DCN 1512

DEPARTMENT OF THE NAVY
NAVAL AVIATION SUPPLY OFFICE
700 ROBBINS AVENUE
PHILADELPHIA, PA 19111-5098

IN REPLY REFER TO
11 JUL 1994

From: Commanding Officer, Naval Aviation Supply Office
To: Commander, Naval Air Systems Command (AIR-00)

Subj: PROPOSED RELOCATION OF THE NAVAL AVIATION ENGINEERING SERVICE UNIT (NAESU) TO THE AVIATION SUPPLY OFFICE COMPOUND

1. In the development of the subject proposal, ASO was requested to provide data relative to the estimated cost and timeframe required to accommodate NAESU on the ASO Compound. This correspondence confirms the data previously provided on an informal basis.

2. NAESU would be housed in Building 2A on the ASO Compound placing them in proximity to ASO and the Naval Aviation Technical Services Facility. Building 2A is currently administrative space and would need to be vacated to accommodate NAESU. The realignment of existing personnel and the space redesign/renovation could be completed for NAESU occupancy by May 1995. The estimated design and renovation cost to prepare the space for NAESU is estimated at $285K. Other costs associated with this move, i.e., furniture. ADP cabling transportation, have been calculated by NAESU.

3. ASO agrees with the synergism obtained by co-locating NAESU with NATSF and ASO would pay substantial dividends to the Naval Air Systems Team. If approved, ASO will do everything needed to ensure a smooth transition of NAESU to the ASO Compound.

J. P. DAVIDSON

Copy to:
NAVAIR (04B)
NAESU

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Consolidating NAESU Det Miramar, NAESU Det North Island, NAESU Pacific and NAESU Headquarters with NADEP North Island and eliminating their OIC's, AOIC's and 9 civilians as identified would create the following areas of concern:

* The RMC (Regional Maintenance Center) is a Fleet Activity. In this case, a PAC Fleet Activity. NADEP is supposed to become part of RMC. It will be difficult for NAESU, a NAVAIR activity, to function as a department of a PAC Fleet activity and still service the LANT Fleet, Reserve, FMS, etc.

* NADEP is (or will be) a DBOF organization. Will NAESU be governed by, and be required to become, DBOF?

* If NAESU were to remain a NAVAIR activity, they would lose 3 hours of communication time with NAVAIR, daily. They would also lose the current convenience of visiting NAVAIR as frequently as they do now.

* The PM's and the 3.2.7 dept, who currently claim not enough time to get their work done, will be saddled with the additional workload of two detachment offices and a Regional office.

* NAESU HQ's limited clerical staff will get the additional

workload that currently keeps six clerical personnel busy 8 hours a day.

* The ever stressed importance of user "face time" to "sell" NAESU, get feedback, etc, currently performed by the on-site OIC, will be lost.

* The Regional Office's addu status and ability to represent CNAP and by direction signature authority will be lost.

* CNAL, one TYCOM, will retain an addu relationship with NAESU; the other TYCOM, CNAP, will not have this benefit.

* NAESU's envious reputation of being able to respond on extremely short notice will decay. Timely action, paperwork and arrangements cannot be completed as quickly via phone as can be accomplished on-site, in person.

* Additional personnel will be required to run courier service between Miramar and North Island all management and clerical personnel is at North Island.

* Face-to-face, daily contact, currently enjoyed by the OIC, as first level or second level supervisor will be lost.

* NAESU/customer relationship will be different for the Miramar

and the North Island type wings than will be enjoyed by all other type wings.

* On-site single point of contact for NAESU will be lost at Miramar and North Island, but will be available at all other locations.

* Miramar is scheduled to become a Marine Corps Air Station. The benefit of having a Marine OIC for NAESU to deal with 3rd MAW will be sacrificed.

* Two different PSD's and SATO's, each having different ways of operating, will need to be dealt with.

* NAESU management representation at WINC/CNAP morning maintenance/message meetings will be sacrificed.

* "Arm's length" management of CETS will become real long "arm's length" and relationship will become strained.

* Almost every group or organization has a leader on location, without which, unity is lost. If some other form of leader/manager is identified to replace the CIC, what is gained?

* On location clerical support, to handle the routine,

daily, immediate requirements cannot be performed from a distance.

* Without an OIC, NCTS supervisors, currently dedicating approximately 25% of their time to administrative duties will be required to greatly increase the amount of time spent on administrative duties.

* Estimated savings would be offset by additional costs of dedicated phone lines, long distance networking of computers, pagers and other communication devices, just to provide minimal support for ETS and the customer would still experience a drastic loss in the "NAESU Product", Service and Support.

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PERSONNEL YEARLY PERCENTAGES (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: NAESU PHILADELPHIA, PA

	Moving In		MilCon	Move Out/Elim		ShutDn
Year	Total	Percent	TimPhas	Total	Percent	TimPhas
1996	0	0.00%	66.67%	0	0.00%	0.00%
1997	0	0.00%	33.33%	0	0.00%	0.00%
1998	0	0.00%	0.00%	90	100.00%	100.00%
1999	0	0.00%	0.00%	0	0.00%	0.00%
2000	0	0.00%	0.00%	0	0.00%	0.00%
2001	0	0.00%	0.00%	0	0.00%	0.00%
TOTALS	0	0.00%	100.00%	90	100.00%	100.00%

Base: ASO, PA

	Moving In		MilCon	Move Out/Elim		ShutDn
Year	Total	Percent	TimPhas	Total	Percent	TimPhas
1996	0	0.00%	0.00%	0	0.00%	16.67%
1997	0	0.00%	100.00%	0	0.00%	16.67%
1998	40	100.00%	0.00%	0	0.00%	16.67%
1999	0	0.00%	0.00%	0	0.00%	16.67%
2000	0	0.00%	0.00%	0	0.00%	16.67%
2001	0	0.00%	0.00%	0	0.00%	16.67%
TOTALS	40	100.00%	100.00%	0	0.00%	100.00%

PERSONNEL SUMMARY REPORT (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

PERSONNEL SUMMARY FOR: NAESU PHILADELPHIA, PA

BASE POPULATION (FY 1996, Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
5	5	0	80

PERSONNEL REALIGNMENTS:
To Base: ASO, PA

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	2	0	0	0	2
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	0	38	0	0	0	38
TOTAL	0	0	40	0	0	0	40

TOTAL PERSONNEL REALIGNMENTS (Out of NAESU PHILADELPHIA, PA):

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	2	0	0	0	2
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	0	38	0	0	0	38
TOTAL	0	0	40	0	0	0	40

SCENARIO POSITION CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	-3	0	0	0	-3
Enlisted	0	0	-5	0	0	0	-5
Civilians	0	0	-42	0	0	0	-42
TOTAL	0	0	-50	0	0	0	-50

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
0	0	0	0

PERSONNEL SUMMARY FOR: ASO, PA

BASE POPULATION (FY 1996, Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
61	11	0	1,924

PERSONNEL REALIGNMENTS:
From Base: NAESU PHILADELPHIA, PA

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	2	0	0	0	2
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	0	38	0	0	0	38
TOTAL	0	0	40	0	0	0	40

TOTAL PERSONNEL REALIGNMENTS (Into ASO PA):

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	2	0	0	0	2
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	0	38	0	0	0	38
TOTAL	0	0	40	0	0	0	40

Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
63	11	0	1,962

RPMA/BOS CHANGE REPORT (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Net Change($K)	1996	1997	1998	1999	2000	2001	Total	Beyond
RPMA Change	0	0	0	0	0	0	0	0
BOS Change	0	0	-76	-327	-327	-327	-1,057	-327
Housing Change	0	0	0	0	0	0	0	0
TOTAL CHANGES	0	0	-76	-327	-327	-327	-1,057	-327

TOTAL APPROPRIATIONS DETAIL REPORT (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIF	0	0	99	0	0	0	99
Civ Retire	0	0	18	0	0	0	18
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	360	0	0	0	360
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	16	0	0	0	16
OTHER							
Program Plan	17	13	10	0	0	0	40
Shutdown	0	0	0	0	0	0	0
New Hire	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	20	0	0	0	20
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	150	0	0	0	0	150
TOTAL ONE-TIME	17	163	523	0	0	0	703

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	61	61	61	61	244	61
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	2	4	4	4	13	4
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	63	65	65	65	258	65
TOTAL COST	17	163	586	65	65	65	961	65

ONE-TIME SAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
Land Sales	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	0	0	0	0	0	0

RECURRINGSAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	137	388	388	388	1,301	388
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	1,067	2,135	2,135	2,135	7,471	2,135
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	115	230	230	230	806	230
Enl Salary	0	0	83	166	166	166	581	166
House Allow	0	0	0	1	1	1	4	1
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	1,404	2,920	2,920	2,920	10,164	2,920
TOTAL SAVINGS	0	0	1,404	2,920	2,920	2,920	10,164	2,920

Department : NAVY
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ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	117	0	0	0	117
Civ Moving	0	0	360	0	0	0	360
Other	17	13	25	0	0	0	55
MIL PERSONNEL							
Mil Moving	0	0	20	0	0	0	20
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	150	0	0	0	0	150
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	17	163	523	0	0	0	703

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	-76	-327	-327	-327	-1,057	-327
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	-1,067	-2,135	-2,135	-2,135	-7,471	-2,135
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	-198	-396	-396	-396	-1,387	-396
House Allow	0	0	1	3	3	3	10	3
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	-1,340	-2,855	-2,855	-2,855	-9,906	-2,855
TOTAL NET COST	17	163	-817	-2,855	-2,855	-2,855	-9,202	-2,855

Department : NAVY
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Std Fctrs File : C:\COBRA\N95OM.SFF

Base: NAESU PHILADELPHIA, PA

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	0	0	99	0	0	0	99
Civ Retire	0	0	18	0	0	0	18
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	360	0	0	0	360
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	16	0	0	0	16
OTHER							
Program Plan	17	13	10	0	0	0	40
Shutdown	0	0	0	0	0	0	0
New Hires	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	20	0	0	0	20
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	17	13	523	0	0	0	553

Department : NAVY
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Base: NAESU PHILADELPHIA, PA

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	0	0	0	0	0	0
TOTAL COSTS	17	13	523	0	0	0	553	0

ONE-TIME SAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
Land Sales	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	0	0	0	0	0	0

RECURRINGSAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	137	388	388	388	1,301	388
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	1,067	2,135	2,135	2,135	7,471	2,135
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	115	230	230	230	806	230
Enl Salary	0	0	83	166	166	166	581	166
House Allow	0	0	0	0	0	0	0	0
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	1,403	2,919	2,919	2,919	10,160	2,919
TOTAL SAVINGS	0	0	1,403	2,919	2,919	2,919	10,160	2,919

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: NAESU PHILADELPHIA, PA

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	117	0	0	0	117
Civ Moving	0	0	360	0	0	0	360
Other	17	13	25	0	0	0	55
MIL PERSONNEL							
Mil Moving	0	0	20	0	0	0	20
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	17	13	523	0	0	0	553

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	-137	-388	-388	-388	-1,301	-388
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	-1,067	-2,135	-2,135	-2,135	-7,471	-2,135
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	-198	-396	-396	-396	-1,387	-396
House Allow	0	0	0	0	0	0	0	0
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	-1,403	-2,919	-2,919	-2,919	-10,160	-2,919
TOTAL NET COST	17	13	-880	-2,919	-2,919	-2,919	-9,606	-2,919

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: ASO, PA

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	0	0	0	0	0	0	0
Civ Retire	0	0	0	0	0	0	0
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	0	0	0	0	0
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	0	0	0	0	0
OTHER							
Program Plan	0	0	0	0	0	0	0
Shutdown	0	0	0	0	0	0	0
New Hires	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	150	0	0	0	0	150
TOTAL ONE-TIME	0	150	0	0	0	0	150

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: ASO, PA

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	61	61	61	61	244	61
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	2	4	4	4	13	4
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	61	61	61	61	258	65
TOTAL COSTS	0	150	63	65	65	65	408	65

ONE-TIME SAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
Land Sales	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	0	0	0	0	0	0

RECURRINGSAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	1	1	1	4	1
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	0	1	1	1	4	1
TOTAL SAVINGS	0	0	0	1	1	1	4	1

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: ASO, PA

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	0	0	0	0	0
Civ Moving	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	150	0	0	0	0	150
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	150	0	0	0	0	150

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	61	61	61	61	244	61
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	0	0	0	0	0	0
House Allow	0	0	1	3	3	3	10	3
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	62	64	64	64	254	64
TOTAL NET COST	0	150	62	64	64	64	404	64

TOTAL ONE-TIME COST REPORT (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	0	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		0
Personnel		
Civilian RIF	99,113	
Civilian Early Retirement	18,298	
Civilian New Hires	0	
Eliminated Military PCS	20,596	
Unemployment	15,660	
Total - Personnel		153,666
Overhead		
Program Planning Support	39,878	
Mothball / Shutdown	0	
Total - Overhead		39,878
Moving		
Civilian Moving	0	
Civilian PPS	360,000	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		360,000
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	150,000	
Total - Other		150,000
Total One-Time Costs		703,544
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		703,544

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Pctrs File : C:\COBRA\N95OM.SFF

Base: NAESU PHILADELPHIA, PA
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	0	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		0
Personnel		
Civilian RIF	99,113	
Civilian Early Retirement	18,298	
Civilian New Hires	0	
Eliminated Military PCS	20,596	
Unemployment	15,660	
Total - Personnel		153,666
Overhead		
Program Planning Support	39,878	
Mothball / Shutdown	0	
Total - Overhead		39,878
Moving		
Civilian Moving	0	
Civilian PPS	360,000	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		360,000
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		0
Total One-Time Costs		553,544
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		553,544

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: ASO, PA
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	0	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		0
Personnel		
Civilian RIF	0	
Civilian Early Retirement	0	
Civilian New Hires	0	
Eliminated Military PCS	0	
Unemployment	0	
Total - Personnel		0
Overhead		
Program Planning Support	0	
Mothball / Shutdown	0	
Total - Overhead		0
Moving		
Civilian Moving	0	
Civilian PPS	0	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		0
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	150,000	
Total - Other		150,000
Total One-Time Costs		150,000
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		150,000

COBRA REALIGNMENT SUMMARY (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Starting Year : 1996
Final Year : 1998
ROI Year : Immediate

NPV in 2015($K): -36,434
1-Time Cost($K): 703

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	0	0	0	0	0	0	0	0
Person	0	0	-1,110	-2,528	-2,528	-2,528	-8,695	-2,528
Overhd	17	13	-67	-327	-327	-327	-1,017	-327
Moving	0	0	360	0	0	0	360	0
Missio	0	0	0	0	0	0	0	0
Other	0	150	0	0	0	0	150	0
TOTAL	17	163	-817	-2,855	-2,855	-2,855	-9,202	-2,855

