an unacceptable level. With funding trends as they are, the reality of continuing the present program is fading, yet accountability is a requirement. A more simplistic, economical approach is available and should be supported.

In addition to accomplishing all essential safety functions, the Surveillance Program should be managed and structured to assure that the condition of essential "Go-To-War" stocks is constantly known with a high degree of confidence. Any funds authorized in addition to the safety programs should be devoted to a prioritized listing of warfighters.

In the area of Maintenance, a strategic plan will assure that minimum, but sufficient, resources are allocated to maintain the services highest priority items. To optimize the use of increasingly scarce storage space, ammunition organizations should implement a PC-driven data base system which can be easily maintained/used at the various installation levels to quickly access the stockpile in storage on a day-to-day basis. This initiative will improve the current storage management methodology to more accurately reflect storage space utilization as it applies to the

current stockpile: e.g., density factors, net-to-gross ratios, installation storage capabilities, etc.

At the most general level, decision makers should commit to promoting new ways of doing business whether they challenge current methods such as the Red Team did, offer a new way of looking at the demil inventory like the Munitions Items Disposition Action System (MIDAS) does, or place total SDS ammunition installations balance, location, condition code, and grid data on a single floppy disk such as the USADACS Visibility Information Storage Tool for Ammunition (VISTA) does.

b. **FY 94-97 Dollars Required, Recommended, and Funded.** The current Budget and Program Resources Review (BPRR) requirement and how it compares to the WASP required and recommended funding level is shown on *Figure 29 (below)*. It also displays the level of funding available for each function as we know it today within the total ammunition program.

FY 94-97 DOLLARS REQUIRED, RECOMMENDED, AND FUNDED

FUNCTION	FY 94				FY 95			
	BPRR	WASP REQ'D	WASP RECOMM	FUNDED	BPRR	WASP REQ'D	WASP RECOMM	FUNDED
INVENTORY ACCOUNTABILITY	22.2	26.5	15.5	2.2	22.2	26.5	15.0	?
SURVEILLANCE	24.7	27.9	19.3	5.1	24.4	26.7	18.2	5.0
MAINTENANCE	24.0	44.3	33.7	10.2	19.7	32.3	42.9	6.7
REWAREHOUSING	14.4	20.9	6.0	0	TBD	21.9	9.5	TBD
FUNCTION	FY 96				FY 97			
	BPRR	WASP REQ'D	WASP RECOMM	FUNDED	BPRR	WASP REQ'D	WASP RECOMM	FUNDED
INVENTORY ACCOUNTABILITY	22.2	23.0	12.0	?	22.2	23.0	12.0	?
SURVEILLANCE	24.2	25.5	17.0	4.9	25.2	24.2	15.8	4.8
MAINTENANCE	29.2	44.7	44.7	15.5	28.6	51.7	51.7	14.5
REWAREHOUSING	TBD	12.3	6.6	TBD	TBD	13.9	8.3	TBD

Figure 29

The BPRR requirement is, in some cases, a constrained requirement that is developed based on current BPRR guidance, and is generally reflective of an "executable requirement" based on

projected staffing levels, and historical levels of effort.

The WASP required level would provide for accomplishment of functions currently required in regulatory guidance, for public law, and assure a serviceable stockage objective of "Go-To-War" assets. The WASP recommended level is the minimum essential funding level required to maintain the "Go-To-War" stockpile of high priority assets as designated by each service, and provide for essential support for the remainder of the stockpile to assure a minimum level of safety, effectiveness, and efficiency. The funded level reflects the level of funding that will be applied against each function within the current ammunition program funding available.

c. **Requested Actions.** The WASP Team requests that the actions identified on *Figure 30 (below)* be taken by the JOCG. Regardless of the resource level applied, there is an urgent need to identify a DOD-prioritized list of ammunition items that will allow prudent resource application to the materiel that is needed to defend the nation. Additionally, the WASP Team believes the JOCG should support a level of effort that will assure the installations maintaining the stockpile are resourced to perform basic stockpile management functions.

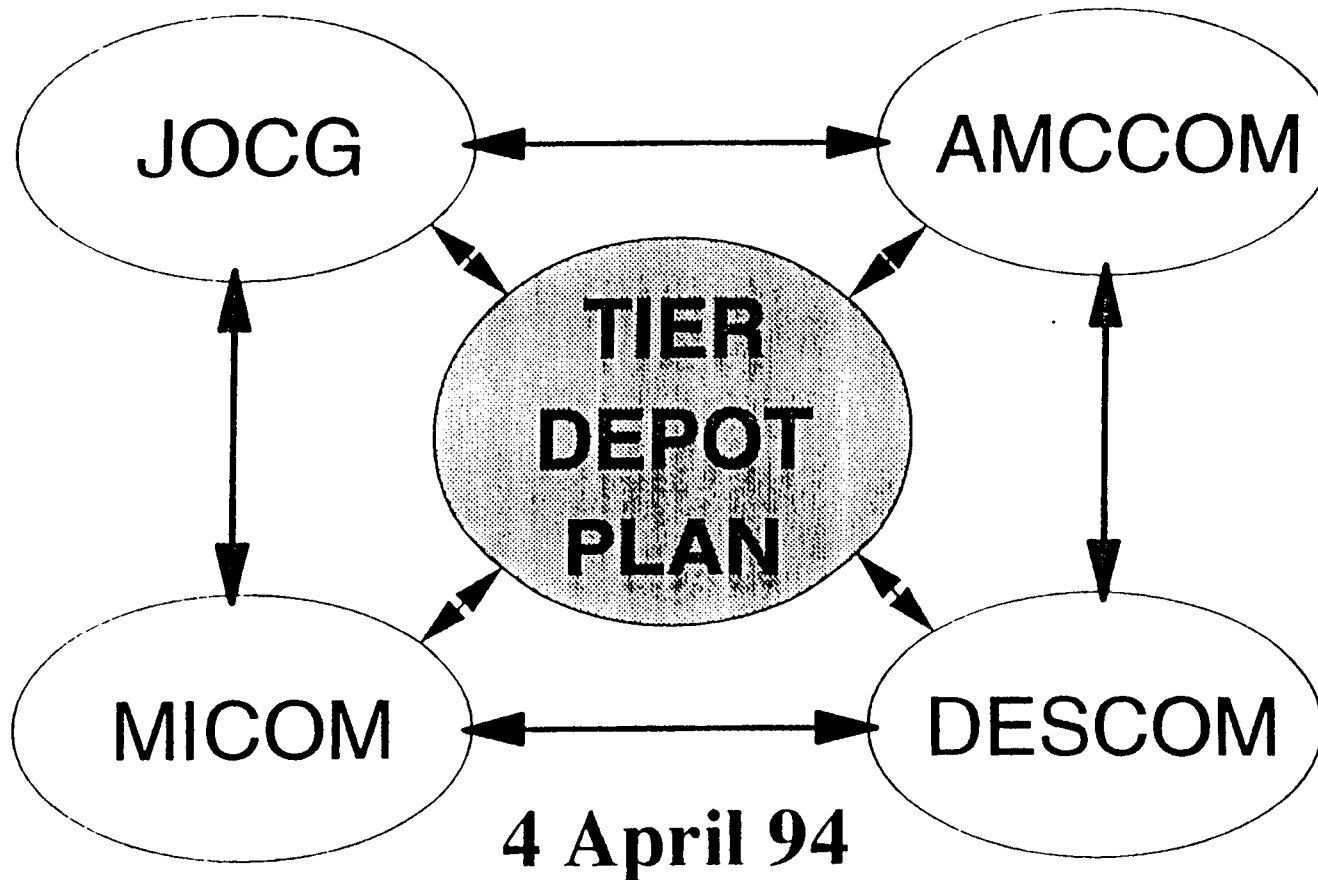
REQUEST THAT JOCG:

1. ACCEPT GENERAL VALIDITY OF WASP ASSESSMENTS.
2. SUPPORT A SINGLE, PRIORITIZED DOD ITEMS LIST TO FOCUS SMCA/SERVICE RESOURCE APPLICATION.
3. SUPPORT A "MUST-FUND" LEVEL REQUIRED TO OPEN INSTALLATION DOORS AND PERFORM BASIC STOCKPILE MANAGEMENT FUNCTIONS.

Figure 30

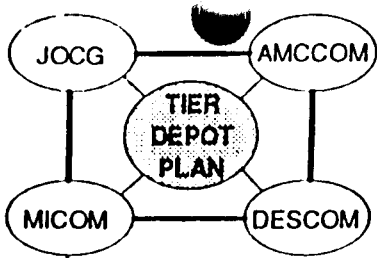
The complete results of the WASP Review and Assessment are provided in the following Chapters and Appendices as an aid to key decision makers in their ongoing efforts to effectively apply limited resources to essential SMCA wholesale stockpile readiness functions.

TIER DEPOT ANALYSIS



INTEGRATED AMMUNITION STOCKPILE MANAGEMENT PLAN

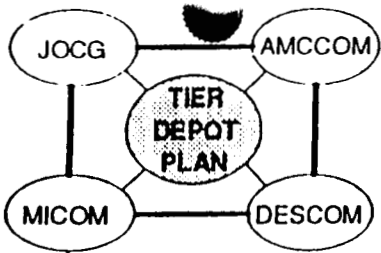
COL Scott Hull, HQ AMCCOM
Mr Ron Herter, HQ, DESCOM



Tier Depot Analysis

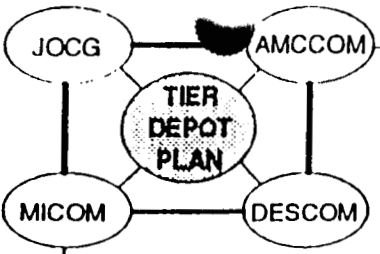
OUTLINE

- Background
- Scope / Objectives
- Quantitative Analysis
- Qualitative Considerations
- Service / Installation Comments
- Conclusion
- Recommendation

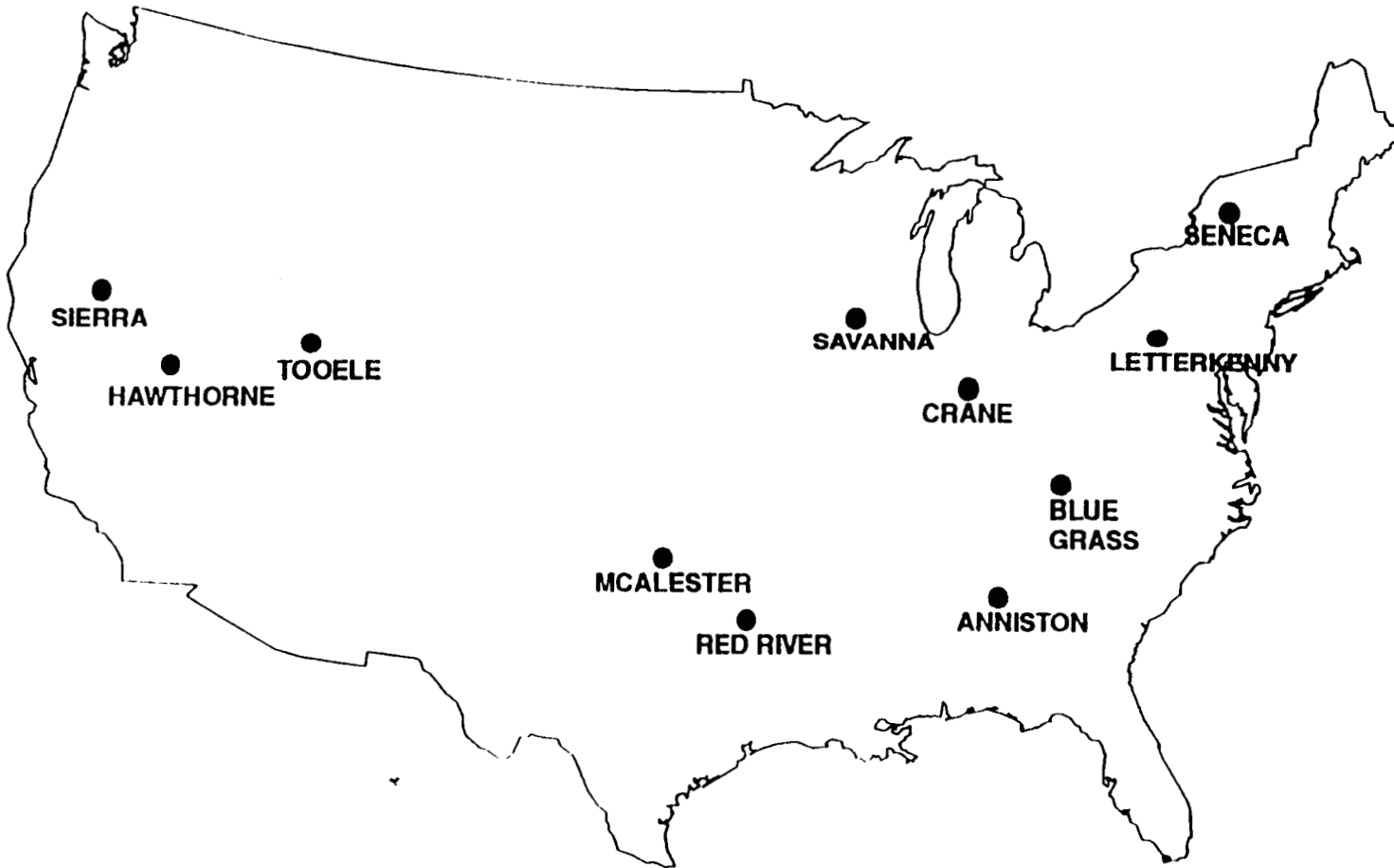


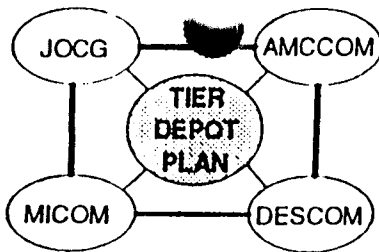
BACKGROUND

- **OCT 93**
 - Study Assessment Ranking
- **NOV 93**
 - Simulation Conducted (All Services, MICOM, DESCOM)
- **17-18 FEB 94**
 - Joint Service Working Group (All Services, MICOM, DESCOM)
 - Developed Criteria and Identified Weights
 - Performed Preliminary Analysis
- **21 FEB - 4 APR 94**
 - Developed Detailed Analysis



SCOPE

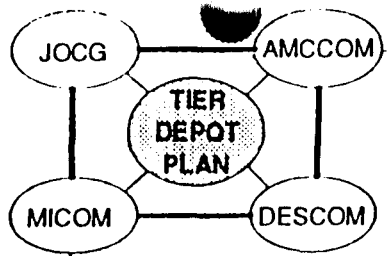




Tier Depot Analysis

OBJECTIVES

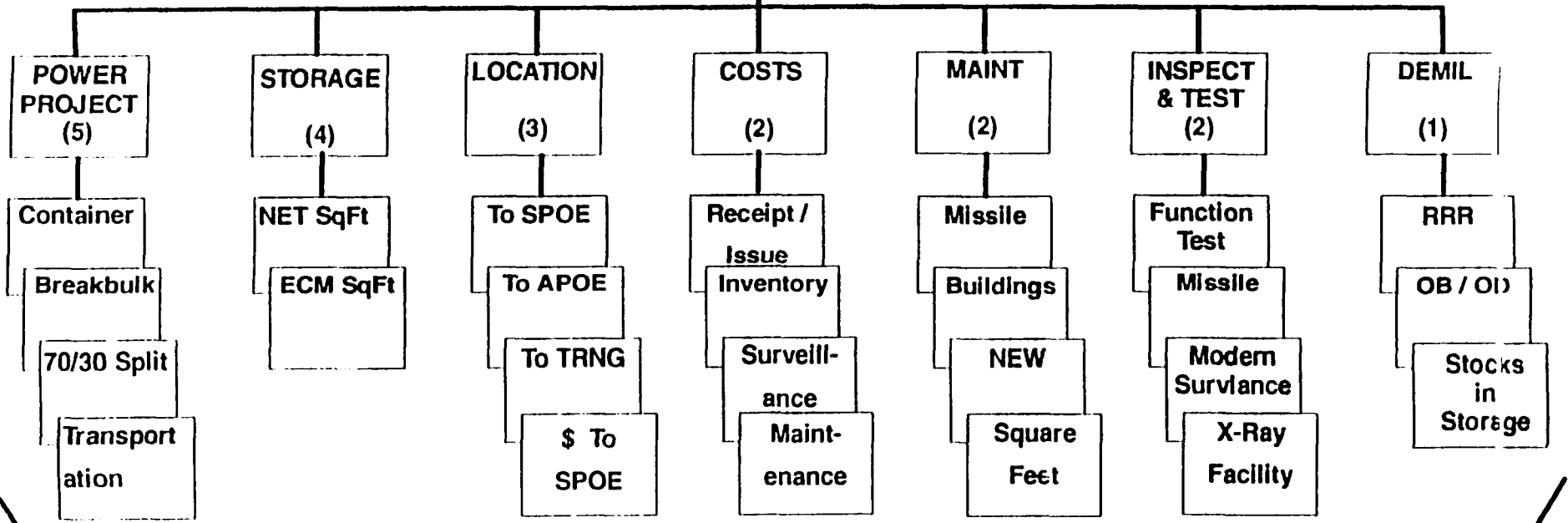
- To Support and Store Training and Power Projection Requirements for Two MRC's as Directed in DOD Planning Guidance
- To distribute Stockpile Within Geographically Oriented Regions
 - EAST
 - CENTRAL
 - WEST
- To Assure End State Asset Distribution Maximizes Outloading Capabilities
- To Develop Storage Base Infrastructure That Supports the Depot Tiering Concept



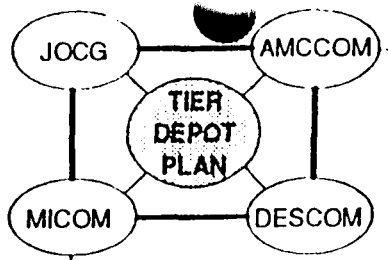
Tier Depot Analysis

ANALYTICAL APPROACH

OVERALL RANKINGS



SUPPORTING QUANTITATIVE DATA



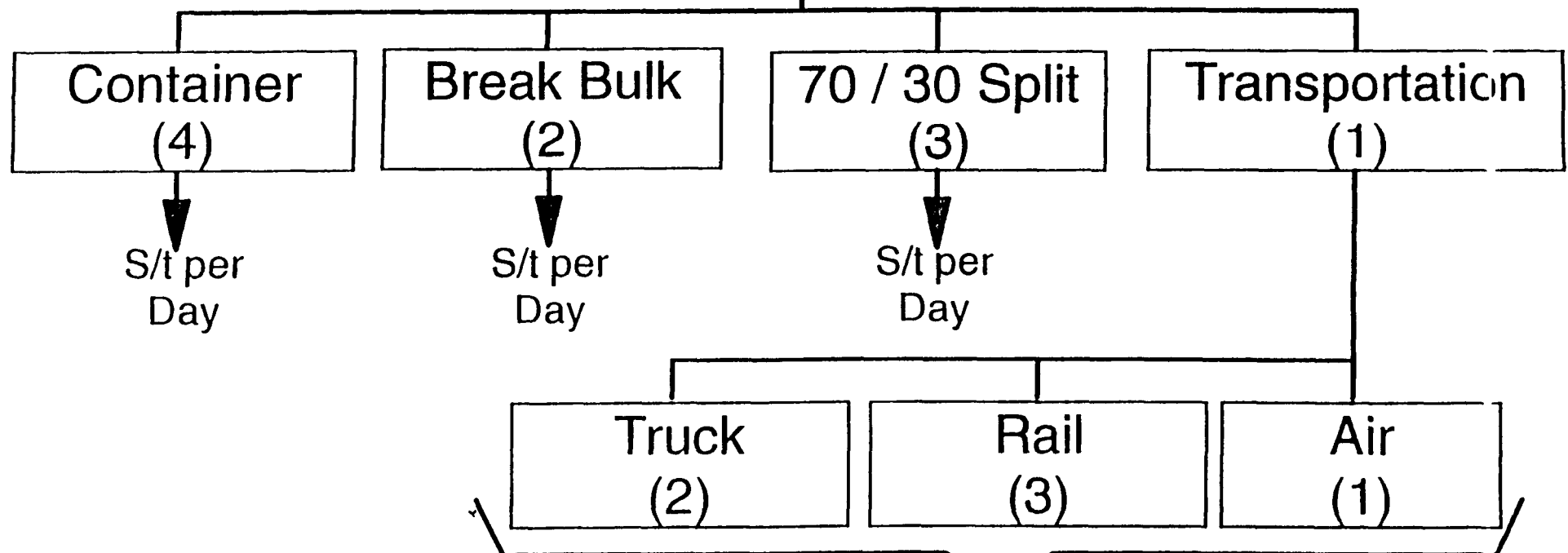
Tier Depot Analysis

ANALYTICAL APPROACH

• POWER PROJECTION

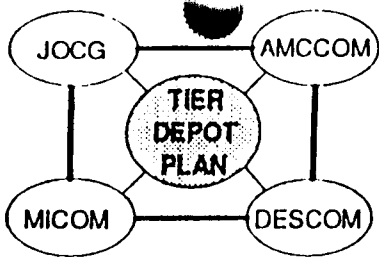
▸ Capability of Installation to Load and Ship Material During a Contingency

POWER PROJECTION
(5)



Assessments:

- Good
- Fair
- Poor



Tier Depot Analysis

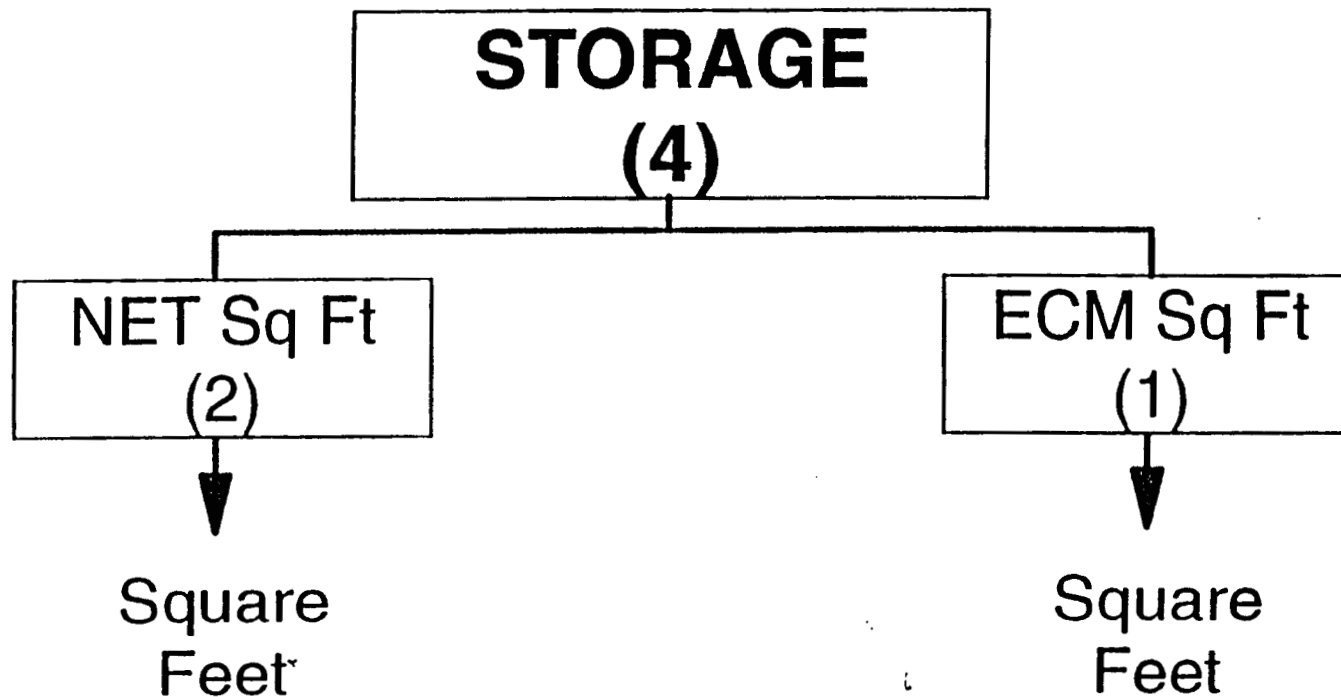
POWER PROJECTION CAPABILITIES

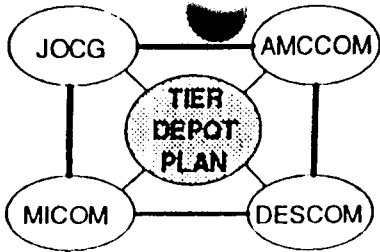
	Container Score	Weight	Brk Bulk Score	Weight	70/30 Split Score	Weight	Transport Score	Weight	Total Score	Adjusted Score
		4.0		2.0		3.0		1		
ANAD	2.9	11.6	0.8	1.6	2.4	7.2	9	9	29.4	3.3
BGAD	5.9	23.6	3.7	7.4	6.5	19.5	11	11	61.5	6.8
CAAA	2.2	8.8	11.0	22.0	9.8	29.4	11	11	71.2	7.9
HWAAP	2.6	10.4	1.2	2.4	2.6	7.8	5	5	25.6	2.9
LEAD	1.5	6.0	3.4	6.8	3.5	10.5	7	7	30.3	3.4
MCAAP	11.0	44.0	5.4	10.8	11.0	33.0	11	11	98.8	11.0
RRAD	2.1	8.4	2.8	5.6	3.4	10.2	8	8	32.2	3.6
SEDA	0.3	1.2	1.0	2.0	1.0	3.0	6	6	12.2	1.4
SIAD	3.2	12.8	1.9	3.8	3.5	10.5	10	10	37.1	4.1
SVDA	5.6	22.4	1.7	3.4	4.8	14.4	8	8	48.2	5.4
TEAD	3.3	13.2	8.4	16.8	8.5	25.5	10	10	65.5	7.3

ANALYTICAL APPROACH

- **STORAGE**

- ▶ The Installations Capability to Store Class V Materiel

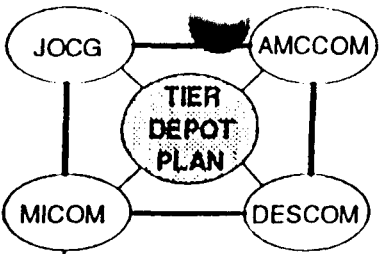




Tier Depot Analysis

STORAGE CAPABILITIES

	NET SqFt Score	Weight	ECM SqFt Score	Weight	Total Score	Adjusted Score
		2.0		1.0		
ANAD	3.3	6.6	4.0	4.0	10.6	3.8
BGAD	3.1	6.2	3.4	3.4	9.6	3.4
CAAA	8.8	17.6	8.9	8.9	26.5	9.4
HWAAP	11.0	22.0	8.7	8.7	30.7	10.9
LEAD	3.0	6.0	3.6	3.6	9.6	3.4
MCAAP	10.0	20.0	11.0	11.0	31.0	11.0
RRAD	2.4	4.8	2.7	2.7	7.5	2.7
SEDA	2.0	4.0	1.9	1.9	5.9	2.1
SIAD	3.5	7.0	3.0	3.0	10.0	3.5
SVDA	3.4	6.8	1.4	1.4	8.2	2.9
TEAD	3.4	6.8	3.4	3.4	10.2	3.6

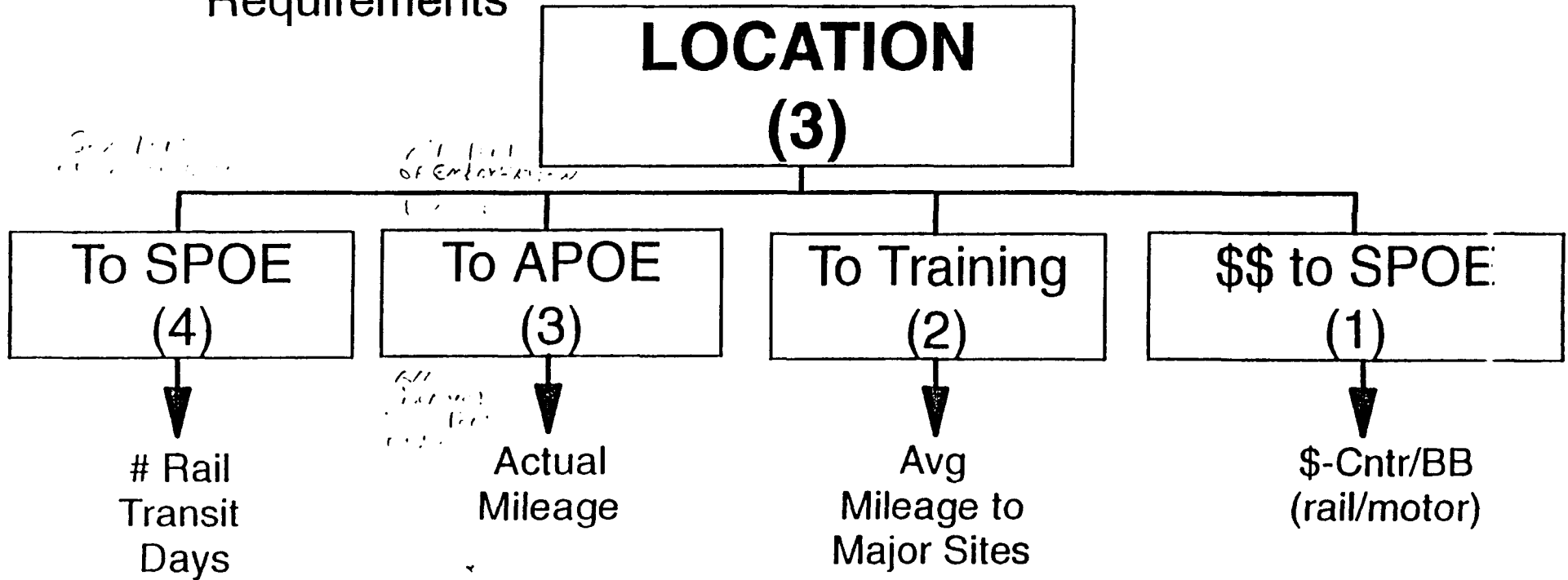


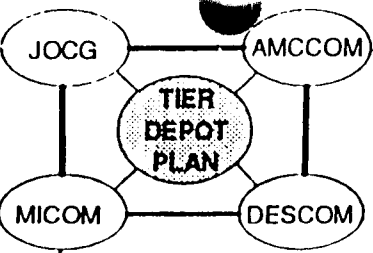
Tier Depot Analysis

ANALYTICAL APPROACH

- LOCATION

- ▶ Installations Geographic Orientation to Support Movement Requirements

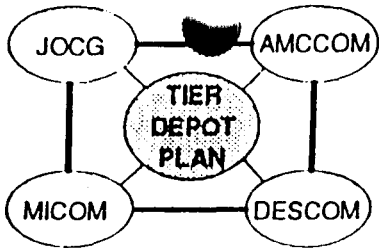




Tier Depot Analysis

LOCATION

	To SPOE Score	Weight	To APOE Score	Weight	To Tmg Score	Weight	Cost to SPOE Score	Weight	Total Score	Adjusted Score
		4.0		2.0		3.0		1.0		
ANAD	5.5	22.0	5.2	10.4	11.0	33.0	7.7	7.7	73.1	8.0
BGAD	4.4	17.6	3.6	7.2	8.4	25.2	8.4	8.4	58.4	6.4
CAAA	3.1	12.4	2.8	5.6	8.4	25.2	7.0	7.0	50.2	5.5
HWAAP	7.3	29.2	6.6	13.2	8.7	26.1	9.2	9.2	77.7	8.5
LEAD	4.4	17.6	11.0	22.0	8.6	25.8	8.4	8.4	73.8	8.1
MCAAP	3.1	12.4	1.9	3.8	9.8	29.4	4.4	4.4	50.0	5.5
RRAD	2.2	8.8	2.1	4.2	8.5	25.5	4.9	4.9	43.4	4.7
SEDA	3.7	14.8	8.5	17.0	7.2	21.6	7.2	7.2	60.6	6.6
SIAD	11.0	44.0	8.5	17.0	9.6	28.8	11.0	11.0	100.8	11.0
SVDA	3.1	12.4	2.1	4.2	6.7	20.1	4.9	4.9	41.6	4.5
TEAD	5.5	22.0	2.9	5.8	8.4	25.2	6.6	6.6	59.8	6.5

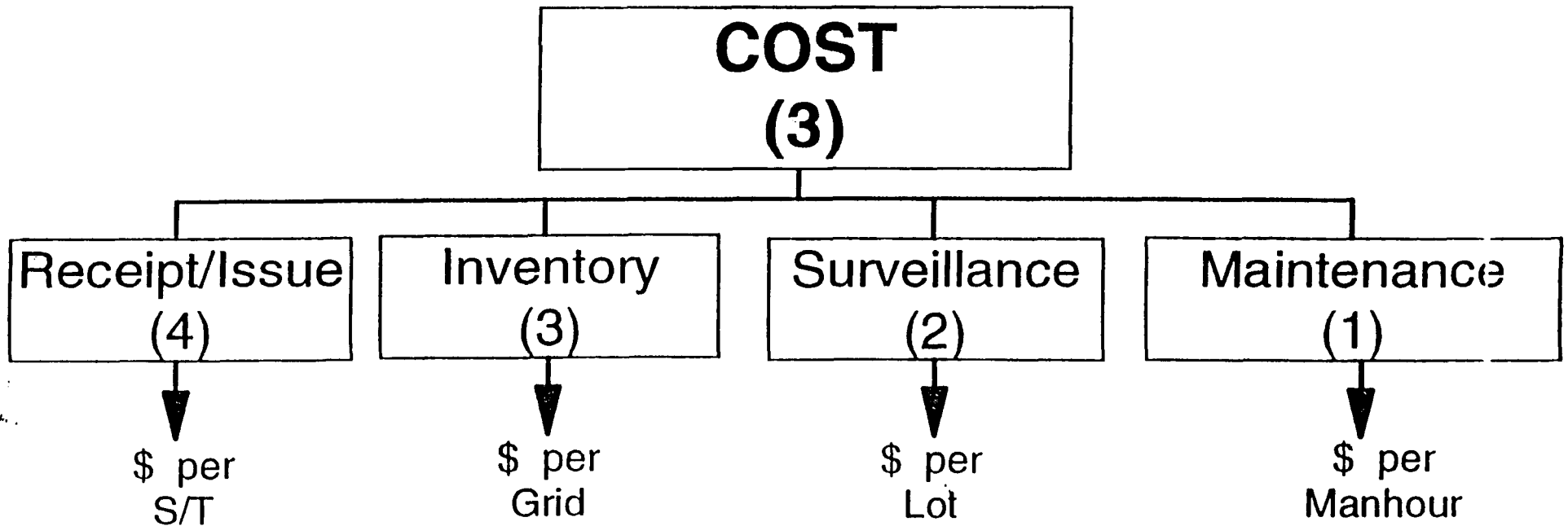


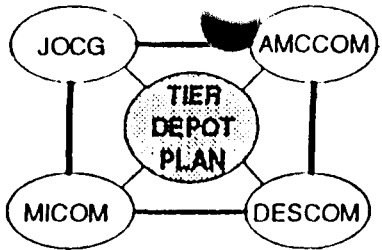
Tier Depot Analysis

ANALYTICAL APPROACH

- **COST**

- Installations Cost to Perform Ammunition Operations

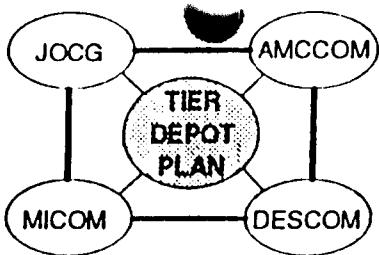




Tier Depot Analysis

COSTS

	Rec/Iss Score	Weight	Inv/Grd Score	Weight	Surv/Lot Score	Weight	Maint Fix Score	Weight	Total Score	Adjusted Score
		4.0		3.0		2.0		1.0		
ANAD	3.0	12.0	4.6	13.8	4.4	8.8	8.2	8.2	42.8	5.5
BGAD	5.9	23.6	1.3	3.9	5.2	10.4	6.3	6.3	44.2	5.7
CAAA	11.0	44.0	6.2	18.6	7.1	14.2	9.1	9.1	85.9	11.0
HWAAP	4.9	19.6	1.7	5.1	11.0	22.0	7.2	7.2	53.9	6.9
LEAD	5.6	22.4	4.0	12.0	3.6	7.2	11.0	11.0	52.6	6.7
MCAAP	6.8	27.2	2.4	7.2	10.9	21.8	7.6	7.6	63.8	8.2
RRAD	5.5	22.0	11.0	33.0	3.2	6.4	7.6	7.6	69.0	8.8
SEDA	5.0	20.0	0.7	2.1	2.0	4.0	4.2	4.2	30.3	3.9
SIAD	5.2	20.8	1.2	3.6	4.1	8.2	6.3	6.3	38.9	5.0
SVDA	6.5	26.0	0.6	1.8	3.0	6.0	4.6	4.6	38.4	4.9
TEAD	6.0	24.0	2.4	7.2	5.8	11.6	6.7	6.7	49.5	6.3

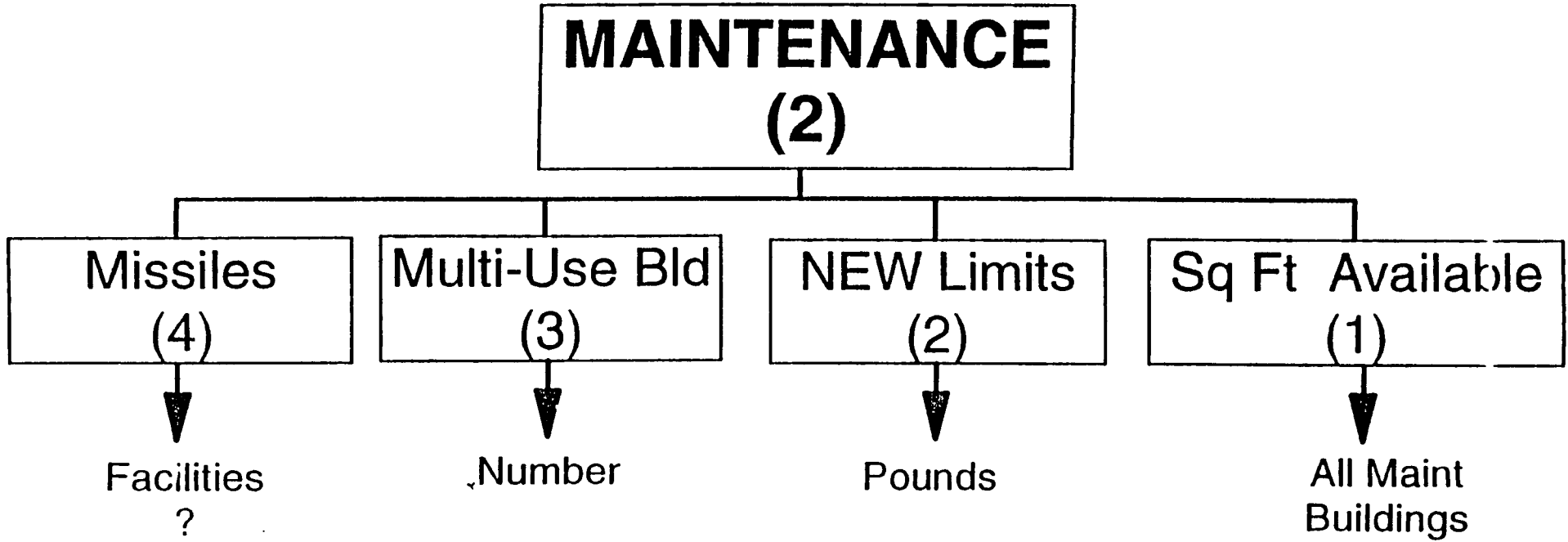


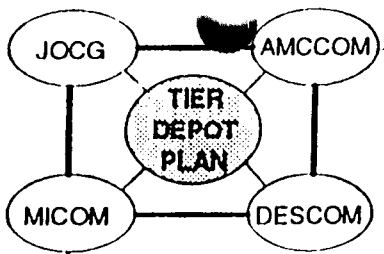
Tier Depot Analysis

ANALYTICAL APPROACH

- MAINTENANCE

- Installations Capabilities for Performing Major Ammunition Maintenance

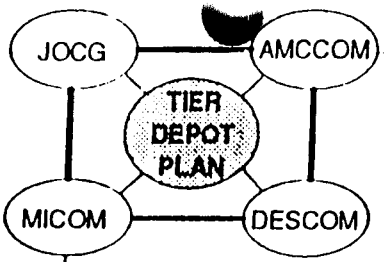




Tier Depot Analysis

MAINTENANCE

	Missile Score	Weight	MultUseBld Score	Weight	Total NEW Score	Weight	Total SqFt	SqFt Wt	Total Score	Adjusted Score
		4		3.0		2.0		1.0		
ANAD	11	44	5.5	16.5	0.4	0.8	5.5	5.5	68.8	11.0
BGAD			4.1	12.3	1.1	2.2	6.7	6.7	21.2	3.5
CAAA			11.0	33.0	0.8	1.6	10.2	10.2	44.8	7.4
HWAAP			5.5	16.5	4.4	8.8	8.5	8.5	33.8	5.6
LEAD	11	44	1.4	4.2	0.2	0.4	1.9	1.9	50.5	8.3
MCAAP			8.3	24.9	11.0	22.0	11.0	11.0	57.9	9.5
RRAD	11	44	4.1	12.3	0.6	1.2	3.9	3.9	61.4	10.1
SEDA			1.4	4.2	0.5	1.0	1.8	1.8	7.0	1.2
SIAD			2.8	8.4	0.3	0.6	1.5	1.5	10.5	1.7
SVDA			2.8	8.4	2.2	4.4	8.9	8.9	21.7	3.6
TEAD			6.9	20.7	1.2	2.4	5.9	5.9	29.0	4.8



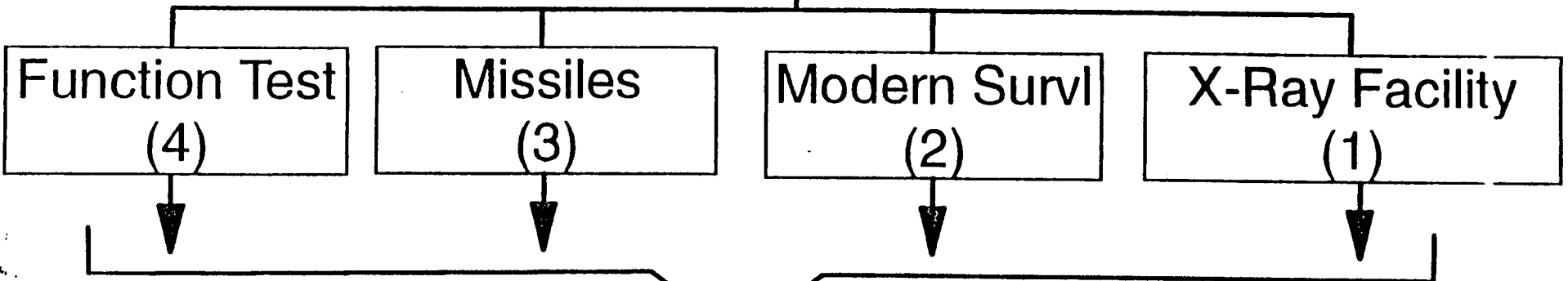
Tier Depot Analysis

ANALYTICAL APPROACH

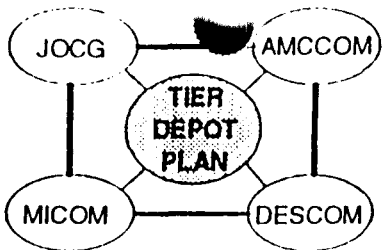
- **INSPECTION / TEST**

- Installations Capabilities Support Major Surveillance Missions

INSPECTION / TEST
(2)



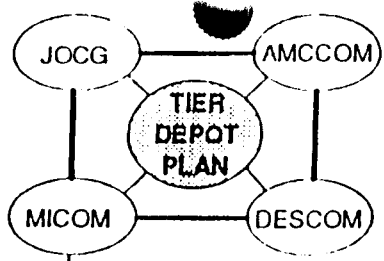
Existing
Capabilities



Tier Depot Analysis

INSPECTION / TEST

	Funct Test Score	Weight	Missiles Score	Weight	Modn Surv Score	Weight	X-Ray Cap Score	Weight	Total Score	Adjusted Score
		4		3		2		1		
ANAD			1	3					3	9
BGAD										6
CAAA	1	4			1	2			6	11
HWAAP	1	4			1	2			6	11
LEAD			1	3	1	2	1	1	6	11
MCAAP					1	2			2	8
RRAD			1	3					3	9
SEDA										6
SIAD										6
SVDA	1	4							4	10
TEAD							1	1	1	7

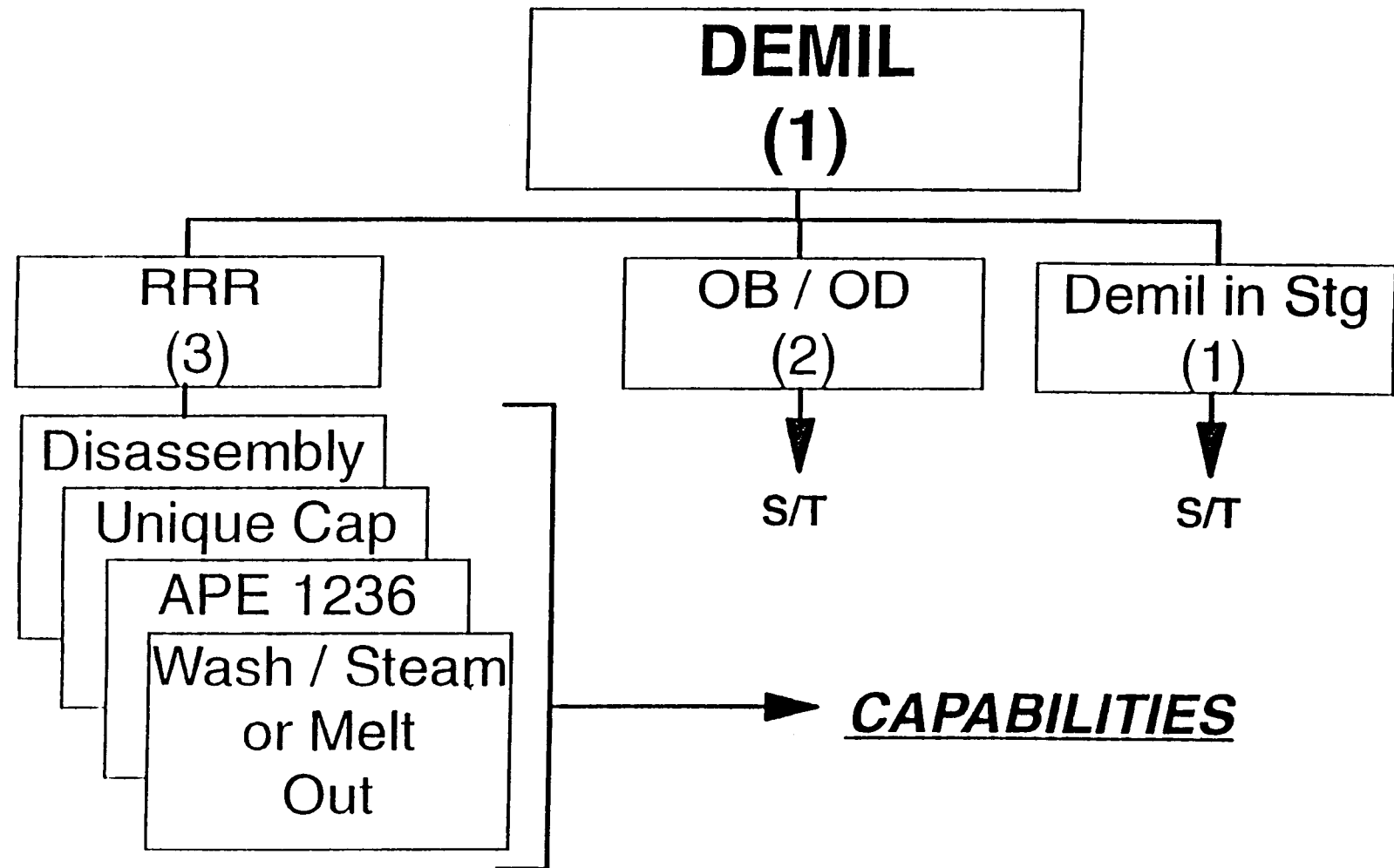


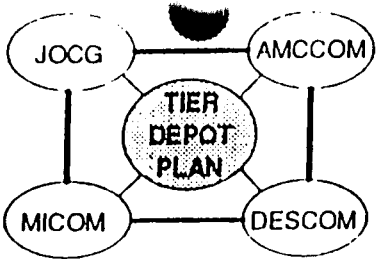
Tier Depot Analysis

ANALYTICAL APPROACH

- DEMIL

- The Installations Capability to Support Demil Operations

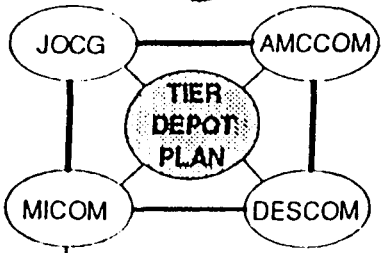




Tier Depot Analysis

DEMIL

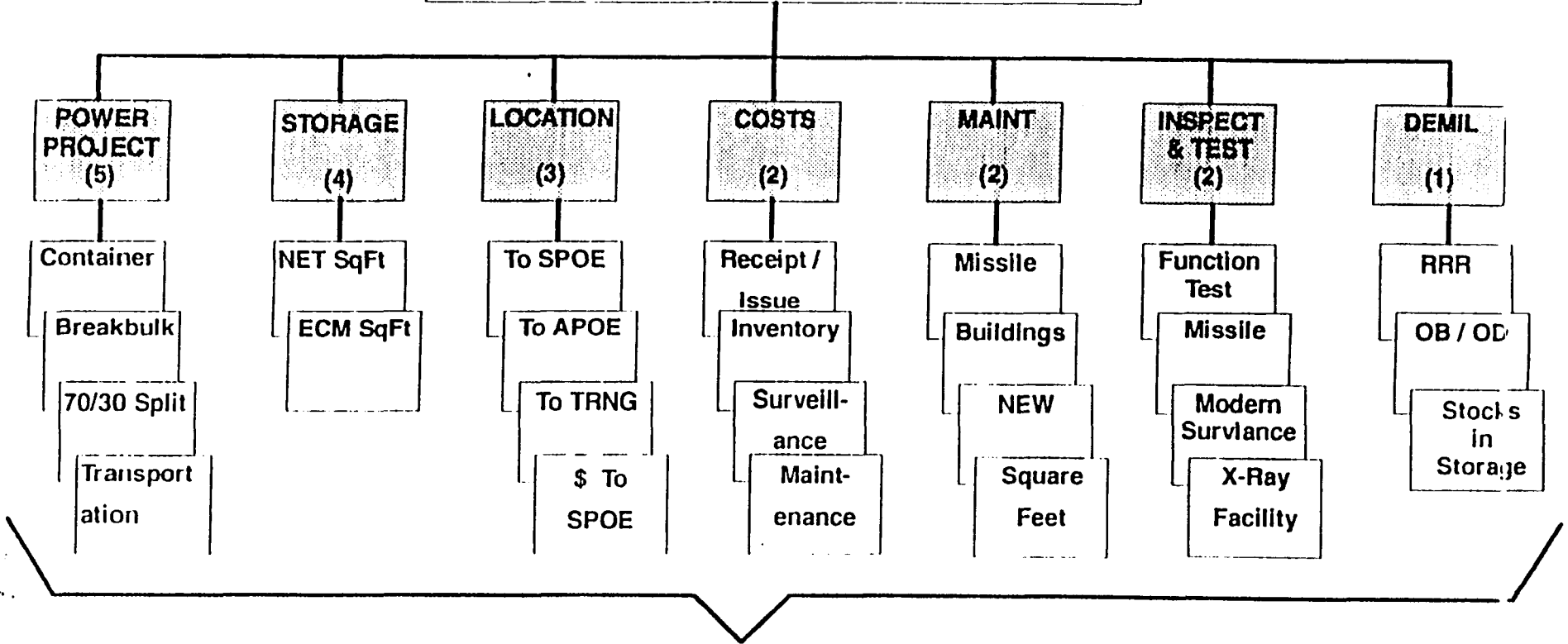
	RRR Cap Score	Weight	OBOD Cap Score	Weight	ST In Stg Score	Weight	Total Score	Adjusted Score
		3		2.0		1.0		
ANAD	7	21	0.9	1.8	2.7	2.7	25.5	6.1
BGAD	9	27	0.2	0.4	1.9	1.9	29.3	7.0
CAAA	10	30	1.1	2.2	3.3	3.3	35.5	8.5
HWAAP	11	33	0.9	1.8	11.0	11.0	45.8	11.0
LEAD	6	18	1.8	3.6	3.2	3.2	24.8	6.0
MCAAP	9	27	1.8	3.6	9.6	9.6	40.2	9.7
RRAD	8	24	0.6	1.2	0.8	0.8	26.0	6.2
SEDA	7	21	0.4	0.8	0.7	0.7	22.5	5.4
SIAD	7	21	11.0	22.0	1.7	1.7	44.7	10.7
SVDA	6	18	1.0	2.0	0.8	0.8	20.8	5.0
TEAD	8	24	4.6	9.2	0.9	0.9	34.1	8.2