	1996	1997	1998	1999	2000	2001	TOTAL
POSITIONS ELIMINATED							
Officers	0	0	3	0	0	0	3
Enlisted	0	0	5	0	0	0	5
Civilians	0	0	42	0	0	0	42
TOTAL	0	0	50	0	0	0	50
POSITIONS REALIGNED							
Officers	0	0	2	0	0	0	2
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	0	38	0	0	0	38
TOTAL	0	0	40	0	0	0	40

Summary:

Move NAESU to NADEP NI w/ same milcon as at pax 676k admin 42k storage

Eliminates 14 more by consolidation with NAESU activies at San Diego

SCENARIO

Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	0	0	0	0	0	0	0	0
Person	0	0	155	4	4	4	167	4
Overhd	17	13	71	61	61	61	284	61
Moving	0	0	360	0	0	0	360	0
Missio	0	0	0	0	0	0	0	0
Other	0	150	0	0	0	0	150	0
TOTAL	17	163	586	65	65	65	961	65

Savings ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	0	0	0	0	0	0	0	0
Person	0	0	1,266	2,532	2,532	2,532	8,862	2,532
Overhd	0	0	137	388	388	388	1,301	388
Moving	0	0	0	0	0	0	0	0
Missio	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	1,404	2,920	2,920	2,920	10,164	2,920

PERSONNEL, SF, RPMA, AND BOS DELTAS (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

	Personnel			SF		
Base	Change	%Change		Change	%Change	Chg/Per
NAESU PHILADELPHIA	-90	-100%		0	0%	0
ASO	40	2%		0	0%	0

	RPMA($)			BOS($)		
Base	Change	%Change	Chg/Per	Change	%Change	Chg/Per
NAESU PHILADELPHIA	0	0%	0	-388,000	-100%	4,311
ASO	0	0%	0	61,111	1%	1,528

	RPMABOS($)		
Base	Change	%Change	Chg/Per
NAESU PHILADELPHIA	-388,000	-100%	4,311
ASO	61,111	1%	1,528

INPUT DATA REPORT (COBRA v5.01)
Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: Yes

Base Name	Strategy:
NAESU PHILADELPHIA, PA	Closes in FY 1998
ASO, PA	Realignment

Summary:

Move NAESU to NADEP NI w/ same milcon as at pax 676k admin 42k storage

Eliminates 14 more by consolidation with NAESU activies at San Diego

SCENARIO

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
NAESU PHILADELPHIA, PA	ASO, PA	15 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from NAESU PHILADELPHIA, PA to ASO, PA

	1996	1997	1998	1999	2000	2001
Officer Positions:	0	0	2	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	0	0	38	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	23	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: NAESU PHILADELPHIA, PA

Total Officer Employees:	5	RPMA Non-Payroll ($K/Year):	0
Total Enlisted Employees:	5	Communications ($K/Year):	0
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	388
Total Civilian Employees:	80	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	22.0%	Family Housing ($K/Year):	0
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.18
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	0	CHAMPUS Shift to Medicare:	0.0%
Officer VHA ($/Month):	407	Activity Code:	62849
Enlisted VHA ($/Month):	259		
Per Diem Rate ($/Day):	123	Homeowner Assistance Program:	No
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Pctrs File : C:\COBRA\N95OM.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: ASO, PA

Total Officer Employees:	61	RPMA Non-Payroll ($K/Year):	1,018
Total Enlisted Employees:	11	Communications ($K/Year):	1,537
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	4,136
Total Civilian Employees:	1,924	BOS Payroll ($K/Year):	6,533
Mil Families Living On Base:	19.0%	Family Housing ($K/Year):	0
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.18
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	2,357	CHAMPUS Shift to Medicare:	0.0%
Officer VHA ($/Month):	353	Activity Code:	00383
Enlisted VHA ($/Month):	224		
Per Diem Rate ($/Day):	123	Homeowner Assistance Program:	No
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: NAESU PHILADELPHIA, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0	Perc Family Housing ShutDown:				0.0%

Name: ASO, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	150	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0	Perc Family Housing ShutDown:				0.0%

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: NAESU PHILADELPHIA, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	0	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	-3	0	0	0
Enl Scenario Change:	0	0	-5	0	0	0
Civ Scenario Change:	0	0	-42	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	71.70%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	60.10%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	98.00%	PPS Actions Involving PCS:	50.00%
Officer Salary($/Year):	76,781.00	Civilian PCS Costs ($):	28,800.00
Off BAQ with Dependents($):	7,925.00	Civilian New Hire Cost($):	0.00
Enlisted Salary($/Year):	33,178.00	Nat Median Home Price($):	114,600.00
Enl BAQ with Dependents($):	5,251.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost($/Week):	174.00	Max Home Sale Reimburs($):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary($/Year):	50,827.00	Max Home Purch Reimburs($):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	0.00%
SF File Desc:	NAVY O&M,N BRAC95	RSE Homeowner Receiving Rate:	0.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	75.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	0.00%
(Indices are used as exponents)		MilCon Design Rate:	9.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	6.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	5.00%
Mothball Cost ($/SF):	1.25	MilCon Site Preparation Rate:	39.00%
Avg Bachelor Quarters(SF):	294.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1.00	Inflation Rate for NPV.RPT/ROI:	0.00%

APPDST.RPT Inflation Rates:
1996: 0.00% 1997: 2.90% 1998: 3.00% 1999: 3.00% 2000: 3.00% 2001: 3.00%

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate($/Ton):	284.00
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle($/Mile):	0.31
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle($/Mile):	3.38
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement($/Mile):	0.18
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	4.17
Total HHG Cost ($/100Lb):	35.00	Routine PCS($/Pers/Tour):	3,763.00
Air Transport ($/Pass Mile):	0.20	One-Time Off PCS Cost($):	4,527.00
Misc Exp ($/Direct Emplоy):	700.00	One-Time Enl PCS Cost($):	1,403.00

Data As Of 10:38 01/11/1995, Report Created 12:13 04/04/1995

Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	$/UM	Category	UM	$/UM
Horizontal	(SY)	61	Optional Category A	( )	0
Waterfront	(LF)	10,350	Optional Category B	( )	0
Air Operations	(SF)	122	Optional Category C	( )	0
Operational	(SF)	111	Optional Category D	( )	0
Administrative	(SF)	123	Optional Category E	( )	0
School Buildings	(SF)	108	Optional Category F	( )	0
Maintenance Shops	(SF)	102	Optional Category G	( )	0
Bachelor Quarters	(SF)	96	Optional Category H	( )	0
Family Quarters	(EA)	78,750	Optional Category I	( )	0
Covered Storage	(SF)	94	Optional Category J	( )	0
Dining Facilities	(SF)	165	Optional Category K	( )	0
Recreation Facilities	(SF)	120	Optional Category L	( )	0
Communications Facil	(SF)	165	Optional Category M	( )	0
Shipyard Maintenance	(SF)	129	Optional Category N	( )	0
RDT & E Facilities	(SF)	160	Optional Category O	( )	0
POL Storage	(BL)	12	Optional Category P	( )	0
Ammunition Storage	(SF)	160	Optional Category Q	( )	0
Medical Facilities	(SF)	168	Optional Category R	( )	0
Environmental	( )	0			

TOTAL MILITARY CONSTRUCTION ASSETS (COBRA v5.01)
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Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
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All Costs in $K

Base Name	Total MilCon	IMA Cost	Land Purch	Cost Avoid	Total Cost
NAESU PHILADELPHIA	0	0	0	0	0
ASO	0	0	0	0	0
Totals:	0	0	0	0	0

NET PRESENT VALUES REPORT (COBRA v5.01)
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Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Year	Cost($)	Adjusted Cost($)	NPV($)
1996	17,244	17,012	17,012
1997	162,933	156,436	173,448
1998	-817,223	-763,635	-590,187
1999	-2,855,111	-2,596,490	-3,186,676
2000	-2,855,111	-2,526,997	-5,713,674
2001	-2,855,111	-2,459,365	-8,173,038
2002	-2,855,111	-2,393,542	-10,566,581
2003	-2,855,111	-2,329,481	-12,896,062
2004	-2,855,111	-2,267,135	-15,163,198
2005	-2,855,111	-2,206,458	-17,369,655
2006	-2,855,111	-2,147,404	-19,517,060
2007	-2,855,111	-2,089,931	-21,606,991
2008	-2,855,111	-2,033,996	-23,640,987
2009	-2,855,111	-1,979,558	-25,620,545
2010	-2,855,111	-1,926,577	-27,547,122
2011	-2,855,111	-1,875,014	-29,422,137
2012	-2,855,111	-1,824,832	-31,246,969
2013	-2,855,111	-1,775,992	-33,022,961
2014	-2,855,111	-1,728,459	-34,751,420
2015	-2,855,111	-1,682,199	-36,433,619

TOTAL PERSONNEL IMPACT REPORT (COBRA v5.01)
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Department : NAVY
Option Package : NAESU PHILADELPHIA
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	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	38	0	0	0	38
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*+		0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	38	0	0	0	38
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	42	0	0	0	42
Early Retirement	10.00%	0	0	4	0	0	0	4
Regular Retirement	5.00%	0	0	2	0	0	0	2
Civilian Turnover	15.00%	0	0	6	0	0	0	6
Priority Placement#	60.00%	0	0	25	0	0	0	25
Civilians Available to Move		0	0	5	0	0	0	5
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	5	0	0	0	5
CIVILIAN POSITIONS REALIGNING IN		0	0	38	0	0	0	38
Civilians Moving		0	0	38	0	0	0	38
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	4	0	0	0	4
TOTAL CIVILIAN RIFS		0	0	5	0	0	0	5
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	25	0	0	0	25
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

* Early Retirements, Regular Retirements, Civilian Turnover, and Civilians Not Willing to Move are not applicable for moves under fifty miles.

+ The Percentage of Civilians Not Moving (Voluntary RIFs) varies by base.

Not all Priority Placements involve a Permanent Change of Station. The rate of PPS placements involving a PCS is 50.00%

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Department : NAVY
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Scenario File : C:\COBRA\NAESU3.CBR
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Base: NAESU PHILADELPHIA, PA	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	38	0	0	0	38
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	38	0	0	0	38
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	42	0	0	0	42
Early Retirement	10.00%	0	0	4	0	0	0	4
Regular Retirement	5.00%	0	0	2	0	0	0	2
Civilian Turnover	15.00%	0	0	6	0	0	0	6
Priority Placement#	60.00%	0	0	25	0	0	0	25
Civilians Available to Move		0	0	5	0	0	0	5
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	5	0	0	0	5
CIVILIAN POSITIONS REALIGNING IN		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	4	0	0	0	4
TOTAL CIVILIAN RIFS		0	0	5	0	0	0	5
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	25	0	0	0	25
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

* Early Retirements, Regular Retirements, Civilian Turnover, and Civilians Not Willing to Move are not applicable for moves under fifty miles.

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Department : NAVY
Option Package : NAESU PHILADELPHIA
Scenario File : C:\COBRA\NAESU3.CBR
Std Fctrs File : C:\COBRA\N95OM.SFF

Base: ASO, PA	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		0	0	38	0	0	0	38
Civilians Moving		0	0	38	0	0	0	38
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

* Early Retirements, Regular Retirements, Civilian Turnover, and Civilians Not Willing to Move are not applicable for moves under fifty miles.

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NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

ENGINEERING AND TECHNICAL
SERVICES AS THE ELEVENTH ELEMENT
IN INTEGRATED LOGISTICS SUPPORT

by

Christopher Scott Colon

June, 1994

Principal Advisor: Robert E. Boynton

Engineering and Technical Services as the Eleventh Element in Integrated Logistics Support

Christopher Scott Colon
Lieutenant Commander, United States Navy
B.S., United States Naval Academy, 1983

This thesis identifies and discusses criteria that can be used to determine whether or not an element of logistics is to be used as a stand-alone Integrated Logistics Support element. Six criteria are developed and used to support and analyze the primary question asked in this thesis: Should Engineering and Technical Services be included as the eleventh Integrated Logistics Support element? This analysis concludes that Engineering and Technical Services does meet all of the established criteria requirements and should be included as an additional Integrated Logistics Support element to be used by military and civilian acquisition personnel. This study also recommends actions and areas for further study that will provide insight into improving Engineering and Technical Services support for the future.

Master of Science in Management
June 1994

Advisor: Robert E. Boynton
DRMI
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13. ABSTRACT *(maximum 200 words)*

This thesis identifies and discusses criteria that can be used to determine whether or not an element of logistics is to be used as a stand-alone Integrated Logistics Support element. Six criteria are developed and used to support and analyze the primary question asked in this thesis: Should Engineering and Technical Services be included as the eleventh Integrated Logistics Support element? This analysis concludes that Engineering and Technical Services does meet all of the established criteria requirements and should be included as an additional Integrated Logistics Support element to be used by military and civilian acquisition personnel. This study also recommends actions and areas for further study that will provide insight into improving Engineering and Technical Services support for the future.

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Engineering and Technical Services
as the Eleventh Element in
Integrated Logistics Support

by

Christopher Scott Colon
Lieutenant Commander, United States Navy
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Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
June 1994

Author: _____
Christopher Scott Colon

Approved by: _____
Robert E. Boynton, Principal Advisor

_____
Paul J. Fields, Associate Advisor

_____
David R. Whipple, Chairman
Department of Systems Management

ABSTRACT

This thesis identifies and discusses criteria that can be used to determine whether or not an element of logistics is to be used as a stand-alone Integrated Logistics Support element. Six criteria are developed and used to support and analyze the primary question asked in this thesis: Should Engineering and Technical Services be included as the eleventh Integrated Logistics Support element? This analysis concludes that Engineering and Technical Services does meet all of the established criteria requirements and should be included as an additional Integrated Logistics Support element to be used by military and civilian acquisition personnel. This study also recommends actions and areas for further study that will provide insight into improving Engineering and Technical Services support for the future.

TABLE OF CONTENTS

I. INTRODUCTION

A. OBJECTIVE

The objective of this thesis is to examine the possibility of making Engineering and Technical Services (ETS) an eleventh element in Integrated Logistics Support (ILS). There are currently ten ILS elements used in the military acquisition process. None of these logistics elements contain references to ETS. The first step is to define the nature of an element of logistics. Next, a set of criteria identifying a logistics element is developed through extensive research. This definition and set of criteria is used in the next step to determine whether ETS should be considered for establishment as a stand-alone ILS logistic element for use in the Department of Defense (DoD) acquisition system. This thesis provides an accurate and systematic account of the origins of the currently existing ten DoD ILS logistics elements and the purpose each one serves. A detailed account is provided to the reader of the role that ILS elements play in the current weapons system acquisition and life cycle processes and the role ETS plays.

B. RESEARCH QUESTIONS

1. Primary Research Question

Does it make good logistical sense to add ETS as a separate element to the existing ten elements of ILS?

2. Subsidiary Research Questions

What are ETS's and when are they used? What issues will arise if ETS becomes an ILS element? What are be the benefits if ETS becomes a stand-alone ILS element?