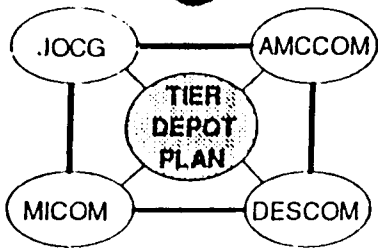
Tier Depot Analysis

QUANTITATIVE ANALYSIS

OVERALL RANKINGS



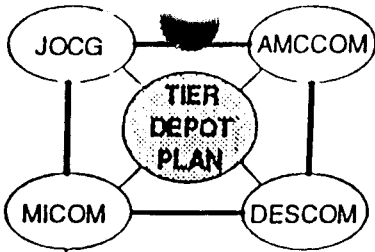
SUPPORTING QUANTITATIVE DATA



Tier Depot Analysis

SUMMARY

	POWER PROJ WEIGHTED		STORAGE CABABL WEIGHTED		LOCAT ION WEIGHTED		COSTS WEIGHTED		MAINT NANCE WEIGHTED		INSP & TEST WEIGHTED		DEMIL CAPABL WEIGHTED		TOTAL WEIGHTED	RANK
		5.0		4.0		3.0		2.0		2.0		2		1.0		
ANAD	3.3	16.5	3.8	15.2	8.0	24.0	5.5	11.0	11.0	22.0	9	18	6.1	6.1	112.8	6
BQAD	6.8	34.0	3.4	13.6	6.4	19.2	5.7	11.4	3.5	7.0	6	12	7.0	7.0	104.2	8
CAAA	7.9	39.5	8.4	37.6	5.5	16.5	11.0	22.0	7.4	14.8	11	22	8.5	8.5	180.9	2
HWAAP	2.9	14.5	10.9	43.6	8.5	25.5	6.9	13.8	5.6	11.2	11	22	11.0	11.0	141.6	3
LEAD	3.4	17.0	3.4	13.6	8.1	24.3	6.7	13.4	8.3	16.6	11	22	6.0	6.0	112.9	6
MCAAP	11.0	55.0	11.0	44.0	5.5	16.5	8.2	16.4	9.5	19.0	8	16	9.7	9.7	176.6	1
RRAD	3.6	18.0	2.7	10.8	4.7	14.1	8.8	17.6	10.1	20.2	9	18	6.2	6.2	104.9	7
SEDA	1.4	7.0	2.1	8.4	6.6	19.8	3.9	7.8	1.2	2.4	6	12	5.4	5.4	62.8	11
SIAD	4.1	20.5	3.5	14.0	11.0	33.0	5.0	10.0	1.7	3.4	6	12	10.7	10.7	103.6	9
SVDA	5.4	27.0	2.9	11.6	4.5	13.5	4.9	9.8	3.6	7.2	10	20	5.0	5.0	94.1	10
TEAD	7.3	36.5	3.6	14.4	6.5	19.5	6.3	12.6	4.8	9.6	7	14	8.2	8.2	114.8	4



Tier Depot Analysis

QUANTITATIVE RANK SUMMARY

WEST

HWAAP - 3

TEAD - 4

SIAD - 9

CENTRAL

MCAAP - 1

RRAD - 7

SVDA - 10

EAST

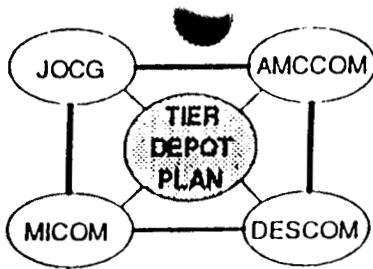
CAAA - 2

LEAD - 5

ANAD - 6

BGAD - 8

SEDA - 11



Tier Depot Analysis

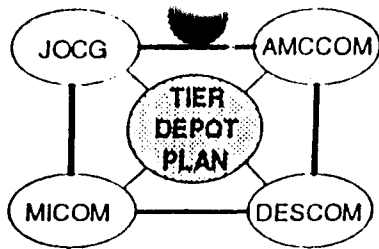
QUALITATIVE - EAST

CAAA

- Supports USMC / Navy Training
- Good Rail Access to Earth Covered Sites
- Active Production
- Tenant on Navy Installation
- Naval Warfare Support Center
- White Phosphorous Demil

ANAD

- TCM Mission
- Hub of Eastern Region Training Support
- Large Hard Iron Mission
- Tactical Missile System Mission Depot (Class V)
- Air Drop Pallets for XVIII ABN & 75th Rangers
- Contractor Presence - North American Rockwell (Hellfire)
- DLA Presence



Tier Depot Analysis

QUALITATIVE - EAST

LEAD

- Primary Mission - Tactical Missile Systems Maintenance Area (Non-Class V)
- DLA Presence
- Contractor Presence - FMC (Paladin), Raytheon (Phoenix and AMRAMM)

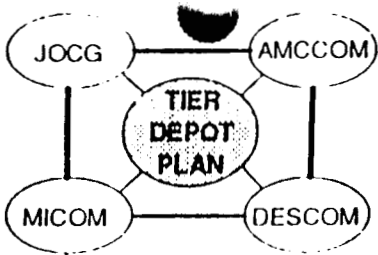
BGAD

- TCM Mission
- Contractors - Raytheon (Stinger)
- Chemical Defense Equipment Supply & Maintenance
- Potential ABL Partnership with 101st ABN

SEDA

- Radiation Decontamination Team
- Depot Activity

QUALITATIVE - CENTRAL



MCAAP

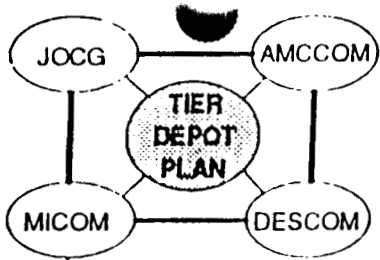
- Hub of Central and Southwest Regional Training Support
- Active Production

RRAD

- Large Hard Iron Mission
- Tactical Missile Mission Depot
- DLA Presence
- Contractor - Raytheon
- Potential ABL Partnerships w/ 1st CAV & 3rd ACR

SVDA

- APE Fabrication
- CTX for Depleted Uranium
- Depot Activity



Tier Depot Analysis

QUALITATIVE - WEST

TEAD

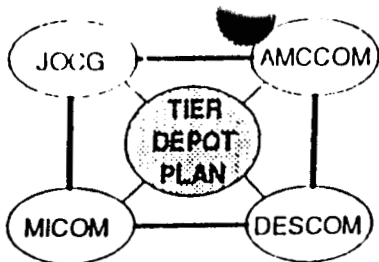
- USAF Desire to Spt Critical Airlift Mission Out of Hill AFB
- TCM Mission
- 25th & 7th ID Airdrop
- Maintenance Mission - BRAC 93
- APE Fabrication /Design / Procurement

HWAAP

- Lay Away Production
- Contractor Operated
- Western Area Demil Facility (WADF)

SIAD

- CTX for Operational Projects
- Primary Site for OB/OD Demil



Tier Depot Analysis

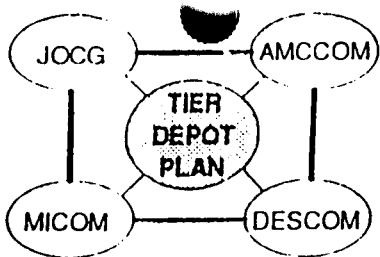
CUSTOMER COMMENTS

U.S. Air Force:

- Should be Joint Service
- Creates Bottlenecks in Early Days of War
- Destroys Current Stg & Shipping Partnerships (TEAD / Hill AFB)
- Require More Funds than Available
- Combat Readiness Should be Primary Focus
- Solution Should be Adopted by JOCG
- Criteria Should be Derived by Each Services Highest Priorities

Response:

- Joint Meeting
- JOCG Briefings
- Dist Plan / ASMP Initiatives Maximizes Capabilities
- Could Require Revised Partnerships
- Funding is Prime Consideration
- Power Projection is Top Priority
- JOCG Buy-In is a Necessity
- Priorities Derived Through Joint Decision



CUSTOMER COMMENTS

MICOM:

- Retention of RRAD as Primary Stg/Maint Site for Patriot & Hawk
- Retention of LEAD as Primary Stg Site for Army ATACMs
- Redistribution of MLRS Pods

USMC:

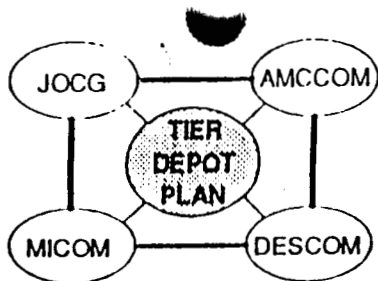
- Desire to Review & Comment on Analysis Prior to Consideration for Implementation
- Retain CAAA for Trng

NAVY:

- Retain CAAA for Trng

Response:

- Concur with Retaining Tactical Missile Maint Mission
- Concur
- End State Objective May Require Selective Redistribution
- Concur
- Concur
- Concur



Tier Depot Analysis

INSTALLATION COMMENTS

BGAD:

- Consider Impact of \$2.1M MCA Project to Improve Shipping Facility
- ABL Partnerships

LEAD:

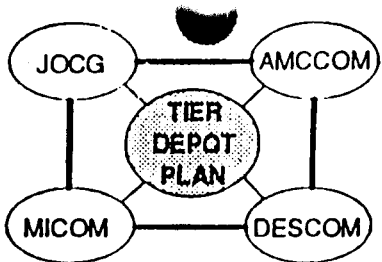
- Cost & Responsiveness Not Considered
- Maintain Tactical Missile Mission

SVDA:

- Effect on Designation as DU CTX
- Will Demil Continue?
- MLRS Pods in WR Equation?

Response:

- No Impact on Final Ranking as BGAD was Already 2nd in Power Projection
- Look at Feasibility
- Cost Criteria Added
- Responsiveness Considered in all Criteria
- Concur
- No Effect Envisioned
- No Immediate Effect on Demil
- Applicable Stocks will be Stored at Tier I/II



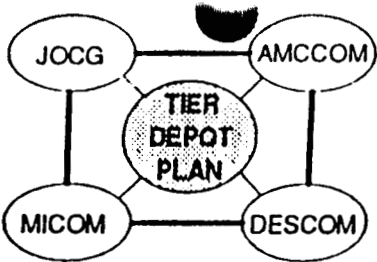
INSTALLATION COMMENTS

TEAD:

- Tier Plan Inadequate to Solve Problems
- Immediate Reduction in Workload Biases P1ng
- Important Criteria Not Used:
 - Desert Storm Performance
 - Cost Data
 - Demil Capability
- Cost Implication for Tier II/III
- DESCOM / Depot Personnel Not Included

Response:

- Tier Study Combined with FAA Recommendations Increases all Efficiencies
- No Immediate Reductions in Workload Envisioned
- All Installations Performed Superior
 - Cost Data Analyzed in Study
 - Demil Capability Criteria Added
- Concept Reduces Overall Operational Cost
- DESCOM Personnel Represented Depots



Tier Depot Analysis

CONCLUSION - EAST

• CAAA

- ▶ Quantitative: 2
- ▶ Qualitative
 - Supports USMC & USN Trng
 - Active Production
 - WP Demil Capability

• LEAD

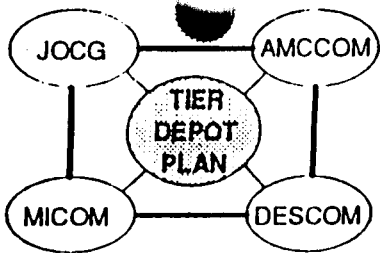
- ▶ Quantitative: 5
- ▶ Qualitative
 - Multi Mission

▶ CONCLUSION

- **Best Suited for Active Status**
- Supports USMC & USN Concerns
- Good Power Proj Capability

▶ CONCLUSION

- **Best Suited for Cadre status**
- Retain Tactical Missile Maintenance Mission



CONCLUSION - EAST

• ANAD

- ▶ Quantitative: 6
- ▶ Qualitative
 - Multi Mission
 - Hub for Eastern Region Training
 - Air Drop for XVIII ABN & 75th Rangers
 - Computing Outload with DLA
 - TCM Mission

• BGAD

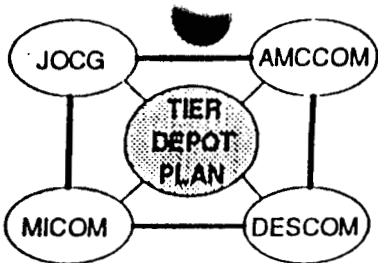
- ▶ Quantitative: 8
- ▶ Qualitative
 - TCM Mission
 - No Multi Mission

▶ CONCLUSION

- Best Suited for Active Status
- Retain Tactical Missile Maintenance Mission
- Develop Partnerships
- Strong Qualitative Considerations
- Reported Outloading Capability is Poor

▶ CONCLUSION

- Best Suited for Cadre Status
- Outstanding Power Projection Capabilities
- Required Retention to Meet MRC Outloading Requirements



Tier Depot Analysis

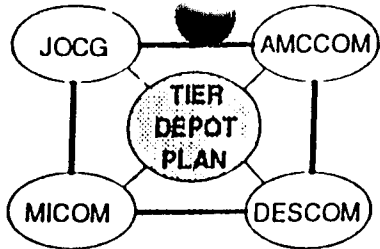
CONCLUSION - EAST

• SEDA

- ▶ Quantitative: 11
- ▶ Qualitative
 - Radiation Decon Team
 - Depot Activity

▶ CONCLUSION

- **Best Suited for Caretaker Status**
- Low Overall Capabilities



CONCLUSION - CENTRAL

• MCAAP

- Quantitative: 1
- Qualitative
 - Hub for Central / SW Region Training Support
 - Active Production

▸ CONCLUSION

- Best Suited for Active status
- Best Overall capabilities

• RRAD

- Quantitative: 9
- Qualitative
 - Large Multi Mission
 - ABL Partner 1st CAV / 3rd ACR

▸ CONCLUSION

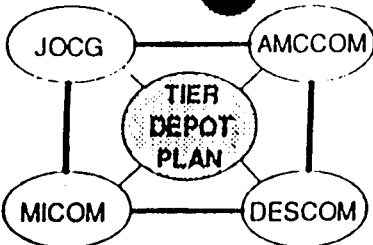
- Best Suited for Cadre Status
- Must Retain Missile Maint Mission
- Strong Qualitative Considerations
- Poor Overall Capability

• SVDA

- Quantitative: 10
- Qualitative
 - APE Mission
 - DU Center for Excellence

▸ CONCLUSION

- Best Suited for Caretaker Status
- Poor Overall Capabilities



Tier Depot Analysis

CONCLUSION - WEST

• HWAAP

- ▶ Quantitative: 3
- ▶ Qualitative
 - Lay Away Production
 - Western Area Demil Facility
 - Contractor Operated

- ▶ CONCLUSION
 - Best Suited for Cadre Status
 - Good Overall Capabilities
 - Excellent Storage Capabilities for Non-Applicable Stocks

• TEAD

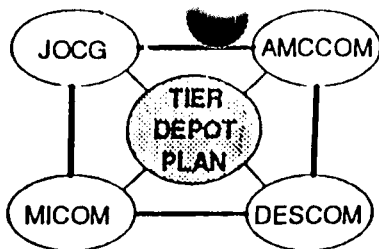
- ▶ Quantitative: 4
- ▶ Qualitative
 - TCM Mission
 - Critical AF Requirement
 - 25th ID/7th LID Airdrop
 - APE Mission

- ▶ CONCLUSION
 - Best Suited for Active Status
 - Good Overall Capabilities

• SIAD

- ▶ Quantitative: 9
- ▶ Qualitative
 - Large Op Project Mission

- ▶ CONCLUSION
 - Best Suited for Caretaker Status
 - Poor Overall Capabilities



Tier Depot Analysis

TIER ASSIGNMENT RECOMMENDATION

WEST

TEAD - I

HWAAP - II

SIAD - III

CENTRAL

MCAAP - I

RRAD - II

SVDA - III

EAST

CAAA - I

ANAD - I

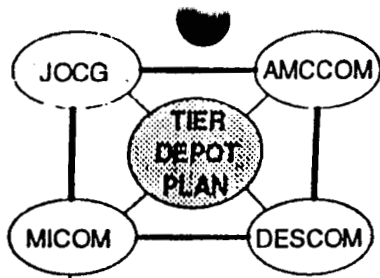
LEAD - II

BGAD - II

SEDA - III

TIER III CONSIDERATIONS:

- SEDA: Decon Mission
- SIAD: Op Project Mission
- SVDA: APE and DU Missions



Tier Depot Analysis

RECOMMENDATION

- **To Approve the Tier Assignment Recommendation as Presented**

**QUANTITATIVE DATA
FOR TIER DEPOT ANALYSIS**

POWER PROJECTION

OUTLOADING CAPABILITY

FACTORS

DEPOT	CNTR/SCR	BB/SCR	70-30/SCR
WEIGHT:	4	2	3
ANAD	1040/2.9	800/.8	968/2.4
BGAD	2080/5.9	3760/3.7	2584/6.5
CAAA	780/2.2	11300/11.0	3936/9.8
HWAAP	923/2.6	1280/1.2	1030/2.6
LEAD	520/1.5	3480/3.4	1408/3.5
MCAAP	3900/11.0	5560/5.4	4398/11.0
RRAD	728/2.1	2840/2.8	1362/3.4
SEDA	104/.3	1060/1.0	391/1.0
SIAD	1144/3.2	2000/1.9	1401/3.5
SVDA	1989/5.6	1700/1.7	1902/4.8
TEAD	1170/3.3	8600/8.4	3399/8.5

MEASUREMENTS ARE IN ST PER DAY BASED ON MAX CAPABILITY OF DEPOT TO OUTLOAD. ARMY GOAL TO GO CONTAINERIZED, THUS GIVING MAX WEIGHT, FOLLOWED BY 70/30 SPLIT, THEN TOTAL BB.

POWER PROJECTION

TRANSPORTATION FACTORS

DEPOT	TRUCK/WT	RAIL/WT	AIR/WT	TOTAL	SCR
WEIGHT:	2	3	1		
ANAD	2/4	1/3	0	7	9
BGAD	2/4	2/6	0	10	11
CAAA	2/4	2/6	0	10	11
HWAAP	0	0	0	0	5
LEAD	1/2	0	0	2	7
MCAAP	2/4	2/6	0	10	11
RRAD	1/2	1/3	0	5	8
SEDA	0	0	1/1	1	6
SIAD	2/4	1/3	1/1	8	10
SVDA	1/2	1/3	0	5	8
TEAD	1/2	2/6	0	8	10

FACTORS BASED ON THE INSTALLATIONS CAPABILITY TO MOVE MUNITIONS
OUT OF THE GATE BY TRUCK, RAIL, OR AIR.

RANKINGS ARE BASED ON DEPOT ASSESSMENT FOR EACH FACTOR AS FOLLOWS:

GOOD -- 2 POINTS

FAIR -- 1 POINTS

POOR -- 0 POINTS

STORAGE CAPABILITY

FACTORS

DEPOT	NET SQ FT/SCR	ECM SQ FT/SCR
WEIGHT:	2	1
ANAD	1831200/3.3	1623258/4.0
BGAD	1745600/3.1	1374304/3.4
CAAA	4891200/8.8	3585484/8.9
HWAAP	6136800/11.0	3518186/8.7
LEAD	1693600/3.0	1459635/3.6
MCAAP	5593600/10.0	4430063/11.0
RRAD	1351200/2.4	1073715/2.7
SEDA	1119200/2.0	783846/1.9
SIAD	1929600/3.5	1196800/3.0
SVDA	1892800/3.4	554803/1.4
TEAD	1895200/3.4	1361600/3.4

LOCATION

FACTORS

DEPOT	TO SPOE/SCR	TO APOE/SCR	TO TRNG/SCR	\$ TO SPOE
	WEIGHT: 4	2	3	1
ANAD	4/5.5	383/5.2	459/11.0	240/7.7
BGAD	5/5.4	551/3.6	600/8.4	221/8.4
CAAA	7/3.1	700/2.8	602/8.4	267/7.0
HWAAP	3/7.3	300/6.6	582/8.7	203/9.2
LEAD	5/4.4	180/11.0	587/8.6	221/8.4
MCAAP	7/3.1	1057/1.9	515/9.8	427/4.4
RRAD	10/2.2	926/2.1	595/8.5	376/4.9
SEDA	6/3.7	233/8.5	705/7.2	258/7.2
SIAD	2/11	233/8.5	527/9.6	169/11.0
SVDA	7/3.1	935/2.1	756/6.7	379/4.9
TEAD	4/5.5	687/2.9	603/8.4	280/6.6

DATA IS # OF RAIL TRANSIT DAYS TO CLOSEST SPOE AND ACTUAL MILEAGE TO CLOSEST APOE. FOR SPOE, MILEAGE DOES NOT NECESSARILY MEAN THE BEST. RAIL MEASURED DUE TO # TONS MOVED. THE COST TO SPOE IS THE COST TO THE CLOSEST SURFACE PORT. IT IS ADDITIVE OF BOTH CONTAINER AND BB (MOTOR AND RAIL). WEIGHTS ASSIGNED: LARGEST TONNAGE OUT OF SPOE, THUS HIGHEST RANKING TRNG IS AVG MILES TO MAJOR TRNG SITES W/I 1000 MILES. (W/I 50MI = SAME)

COSTS

FACTORS

DEPOT	R/I/SCR	INV/SCR	SURV/SCR	MAINT/SCR
WEIGHT:	4	3	2	1
ANAD	248.66/3.0	14.45/4.6	359.85/4.4	45.55/8.2
BGAD	125.08/5.9	50.17/1.3	304.55/5.2	59.01/6.3
CAAA	66.86/11.0	10.69/6.2	224.69/7.1	40.93/9.1
HWAAP	148.71/4.9	38.33/1.7	144.87/11.0	51.97/7.2
LEAD	130.83/5.6	16.44/4.0	438.20/3.6	33.86/11.0
MCAAP	107.49/6.8	27.22/2.4	146.34/10.9	48.78/7.6
RRAD	134.22/5.5	6.00/11.0	505.24/3.2	49.22/7.6
SEDA	145.75/5.0	90.55/.7	794.97/2.0	88.33/4.2
SIAD	142.21/5.2	57.11/1.2	386.05/4.1	59.39/6.3
SVDA	112.34/6.5	101.57/.6	535.92/3.0	81.20/4.6
TEAD	122.36/6.0	27.24/2.4	275.56/5.8	55.21/6.7

R/I = COST PER ST; INV = COST PER GRID; SURV = COST PER LOT;
MAINT = COST PER MANHOUR FIXED.

DEMIL COSTS EXCLUDED DUE TO FUNDING FROM PAA.

ASSIGNED WEIGHTS ARE IN AGREEMENT WITH OMA PRIORITIZATION AS BRIEFED
IN THE AMMUNITION FAA.

MAINTENANCE

FACTORS

DEPOT	MISSILE/SCR	MULTUSE Bldg /SCR	NEW Limit/SCR	SQ FT Avail/SCR
WEIGHT:	4	3	2	1
ANAD	Y/11	4/5.5	44000/.4	66895/5.5
BGAD	N/0	3/4.1	128000/1.1	80602/6.7
CAAA	N/0	8/11.0	97700/.8	122360/10.2
HWAAP	N/0	4/5.5	515000/4.4	102537/8.5
LEAD	Y/11	1/1.4	20000/.2	23073/1.9
MCAAP	N/0	6/8.3	1300000/11.0	132606/11.0
RRAD	Y/11	3/4.1	65000/.6	47203/3.9
SEDA	N/0	1/1.4	60000/.5	21200/1.8
SIAD	N/0	2/2.8	37000/.3	17832/1.5
SVDA	N/0	2/2.8	255000/2.2	106920/8.9
TEAD	N/0	5/6.9	139000/1.2	71203/5.9

MISSILE FACTOR: YES OR NO FOR MISSILE MAINTENANCE CAPABILITY.
DEPOTS WITH THIS CAPABILITY RECEIVE A SCORE OF 11 BASED UPON ITS
IMPORTANCE AS DISCUSSED DURING 17-18 FEB MEETING.

MISSILE MAINTENANCE FACILITIES ARE CONSIDERED AS HIGH DOLLAR INVESTMENTS
AND ARE UNIQUE TO MISSILE SYSTEM REQUIREMENTS. NOT EASILY INTER-CHANGEABLE.

INSPECTION/TEST

FACTOR

DEPOT	FUNCTION	MISSILE	MOD SURV	X-RAY	TOTAL	SCR
	WEIGHT:	4	3	2	1	
ANAD	0	1	0	0	3	8
BGAD	0	0	0	0	0	6
CAAA	1	0	1	1	7	11
HWAAP	1	0	1	1	7	11
LEAD	0	1	1	1	6	10
MCAAP	0	0	1	1	3	8
RRAD	0	1	0	1	4	9
SEDA	0	0	0	0	0	6
SIAD	0	0	0	0	0	6
SVDA	1	0	0	0	4	9
TEAD	0	0	0	1	1	7

RANKING: 1 = HAS CAPABILITY
0 = HAS NO CAPABILITY

DEMIL

FACTORS

DEPOT	RRR/SCR	OB-OD/SCR	DEMIL STORAGE/SCR
WEIGHT:	3	2	1
ANAD	10/7	1600/.9	24973/2.7
BGAD	17/9	300/.2	17944/1.9
CAAA	18/10	2000/1.1	30972/3.3
HWAAP	20/11	1600/.9	102154/11.0
LEAD	6/6	3200/1.8	29753/3.2
MCAAP	17/9	3300/1.8	88930/9.6
RRAD	12/8	1000/.6	7486/.8
SEDA	10/7	2100/.4	6877/.7
SIAD	10/7	20000/11.0	15475/1.7
SVDA	6/6	1800/1.0	7163/.8
TEAD	12/8	8400/4.6	8756/.9

RESOURCE RECOVERY AND RECYCLING CAPABILITY INCLUDES:

DISASSEMBLY, UNIQUE DEMIL CAP, WASHOUT/STEAMOUT/MELTOUT CAP, APE 1236
OPEN BURN/OPEN DET CAPABILITY INCLUDES;

DEMIL ST IN STORAGE BY LOCATION

-- TAKING OB/OD AND DEMIL IN STG OUT DOES NOT AFFECT FINAL RANKING ORDER.

THE BANGBOX TESTING SYSTEM EVOLUTION, UTILITY, AND FUTURE

**MacDonald B. Johnson
U.S. Army Dugway Proving Ground
Dugway, Utah 84022**

BACKGROUND

In the mid-1980s a dichotomy emerged between the Department of Defense (DoD) and Federal and state environmental regulators. The DoD, faced with substantial inventories of unwanted munitions, needed to continue disposal operations without interruption. Regulators, required by legislative mandate to protect the environment, had no means of assessing emissions generated by open burning/open detonation (OB/OD) operations, DoD's principal energetic munitions disposal method, other than outdated literature searches and technically deficient bench tests.

Correctly anticipating that it would soon be required to characterize OB/OD emissions, the U.S. Army Armament, Munitions and Chemical Command (AMCCOM) initiated a multi year study to identify and develop the means to obtain the desired data. Major phases of the resulting study included a pilot test to determine technology gaps (reference 1), a technical symposium to explore existing and emerging technologies suited to the data-gathering task (reference 2), developing a technical infrastructure, conducting of large-chamber tests (reference 3) and field tests (reference 4), and investigating a possible relationship between these two types of tests.

Challenges faced and resolved during the development process include inadequate instruments, the futility of estimating cloud dimensions and volume, the impossibility of capturing a cloud sample known to be homogeneous, meeting detection limits desired by regulators, and minimizing testing costs. The development process which produced a convergence of facility, technologies, and expert personnel at the U.S. Army Dugway Proving Ground (DPG). Known as the BangBox testing system, its advancements continue to this day producing many spectacular achievements. Accomplishments include the U.S. Environmental Protection Agency (USEPA) accepting the system's components and data, permit writers demanding the system's data for use in assessing permit applications, and military installations using the system's data when successfully responding to notices of deficiency (NODs) and notices of violation (NOVs).

PREDICTIVE MODELS

If they produced data acceptable to Federal and state regulators, predictive models would be a fast, convenient, and inexpensive means of satisfying data requirements. However, regulators have grown increasingly skeptical of models and are disinclined to accept model-generated data for permitting and enforcement actions.

Immediately following the instant of explosive detonation or burn ignition, the thermodynamics of detonations and burns are extremely complex and beyond the capability of current models to fully integrate. Comparing model predictions to the BangBox testing system data reveals great differences except for some criteria gases, e.g. CO₂, which are of declining interest to regulators. Regulators are most concerned about the inability of models to accurately predict either exotic compounds (trace organics) or metals resulting from OB/OD operations.

BANGBOX TESTING SYSTEM

Four elements comprise the BangBox testing system: Facility, technologies, procedures, and personnel.

Facility

The BangBox, formally designated as the Propellant, Explosive, and Pyrotechnic Thermal Treatment Evaluation and Test Facility, can test up to 227 g of explosives and up to 2.27 kg of propellants or other burning energetic material at any one time. The facility consists of an inflatable 1000-m³ hemispheric test chamber similar to structures protecting swimming pools and tennis courts, and an airlock attached to the hemisphere which provides access into the test chamber and shelters instruments. The hemisphere's plasticized-fabric wall stretches rather than ruptures during detonations.

Inside the chamber, a climate-control system replicates meteorological conditions of customer disposal sites, a suppressive/witness shield system traps shrapnel and other flying debris resulting from detonations, high-volume samplers to collect SVOCs on quartz-fiber filters, and PS-1 samplers to collect SVOCs in cylinders containing XAD-2™ resin.

Several sampling tubes extending from the airlock into the chamber allow additional sampling and analyses during testing. The instrument array within the airlock includes real-time instruments which provide data on criteria and other gases and particulates, canisters for collecting samples of the chamber atmosphere,

and a system for sampling SF₆ tracer gas released in the chamber at the instant of detonation or burn ignition, and two data logging systems.

Technologies

The BangBox testing system, in part, is a collection of advanced technologies applied to sampling, laboratory assay, and data analyses.

SUMMA™ canisters. These cylinders are electropolished and passivated so that they can collect air samples for subsequent assay for VOCs. During testing, they are located in the airlock and used to collect samples of the chamber's atmosphere before and following a detonation or burn. Subsequent assay attains results down to the part-per-trillion (ppt) level. The SUMMA™ canisters also provide a backup sample for use in the unlikely event a real-time analyzer malfunctions.

Supercritical fluid chromatography/mass spectrometry (SFC/MS). Design of the SFC/MS was modified so that the instrument can identify and quantitate nitrated compounds found in, or produced by, explosives. Fewer than 12 laboratories throughout the world have this capability. Assays are reported down to the ppt level.

Carbon balance method Using carbon as a tracer, this method eliminates the need for determining cloud volume when calculating EFs. This is a critical consideration if dimensions of the plume cannot be accurately measured. The carbon balance method is commonly used during BangBox testing.

Procedures

Procedures for each phase of testing are contained in letters of instruction (LOI), written by the performing activity. The LOI are reviewed by the DPG BangBox Test Director (TD) and approved by the DPG contracting officer's representative.

Expert Personnel

When the OB/OD Symposium concluded, the study's director (now the TD) selected a few of the symposium's participating experts to form the TSC. Members of the TSC have continued with the project to this day and are well recognized and accepted within the environmental community. The TSC holds regular sessions on a quarterly basis, but usually meets more frequently so that it can address current issues and challenges from ongoing research and development and testing programs

TESTING

Two important non-developmental tests conducted within the DPG BangBox were the characterization of emissions produced by OB of propellants and the characterization of emissions produced by the OD explosive munitions

The former test was sponsored by the Massachusetts National Guard (MNG), and the latter by the U.S. Air Force Air Combat Command (ACC).

Massachusetts National Guard

For many years, residents of communities adjacent to Camp Edwards have been convinced that a direct link exists between the open burning of propellants conducted on the installation and the cancers and other ailments they have experienced for many years. A high percentage of the local population hold advanced degrees in physical sciences and have shown a willingness to accept subjective responses. Accordingly, the MNG requested DPG to conduct BangBox tests of its propellants so that the resulting data could be presented to the public in an open meeting and used by the Commonwealth of Massachusetts when conducting risk assessments

The resulting week long test was attended by a general grade officer heading a group of environmental specialists from the MNG, and representatives from the Massachusetts Environment Department and Department of Public Health and Safety. Responding to a MNG requirement that testing be conducted under climatic conditions approximating those found during normal Camp Edwards OB (typically October and May), DPG installed humidifiers and heaters in the chamber.

Air Combat Command Test - I

The ACC test was significant because it was the first test involving ahrapnel-producing munitions, and it was the first test specifically conducted to gather data to support the permitting process.

The Strategic Air Command ¹initiated this test when open-air disposal sites at three of its bases within USEPA Region VIII were faced with closure unless their OB/OD-generated emissions were characterized and found not to exceed USEPA standards. Region VIII agreed to allow the OB/OD sites to remain operational as long as the ACC mounted a good-faith effort to gather the desired emissions data.

¹The USAF reorganized while this project was ongoing. The ACC was assigned environmental responsibilities formerly held by SAC, including this test.

In the course of its discussions with the SAC, Region VIII told SAC representatives it was aware of no system other than the DPG BangBox system capable of accurately characterizing OB/OD-generated emissions. After SAC reached its decision to use the BangBox testing system, Region VIII participated in test planning activities by reviewing and commenting on all plans and associated documents.

With the concurrence of Region VIII, ACC nominated four munitions representative of the various type of munitions being destroyed. These included the M56A4 20-mm high-explosive-incendiary cartridge, the M884 40-mm high-explosive cartridge, the M18A1 Claymore antipersonnel mine, and the T45E7 adapter-booster. Two of these offered previously unexplored challenges beyond producing shrapnel.

M18A1 Claymore Antipersonnel Mine. The mine contains 681 g of C4 explosive, triple the net explosive weight (NEW) limit of the hemispheres. The TD recommended, and USEPA Region VIII accepted, removing excessive C4 explosive from the mine. Because BangBox testing has always been conservative in order to provide worst-case data, the fiberglass case was left intact. Despite the resulting disproportionate amount of casing in the test setup, emissions of interest (Tables 1 and 2) were far below levels established by the USEPA as being safe to human health.

T45E7 Adapter-Booster. This munition, contained 177 g of tetryl which, upon detonation, propelled an integral steel plug at such a high velocity that it ruptured the steel wall of a pretest facility. The test team fabricated a special fixture to hold the device, fitted steel wool into one end to disrupt the focused blast, and set the assembly into a 1-m³ steel-lined detonation pit to that the plug could not directly strike the suppressive shield.

USES AND APPLICATIONS OF DATA

Massachusetts Nation Guard

To preclude any possible charge of bias, the MNG will not release propellant emission data until risk assessment protocols are developed by the Massachusetts Department of Public Health and Safety. The protocols are not yet complete and public meetings have not been scheduled. Informal review of the data by BangBox project scientists indicates that the levels of SVOCs and VOCs are so low that they pose no environmental or health hazard.

U.S. Air Force

BangBox data successfully supported an OB/OD permit application for Barksdale Air Force Base (AFB), Louisiana. Full permit status was granted in October 1994.

BangBox data successfully support an OB/OD permit application for Cannon AFB, New Mexico. Full permit status was granted in December 1994.

Additional permit applications for other USAF installations appear headed towards similar success. However, the regulatory agencies involved have requested these actions not be identified until permits are awarded.

Based on BangBox data obtained during the ACC test and earlier tests, the USEPA is allowing continued OD of waste munitions at Minot AFB, North Dakota, and Ellsworth AFB, South Dakota (energetic munitions disposal operations at both bases are operating under interim status). Questions raised by the USEPA at these two bases prompted the ACC test. BangBox data supported full permit status applications at these installations; the applications are now being reviewed by USEPA Region VIII.

BangBox-generated data are also supporting permit applications at Avon Park, Florida, Edwards AFB, California, and Nellis AFB, Nevada.

Minot AFB has used BangBox data to respond to NODs and NOVs. Real data were required in addressing deficiencies in waste characterization data in nine instances. Each response was acceptable. Real data were also required for responses to deficiencies in OB/OD performance standards in two instances. Both responses acceptable. Again, real data were required for responses to deficiencies in risk assessment in two instances. All responses were acceptable. BangBox data was again used by the USAF when responding to NODs at Edwards AFB, California, MacDill AFB, Florida, and Seymour Johnson AFB, North Carolina. Regulators have not yet released the outcomes of these responses

Risk assessments are now incorporating BangBox data. Minot AFB, a good example, is preparing a risk assessment addressing human health and ecological factors, with BangBox data focusing on human exposure via inhalation.

U.S. Army

Fort Polk, Louisiana, used BangBox data in its application for full permit status. Results of this application are expected during February 1995. Fort Polk also used these data in responding to a NOD.

The Kansas Army Ammunition Plant, Kansas, is using BangBox data in responding to a NOD.

U.S. Navy

China Lake Naval Weapons Station, California, included BangBox data in its application for full permit status. California regulators are reviewing this application and have not yet released their decision.

STRATEGIC ENVIRONMENTAL RESEARCH AND DEVELOPMENT PROGRAM

The Congressionally-mandated Strategic Environmental Research and Development Program (SERDP) draws together the DoD, the Department of Energy (DOE) and the USEPA for approaching common environmental problems. Of the hundreds of projects managed by SERDP, its executive director ranks the BangBox project as the third most important.

During the past three years, SERDP has provided \$1.7 million to advance BangBox technologies and initiate a technology-transfer program. These funds have supported developing concepts for classifying munitions by emission families, testing of energetic materials conducted, enhancements to the facility, and transferring technologies to organizations and individuals.

Additional funding will support exploration of new instruments and technologies holding promise for characterizing emissions more rapidly than now possible. One example of emerging technologies holding promise includes the atmospheric-pressure-ionization time-of-flight mass spectrometer which can provide real-time data for up to 30 compounds simultaneously.

New facilities include an additional surface BangBox similar to the existing facility, but internally configured for testing of propellants, including those that contain chlorine. A much larger surface BangBox using rigid-frame construction will enable testing explosive munitions with significantly larger NEWs than the hemispheric BangBoxes can accommodate. A subsurface detonation chamber should permit detonation of munitions up to 30 kg NEW, and the inclusion of soils in the testing process.

Testing chlorine-containing energetics will pose interesting challenges. An upcoming test jointly sponsored by SERDP and a large commercial manufacturer of energetics will focus on propellants containing ammonium perchlorate (AP). Results of this test should be significant due to the large number of rocket motors containing 1.1 and 1.3 AP-based propellants.

Other major goals within the SERDP include classifying munitions by emission families. The BangBox scientific-support team has completed initial conceptualizing for achievement of this goal. Once munitions can be classified by emission families in a manner acceptable to environmental regulators, providing data to support OB/OD permit applications will become an inexpensive and rapid process.

CONCLUSIONS

Environmental regulation will become more restrictive and increasingly demanding with each passing year.

Predictive models are not the answer to permitting data requirements.

Recognizing the accuracy of data from the OB/OD testing system and the inherent difficulties with data from models, many regulators now demand data from the BangBox testing system to support permit applications

BangBox data can lead to full OB/OD permit status.

Table 1. Emission Factors for Semivolatile Organic Compounds Produced During Open Detonation of MIBAI Antipersonnel Mines.

Sample No.	AF0596468	AF0606569	AF0616670	Standard Deviation (wt/wt)
Analytes	Sample 1 (wt/wt)	Sample 2 (wt/wt)	Sample 3 (wt/wt)	Average (wt/wt)
2,4-Dinitrotoluene	3.14E-08	5.38E-08	4.37E-08	4.30E-08
2,4,6-Trinitrotoluene	6.68E-06	2.95E-06	6.99E-06	5.54E-06
1,3,5-Trinitrobenzene	3.24E-08	BD ^a	5.82E-08	4.53E-08
Hexahydro-1,3,5-trinitro-1,3,5-triazine ^b	1.03E-05	6.47E-07	1.87E-05	9.87E-06
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine ^c	3.81E-06	1.38E-06	1.73E-05	7.50E-06
N-Nitrosodiphenylamine	2.85E-08	2.53E-08	3.03E-08	2.80E-08
Diphenylamine	2.88E-08	2.23E-08	1.72E-08	2.28E-08
Pyrene	2.06E-06	1.92E-06	2.13E-06	2.04E-06
Benzo[a]anthracene	BD	8.03E-08	BD	NA ^d
Benzo[a]pyrene	1.77E-07	1.22E-07	6.82E-08	1.22E-07
				5.43E-08

^aBelow detection limit

^bRDX.

^cHMX.

^dNot applicable.

Table 2. Emission Factors for Volatile Organic Compounds Produced During Open Detonation of M18A1 Antipersonnel Mines.

Analyte	DU-49&50 (wt/wt)	DU-51&52 (wt/wt)	DU-53&54 (wt/wt)	Average (wt/wt)	Standard Deviation (wt/wt)
Vinylchloride	1.23E-06	NSA ^a	NSA	NA ^b	NA
Methane	5.78E-03	5.88E-03	5.86E-03	5.84E-03	5.12E-05
1,3-Butadiene	3.88E-06	2.43E-06	1.94E-06	2.75E-06	1.01E-06
Benzene	5.45E-04	9.37E-04	9.62E-04	8.15E-04	2.34E-04
Alkanes (Paraffins)	6.46E-05	6.75E-05	8.35E-05	7.19E-05	1.02E-05
Alkenes (Olefins)	1.00E-03	1.35E-03	1.51E-03	1.29E-03	2.62E-04
Aromatics	3.08E-03	2.93E-03	3.16E-03	3.06E-03	1.21E-04
TNMHC	4.65E-03	4.75E-03	5.34E-03	4.91E-03	3.74E-04
TO-12 (NMOC)	5.38E-03	8.10E-03	9.08E-03	7.52E-03	1.92E-03

^aNo sample assay.

^bNot applicable.

REFERENCES

1. M. B. Johnson et al, draft Consolidated Report: Open Burning/Open Detonation, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1987.
2. M. B. Johnson et al, Proceedings of the Technical Steering Committee, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1989.
3. M. B. Johnson et al, Development of Methodology and Technology for Identifying and Quantifying Emission Products from Open Burning and Open Detonation Thermal Treatment Methods. Final Report: BangBox Test, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1989.
4. M. B. Johnson et al, Development of Methodology and Technology for Identifying and Quantifying Emission Products from Open Burning and Open Detonation Thermal Treatment Methods. Final Report: Field Tests A, B, and C, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1992.
5. M. B. Johnson et al, Report on Characterization of Emissions Resulting from Thermal Treatment of Selected Explosive Munitions, U.S. Air Force Air Combat Command, Langley Air Force Base, 1994.

Debunking the Myth of Open Burning/Open Detonation's Environmental Unacceptability

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INTRODUCTION

For more than 40 years, open burning/open detonation (OB/OD) procedures have been the mainstay of energetic-ordnance disposal activities. Because these thermal treatment processes have been safe, reliable, expeditious, and economical, both government and industry felt little incentive until the early 1980s to develop other means for destroying the preponderance of unwanted munitions. In the last decade, however, OB/OD operations have been under a cloud of environmental suspicion, and provisions of the Resource Conservation and Recovery Act subpart X sparked widespread concern that many or most OB/OD sites would be closed by the end of 1991. The ammunition community continues to bear these concerns.

Although most OB/OD sites remain operational, the demilitarization situation is serious. The amount of munitions awaiting disposal, 250,000 tons ten years ago, will reach 425,000 tons by the end of CY94¹. As overseas stocks return to the continental United States and as combat units deactivate, this burdensome inventory will continue to grow. The storage system, already saturated, will be less able to accept and properly store these munitions as military installations, including storage depots, are being realigned or closed. And, both environmental regulators and the public are showing increased interest in disposal activities, particularly OB/OD operations. If regulators were to decide to close all OB/OD sites because they believed these thermal treatments unsound, our serious situation would become critical.

OPTIONS

Some options exist for reducing the demilitarization inventory. The more important are selling or giving the materiel away, incinerating unwanted items, employing alternate technologies, or defining the environmental consequences of OB/OD operations to see if OB/OD generated emissions actually constitute a problem.

FOREIGN MILITARY SALES

Foreign military sales have the advantage of producing revenue, assisting our allies, and reducing our inventories of excess items. However, foreign nations frequently are not interested in acquiring obsolete, damaged, or otherwise depreciated munitions, or munitions that are incompatible with their weapons systems.

INCINERATION

Incinerators are in use at many locations. However, they are commonly restricted in the types of munitions they can destroy and have limits on the net explosive weight (NEW) that they can accommodate. An additional complication is that regulators are showing increasing reluctance to permit incinerators.

ALTERNATE TECHNOLOGIES

Alternate technologies offer the capability of destroying munitions without releasing emissions into the atmosphere. The technologies, however, are difficult and individual research and development efforts sometimes expensive and prolonged. Developing alternate technologies for all energetic munitions in the demilitarization inventory may be fiscally challenging in an era of increasingly austere defense budgets.

DEFINE ENVIRONMENTAL CONSEQUENCES OF OB/OD OPERATIONS

Before issuing permits, regulators want evidence that proposed OB/OD operations will not injure the environment. In the early 1980s, no-one had successfully characterized emissions produced by OB/OD operations. If the plumes resulting from the OB/OD of some energetics were not as threatening as they appeared, permitting might be possible. As the Department of Defense single manager for conventional ammunition, the U.S. Army Armament, Munitions and Chemical Command (AMCCOM) decided to scientifically pursue technologies leading to identifying and quantifying OB/OD-produced emissions.

PERCEPTION

The prevailing perceptions that OB/OD scientific team faced as the AMCCOM study began were complex. The beliefs that OB/OD operations were inherently dirty and environmentally unacceptable had been spoken so often that they had become unquestionable. Some regulators wondered if DoD was avoiding characterizing OB/OD emissions believing that any such study would confirm that open-air disposal was as bad as suspected. Others felt that predictive models could generate sufficient combustion-product data.

Before the AMCCOM investigation began, faulting the OB/OD detractors was difficult. The manifestations of open-air disposal were both obvious and ominous - loud earth-shaking blasts

and dark plumes rising into the sky. Bench tests, usually conducted under unrealistic conditions (e.g., minute amounts of explosive, oxygen-deficient atmosphere), produced data showing large quantities of noxious emissions, thus supporting negative impressions.

DEVELOPING THE BANGBOX™ TESTING SYSTEM

PRELIMINARY TEST (1984-1985)

The concept of capturing a detonation- or burn-produced cloud and analyzing it was so novel that few off-the-shelf technologies and procedures were known to be suitable for the purpose. A preliminary test to identify technology shortfalls was conducted at the Tooele Army Depot. During the course of this test, burns, underground detonations, and surface detonations were conducted using a variety of propellants and exploding ordnance ranging from hand grenades to rockets to general purpose bombs. A UH-1D military helicopter was fitted with instrument and sampling equipment to conduct real-time analyses and collect samples in the plume for subsequent laboratory assay. This test succeeded in pinpointing technology gaps and, in the process, also provided some data on criteria gases.

SYMPOSIUM (1988)

The AMCCOM convened an OB/OD symposium in 1988 to generate ideas on further pursuing OB/OD emissions characterization. Distinguished authorities from around the nation representing disciplines critical to OB/OD testing, reviewed all aspects of the preliminary test and recommended instruments, procedures, equipment, target analytes, and venues for follow on testing². From this group, the AMCCOM test director selected a panel to provide technical advice and oversight. This panel, designated as the technical steering committee (TSC), remains active in continuing development of the testing system and conduct of customer-sponsored testing.

BANG BOX TEST (1989)

A series of small-scale trials was conducted in a small inflatable building operated by Sandia National Laboratories (SNL). Known as the bang box because of its history of being used for testing explosive components of weapons systems, this facility allowed testing of up to 227 g of explosives and 2.27 kg of non-explosive propellants. This test, which included one bulk explosive and two categories of propellant, evaluated recommendations of the OB/OD symposium as selected by the TSC². This test provided the initial inputs into an OB/OD emissions database and screened technologies for advancement into subsequent field testing.

²Distinguished experts from government, academic, and industrial communities represented analytical chemistry, organic chemistry, chromatography, statistics, environmental law, sampling, meteorology, field testing, propellants and explosives, ammunition and modeling.

FIELD TESTING (1989-1990)

All field testing was conducted at the U.S. Army Dugway Proving Ground (DPG). Located in the middle of the Great Salt Lake Desert, DPG offered pristine test areas, a highly skilled staff and supporting contractors, and the ability to detonate large amounts of explosives. Three tests each detonated up to 970 kg (2000 lb) of explosives or burned up to 3200 kg (7000 lb) of propellant. A Twin Otter fixed-wing aircraft was fitted with the same instruments and equipment as selected by the TSC following the bang box test². Immediately following each detonation, the aircraft made a minimum of three sampling passes through each plume. When the cloud was no longer sufficiently stable for good sampling, the aircraft landed and the samples were preserved and shipped to laboratories for assay. Data was collected from four explosives and a variety of propellants⁴.

RELATING RESULTS OF BANG BOX AND FIELD TESTS (1991)

At the suggestion of the Atmospheric Research and Exposure Assessment Laboratory (AREAL), U.S. Environmental Protection Agency (USEPA), the scientific team investigated the possible relationship between data produced by bang box and field tests. The subsequent discovery that a relationship existed meant that bang box testing could, for many munitions, replace the need for field testing. This promised time and cost efficiencies without any loss of data quality.

COMPLETION OF ADVANCED FACILITY AT DUGWAY PROVING GROUND (1992)

Dugway Proving Ground installed a new test facility to accommodate more sophisticated testing than had been undertaken in the SNL facility. Although the new facility strongly resembled the original bang box by incorporating an inflatable hemisphere with an attached airlock, it incorporated numerous upgrades. Some enhancements were additional instruments, suppressive and witness shields to allow for the testing of shrapnel-producing munitions, a relief valve to prevent overpressure from damaging the physical structure, and an automatically-regulated air supply to ensure consistent inflation of the chamber. Although formally designated as the Propellant, Explosive, and Pyrotechnic Thermal Treatment Test Evaluation Facility, it is commonly called the BangBox™.

THE OB/OD TESTING SYSTEM

⁴The aircraft carried real-time analyzers for criteria gases, a grab bag to permit near-real-time analyses of criteria gases, nephelometers, manifolded quartz-fiber filters to sample semivolatile organic compounds, 6-L SUMMA™ canisters to sample for volatile organic compounds, and a data recorder.

As it has evolved, the OB/OD testing system has four major components. Withdrawal of any component would jeopardize the credibility established during the system's evolution.

FACILITY

The BangBox™ at DPG consists of a 1000-m³ hemisphere fabricated from plasticized fabric and which is kept rigid by a constant injection of fresh air, and a semi-rigid airlock. Within the test chamber are a probe for a PM10 analyzer, three high-volume samplers fitted with quartz-fiber filters during testing, a cylindrical suppressive shield approximately 2.4 x 3.0-m constructed of louvered angle iron, a 1-m³ steel-lined detonation pit, witness shields constructed of plywood to capture any shrapnel escaping from the suppressive shield, an automatically regulated inflation blower, environment-control equipment, and a sampling tube extending into the airlock.

An attached airlock connects to the chamber by doors to admit personnel and allow movement of large equipment into the chamber. Real-time analyzers (CO₂, CO, NO_x, O₃, SO₂, and chlorine) are mounted in racks and electronically connected to a data recorder, also in the airlock. The sampling tube allows the real-time analyzers and evacuated SUMMA™ to sample chamber atmosphere. A heating and air-conditioning system maintains a constant temperature and dust-free environment in the airlock.

TECHNOLOGIES

Key technologies include supercritical fluid chromatography/mass spectrometry which identifies and quantifies semivolatile organic compounds (SVOC) down to the ng level, SUMMA™ canisters that capture chamber atmosphere and the subsequent assay for volatile organic compounds (VOCs) down to the ppt level, the carbon balance method which obviates any need for estimating cloud dimensions when calculating emission factors, and the statistical method of determining emission factors.

QUALITY ASSURANCE/QUALITY CONTROL

From the onset of testing system development, the USEPA has played a major role, both in technical advice and in quality assurance/quality control (QA/QC). The AREAL audited all tests, laboratories, and real-time instruments, spiked air and soil samples, has been on-site for every test conducted, and has written the QA/QC sections of all reports.

PERSONNEL

The expert scientific personnel working on this project are well known and highly respected in their fields. Each has devoted a significant portion of his time to the development and advancement of the system's technologies. Regulators feel comfortable with these individuals and their capabilities, and often solicit information and opinions from them. There have been

very few personnel transitions since the program began and this continuity and stability has been a key factor in maintaining program momentum.

REALITY

ENVIRONMENTAL SAFETY

Testing conducted for the three services and accepted by environmental regulators shows that many critical perceptions about OB/OD operations were just that - perceptions. None of the materials tested has produced emissions of concern at levels even approaching USEPA standards. The amounts of dangerous compounds at the source are so low that, when applied to dispersion models and used in risk assessments, are virtually nonexistent and pose no hazards whatsoever to human health or the environment.

DEPARTMENT OF DEFENSE INTEREST AND INVOLVEMENT

Throughout development of the OB/OD testing system, DoD has devoted considerable attention to ensuring its successful completion. The primary concern of DoD has been that the system accurately characterize emissions from open-air destruction of energetic materials and that regulators accept results of the system. The ten years and millions of dollars that have gone into the system's development are clear evidence of DoD's attitude and position.

PREDICTIVE MODELS ARE NOT THE ANSWER

The thermodynamics of detonations and burns are extremely complex and beyond the capability of current models to completely consider. Independent comparisons of model predictions to OB/OD testing system data show great differences. Moreover, models do not predict exotic compounds or metals. Recognizing the accuracy of data from the OB/OD testing system and the inherent difficulties with data from models, many regulators now demand data from the testing system to support permit applications.

CUSTOMER-SPONSORED TESTING

In addition to the AMCCOM-funded bang box and field tests, the OB/OD testing system has responded to needs of the three military services. A test sponsored by the U.S. Air Force Air Combat Command (ACC) involved testing complete munitions and presented some new challenges.

Of the four munitions included in the ACC test, the M18A1 (Claymore) antipersonnel mine was the most interesting. The mine consists of a curved, rectangular, molded case of fiberglass

filled plastic that holds 681 g (1.5 lb) of C4 explosive. Two M6 electric blasting caps are shipped with the mine, but are not installed until just before use. Seven hundred steel pellets are inside the case on the convex (enemy) side of the mine.

Because explosive components of the mine exceeded the 227-g (0.50-lb) NEW limit of the BangBox™ chamber, each mine was disassembled to remove 454 g (1 lb) of its explosive charge. As a precautionary measure to protect the fabric wall for ricochets, technicians removed all of the steel pellets. In order to present a worst-case situation, the 360-g (0.79-lb) fiberglass case was not reduced in size. The mine, as adapted for testing, was suspended approximately 30 m (12 in) above the firing pit floor with the convex and concave sides facing opposite corners of the pit. A single M6 electric blasting cap detonated the mine.

Despite the plastic case being disproportionate to the explosive and the C4 being concentrated in the center of the mine, no detonation produced emissions above USEPA standards. Rather, the emissions were well below the USEPA standard. Tables 1 and 2 present results of M18A1 testing^a.

Table 1. Emission Factors for Volatile Organic Compounds Produced During Open Detonation of M18A1 Antipersonnel Mines.

Sample Number	DU-49&50	DU-51&52	DU-53&54	Average	Standard Deviation
Analyte	(wt/wt)	(wt/wt)	(wt/wt)	(wt/wt)	(wt/wt)
Vinylchloride	1.23E-06	NSA ^a	NSA	NA ^b	NA
Methane	5.78E-03	5.88E-03	5.86E-03	5.84E-03	5.12E-05
1,3-Butadiene	3.88E-06	2.43E-06	1.94E-06	2.75E-06	1.01E-06
Benzene	5.45E-04	9.37E-04	9.62E-04	8.15E-04	2.34E-04
Alkanes (Paraffins)	6.46E-05	6.75E-05	8.35E-05	7.19E-05	1.02E-05
Alkenes (Olefins)	1.00E-03	1.35E-03	1.51E-03	1.29E-03	2.62E-04
Aromatics	3.08E-03	2.93E-03	3.16E-03	3.06E-03	1.21E-04
TNMHC	4.65E-03	4.75E-03	5.34E-03	4.91E-03	3.74E-04
TO-12 (NMOC)	5.38E-03	8.10E-03	9.08E-03	7.52E-03	1.92E-03

^aNo sample assay.

^bNot applicable.

Table 2. Emission Factors for Semivolatile Organic Compounds Produced During Open Detonation of M18A1 Antipersonnel Mines, as Sampled by High-Volume Samplers and Assayed Using Supercritical Fluid Chromatography/Mass Spectrometry.

Analytes	AF0596468			AF0606569			AF0616670		
	Sample 1 (wt/wt)	Sample 2 (wt/wt)	Sample 3 (wt/wt)	Sample 1 (wt/wt)	Sample 2 (wt/wt)	Sample 3 (wt/wt)	Average (wt/wt)	Standard Deviation (wt/wt)	
2,4-Dinitrotoluene	3.14E-08	5.38E-08	4.37E-08	4.30E-08					
2,4,6-Trinitrotoluene	6.68E-06	2.95E-06	6.99E-06	5.54E-06				1.12E-08	
1,3,5-Trinitrobenzene	3.24E-08	BD ^a	5.82E-08	4.53E-08				2.25E-06	
Hexahydro-1,3,5-trinitro-1,3,5-triazine ^b	1.03E-05	6.47E-07	1.87E-05	9.87E-06				1.82E-08	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine ^c	3.81E-06	1.38E-06	1.73E-05	7.50E-06				9.03E-06	
N-Nitrosodiphenylamine	2.85E-08	2.53E-08	3.03E-08	2.80E-08				8.59E-06	
Diphenylamine	2.88E-08	2.23E-08	1.72E-08	2.28E-08				2.53E-09	
Pyrene	2.06E-06	1.92E-06	2.13E-06	2.04E-06				5.82E-09	
Benzoflanthracene	BD	8.03E-08	BD	NA ^d				1.07E-07	
Benzo[a]pyrene	1.77E-07	1.22E-07	6.82E-08	1.22E-07				NA	
								5.43E-08	

^aBelow detection limit.

^bRDX.

^cTHMX.

^dNot applicable.

IMPLICATIONS

ENVIRONMENTAL CONSEQUENCES

Open-air destruction of materials tested will produce no harmful environmental consequences. The levels of all compounds of interest near the source are so low that they are almost negligible; when applied to dispersion models, they are virtually nonexistent. Prior testing during the AMCCOM OB/OD study revealed that the amounts of the compounds deposited in soil are so low that they pose no threat to health or the environment.

DATA ACCEPTABILITY

Because the USEPA was a significant contributor to development of the OB/OD testing system and has audited all tests conducted to date, the data produced by the system enjoys great credibility with the USEPA and many state regulators. Federal and state environmental agencies are demanding this data to support permit applications and are willing to extend temporary permits as long as there is an ongoing good-faith effort to collect this data.

APPLICATIONS

NOTICES OF DEFICIENCY (NOD) and NOTICES OF VIOLATION (NOV)

The military services are using data from all OB/OD testing to respond to NOD and NOV. As the database grows, these applications will undoubtedly increase.

PERMITTING

The USAF has used OB/OD test data to support permit applications more than the other two services. Installations for which these data are being included include Ft Polk (LA), MacDill Air Force Base (AFB) (FL), Avon Park (FL), Minot AFB (FL), Ellsworth AFB (SD), Cannon AFB (NM), Melrose Range (NM), Barksdale AFB (LA), China Lake Naval Weapons Station (CA) and Edwards AFB (CA). Additional users include Lawrence Livermore Laboratory (CA) and an unidentified commercial firm (CA). None has received a permit, but all applications are moving forward and no regulator has expressed any displeasure with the data or the means by which it was obtained.

RISK ASSESSMENTS

The OB/OD data, by its very nature, is ideal to use in risk assessments. The Massachusetts National Guard (MNG), responding to concerns of communities adjacent to Camp Edwards, sponsored a BangBox™ test of artillery propellants under specified climatic conditions. In order to maintain credibility, the MNG is waiting for risk assessment protocols to be finalized by the Commonwealth of Massachusetts before releasing these data.

TRAINING AREAS

Regulators are moving toward requiring emissions data for training activities that include use of energetic munitions. A planned underground BangBox™ will permit testing of items such as artillery projectiles under simulated employment conditions including subsurface detonation.

PUBLIC RELATIONS and LITIGATION

Until the advent of OB/OD testing, installation public information officers had no scientific evidence to use while formulating responses to citizen queries and criticisms of OB/OD disposal operations. Although the data is scientific, it is easily translatable into language the lay person can understand.

In our litigious society, accurate and unbiased data can well serve attorneys defending the government or commercial OB/OD site operators. Expanded databases encompassing many energetic materials will be able to rapidly respond to needs of the defense.

LOOKING TO THE FUTURE

The present BangBox™ cannot accommodate soil or detonations larger than 227 g (0.5 lb). We anticipate that future permitting needs will include munitions with a NEW exceeding this limit and for inclusions of soil, possibly site-specific soil. The laboratory assays for SVOC are accurate, but a large number of assays is admittedly expensive and time-consuming. Improvements in facility and technologies can overcome these problems.

EXPANDED FACILITIES

Under Strategic Environmental Research and Development Program sponsorship, the OB/OD testing program will install three new BangBoxes™ so that all conventional propellants and explosives in the demilitarization inventory can be tested. The first will be similar to the existing BangBox™ at DPG, but incorporating an improved air-circulation system and deleting the suppressive shield system. This facility will expeditiously test neat explosives and propellants.

The second new BangBox™ will be a rigid-frame facility approximately 15,000 m³. This will be a low-cost means of testing munitions with higher NEWs.

The third new BangBox™ will consist of an underground chamber capable of testing large munitions such as artillery projectiles, buried detonations, and detonations including site-specific soils.

NEW TECHNOLOGIES

Due to the magnitude of anticipated testing requirements, the program needs new technologies that can speed the testing and assay processes. Candidate instruments include the atmospheric-pressure time-of-flight mass spectrometer, Fourier transform infrared, and across-the-stack monitors. As new real-time analyzers are developed for criteria gases and chlorine, the test director and TSC will investigate them for possible inclusion into the instrument package.

TESTING OF MORE DIFFICULT MATERIALS

The demilitarization community views open-air disposal of pyrotechnics as creating a bigger environmental problem than do propellants or explosives. However, emissions from pyrotechnics have not been characterized under real-world conditions. This is a natural mission for BangBoxes™.

Open burning of ammonium perchlorate (AP) propellants, like pyrotechnics, is widely viewed as being environmentally unacceptable. While characterization of AP propellant emissions has not yet been undertaken, the BangBox™ is capable of such testing. As part of this effort, the BangBox™ technical staff is now developing a chlorine balance method.

COMMERCIAL APPLICATIONS

Commercial manufacturers of energetic materials face the same permitting and public relations problems as does DoD. Because there is no facility anywhere with capabilities and acceptance of the DPG BangBox™ system, they will be turning to the DPG BangBox™ program for assistance.

THE BOTTOM LINE

REGULATORS

The environmental community accepts BangBox™ results as accurate. No other testing system, anywhere, enjoys this status. While the OB/OD testing system can characterize VOC emissions down to the ppt level, SVOCs to the ng level, and report all metals, models are unable to predict the full range of exotic compounds and metals. Many regulators now are rejecting model-generated data and demanding data from the OB/OD testing system.

SAVINGS

Besides identifying which energetics are environmentally suited for OB/OD operations the OB/OD testing system can identify which munitions require alternate methods, thus permitting a focussing of R&D efforts on the greatest need.

RETAINING THE MERITS OF OB/OD DISPOSAL OPERATIONS

The benefits of OB/OD disposal operations cannot be overstated. They have the highest thru-put of any disposal procedure for energetic materials, are the least expensive, are the best understood, and enjoy a safety record unparalleled by any other disposal system. They are the only way of keeping ahead of the flood of unwanted munitions being generated by force reductions and base closures.

ENVIRONMENTAL SUITABILITY

Results show that OB/OD is a viable and effective means of destroying many unwanted conventional energetic materials. The high temperatures of detonation and burn fireballs (which incinerators or furnaces cannot achieve), destroy all dangerous compounds generated at the instant of explosion detonation and propellant ignition.

Open burning and open detonation disposal procedures are environmentally suited for many or most conventional energetic munitions. These thermal treatments are alive and well, and should not be misunderstood or ignored.

REFERENCES

1. E.C. Mueller, "Ammo, Energetic Surplus Gets Recovered, Recycled", *National Defense Magazine*, p 37, July/August 1994.
2. MacDonald Johnson et al, *Proceedings of the Technical Steering Committee*, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1989.
3. MacDonald B. Johnson et al, *Development of Methodology and Technology for Identifying and Quantifying Emission Products from Open Burning and Open Detonation Thermal Treatment Methods, Final Report: BangBox Test*, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1989.
4. MacDonald B. Johnson et al, *Development of Methodology and Technology for Identifying and Quantifying Emission Products from Open Burning and Open Detonation Thermal Treatment Methods, Final Report: Field Tests A, B, and C*, U.S. Army Armament, Munitions and Chemical Command, Rock Island, 1992.
5. MacDonald B. Johnson et al, *Report on Characterization of Emissions Resulting from Thermal Treatment of Selected Explosive Munitions*, U.S. Air Force Air Combat Command, Langley Air Force Base, 1994.



RATES AND PRICES (FY 95 and FY 96 Projections)

Conventional Ammunition Mission Tooele vs Sierra

FISCAL YEAR 95				FISCAL YEAR 96			
		TOOELE	SIERRA			TOOELE	SIERRA
DIRECT				DIRECT			
	LABOR \$	22.94	\$ 21.96		LABOR \$	22.41	\$ 21.73
	MATERIAL \$	0.66	\$ 0.15		MATERIAL \$	0.98	\$ 0.68
	OTHER \$	0.75	\$ 0.06		OTHER \$	0.62	\$ 0.43
	TOTAL DIRECT \$	24.35	\$ 22.17		TOTAL DIRECT \$	24.01	\$ 22.84
INDIRECT				INDIRECT			
	MISSION \$	6.88	\$ 5.44		MISSION \$	7.42	\$ 8.04
	IE \$	21.02	\$ 19.44		IE \$	40.87	\$ 21.08
	GAE \$	3.70	\$ 4.32		GAE \$	9.40	\$ 3.32
	TOTAL INDIRECT \$	31.60	\$ 29.20		TOTAL INDIRECT \$	57.69	\$ 32.44
	EXPENSES \$	55.95	\$ 51.37		EXPENSES \$	81.70	\$ 55.28
NOR	\$	14.49	\$ (10.42)	NOR*	\$	(42.06)	\$ (0.21)
SURCHARGES	\$	2.58	\$ 2.58	SURCHARGES	\$	0.99	\$ 0.99
	RATE \$	73.02	\$ 43.53		RATE \$	40.63	\$ 56.06
DIRECT LABOR HOURS		150,680	141,969	DIRECT LABOR HOURS		164,196	147,229
DIRECT				DIRECT			
	LABOR \$	57.97	\$ 62.26		LABOR \$	60.40	\$ 57.36
	MATERIAL \$	1.67	\$ 0.43		MATERIAL \$	2.64	\$ 1.79
	OTHER \$	1.89	\$ 0.17		OTHER \$	1.66	\$ 1.13
	TOTAL DIRECT \$	61.53	\$ 62.86		TOTAL DIRECT \$	64.70	\$ 60.28
INDIRECT				INDIRECT			
	MISSION \$	17.38	\$ 15.42		MISSION \$	19.99	\$ 21.21
	IBOE \$	53.12	\$ 55.11		IBOE \$	110.15	\$ 55.64
	GAE \$	9.35	\$ 12.26		GAE \$	25.33	\$ 8.77
	TOTAL INDIRECT \$	79.85	\$ 82.79		TOTAL INDIRECT \$	155.47	\$ 85.62
	EXPENSES \$	141.38	\$ 145.65		EXPENSES \$	220.17	\$ 145.90
NOR	\$	36.62	\$ (29.54)	NOR	\$	(113.35)	\$ (0.55)
SURCHARGES	\$	6.52	\$ 7.32	SURCHARGES	\$	2.67	\$ 2.61
	RATE \$	184.52	\$ 123.43		RATE \$	109.49	\$ 147.96
STANDARD FUNDED WORKLOAD		2.527	2.836	STANDARD FUNDED WORKLOAD		2.695	2.639
		32,199	46,000			65,238	45,009

*Tooele is anticipating a more profitable FY95 than originally forecast. They have received approval for planning purposes to apply the difference against anticipated FY96 rates and prices. THESE ARE PLANNING FIGURES USING ANTICIPATED PERFORMANCE FOR REMAINDER OF FY95.



BRAC
CLOSURE OF SAVANNA ARMY DEPOT ACTIVITY
AND
RELOCATION OF USADACS

A CRITICAL VIEW

Good Morning - -

I am Al Ehringer. I retired as the Director of the US Army Defense Ammunition Center and School (USADACS) and I previously served as the Civilian Executive of the Savanna Army Depot.

Now I am Co-Chairman of a group consisting mainly of retired Ammunition Careerists who have extensive experience in the DOD ammunition program. We have examined some of the data and information that has been offered to support the closure of Savanna Army Depot Activity and the relocation of USADACS.

SOURCES OF INFORMATION FOR RECLAMA

Referenced in our report.

BRIEFING

Time constraints preclude enumeration of detailed dollar requirements and ammunition tonnages; however, key information is included in the backup data which will be furnished to the Commission. We highly commend the professionalism of the Industrial Operations Command study entitled "Wholesale Ammunition Stockpile Program (WASP)" dated October, 1993. Before focussing on the proposed closure of Savanna Army Depot Activity and the relocation of the US Army Defense Ammunition Center and School, several all important factors must be presented to the Commission.

1. There is no excess ammunition storage space in the Continental United States at the eleven ammunition storage facilities:

Crane AAA	Red River AD
Hawthorne AAP	Savanna ADA *
McAlester AAP	Seneca ADA *
Anniston AD	Sierra AD *
Blue Grass AD	Tooele AD
Letterkenny AD	

** Proposed for Closure*

This lack of storage space was forecasted in the 1993 WASP Study.

2. To alleviate this lack of magazine storage space for ammunition, the Army has established an accelerated Demilitarization Plan (Demilitarization - the rendering of military ordnance incapable of its intended use.) The demil program for FY95 is \$110 million. In subsequent years, the projected funding is reduced to \$35 million in FY03 and the demil account will grow from 400 thousand tons to 713 thousand tons. The demilitarization program is significantly under funded.
3. The May 1994 Army Plan documents that magazine space must be realigned to accommodate operational requirements under the proposed depot tiering structure. The study on tiering states that 2.1 million tons of ammunition out of 3.1 million tons now in depot storage must be moved to accomplish realignment. We have determined that the cost would be approximately \$185 million for tiering the depots. The Army plan estimated \$22.4 million.

Continental U.S. ammunition storage space has been adversely impacted by the retrograde of ammunition from Europe, SW Asia and the reduced Army force structure. What has not been identified is additional Army ammunition to be returned from overseas, ammunition from Air Force and Navy.

Approximately 450 thousand tons of ammunition are in magazine storage at Savanna, Seneca and Sierra. Closure of these depots will further impact on lack of ammunition storage space.

Savanna Army Depot has magazine storage capacity for 165,000 tons of ammunition at a time when a lack of storage space for ammunition exists in the continental United States - (Ref: "Wholesale Ammunition Stockpile Program") (WASP).

4. **Specialized demil facilities at Savanna Army Depot Activity**

- An Explosive Waste Incinerator (EWI) with associated equipment to meet all State and Federal Government environmental laws is available at Savanna ADA. Due to regulatory constrictions and limited operational dollars, only 3 EWI's will be licensed and funded within the Army. Workloading Savanna's EWI would aid in reducing the demil inventory and would reduce overhead costs for the depot.
- Depleted Uranium (DU) capability at Savanna ADA is a one of a kind facility which has received operational licensing from the Nuclear Regulatory Commission. This equipment, unique to DU, has been certified to safely dispose of this sensitive material. Duplication at another installation would require extensive dollar outlay and testing. At least 6,700 short tons are currently available for demil.
- Open burning and open detonation facilities were designed specifically to accommodate student training. Closed circuit television, classroom, storage bunkers and a student change house are in place. This facility is available for joint usage.

5. **Storage Magazines and Structures.**

- Facilities for explosive storage are in compliance with DOD Explosive Safety Standards and have been maintained in an excellent structural condition.
- The variety of magazines and support facilities (e.g. loading docks, road and rail networks) readily accommodate storage of the assortment of munitions. The ability to store all of the types of items in the stockpile without modification or safety waiver contributes to the readiness posture and to timely response to contingency requirements. The engineered design of the depot is the major

contributing factor to Savanna's outstanding logistical performance demonstrated during periods of national emergency.

- Closure costs do not address movement of "Demil" stocks needed to effect closure. Movement costs are approximately \$350 per ton which will increase Savanna's closing costs by at least \$2 million.

6. **US Army Defense Ammunition Center and School**

-USADACS facilities are in excellent physical condition and have been modernized with state-of-the art equipment. Duplication of these facilities will require at least \$50 million.

- Permanent, air conditioned, modernized classrooms with state-of-the-art classroom equipment and a campus atmosphere; administrative/engineering space; air-conditioned, permanent-type buildings with modern offices; conference rooms and modern lights; Transportability/Pilot Model facility - new \$4.5 million facility adjacent to engineering design offices and existing rail track; Demolition Range - with classrooms, remote television and storage structure; communication network fiber optics and satellite hook-up.
- On-site review of facilities at McAlester offered for USADACS has determined that new construction and extensive renovations would be required.

-Facilities at SVADA provide a capability for hands-on training with live ammunition that would be not only very expensive to duplicate at another installation but could also have difficult environmental obstacles to overcome.

-USADACS is a very synergistic organization. In addition to its training mission, professional and technical personnel of USADACS are trained and available to respond to emergency and contingency requirements world wide as in Haiti, Grenada, Panama and Southwest Asia. Transfer of USADACS to McAlester would result in a significant loss of highly trained personnel, many with very unique skills. Any loss or degradation in the ability to perform services by these "Civilian Soldiers" will adversely impact operational responsiveness throughout DOD. Replacement personnel will require 4 to 5 years to reach the level of expertise now available.

7. **POTENTIAL COSTS/SAVINGS**

- Maintaining the status quo requires no investment.
- The cost of moving USADACS will be at least \$57 million.

- The cost of replacing the depot's available storage capability is \$325 million. (Ref: Depot Brochure).
- Replacement of the unique facilities for Demil of depleted uranium and the Explosive Waste Incinerator will cost in excess of \$20 million.
- Total costs avoidance by maintaining the status quo exceeds \$400 million.

8. ENVIRONMENTAL CONSIDERATIONS

- Clean-up requirements have been identified and funding programs have been established for environmental application at Savanna Army Depot Activity. Total scope identified to date is \$310 million and is proposed to be accomplished by 2031.
- Transfer of the installation to private use should not be made until clean-up is accomplished. Clean-up operations can be concurrent with depot operations. Retention of the depot will permit logistical and administrative support for clean-up operations.

CONCLUSIONS/RECOMMENDATIONS

An examination of these facts as we have outlined leads to the following conclusions and recommendations:

- In FY95, all ammunition storage space in the United States is filled, inclusive of the depots proposed for closure. There is no excess storage magazine space.
- Demil stocks continue to grow faster than demilitarization is accomplished. This has been caused by inadequate funding and failure to fully use facilities available throughout the system.
- Retention of USADACS at Savanna will save \$57 million.
- The Army has substantially underestimated the cost of moving ammunition from Savanna and the relocation of USADACS to McAlester.
- The tiering concept of ammunition depots should be abolished. This concept is flawed because costs are underestimated and resources for support of readiness and total force requirements will be wasted.

- Conversion of SVADA from a government owned/government operated (GOGO) facility to a government owned/contractor operated (GOCO) facility is a viable option.
- **The decision to close Savanna Army Depot Activity and relocate USADACS should be reversed.**

**Sierra Army Depot
Demographics**

EMPLOYEES:

Total: Approximately 1,245

Civilian: 554 permanent, 198 temporary (400 wage grade (WG)/blue collar and 352 general schedule (GS)/white collar, **plus** 49 non-appropriated fund and 52 contract workers). About 50% of the civilian employees live in the Herlong/Doyle area, 30% in the Susanville/Janesville area, 15% in the Reno/Sparks area and the remaining 5% in other areas.

Military: 391 active duty Army including 32 tenant personnel (and about 400 family members). Retired Military serviced: More than 2,000 (Commissary, Exchange, Medical, Personnel, etc.)

Tenant Units: 34th Explosive Ordnance Detachment (EOD), U.S. Army Health Clinic, U.S. Army Dental Clinic, Defense Finance and Accounting Office, Defense Reutilization and Marketing Office, Defense Commissary Agency, Post Exchange, and Scheduled Airline Traffic Office.

KEY PERSONNEL:

Depot Commander, Colonel Donald D. Whitfield II
Civilian Executive Assistant, Mr. Charles S. Furca
Command Sergeant Major, Command Sergeant Major Lynell Sullivan.

BUDGET:

Payroll: Approximately \$36 million (civilian about \$28 million, military about \$8 million)

Local procurement: Approximately \$5 million annually (\$1.3 million in Lassen County)

Utilities: Approximately \$1.5 million

ASSETS:

Approximately \$7 billion in government assets stored at the depot (Inland Petroleum Distribution System, Water Support System and Force Provider total more than \$500 million).

INSTALLATION SERVICES:

DOD Police Force, Fire Department, Medical Clinic, Ambulance Service, Post Office, Credit Union, Commissary, Post Exchange, Chapel, Child Development Center, Youth Activities Center, SATO Travel Office, Laundromat, Outdoor Recreation Office, Army Community Services, Barber & Beauty Shops, C-Mart/Gas Station, Community Club, Education Center, Public School: Primary K-6), Middle (7-8), High (9-12), Theater, Bowling Center, Gymnasium, Fitness Center, Craft Shop (Auto, Wood, Ceramic).

SIZE:

Total area: 96,430 acres (32,292 main land mass plus 4,030 demo ground and 60,108 Honey Lake)

TOTAL NUMBER OF BUILDINGS:

1,237 (5.6 million square feet) including:

Warehouses - 26 (2.3 million square feet)

Igloos - 799 plus 12 standard magazines

Housing - 165 (1,500 square foot average/140 enlisted, 25 officer)

TRANSPORTATION:

Roads: 301 miles (205 paved, 96 gravel/dirt)

Rail: 59 miles internal rail system (2 locomotives)

Air: 7,168 foot runway (largest aircraft in inventory, C-5, can land here)

DEMIL EFFORTS:

Demil Pits: 14 (up to 10,000 pound net explosive weight (NEW) each). Nearly 20,000 tons of ammunition and more than 200 rocket motors destroyed on an annual basis.

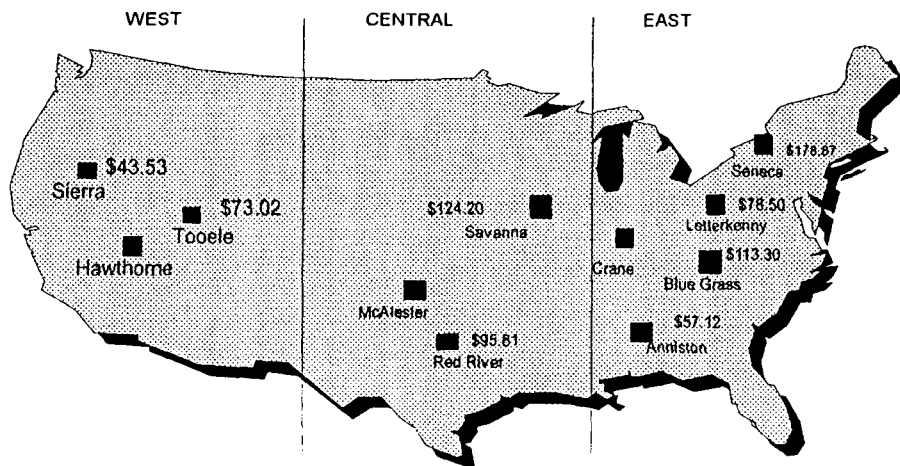
AMMUNITION IN STORAGE

Approximately 209,000 short tons equal to approximately 418 million pounds. Enough to fill 3,484 rail cars stretching over 36 miles.

Sierra Army Depot Ammunition Mission Advantages

Infrastructure and Area Information

- Located in northeastern California on a major all weather highway.
- On-site airfield (C-5 capable).
- Best proximity to west coast ports.
- Access to two major rail lines.
- 26 general purpose warehouses with 2.3 million square feet of covered storage space.
- 797 igloos and 12 standard magazines for ammunition storage.
- Serves as safe haven for munitions for Naval Weapons Station-Concord.
- 14 demolition pits capable of 10,000 pounds NEW each, plus an open burn pit capable of burning 100,000 pounds NEW and a deactivation furnace capable of 200,000 rounds of small arms daily.
- 36,000 acres available for open controlled storage.
- Center of Technical Excellence for the processing and maintenance of Operational Project Stock.
- Active Reserve Forces Training Program.
- Ideal moderate climate with low relative humidity.
- Lowest ammunition rates.



1995 Depot System Command
Installation Ammunition
Rates

Transportation

205 miles of paved roads, 96 miles of unimproved roads, 59 miles of rail, and a 7,168 foot runway capable of handling all types of aircraft.

Maintenance

GENERAL

Automotive shops for vehicles and heavy equipment.

Box and crate shop.

Ammunition maintenance facilities with deluge systems, dual propellant vacuum systems, dual power conveyors and intrusion detection systems.

MACHINING

Milling, vert/horiz
Cutting
Drilling
Grinding
Turning
Thread milling
Shapiong
Boring

SURFACE COATING

Blasting
Painting, include CARC
Plating/Coating

WELDING

Oxyacetylene
Conventional Arc
MIG, TIG

FABRICATION

Notching
Pressing
Cutting
Iron work,
multiple operation

HEAT TREATING

Annealing
Tempering


Cardinal™

POINT PAPER

SUBJECT: Post-BRAC Manpower Requirements

1. PURPOSE: To provide information on the manpower enclave requirements, proposed costs, and proposed savings identified in the BRAC recommendation.
2. FACTS.
 - a. The BRAC recommendation to realign the depot stated the post-BRAC enclave would be comprised of 240 personnel.
 - b. The source documents used in determining the post-BRAC staffing level were the Army Stationing and Installation Plan and the depot's response to a data call from the Industrial Operations Command, BRAC Office in which the question was asked, "How many personnel are currently required to support Operational Project Stocks mission?"
 - c. Using these two documents to determine the depot's staffing level created a distorted picture of depot requirements. The Army Stationing and Installation Plan used is 145 personnel short of the actual on-board strength. The cause of this is the inability of the depot to report anything other than authorized personnel in the Plan. The depot's Plan is 630 personnel while the authorized workyears is 775.
 - d. The depot's response to the data call referenced above was 240 personnel. The depot did not interpret the data call to include base operations functions required to support the enclave. Also, specifically excluded was any workload other than Operational Project Stocks. We currently perform critical radiation survey functions required to divest department of Defense facilities identified by BRAC.

SDSSI-REB

SUBJECT: Post-BRAC Manpower Requirements

- e. In order to determine the correct staffing level for the enclave, we used two methods to approach the question. The first method was a bottom-up review of direct mission and base operations and general and administrative support requirements that would remain as a part of the enclave. The direct labor hours are based on funding levels, detailed cost estimates, and historical manhour standards. Some of the functions Sierra Army Depot performs include: Receiving; inspections; inventory; warehousing; prepare and pack for shipping by truck, ship, and air; repair and overhaul of major items; and set assembly. We work with the project managers to incorporate engineering changes and produce technical manuals for users. As the customer's representative, we support the change-outs at the prepositioned ships. This entails performing an inventory on all assets coming off and going on the ships, inspecting for any minor defaults which can be rectified at the port, as well as all related care of supplies in storage. The summary of the FY96 regular direct labor projection is 388,606 hours. This equates to 227 direct workyears. The indirect workyears are driven by a historical factor of 20 percent, which adds 57 workyears.
- f. The second method identified the conventional ammo and special weapons direct, indirect and base operations workyears then subtracted that amount from the total FY94 and the FY95 costed workyears. This process confirmed that the 512 civilian figure is reasonable.
- g. Based on the results of both methods, the depot concluded that the personnel requirements to the enclave is 512 civilian positions.
- h. Using the civilian requirement of 512 positions, the actual manpower savings is 238 jobs rather than the 363 jobs the BRAC recommendation claimed, grossly overstating the savings.
- i. The Cost of Base Realignment model estimated Sierra Army Depot's one time implementation cost for the recommended realignment to be \$14.0M. The depot's estimated minimum additional costs above the \$14.0M that were not considered in the model equal an

SDSSI-REB

SUBJECT: Post-BRAC Manpower Requirements

additional \$62.0M and the estimated probable additional costs above the \$14.0M would be \$101.0M. These amount consist of :

(1) Minimum Additional Costs

Ammo short tons to move	\$ 40.0M
Ammo Demil to move	\$ 19.0M
Ammo Radiological Surveys	<u>\$ 3.0M</u>
Total	\$ 62.0M

(2) Probable Additional Costs

Ammo short tons to move	\$ 75.0M
Ammo Demil to move	\$ 19.0M
Ammo Radiological Surveys	<u>\$ 7.0M</u>
Total	\$101.0M

- j. The BRAC costing model states that the depot will achieve a net savings of \$55M during the implementation period. The depot has identified an approximate additional \$100M in costs not considered by the model. Taking into consideration the additional costs, the recommended realignment will cost the depot at minimum \$45.0M to execute, totally negating any projected savings.


Cardinal

POINT PAPER

SUBJECT: Ammunition Mission at Sierra Army Depot (SIAD)

1. PURPOSE: To provide the BRAC Commissioners with information on the ammunition shipping/receiving mission and supporting infrastructure at SIAD.

2. FACTS.

- a. Sierra Army Depot has major missions for the receipt, issue, and storage of ammunition. Workload for shipping and receiving has averaged 66,720 short tons per year, with a workload of 46,464 short tons scheduled for FY95, as reflected on the chart at enclosure 1. Current fiscal year actual receipts and issues through March are 30,320 short tons.
- b. Sierra Army Depot continues to have the best ammunition rates of any installation within the Industrial Operations Command (IOC) for FY95 at \$43.53 per direct labor hour. The cost per ton for shipping and receiving has averaged \$127.36 for FY92 through FY95, and is \$123.43 for FY95, which is the best in the IOC. In spite of this cost effective rate for the customers, SIAD continues to make a profit. Additional information on SIAD's rates is contained in enclosure 2.
- c. Sierra Army Depot has 799 igloos plus 12 standard magazines for ammunition storage and has a covered storage capability of approximately 2 million square feet. Additionally, SIAD has outside improved storage of 1.9 million square feet. The outside storage has a permitted capacity of 53.7 million pounds of net explosive weight (NEW).
- d. Sierra Army Depot's open burn/open detonation capability is the best in the Army. For more details on this mission, refer to the point paper "Ammunition Demilitarization Mission at Sierra Army Depot."
- e. Sierra Army Depot has an excellent transportation network from which to serve as a power projection platform and the best proximity to western ports of any IOC

SDSSI-MPO

SUBJECT: Ammunition Mission at Sierra Army Depot (SIAD)

installation. Sierra Army Depot has access to two major rail lines, the Union Pacific and the Southern Pacific, and is the only Western Depot Systems Command Ammunition installation with an on-site airfield (a 7,168-ft runway) capable of handling C-141, C-17, and C-5A cargo planes. The on-site airfield and access to two major rail lines provide for the rapid delivery of ammunition anywhere in the world.

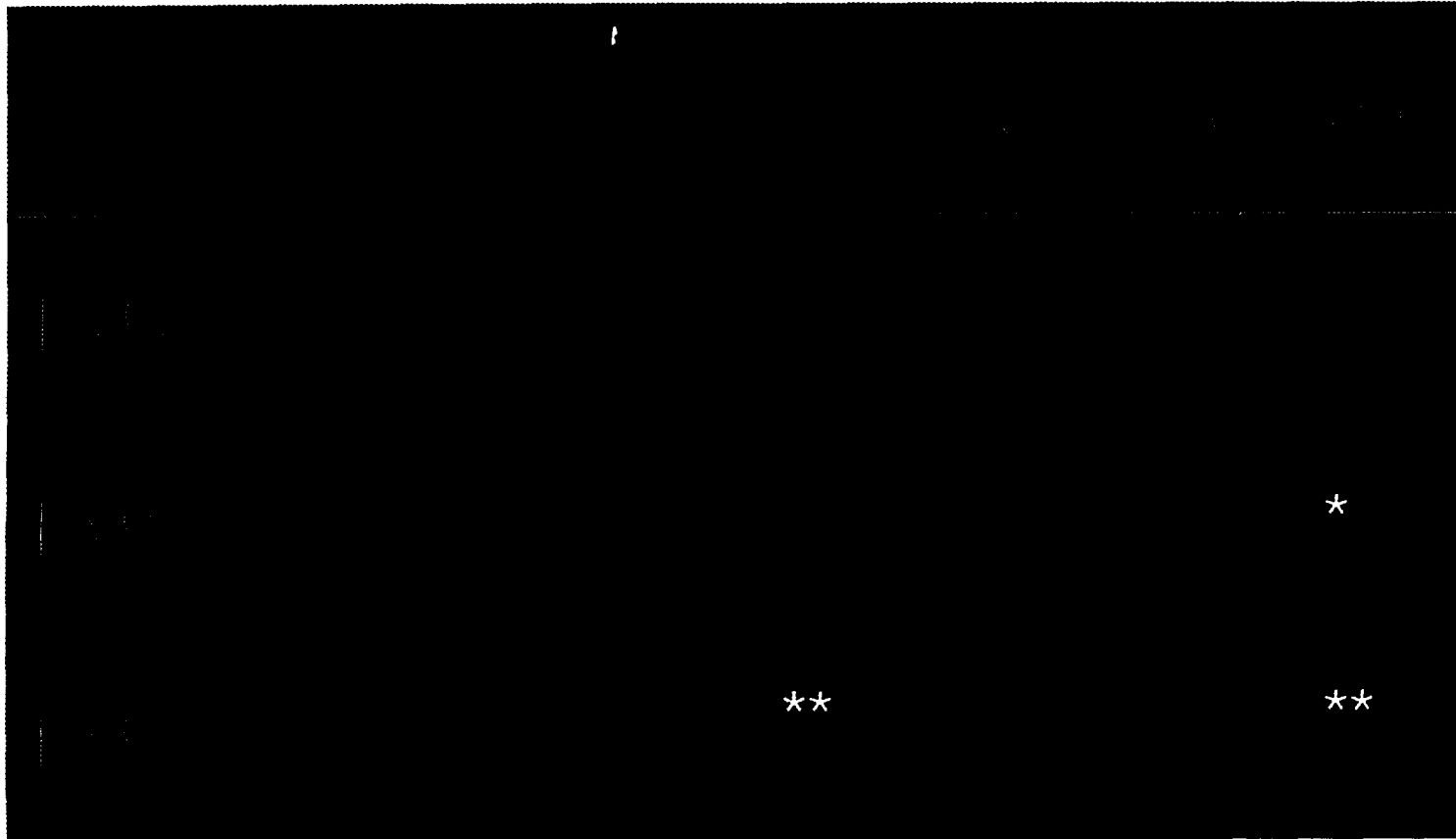
- f. Since SIAD is on the major east/west rail line, shipments from all other ammunition depots destined for west coast ports pass by SIAD. This convenient location has allowed SIAD to serve as a rail holding facility for staging shipments enroute to port at Naval Weapons Station - Concord and as a safe haven for ammunition shipments enroute to/from port.
- g. Sierra Army Depot has maintained its internal rail network infrastructure. An extensive rebuilding effort, initiated approximately 12 year ago, costing over \$8.4 million, is now virtually complete. Only minor maintenance of the internal rail serving the ammunition area will be required during the next 20-25 years.
- h. Sierra Army Depot has been performing continuous maintenance on the road network and the rail docks to ensure their availability when needed. Since 1988, \$9.9 million has been spent to maintain depot roads. The current condition of all roads and docks in the ammunition area is from good to excellent.
- i. Sierra Army Depot is nearing completion of a new ammunition surveillance facility which is scheduled to be completed by the summer of 1995. This facility will replace an existing older ammunition surveillance facility (Building 401) and provides increased capability to perform ammunition surveillance inspections.

SHIPPING AND RECEIVING

SHORT TONS

FY90	49,265
FY91	80,493
FY92	95,945
FY93	67,899
FY94	40,000
FY95 SCHEDULED	46,464

Shipping/Receiving/Storage Rates by Year



*
**

- * Cost per ton increased due to commodity mix
- ** Best Rates in Depot System for FY95

 Cardinal™

POINT PAPER

SUBJECT: Ammunition Demilitarization Mission at Sierra Army Depot (SIAD)

1. PURPOSE: To provide the BRAC Commissioners with information on the Ammunition Demilitarization mission at SIAD.

2. FACTS.

- a. Sierra Army Depot has a major mission for the destruction of obsolete munitions, and has the best Open Burn/Open Detonation capability in the Army. This includes 14 demolition pits for open detonation with the ability to detonate between 6,275 pounds to 10,000 pounds net explosive weight (NEW) per pit. All operations are done above ground, without the requirement to bury the munitions before detonation, a process that is found at many installations, thereby increasing the amount that can be destroyed in a day. Additionally, the burning grounds at SIAD have a capacity to burn 100,000 pounds of NEW per day.
- b. Sierra Army Depot also has a Deactivation Furnace. This furnace is the only one in the Army currently with authority to process small arms munitions of .50 caliber and below.
- c. Sierra Army Depot has had average demil rates of \$54.59 for the past four years as is reflected on the chart at enclosure 1, and has the best demil rates in the Industrial Operations Command (IOC) for FY95 at \$43.54 per hour as portrayed on the chart at enclosure 2. The cost per ton for FY95 demil is \$372.90 based on the current schedule, and is the most cost effective in the IOC as reflected in the chart at enclosure 3.
- d. Although Resource Recovery and Recycling (R3) is replacing Open Burning/Open Detonation, due to environmental regulatory limitations, it still remains cost prohibitive. Additionally, burying munitions before detonation adds to the cost and reduces through put. These impacts can be seen by the chart at enclosure 3. Pure Open Burning process is still much more efficient and cost effective. When

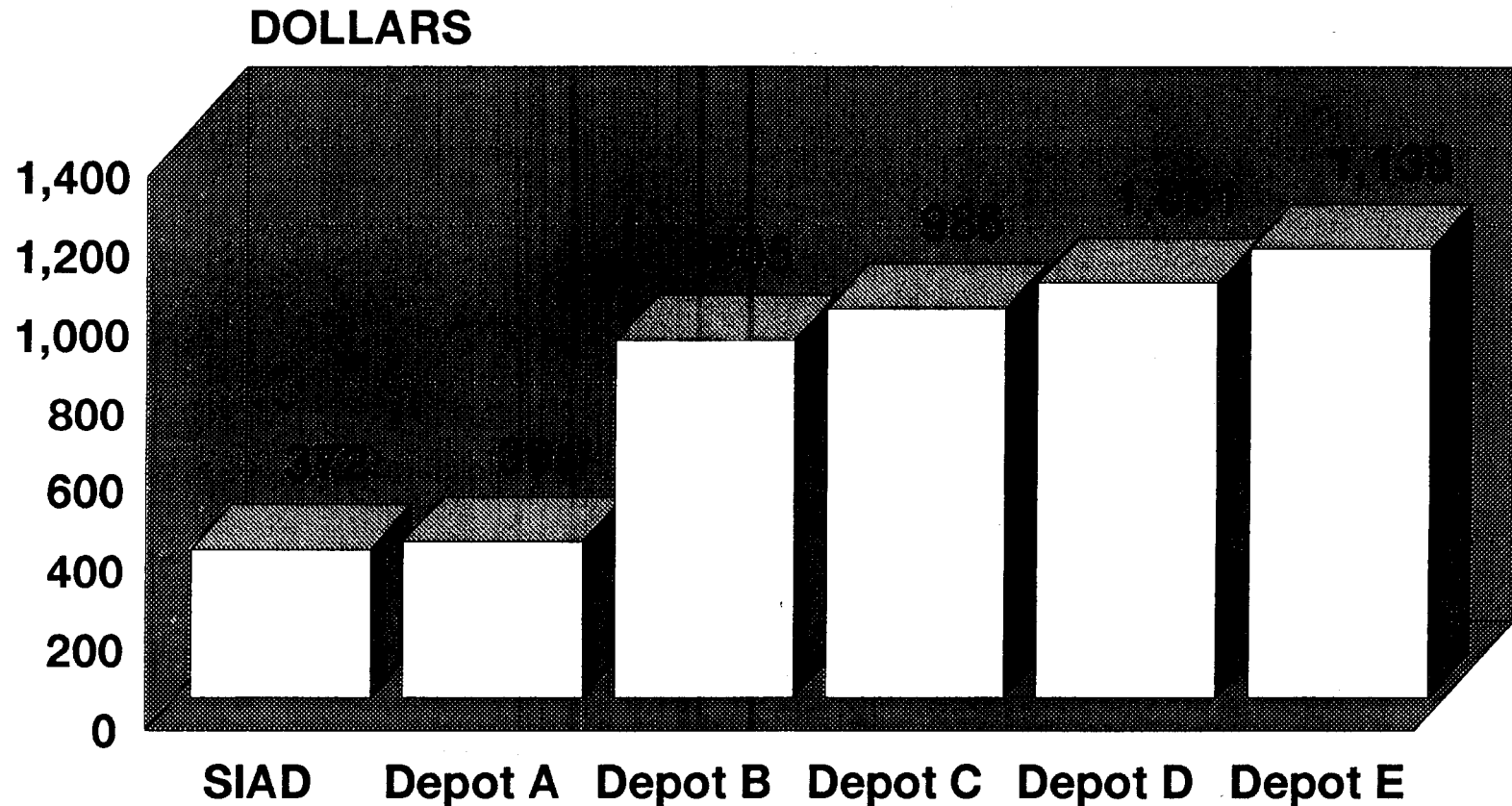
SDSSI-MPO

SUBJECT: Ammunition Demilitarization Mission at Sierra Army Depot (SIAD)

SIAD receives its Part B permit for the Open Burning processes this year, it will allow for a minimum of 10 more years of cost effective operations.