C. SCOPE, LIMITATIONS, AND ASSUMPTIONS

Engineering and Technical Services are used by all of the Armed Forces of the United States. They are also used by foreign militaries who have purchased weapon systems under the United States' Foreign Military Sales program. Another name for ETS, more easily recognized throughout the military, is Technical Representative. The slang most frequently associated with technical representatives is "Tech Reps". The civilian world uses ETS under a variety of names. Engineering and Technical Services working in the private sector are commonly referred to by the following names: contractor repairperson, field services or field reps.

This thesis will focus on ETS as they relate to the military, and more specifically, on ETS used by the United States Naval Aviation community. This limitation is set because the author's background is in Naval Aviation maintenance. Each of the armed services has instructions and

directives pertaining to ILS and ETS. There are some slight differences in each service's literature on this subject but all services are required to, and do, follow DoD guidance on these subjects. Focusing on one service will allow for an easier flow of information. This research also falls under the category of "information required" by the author for use at his next assignment, working at the Navy's ETS command headquarters. Most data pertaining to this thesis topic are ten years old or older. This made it difficult at times to find copies of "out-dated" military instructions, since the military has a tendency to destroy cancelled instructions and directives. Another hardship associated with the use of dated material is that, because of the many reorganizations of major commands in the military, the authors of certain documents are impossible to locate.

Current "right sizing" efforts, funding cutbacks by both the military and public sectors, have brought the subject of ETS back into the limelight. This renewed look at the field of ETS should foster a new influx of studies and material pertaining to ETS from both the military and civilian perspective.

D. METHODOLOGY

The majority of the research conducted for this thesis was derived from the relevant literature. This literature deals with logistics from both a military and public sector

perspective. Another valuable source of information on ILS and ETS was obtained from the numerous Department of Defense and service specific instructions and notices that pertain to the weapon systems acquisition process. Most of the older military documents were obtained through painstaking archival research. Another very important source of information was provided through various interviews, in person and by phone, conducted with both military and civilian personnel associated with the varying aspects of ETS and ILS elements. No formal interviewing format was followed. Each interview was adapted and tailored to specific information and topics that were in keeping with the interviewee's expertise. A formal survey was not conducted by the author because a survey of ETS and their use in the military is currently being conducted by the Defense Resources Management Institute (DRMI).

The combination of all the research currently available on the subject of ETS and ILS elements is used to construct the answers to the questions that this thesis sets out to answer.

E. SUMMARY

This chapter defines the research questions that this thesis explores and attempts to answer. The various sources of information pertaining to this subject are at times dated. Many of the instructions and directives are not currently in use by the military. The information on ETS and ILS elements does overflow into use by the private sector and is

documented. Current trends toward reductions in the size of the military and improved cost savings efforts have lead to a resurgence in research into the topic of Engineering and Technical Services and logistics support in both the military and private sectors.

II. BACKGROUND AND LITERATURE REVIEW

A. INTRODUCTION

1. Brief Logistics History

Logistics has been a part of the military since the beginning of time. From the time of the great Roman armies, generals have known that support for the "war machine" is imperative if an army is to be successful. Many people tried to find a word for this support, from the Greek word "logistikos" meaning skilled in calculating to the Latin term "logista" meaning administrator. (Thorpe, 1986, pp.xvii-xviii) The original concept of logistics dealt with the supply lines that kept the forces in "beans and bullets".

Lieutenant Colonel George C. Thorpe is considered the pioneer of logistics as it is known in the military today. During the time of World War I, Thorpe recognized the importance of logistics and said:

> war had become a business in which logistics was a basic and comprehensive element ... yet while strategy and tactics are much talked of ... there has not yet been recognized a science of logistics. (Thorpe, 1986, p.xvii)

Military leaders, prior to that time, did not formally recognize the field of logistics as an aspect of warfare, they just knew that in order to advance and win battles they needed the war fighting supplies to keep up with their advancing forces at the front line.

Logistics has come a long way since the old thoughts of logistics as being just the transportation and supplying of the front lines. It was Lieutenant Colonel Thorpe who gave a broad view of logistics as:

> being an entity comprised of many activities that acted as a whole ... strategy and tactics constituted the conduct of war; logistics provided the means. (Thorpe, 1986, p.xxii)

This started the realization that logistics is a separate element necessary for the running of a nation's war fighting capabilities. There is much history and there are many examples that lead up to the modern concept of logistics that are too numerous to include in this paper.

A common explanation of the modern logistical concept is:

> the field of logistics support is viewed as the composite of all considerations necessary to assure the effective and economical support of a system throughout its programmed life cycle. (Blanchard, 1992, p.11)

The field of logistics is now included in every aspect and phase of weapon systems procurement. Many different instructions and directives pertaining to all matters that deal with the acquisition of weapon systems have been used in military acquisition. This myriad of guidance was often confusing and hard to follow because it was not combined into one document. The current DoD instruction, DoDINST 5000.2 (dated February 1991), has solved this problem. It is titled: Defense Acquisition Management Policies and Procedures and delineates logistics as a function of the total system. This

document defines Integrated Logistics Support as follows:

> A disciplined, unified, and integrated approach to the management and technical activities necessary to integrate support considerations into system and equipment design; develop support requirements that are related consistently to readiness objectives, to design, and to each other; acquire the required support; and provide the required support during the operational phase at minimum cost.

Integrated Logistic Support policy as stated in Part Seven of the DoDINST 5000.2 is as follows:

> An effective integrated logistics support effort shall be established within each program office. Integrated logistics support shall be managed as a disciplined, unified, integrated approach to the management and technical activities necessary to:
> (1) Developing support requirements that are related consistently to readiness objectives, to design, and to each other,
> (2) Effectively integrating support considerations into the system and equipment design,
> (3) Identifying the most cost-effective approach to supporting the system when it is fielded, and
> (4) Ensuring that the required support structure elements are developed and acquired.

Integrated logistics support efforts shall encompass the ten elements identified in part seven, section A, Attachment one of DoDINST 5000.2. The above quote gives legitimacy to the concept that ILS is part of a system. It also provides direction for the use of Integrated Logistics Support as a requirement in all stages of military systems acquisitions.

2. Integrated Logistics Support Elements

The following is the list of what DoDINST 5000.2 dictates are the ten elements of ILS that "must be addressed for both hardware and software in both peacetime and wartime conditions":

1. Maintenance Planning. The process conducted to evolve and establish maintenance concepts and requirements for the lifetime of the system.

2. Manpower and Personnel. The identification and acquisition of military and civilian personnel with the skills and grades required to operate and support the system over its lifetime at peace and wartime rates.

3. Supply Support. All management actions, procedures, and techniques used to determine requirements to acquire, catalog, receive, store, transfer, issue, and dispose of secondary items. This includes provisioning for both initial support and replenishment supply support and test equipment.

4. Support equipment. All equipment (mobile or fixed) required to support the operation and maintenance of the system. This includes associated multi-use end items, ground handling and maintenance equipment, tools, metrology and calibration equipment, test equipment, and automatic test equipment.

5. Technical Data. Scientific or technical information recorded in any form or medium (such as manuals and drawings). Computer programs and related software are not technical data; documentation of computer programs and related software are. Also excluded are financial data or other information related to contract administration.

6. Training and Training Support. The processes, procedures, techniques, training devices, and equipment used to train civilian and active duty and reserve military personnel to operate and support the system. This includes individual and crew training (both initial and continuation); new equipment training; initial, formal, and on-the-job training; and logistics support planning for training equipment and training device acquisitions and installations.

7. Computer Resources Support. The facilities, hardware, system software, software development and support tools, documentation, and people needed to operate and support embedded computer systems.

8. Facilities. The permanent, semipermanent, or temporary real property assets required to support the system, including conducting studies to define facilities or facility improvements, locations, space needs, utilities, environmental requirements, real estate requirements, and equipment.

9. Packaging, Handling, Storage, and Transportation. The resources, processes, procedures, design considerations, and methods to ensure that all system , equipment, and support items are preserved, packaged, handled, and transported properly, including environmental considerations, equipment preservation requirements for short and long term storage, and transportability.

10 Design Interface. The relationship of logistics related design parameters to readiness and support resource requirements. These logistics related design parameters are expressed in operational terms rather than as inherent values and specifically relate to system readiness objectives and support costs of the system.

It should be noted that ETS is not specifically listed as an element or as being a part of any particular element or elements.

These ten elements are to be used by program managers (PMs) and all other personnel associated with the various phases, planning boards, logistics support analysis (LSA), logistics support analysis record (LSAR) and logistics support plans (LSP) found throughout the acquisition process. The first time these elements are introduced and used in the military acquisition system is in preparation for Milestone I, Concept and Demonstration Approval and the Demonstration and Validation Phase (Phase I). The program manager incorporates the ILS elements into the Operational Requirements Document (ORD) which is based on the Mission Need Statement (MNS) that

is submitted by the requesting service. The ORD is used to develop requests for contract specifications and is continuously updated before each Phase and Milestone throughout the system's life cycle.

3. Engineering and Technical Services

Engineering and Technical Services are defined as:

> Services which provide information, instruction, and training in the installation, operation, modification, and maintenance of aviation systems and equipment used by Department of Defense components. (NAESU, 1989, p.I-1)

These services are provided by qualified DoD military and civilian personnel and contracted employees of private sector companies. This is the definition of ETS used by the Naval Aviation community. It is representative of the definition of ETS used throughout DoD and the private sector.

Engineering and Technical Services formally became a part of Naval Aviation when the Naval Aviation Engineering Services Unit (NAESU) was established in the autumn of 1942. The original name used in 1942 was the Airborne Coordinating Group (ACG). The reason for the creation of NAESU was that the deployment of radar and other "sophisticated" electronic devices had increased the need for highly skilled personnel in the Navy. To fill this need, the Naval Aviation Electronics Service Unit (which would become NAESU in 1959) was tasked with creating a pool of highly trained specialists. These specialists were made available upon request from fleet units. The current mission statement for NAESU is:

> ...to provide field engineering assistance and instruction to Naval Aviation activities in the installation, maintenance, repair, and operation of all types of aviation systems and equipment. (NAESU, 1994)

The Navy breaks down the components that make up ETS into two major categories as listed in the below paragraph. This information is provided in NAESU instruction 5400.1L dated 15 September 1989. It is again stressed that these are the terms used by the Navy; however, the other military services have a comparable structure. The two major components of Navy ETS are the Navy Engineering Technical Services (NETS) and the Contractor Engineering Technical Services (CETS). The military component or NETS is further broken down into two groups. These groups are called: Navy Military Technical Specialists (NMTS) and Navy Civilian Technical Specialists (NCTS). The first group, NMTS, are made up of active duty and reserve military personnel. These sailors possess an in depth knowledge of a particular weapons system or component and act as subject matter experts who fill the role and duties of an ETS member. The NCTS are civilian employees who work for the military as civil servants. They are managed by the Navy and fall under the General Schedule (GS) rating system. They, too, are technical specialists with special qualifications that allow them to provide information, instruction, and training. The CETS side of Naval ETS is also further broken down into two components: Contractor Plant Services (CPS) and Contractor Field Services (CFS). Both of

these types of ETS are provided by the manufacturer of military equipment or components in the initial military weapons system acquisition contract and may be continued after the fielding of the equipment is completed. Plant representatives (CPS's) are located in the plants and facilities of the manufacturer and provide:

> training courses, training-aid programs, system/component knowledge, and other essential skills relating to the development of the technical skills required for installing, maintaining, and operating such equipment. (NAESU, 1989, p.I-1)

The CFS's are contractor personnel located on-site at defense locations. They function as follows:

> CFS personnel provide technical information, liaison as required, and formal, structured, and on-the-job training. They possess specialized knowledge, experience, and skills and have access to information covering the installation, operation, modification, and maintenance of DoD weapons, equipment, and systems. (NAESU, 1989, p.I-1)

The following is a brief description of how ETS are currently being utilized in the military as represented by the Navy ETS system. Further information and description of ETS is provided throughout this paper. Technical services are provided by the contractor or manufacturer as part of the initial system acquisition contract. These services provide for the installation and initial training of Naval personnel in the maintenance and support of the system. The current guidance says that this contracted support is to last for one year after the Navy first receives the system at a Naval location. Contract extensions can be requested if the Navy

cannot organically support the system after one year and needs to continue with contractor support. Once the initial contracted field services have expired, it is up to NAESU in the Navy to provide ETS to the operational units. The operational commands provide the initial input to NAESU as to their expected ETS requirements. NAESU will validate these requirements and apply for appropriate funding and create the necessary contracts. The ETS requirements are validated on an annual basis. This validation includes a cost effectiveness study and updated fleet ETS requirements. The current trend by NAESU is to utilize more NETS than CETS. In 1991, NAESU employed: 316 CETS and 466 NETS. The projected ETS requirements for 1999 are: 183 CETS and 529 NETS. (NAESU, 1993) This trend toward more NETS and less CETS is due to the high cost of using CETS as compared to NETS, private sector civilian pay versus military pay scales, and new developments with regard to the detailing of Naval personnel which will be discussed later in this thesis.

Technical services are not just confined to the military. They are widely used in the civilian sector. Using the above definition of what ETS provide, it is seen that ETS is just another form of Field Representative or Field Service Representative associated with a system or product.

An example will better illustrate the function of ETS in the civilian sector. For example, a large automobile dealership that contains a repair shop utilizes the services

of ETS in much the same fashion as the military. The automobile factory will send a representative to the dealership to train the dealer's mechanics or the dealer may send its mechanics to a factory located school for training. These reps will train the dealer personnel on all facets of the new car or product which is going to be sold. The reps will also be available to the dealership mechanics on an on-site tech assist basis as new problems are found in the new automobile. The factory reps will be able to perform on-site evaluations of the problem for the factory engineers, allowing for smoother customer problem to dealer mechanic to engineer communications. Most of the dealers refer to these tech reps as factory reps. They are an effective interface between the dealer's mechanics and the engineers who built the systems. The factory reps are relied upon by the dealers to keep their mechanics current on the maintenance procedures and systems associated with today's high tech automobiles. These factory reps are considered tech reps as defined by the above paragraphs.

Another form of service provided by field representatives found in both the military and private sector are Contract Maintenance Services (CMS). Contract Maintenance Service is provided by personnel who are not members of the organization which is utilizing the system. These personnel will maintain and operate the system for an organization under a contractual agreement. This type of service is used when it

is not cost effective for an organization to utilize its own personnel to support and maintain a system.