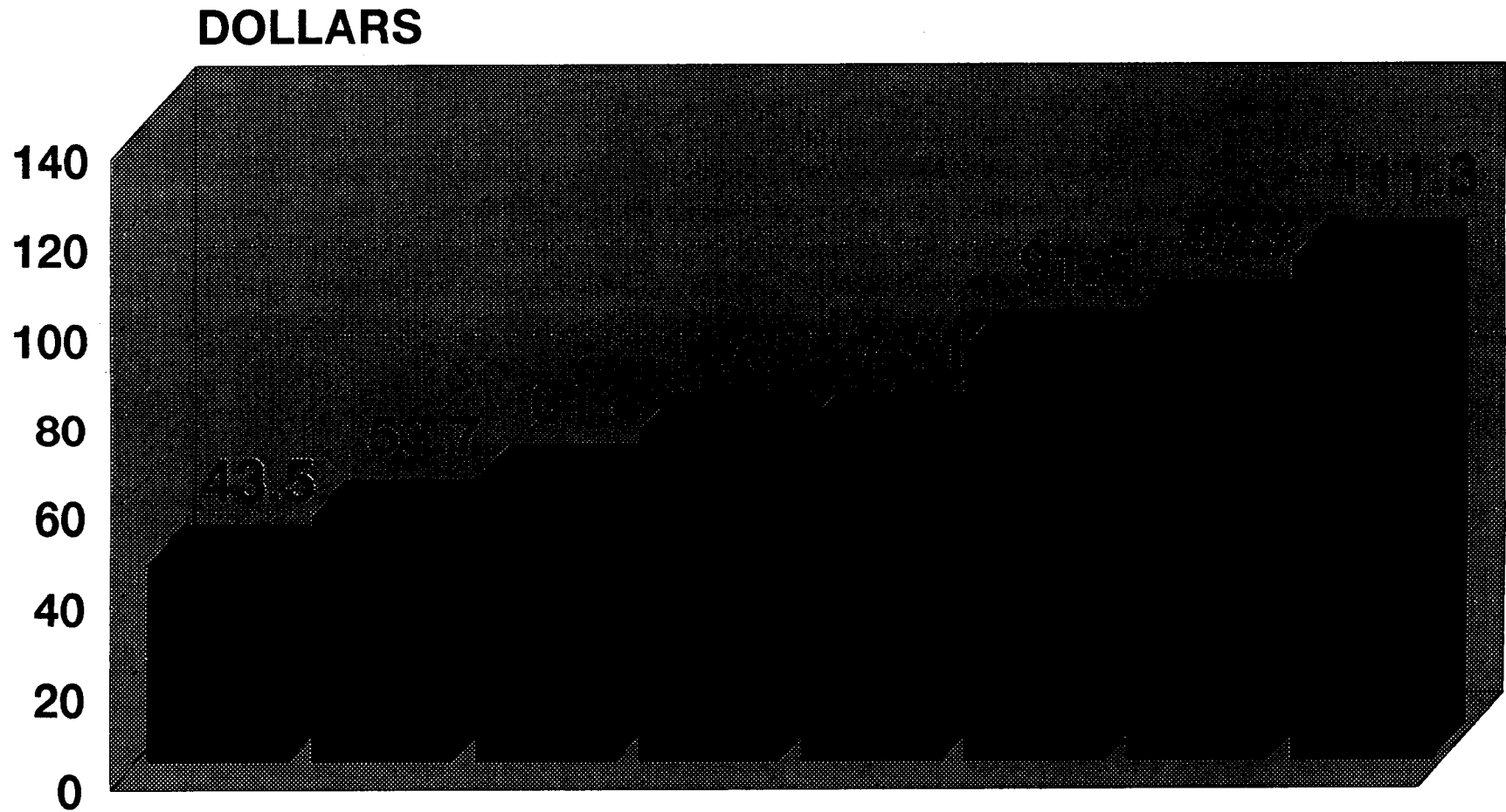
- e. Sierra Army Depot demil workload has averaged 14,591 short tons per year for the period FY90 - FY94, and the scheduled workload for FY95 is 28,245 short tons, which represents the largest single workload and over 30% of the Army's annual total plan.
- f. Sierra Army Depot has proven its capability to burn large rocket motors as demonstrated by burning large motors for the Navy to accomplish Strategic Arms Reduction Treaty (START) I requirements. Some of the rockets that have been destroyed include Poseidon, Polaris, Peacekeeper, and Minuteman. Because of the large Open Burn/Open Detonation capability here, the Navy depends on SIAD to help them achieve their schedules as set forth in the START II treaty requirements. There are no other installations with the capabilities of SIAD to perform demil of START II items.
- g. There is currently about 413,000 short tons of ammunition in demil accounts and with the draw down, this amount is projected to increase. Sierra Army Depot will be heavily depended on for demil operations by ammunition managers because of the large capability that exists here and because of SIAD's cost effectiveness.

FY95 Demilitarization Cost per Ton



SIAD Depot A Depot B Depot C Depot D Depot E
Source: AMCCOM FY95 Demilitarization Business Plan
Forecasted by AMCCOM

FY95 Demilitarization Fixed Rate



SIAD
Source: DESCOM Rate File FY95


Cardinal™

POINT PAPER

SUBJECT: Smoke Plume From The Open Burning/Open Detonation Static Fire Grounds

1. PURPOSE. To provide information on the smoke plume from the Open Burn processing grounds.

2. FACTS:

- a. Sierra Army Depot is presently evaluating the effects of the smoke plume in a Health Risk Assessment and in an Ecological Risk Assessment. The risk assessments should be completed by September 1995. With the studies completed so far, Sierra Army Depot does not expect any problems from the smoke plume for humans, or animals/plants.
- b. The smoke plume from the Open Burn processing grounds includes products of combustion and products of incomplete combustion. During detonations, soil is also blown into the air.
- c. The primary air emissions are carbon monoxide, carbon dioxide, nitrogen and nitrogen oxides, water, sulfur dioxide, methane, and ammonia.
- d. The secondary air emissions include products of incomplete combustion such as unreacted explosive material, organics, and trace metals. Some metals may be emitted, primarily from the shell casing.
- e. Soil sampling is being completed by the State of California and Sierra Army Depot at the most likely places the trace metals (copper and lead) would be found to finalize the data needed for the risk assessments.

3. IMPACT.

- a. Emissions data has been taken from numerous Army and Air Force studies. The Bang Box Study at Dugway has shown that organic pollutants are destroyed during the burning or detonation. The air monitoring stations set around the Tooele Army Depot demo grounds indicated that no metallic pollutants were being transported off the grounds.

SDSSI-ENV

SUBJECT: Smoke Plume From The Open Burning/Open Detonation Static Fire Grounds

- b. The final permit written by Environmental Regulators for the Open Burning processing grounds will ensure that Sierra Army Depot does not create a hazard that is dangerous to human health or the environment.

25 April 1995

POINT PAPER

SUBJECT: Permit Status Open Burning/Open Detonation/Static Fire (OB/OD/SF) Grounds

1. PURPOSE. To provide information on the Open Burning/Open Detonation/Static Fire status for Sierra Army Depot (SIAD).

2. FACTS.

- a. Sierra Army Depot is currently permitted to demilitarize larger quantities of ammunition than any other Army site.
- b. The depot is currently operating with interim status under a Part A permit for hazardous waste and has a current air permit with Lassen County.
- c. Health Risk Assessment for the Part B or final permit is about 90% completed.
- d. California Environmental Protection Agency, in August 1994, determined that SIAD would have to complete an Environmental Impact Report to permit the demolition grounds.
- e. The Environmental Impact Report is scheduled for completion, Fall 1995.
- f. California Environmental Protection Agency has requested SIAD take soil samples to test for two main concerns, lead and copper. Soil sample locations have been determined by the Environmental Impact Report maximum concentration locations. This is scheduled to be completed by the end of April 1995.
- g. Draft Part B permit for Open Burning/Open Detonation/Static Fire is scheduled at the end of May 1995.
- h. Final Part B permit for Open Burning/Open Detonation/Static Fire is scheduled for January/February 1996.


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POINT PAPER

SUBJECT: Operational Project Stocks Mission at Sierra Army Depot (SIAD)

1. PURPOSE: To provide the BRAC Commissioners with information on the Operational Project Stocks mission at SIAD.

2. FACTS.

- a. Sierra Army Depot is the home of the three largest Operational Project Stocks in the Army: The Inland Petroleum Distribution System, the Water Support System, and the Force Provider. In addition, SIAD has other Operational Project Stocks to include the landing mats and bridging material projects. As a result of these missions, SIAD was designated the Center of Technical Excellence for the processing and maintenance of Operational Project Stocks in February, 1993.
- b. As part of the Center of Technical Excellence and Operational Project Stocks missions, SIAD does shipping, receiving, storage and maintenance on assigned systems. In addition, SIAD performs direct support/general support level maintenance on the stocks. Some typical daily functions include receiving, configuration management, containerization, packaging, inspections, fabrication and refurbishment.
- c. The total value for the assigned stocks is \$1.2 Billion. The shipping/receiving rates for major end items at SIAD has averaged \$52.93 per hour for the period FY92 through FY95, with a FY95 rate of \$50.05 per hour.
- d. Sierra Army Depot has 26 general purpose warehouses with 2.3 million square feet of covered storage space. Sierra Army Depot currently has 17.6 acres of improved hard stand in support of the Operational Project Stocks mission, with an additional 5.4 acres being prepared this year. Also, SIAD has unlimited outside storage space to support future missions.

SDSSI-MPO

SUBJECT: Operational Project Stocks Mission at Sierra Army Depot (SIAD)

- e. Sierra Army Depot has spent \$8.5 million on rail upgrades in the last five years. In addition, over \$1 million has been spent on hard stands for the Operational Project Stocks mission.
- f. Sierra Army Depot has an excellent transportation network to support the mission, including access to two major rail lines, and an on-site airfield. Having an on-site airfield that is C-5 capable was a requirement for acquiring the Force Provider mission.
- g. Sierra Army Depot has supported military operations and humanitarian assistance efforts with Operational Stocks. Recent examples include Haiti, Somalia, Rwanda, Guam, and Hurricane Andrew in Florida as reflected on the enclosed charts.
- h. Because of the excellent location and moderate climate, SIAD is an ideal site for the storage of Operational Project Stocks or any other commodity.

Emergency Shipments by SIAD

Somalia Shipments

Chemicals for 3K Gallons Per Minute (GPM) Reverse Osmosis Water Purification Units (ROWPUs)

Reverse Osmosis (RO) Elements for 3K GPM ROWPUs

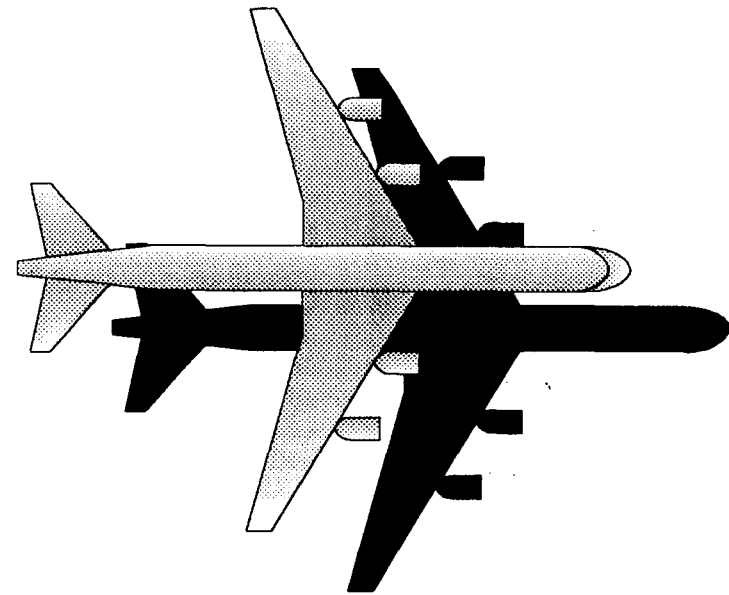
5 Mile Set (IPDS)

500 Gallon Drums

125 GPM Pumps

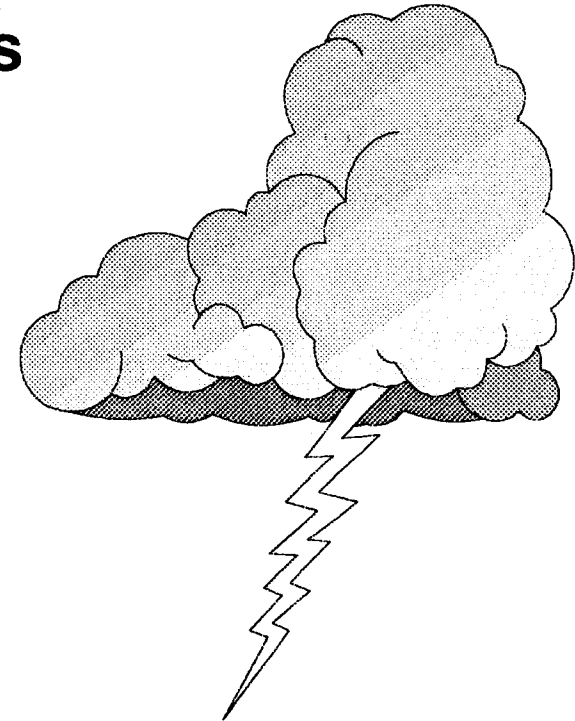
350 GPM Pumps

600 ROWPUs



Emergency Shipments by SIAD Humanitarian Relief

Florida	600 GPM ROWPUs
Guam	3K GPM ROWPUs
Hawaii	3K GPM ROWPUs
Arizona	3K GPM ROWPUs
Haiti	FP Components
Rwanda	3K GPM ROWPUs




Cardinal™

POINT PAPER

SUBJECT: Deactivation Furnace Status

1. PURPOSE. To provide information on the status of the deactivation furnace.
2. FACTS.
 - a. Sierra Army Depot is the only Army depot with an operation Deactivation Furnace.
 - b. Sierra Army Depot has concurrence of the State of California to operate for the demilitarization of small arms ammunition (.50 caliber and smaller). An air permit is all that is required.
 - c. The furnace is undergoing a Health Risk Assessment, an Ecological Risk Assessment, and an Environmental Impact Report, which should be completed in the Fall 1995.
 - d. Air emissions data from the Health Risk Assessment indicate acceptable emission levels.
 - e. A Completeness Determination for hazardous waste has been made for the Part B permit application.
 - f. Sierra Army Depot is expecting a Draft Part B permit in May 1995.
 - g. The final Part B permit for the deactivation furnace should be received in January/February 1996.


Cardinal®

POINT PAPER

SUBJECT: Environmental Permits Status

1. PURPOSE. To provide information on the status of environmental permits for Sierra Army Depot (SIAD).
2. FACTS.
 - a. Sierra Army Depot is in compliance with all required environmental permits.
 - b. Permits for the landfill, water distribution system, and sewage treatment systems are current.
 - c. Sierra Army Depot's current air permit covers the paint booths, Deactivation Furnace, Open Burning/Open Detonation/Static Fire grounds, paper incinerator, and boilers.
 - d. The Open Burn processing facility is operating with interim status under a Part A permit for hazardous waste.
 - e. The Deactivation Furnace operates for small arms ammunition (.50 caliber and less) under the air permit.
 - f. Final permitting actions for Open Burn processing and the Deactivation Furnace are currently underway for hazardous waste. Draft permits for these facilities are expected in May 1995. Full permits are subject to a public comment period and the anticipated date of completion is January/February 1996.

POINT PAPER

SUBJECT: Status of the Installation Restoration Program

1. PURPOSE. To provide information on the status of the installation restoration program for Sierra Army Depot (SIAD).

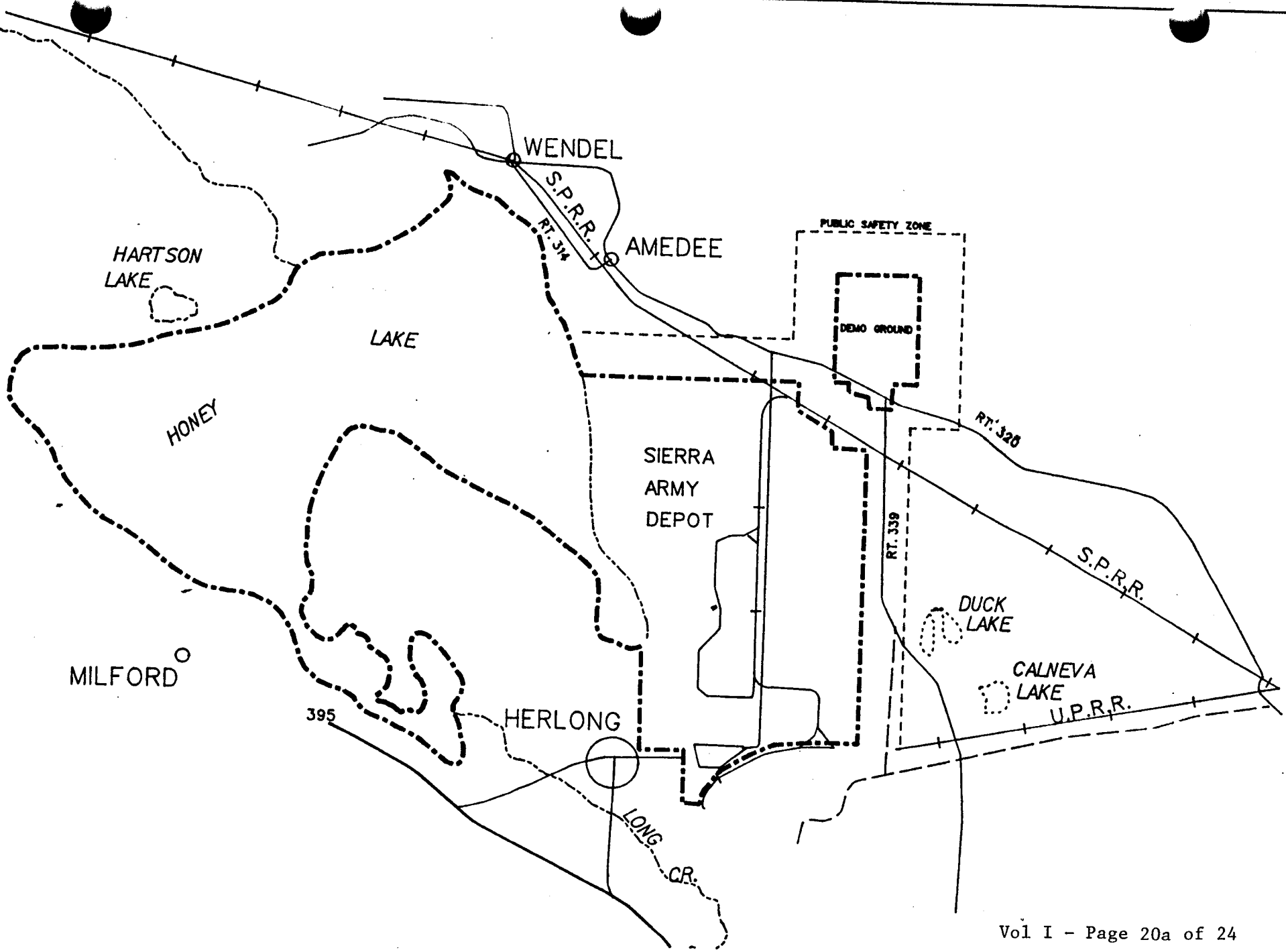
2. FACTS.

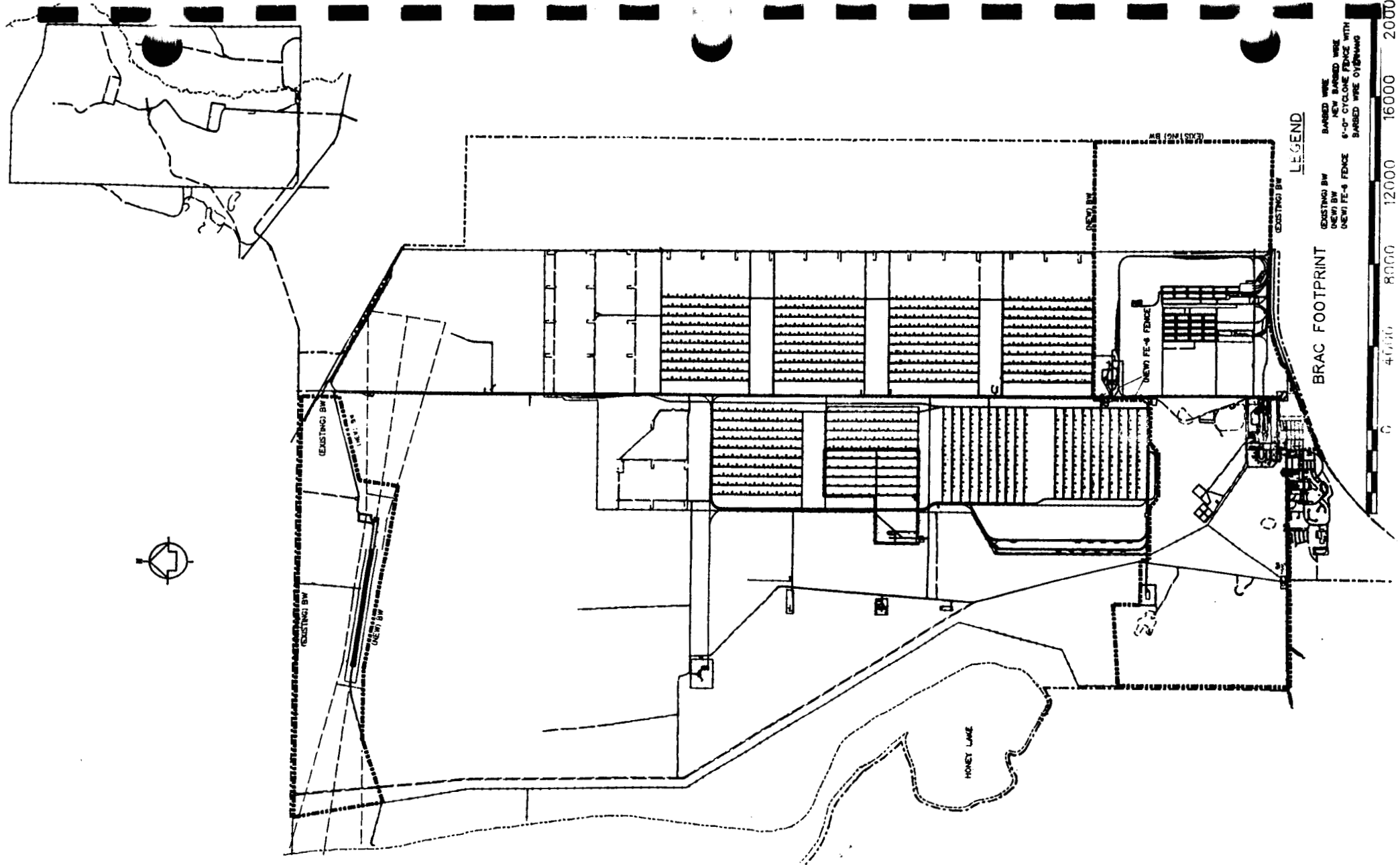
- a. Sierra Army Depot's Installation Restoration program has conducted a remedial investigation or Resource Conservation and Recovery Act investigation at 23 sites.
- b. The 9 sites outside the draft footprint (see enclosed map) are: Honey Lake, upper burning grounds, lower burning grounds, NIKE missile fuel disposal area A & B, Bldg 578, 1960's demolition grounds, old firefighting training area, and the unidentified pit.
- c. If SIAD excesses land on which these sites are located, the land will be unavailable for reuse for several years and in some cases, never available due to heavy unexploded ordnance levels.
- d. Unexploded ordnance is expected at Honey Lake, upper and lower burning grounds, and the 1960's demolition area.
- e. The contaminants of concern:
 - (1) Upper burning grounds found concentrations of explosives and Environmental Protection toxicity metals (arsenic, lead, barium).
 - (2) Lower burning grounds found concentrations of Environmental Protection toxicity metals (arsenic, barium, cadmium, chromium, lead, mercury).
 - (3) NIKE missile fuel disposal area A & B suspected unburned JP-4 and nitrates, fluorides from the evaporation of the Inhibited Red Fuming Nitrate Acid.

SDSSI-ENV

SUBJECT: Status of the Installation Restoration Program

- (4) Bldg 578 suspected cyanide and titanium tetrachloride contamination.
 - (5) The 1960's demolition grounds have metal fragments left over from past detonation and burning activities.
 - (6) Unidentified pit has concentrations of arsenic, thallium, chromium, exceeding background concentrations.
 - (7) Old firefighting training area contaminants of concern, Diesel JP-4.
- f. Records of Decision have been prepared for some sites, with other sites being scheduled for additional investigation.



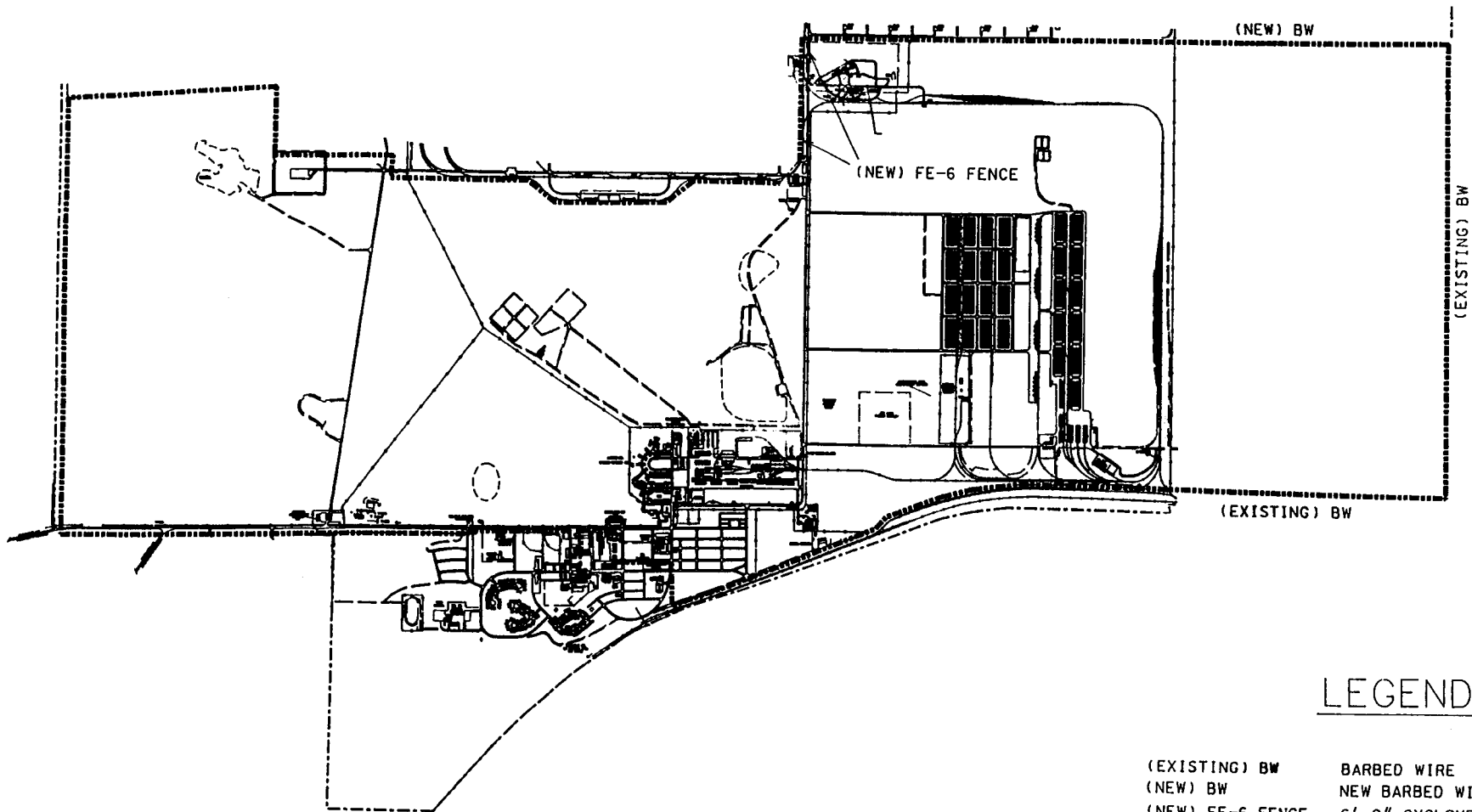


LEGEND

- EXISTING BW
- NEW BW
- NEW FE-4 FENCE
- BARBED WIRE
- NEW BARBED WIRE
- 6"-CYCLONE FENCE WITH BARBED WIRE OVERLAY

BRAC FOOTPRINT

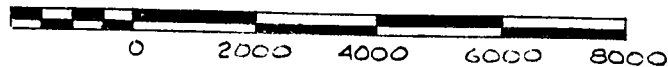


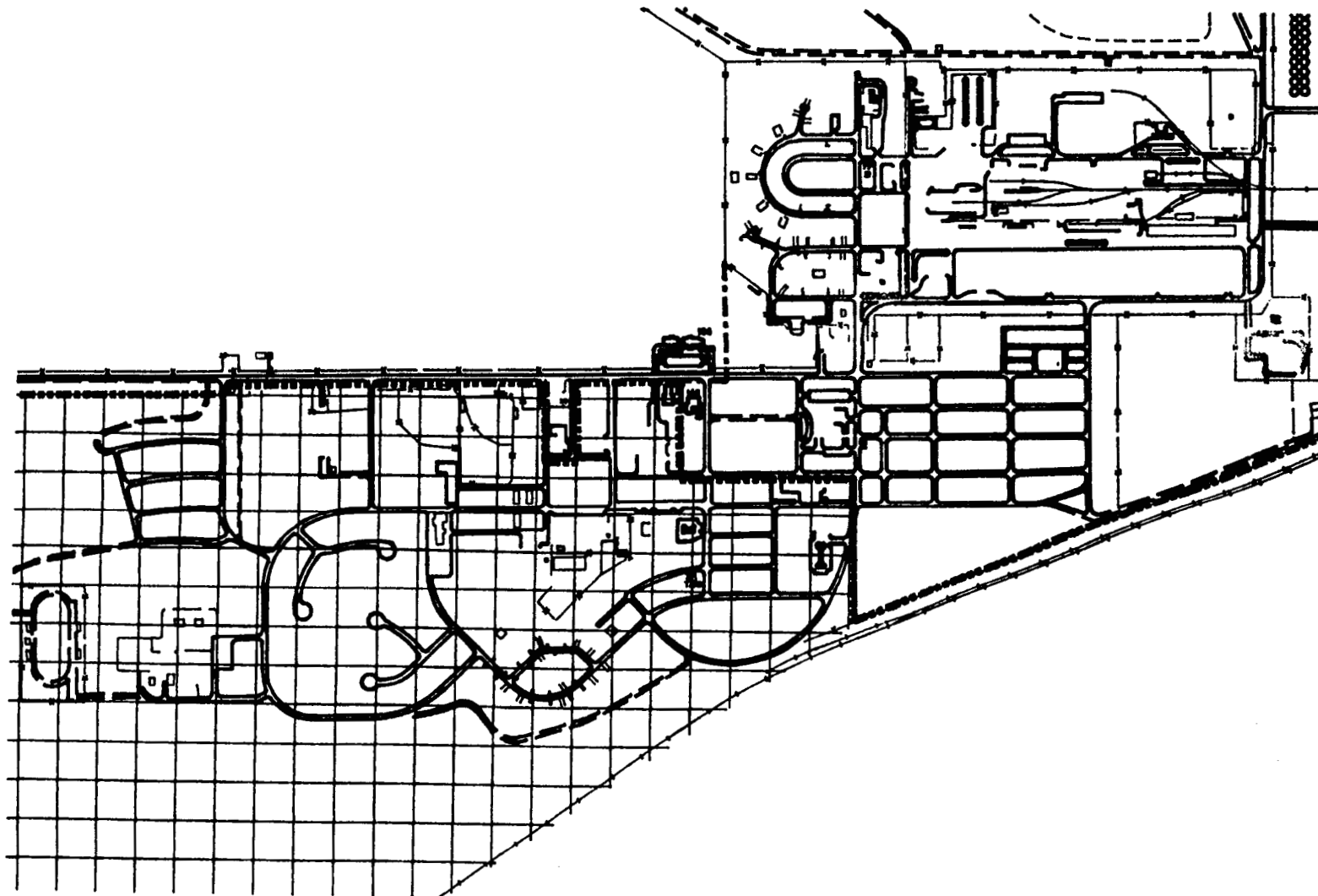


LEGEND

- | | |
|------------------|--|
| (EXISTING) BW | BARBED WIRE |
| (NEW) BW | NEW BARBED WIRE |
| (NEW) FE-6 FENCE | 6'-0" CYCLONE FENCE WITH
BARBED WIRE OVERHANG |

SIERRA ARMY DEPOT








Cardinal™

POINT PAPER

SUBJECT: Sierra Army Depot (SIAD) Reserve and Active Component Training Program

1. PURPOSE. To provide information concerning the training programs offered to Reserve and Active Components of the Armed Services.
2. FACTS.
 - a. Sierra Army Depot Reserve Component Training Program was established in 1970 with the purpose of providing meaningful sustainment training for the Reserve units in the ordnance, supply, and transportation fields.
 - b. The depot dedicates 2,000 environmentally approved acres for maneuvers and bivouac. Sierra Army Depot is the only installation within the geographical area capable of supporting the tactical training requirements of the local Reserve Units.
 - c. The Reserve Component Training is manned by one civilian and two military personnel. Currently, training opportunities are offered in 38 Military Occupational Specialities.
 - d. Over the last 3 years Sierra Army Depot has established Partnership Programs with the Naval Mobile Construction Battalion, 152d Civil Engineering Squadron, Naval Reserve Naval Weapons Station, Concord Explosive Outload Team, Detachment 320, and 240th Quartermaster Battalion, with the purpose of sharing assets and expertise in those areas where mutual benefits can be attained. This valuable program provides essential training location for reserve units and Sierra Army Depot gains an integrated work force in the areas of construction, rewarehousing, and maintenance at minimal costs. Sierra Army Depot has provided a highly flexible Reserve Training Environment ranging from Military Occupational Skill (MOS) improvement to maneuver areas and storage for Combat Engineer Vehicles and Armored Personnel Carriers for National Guard Units.

SDSSI-CA

SUBJECT: Sierra Army Depot (SIAD) Reserve and Active Component Training Program

- e. The Depot and the dedicated reserve billet facilities has provided critical training for Active Duty Soldiers in Force Provider Operation, Reserves Soldiers in Combat Service Support skills, and essential National Guard training sites for both rifle ranges and combat as well as construction engineer exercises.
- f. Currently Sierra Army Depot will support 17 units with approximately 2,470 assigned personnel. Enclosed is a chart showing the units scheduled for training and the number of training mandays accomplished within the last five years.
- g. The future for Reserve and National Guard utilization for Sierra Army Depot is unlimited. This installation can provide everything from formal classroom training with dormitory style living to humanitarian training on Force Provider Modules to tactical training using Combat Service Support Concepts. Sierra Army Depot has the capability, with current assets, to provide a critically needed local training site for both California and Nevada National Guard and Reserve stationed units.
- h. Sierra Army Depot continues to offer year-round support facilities i.e., weapon qualification ranges, classroom space, nuclear, biological, chemical chamber, billeting, and dining facility support. Without this support it would be virtually impossible for the Reserve and State National Guard units to meet their training requirements.

UNITS TRAINING

132ND ENGINEERING BATTALION
SUSANVILLE, CA

422ND SIGNAL BATTALION
RENO, NV

NAVAL MOBILE CONSTRUCTION
BATTALION 17
RENO, NV

FIRST BATTALION 113TH AVIATION
RENO, NV

7TH MAINTENANCE BATTALION
CAMP PENDLETON, CA

419TH TRANS CORPS
SALT LAKE CITY, UT

DETACHMENT ONE
HEADQUARTER STATE AREA COMMAND
CARSON CITY, NV

NR NWS CONCORD EOT 32D
NAVAL & MARINE CORPS RES CTR
RENO, NV

U.S. ARMY RESERVE
PERSONAL CENTER
ST. LOUIS, MO

30TH ENGINEERING BVATTALION
FT. BRAGG, NC

240TH QUARTERMASTER BATTALION
FT. LEE, VA

152ND CIVIL ENGR SQUADRON
RENO, NV

NAVAL SPECIAL WARFARE GROUP-1
FT. LEWIS, WA

40TH INFANTRY DIVISION
SAN DIEGO, CA

JUNIOR RESERVE OFFICER
TRAINING CORPS
RENO, NV

SENIOR-RESERVE OFFICER TRAINING CORPS
RENO, NV

TRAINING MANDAYS FISCAL YEAR (FY)

FY90 - 8,696

FY92 - 15,542*

FY94 - 16,403*

FY91 - 6,530

FY93 - 16,623*

FY95 - 15,950

* Between 6,000 and 7,000 mandays were credited each year for FY92, 93, and 94, as a result of hosting Golden Cargo. The large number of mandays in FY95 is credited to an aggressive recruiting/advertising program.

COST AVOIDANCE

FY93 - \$219,000

FY94 - \$342,000

FY95 - \$380,000




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POINT PAPER

SUBJECT: Local Area Network (LAN) at Sierra Army Depot (SIAD)

1. PURPOSE: To provide the Base Realignment and Closure Commission with information concerning Local Area Network capability at Sierra Army Depot.

2. FACTS.

- a. Sierra Army Depot is in the process of installing a higher capacity, state of the art fiber optic Local Area Network.
- b. Installation is 70 percent complete, with portions of the system totally operable. Full completion will occur not later than October 1995.
- c. The open architecture, fully integrated system currently supports 15 central computers, a worldwide Defense Data Network gateway, an Ethernet backbone and 300 microcomputer systems. It is also integrated into/with a General Telephone and Electronics (GTE) electronic telephone dial central office system.
- d. The system is both video and voice capable, and employs standards based on protocols for maximum networking flexibility and re-usability.

3. IMPACTS FOR BRAC.

- a. The main backbone was designed and installed with sufficient capacity to provide for years of major expansion with no additional cost to the depot.
- b. Yearly Local Area Network maintenance costs will be extremely low (limited to parts only) since maintenance will be accomplished with existing in house personnel. No additional personnel are required to operate and/or maintain the Local Area Network.



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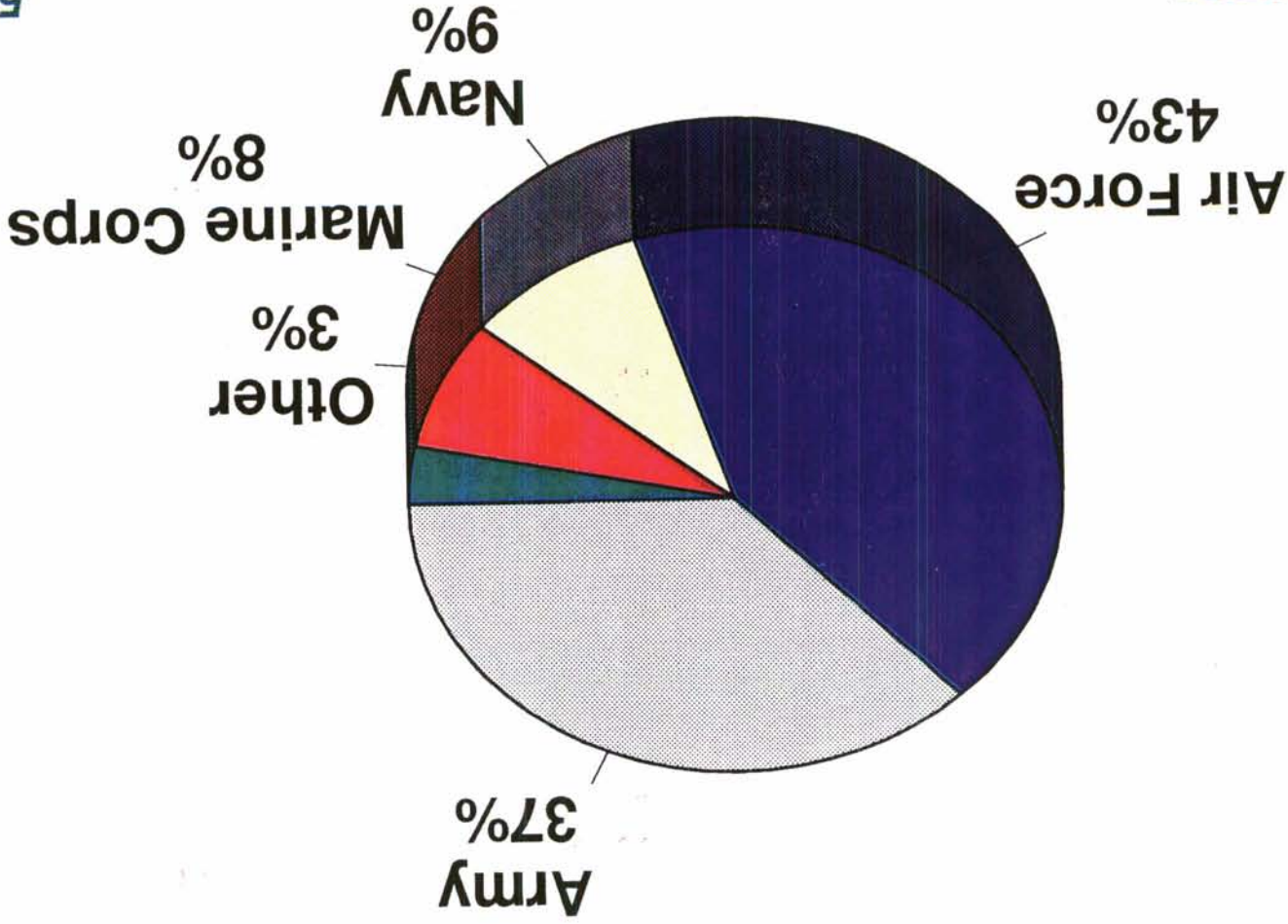
Chart 4/19 Function - Shipping/Receiving/Storage

The ammunition storage area covers over 12,000 acres. There are 811 covered storage facilities with 1.9 million gross square feet of available storage. This includes 799 igloos, 12 standard magazines, and 571 usable sites with improved open storage of an additional 1.9 million gross square feet. In some of the improved open storage locations, we can store 250,000 pounds net explosive weight of high explosives per site.

We have the lowest cost per hour and short ton in the depot system for fiscal year (FY) 95. The chart reflects our per hour and per ton cost. Cost factors will be covered in more detail in subsequent charts.

Percent of Assets by Customer

Short Tons



Sierra 4/25/95

5/19

Function

Shipping/Receiving/Storage

Storage:

Covered (1.9 million-gross square feet)

799 Igloos

12 Standard Magazines

Improved open (1.9 million gross square feet)

539 Y-Sites - Usable

32 Large Sites

Cost:

Lowest depot rates for FY95:

\$ 43.53 Per Hour

\$123.43 Per Ton

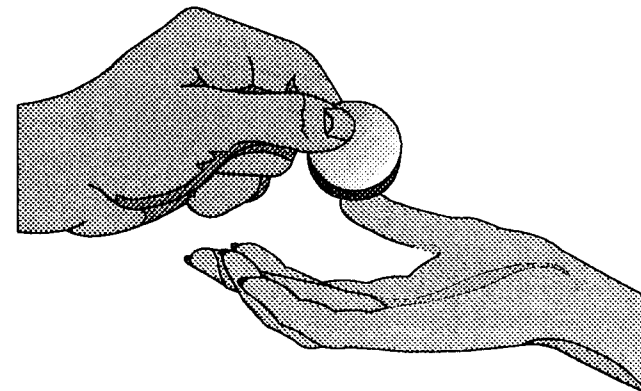


Chart 3/19 Directorate of Ammunition Operations - Mission

Our mission is primarily the receipt, issue, storage, maintenance, and demilitarization of ammunition shown on the chart. Subsequent charts have been segregated by functional areas within the Directorate as follows:

Shipping/Receiving/Storage
Renovation/Maintenance
Demilitarization
Surveillance

These functional areas will be discussed individually in more detail.

Directorate of Ammunition Operations

Mission:

To plan, program, manage, and accomplish efficient and effective receipt, storage, issue, preservation/ packaging, renovation/maintenance, destruction and surveillance of ammunition, missiles, and components.

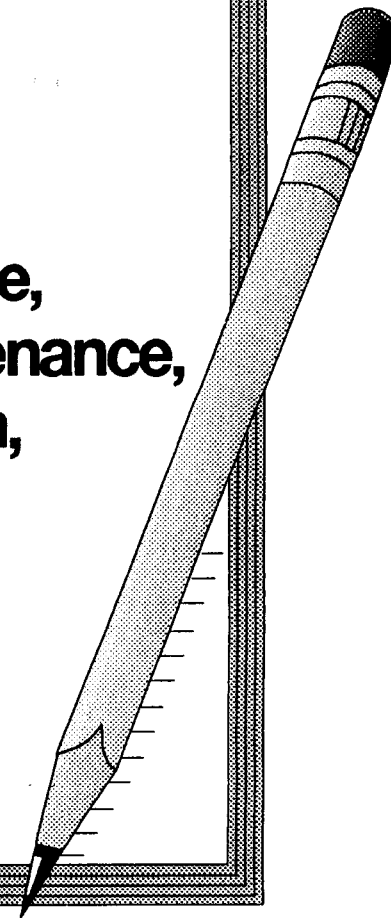


Chart 2/19 Directorate of Ammunition Operations - Facts

The Directorate of Ammunition Operations covers over 16,000 acres which includes 4,000 acres for the Demolition Grounds. We have over 225,000 short tons of munitions with a value of over \$1.6 billion.

Our capabilities to ship/receive munitions are tremendous. We have Highway 395 which intersects Interstate Highway 80 at Reno, Nevada (55 miles). We are serviced by the Union Pacific and Southern Pacific railroads on the north and south side of the depot respectively. The future of ammunition shipments is by container/milvan. We have one container loading dock where we can load/offload containers coming/departing Sierra, and are in the process of completing another to position us for the future. Amedee Airfield provides us with a capability to handle all aircraft including C17, C141, and C5. We are within 265 miles of our closest ports (Concord 250 miles, Oakland 265 miles, and Travis Air Force Base 225 miles). During Desert Shield (Desert Storm), our outload capabilities were tested, not taxed; however, we were easily able to meet our commitments by truck, rail, and air. Additionally, we provided safe haven for railcars loaded with over 300,000 short tons of ammunition destined for Concord from other depots and plants.

Directorate of Ammunition Operations Facts

16,000 acres which includes 4,000 acres for the demolition grounds

Dollar value of munitions: \$1,634,491,732

Short tons of munitions: 226,583

Located in Northeastern California on a major all-weather highway

Rail service by Union Pacific and Southern Pacific railroads

Amedee Airfield on site with 7,168 foot runway

**Closest depot to major sea and air ports (Concord, 250 miles;
Oakland, 265 miles; and Travis Air Force Base, 225 miles)**

Safe haven for Naval Weapons Station-Concord

Chart 1/19 Sierra Army Depot Ammunition Operations Briefing

Presenter: Fred Winters
Director of Missions, Plans and
Operations

Sierra Army Depot
Directorate of Missions, Plans and
Operations
SDSSI-MO
Herlong, CA 96113

Comm (916) 827-4505
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DSN 855-4505
DSN FAX 855-5824

This is an Information Briefing on Ammunition Operations at Sierra Army Depot.

This briefing will provide you with some general facts, our mission, functions, facilities, historical data, rates, cost per ton, comparisons with other depots, some major items we demilitarize, cost to ship out our stocks, and some of the concerns which were identified in the Wholesale Ammunition Stockpile Program Study.

Chart 5/19 Percent of Assets by Customer

Here is a chart showing the percentage of assets by customers. The Army is the single manager for conventional ammunition. These percentages exclude demilitarization accounts because all ammunition becomes Army assets once it is placed in the demilitarization category. The Air Force is currently our largest customer. As previously discussed, these assets total over 226,000 Short tons of munitions. As depicted in the chart, we do a lot of interservice work.

Shipping/Receiving/Storage Rates by Year

	Hourly	Cost Per Ton
FY93	\$64.66	\$121.36
FY94	\$59.39	\$182.55*
FY95	\$43.53**	\$123.43**

* Cost per ton increased due to commodity mix

** Best Rates in Depot System for FY95

Sierra 4/25/95

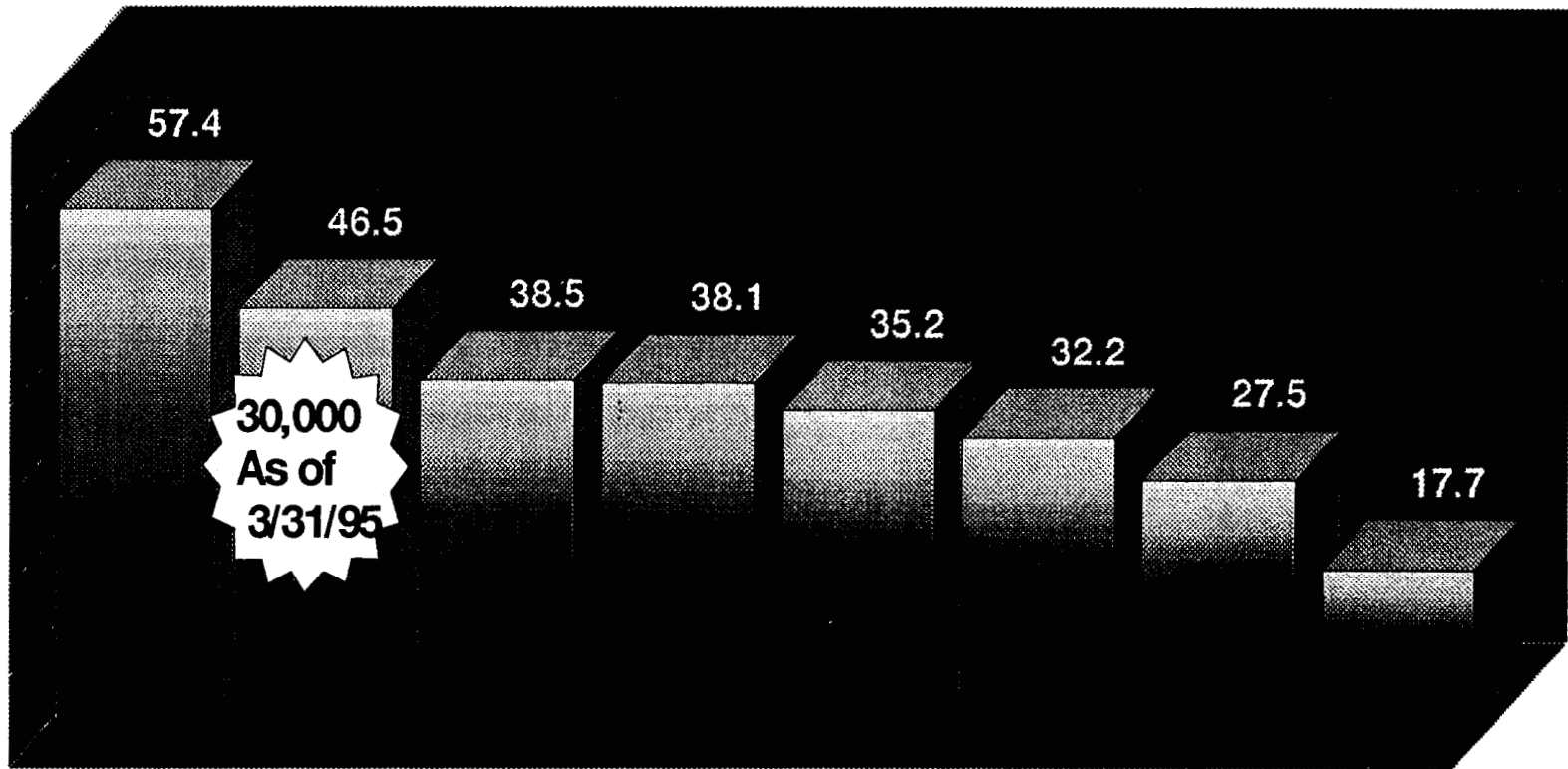
6/19

Chart 6/19 Shipping/Receiving/Storage - Rates by Year

This chart depicts the hourly cost and cost per ton for FY93-95. This installation has the best hourly rates and cost per short ton rates for FY95 within the depot system. Cost per short ton rates have averaged \$142.00 for the last three years. Even though price per hour went down in FY94, the price per ton went up due to commodity mix.

The reductions in rates for FY95 were affected by increased workload (more short tons), and implementation of Total Army Quality process improvements. Additionally, the commodity mix (i.e., heavy bombs vs small rounds) and applied cost savings, based on prior year profits, passed on to our customers have helped to improve our rates. We have returned over \$11 million to our customers in the past 3 years.

FY95 Workload by Depot Shipping/Receiving (Short Tons)



Source: FY95 AMCCOM Workload Forecast

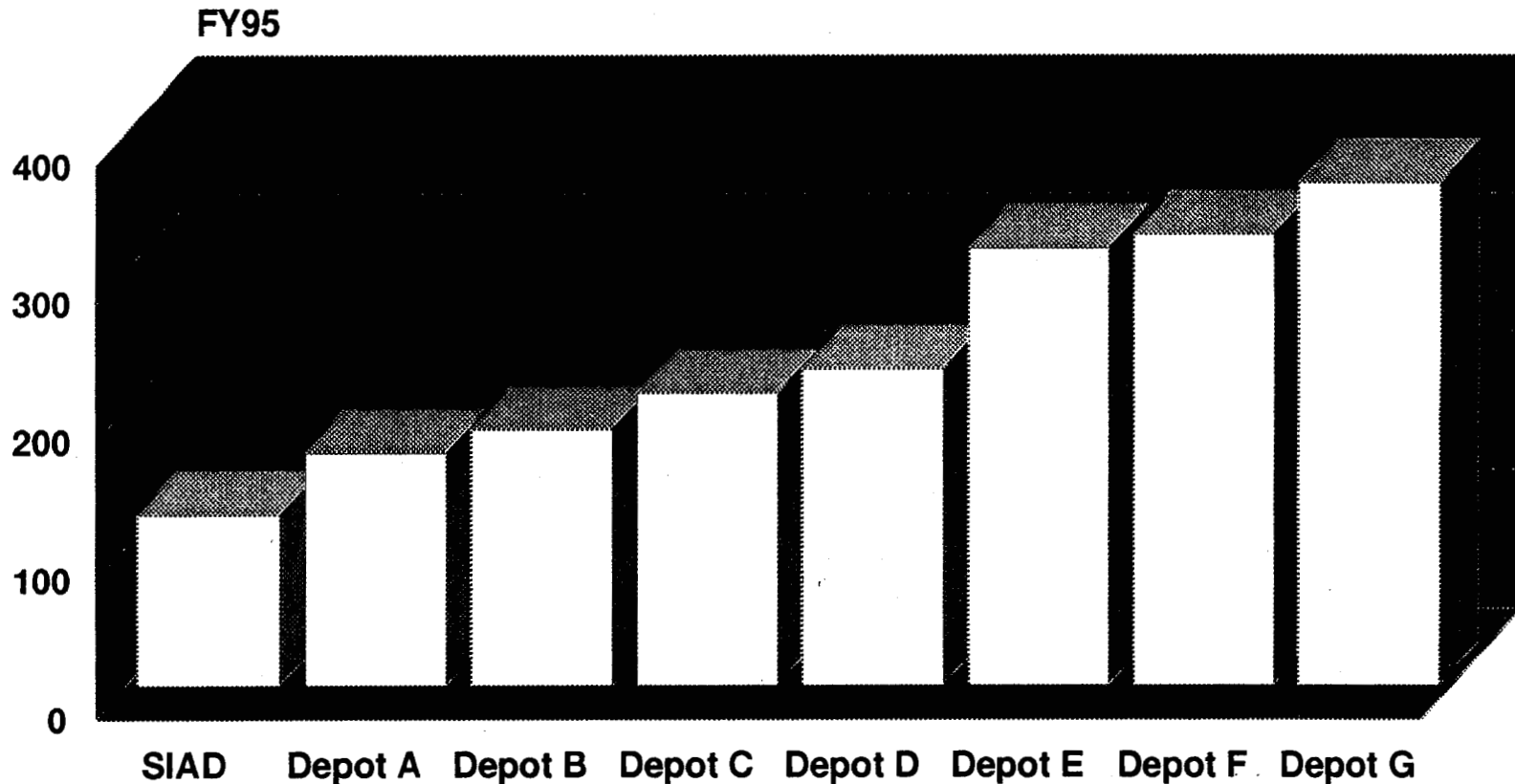
Sierra 4/25/95

7/19

Chart 7/19 FY95 Workload by Depot - Shipping/Receiving (Short Tons)

This chart depicts the FY95 shipping and receiving workload in short tons by installation. Sierra Army Depot currently has the second largest workload in this function, and our workload will increase by an additional 20,000 short tons over what has been projected in this fiscal year. The mark indicates that we have already accomplished 30,000 short tons in the first two quarters of the fiscal year, and have exceeded the entire year receiving forecast in the first six months. With the projected increase in workload this year, Sierra Army Depot may end up executing more work than any other depot in the shipping/receiving function.

Shipping and Receiving Cost per Ton Comparison



Source: FY95 DESCOM Rate File

Chart 8/19 Shipping and Receiving - Cost per Ton Comparison

This chart shows our fiscal year cost per ton. Our FY95 cost per short ton is the lowest in the Industrial Operations Command. We are \$44.00 cheaper than our closest depot for shipping and receiving. This cost per ton has improved approximately \$60.00 from the previous year rates as was discussed in the prior charts. By maintaining these low rates, we can do approximately 30 percent more work than our closest competitor for the same price.

Ammunition Shipping Costs

145,619 Tons of Ammunition at SIAD

From SIAD	To Nearest Depot	To Farthest Depot
Loading Cost	\$ 17,911,137	\$ 17,911,137
Transportation Cost:		
Rail	1,398,149	21,129,856
Truck	8,541,480	42,355,692
Cost to Receive	18,347,994	30,725,609
Total by Rail (2,792 Railcars)	37,657,280	69,766,602
Total by Truck (8,374 Trucks)	\$ 44,800,611	\$ 90,992,438

Chart 9/19 Ammunition Shipping Costs

This chart is the ammunition shipping cost to move the 145,619 short tons of ammunition at Sierra Army Depot required for BRAC realignment to either the nearest or/and farthest destinations. The cost includes the loading cost based on our cost per short ton at Sierra Army Depot to ship, transportation charges, receiving at the destination and provides a total cost to the above by rail or truck. The cost equates to millions of dollars to make this shipment, with an average movement cost of \$60,803,750.00. This also does not consider the fact that there may not be enough covered space at any other installations to accommodate these munitions. This figure does not include any of the ammunition stock currently identified in the Army's Demilitarization Account stored at Sierra Army Depot which to date totals 79,381 short tons.

Function

Renovation/Maintenance

Facilities:

General Purpose Ammunition (Rapid Response Deluge)

Nuclear Regulatory Commission Licensed for Depleted Uranium

Reconditioned Building for Small Arms (Projected completion date third quarter FY95)

Cost : \$43.53 per hour

Chart 10/19 Function - Renovation/Maintenance

There are four facilities identified for renovation/maintenance of ammunition. The two general purpose facilities can also be used for demilitarization to download and pull-apart ammunition. The Nuclear Regulatory Commission has licensed our facility to perform maintenance on depleted uranium rounds. We are one of only two installations that can do this work. Another facility is being refurbished to handle small arms ammunition and should be operational by the third quarter FY95. Our facilities are equipped with intrusion detection systems and rapid response deluge systems for safety.

The maintenance cost is \$43.53 per hour.

Function

Demilitarization

Facilities:

Deactivation Furnace

Incinerator to demilitarize and/or dispose of ammunition items

Only Depot approved by the state to incinerate up to .50 Cal.

General Purpose Ammunition (Rapid Response Deluge)

General Purpose Ammunition (Rapid Response Deluge)

Area:

Open Burn/Open Detonation - 4,000 acres

Largest Capacity in the United States:

14 Pits permitted for 10,000 pounds net explosive weight per pit

Burning grounds with 100,000 pounds net explosive weight per burn

Burn 140,000 pounds net explosive weight of large rocket motors
per day

Cost :

Lowest in Depot FY95

\$ 43.54 per hour

\$372.90 per ton

Chart 11/19 Function - Demilitarization

There are three facilities identified for demilitarization of ammunition. The deactivation furnace is an incinerator that can demilitarize small arms ammunition, primers, fuzes, and boosters. The deactivation furnace consists of: control panel, automatic feed system, furnace, afterburner, gas coolers, baghouse, and exhaust stack. We are the only depot in the Industrial Operations Command currently approved to incinerate up to .50 caliber small arms ammunition. We are expecting approval from the State of California for our Part B Permit that will allow us to incinerate all of the above items in our deactivation furnace for an additional 10 years. The two general purpose maintenance facilities are used by maintenance personnel to download and pull-apart ammunition for demilitarization. We have the largest open burn/open detonation capacity in the United States. We are permitted to detonate in our pits 10,000 lbs net explosive weight per pit. We can also do 100,000 pounds net explosive weight per burn. When the Part B Permit is approved this year, our capability will increase to 160,000 net explosive weight per burn.

We have the lowest cost per hour in the depot system for FY95. The chart reflects our per hour and ton cost. Within the FY95 rate, there is a one time surcharge of \$17.47 to recoup costs from past BRAC action. Costs will be further discussed in subsequent charts.

Demilitarization Rates by Year

	Hourly	Cost Per Ton
FY94	\$60.53	\$702.78
FY95	\$43.53	\$372.90

Chart 12/19 Demilitarization - Rates by Year

This chart depicts our hourly and cost per short ton rates for FY94 and FY95. Our reduction in rates for FY95 is due to some of the factors that were discussed as part of the shipping and receiving rates. These cost reductions include increased workload in short tons, process improvements as part of Total Army Quality, the commodity mix of bombs and bullets, and cost savings passed on to our customers based on prior year profits of \$11 million.

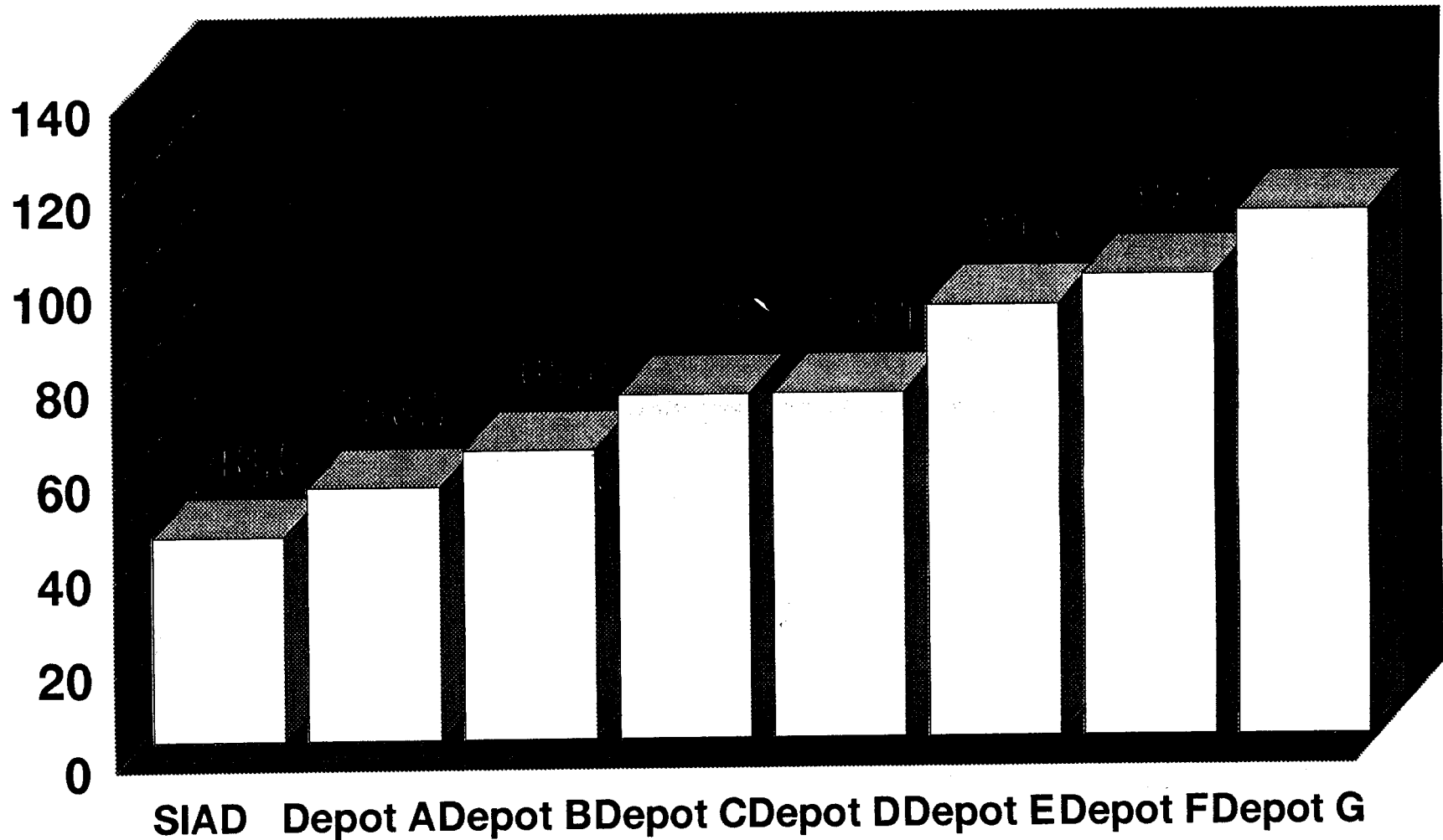
Demilitarization Short Tons

FY90	20,018
FY91	10,008
FY92	19,649
FY93	14,528
FY94	8,753
FY95 Scheduled	28,245

Chart 13/19 Demilitarization - Short tons

This chart depicts Sierra Army Depot's actual demilitarization workload for FY90-94 and scheduled workload for FY95. We have demilitarized 5,833 short tons so far this year. The remainder excluding some carry-over will be accomplished in the summer months which is our prime demilitarization season. This total for FY95 is over 31 percent of the total Army demilitarization program. Sierra Army Depot is projected to receive over 30,000 short tons of demilitarization in FY96, which will be close to 40 percent of the Army total. The demilitarization capability at this installation cannot be duplicated anywhere else.

FY95 Demilitarization Fixed Rate

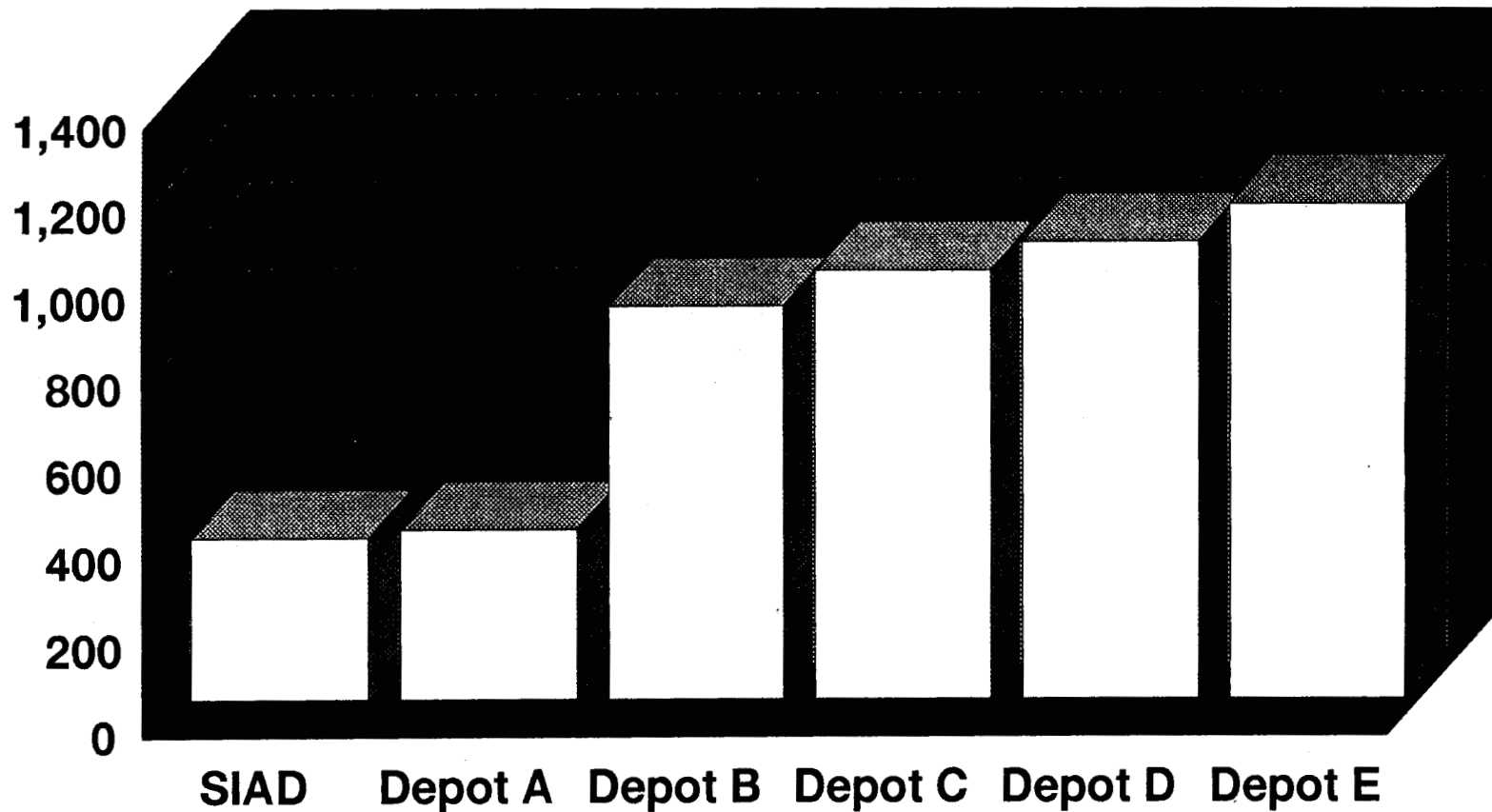


Source: DESCOM Rate File FY95

Chart 14/19 FY95 Demilitarization Fixed Rate

This chart shows an hourly rate cost comparison between the different depots in the depot system. Sierra Army Depot is over \$10 per hour cheaper than its closest competitor in the demilitarization business. As can be seen on the chart, demilitarization rates at some of the other installations are more than twice as expensive as here at Sierra Army Depot. Because our rates are cheaper, this results in a better value for our customers.

FY95 Demilitarization Cost per Ton



Source: AMCCOM FY95 Demilitarization Business Plan
Forecasted by AMCCOM

Chart 15/19 FY95 Demilitarization - Cost per Ton

Here is a cost per short ton comparison for the different depots. Sierra Army Depot is over \$19 per ton cheaper than our closest competitor. Also, the cost per short ton in the system is \$807.00 on the average. Sierra Army Depot's cost per ton is over \$435.00 cheaper than this average. Also, because of Sierra Army Depot's large capability, the cost effectiveness of this installation cannot be overstated.

Conventional Ammunition Demilitarization Capabilities

Depot	Open Burning	Open Detonation Limits	
Depot A	5,000 lbs X 34 Sites	100 lbs (5,000 lbs*) X	19 SITES
Depot B	5,000 lbs X 1 Site	180 lbs X	15 SITES
Depot C	50 lbs X 15 Sites	15 lbs (1,000 lbs*) X	22 SITES
Depot D	4,000 lbs X 3 Sites	50 lbs (500 lbs*) X	14 SITES
Depot E	11,000 lbs X 1 Site	100 lbs (3,000 lbs) X	4 SITES
Depot F	By Permit Only	100 lbs * X	30 SITES

***Detonation limits under Earth Cover**

Chart 16/19 FY95 Demilitarization Program

This chart shows the conventional ammunition demilitarization capabilities at the various depots for open burn/open detonation. We have the largest demilitarization capability for open burn/open detonation in the depot system. We are permitted to open burn 100,000 pounds net explosive weight and 10,000 pounds net explosive weight per pit for our 14 pits. The net explosive weight permit will increase open burn to 160,000 pounds. The capabilities at Sierra Army Depot are the largest in the Army by several times over. Also, because most of the other installations are required to bury their munitions before detonation, this is more labor intensive, costly and reduces through put. Sierra Army Depot also is the only military facility in the country that can burn large rocket motors. Because of this capability, the Navy depends on Sierra Army Depot to help them meet their Strategic Arms Reduction Treaty requirements. Because of our expertise in the demilitarization arena, Sierra Army Depot has become the leader in developing and validating demilitarization procedures for other agencies.

FY95 Demilitarization Program

Installation	Tons	Percent
SIAD	*28200	**31.6
HWAD	19200	21.5
BGAD	4700	5.3
TEAD	4200	4.7
LEAD	2200	2.5
RRAD	1100	1.2
ANAD	850	1
Others (20 installations)	28700	32.2
Total	89150	100

SOURCE: AMCCOM FY95 Demilitarization Business Plan

* Expected to increase to 48200

** Expected to increase to 44%

Chart 17/19 FY95 Demilitarization Program

This chart shows the Army's Organic Base total demilitarization program for FY95 in short tons's. The program includes open burn/open detonation, resource recycling and recovery, and deactivation furnaces. Sierra Army Depot has over 31 percent of this year's total program. The others are comprised of around 20 ammunition plants. Sierra Army Depot has the largest single site portion of the current program because of the tremendous capabilities that exist here. The projected demilitarization workload for FY96 here at Sierra Army Depot is around 30,000 short tons, which will be about 40 percent of the FY96 total program. Although, some other installations have more resource recycling and recovery capability, it is very expensive. Thus, open burn/open detonation is still more cost effective which contributes to Sierra Army Depot's competitive posture.

Function

Surveillance

Facility:

Surveillance workshop to be replaced by new workshop under construction

Responsibilities:

Receipt inspection

Pre-issue inspection

Safety in storage inspection

Magazine inspections

Condition code changes

Periodic inspection

Damage in transit inspection

Foreign military sales inspection

Chart 18/19 Function - Surveillance

Surveillance has one workshop where they perform various inspections; i.e., periodic, pre-issue, safety in storage and foreign military sales. In addition to the workshop, surveillance personnel are assigned to inspect incoming/outgoing trucks/railcars; inspect ammunition operations at receiving, maintenance lines, and demolition grounds; inspect igloos/magazines; and maintain Ammunition Data Cards for each lot of ammunition. Our responsibilities are shown on the chart. A new state of the art net explosive weight surveillance workshop, which will be completed in the third quarter FY95, will allow for improved operations.

Wholesale Ammunition Stockpile Program (WASP) Study Demilitarization

- **SIAD has the best demilitarization capability in the Army**
- **SIAD is the most cost effective demilitarization installation**
- **Currently 413 K short tons in the demilitarization account and growing**
- **Aggressive demilitarization program required to generate storage space**
- **SIAD will receive a 10 year demilitarization permit in FY95**
- **Without SIAD, demilitarization and storage problems become more critical**

Chart 19/19 Wholesale Ammunition Stockpile Program (WASP) -
Study

As we have seen previously, Sierra Army Depot has the premier demilitarization capability and is currently executing over 31 percent of this year's demilitarization program. This will be over 28,000 short tons. Based on this and the projected FY96 workload of over 30,000 short tons, Sierra Army Depot will continue to maintain our low rates. With over 400,000 short tons to date, of demilitarization backlog identified and the demilitarization account increasing on an annual basis, an aggressive demilitarization program is essential. Sierra Army Depot will receive its final part B permit later this year which would enable us to operate for another 10 years at maximum capacity. With this permit and proper funding, Sierra Army Depot could increase current workload to beyond the 31 of the current organic tonnage. Without Sierra Army Depot's tremendous capability, the demilitarization problem and subsequent lack of storage problem will be further adversely impacted. The Wholesale Ammunition Stockpile Program Study identifies these problems and recommends an aggressive demilitarization program to help alleviate the current situation.





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Chart 1/7 Sierra Army Depot Operational Project Stocks

Presenter: LTC Edwards
Director of Operational Project Stocks

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Directorate of Operational Stocks
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As stated in the video, the primary mission of the Directorate is the receipt, issue, storage, repair, overhaul, and maintenance of Operational Project Stocks.

Center Of Technical

Excellence



Sierra 4/25/95

2/7

Chart 2/7 Center of Technical Excellence

Sierra Army Depot was designated as the Center for Technical Excellence for the processing and maintenance of Operational Project Stocks by the United States Army Depot System Command (DESCOM) in 1993.

Functions

- Receiving/Shipping
- Care of Supplies in Storage (COSIS)
- Prepositioned (PREPO) Ships - Maintenance Cycle
- Systems Integration
- Technical Assist Teams - Worldwide
- Preservation and Packaging
- Environmental Compliance
- Inspections
- Cost Estimates
- Maintenance
- Logistics Management
- Soldier Training
- Fielding

Chart 3/7 Functions

The Directorate of Operational Project Stocks works closely with the Program Manager to integrate systems into the Army's inventory. Systems are received, fielded at Sierra, repaired, rebuilt, overhauled, processed, and packaged for worldwide shipment. Technical assistance teams are available to provide worldwide training and support when needed. Sierra stands ready to answer the call.

Operational Project Stocks at Sierra

Value of Stock on Hand

\$1.2 Billion

Water Support System (WSS)

Mobile Kitchen Trailers

Inland Petroleum Distribution System (IPDS)

Clam Shelters

Force Provider (FP)

Landing Mats

Army Field Feeding System-Future (AFFS-F)

Bridging

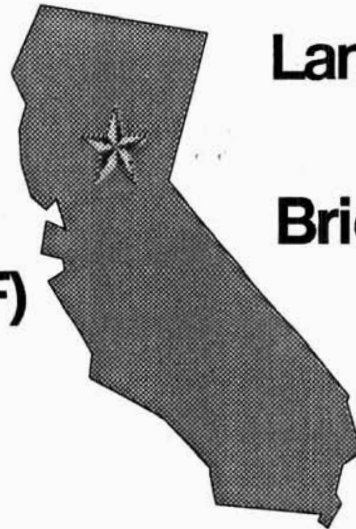


Chart 4/7 Operational Project Stocks at Sierra Value of Stock
on Hand - \$1.2 Billion

This Chart shows Operational Project Stocks presently
maintained at Sierra Army Depot.

Water Support System: Transports, stores, and purifies water
for all troop movements and
humanitarian efforts.

Inland Petroleum Distribution System: A rapid deployment fuel
storage and pipe line
system which supplies
fuel to deployed
forces.

Force Provider: State-of-the-art system designed for combat troop
support under austere field conditions. Designed
primarily to provide rest and recuperation for
soldiers in the field. Humanitarian assistance
and disaster relief operations are also possible.

Army Field Feeding System-Future: Fixed modular designed feeding
system to provide hot meal
service for deployed troops.

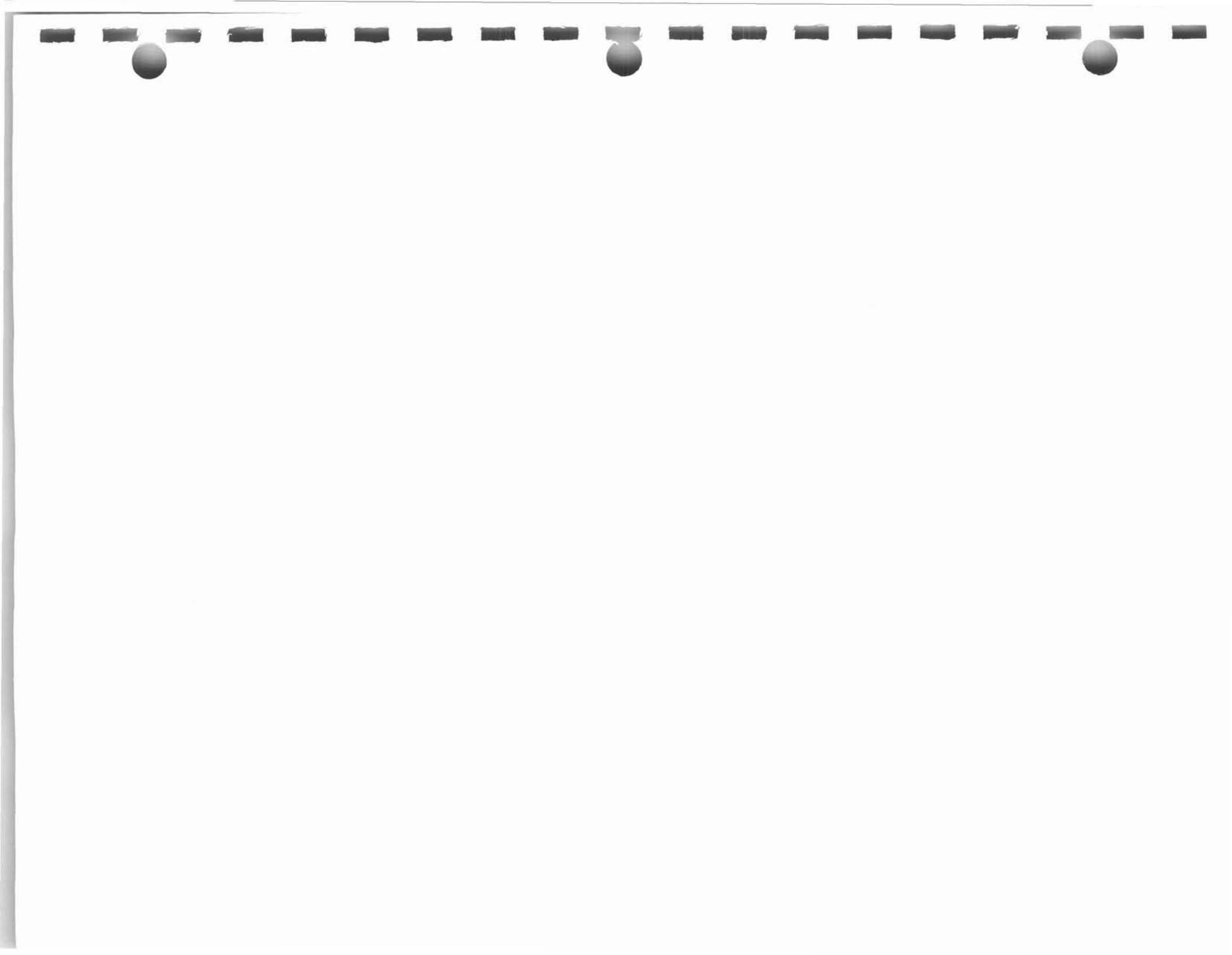


Chart 4/7 Operational Project Stocks at Sierra Value of Stock
on Hand - \$1.2 Billion (Cont'd)

Mobile Kitchen Trailers: Trailer mounted kitchen for feeding troops
in deployment or field operations.

Clam Shelters: Semi-mobile shelters provide protection from the
weather during maintenance on aircraft and vehicles.

Landing Mats: Surface material for construction of airfields in
support of all Army aircraft.

Bridging: Fixed type bridge erected to transport troops,
materials, and equipment over rivers or ravines.

Storage Space

Total Covered Storage
over 2 million sq ft

Total Improved Outside Storage
(More hard stand pads in process)
over 17 Acres

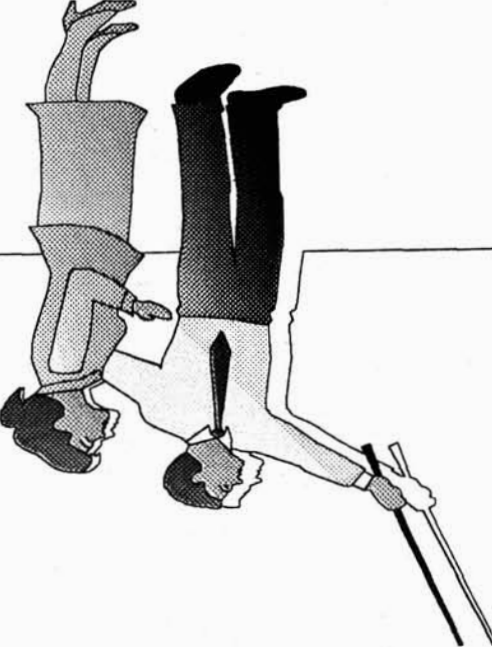


Chart 5/7 Storage Space

This chart shows present storage capability. All warehouses have modern fire suppression systems.

The acreage is available to increase storage capability.

All warehouses are accessible by rail.

Covered storage capacity equates to 13 NFL football fields.

In the process of building additional hardstands to accommodate the steadily increasing mission.

Emergency Shipments by SIAD

Somalia Shipments

Chemicals for 3K Gallons Per Minute (GPM) Reverse
Osmosis Water Purification Units (ROWPUS)

Reverse Osmosis (RO) Elements for 3K GPM ROWPUS

5 Mile Set (IPDS)

500 Gallon Drums

125 GPM Pumps

350 GPM Pumps

600 ROWPUS

Sierra 4/25/95

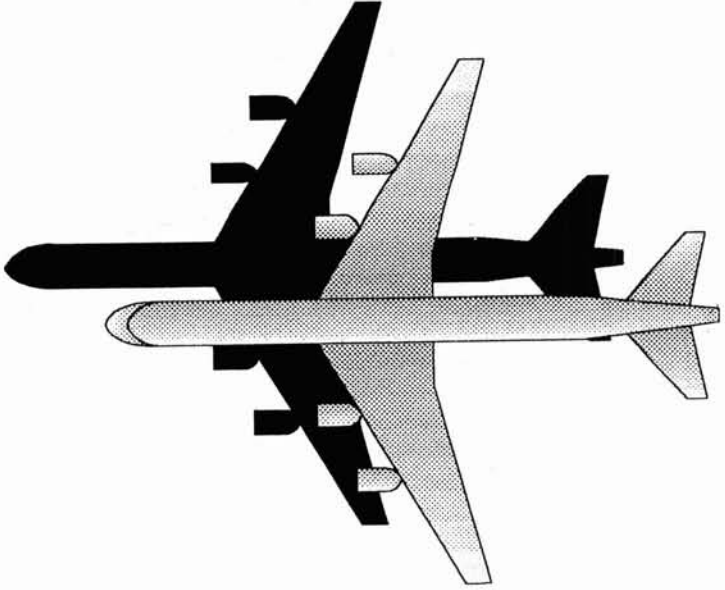
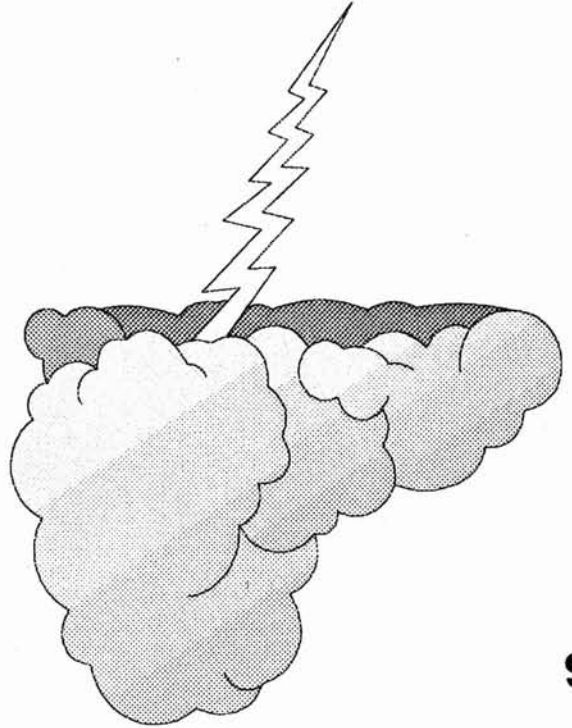


Chart 6/7 Emergency Shipments by Sierra

Charts 6 and 7 show emergency shipments made by Sierra Army Depot. The majority of these shipments were made from Sierra's Amedee Army Airfield to units supporting these missions. This airfield will handle all current military aircraft including the C-5A and C-17.

Emergency Shipments by SIAD Humanitarian Relief



Florida 600 GPM ROWPUS

Guam 3K GPM ROWPUS

Hawaii 3K GPM ROWPUS

Arizona 3K GPM ROWPUS

Haiti FP Components

Rwanda 3K GPM ROWPUS




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Chart 1/12 Sierra Army Depot Manpower Briefing

Presenter: Alice H. Allison
Chief, Budget and Manpower Division

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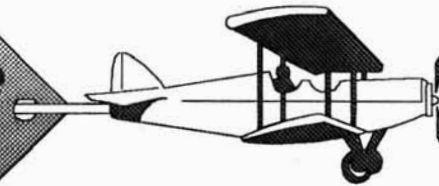
Sierra Army Depot is fully committed to supporting the Department of the Army recommendation if it becomes permanent.

In this spirit of cooperation, this briefing will point out a critical manpower and funding shortfall which could seriously impair the depot's ability to implement this decision.

Base Realignment and Closure (BRAC)

DA Recommendation: "Realign Sierra Army Depot by eliminating the conventional ammunition mission and reducing it to a depot activity. Retain an enclave for the Operational Project Stocks mission and the static storage of ores."

*Remaining enclave
is 240*



Impact: The 240 proposed enclave does not leave sufficient jobs to support the recommendation.

Results: The manpower and cost savings are overstated, the cost to implement is understated.

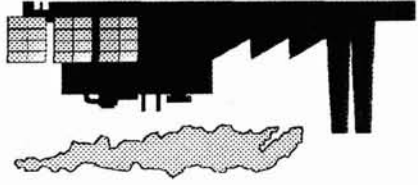
Chart 2/12 The BRAC Recommendation/Impact/Results

The Department of the Army recommendation is to realign Sierra Army Depot by eliminating the Conventional Ammunition mission and reducing it to a depot activity. We are to retain an enclave for the Operational Project Stocks mission and the static storage of ores. The recommendation further stated the remaining enclave would consist of 240 personnel.

The figure of 240 currently being used as the enclave was taken from our response to a data call, but is not sufficient to use as the basis for an enclave.

Operational Project Stocks Enclave

- BRAC 95 Data Certification:
Memo, 6 Jan 95, Industrial Operations Command , subject: BRAC 95 Data Call. "Personnel Requirements for Operational Project Stocks."
- Sierra's response : Funded direct and indirect workyear requirement as of 11 Jan 95 - 240
- The proposed enclave excludes the following :
 - ✓ Evolving mission requirements
 - ✓ Base support such as fire protection, security, safety, environmental, budget, manpower, personnel, legal, communications, engineering support, utilities, maintenance of buildings, roads, and grounds . . .
 - ✓ Radiation Survey Mission



Sierra 4/25/95

3/12

Chart 3/12 Operational Project Stocks Enclave (Continued)

We recognized these numbers as direct project orders funded earlier in the fiscal year. Our response of 240 was based on an updated review of project orders plus indirect mission support stratified as follows:

Inland Petroleum Distribution System	
Water Support System	187
Army Field Feeding System - Future	17
Force Provider	26
Clam Shelters	8
Bridging	1
Landing Mats	1

Total	240

The correct question was never asked. We were not asked for the base operations portion of the support that would be required to support an enclave.

Also specifically excluded is any workload other than Operational Projects. We currently perform critical radiation survey functions required to divest Department of Defense facilities identified by BRAC. We have assisted at the Sacramento Army Depot facility, a TMDE Command facility, Pueblo Army Activity, Ft. Devens and are about to begin a radiation survey project at Ft. Ord.



Chart 3/12 Operational Project Stocks Enclave

Sierra Army Depot received a memorandum, dated 6 January, 1995 from the BRAC Office of the Industrial Operations Command, subject: BRAC 95 Data Certification. The manpower data needing certification was displayed as follows:

Personnel requirements for Operational Project Stocks:

94	Inland Petroleum Distribution System/Water Support System
13	Army Field Feeding System - Future
19	Force Provider
6	Clam Shelters
0	Bridging
0	Landing Mats

132	

What is the correct enclave figure ?

Post BRAC Assumptions:

- No Special Weapons
- No Conventional Ammunition
- Projected FY96 Operational Project Stocks workload validated by the Program Managers
- No intermediate depot for Base Support per the Commanding General, i.e., report directly to Industrial Operations Command

Chart 4/12 What is the Correct Enclave Figure?

This recommendation does not recognize that we are in the final phase of eliminating the Special Weapons mission from Sierra Army Depot. However, our post-BRAC enclave does specify we will support only the Operational Project Stocks and strategic ores.

The FY96 Operational Project Stocks workload is based on a \$21 million program that has been validated by the Aviation and Troop Command and included in the Industrial Operations Command Budget Mark process.

Per the Industrial Operations Command, the enclave to support the revised footprint of the depot will include all resources required to provide maintenance and repair of remaining facilities; roads, grounds and utilities; fire prevention and protection; security; safety and environmental support; resource management and personnel; automation and communications support; equipment management, maintenance and acquisition; legal; public affairs; internal review and audits, and all other normal base operations functions.

Validated Strength Requirements

- Method 1

- Reconstructed Operational Project Stocks mission workyears
- Zero-based Base Support
- Added Radiation Surveys

- Method 2

- Cost comparisons of FY94 and FY95 Ammo and Special Weapons requirements
- Identified related Base Support
- Subtracted mission and support costs from depot total

Chart 5/12 Validated Strength Requirements

We approached the creation of an enclave two ways. The first is simply a complete, bottom-up review of current funded Operational Project Stocks mission, base operations, and general and administrative support requirements. The second method was used to verify that our approach in Method 1 was valid. We identified the Conventional Ammo and Special Weapons direct, indirect, and base operations support then subtracted that amount from the total FY94 actual workyears and the FY95 planned workyears.

Method 1

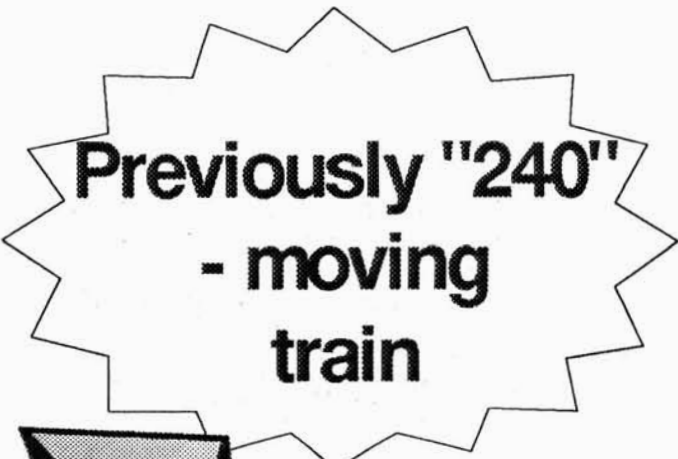
a. Convert orders to workyears:

Direct Labor Hours 389,000

Divided By

Productive Manyear factor of 1,714 = 227

Direct	227	80%
Indirect	57	20%
	<hr/>	
	284	



Previously "240"
- moving
train

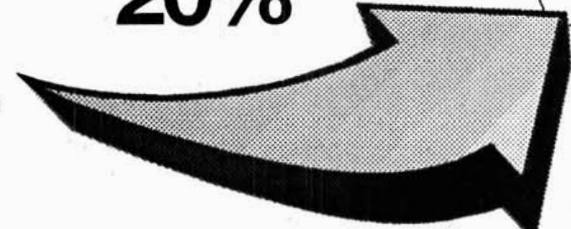


Chart 6/12 Method 1

The direct labor hours are based on current (March 1995) funding levels, detailed cost estimates, and historical manhour standards. Some of the functions Sierra Army Depot performs include: receiving, shipping, care of supplies in storage (COSIS), Prepositioned (PREPO) Ships Maintenance Cycle, Systems Integration, Technical Assist Teams - Worldwide, preservation and packaging, environmental compliance, inspections, cost estimates, maintenance, logistics management, soldier training, and fielding. All indications point to a growing operational stocks workload.

The summary of the FY96 regular direct labor projection is as follows:

Major Items	385,645	
Secondary Items	2,961	

Total	388,606	(Divided by 1714 [Productive work year factor] equals 227 direct work years).

The indirect workyears are driven by a historical factor of 20 percent, which in this case adds 57 workyears. This covers first and second line supervisors, administrative and clerical support, production planning and control which cannot be charged directly to a particular order, down time such as vehicle and equipment issues, union meetings, etc. (This support is not to be confused with base operations).

Method 1 (Cont'd)

- b. Zero-based Base Support:
Identified 218 base operations TDA positions .

- c. Recognized level of effort to support radiation surveys
of facilities required at Sierra and other BRAC'd
installations: 10

- d. Total Civilian Requirement:

Mission	284
Base Support	218
Radiation Surveys	<u>10</u>

512

Chart 7/12 Method 1 continued...

The zero-based base support refers to a complete bottom-up review of all base operations requirements, leaving only those positions needed to maintain the employees and facilities in the new depot footprint. This Table of Distribution and Allowances has been submitted to the Industrial Operations Command BRAC office.

The level of effort we included for radiations surveys is 10 workyears.

Method 2

FY95	FY94	Costed Civilian Workyears
759	774	Total Regular Workyears
-194	-182	Less Conventional Ammo (CA)
-29	-41	Less Special Weapons (SW)
-15	-29	Less Base Support to CA & SW
<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">521</div>	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">507</div>	Total

8/12

Sierra 4/25/95

Chart 8/12 Method 2

The second method was used to verify that our approach in Method 1 was valid. We took the FY94 AND FY95 cost figures applied to conventional ammunition, special weapons, and the related base support level of effort from the total workyears (using the actual workyears in FY94 and the projected workyears in FY95). This process confirmed that the 512 civilian figure is reasonable.

BRAC vs Sierra Requirements *Civilians Only*

Support Area	BRAC	Sierra
Operational Project Stocks	240	284
Base Support	0	218
Radiation Surveys	0	10
Total	240	512

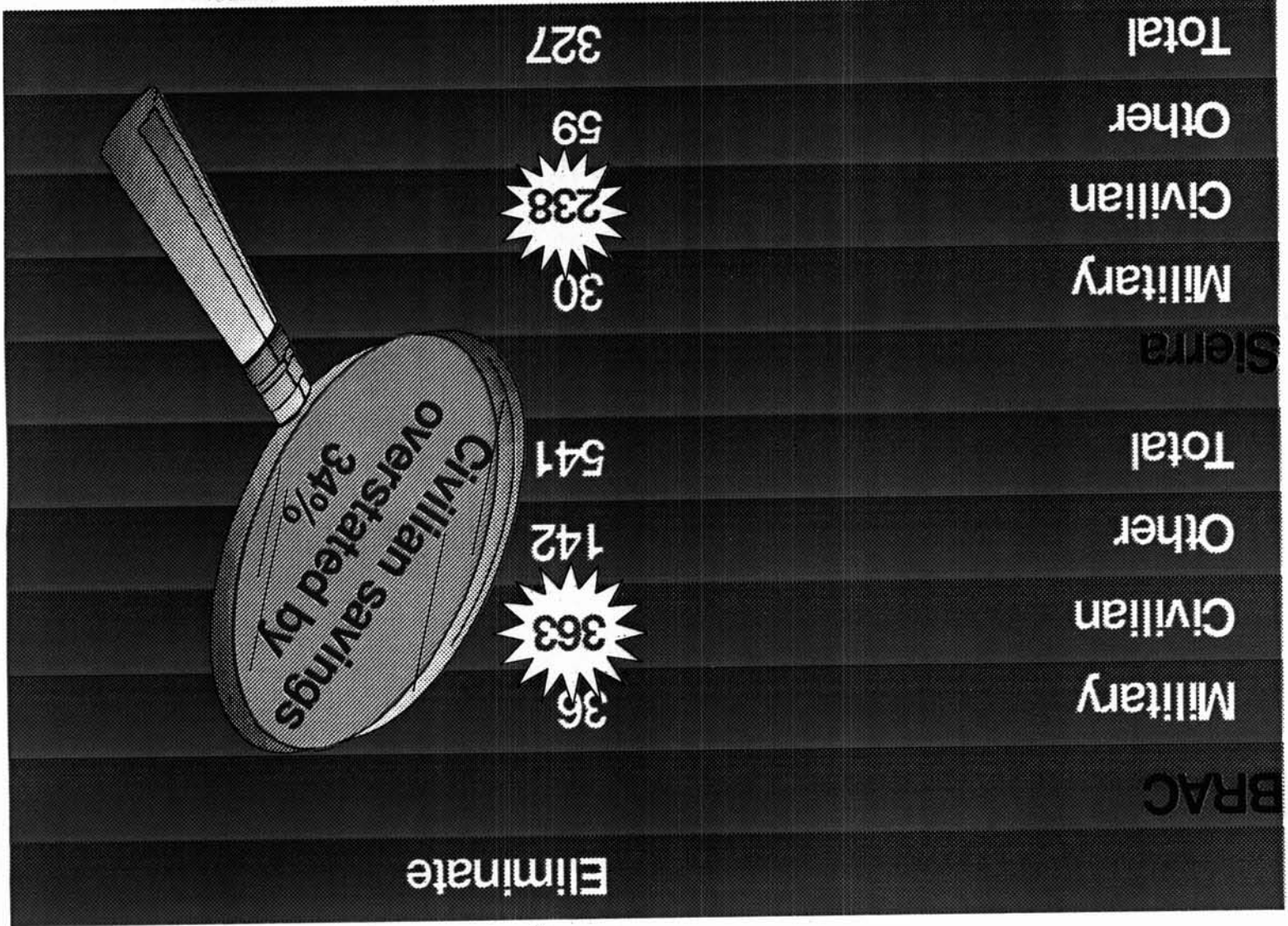
In addition, Sierra will need 4 Officers and 2 Enlisted.

Chart 9/12 BRAC vs. Sierra Requirements

The Department of the Army recommendation to BRAC states that the enclave will be supported by 240 civilian positions.

Sierra's calculations indicate that the correct figure is 512 positions. The shortfall of 272 spaces is more than half of what is required and would prevent the accomplishment of the Operational Project Stocks mission at this location.

BRAC vs Sierra Manpower Savings



Sierra 4/25/95

10/12

Chart 10/12 BRAC vs. Sierra Manpower Savings

According to the Impact Statement, the Army expects a reduction of 363 civilian positions. In reality, only 238 positions would be eliminated.