An example of CMS used by the military are the personnel who maintain the F-5 and F-16 aircraft utilized by the Navy's aggressor training squadrons. An example of CMS found in the private sector is the support associated with an organization's copy machine. The most common practice in the public sector is for the office to purchase a maintenance agreement contract or CMS at the same time they buy a complex and expensive piece of equipment like a copy machine. The manufacturer or company that is providing the machine is contracted to provide a person who will install the new copier. This person installs the machine and prepares it for use by the office personnel. This person will also provide instruction and training to the office personnel in the proper usage and routine maintenance (filling with paper, changing the ink and toner, etc.) needed to be performed on the copy machine. This person will also provide the office with a phone number that will allow the office personnel to contact the copier company if a failure or problem with the machine should occur. It is more cost effective for the organization to procure CMS's than to have their personnel provide and store all required parts and to perform all maintenance and support on the copier.

B. SUMMARY

The history behind the field of logistics support is generally related to logistics as used by the different militaries throughout the world. Most of the examples that relate to logistical support deal with the logistics of supplying armies. The current literature and instructions that deal with logistics, view logistics as providing life cycle integrated logistics support for a system.

The history of ETS is not well documented. Engineering and Technical Services from a Naval Aviation standpoint, were started in the autumn of 1942. The original DoD guidance on the elements constituting Integrated Logistical Support of military weapon systems was promulgated in the summer of 1964. The current DoD ILS directive contains ten logistics elements. Engineering and Technical Services are not included as an element or as a part of any existing element. It should also be noted that the current consensus by the drafters of the ten military ILS elements is that the acquisition managers already have enough ILS elements to work with and they do not need a new one. According to the DoD directive, if all of the listed elements are followed and properly applied throughout a system's life cycle there should be no need for the services provided by ETS. (Fink, 1994)

III. METHODOLOGY AND DATA

A multitude of resources was used to research the subject of ILS elements and ETS. A large portion of the research material consists of military directives and instructions. Currently active and many no longer active or cancelled instructions were used. The remainder of the research was conducted through the use of books and interviews. The reason for this research was to find the answer to the question: What is a Logistic Element? The answer to this question allows the author to explore and answer the primary point of this research: Should ETS be an eleventh military logistic element?

There are differing opinions among the various authors of logistic related books as to the number of logistic elements there are or should be. The same is true when it comes to providing names or titles to these elements. Appendices B through E provide examples of different lists of required logistic elements as determined by various authors. It should be noted that the lists are comprised of different elements; however, these elements include basically the same ILS element functions as those currently in use by the military.

On the military side, in 1964, DoD Directive 4100.35 titled "Development of Integrated Logistic Support for Systems and Equipments" for the first time provided military

acquisition personnel with a list of logistic elements that were to be followed and used by the military. These original nine elements are:

1. The Maintenance Plan
2. Support and Test Equipment
3. Supply Support
4. Transportation and Handling
5. Technical Data
6. Facilities
7. Personnel and Training
8. Logistic Support Resource Funds
9. Logistic Support Management Information

The result of various revisions of the DoD acquisition directives and instructions, was that these original nine logistic elements were reworked and another logistic element was added to give military planners the current list of ten logistic elements that is described in Chapter II. These revisions were due to the ever changing policies associated with the military acquisition system. The goal of military planners is to develop an all inclusive, standardized list of ILS elements for use by all of the armed services.

None of the research materials or interviews provided a standard definition of a logistic element. They also did not all agree as to what the exact logistic elements are or what they should be. They did provide enough information that

could be used to formulate a standard "definition" or set of criteria to describe an ILS element.

The criteria listed in the analysis section of this thesis, describe what characteristics are found in an ILS element and were developed using the many references cited. Each reference describes in detail the logistic element it is referring to. This description included what purpose this element serves. It is through these descriptions that a set of criteria for a generic element are formulated. The descriptions of the various logistic elements that each reference referred to are combined to enable the author to formulate specific criterion related to a generic element. These criteria can also be used to compare other future elements to see if they meet the requirements of being a separate ILS element. This comparison is specifically used to take a look at ETS and should enable the author to justify the addition of ETS to the current DoD list of ten ILS elements.

In order to consider ETS as an ILS element, a thorough understanding of what ETS is and what their function is in relation to a weapons system is developed and illustrated. Another way of looking at ETS is to use the definition that Hill (1993, p.247) gives for Field Service. He states that:

> field service is an option for the seller to provide hands-on training and technical support/liaison to customer personnel on the operation and maintenance of the products.

The various research materials pertaining to both the military and private sector use and perceptions of what ETS's mission entails will be used to develop ILS element criteria which in turn will provide a thorough description of ETS as used by Naval Aviation and the private sector.

There is currently a newly formed subgroup of the Aviation Logistics Board in the military called Joint Engineering and Technical Services (JETS). Their mission is to

> provide guidance and recommendations on policy and procedures, requirements, procurement and deployment of ETS throughout DoD. (NAESU, 1994)

One of their priorities is to examine ETS as a stand-alone ILS element. Appendix G provides a brief synopsis of JETS.

IV. ANALYSIS

A. INTRODUCTION

The analysis of this research is broken down into two parts. The first part of this analysis develops a set of criteria or characteristics that can be used to test and define just what a logistic element is. The completion of this part is critical to the analysis found in the second part. The criterion found in part one is used to justify the validity or relevance of using ETS as a stand-alone logistic element.

B. PART ONE

There is no textbook definition that defines what a logistic element is or what components or factors make up an ILS element. Therefore, one must look at the characteristics of each of the current listed elements to search for criteria which could be used to define and justify the existence of a specifically named element. The elements currently used by DoD are used in this analysis. They are looked at using the perspective of a military system's Program Manager. The PM's manage a system throughout its life cycle. They also ensure that all of the ILS elements are incorporated into the system at its very beginning. The word system is used to represent any type of major system being acquired through the

acquisition process by either the military or private sector. A system is defined as:

> a set of objects, together with relationships between the objects and between their attributes, connected or related to each other and to their environment in such a way as to form a whole. (Schoderbek, 1980, p.341)

The other lists of elements found in the appendices support the same findings.

One characteristic common to all of the ILS elements is that they all play an important part in the life cycle of the system. This means that the element is used to support the system throughout its entire life from cradle to grave. The elements are first incorporated into the system at the very beginning of the system's acquisition stage. They are then updated and modified as the system matures. These elements are still utilized even as the system is ending its useful life.

Another characteristic of a logistic element is that it is somehow unique in the way it positively contributes to the system. This uniqueness should be very obvious because if all of the elements are exactly alike there would be no need for a list of separately defined ILS elements. It is this uniqueness that provides each element the "right" to be listed as a separate logistical element.

A third characteristic of an ILS element is that it should represent something that has always been part of a system. Looking at the specifics of each element, one can see that

each element represents a set of actions that have always been found in a system even before these actions were represented and described by a formal ILS element list. To take a case in point, Manpower and Planning have always been a factor in the procurement of a system. Before the advent of the DoD list of ILS elements, Manpower and Planning were just naturally incorporated into a system's development. The use of a formal listing of ILS elements ensures that all specific actions are incorporated into a system throughout its life cycle. The use of a specific label and definition of this label, now called an ILS element, is just more insurance that the ILS actions are thoroughly researched and incorporated into the life cycle of all systems.

A fourth characteristic of an element, that closely follows that of the last characteristic, is that an element represents a certain level of required system expertise. This level of expertise is required due to the increased complexity of today's systems and the increased complexity in the acquisition of these systems. It is seen, for example, that Support Equipment needs to be just as sophisticated or more so in order to support a future highly complex system. One only has to look at the diagnostic machinery auto mechanics currently use to see that system complexity is on the increase.

A fifth characteristic of an ILS element is that the element adds value to the system. Another way to view this

characteristic is to describe or list, using the customer's perspective, the value a particular element provides or adds to the customer's system. For example, the Training and Training Support ILS element is highly valued by the customer. This element provides the necessary training to the customer so that they can successfully operate and maintain the system. The same is true for the current listings of the other ILS elements. One of the desired outcomes of each element is to satisfy the customer's demands and desires. The only way to accomplish this is to successfully integrate all of the required ILS elements into a system during all phases of its life cycle.

The sixth and probably most important characteristic of a logistic element is given away by the title: "Integrated Logistics Support Elements". An element has to harmoniously and successfully interact with all of the other elements. This interaction or integration is what makes the system work. One interesting way the private sector views this characteristic as a requirement of the DoD required ILS elements (Green, 1991, p.9) is:

> U.S. Military Service regulations on integrated logistics support explain that design influence is an intangible ILS element but significantly affects overall system readiness, supportability, and affordability.

This successful interaction is what also gives the system synergy. Synergy is:

the system's output where the total effect is greater than

> or superior to the effects obtained through the parts functioning independently. (Schoderbek, 1980, p.341)

It is the successful interaction or synergy of the logistic elements that enable a system to properly function throughout its entire life cycle. The following characteristics have been determined by the author to be common requirements in all of the ILS elements that are described above:

1. An element must play an important role throughout system's life cycle;
2. An element must be unique in comparison to the other elements;
3. An element must represent a factor that is inherent to the system;
4. An element must represent a level of expertise;
5. An element must positively contribute to the customer's value of the system; and
6. An element must provide a vital contribution, through integration, to the system's overall synergy.

The above list represents the criteria that should be used by logisticians when they develop a set of ILS elements. The above criteria also provide the clue as to why there is not one standard set of logistic elements used by all acquisition personnel, both in the military and private sector world. The clue is that the use of these criteria is system specific. Each organization's acquisition personnel need to develop a list of logistic elements that best suits their specific system's goals. For the military, these goals are provided by

DoD in the form of instructions and directives.

C. PART TWO

This part of the analysis utilizes the set of criteria developed in the first part to evaluate ETS. This evaluation is used to determine whether Engineering and Technical Services can qualify for inclusion as an Integrated Logistics Support element.

The first ILS element criterion, playing an important role in the system's life cycle, is very much a characteristic of ETS. During the developmental stages of a system, the manufacturer uses information gathered by their field representatives to determine the exact requirements, based on the Mission Needs Statement, that the customer desires of the system. At the manufacturers' plants and facilities, contractor technical representatives provide the initial training to the customer's training personnel who will then be used to train personnel at the system's installed location. In the case of the Navy, the CPS provide this training to DoD personnel, NMTS and/or NCTS. The current policy concerning system acquisitions is for CFS to be provided for a period of one year following the installation of the system at a DoD location. These contractor services are supposed to end once the Navy has accepted complete control of the system, meeting the Initial Operating Capability (IOC) date, and can thus provide organic system support. If contractor services are

required past the one year mark, a waiver for renewal of the contractor support is required. Many factors, that will be discussed later in this thesis, have resulted in the Navy personnel operating these complex systems to need outside technical services and support. It is ETS personnel who are called upon to provide these services to the system operators. This support can take the form of NETS personnel or CETS which are provided through a contract.

In the private sector, during the life cycle of a system, manufacturer representatives and/or specially trained field representatives are called upon by the system's user, the customer, concerning a multitude of tasks. These tasks begin with the manufacturer installing the system at the customer's location and continue with the representatives providing training to the customer's employees. During the life of the system, the customer will contact the manufacturer for support ranging from easy trouble shooting related questions to more complex problems and advice. All of these tasks accomplished by manufacturer representatives amount to what is provided by ETS in the Navy.

The second ILS element criterion, uniqueness, is a characteristic found in the very nature of what ETS represent. Field representatives provide the training and system support that are not accomplished or covered by the other ILS elements. Using the military's list of ten ILS elements, one could conclude that if all of the elements were properly and

effectively incorporated into a system throughout its life cycle, there would be no reason for technical support from outside sources once initial customer organic support has been established. For example, the Training and Training Support element should ensure that the customer can provide its own in-house technical experts. The Maintenance Planning element should be able to provide all of the necessary maintenance support required of a system as it goes through its different life cycle phases and the problems associated with aging.

Unfortunately, no matter how much effort is put into ensuring these elements are completely covered and incorporated in the systems life cycle, there are always problems that crop up in the future that require outside support. These problems are more pronounced in the military due to several factors, the largest of which is that the military usually falls short of its goals when it comes to incorporating all of the ILS elements. This is caused by its use of faulty estimates of "support manpower, parts and equipment" which are either "optimistically stated or understated" by the project managers. (Boynton, 1994, p.31) It is ETS that is able to provide the unique services required in support of DoD systems that the current use of the existing ILS elements has failed to cover. Engineering and Technical Services personnel are able to keep abreast of the latest developments associated with a system and use this knowledge to train the customer's personnel to maintain and support the

system.

The third characteristic, that the ILS element must represent a factor that has always been inherent to the procurement and support of the system, is closely related to the first two characteristic but goes a step further. All of the elements have been used in one sense or another in systems prior to the official decrees that specifically listed them as individual ILS elements. The same can be said of ETS. Any system or component that is supplied by a manufacturer has always had some form of ETS associated with it. This could be something as simple as manufacturer installation teams to formalized training and support for the customer provided by the manufacturer. Most private sector customers, purchase some sort of a maintenance support contract to provide for system support during the life of that system. System support provided by the manufacturer has always been and will continue to be an inherent part of the customer-manufacturer relationship. The extent of this support is highly dependent on the complexity and life span or life cycle costs of the system.

The fourth criterion, a logistical element represents a level of expertise associated with a system, is again an integral part and precisely what is expected of and found in a field or technical representative. Engineering and Technical Services represents a pool of personnel who have a particular background and expertise associated with a system.

This can be system specific or a specific knowledge of a particular component. Hill (1993, p.248) lists what the requirements of a Field Service Representative should be. The entire list is provided in Appendix F. In short, he says a field representative needs to be an expert on all aspects of the system and the rep must also have superior communication and customer relations skills. It is this highly experienced knowledge of the system that the customer seeks from ETS. The customer expects that the manufacturer can provide the professional maintenance and personnel support that today's complex systems frequently require.

The problem the military and in particular the Navy faces concerning military experts is caused by several factors including ever increasing system complexity and the incorporation of new changes. A DRMI study concluded that problems associated with a lack of system experts in the military are due to a number of factors. The most noticeable factor is that of constant personnel rotations within the Navy. A sailor might receive enough in house training, both formal and on-the-job (OJT), to be considered an expert but the tour of duty with that command and hence that system is typically two to four years. Due to the constraints of the Naval personnel system and the sea-shore rotational requirements, that system's expert will more than likely spend the next duty tour or couple of tours of duty away from the operational system environment. This person now loses the

expert abilities through a lack of practice. Engineering and Technical Services are able to provide maintenance and information continuity during the constant rotation of operators. Another problem with the military system is a failure or lack of training to keep the expertise needed by operational personnel at a self sustaining level. (Boynton, 1984, pp.46-47)

The fifth characteristic, positively adding value to the customer's system, is instinctively inherent in the what ETS provides to the customer. The customer buys a system with the intent and knowledge that the manufacturer will be able to provide assistance and guidance in establishing initial and continued support for the system. This support can either be part of the original purchase agreement or it can be obtained through a separate contract. In the case of Naval Aviation acquisitions, initial support is part of the original contract and is followed on by additional contracts. The customer relies upon the assurance that upon the IOC, ETS can be called upon to provide system support, assistance, and training throughout the remainder of the system's life cycle. The effective implementation and continued support of the system depends on the support that is provided by ETS. The contact that the operators experience in the field, while working with technical representatives, will greatly affect the military's perception and assurance that the system will receive adequate support during its operational life. This

assurance is necessary to help foster and support good manufacturer/military relations and dealings.