The Department of the Army Total Army Basing Study recommendation has overstated the civilian savings by 34 percent.

Estimated One-time Cost to Implement

Unprogrammed Cost *

\$38 Mil

-0-

7 Mil

\$45 Mil

• Estimated minimum additional costs:

\$38 Mil

19 Mil

7 Mil

\$64 Mil

✓ Ammo short tons to closest depot

✓ Ammo Demilitarization

✓ Ammo Radiological Surveys

• Estimated maximum additional costs:

\$91 Mil

19 Mil

7 Mil

\$117 Mil

✓ Ammo short tons to farthest depot

✓ Ammo Demilitarization

✓ Ammo Radiological Surveys

• Estimated probable additional costs:

\$75 Mil

19 Mil

7 Mil

\$101 Mil

✓ Ammo short tons to move (average)

✓ Ammo Demilitarization

✓ Ammo Radiological Surveys

* Does not include avoidable environmental clean-up costs

\$75 Mil

-0-

7 Mil

\$82 Mil

• COBRA \$14 Mil

Sierra 4/25/95

11/12

Chart 11/12 One-time Cost to Implement

The Cost of Base Realignment model estimated Sierra Army Depot's one time implementation cost for the recommended drawdown to be \$14 million. The depot's estimated minimum additional costs above the \$14 million that were not considered in the model equal an additional \$45 million and the probable additional costs above the \$14 million would be \$82 million. These amounts consist of:

<u>Minimum Additional Costs</u>	
Ammo short tons to closest depot	\$38M
Ammo Demil	- 0 -
Ammo Radiological Surveys	7

Total	\$45M
 <u>Probable Additional Costs</u>	
Ammo short tons to farthest depot	\$75M
Ammo Demil	- 0 -
Ammo Radiological Surveys	7

Total	\$82M

Conclusion

- **Savings are overstated**
 - ✓ **COBRA did not consider the cost to move Ammunition, \$82 Mil**
 - ✓ **Personnel savings overstated by 34%**
- **To ensure the DA TABS proposal can be implemented, the BRAC process MUST:**
 - ✓ **Recognize the correct enclave to fully support the required Operational Project Stocks Mission:**

Civilians	512
Military	6
	<hr/>
	518

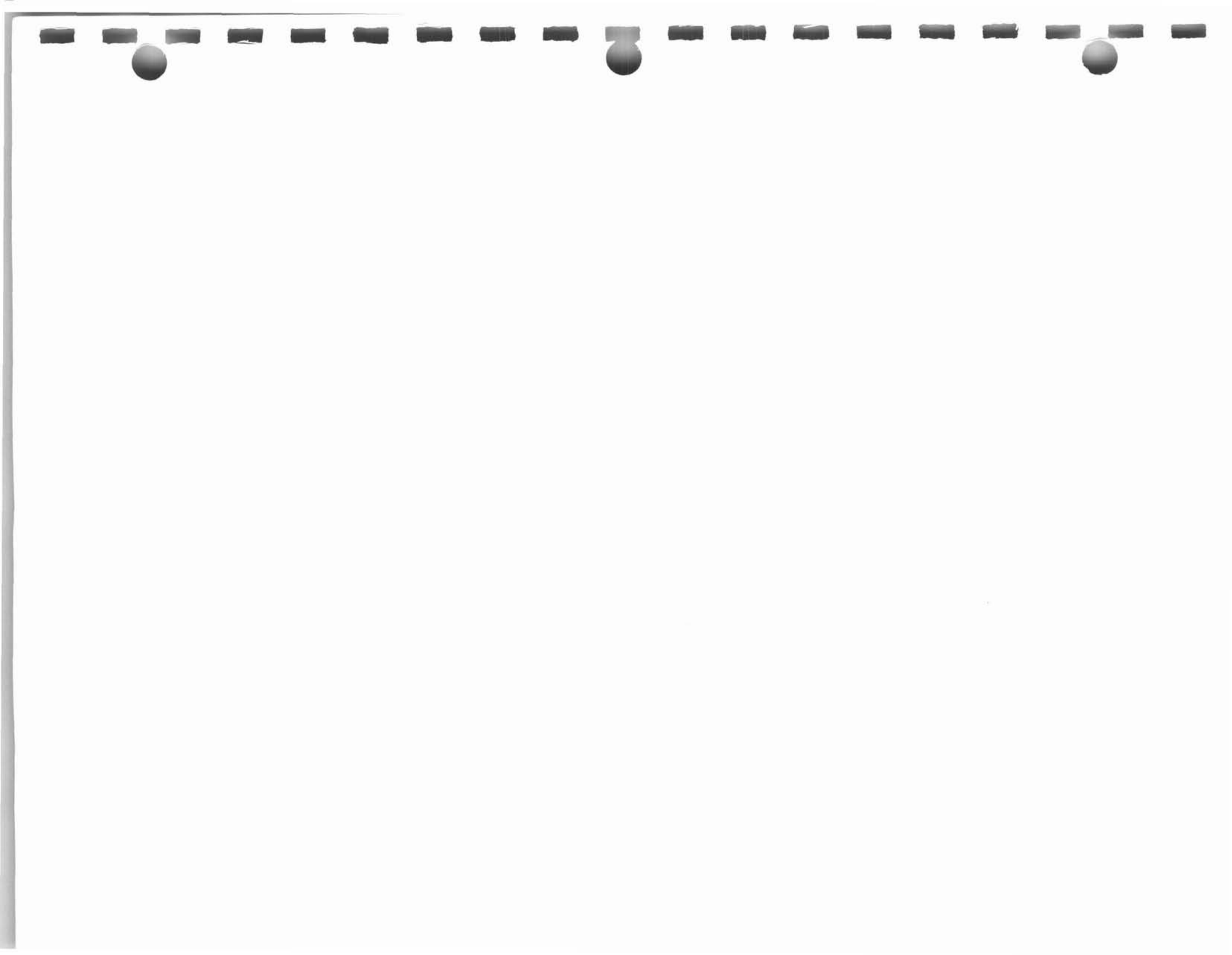
Chart 12/12 Conclusion

In order to ensure the BRAC recommendation can be implemented it is imperative that the BRAC process consider two major issues discussed:

1. The correct enclave to support Operational Project Stocks:

- a. 512 civilian positions
- b. 6 military positions
- c. Total of 518

2. An additional bill to implement the recommendation to move conventional ammunition out of Sierra Army Depot is \$82 million.






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Conventional Ammunition FY96 Shipping/Receiving

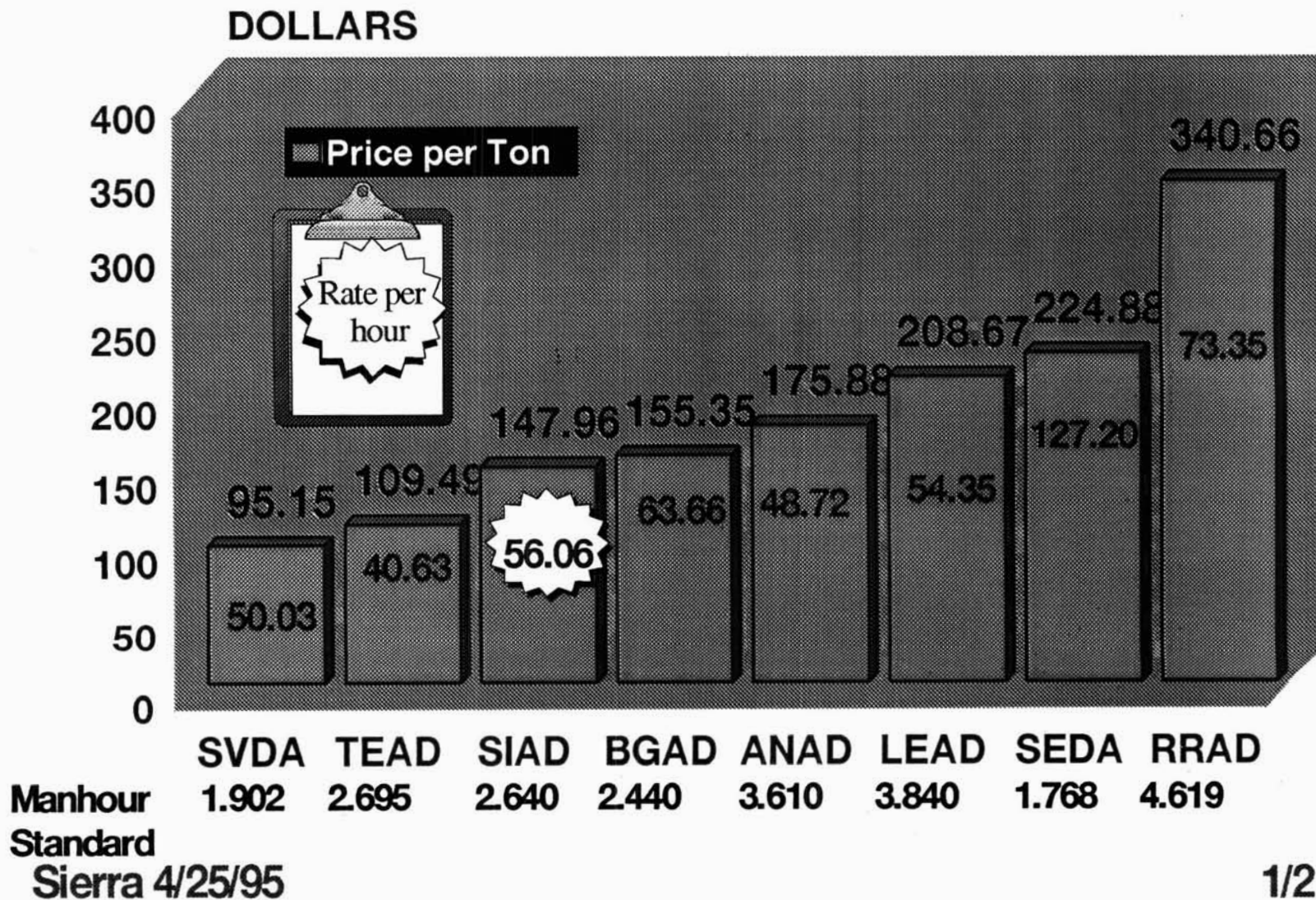


Chart 1/2 Conventional Ammunition Demilitarization Revenue Per Ton

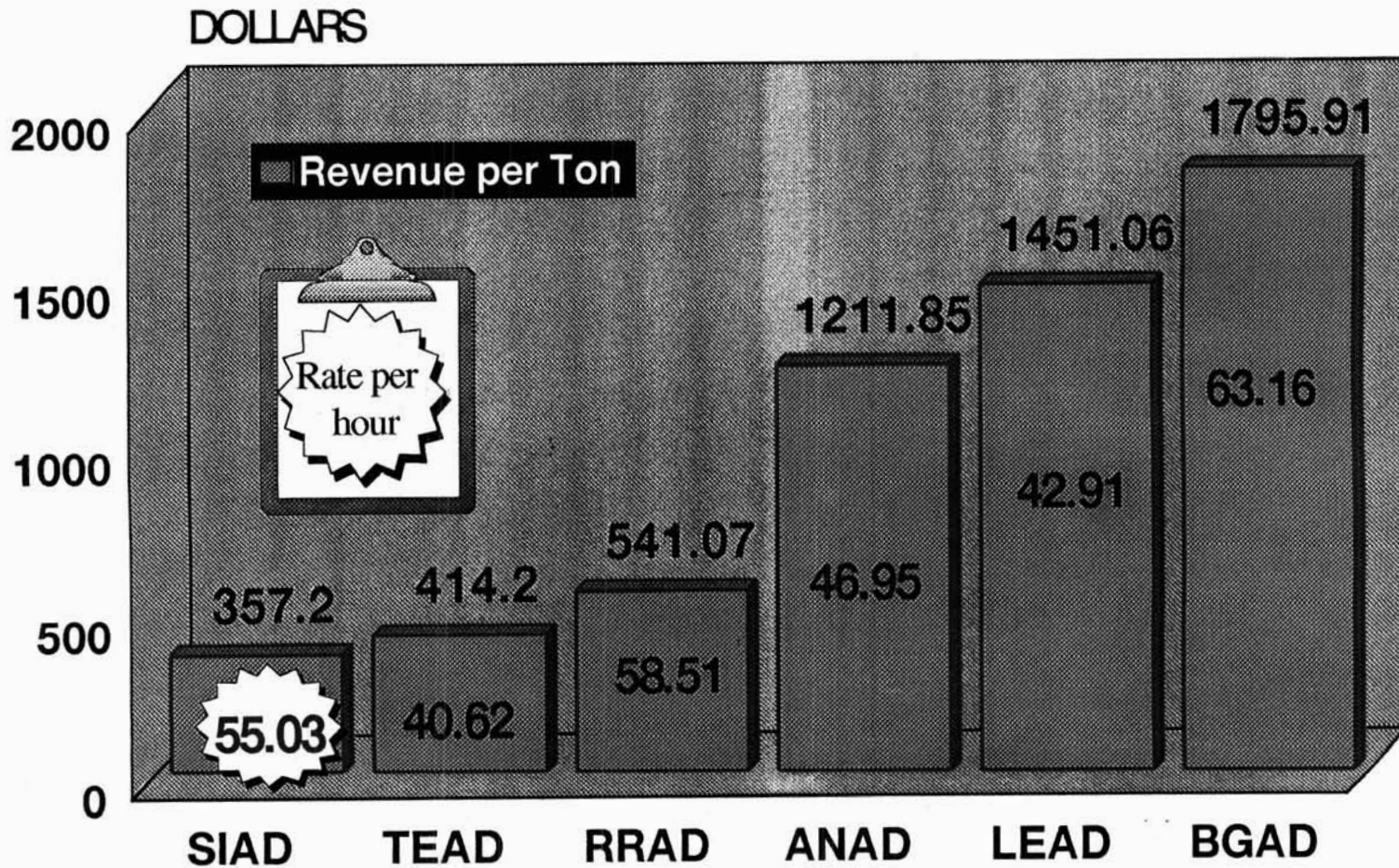
As you saw, our briefings dealt with FY95 data. We have just received the FY96 fixed prices and rates for the Conventional Ammunition program.

At \$357.20 per short ton, Sierra's fixed price for conventional ammunition demil is the best among the depots. Our mix of proposed workload items includes several programs which require labor intensive disassembly actions.

For example: 105mm cartridges; quantity 6,615 short tons utilizing 70,470 direct labor hours and 90mm cartridges; quantity 3,093 short tons utilizing 46,389 direct labor hours. In spite of these labor intensive programs, our manhour standard remains the most efficient.

"THE MOST "BANG" FOR YOUR DWINDLING TAX DOLLARS!!!"

Conventional Ammunition FY96 Demilitarization



Manhour
Standard

SIAD TEAD RRAD ANAD LEAD BGAD

6.458 10.197 9.248 25.812 33.816 28.434

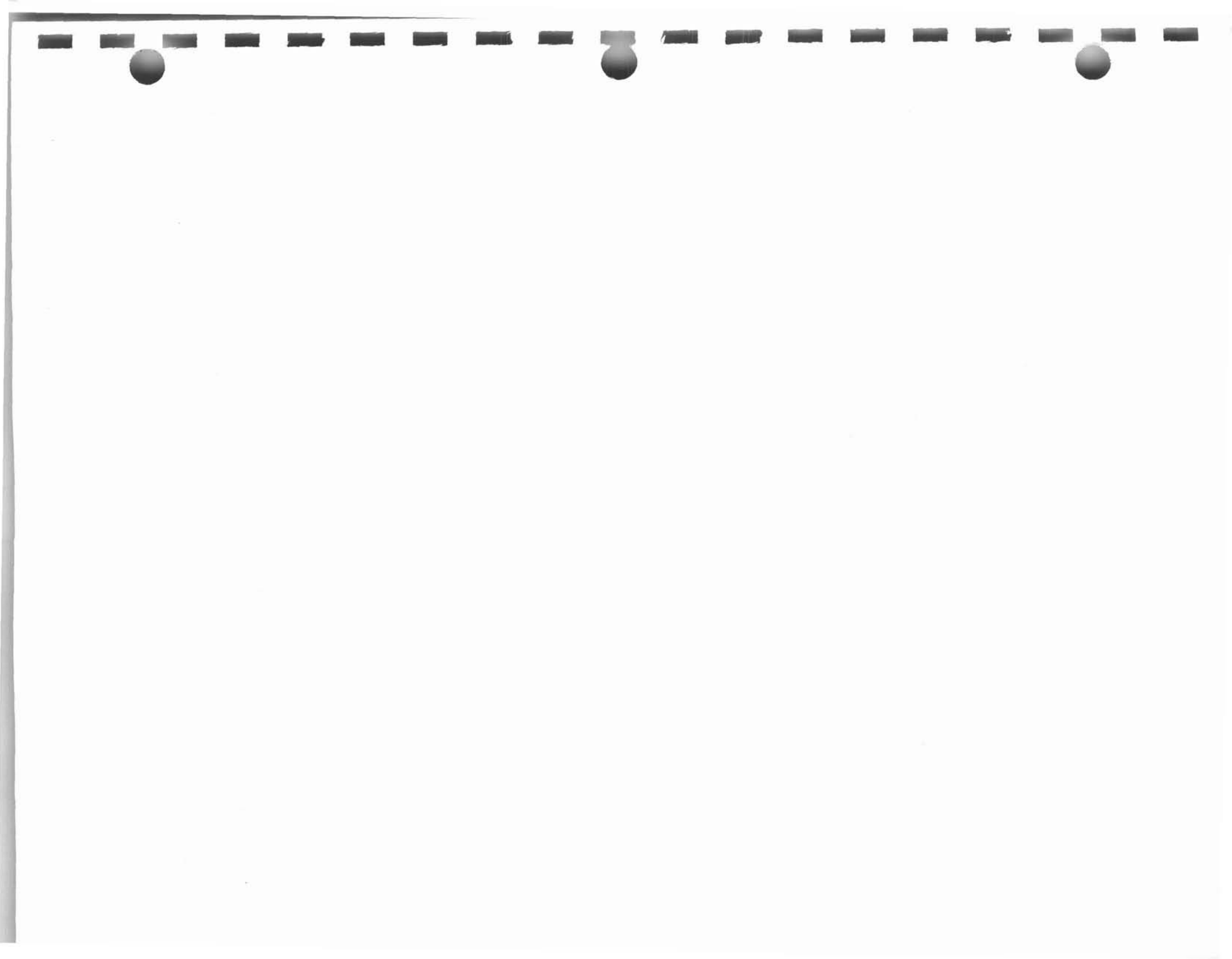
Sierra 4/25/95

2/2

Chart 2/2 Conventional Ammunition Shipping and Receiving
Revenue Per Ton

Every year, our price will fluctuate due to prior year gains and loses, workload volume, workload mix, and surcharges imposed by higher headquarters. Sierra's fixed price is consistantly competitive due to our low expense rates and high productivity and expertise in this arena.

Sierra's fixed price per short ton for shipping, receiving for FY96 is \$147.96; or the third best price among the depots.






Cardinal[™]



BRAC COMMISSIONER'S TOUR

Narrative Summary

Good morning ladies and gentlemen. On behalf of the employees of Sierra Army Depot, I'd like to thank you for giving us the opportunity to show you our installation. My name is Glenda and I work as a preservation packer in Warehouse 302. Over the next hour I'll be guiding you through the Army's Center of Technical Excellence for Operational Project Stocks. Once this portion of the tour is complete, you will be taken back to the Skedaddle Inn for lunch. After lunch, you will be greeted by Mr. Claude Chun, representing the Directorate of Ammunition Operations who will show you our demilitarization and ammunition missions. Please feel free to ask questions anytime during the tour.

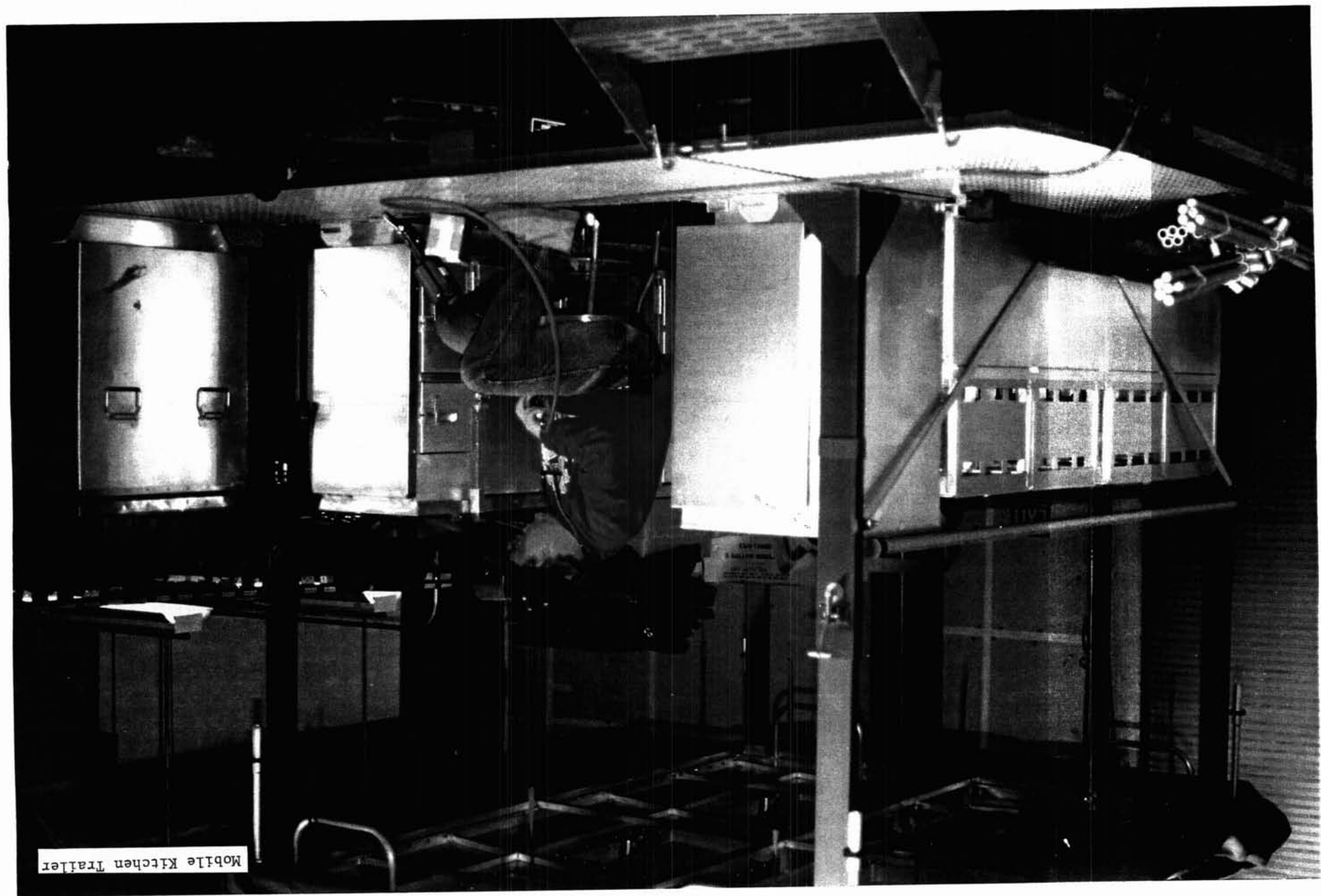
Before entering the maintenance facilities, I'd like to cover a few safety tips. We have not interrupted our daily operations, so we ask you wear the safety glasses and ear plugs when appropriate. I will cue you before entering these areas. If you are not familiar with this type of ear plug, simply roll it between your thumb and forefinger, insert it, and allow 15 seconds for it to expand.

As we pass through the security gates into the Operational Project Stocks area, you'll notice a group of 46 steel storage tanks off to your left. These tanks were built for vehicle storage in 1946. Today we use them primarily to store furniture and equipment for the housing areas and directorates.

Just ahead and to the left is the outside storage area used by the Defense Reutilization and Marketing Office. They receive equipment from several Federal Agencies to reallocate surplus government equipment or sell it to private organizations through public auctions and sealed bids.

In the distance there are 26 general purpose warehouses with over 2.3 million square feet of covered storage space. We currently have 17.6 acres of improved hard stand in support of our missions. As you can see, we have unlimited outside storage space to support future missions.

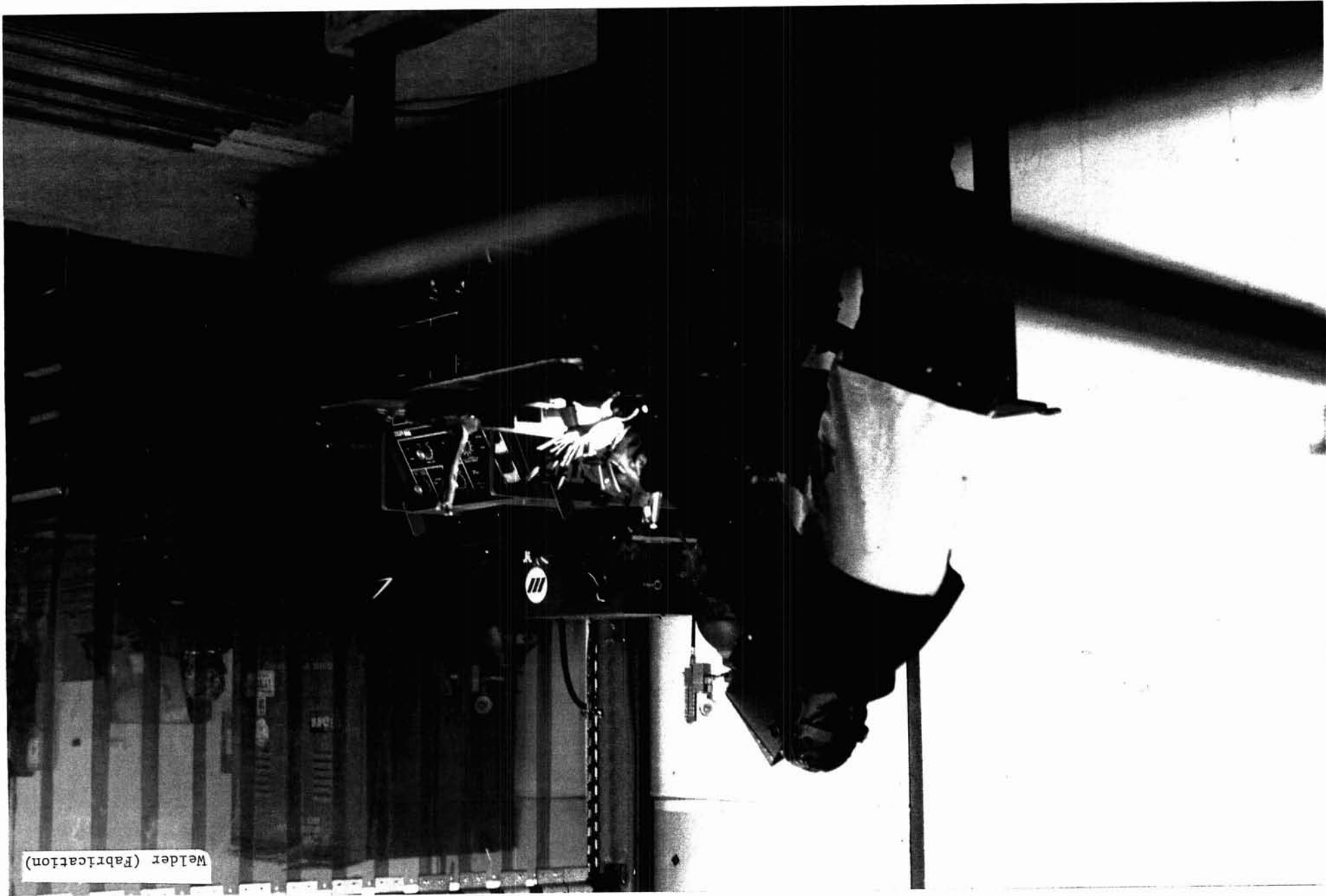
We have an excellent transportation network consisting of an on-site 7168 foot airfield capable of supporting the C-5A Galaxy or C-17 aircraft, access to two major rail lines and U.S. Highway 395.



Mobile Kitchen Trailer

The large building, Building 201, coming up on your left is primarily used by administrative personnel who support the requirements of the Ammunition and Operational Project Stocks missions. The employees who occupy this structure are setting the framework of the operations by meeting our customers expectations. They carefully plan, budget, establish storage and transportation requirements, inventory and quality check each and every item in our 1.3 billion dollars worth of stored materials.

Our first stop on the tour allows for a quick walk-through of our maintenance facilities. Please feel free to ask questions at anytime.



Welder (Fabrication)

MAINTENANCE OPERATIONS

Buildings 208, 209, and 210 are maintenance repair facilities. We repair various types of equipment including water and fuel pumps, water purification units, and all the secondary items associated with these units. Other technical equipment includes water chillers, refrigeration units, large and small generators, and light plants, and all components of either the Water Support System, Inland Petroleum Distribution System, or Force Provider.

Our welding shop has an ongoing mission that involves the repair, modification, and fabrication of storage containers. They also support all the maintenance projects requiring weld repair, straightening and/or fabrication.

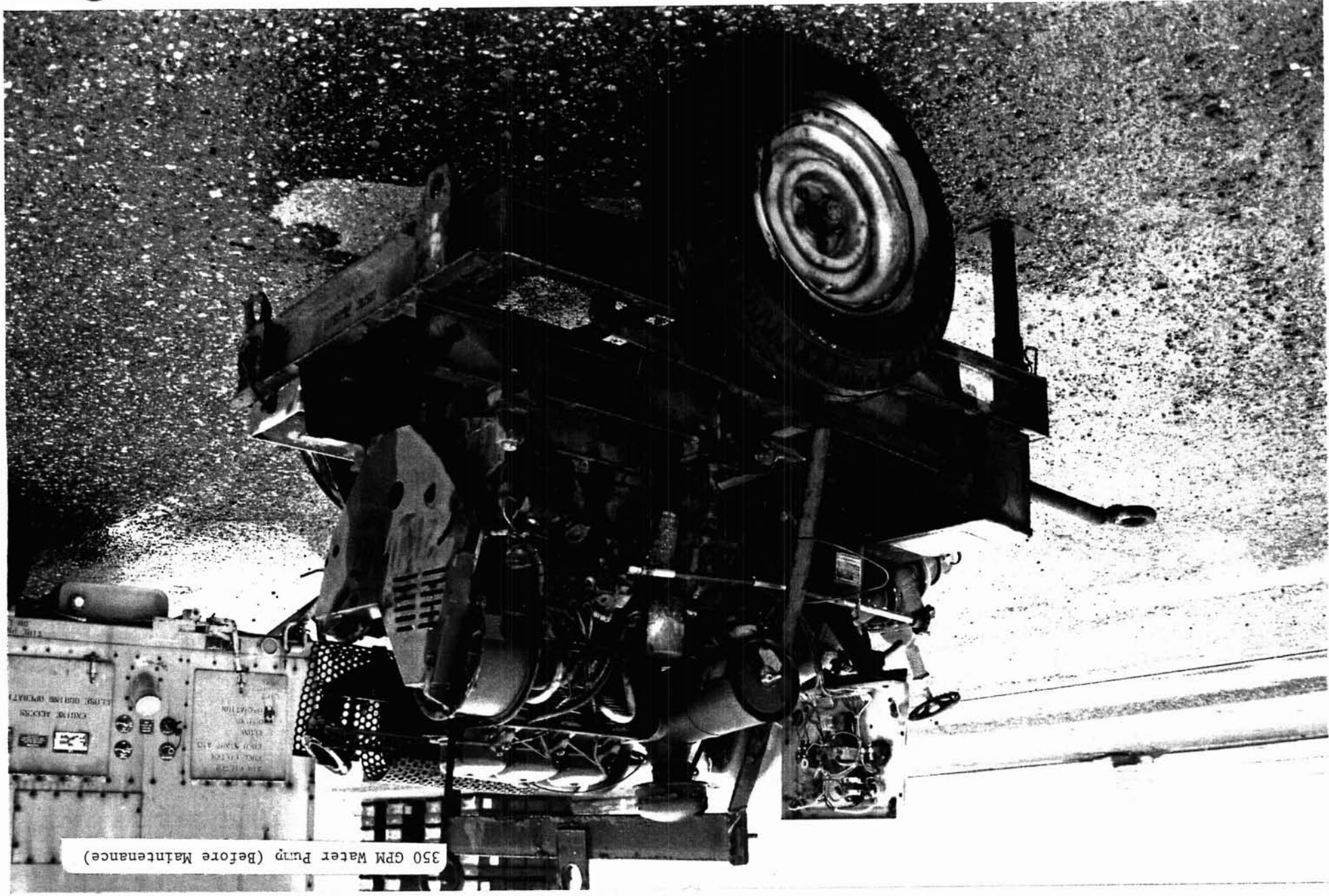
Our state of the art sand blasting and spray paint booths are not only large enough to accommodate all of the major end items associated with the Operational Project Stocks, but the containers we ship them in as well.

One of our newest projects includes repairing and modifying Mobile Kitchen Trailer units. Our goal is to make them more efficient and safer for the user in the field.

We hope to start the landing mat project soon. It will involve cutting, machine work, welding, pneumatic gluing, testing, blasting, and painting.

Another major function we perform is bringing Condition Code "F" stock (repairs required/missing parts) up to Condition Code "A" stock (serviceable, without qualification). Each item is inspected, repaired, function tested, steam cleaned, sand blasted, and repainted before sending it to the preservation and packaging personnel.

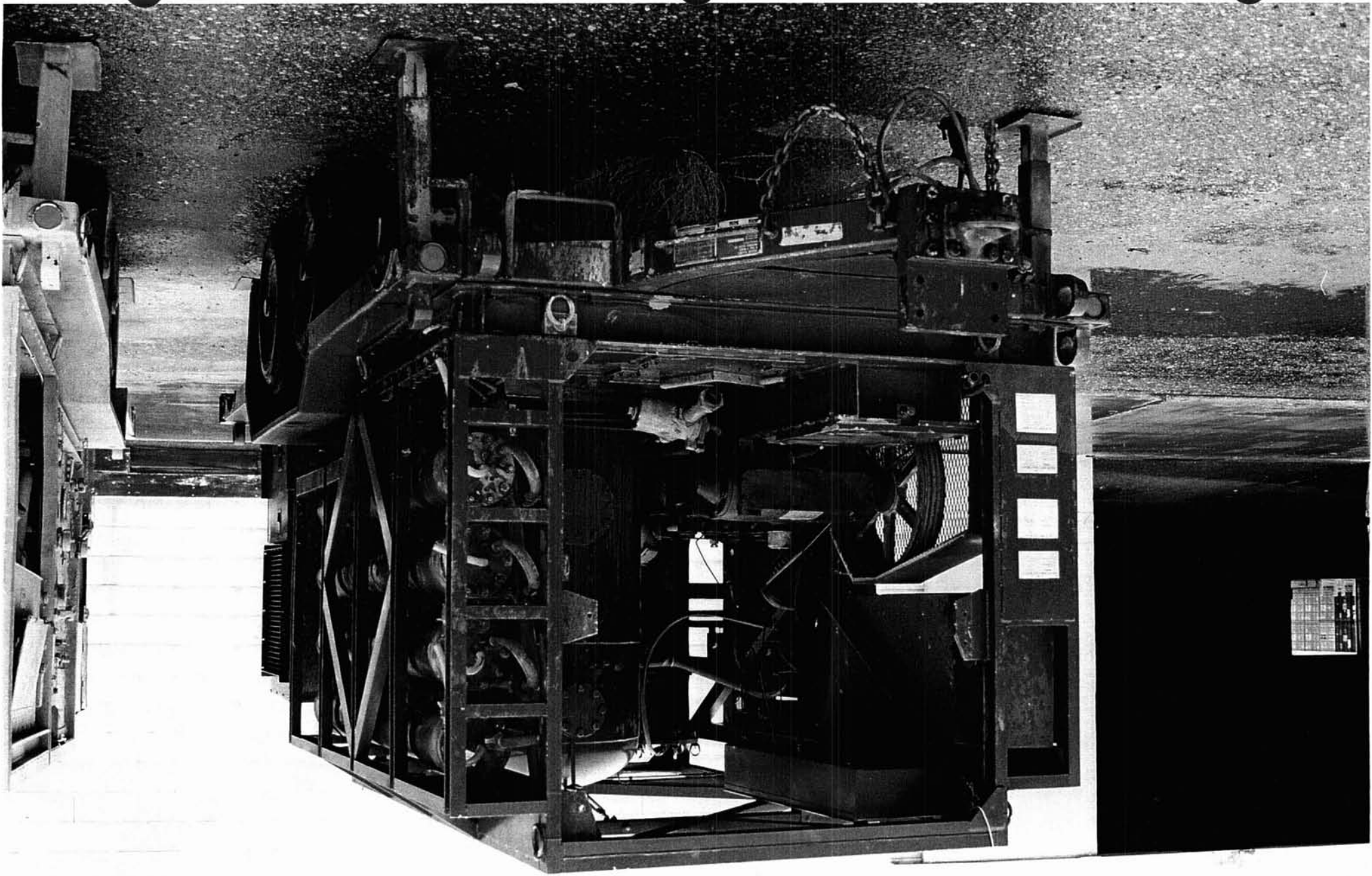
We also replenish prepositioned ships with equipment that is vital to national defense and the support of our troops. We receive it, run it through the maintenance cycle, function test it, and bring it up to Condition Code "A." After preserving and packaging it, we ship it to the prepositioned ship adhering to a critical timeline.



350 GPM Water Pump (Before Maintenance)

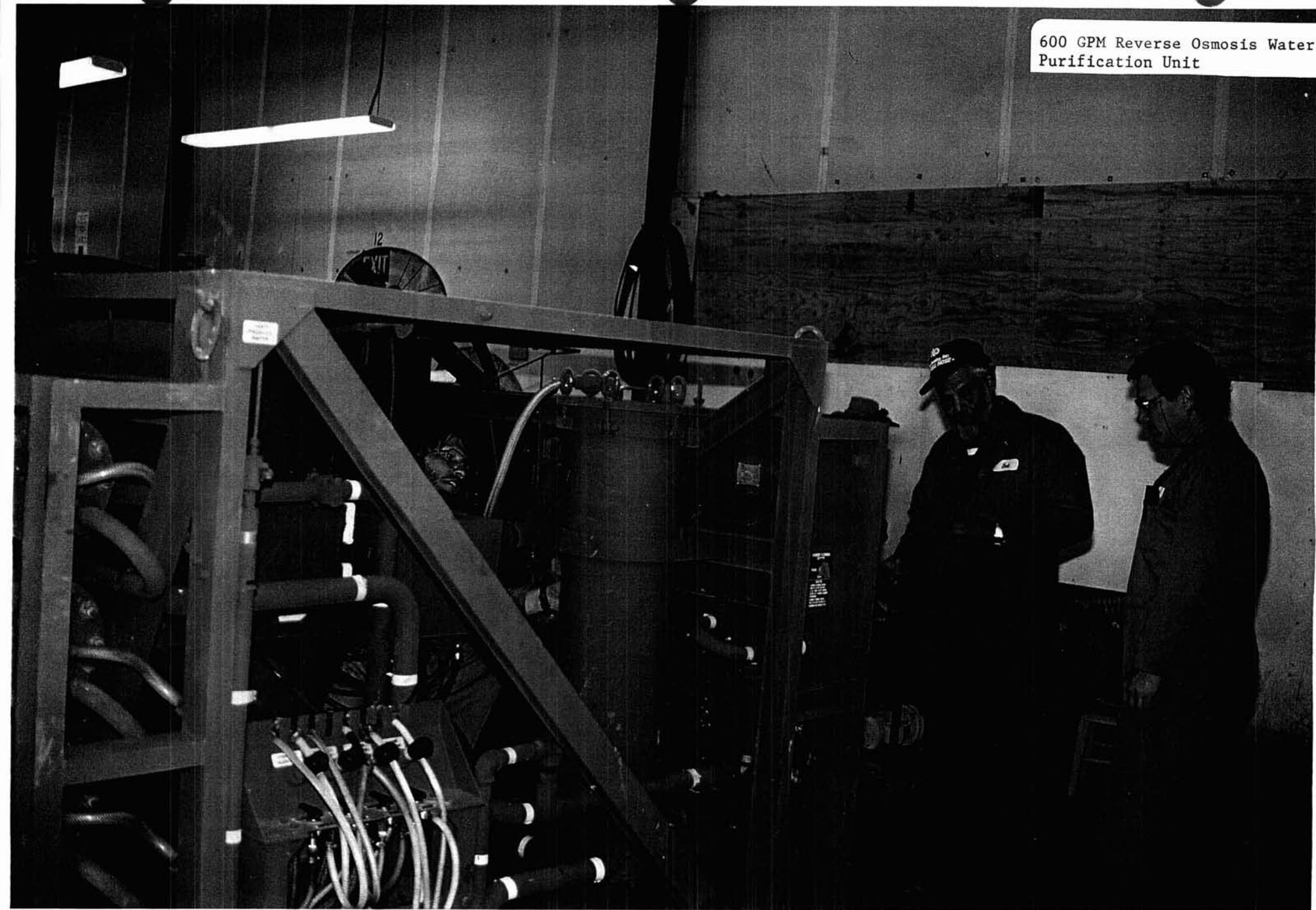
350 GPM Water Pump (After Maintenance)

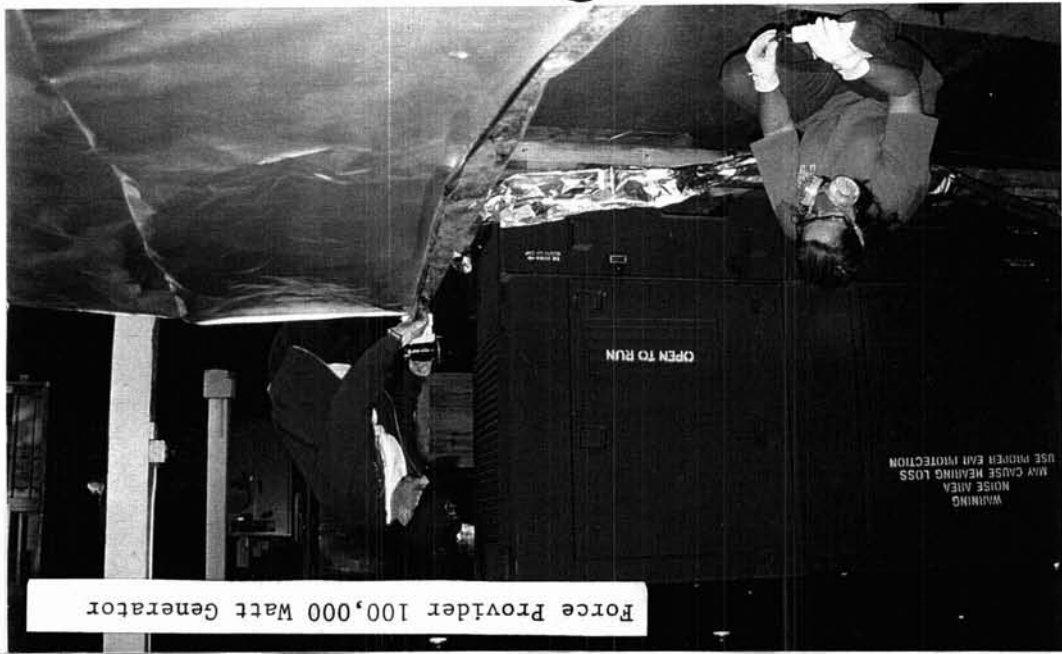




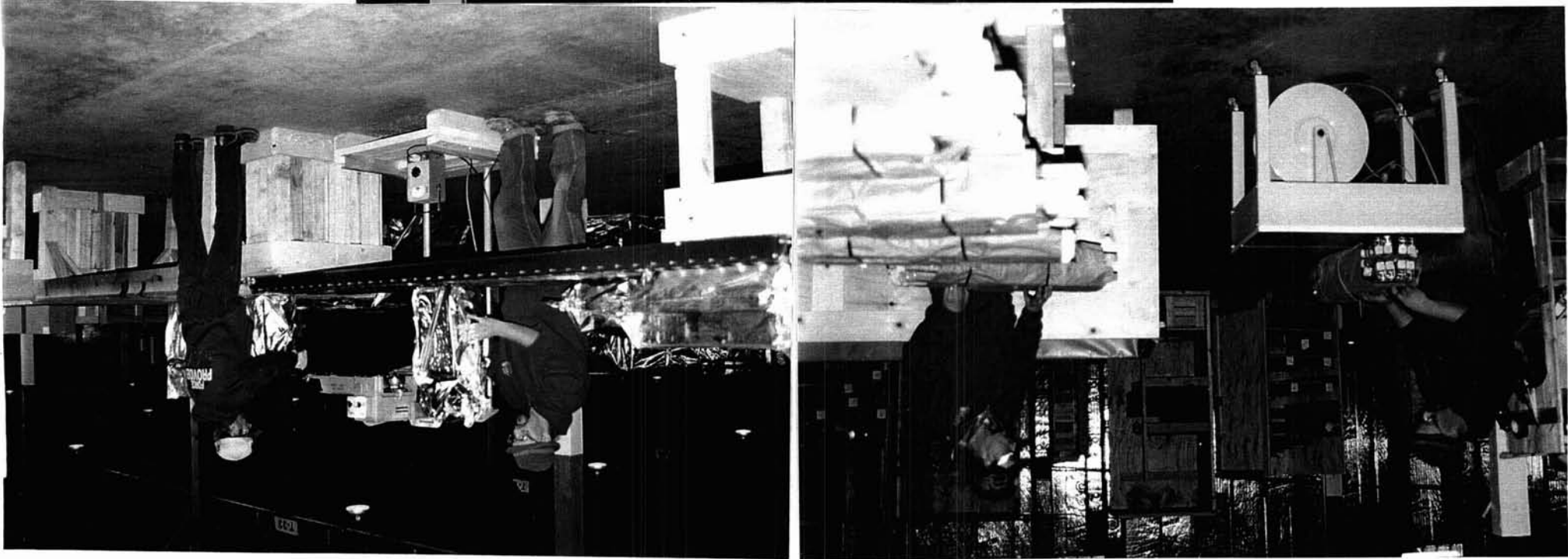
600 GPM Reverse Osmosis Water
Purification Unit

600 GPM Reverse Osmosis Water
Purification Unit





Force Provider 100,000 Watt Generator

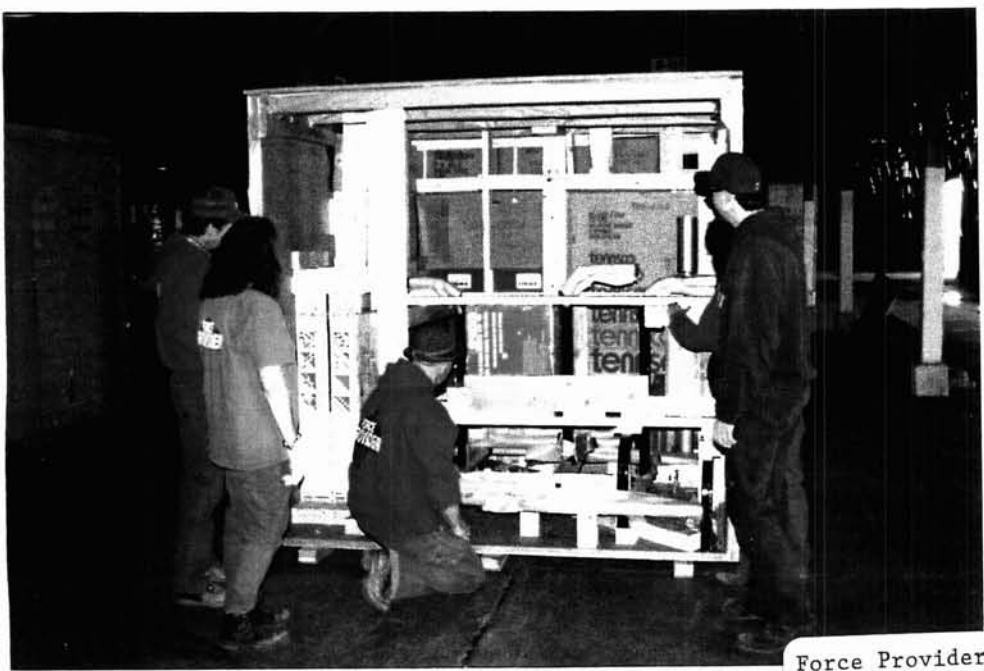


FORCE PROVIDER

Our mission is to provide quality packaging and preservation for two configurations of Force Provider. One configuration includes 242 International Standardization Organization containers which consist of six separate modules with the capability of supporting 3,300 people. The second configuration includes 10 containers and 109 tricons with the capability of supporting 550 people. We use the term "tricon" because 3 tricons can be linked together and shipped like a standard container. Once delivered to the field, the user can break the units apart to accommodate smaller equipment for handling and movement. Force Provider's design plan of packaging resists damage, and deterioration during storage, and transportation via air, rail car, truck, and sea. Force Provider's goal is to furnish the soldier with all the comforts of home, away from home.

Both units consist of 10 separate systems as follows:

- a. Billeting - sleeping quarters including tents, cots, footlockers, air conditioning, and heating units
- b. Laundry Facilities
- c. Latrines - toiletries
- d. Showers - towels, shaving kits, and soap
- e. Power Distribution
- f. Potable Water Systems
- g. Fuel Storage Units
- h. Food Service - module field kitchens with refrigeration units
- i. Administration - chaplain kits, field desks, and supplies
- j. Morale Support - communication satellite dishes for immediate contact with Army hospitals or entertainment, refrigerators, projection televisions, board games, athletic equipment, weights, stereos, and video cassette recorders



Force Provider Recreation Pack



Force Provider is well suited to support civilian or military humanitarian relief efforts worldwide. The Rwanda and Haiti relief efforts or natural disasters such as Hurricane Andrew in Florida or the flooding in California could be excellent opportunities for deployment.

All of the wooden crates used to pack Force Provider are made by our own Box and Crate Factory. These crates are designed, manufactured and assembled for reuse in the field. Each crate is secured to the inside of the container by blocking, bracing, and strapping. The containers are individually weighed, marked to a center of balance, stenciled, then marked for shipment.

We package 42 major items (pumps, generators, laundry machines and etc.) and 191 secondary items. Each of the 65,790 items required to form an Interim Support Package is received in Central Receiving (Building 304) and stored in Warehouse 305 for Force Provider. We use computer generated picking lists to have the items delivered which begins the packing process of the Interim Support Package. Each item is preserved to standard, from lubrication and wrapping, to sealing and vacuum packaging. After attaching the packing list and logging it onto the permanent record, Force Provider kits are placed into storage for ready deployment.