A logistic element provides a vital contribution to the overall synergy of a system. This sixth criterion of an ILS element is perhaps the most important. The whole concept of ILS is to create an environment for the successful integration of the listed elements to provide total life cycle support of the system. By harmoniously working together, all of the elements combine to make and support the system. Each element by itself contributes to the support of the system but alone it cannot make the system whole. The major role ETS plays in the synergy of the system is that of providing a communications feedback link between the system operators and the system's creators and managers.

It is the field representative who can provide the best informed and most critical information to the manufacturer or contractor pertaining to the status of a system that is in operation at the customer's location. It is this vital communication link that contributes to the system's synergy. When a customer is experiencing a problem with the operation of a system, the manufacturer's field representative is the most qualified person to communicate all of the particulars of the problem back to the manufacturer's engineers. Engineering and Technical Services personnel make up this valuable communications link in the military. Whenever a problem or modification to a system is encountered, ETS personnel are

summoned. If the problem is beyond the ETS personnel's scope then they get into direct contact with the manufacturer. This system link between the manufacturer and the system support personnel allows for more accurate and quicker trouble-shooting of the problem at less cost. The ETS person is able to effectively translate the problem as experienced by the operator into terms that the manufacturer's engineers can understand. This will give the engineers a more precise picture of the problem with less wasted time and effort expended due to miscommunications which are usually seen in dealings between operators and engineers.

D. SUMMARY

There is no single standardized listing of ILS elements that is correct to use in all situations. It is also true that there is no one definition of what determines an element's eligibility for consideration for being a member of an ILS list. Because of the above mentioned facts, the first part of this analysis develops six criteria that represent the characteristics required of an ILS element. Each of these criteria is recognized as being found in common with all of the various listings of ILS elements available in both the military and private sector acquisition systems. It is imperative that an element possess all six of these criteria. Of the six criteria, the most important are that the element be:

- Important throughout the system's entire life cycle,
- Uniquely different from the other elements being considered, and
- An integral part of the systems overall synergy.

It is these three criteria working in conjunction with the other three criteria that enable a logistician to define and recognize a logistic element for inclusion in their list of ILS elements. This list of ILS elements needs to be specifically developed and tailored to meet the requirements of the customer. In the military, this is accomplished by DoD so that there will be standardization in the military acquisition system.

The second part of this analysis uses the criteria developed to analyze whether or not Engineering and Technical Services meets the requirements of an element for consideration as an ILS element. The supporting examples and dialog indicate that ETS does in fact represent a logistic element and can be considered a stand-alone ILS element.

V. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

The analysis developed in this thesis is derived through the examination of data obtained through various civilian and military sources that delve into the subject of ILS and ETS related fields. This chapter states the researcher's conclusions based on the above findings. Recommendations for the use of ETS as an ILS element and the possible future of ETS is also discussed.

B. CONCLUSIONS

Engineering and Technical Services are a necessary and very real element of all systems. Some form of ETS has been used to provide system support since the beginning of the manufacturer/customer relationship. Engineering and Technical Services play a critical role in a system's life cycle from initial installation and training to continued and upgraded support. When ETS are being procured it must be remembered that, according to previous research done by Marsh (1989, p.10) the customer is

> ...buying a level of effort from a contractor. With these services the Government is buying expertise, knowledge, and time...

One of the most important aspects associated with ETS is that they add to the synergy of the system. ETS provides a very

valuable communication link between the manufacturer's engineers and the customer. The communication aspect of ETS is even more important because ETS provide not only valuable communication between the contractor and the field activities but they also provide valuable information to the field operator's command structure. This in turn provides for the quick dissemination of system related information to all other operational users of that system. In the military that information could be very minor such as an easier way to accomplish a particular procedure or something very important such as changing a procedure that will prevent a possible failure thus saving a valuable resource.

Engineering and Technical Services meet the criteria that are developed in the last chapter. In summary, ETS:

1. Play a very important role throughout a systems life cycle, from birth to grave;
2. Provide an unique service to a system that is not included in other elements;
3. Provide services which have always been and continue to be an inherent part of a system;
4. Represent a level of expertise that is not provided for by the other elements or by the customer;
5. Is a value added component to a customer's system;
6. Thoroughly integrates with the other ILS elements, adding to the overall synergy of the system.

1. Answer To The Primary Question

Yes, it makes good logistical sense to add ETS as a separate element of ILS. This would give the military eleven ILS elements to consider when acquiring a new weapons system through the military acquisition process. The current list of ten ILS elements used by the military provides a majority of the life cycle support required of a system. Today's acquisition and systems managers effectively incorporate the current ten elements into a system. The fact is that no matter how effectively they utilize the current ten elements, there is still always a need for ETS by the operators in the field. Military acquisition personnel still have not perfected the use of the current ten ILS elements. This thesis mentions that large uncertainty and inaccuracies in forecasting twenty-year life cycle costs, manpower requirements and availability, and future modifications, exist. These uncertainties and inaccuracies eventually lead to problems in system maintenance and support. The operators then have to rely on ETS to overcome these problems. The elimination of technical services appears not to be a choice. The incorporation of ETS as a separate ILS element is justified so that ETS can be incorporated, as accurately as possible, into a system's life cycle cost.

2. Answers To The Subsidiary Questions

Engineering and Technical Services are known in the military and private sector by a multitude of terms that have been used throughout this thesis, some of which are found in Appendix A. The best definition of ETS is that it is a pool of personnel who possess an expert knowledge of the components that make up a particular system. This knowledge includes the engineering know how and communications skills necessary to be able to work effectively with the system's engineers at the manufacturer's facility and to provide various services such as training and support for the customer. These services are provided throughout the system's life cycle. Initial support is usually provided for by the initial system acquisition contract. Follow on support, usually associated with the ever increasing complexity of the system in support of modifications, are provided through the use of ETS. This can vary from support provided through a contracted source or by an organization that has a pool of ETS personnel such as the Navy's NAESU.

The analysis done in this thesis shows that ETS does meet the criteria established of an ILS element. There are those in the private sector (Hill, 1993) who concur that Field Services do represent an integral part of today's systems and should therefore be a separate element of ILS. It is the author's opinion, developed from the feedback received during the interview process, that there would be some dissenting

personnel in the military acquisition field who think that the current list of ten ILS elements is sufficient. These same personnel feel that if these ten elements are correctly incorporated into a system's acquisition then the system will be adequately supported throughout its life cycle. However, there are currently no weapons systems in use that do not have some level of ETS associated with them. Fortunately there are also personnel in the military who realize that there is a need for ETS as an eleventh ILS element. This group of personnel is represented by the Joint Engineering and Technical Services (JETS). Joint Engineering and Technical Services is a group made up of ETS managers representing each of the armed services plus a representative from the Aerospace Industries Association (AIA). They are currently working on better ways to standardize and utilize ETS in all of the military branches. It must be recognized by all of the services and contractors that in these severe fiscally constrained times, all personnel associated with weapon systems procurement need to be speaking the same language and complementing each others' procedures. Each service currently has its own ETS system. Although they all fall under DoD guidance, there are still enough differences that each service can learn from each other. A unified front needs to be exhibited by all of the services in order to maintain a viable DoD ETS program.

The major benefit of incorporating ETS as an ILS element is that ETS could now be considered an integral part of a system's life cycle and would therefore be part of the system's life cycle cost analysis. These two factors would legitimize and ensure adequate funding for the support that ETS currently provide to the system operators.

C. RECOMMENDATIONS

The following recommendations are made by the author based on the information described in the previous chapters. These recommendations are in support of making system acquisitions more realistic and cost effective.

1. **It is recommended that Engineering and Technical Services be added to the current list of ILS elements that are used by DoD as an eleventh element.**

The military and the private sector have tc come to the conclusion that Engineering and Technical Services are an important element in the lifetime support of a system. The key to successful ILS support is to effectively integrate all ILS elements. That means that ETS can no longer be an after thought that will get taken care of and considered after the purchase of a system. Engineering and Technical Services need to be incorporated from the very beginning of a system's development. By making ETS an ILS element, system acquisition managers will have to ensure that ETS are considered and implemented at every stage in a system's life cycle. This in

turn will ensure that ETS is part of the life cycle cost analysis. The results of this analysis will add support and credence to the request to fund ETS related services and activities.

2. **It is recommended that greater emphasis placed on the procedures used to develop an ILS element list. The criterion developed in Chapter IV can be used as a starting point in choosing ILS elements.**

The text books and instructions dealing with ILS elements do not provide enough detail as to how and why the elements were chosen. It seems obvious that the elements are used to support the system throughout its life cycle but there is no specific mention of what criteria should be used when choosing the elements to make up an ILS element list. It is also not mentioned that there is no one universal listing on ILS elements that is to be used by all acquisition personnel. The military does standardize their ILS elements through the use of a Department of Defense Directive. All logistic students need to know at the beginning of their logistic education that each activity needs to tailor their ILS element list to their specific type of system. The only prerequisite is to ensure that the elements that are chosen meet the provided criteria developed earlier.

3. **Recommendations for further research**

Many possibilities exist concerning the use of ETS in the future. New advancements in technology are constantly

creating better systems but along with these systems comes more complexity. The military and private sector will have to rely more and more on ETS to keep up with this increased complexity. Another factor is that due to fiscal constraints, the useful life of current systems will be increased. This increase will undoubtedly uncover more difficult maintenance problems that will be faced by the operators. This will result in the operators requiring the assistance of a system expert or the manufacturer's engineers. This assistance is facilitated and accomplished by ETS.

The military is currently exploring new ways to augment ETS. Three of these new developments are:

- Expert Systems Program or "Tech Rep On A Floppy"
- Interactive Electronic Tech Manuals (IETM)
- Wearable Computer system.

A short description of each can be found in the Appendix H. These systems are currently in the experimental or development phases but may yield some good topics for future research into the field of ETS. The emphasis that these systems are working under is that they are being developed as enhancements and not replacements for ETS personnel. There has been and continues to be a very welcomed and documented need for ETS and the services they can provide to the customer in support of a system.

APPENDIX A: ABBREVIATIONS AND ACRONYMS

AIA	Aerospace Industries Association
CETS	Contractor Engineering Technical Services
CFS	Contractor Field Services
CMS	Contract Maintenance Services
CPS	Contractor Plant Services
DoD	Department of Defense
DRMI	Defense Resources Management Institute
ETS	Engineering and Technical Services
FIELD REPS	Field Representatives
IETM	Interactive Electronic Tech Manual
ILS	Integrated Logistics Support
IOC	Initial Operating Capability
JETS	Joint Engineering Technical Services
LSA	Logistics Support Analysis
LSAR	Logistics Support Analysis Record
LSP	Logistics Support Plan
MNS	Mission Need Statement
NAESU	Naval Aviation Engineering Service Unit
NCTS	Navy Civilian Technical Specialists
NETS	Navy Engineering Technical Services
NMTS	Navy Military Technical Specialists
ORD	Operational Requirements Document
TECH REPS	Technical Representatives

APPENDIX B: BLANCHARD ILS ELEMENTS

The following is a list and brief description of the eight major elements of logistic support found in the fourth edition of LOGISTICS ENGINEERING AND MANAGEMENT: (Blanchard, 1992, pp. 11-13)

1. Maintenance Planning. This includes all planning and analysis associated throughout the systems life cycle. It is also used to integrate the other areas associated with system support.

2. Supply Support. This includes all materials needed to support the system. It also includes all provisioning and logistical considerations.

3. Test and Support Equipment. This includes all peculiar and common test and support equipment required to ensure the proper functioning of the system.

4. Packaging, Handling, Storage, and Transportation. "This category basically covers the initial distribution of products and the transportation of personnel and materials for maintenance purposes."

5. Personnel and Training. This includes all formal, initial and replenishment training required to operate and maintain the system.

6. Facilities. Includes all special facilities required to operate and maintain the system.

7. Data. This includes all data required to operate and maintain the system and the data required by all of the other elements in order for them to be implemented effectively.

8. Computer Resources. Includes all computer equipment and the materials required to support the computers. "The resources to support computer-aided acquisition and logistic support (CALS) requirements are also included."

APPENDIX C: GREEN ILS ELEMENTS

The following is a list of ILS elements listed in LOGISTICS ENGINEERING (Green, 1991, pp.12-19):

1. Maintenance Planning
2. Manpower and Personnel
3. Supply Support
4. Support and Test Equipment
5. Training and Training Devices
6. Technical Data
7. Computer Resources Support
8. Facilities
9. Transportation
10. Packaging, Handling, and Storage
11. Standardization and Interoperability

APPENDIX D: JONES ILS ELEMENTS

The following is a list of ILS elements found in the LOGISTIC SUPPORT ANALYSIS HANDBOOK (Jones, 1989, pp.4-10):

1. Maintenance Planning
2. Manpower and Personnel
3. Supply Support
4. Support and Test equipment
5. Training and Training Devices
6. Technical Documentation
7. Computer Resources
8. Packaging, Handling, Storage, and Transportability
9. Facilities
10. Reliability and Maintainability

APPENDIX E: HILL ILS ELEMENTS

The following is a proposed listing of ILS elements found in PRODUCT SUPPORT SERVICES AND TRAINING (Hill, 1993, p. 4):

1. Personnel
2. Training
3. Training Systems
4. Product Service
5. Technical Data
6. Maintenance Activities
7. Supply Support
8. Support Equipment
9. Warranties

APPENDIX F: FSR QUALIFICATIONS

The following represents the minimum qualifications proposed by Hill (1993, p. 249) for field service representatives:

1. Basic education and experience in an engineering discipline with a minimum education equaling 4 years in any one or a combination of the following:

   a. Accredited college education in an associated field of interest

   b. Service school or trade education in the associated field of interest

   c. On-the-job education through full time employment with duties that are basically in the associated field of interest

2. Demonstrate excellence in verbal and written communications with equal clarity with peers, engineering staff, and customer personnel

3. Knowledge or trainable in the fielded subsystems and support equipment, sufficient to enable rapid fault isolation and repair of those subsystems and support equipment to ensure optimum utilization of the delivered product

4. Capable of developing a basic understanding of the overall customer product, its performance characteristics, and its various subsystems and their relationships

5. Ability to work independently, without continuous technical guidance, in the performance of all assigned tasks

6. Ability to conduct classroom and informal on-the-job training to both operations and maintenance personnel

7. Willing to be on call to assist customer personnel on a 24-hour-per-day basis

8. Ability to conduct failure investigation and analysis and assist with incident and accident investigations as required

9. Capable of understanding and working within the constraints of the customer's operations, maintenance, and supply environment

10. Ability to work with modification, retrofit, and service teams and coordinate their activities

APPENDIX G: JETS

This brief description of Joint Engineering Technical Services (JETS) is based on information contained in a 03 February 1994 FAX sent to DRMI from NAESU Headquarters. The purpose of JETS is to

> provide guidance and recommendations on policy, procedures, requirements, procurement, and deployment of engineering and technical services throughout the Department of Defense.