The shipment of Interim Support Package #1 destined for Port Charleston, South Carolina departed Sierra Army Depot by truck in January 1994. Mr. Gary Higgins, a Force Provider supervisor and Mr. Phil Locke, a Quality Assurance Specialist, accompanied the shipment. The containers were reinspected and loaded on the prepositioned ship GOPHER STATE as a supplement to the floating depot for 30 months. If unused, the Interim Support Package #1 will be reinspected and reissued for another tour among the prepositioned ships. If used or damaged, it can quickly be replaced with Interim Support Package #2 currently being stored at Sierra Army Depot. Our experience with Interim Support Package #1, coupled with the pride and dedication of the Force Provider crew, enabled us to preserve and package Interim Support Package #2 in just 60 days (half the time it took to prepare Interim Support Package #1). Most of the expertise surrounding the packing, preservation and packaging was developed and customized by our own employees. Special thanks and appreciation goes to Mr. Rick E. Martin and Mr. Mikeal K. Roseburrugh. Their suggestion for repackaging the tents reduced the number of crates and containers, which consequently saved the Army about \$500,000 per Interim Support Package.



WAREHOUSE 307 DRIVE THROUGH BRIEF

Welcome to Warehouse 307. This warehouse is primarily used as a holding area for shipments awaiting transportation. We gather all the secondary items, or smaller component parts associated with a larger system, from the various storage facilities within the Operational Project Stocks mission and stage them for shipment. After all the secondary items are linked with the major items, we compute the weight and cube of the containers to be shipped. We send this information to the Transportation Division for cargo manifesting and carrier assignments. When the carriers arrive, we're ready to load and ship.

Much of the warehouse inventory currently contains Water Support Systems from 55 gallon water drums to 50,000 gallon bladders. You'll also notice some Hypochlorination Units used for distributing measured amounts of calcium chloride when purifying water, and some Forward Area Water Point Supply Systems. Each Forward Area Water Point Supply System consists of six 500 gallon tanks and a 125 gallon per minute water pump. Water chillers are also stored here. These chillers are typically used by battalion sized units and essential for desert operations.





WAREHOUSE 308 DRIVE THROUGH

We are now entering Warehouse 308. To your left we are storing 600 gallon per minute pumps. Just next to the 600 pumps are 350 pumps. The Marine Corps is interested in adding the next group of 600 pumps that you see to their inventory of equipment. All of these pumps are designed to move water through the Tactical Water Distribution System. The open spaces seen throughout the warehouse have been assigned to incoming shipments.

The North end of the warehouse also contains pumps and kits associated with the movement of water. Most contain distribution materials such as hoses and smaller pumps.

If you look to the right as we leave the warehouse, you will be able to see the Hose Testing Equipment. Our hose test procedures call for unrolling each 6 inch, 500 foot discharge hose and hydrostatically testing it to 200 pounds of pressure per square inch. If it passes the function test, it is cleaned, stenciled with the test date, preserved and repacked into flaking crates. The qualifying hoses are then returned to storage as Condition Code "A" stock. Any time a hose is used, it is retested to ensure it meets the standard.

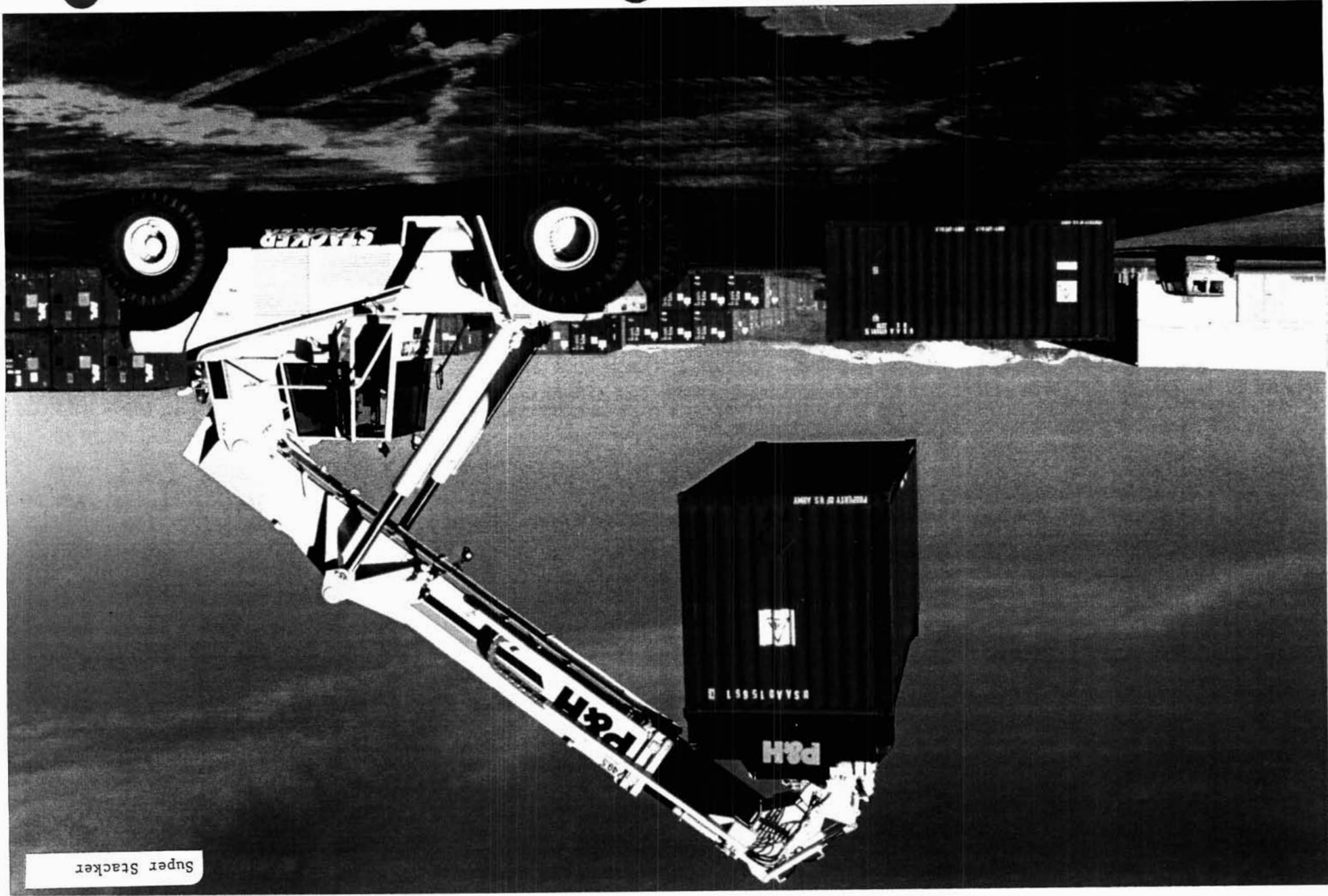


C-141



RECEIVING

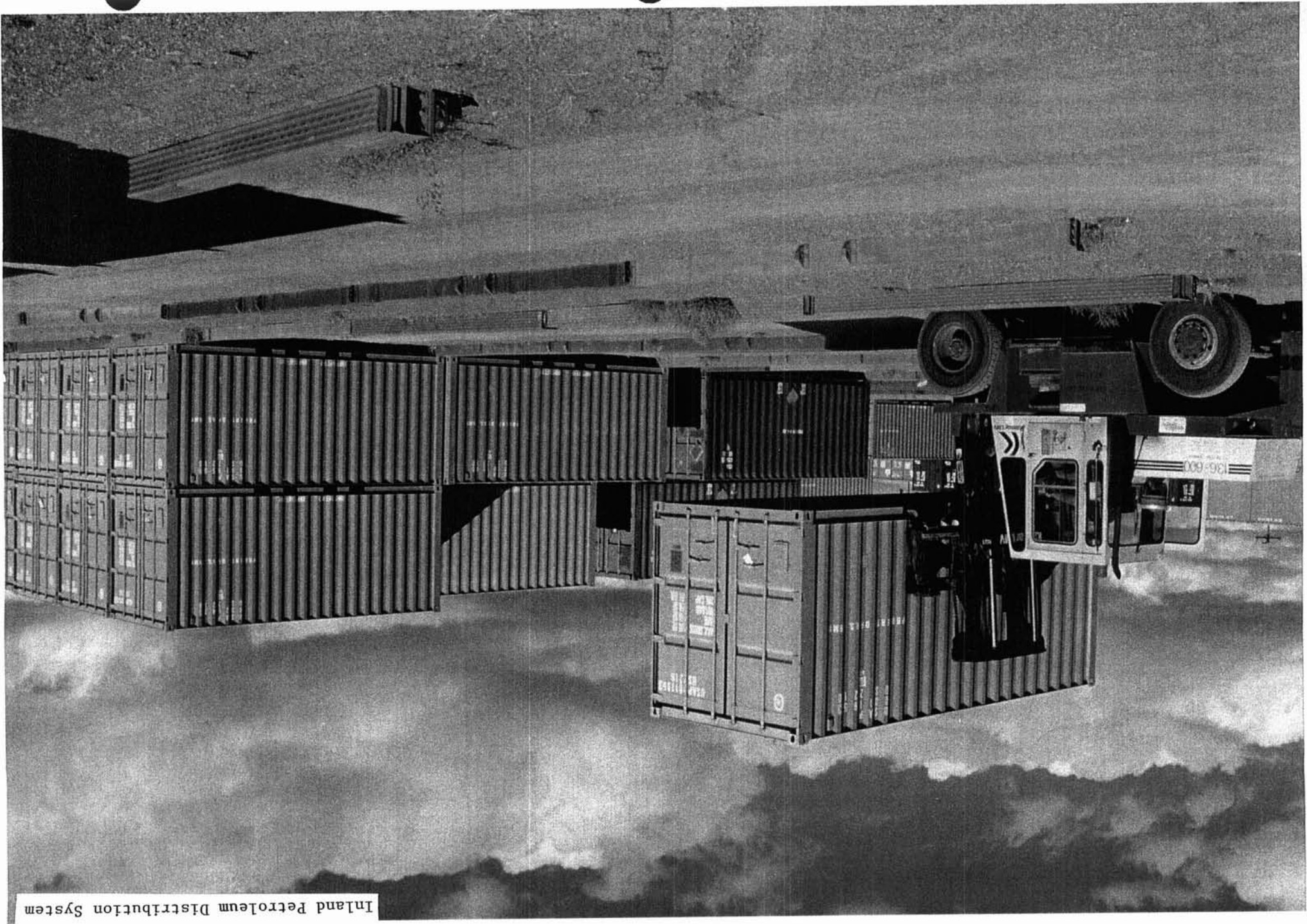
We are capable of receiving cargo via air, rail, and ground transportation. When delivery is made, we determine the best location for storage depending on the turn-around time and the maintenance and packing requirements needed to bring the material up to Condition Code "A." Our material handlers off load the cargo in an area closest to the assigned warehouse as possible. Then the cargo is assigned a storage location by our material handlers and uploaded into the accountable record portion of the Standard Depot System at the main office.



Super Stacker

SHIPPING

We receive shipping documents from the Transportation Division located in Building 201. We then locate the cargo and physically move it to the central holding area (Warehouse 307 South) where we label it, and compute the weight and cube of the containers to be shipped. This information is returned to the Transportation Division to actually set up the type of transportation necessary to ship the cargo. When the transporters arrive, they are issued government bills of lading by the Transportation personnel. We load the cargo and our shipment begins its journey.



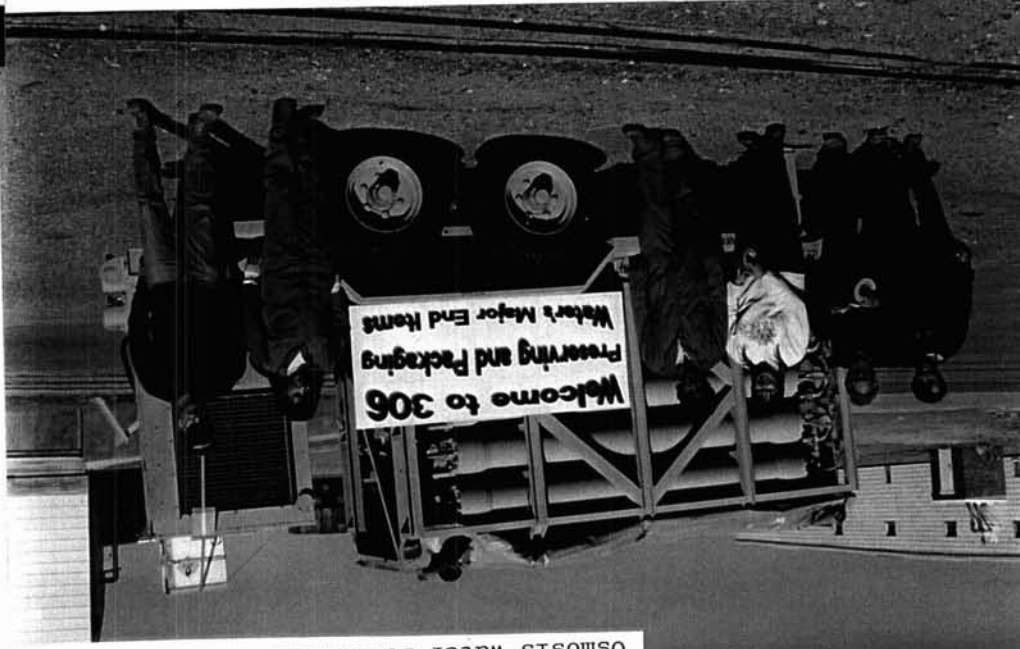
Inland Petroleum Distribution System

STORAGE

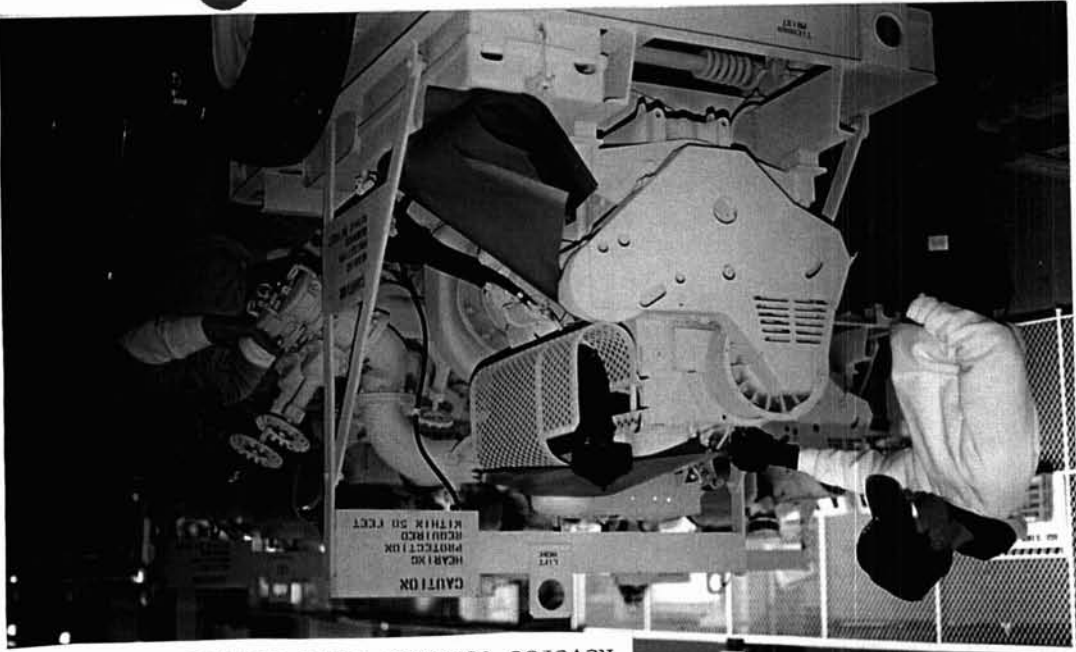
When our material handlers receive cargo at the designated storage locations, they physically move the cargo to specific locations within the warehouse. We carefully inspect the cargo's stock numbers, and condition codes, and load the information into the Standard Depot System. Any changes in location and inventory are made by the material handler assigned to that particular site.



Preservation and Packing 600 GPM Reverse
Osmosis Water Purification Unit



Preservation and Packing 350 GPM
Reverse Osmosis Water Purification Unit



MAJOR END ITEMS
PRESERVATION/PACKING

We preserve and package all the major end items, and secondary items associated with the Operational Project Stocks including the Water Supply System, Inland Petroleum Distribution System, and Force Provider. Major end items are equipment such as pumps, hypochlorinators, and water chillers. Secondary items are the component parts of the major items such as hoses, valves, and tees.

Our containerization operation in support of the Water Support System is just one of the innovative concepts we've implemented at Sierra Army Depot. We are constantly developing ways of packaging material to better support the soldier's needs in the field. This process of packaging not only preserves the system against damage and decay, but allows for easier access to perform Care of Supplies in Storage maintenance.



Shop Floor Supply Stock

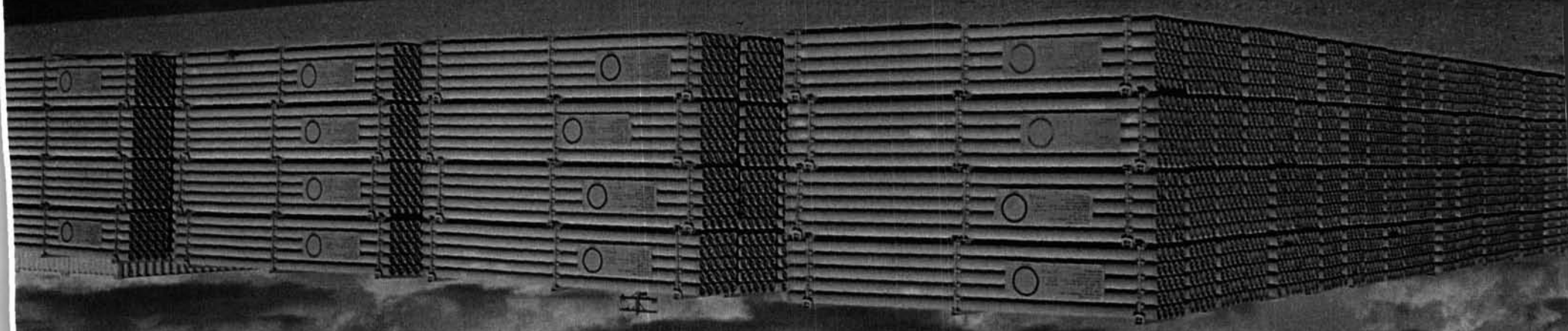
SHOP FLOOR/GENERAL SUPPLIES/TOOLS/INERT AMMUNITION

The Shop Floor System stores Class IX repair parts. Most of these items are requisitioned through the supply system, received at Building 306, and transferred to the Shop Floor in Building 302 until they are needed in the maintenance cycle. Accurate inventory is a must. We also receive parts from other installations as a result of the Base Realignment and Closure process. We view the folks working on the Operational Project Stocks within our organization as our customers. The customer submits a "pick" ticket via computer at Building 302 for items needed in the field (Maintenance, Inland Petroleum Distribution System, Water Support System). We retrieve the items from our Shop Floor System and deliver them to our customers. A copy of the pick ticket stays with the order and, a copy is returned to Building 302 for processing and removing the item from record. The storage, order, issue, and receipt circle is now complete.

We store inert ammunition in Warehouses 360, 361, 364 and 365. The inert ammunition includes everything from bomb fins and suspension lugs to chaff (used to counteract radar).

We manage a tool room, and mail and receive United Parcel Service shipments. Our work force includes a mobile labor team which is cross trained and available to support other crews.

Pipe - Inland Petroleum Distribution
System



INLAND PETROLEUM DISTRIBUTION SYSTEM

The technical configuration of the Inland Petroleum Distribution System incorporates three major groups of equipment.

BULK PETROLEUM STORAGE SYSTEM

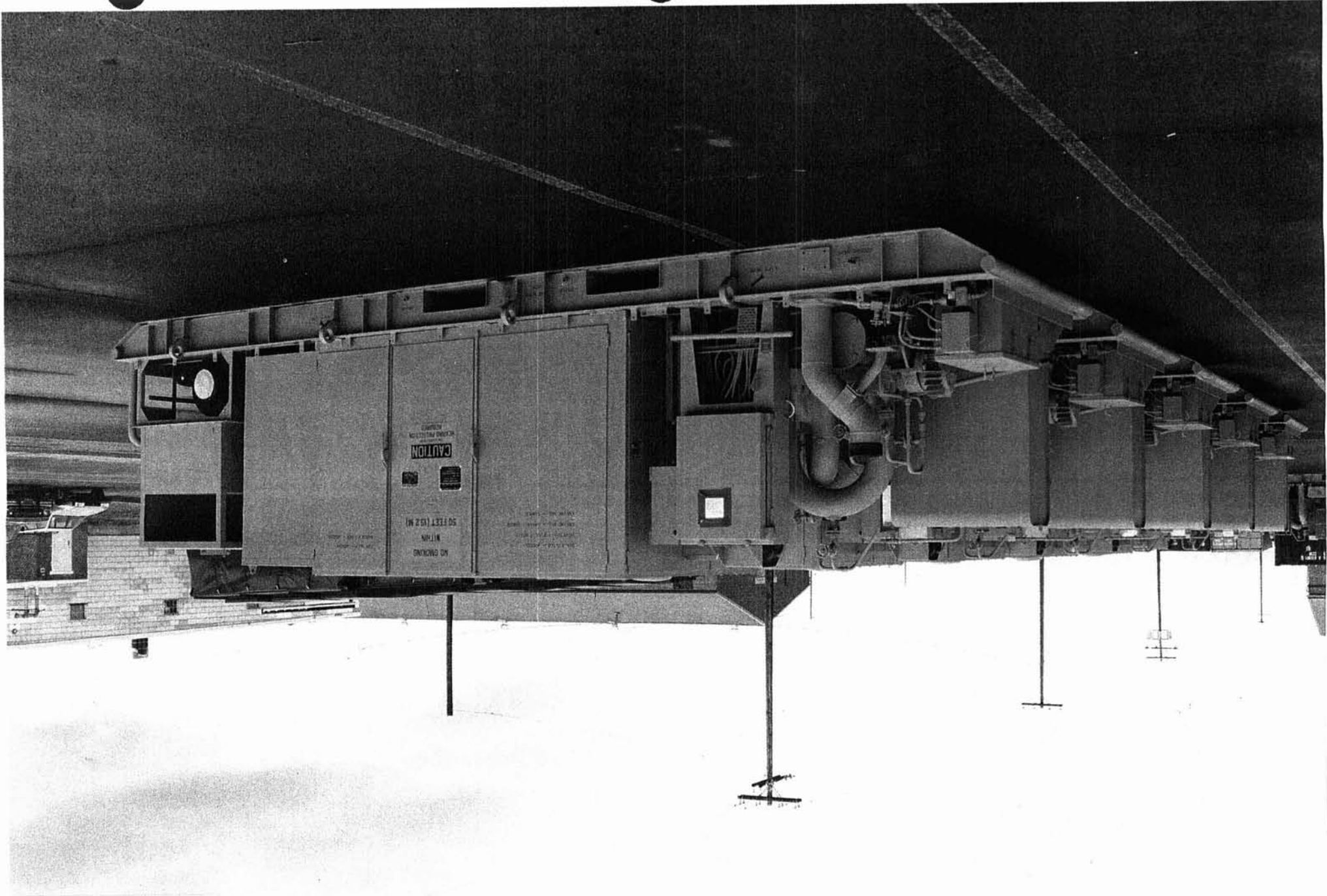
The Bulk Petroleum Storage System consists primarily of fuel units and pipeline connection assemblies. It's primary function is receiving, storing and issuing fuel. For flexibility, fuel units can be used as independent end items or combined together with a pipeline connection assembly to form a Tactical Petroleum Terminal. Three fuel units and one pipeline connection assembly are combined to make one standard Tactical Petroleum Terminal (77 International Standardization Organization containers).

PIPELINE SYSTEM

The pipeline system consists of pipeline sets, pipeline pump stations, and pipeline support equipment. Its primary function is to transport fuel from one area to another. The pipeline sets (five miles each) and pump stations can be combined, as many as needed, to meet theater operational requirements. There are 808 miles of Condition Code "A" petroleum pipe located at Sierra Army Depot. We shipped an additional 140 miles of pipe to Sagami Army Depot for Far East contingencies. Several of our prepositioned ships are also loaded with pipe to enhance the Army's rapid deployment capabilities.

SPECIAL PURPOSE EQUIPMENT

Special purpose equipment provides specific purpose components that are incorporated into the pipeline design to overcome specific topographical problems or pipeline design problems. In addition, components from the Special Purpose Equipment group such as, bridges and critical gap crossings, can be incorporated into the pipeline design to cope with specific topographic features, as rivers and swamp crossings.



CAUTION

NO OPENING
WITHIN
50 FEET (15.2 M.)

800 GPM Fuel Pump

FUEL UNITS

The function of the fuel unit is to receive, store and issue fuel.

Fuel units can be operated independently or combined with other fuel units. As an independent unit, it is designed only for loading or unloading operations involving tanker trucks. They can be directly attached to a pipeline by use of a pipeline connection assembly. Its storage capacity is 30,000 barrels (1,260,000 gallons) of fuel.



Inland Petroleum Distribution System
Secondary Items/Parts

PIPELINE SYSTEM

The function of a pipeline system is to transport fuel via pipeline from one area to another.

In operation, the pipeline system can incorporate as many pump stations as necessary to meet the operational requirements. The system is flexible in design to provide a pipeline system that can cope with field conditions and topographical problems.

INLAND PETROLEUM DISTRIBUTION SYSTEM OPERATIONS

The process begins when we receive a work order from our planners stating how many fuel units, pipeline connection assemblies, pump stations or 5 mile sets of pipe are scheduled for containerization.

A pick list is generated through our supply system, materials and hardware arrive via the Shop Floor System. Orders are also placed with the Box and Crate Factory for skids or special boxes that might be needed for this particular assembly. The Box and Crate Factory also manufactures risers for wheeled items, bins, shelves, and drawers for the containers.

An empty container is brought into the warehouse where lumber is mounted to the walls and floors to brace the bins and shelves.

We then inventory, inspect, preserve, package, and label all of the materials required for the shipment. We pack the material into the bins and drawers stored on shelves or blocked and braced to the floor. The Inland Petroleum Distribution System uses wood, web straps, plastic ties, chain, and Air Force binders to secure the material in the container.

Each container is marked according to a marking plan that identifies which part and to which system the container belongs. The container is then weighed and a center of balance is computed and marked on the container.

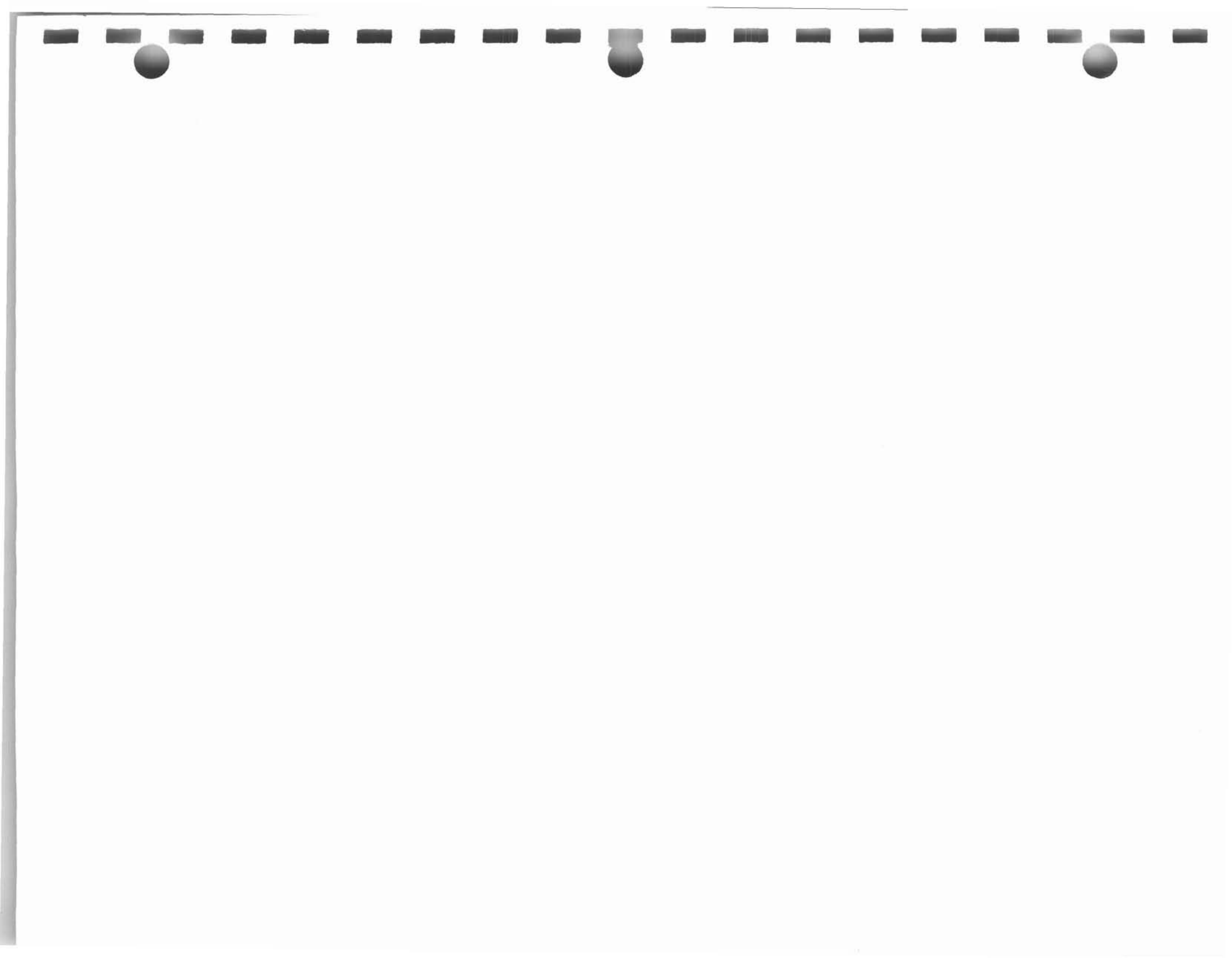
Containers are then stacked in sets and certain configurations for storage.

Inland Petroleum Distribution System
Storage



HARD STAND DRIVE BY BRIEF

As we turn right you'll notice 253 jeep-like vehicles called High Mobility Multipurpose Vehicles. We expect to receive 200 more within a week or so. These vehicles have been shipped here as a component of the Army Field Feeding System-Future. The major components include these vehicles, a kitchen, 22 ton trailers, sanitation centers, refrigeration units, and temperature controlled tents. After all of the components of the system have been received, assembled, and crated, we will determine how many systems or system components to ship to the various units according to their current table of distribution and allowances. We expect to begin the shipping effort in October of this year.

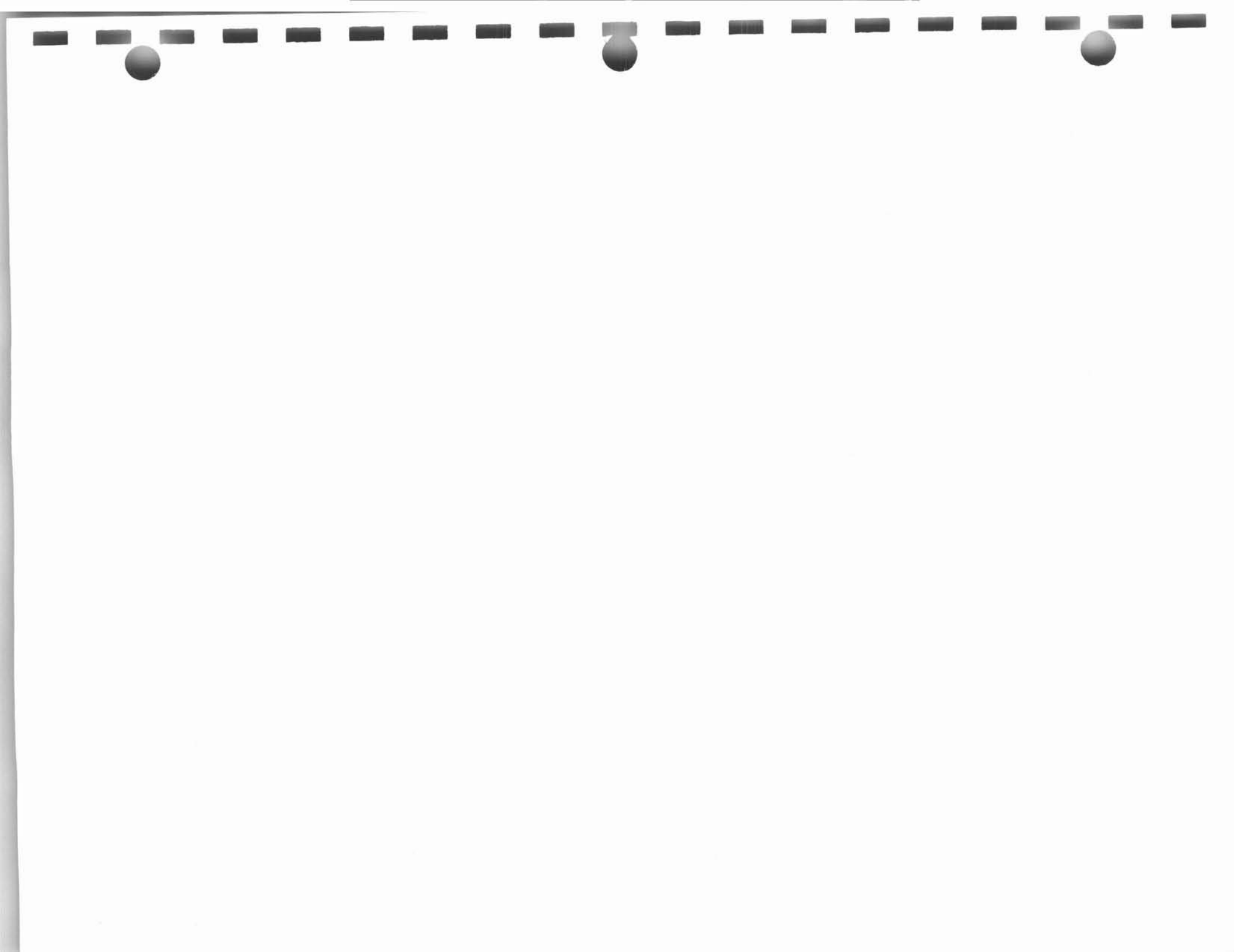


LANDING MAT STORAGE

Next to the High Mobility Multi-purpose Vehicles, you will notice our Landing Mat storage. These "honeycomb" aluminum interlocking sections create a portable air strip capable of handling C130 aircraft. Each landing mat assembly contains 7,448 sections that cover 125,000 square feet. We are currently storing 21 sets of Landing Mat. The Landing Mat assets were shipped to Sierra Army Depot as a result of BRAC 89 and 91 actions. The project was moved from Pueblo and Tooele Army Depots. There are no active programs to upgrade or refurbish the project, but if the funding was made available, we have the capabilities right here at Sierra Army Depot.

Landing Mat



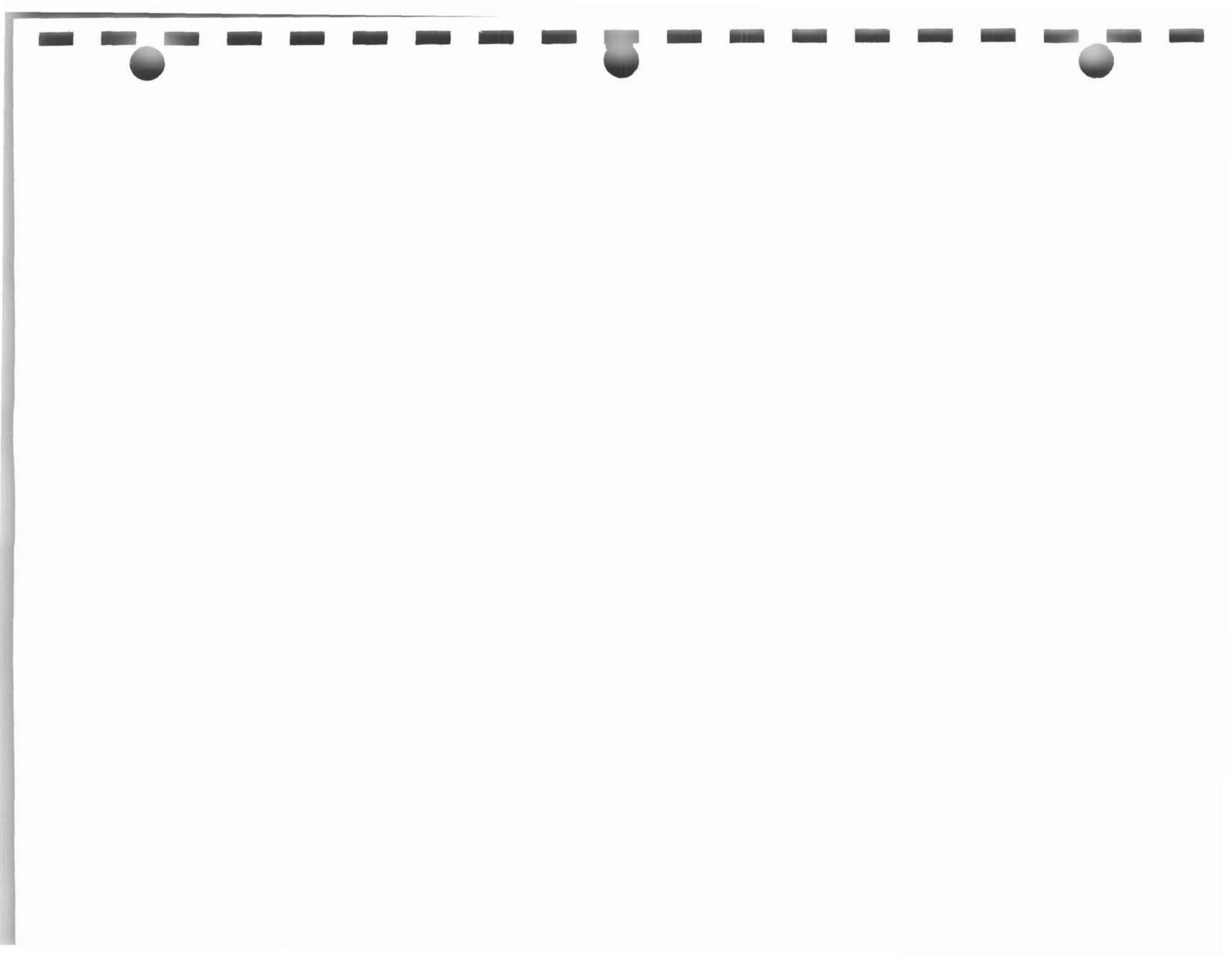


BAILEY BRIDGING STORAGE

Next to the Landing Mat you can see Bailey Bridging. These are fixed erection bridges that are stored, shipped to a site, and assembled for use when transporting troops and equipment across rivers, gorges and ravines. These portable bridges can then be disassembled, transported and restored at a selected site. The assembly and disassembly is normally accomplished by elements of the U. S. Army Engineering Brigades using specialized tools. Currently we store six sets of Bailey Bridging. The Bailey Bridge assets were also moved from Pueblo Army Depot as a result of past BRAC actions. If funding was made available, we could upgrade or refurbish the project right here at Sierra Army Depot.

Thank you for the opportunity of being your guide today. I hope you enjoyed the tour.






Cardinal



BRAC COMMISSIONER'S TOUR
Narrative Summary

BRIEFER: Mr. Claude Chun, Directorate of Ammunition Operations

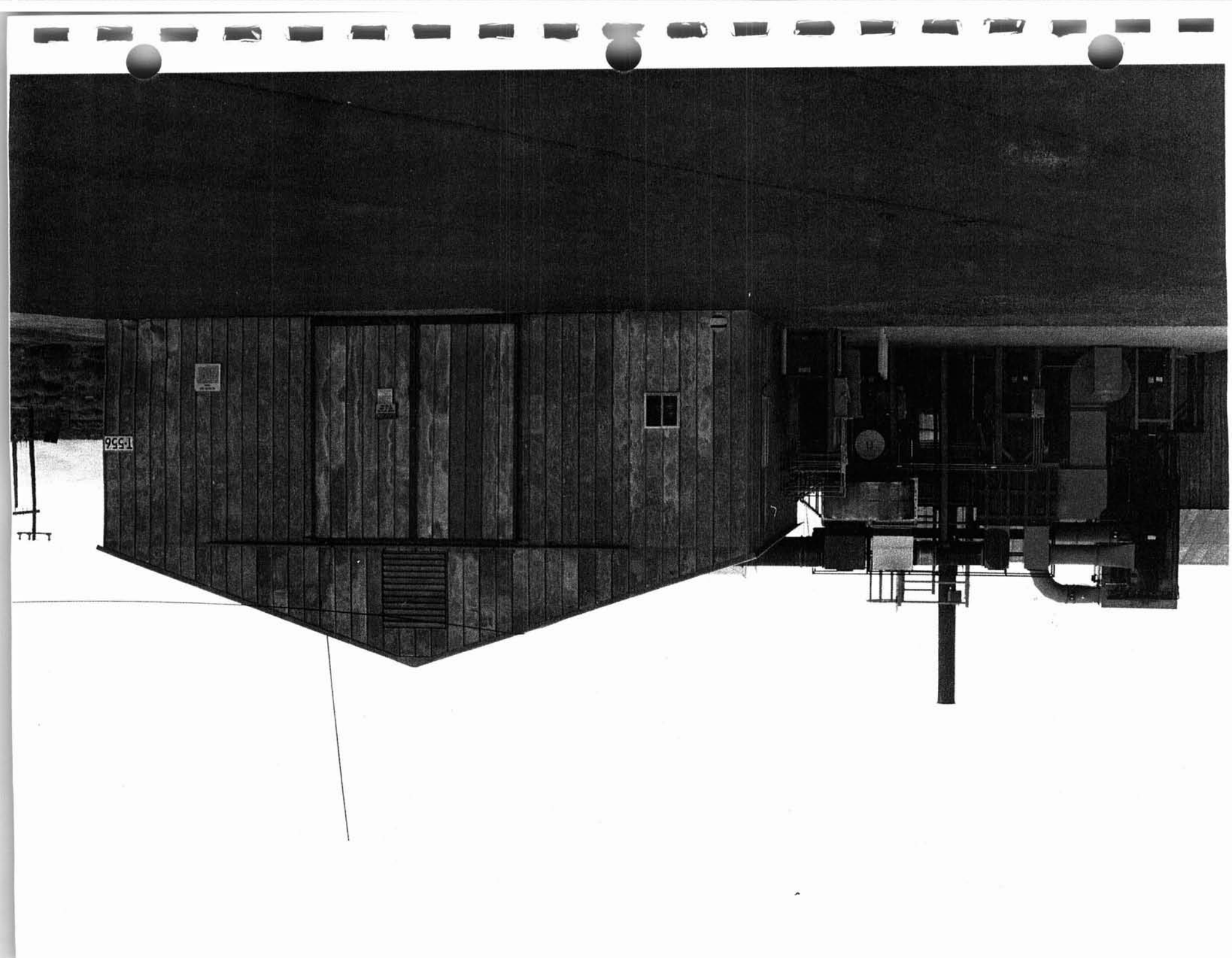
I would like to discuss some facts with you. Within the Directorate, we have 16,000 acres that include 4,000 acres for the Demolition Grounds. Over 225,000 short tons of ammunition, valued over \$1.6 billion, are stored in igloos and standard magazines. We have over 1.9 million gross square feet for both covered and improved open storage.

We have excellent transportation capabilities. We have U.S. Highway 395 that intersects Interstate Highway 80 (major all weather East/West highway) in Reno, Nevada (55 miles) and rail service by both the Union Pacific on our Southern boundary and Southern Pacific on our Northern boundary. We have our own depot operated airfield (Amedee) with a 7,168 feet runway that can handle C-141, C-5A and C-17. We have truck and rail safe havens and easy access to major air/sea ports (Concord 250 miles, Oakland 265 miles and Travis Air Force Base 225 miles).

I want to welcome you to the Ammunition Storage Area. If you have any matches, lighters, or flame producing items you will have to leave them here. I will show you this area with the facilities we are using and also the Demolition Grounds which is approximately 11 miles from here.

On your left is the Ammunition Office. This is where the ammunition personnel and truck drivers report every morning. Within the Ammunition Storage Area there is approximately 12,000 acres with 799 igloos, 12 standard magazines, and 671 usable improved open storage sites. Our igloos are the normal stradley igloos and vary in length from 60 feet to 80 feet.

The building in front of you is the Deactivation Furnace. This is actually Ammunition Peculiar Equipment 1236M1 Incinerator, Hazardous Waste. The Ammunition Peculiar Equipment was modified to satisfy Resource Conservation Recovery Act requirements. We are the only depot that has approval to incinerate up to .50 cal. This is important as we are the only depot that has authorization to use the Deactivation Furnace. We are expecting approval from the State of California for our Part B Permit that will allow us to incinerate small arms ammunition, primers, fuzes, and booster for ten years. Mr. Kirk Bausman will brief you on the Deactivation Furnace.

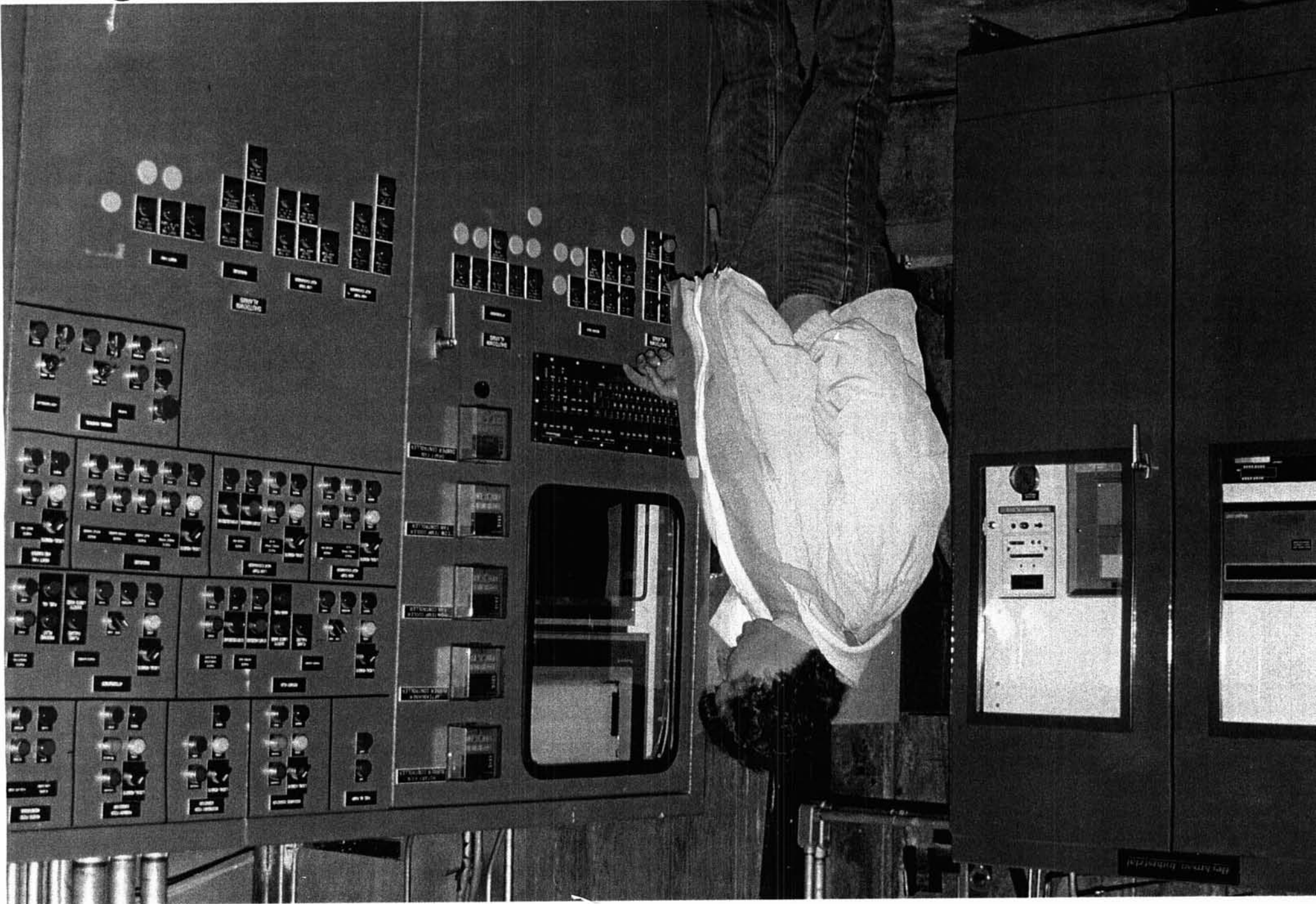


BLDG 556

PURPOSE: To demilitarize small explosive items up to .50 cal which are no longer safe.

FACTS:

- a. State of California and Federal Environmental Protection Agency approved and certified
- b. Only system currently permitted on line
- c. Upgraded to meet newest standard - at a cost of \$1.2M
- d. Estimated government savings \$600K
- e. Recycling



DEACTIVATION FURNACE
APE-1236M1

BRIEFER: Mr. Kirk Bausman, Supervisor/Deactivation Furnace

The Deactivation Furnace has been designed to demilitarize small explosive items in an environmentally controlled manner. The munitions are processed through the furnace for a variety of reasons, but no matter what the reasons, the munitions are no longer safe to be issued to the troops.

The Deactivation Furnace works on the principle of heating the rounds to a temperature that causes the explosive portions of the items to function. The items are moved to the rotary kiln by two feed conveyors. Then the items fall into the rotary kiln. The kiln moves the material towards the heated end of the kiln. The furnace runs at approximately 800 degrees. As the material moves through the kiln, the explosive function and the metal drop onto the discharge conveyor. The admissions from the explosives flow through the stack into an afterburner. The afterburner runs at a temperature of 1,400 degrees. This burns off any particulate that may not have burnt at the 800 degree level. From there the admissions run through, to cool down units, to drop the temperature for admission control sensors. It then goes through a cyclone and bag house to pull out any possible particulate that may have still been remaining. This ensures that no pollutants are released.

The control unit consist of the gas calibration unit, an Industrial Process Controller and an IBM computer. Together the three units monitor and control the entire Deactivation Furnace. The system has been programmed to run only within the Environmental Protection Agency's acceptable level of admissions. If the unit senses any portion of the process out of control levels, it sounds alarms and begins the shutdown procedures. At this point the control unit has shut off the feed conveyors and will not allow any more material to be processed until the problems are corrected.

The control unit also charts and prints the temperatures and admission levels as records required by the state and federal Environmental Protection Agency. The charts will be filed along with a description of the material that was demilitarized.



BLDG 403

PURPOSE: To perform Renovation and Disassembly of Conventional Ammunition

FACTS:

a. 16 Bays

Bay 1 - Unpack

Bay 2 - Pull-Apart

Bay 3-4,
6-7,
12-15 - Holding

Bay 5 - Deprime

Bay 8 - Mutilation

Bay 9 - Repack

Bay 10 - Paint Booth

Bay 11 - Stencil

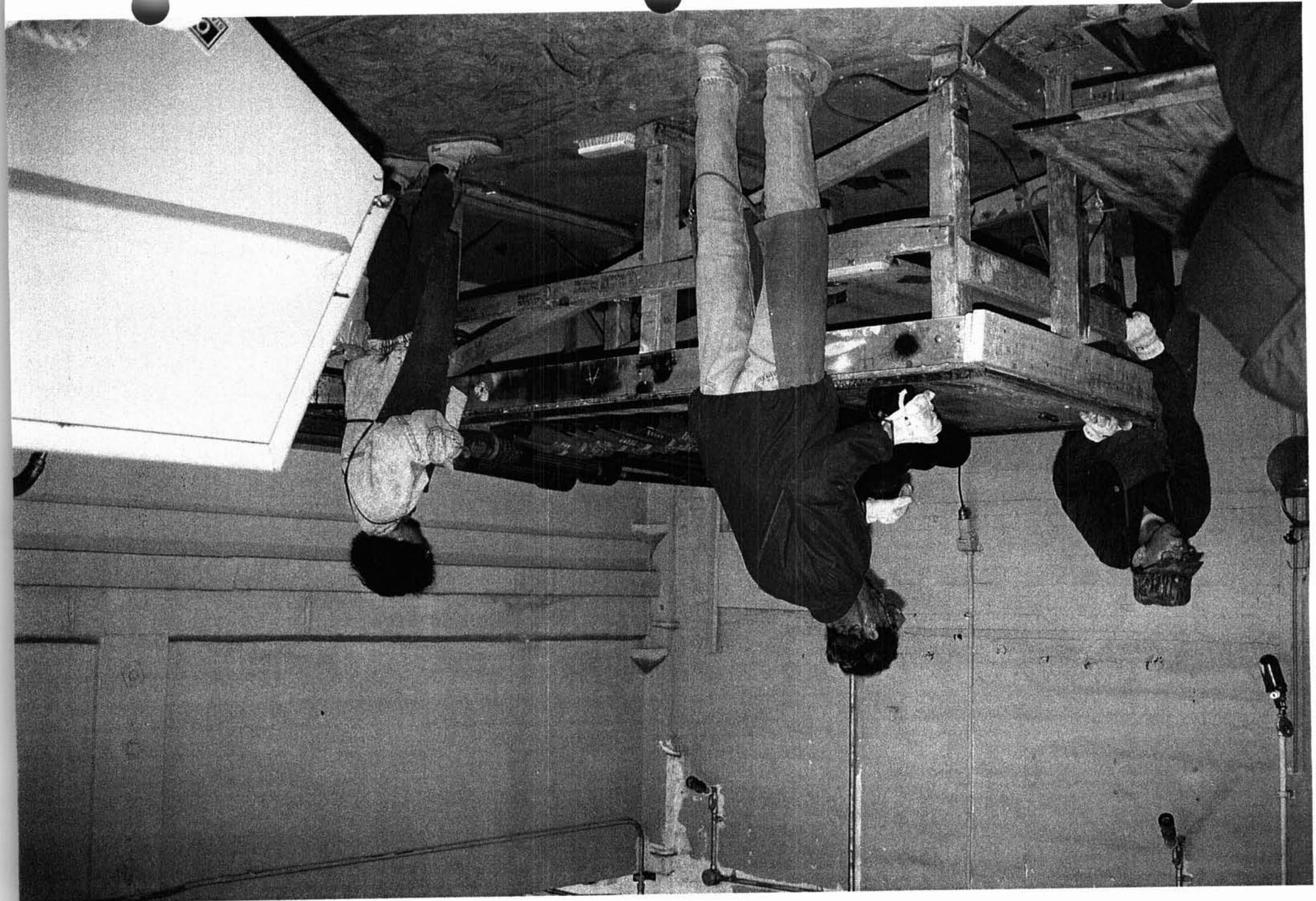
Bay 16 - Incoming

b. Intrusion Detection System

c. Rapid Response Deluge System

d. Vacuum collection house

e. Recycling

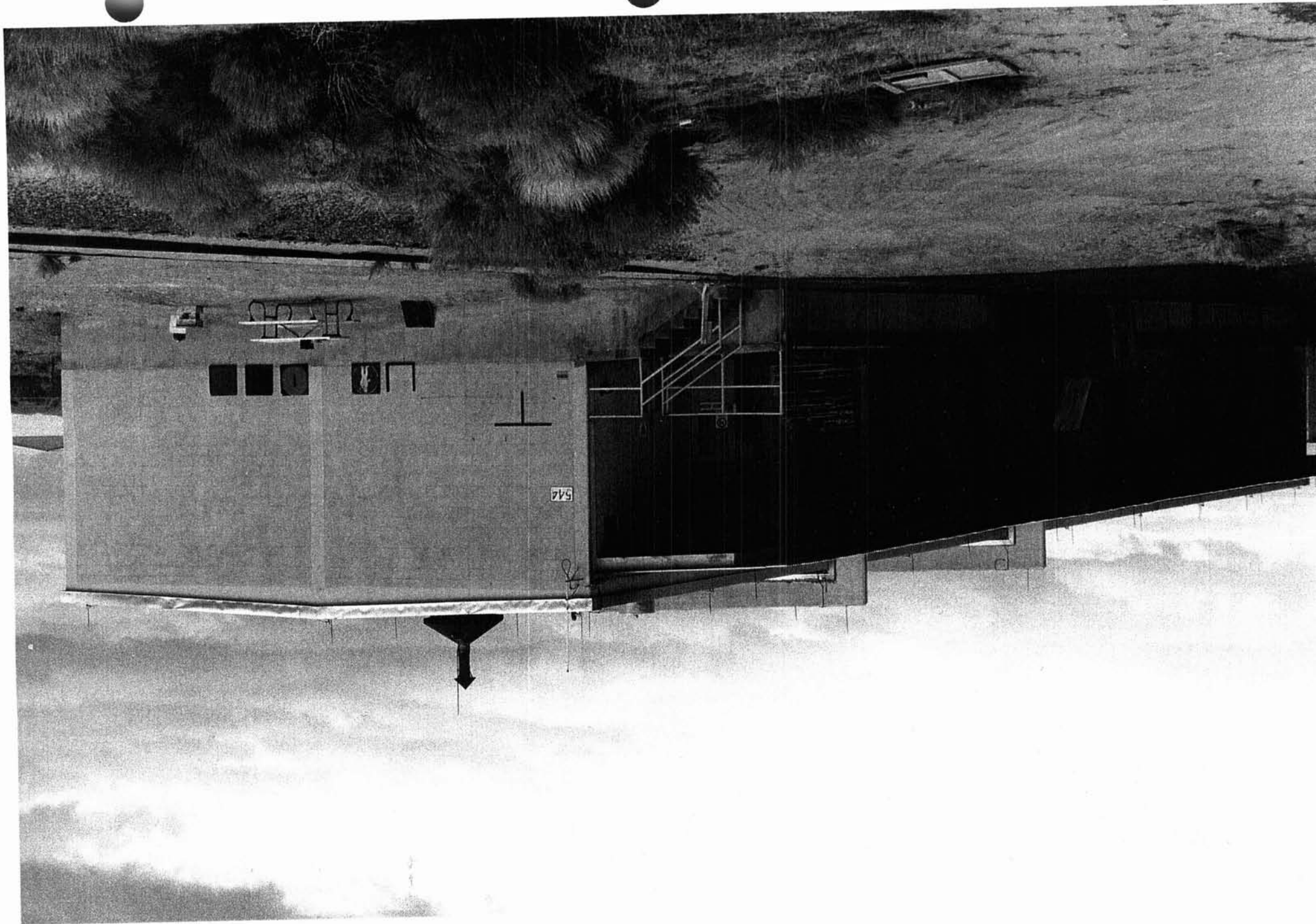


BUILDING 403

BRIEFER: Mr. Kirk Bausman, Supervisor, Building 403.

Building 403 is one of two maintenance line facilities which are currently operational here at Sierra Army Depot. The building is designated to run lines on both the North and South sides of the building. Each bay is constructed to withstand an explosion of 425 pounds net explosive weight and still protect the materiel and personnel in the adjacent bays. This building is also equipped with the Rapid Response Deluge and Intrusion Detection Systems.

At the present time, this line is running a 106mm disassembly program. These rounds are obsolete and are no longer required for the military. The operation consists of moving the materiel from storage to the building, depalletizing and unpacking the materiel, and then placing the round onto the conveyor. At this point the rounds move into the next bay (Bay 2) where it is placed into the Ammunition Peculiar Equipment Pull-Apart Machine. The door on the machine is closed, and the machine is activated. Once the round is pulled apart, the door is opened and the projectile is removed and placed on the conveyor. The cartridge case is removed from the machine, the propellant bag is cut and the propellant is poured into the vacuum system. The vacuum system pulls the propellant away from the building out to the Powder Collection House. One Hundred pounds of propellant is collected into barrels to be moved to the Burning Grounds. The cartridge case is then placed on the conveyor to move to the next operation. In Bay 5, the cases are removed from the conveyor and placed into the Ammunition Peculiar Equipment Deprime Machine. This machine pushes the primer out. The operator will remove the case from the machine, place the primer into a box, remove the liner from the case, and place the case back on the conveyor. Prior to sending the cases to the Defense Reutilization and Marketing Office, the end of the case is bent to prevent the casing from being reused. The casings are then sent to the Defense Utilization and Marketing Office and sold as salvaged steel. The projectiles are packaged to be placed into storage. The high explosive projectile will be moved to the Demolition Grounds and detonated. The primer will also be moved to the Demolition Grounds to be detonated.



BLDG 544

PURPOSE: To open, pack, prepare, mark, and label all types of munitions for safe transport via all modes of transportation

FACTS:

a. 6 Bays

Bay 1-5 - Short Term Storage

Bay 6 - Packing light boxes

b. Certifying shipment for air/ground transport:

Fine for failure to properly label, pack, or mark a shipment for transport - \$25,000 per violation per day for the Certifier - not the depot

c. Explosives

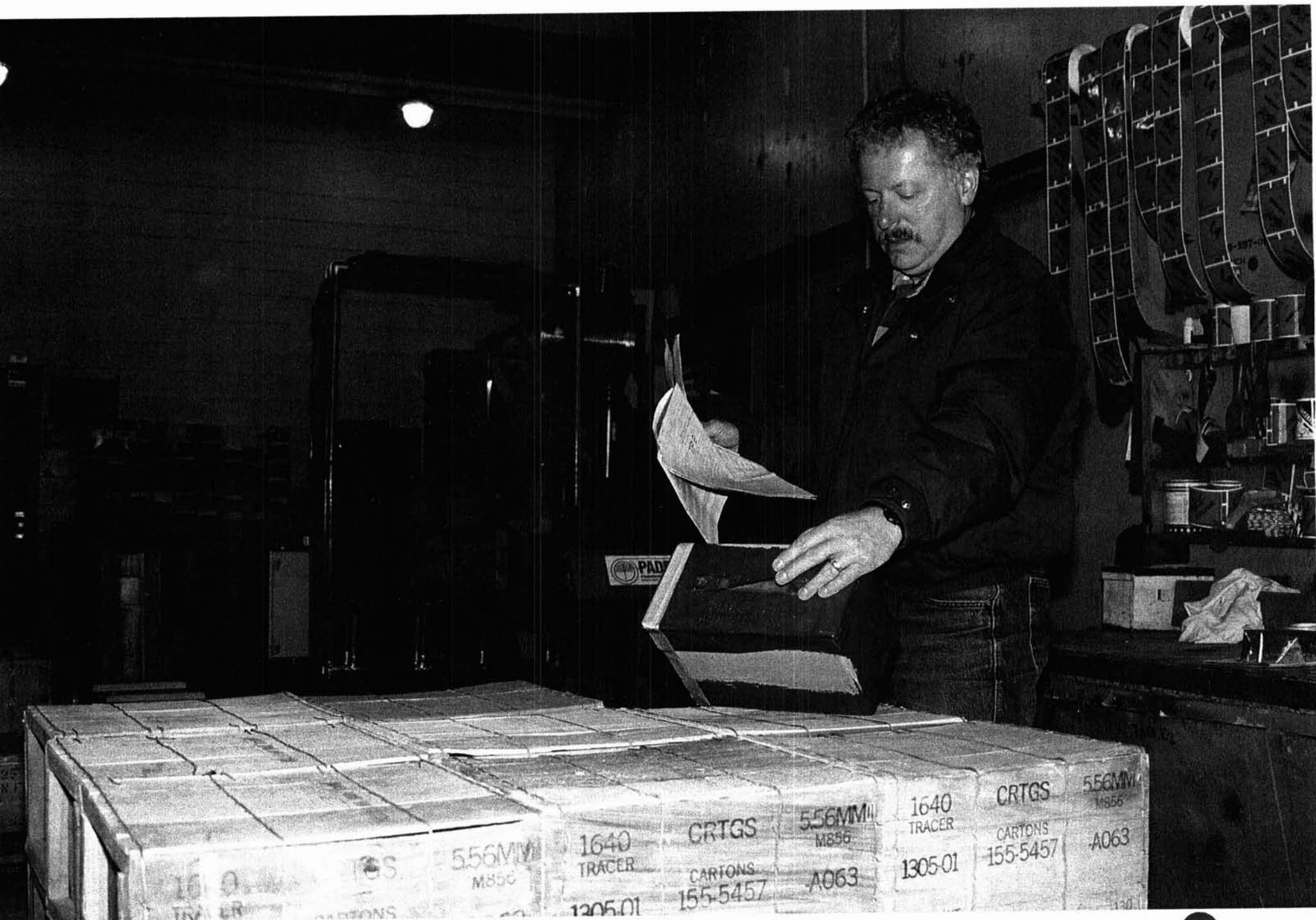
1.1 - mass explosion

1.2 - fragment producing

1.3 - mass fire

1.4 - moderate fire, no blast hazard

d. Safety Equipment



PAD

556MM M856
1640 TRACER
CARTONS
1305-01
155-5457
A063
1640 TRACER
CARTONS
155-5457
A063
556MM M856
A063

BUILDING 544

BRIEFER: Mr. Doug Medici

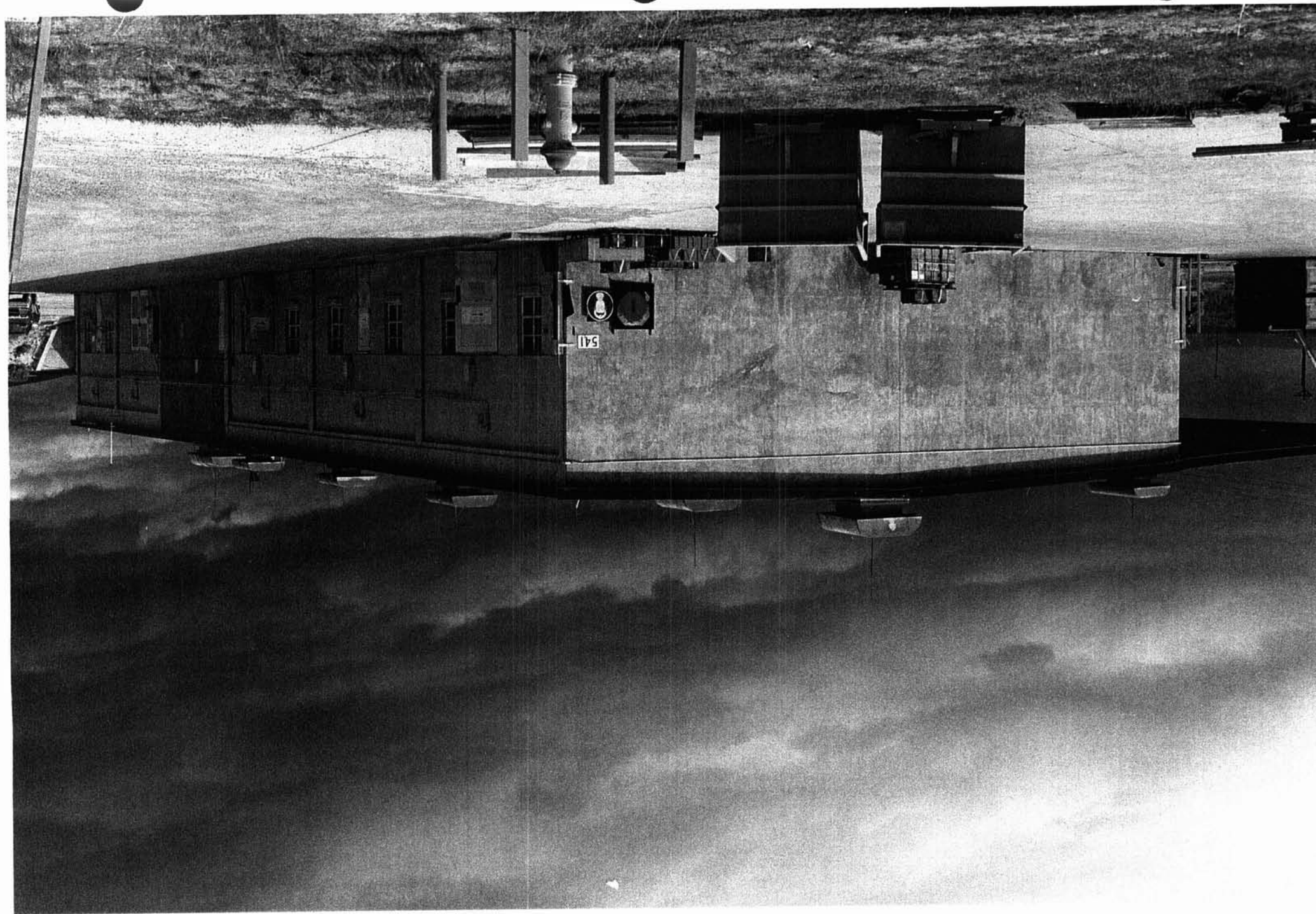
I will brief you on my shipping functions to include less-than-truckload (Bldg 544) and field shipping.

Less-than-truckload and less-than-carload mean under ten thousand pounds gross aggregate weight. The buildings net explosive weight is fifteen thousand pounds. There are six bays: five for storage and one bay for packing and preparing material for shipments.

Mission of less-than-truckload is to prepare, repalletize, and band all type of material and explosives for shipment by all modes of transportation. The ammunition is packed in accordance with standards established by the Department of Transportation.

Shipments in excess of ten thousand pounds gross aggregate weight are prepared, pulled, palletized, and loaded at the igloo or loading docks.

I ensure the ammunition loads are properly packed, marked, and labeled in accordance with standards established by the Department of Transportation, and also ensure the carriers are properly placarded.



BLDG 541

PURPOSE: To receive ammunition from posts, camps, stations, and depots - worldwide

FACTS:

- a. Inspect, Preserve and Pack Ammunition and Explosives
- b. 6 Bays
 - Bay 1, 2, 3 - Inspection Bays
 - Bay 4, 5, 6 - Holding Bays
- c. Intrusion Detection System
- d. Net Explosive Weight maximum limit 35,000 lbs.
- e. Recycling

BUILDING 541

BRIEFER: Mr. Larry Draper, Chief, Ammunition Receiving

I will brief you on receiving functions, inspection procedures, storage requirements, and Bldg 541 capabilities.

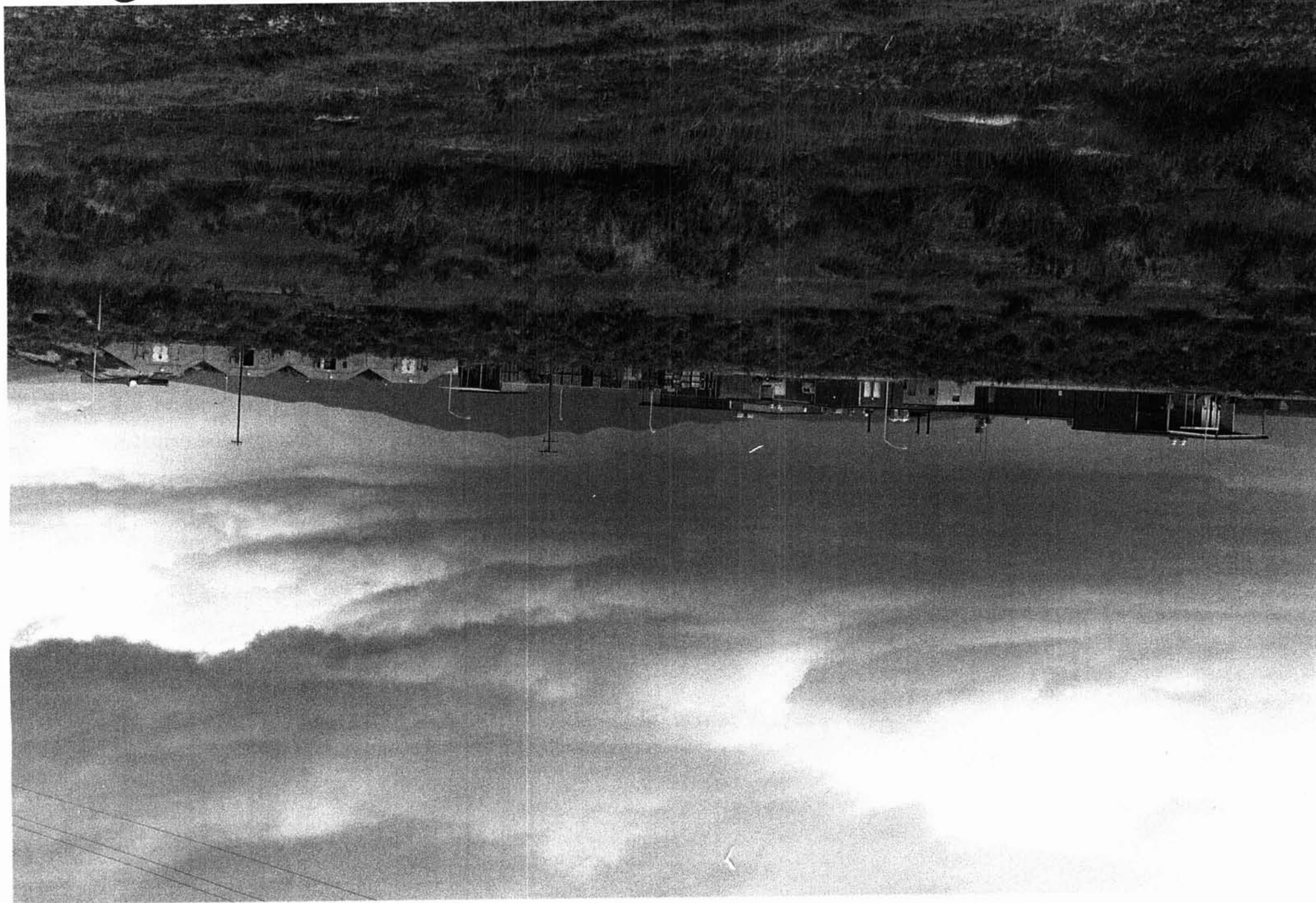
Sierra Army Depot receives ammunition, explosives, and ammunition related items from other depots, manufacturers, posts, camps, stations and using units, that are located not only within the boundaries of the United States, but worldwide.

All less-than-truckload in-bound receipts, and all full truck loads of mixed miscellaneous ammunition or explosives are processed through Bldg 541. Full truck loads of ammunition and explosives, other than mixed miscellaneous loads are processed directly to ammunition storage for offload and immediate storage.

The mission of Bldg 541 is to unpack items for Quality Assurance personnel to inspect, determine the correct condition code, then repack, properly classify and mark each outer pack, palletize or containerize for storage. Many discrepancies have been discovered during past inspections of ammunition and explosives that were returns from South West Asia, European Retrograde, Guam, Korea, and Japan. Concealed discrepancies (shortages or overages) of ammunition or explosives are routinely discovered during Receipt Inspections. The accuracy of information marked on the outer pack, (National Stock Number, Nomenclature, Lot Number and Quantity) are verified prior to removal from Bldg 541 for storage. Accountability is the TOP priority for all material processed through Bldg 541.

Locations are obtained from the Storage Planners, material is located, verified against documents, and transported via 5-ton truck, 10-ton flatbed or strado-lift truck from Bldg P-541 to the storage structure. Material is stored in accordance with applicable storage drawings, or procedures.

Building 541 has three inspection bays with 4,056 square foot, three holding bays with 1,326 square foot of storage space, a 3,381 square foot central storage apron and a 7,000 square foot receiving dock. The net explosive weight of Bldg 541 may not exceed 35,000 pounds of 1.1 hazardous class and division.



BLDG 640

PURPOSE: To perform renovation and disassembly of conventional ammunition

FACTS:

- a. Newest general purpose renovation/maintenance facility (1968)
- b. Four service magazines
- c. Vacuum collection house
- d. Battery charger
- e. Material Handling Equipment
- f. Heated paint locker
- g. Shower/laundry facility
- h. 5 Bays
 - Bay 9 - Deprime
 - Bay 10 - Repacking Projectile
 - Bay 17 - Liner Removal
 - Bay 18 - Pull Apart
 - Bay 19 - Unpacking
- i. Protected by Intrusion Detection System for security
- j. Protected by Rapid Response Deluge System for fire protection
- k. Center dividing wall is 23" thick



THINK

WARNING
DO NOT TOUCH
THIS EQUIPMENT
IS A HIGH VOLTAGE
ELECTRICAL
EQUIPMENT
AND IT IS
DANGEROUS
TO TOUCH
IT
IF YOU
NEED
TO
REPAIR
IT
CALL
THE
MAINTENANCE
DEPARTMENT
OR
THE
ELECTRICIAN
FOR
HELP
1978-03-14
11:45 AM
11:45 AM

92

WARNING
DO NOT TOUCH
THIS EQUIPMENT
IS A HIGH VOLTAGE
ELECTRICAL
EQUIPMENT
AND IT IS
DANGEROUS
TO TOUCH
IT
IF YOU
NEED
TO
REPAIR
IT
CALL
THE
MAINTENANCE
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OR
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BUILDING 640

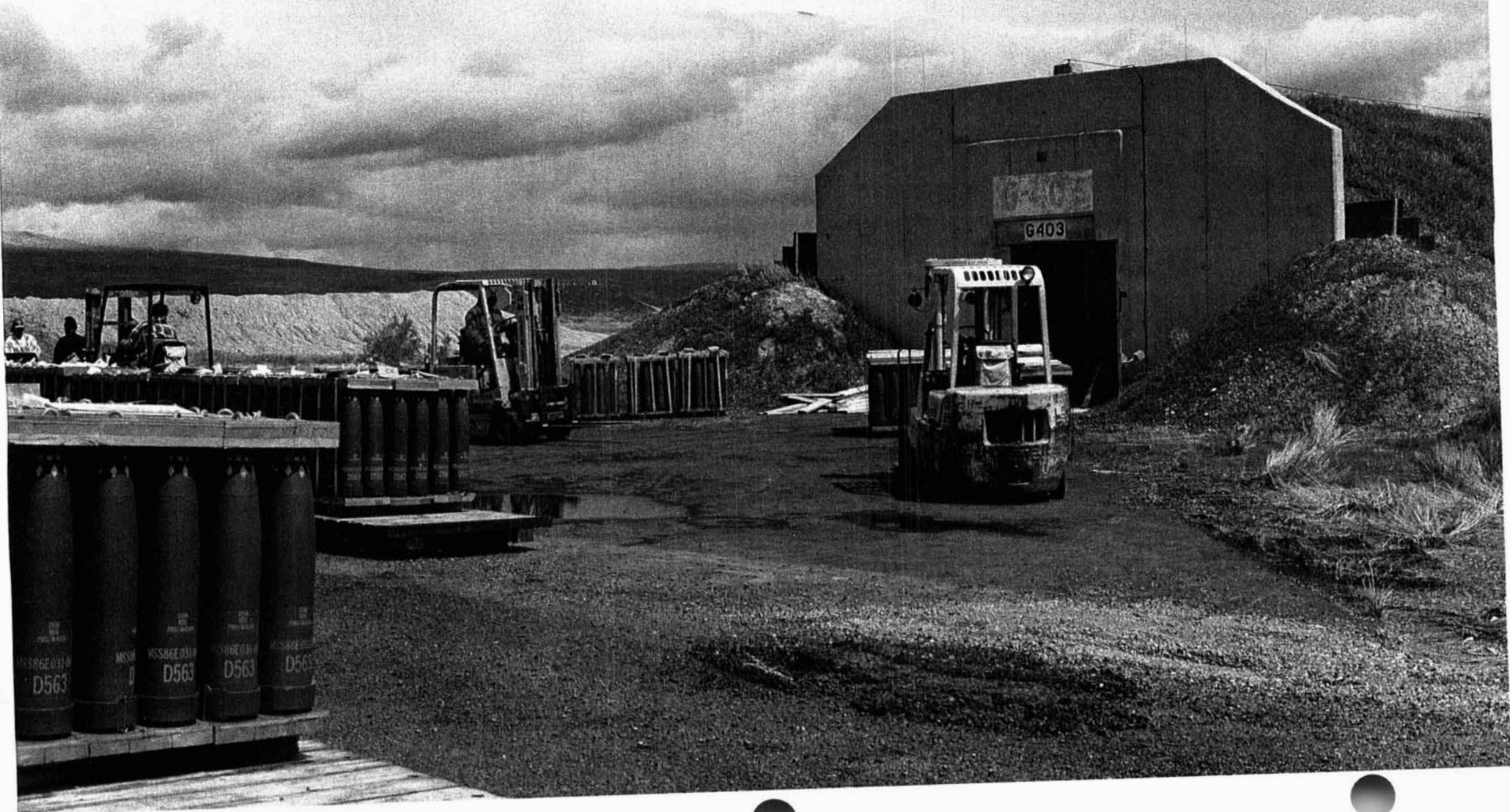
BRIEFER: Mr. Steve Hamilton, Supervisor/75mm Operation at Bldg 640

This is the newest general purpose renovation/maintenance facility at Sierra Army Depot. The building was built with a 23 inch thick concrete dividing wall that allows us to operate two separate operations at the same time. The bays are 18 inches thick with the outside walls and roof are constructed of thin steel sheets. A blast will blow the walls and roof rather than promulgate the explosion to the next bay. The building is equipped with a Intrusion Detection System for security reasons and Rapid Response Deluge System for fire.

The entire complex is totally fenced-in and has its own guard house. Besides the main building there are 4 service magazines, #635 through 638. These can hold 5,000 pounds of 1.1 explosives. The Vacuum Collection House (Bldg 641), houses a wet vacuum system for propellant collection. We have our own battery charger for material handling equipment in Bldg 642, and our own heated paint locker (Bldg 639). The break room (Bldg 634) contains complete shower facilities and a laundry facility for washing clothing used in explosive work.

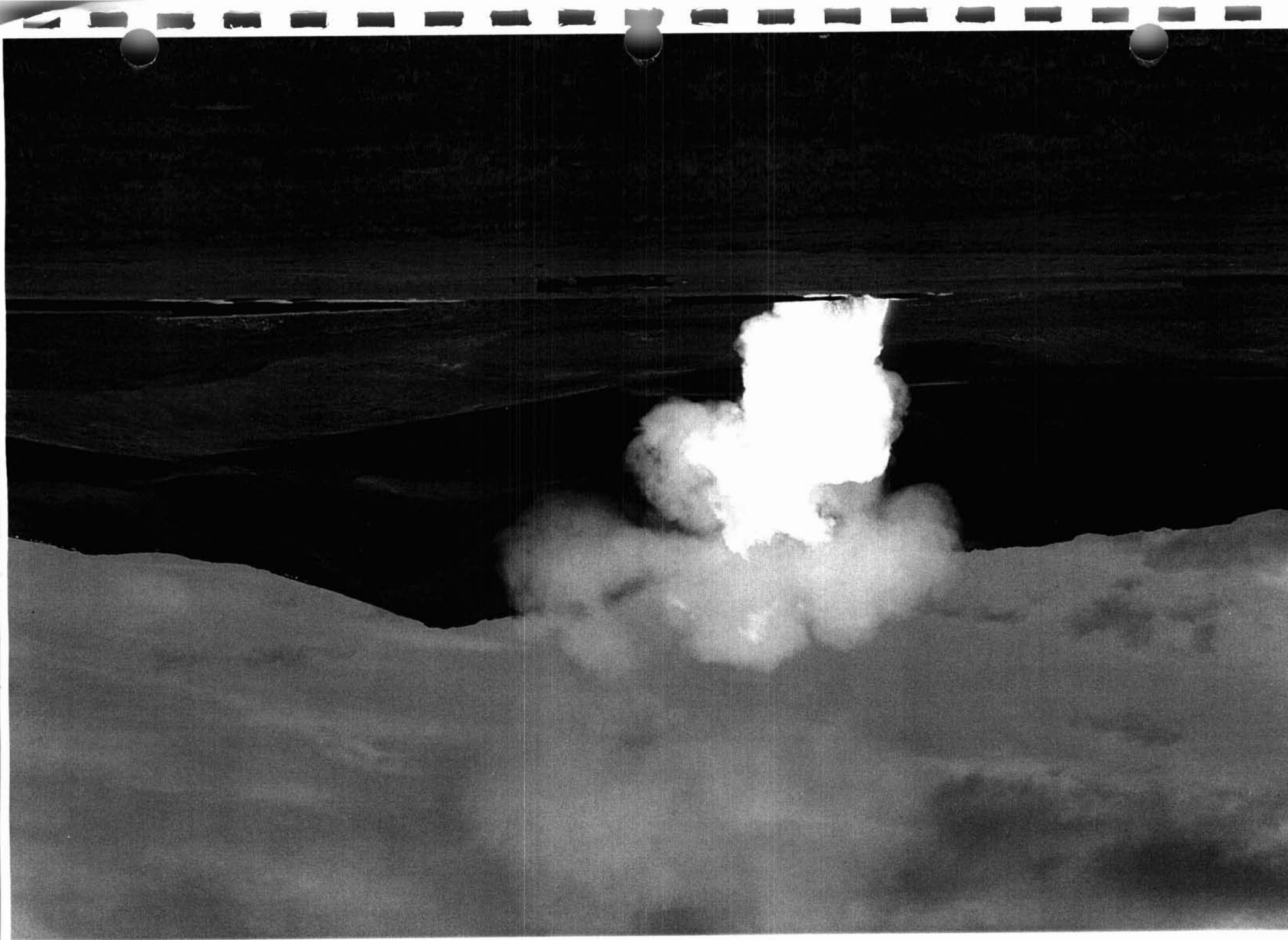
At the present time we are running a disassembly operation for 75mm recoilless rifle ammunition. These rounds are obsolete, therefore, they have no military use. The operation consists of receiving palletized 75mm ammunition from storage on the North end of the building. The rounds are unpacked in Bay 19. The unpacked rounds are placed on a conveyor and moved to Bay 18 and placed in a pull-apart machine. This removes the projectile from the cartridge case. Once the projectile is removed, it is placed back on the conveyor. The cartridge is then removed, the inner plastic liner is cut, and the propellant is dumped into the vacuum collection system. The cartridge case with liner and primer is placed on the conveyor for liner removal in Bay 17. The dumped propellant travels by way of stainless steel tubes to Bldg 641 where it is collected in drums, weighed, and unitized for shipment to the Demolition Grounds. Bay 10 is where the explosive projectiles are packed (8 per box) and unitized for shipment to the Demolition Grounds. The cartridge cases go to Bay 9 where they are placed in the deprime machine. The primer is packed and unitized for shipment to the Demolition Grounds. The inert cartridge cases are mutilated to prevent reuse and sent to the Defense Reutilization and Marketing Office to be sold as scrap steel.

Outside Of An Ammunition Igloo



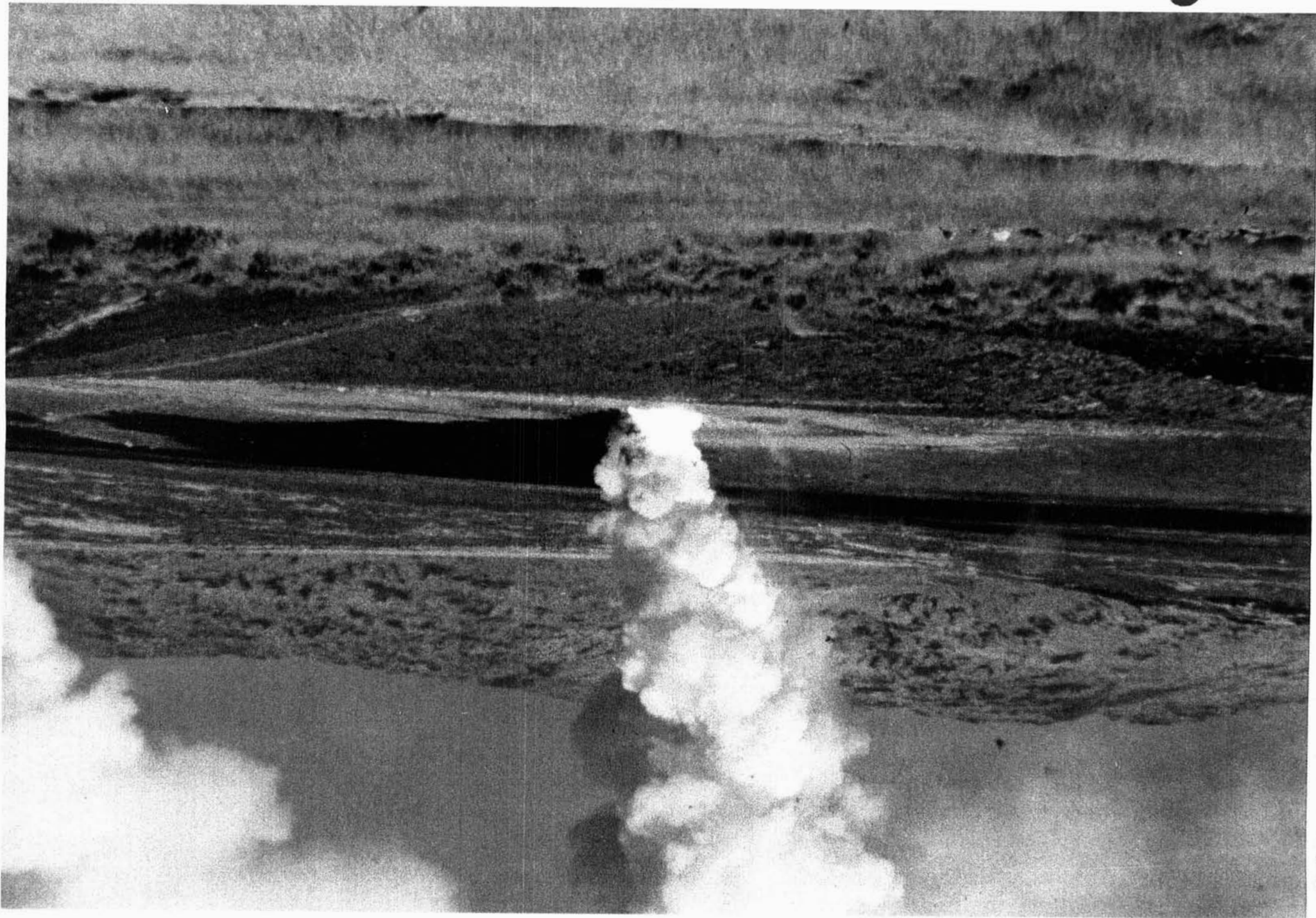
Inside Of An Ammunition Igloo





DEMOLITION GROUNDS

- a. Largest most cost effective range in the system
- b. 4,000 Acres
- c. Limits:
 - Above ground detonation - 10,000 Lbs
 - Open burn - 100,000 Lbs
 - Rocket motor burns - 140,000 Lbs
- d. Develop/Test new disposal procedures
- e. Will have completed Part B Permit in 1995
 - Part B Permit certifies demolition for 10 years
- f. FY95 workload is 28,000 short tons (56,000,000 Lbs)
 - 31% of organic base demil workload scheduled by Industrial Operations Command



DEMOLITION GROUNDS

BREIFER: Mr. Dan Galbreath, Chief of Demolition Operations

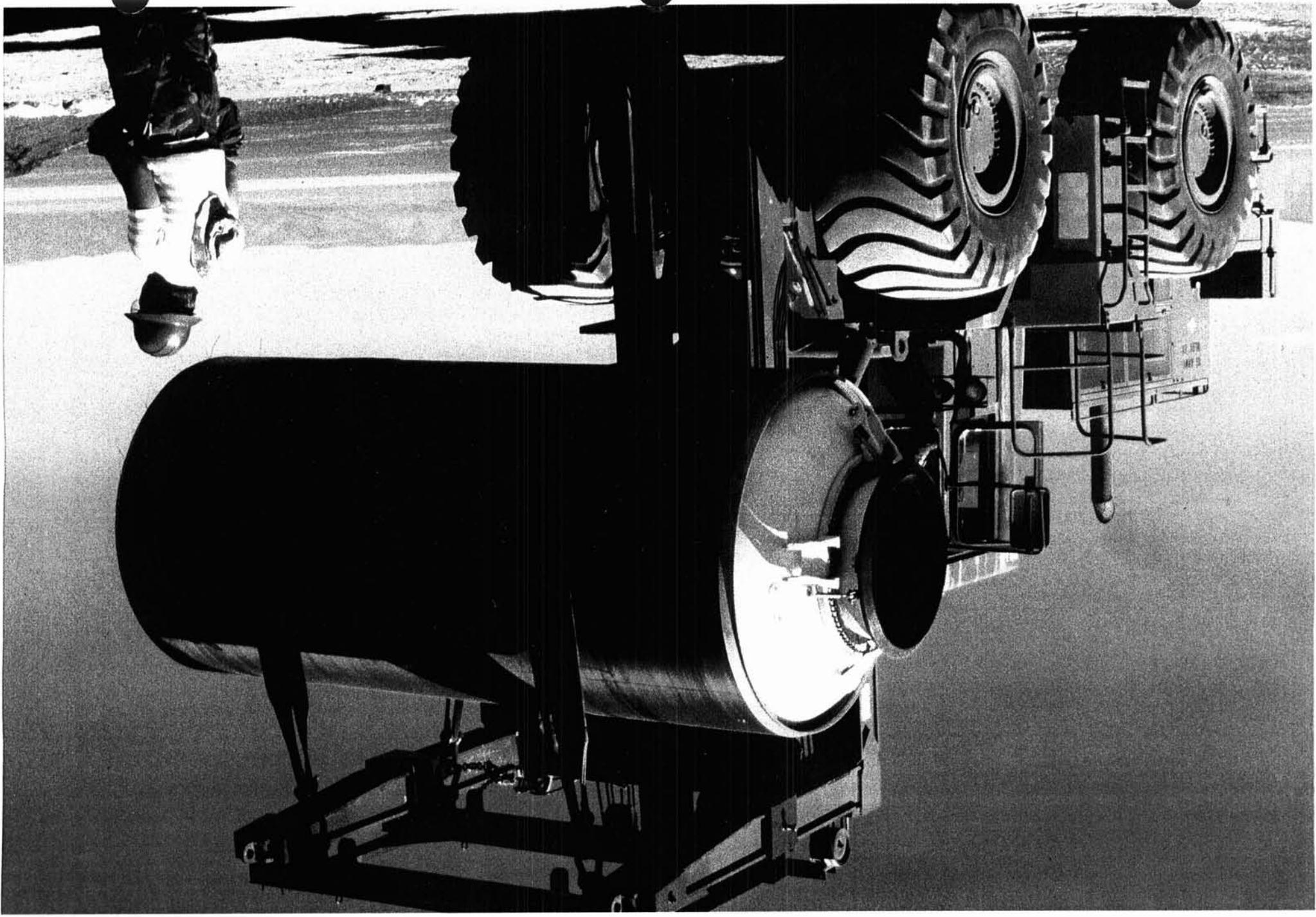
I will brief you on Sierra Army Depot's Open Burn/Open Detonation capabilities.

This site is the largest and most cost effective in the system, covering 4,000 acres with 10,000 pounds net explosive weight limit for detonations, 100,000 pounds for open burn, and 140,000 pounds for large rocket motors. For many of our customers, we are the only facility capable of accomplishing their demolition requirements due to the nature and size of their items. Our detonations and large rocket motors disposal take place in 14 pits, while artillery propellant is burned in large trays at the South Burning Site.

In addition to our normal workload activities, we frequently develop and test new disposal procedures, which when validated, are distributed world-wide. In the large rocket motor arena, Sierra Army Depot has disposed of more motors than any one facility in the world using technology developed here, to include manufacture of the shaped-charges required. We are currently scheduled for motor disposal for the Department of the Navy into the year 1999, and are involved in discussion with the Army Missile Command concerning a 10-year project to dispose of all Multiple-Launch-Rocket Systems whose disposal techniques were also developed here. Due to our above ground detonation capabilities and the nature of the payload in Multiple-Launch-Rocket Systems, it is not feasible to complete this project anywhere else. To coincide with our long range workload forecast, Sierra Army Depot is in the final stages of obtaining a Part B Permit from the State of California. The application for the permit was initiated in 1987, and to date has cost \$2.1 million dollars. When full permit is granted this year Sierra will be able to receive and treat hazardous waste (explosive) for a 10-year term before having to renew the permit.

This fiscal year we are scheduled to destroy over 28,000 short tons (56,000,000 lbs) of munitions which is 31% of all organic base demil workload scheduled by the Industrial Operations Command. Although, this is a very energetic schedule, our goal is to exceed it.

Enclosed are some of the items (rockets and motors) that we have validated procedures for demilitarization and have actually demilitarized. We continue to validate and establish new procedures. On 1 May 1995, we will begin validation procedures on demilitarizing cluster bomb units using 750 pound bombs as donors.



AMMUNITION DEMILITARIZATION

HISTORICAL DATA

SIERRA HAS VALIDATED THE DEMIL PROCEDURES AND DEMILED:

C-3 POSIDON FIRST STAGE

MINUTEMAN III STAGE I & III

PEACEKEEPER STAGE II

POLARIS A-3 STAGE I & II

MULTIPLE LAUNCHED ROCKET SYSTEM (MLRS)

NIKE HERCULES MOTORS

TOMAHAWK BOOSTERS

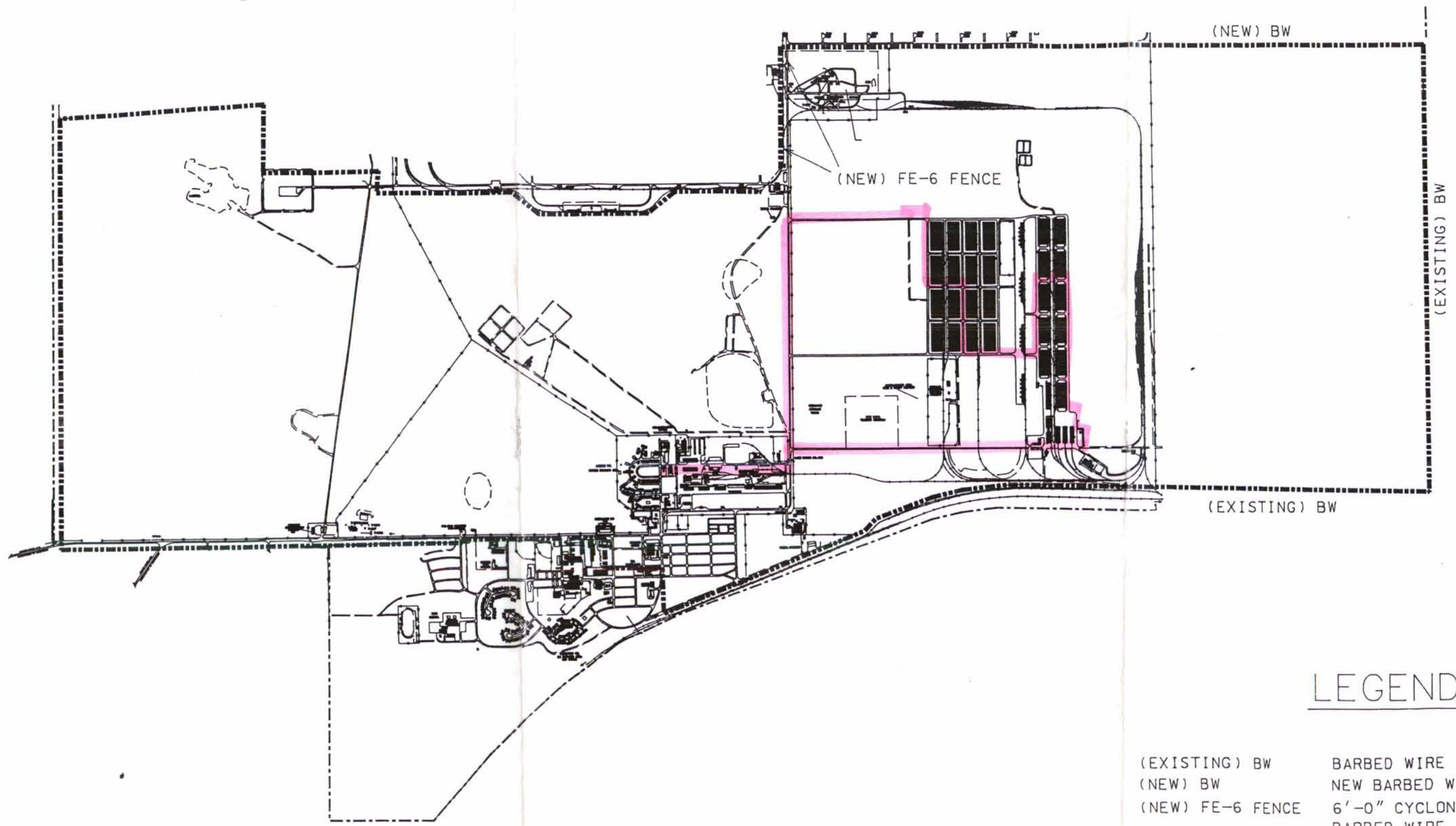
HONEST JOHN MOTORS

LANCE MOTORS

SIDEWINDER MOTORS

SIERRA IS CONTINUALLY VALIDATING AND ESTABLISHING NEW
DEMILITARIZATION PROCEDURES ON A VARIETY OF
CONVENTIONAL AMMUNITION AND ROCKET MOTORS





LEGEND

- | | |
|------------------|---|
| (EXISTING) BW | BARBED WIRE |
| (NEW) BW | NEW BARBED WIRE |
| (NEW) FE-6 FENCE | 6'-0" CYCLONE FENCE WITH BARBED WIRE OVERHANG |

SIERRA ARMY DEPOT



0 4000 8000 12000 16000 2000

BARBED WIRE OVERHANG
NEW BARBED WIRE
6'-0" CYCLONE FENCE WITH
(NEW) FE-6 FENCE
(EXISTING) BW
(NEW) BW

LEGEND

BRAC FOOTPRINT