The first formal meeting of Navy, Army and Air Force ETS managers was on August 1993. This meeting established JETS. In October 1993, AIA became a member of JETS. A November 1993 JETS meeting resulted in the development of a proposed JETS charter and the draft of DoD directive 1130.2. This directive used to be dated 26 January 1983 and had been previously cancelled. The new directive's title is: Management and Control of Engineering and Technical Services. The basis of this new directive is to "foster consistency across" all DoD components. It is the goal of JETS to have ETS recognized as a logistic element and to have a consistent policy throughout DoD concerning ETS and their use.

APPENDIX H: NEW DEVELOPMENTS

This is a brief description of three systems that are under development by the Navy to be used as tools to support Engineering and Technical Services. These systems are:

1. Tech Rep on a Floppy (Jacobs, 1994)
2. Wearable Computer (Barnett, 1994)
3. Interactive Electronic Technical Manuals (Barnett, 1994)

It is stressed that these are to be used in conjunction with ETS not as a replacement for ETS.

NAVSEACENLANT/PAC has developed a system called: A Tech Rep on a Floppy Disk (TROF). This is an expert system computer program that provides the non-expert user a highly interactive user friendly mechanism for obtaining expert advise and decision-making capabilities normally requiring an expert. The system is currently deployed and undergoing shipboard evaluation. It is intended to be used as a tool by fleet operators to trouble-shoot and maintain systems without having to rely on tech reps from shore. Tech reps are used to develop the floppy disks which are then used by the fleet. The disks provide enough information for fleet operators to service and maintain their systems without having to have a tech rep actually present whenever the operator encounters a problem. The floppy will provide a logical sequence of

procedures which are used to trouble-shoot the problem. Technical assistance is available if the problem cannot be solved using TROF. Current indications are that TROF has an inverse relationship between the number of technical assist calls made versus a TROF for a system. Simply stated, the number of technical assistance requests for a system has gone down for each system that has incorporated a TROF program.

Another system being evaluated by Naval Sea Systems Command, Indian Head Division, Naval Surface Warfare Center (NSWC) is the Wearable Computer. This is a system where the technician working on a system wears a computer and a headset with a visor. The visor contains a display of the information needed by the technician. It would allow the technician to interact with the system to determine its status. This info would then be used by the technician in conjunction with an expert based system like TROF to perform maintenance on the system. The whole setup would be voice activated allowing for hands free operation.

The third system is also being evaluated by NSWC and is called: Interactive Electronic Technical Manuals (IETMs). This system is broken down into the five classes listed below:

1. Page-Image Systems
2. Page-Oriented Hypertext
3. Linear Structured IETMs
4. Hierarchically Structured IETMs

5. Integrated Process IETMs

The Class One system is basically digitized pages and are cumbersome to use. The current CD ROM manuals are an example of this system. The next two classes are improvements over the Class One but are still difficult to use. The Class Four system puts all information into a data base system so that data retrieval is much quicker. The Class Five system is the goal of the IETM project. It incorporates an expert system in a user friendly format.

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SECTION 2: SUMMARY

The 12 items in Section 2 of the NAESU Customer Service Improvement (CSI) survey were evaluated by the respondents on a two-point scale, either YES or NO. Only those who responded "YES" on both items 1 and 2 were requested to complete the remaining items. Approximately 700 to 800 of the total of 1175 personnel responded to the last ten items. The overall response summary, in percent, for each item is shown in Section 2 Summary Figure 1, with the percent "No" shown on the graph.

The responses indicated that about one in five of the total respondents did not know which technical representatives were CETS or NETS. Of those who did know, about 10% did not feel that their CETS/NETS representative provided the needed formal or on-the-job training.

Comparing CETS and NETS on selected paired items (i.e., items 3 and 4, 7 and 8, 9 and 10, 11 and 12) indicated one major difference between the two types of technical representatives. Comparing the results of Items 7 and 8, the "Yes" response for Item 7 was higher than that for Item 8 (92.8% vs. 89.1%, statistically significant well beyond the .05 level, n = 705). The interpretation is that the responders have more confidence in the ability of the assigned CETS than in the ability of the assigned NETS. See Table 1. As shown, there were 55 responders who said "Yes" for Item 7 and "No" for Item 8 while there were only 29 responders who reversed in the opposite direction. This 55:29 split would not be expected by chance (would expect 42:42).

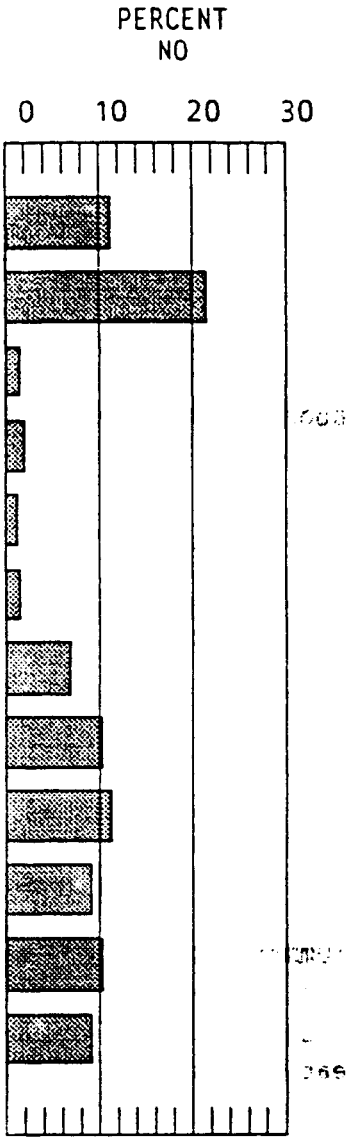
Summary Table 2 presents, for each item, the results of the breakdown analysis performed by the various grouping variables discussed in Part 1. These grouping variables are abbreviated as shown in the Section 1 discussion. For each grouping variable, a statistical test to determine if the responses in each level were proportionally equal to those in every other level was performed (i.e., if responses were independent of grouping level). The statistic, known as "chi-square" with associated "degrees of freedom," was determined and is shown under the individual item analysis tables. Large values for chi-square indicate lack of independence among the levels. The .05 significance level was selected; i.e., independence was unlikely to occur by chance (in at most 5% of the instances) when, indeed, the levels were independent. In the summary table an asterisk (*) indicates that non-independent was found.

Fewer differences were observed, relative to the Section 1 items. Regional differences were much less obvious than were seen in Section 1. Position level often affected the response -- higher position levels were more likely to respond "yes" on several items.

Individual item results are then shown. Specific comments as well as comments regarding the non-independent of the category variables are provided.

SUMMARY FIGURE 1. AVERAGE RESPONSE VALUE FOR EACH ITEM

QUESTION	YES	NO
1. Do you understand the difference between CETS/NETS?	89.0	11.0
2. Do you know which tech reps are CETS or NETS?	78.6	21.4
3. Do your assigned CETS display a professional attitude?	98.5	1.5
4. Do your assigned NETS display a professional attitude	98.0	2.0
5. ETS services received within last year were satisfactory.	99.0	1.0
6. Do you assigned NETS present a professional appearance?	98.6	1.4
7. Do you have complete confidence in the ability of your assigned CETS?	93.1	6.9
8. Do you have complete confidence in the ability of your assigned NETS?	89.6	10.4
9. Do your assigned CETS provide required formal training?	88.8	11.2
10. Do your assigned NETS provide required formal training?	91.0	9.0
11. Do your assigned CETS provide required OJT training?	89.6	10.4
12. Do your assigned NETS provide required OJT training?	90.8	9.2



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NAVAL AVIATION ENGINEERING SERVICE UNIT

HISTORY:

The Naval Aviation Engineering Service Unit (NAESU) traces its history back to the autumn of 1942, less than a year after Pearl Harbor. The Navy was faced with the urgent problem of supplying increased numbers of skilled technicians to assist in the installation, operation, and maintenance of complicated new electronic equipment.

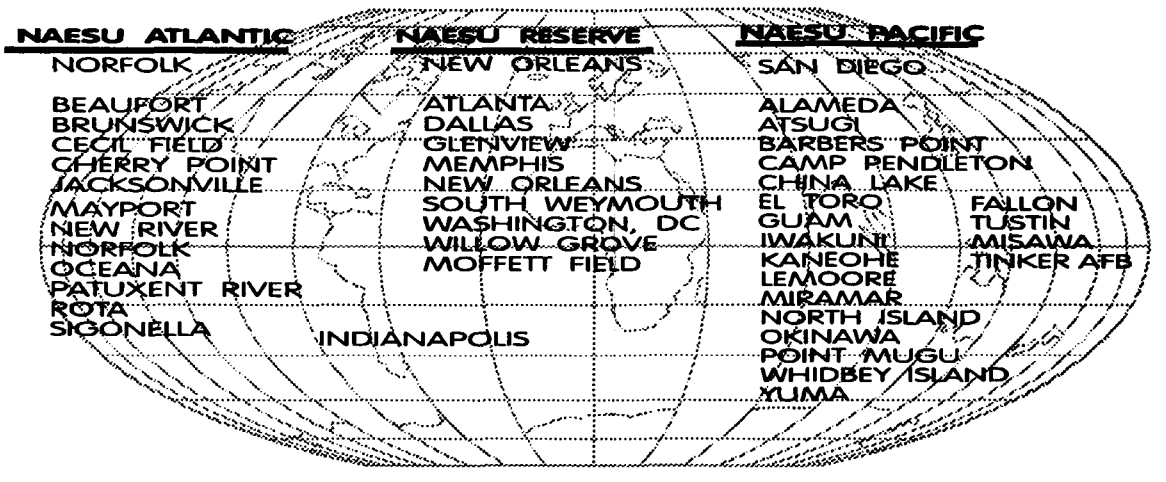
As a solution to the shortage of trained technicians, the Bureau of Aeronautics directed the establishment of a pool of highly trained specialists whose services would be available to requesting activities, whenever needed. On 31 December 1942, the Airborne Coordinating Group (ACG) was established. A group of naval officers and qualified civilian engineers was assembled at the Naval Research Laboratory in Washington, DC, where they were trained and then assigned to aviation units for limited periods.

In June 1948, the ACG was renamed the Naval Aviation Electronics Service Unit. On 2 January 1959, the organization's name was changed to Naval Aviation Engineering Service Unit and its mission was enlarged to include "all types of aviation systems and equipment".

In 1962 NAESU headquarters moved to the Philadelphia Naval Base.

In 1965, with the reorganization of the Department of the Navy, NAESU became a field activity of the Naval Air Systems Command and assumed all responsibility for administration of all aviation engineering and technical service personnel.

WORLDWIDE SUPPORT



ORGANIZATION:

NAESU is a field activity of the Naval Air Systems Command and reports directly to the Assistant Commander for Logistics and Fleet Support (AIR-04). NAESU headquarters is located at the Naval Base in Philadelphia, PA. A diverse, worldwide organization, NAESU maintains 37 detachments to accomplish its mission. Three regional offices, co-located with the Atlantic, Pacific, and Reserve aviation type commanders, provide ETS coordination and management for their respective areas of responsibility.

CUSTOMERS:

FLEET - FMF - RESERVE - FMS
NAWC - NADEP - FAA

PROGRAMS:

A4	A6	A7	AV8	C2	CASS
C9	C130	E2	E6	ES3	CASP
EA6	EP3	F14	F18	H1	PME
H2	H3	H53	H60	P3	OV10
S3	T2	T45	C12	CT39	NWCAM
ENGINES	HARPOON				

RESOURCES: (FY94)

PEOPLE:	Civilian	Military
Headquarters:	76	8
Detachments:	553	73
Technical:		

Navy Civilian:	513
Navy Military:	20
Contractor:	1200

FINANCIAL:	Funding ($)	%
Adminstrative	6M	4
Fleet	52M	33
Reserve	12M	8
FMS	51M	33
Special Funded	35M	22
TOTAL	156M	

VISION AND GUIDING PRINCIPLES

THE NAVAL AVIATION ENGINEERING SERVICE UNIT WILL BE RECOGNIZED AS THE LEADER IN ACQUIRING AND PROVIDING AVIATION ENGINEERING TECHNICAL SERVICES

WE WILL

- Provide top quality, timely and responsive Engineering and Technical Services (ETS) training.
- Provide top quality, timely and responsive technical assistance.
- Develop innovative recommendations for improving maintenance procedures, equipment performance, publications, design and reliability of aviation systems / equipment.
- Create and maintain a working environment for all employees which engenders improved productivity, morale and quality of work life.
- Enhance our prominence as a leader in acquisition of Engineering and Technical Services.
- Conduct organizational and individual functions with the highest standards of integrity and professionalism.
- Continually improve all processes by which we accomplish our mission through innovative individual and team contributions of all personnel.

MISSION

"To provide field engineering technical assistance and instruction to naval aviation activities in the installation, maintenance, repair, and operation of aviation systems and equipment."

COMMAND FUNCTIONS

- Suppport, manage and maintain fleet, reserve and FMS ETS Programs
- Prepare budgetary information for the Naval Air Systems Command ETS Program
- Act as central procurement activity for aviation contractor engineering technical services and maintenance services
- Collect, evaluate, and publish technical information originated by / or developed from ETS

NAESU POINTS OF CONTACT

HEADQUARTERS:

BLDG 76 / 4th Floor
NAVAL BASE
PHILADELPHIA, PA 19112-5088

DSN: 443-XXXX
COM: (215) 897-XXXX

POSITION	CODE	EXT	FAX
Commanding Officer	00	5620	5602
Executive Officer	09	5959	5602
Technical Director	03	6129	5602
Command Master Chief	00A	5971	5602
Director, Program Mgmt	01	5991	5915
Comptroller/Contracts	02	5901	5918
Administrative Dept	05	5606	6383
Human Resources	HRD	5685	5913
Command Duty Officer	CDO	5601	5618
(Non-Working Hours - Cellular)		(215) 805-1716	

TOLL-FREE NUMBERS:

CO / XO	1 - 800 - 934 - 9640
ADMIN	1 - 800 - 723 - 6478
CONTRACT DEPT.	1 - 800 - 934 - 1278
PROGRAM MGT.	1 - 800 - 879 - 1716
HRD	1 - 800 - 677 - 0527
BULLETIN BOARD	1 - 800 - 846 - 1926

ETS COORDINATORS:

F-14/F-18/HARPOON	011	6332/4
P-3/S-3/CASP/CASS	013	5993/4
AH-1/AV-8/H-46/H-53/ENGINE	014	5991/2
C-130/H-2/H-3/H-60/NALCOMIS	016	5993/4
A-6/EA6/C-2/E-2	017	6332/4

POSITION	CODE	TELEPHONE
NAESU PACIFIC (NAS North Island CA)	06	(619) 545 - 1163 DSN 735 - 1163
NAESU ATLANTIC (NAS Norfolk VA)	07	(804) 444 - 3530 DSN 564 - 3530
NAESU RESERVE (New Orleans LA)	08	(504) 948 - 5336 DSN 363 - 5336

Point of Contact: _____

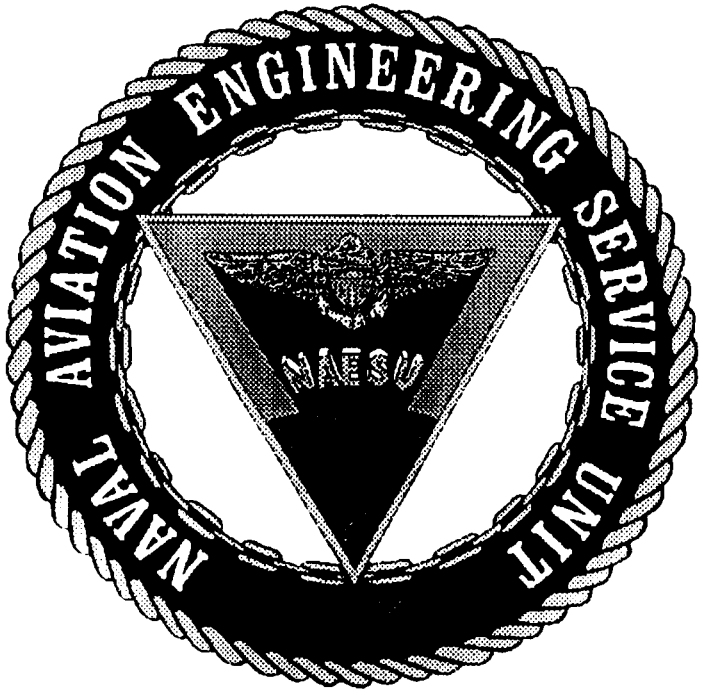
NAESU DETACHMENT: _____

Telephone Numbers

DSN: _____

Naval Aviation Engineering Service Unit (NAESU)

CELEBRATING 50 YEARS OF QUALITY SERVICE TO OUR CUSTOMERS



CDR J. D. VAN SICKLE
COMMANDING OFFICER

NAESU OVERVIEW

HISTORY

- 31 DEC 1942: ESTABLISHED AS AIRBORNE COORDINATING GROUP AT NRL WASH D.C. WITH A POOL OF SPECIALISTS FOR TEMPORARY DUTY TO TRAIN MILITARY PERSONNEL

- JAN 1959: RENAMED NAVAL AVIATION ENGINEERING SERVICE UNIT AND TASKED TO SUPPORT ALL AVIATION RELATED SYSTEMS AND EQUIPMENT.

- 1962: NAESU DETACHMENTS AT NORTH ISLAND AND NORFOLK ESTABLISHED.

- 1965: NAESU ASSIGNED ADMINISTRATIVE RESPONSIBILITY FOR ALL NAVAIR ETS.

- 1966: CONVERSION PROGRAM OF CONTRACTOR TO CIVIL SERVICE SUPPORT BEGINS.

- 1976: FIRST FEMALE ENGINEERING TECHNICAL REPRESENTATIVE HIRED.

- 1985: CNO DIRECTS PLANNING 0 ETS DEPLOYED ABOARD SHIPS.

- 1990: NEW APPROACH TO ETS - LONG TERM PLANS EMPHASIZING ORGANIC CAPABILITY IMPLEMENTED.

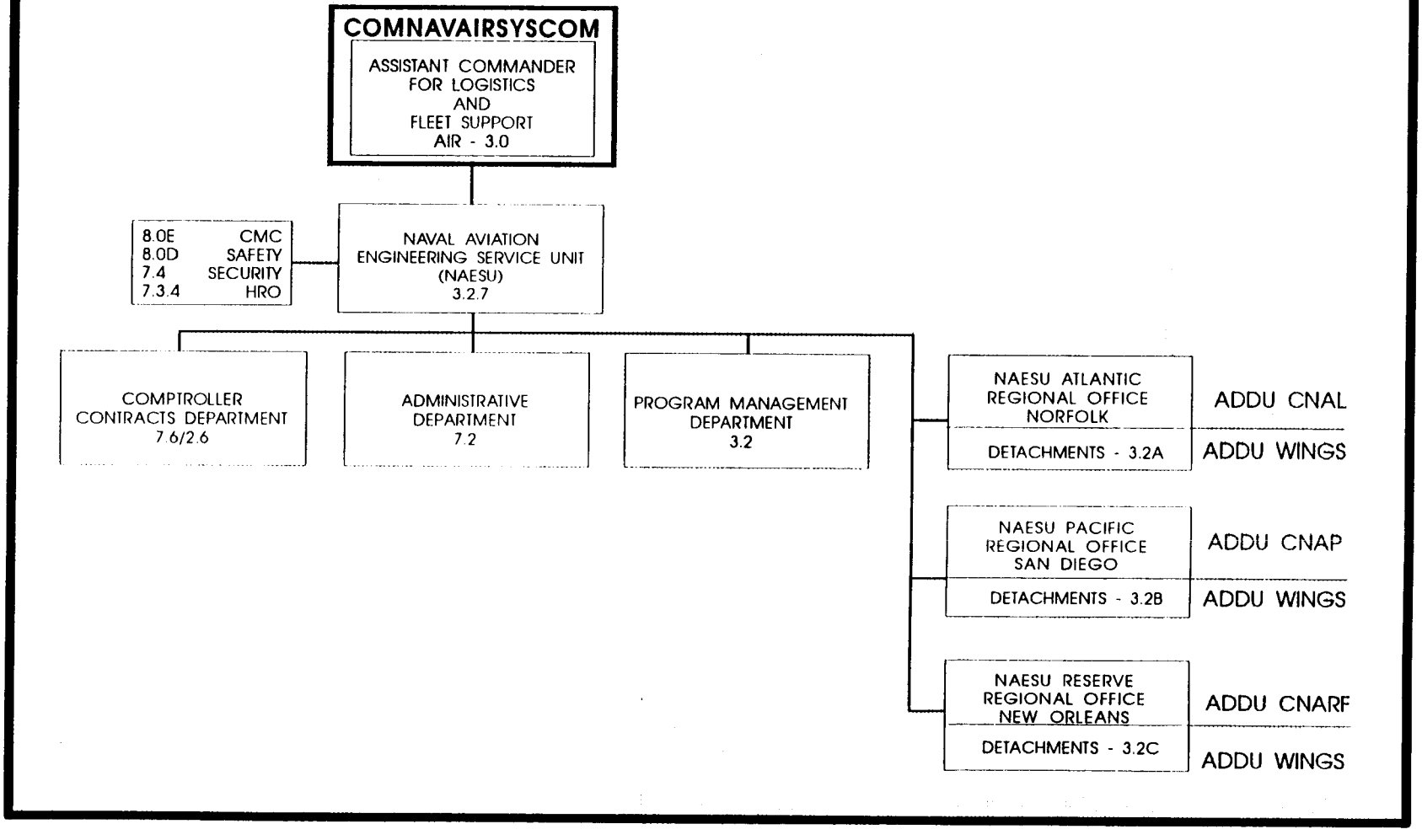
- 1992: DMRD 949A ESTABLISHED TO SAVE OVER TWO MILLION DOLLARS.

NAESU OVERVIEW

PRIMARY MISSION

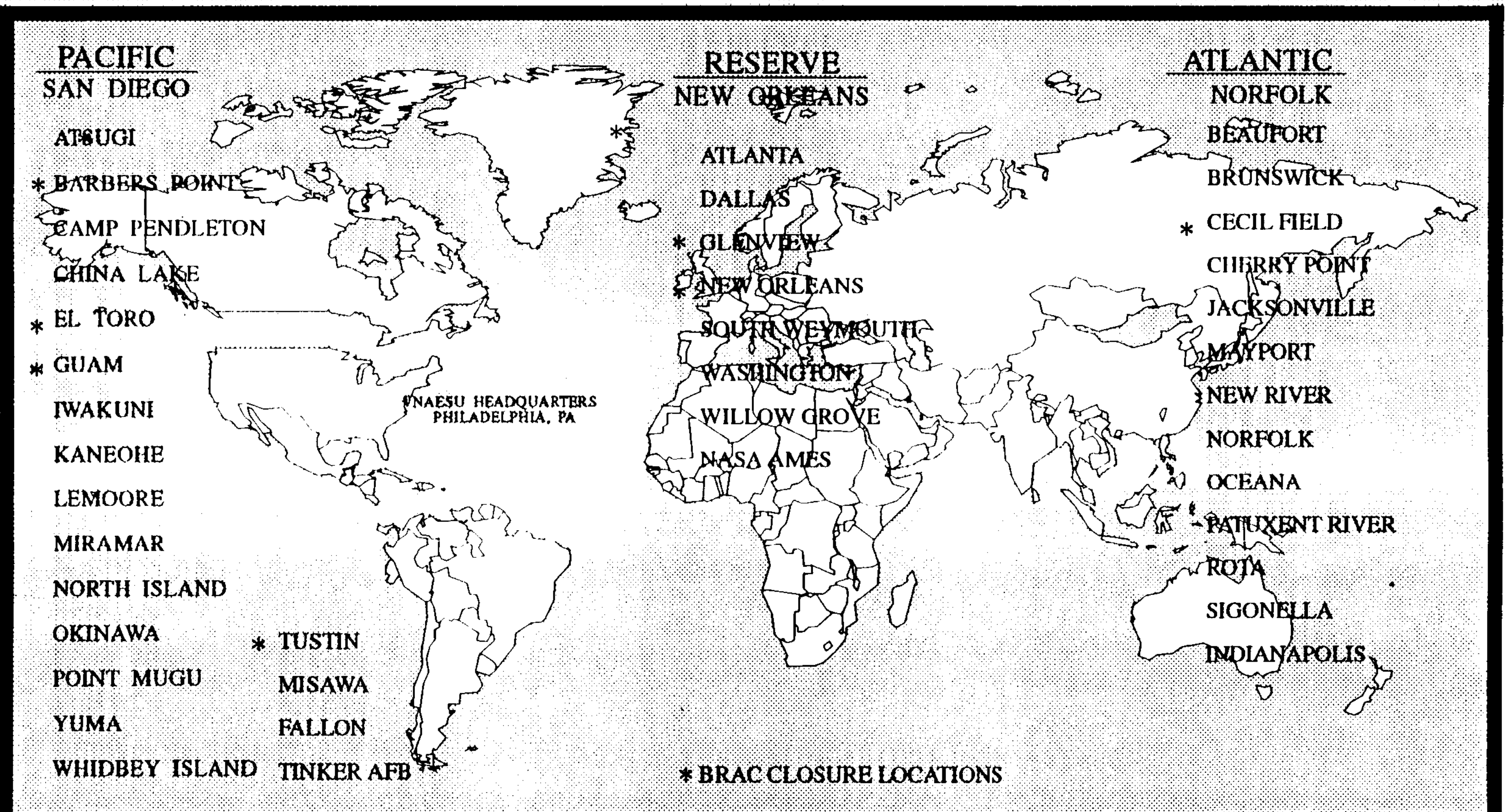
To Provide Field Engineering Assistance and Instruction to Naval Aviation Activities in the Installation, Maintenance, Repair, and Operation of all Types of Aviation Systems and Equipment.

NAESU OVERVIEW
ORGANIZATION



NAESU OVERVIEW
ORGANIZATION

FIELD ORGANIZATION



technicians
S-3
E-2
H-60
train sailors into to Logistics systems -- work feedback loop

plan combine Admin but can't, must remain to support squadron & fleet
Could elim 1 or 2 secretaries

can't eliminate
54 people minimum must move

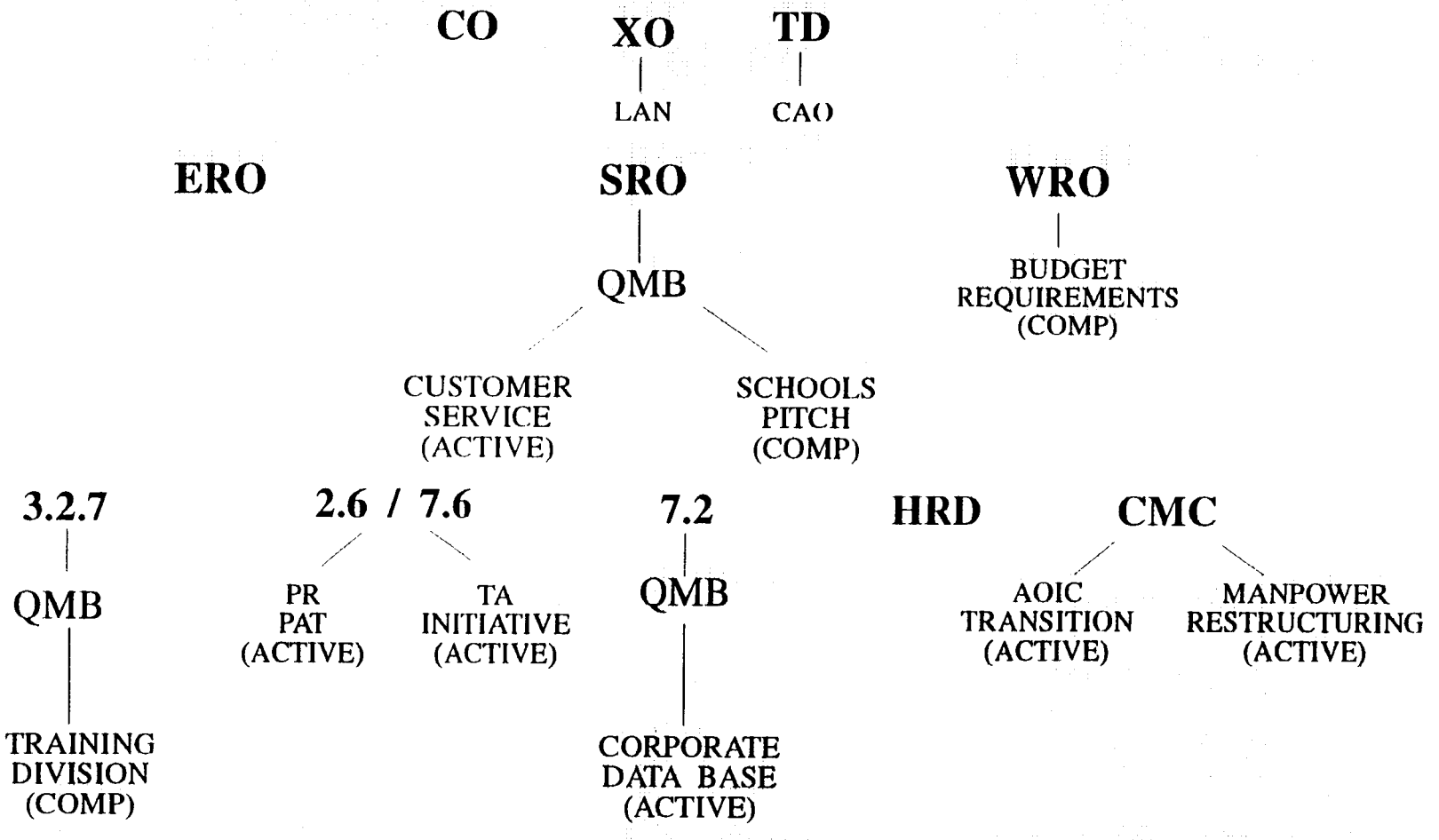
Disa (AS 9) (great)
some ADP & Admin could be done there (but cost)

JUNE 1994

MAP

NAESU OVERVIEW

EXECUTIVE STEERING COMMITTEE (ESC)



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ESC_CHRT

NAESU OVERVIEW

NAESU COMMAND FUNCTIONS

* SUPPORT, MANAGE & MAINTAIN AVIATION ETS PROGRAM

* PERFORM LOGISTIC ELEMENT MANAGEMENT OF AVIATION ETS

* MANAGE AVIATION FMS ETS PROGRAMS

* PREPARE BUDGETARY INFORMATION FOR THE NAVAIR ETS PROGRAM

* CENTRAL PROCUREMENT ACTIVITY FOR ALL AVIATION CETS & CMS

* COLLECT, EVALUATE AND PUBLISH TECHNICAL INFORMATION ORIGINATED BY/OR DEVELOPED FROM ETS

NAESU OVERVIEW

WHAT DO ETS DO?

* PERFORM EMERGENCY MAINTENANCE/REPAIR
* PROVIDE INFORMATION, ASSISTANCE, AND SOLUTIONS CONCERNING DIFFICULT MAINTENANCE AND REPAIR PROBLEMS (TECH ASSISTS)
* PROVIDE TAILORED, ON-SITE TRAINING (CLASSROOM AND ON-THE JOB)
* PRODUCE TECHNICAL REPORTS
* REVIEW AND VERIFY TECHNICAL PUBLICATIONS AND DATA
* PROVIDE FEEDBACK TO LOGISTICS AND ENGINEERING SYSTEMS ON PRODUCT SUPPORT, DURABILITY, AND RELIABILITY

NAESU OVERVIEW

MISSION

ENGINEERING TECHNICAL SERVICES (ETS)

FOUR TYPES OF TECHNICAL REPS - IN TWO CATEGORIES:

DOD	INDUSTRY (Contractor Field Support - CFS)
- Civil Service (NCTS) 410	- Competitive (CETS)
- Military (NMTS)	- Prime (CETS)

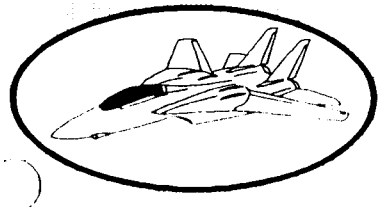
OTHER SERVICES

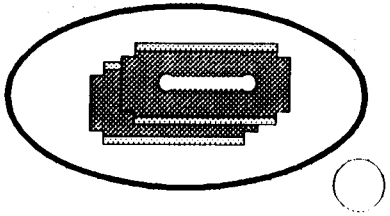
- Contractor Plant Services (CPS)
- Contractor Maintenance Services (CMS)

↳ support FMS small projects -- sometimes less expensive

NAESU OVERVIEW

ENGINEERING TECHNICAL SERVICE IS AN ILS ELEMENT





CONCEPT

DISPOSAL

FLEET INTRO

NSD

NAVY RETIREMENT DATE

STABLE OPERATIONS

PROGRAM INITIATION

FSD

PHASING IN SUPPORT

CONCEPT VALIDATION

PRODUCTION PRIOR TO OPERATIONS

ENGINEERING REVIEW

* COMPONENT IMPROVEMENT PROGRAM
* O.S.I.P.
* MAINTENANCE REVIEWS

ILS REVIEW

* PUBLICATIONS
* MAINTENANCE PLAN
* OPERATIONAL LOGISTICS PLAN
* LSA

FLEET TRAINING AND ASSISTANCE

* URGENT FLEET TECHNICAL ASSISTANCE

FMS TECHNICAL TRAINING

PHASE OUT STAND DOWN

SOLE SOURCE OF TRAINING & TECHNICAL ASSISTANCE

FMS TECHNICAL

* ETS INITIAL TRAINING
* DESIGN REVIEW
* PROTOTYPE TECH ASSISTANCE
* SOLE SOURCE OF FLEET TECHNICAL TRAINING & ASSISTANCE UNTIL FORMAL TRAINING AVAILABLE

NAESU OVERVIEW

PLANNING PHILOSOPHY

- ETS IS A LOGISTIC ELEMENT WITH LONG TERM PLANNING AND FUNDING (ETS PLANS DEVELOPED BY NAESU AND FLEET)

- FOCUS TRAINING PRIOR TO AND DURING WORKUPS TO AVOID ETS CV DEPLOYMENTS

- LOGISTICS SUPPORT REPS(LSR) NOT ETS - FLEET LSRS REDUCED FROM OVER 200 TO 3 DURING PAST 10 YEARS

- NETS HAVE PRIMARY RESPONSIBILITY FOR PROVIDING ETS SUPPORT AND BECOME AN INTEGRAL PART OF THE ORGANIC CAPABILITY

- INCREASED NAESU/FLEET/CONTRACTOR COORDINATION

- BUDGET AND PROVIDE ETS BASED ON LONG TERM POM PLANNING

- COMBINE NETS AND CETS IN A SINGLE BUDGET
  + ENHANCE FLEXIBILITY OF ASSET USE
  + FACILITATE CHANGE TO INCREASED ORGANIC (NETS) SUPPORT

- BETTER DEFINITIZATION AND JUSTIFICATION OF REQUIREMENT
  + REDUCE COSTS
  + INCREASE SERVICES
  + (BETTER MATCH OF SERVICE TO NEED)

Comes from OPNAV - NAVAIR
flying hour budget
justify costs to AIR 3.0 RADM Tinston

NAESU OVERVIEW
ETS PLANNING PROCESS

PLANNING CONSIDERATIONS

- ANNUAL ON-SITE REVIEWS BY PROGRAM

- CURRENT YEAR & OUTYEAR ETS PLANS REVIEWED-

- REVIEW INCLUDES WEAPONS SYSTEM MILESTONES, PAST ETS SUPPORT, CETS/NETS MIX & SUPPORT ALGORITHMS

- NEW AIRCRAFT/EQUIPMENT/TECHNOLOGY INTRODUCTION

- SUPPORT MAJOR EQUIPMENT MODIFICATIONS/UPDATES

- TURNOVER OF SKILLED MAINTENANCE PERSONNEL IS FACT OF LIFE

    + NO CLOSED LOOP DETAILING
    + SEA / SHORE ROTATION
    + LEAVE NAVY FOR PRIVATE SECTOR

- APPRENTICE TO JOURNEYMAN LEVEL TRAINING

- ONLY SOURCE OF TRAINING FOR SOME MAJOR PROGRAMS AND MORE MATURE AIRCRAFT

- MILESTONES, PAST HISTORY, ON-SITE ETS REVIEWS BY WEAPON SYSTEM & SITE

NAESU OVERVIEW

CUSTOMERS

- PRIMARY CUSTOMERS ARE ALL FLEET & RESERVE NAVY AND MARINE AVIATION UNITS
- OTHER CUSTOMERS INCLUDE:

* FMS
* NAVAIR HQ
* NAWC HQ
* NAWC AD
* NAWC WD
* NADEPS
* SPAWARS
* FAA
* U.S. COAST GUARD
* U.S. ARMY
* U.S. AIR FORCE

NAESU OVERVIEW

SCOPE

- NAESU COVERS EVERY PIECE OF GEAR & EQUIPMENT WITHIN THE NAVY'S AVIATION INVENTORY

- NAESU COVERS MANY PIECES OF EQUIPMENT THAT ARE NO LONGER IN THE INVENTORY OR SUPPORTED BY OTHER NAVAIR/NAVY ACTIVITIES

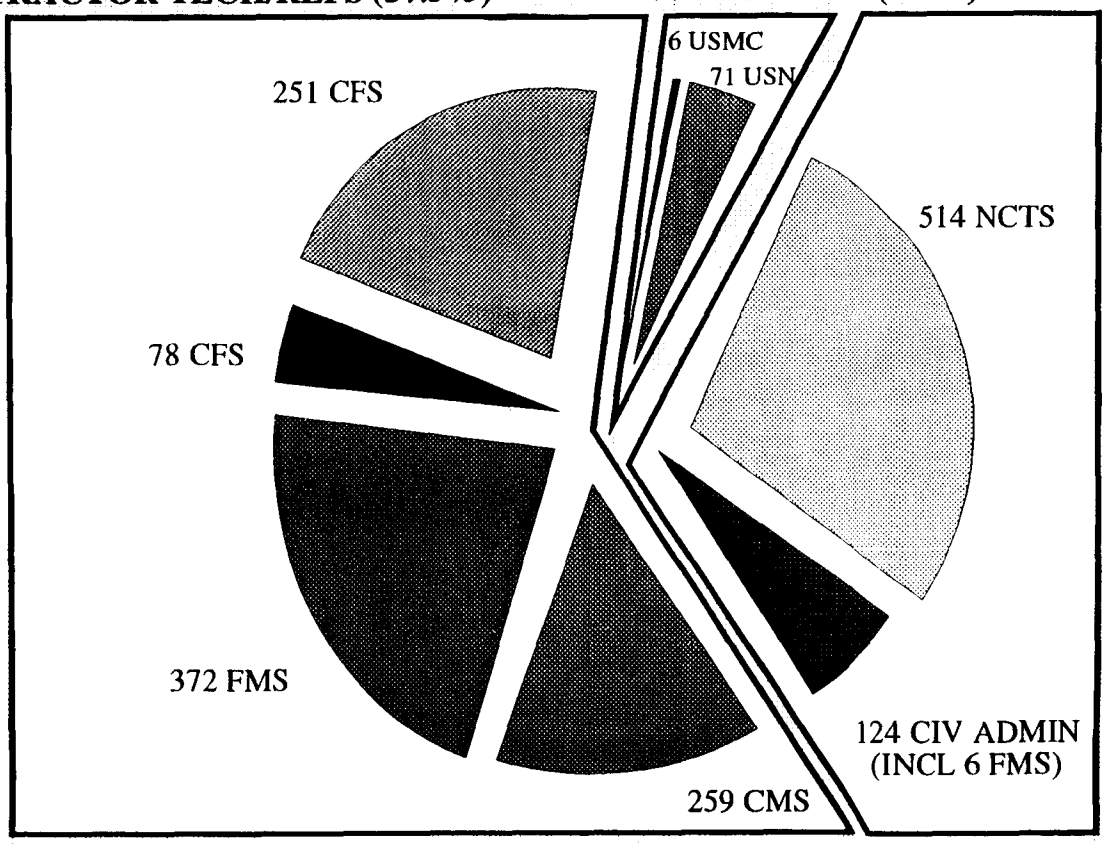
- **NAESU IS THE ACKNOWLEDGED LEADER FOR AVIATION ETS**

NAESU OVERVIEW
MANPOWER

FY-95 WORK YEARS

960 CONTRACTOR TECH/REPS (57.3%)

77 MILITARY (4.6%)

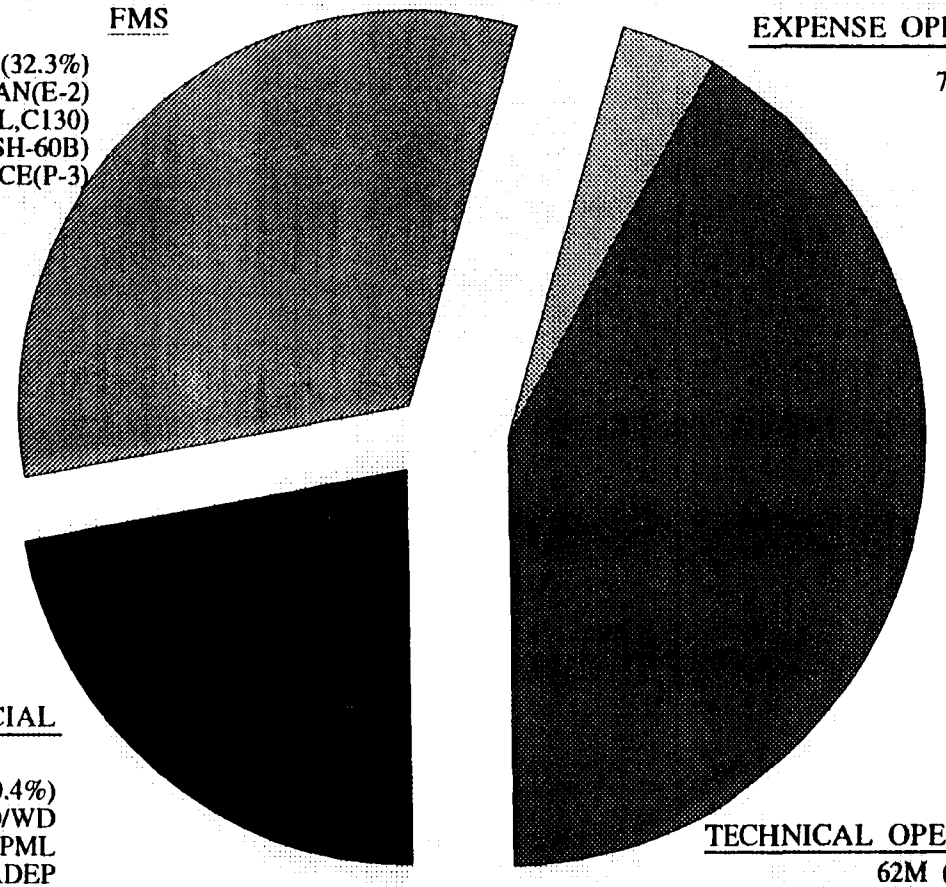


638 FEDERAL CIVILIANS (38.1%)

COMMAND TOTAL 1675

NAESU OVERVIEW

FUNDING ALL SOURCES (FY-95)



FMS

47.2M (32.3%)
EGYPT/JAPAN(E-2)
KUWAIT(F/A-18,PMEL,C130)
SPAIN(F/A-18, AV-8, SH-60B)
GREECE(P-3)

EXPENSE OPERATING BUDGET (EOB)

7.1M (4.9%)

DIRECT APPROPRIATION

69.1M (47.3%)
(O&MN / O&MNR)

SPECIAL

29.7M (20.4%)
NAWC-AD/WD
PMA/APML
NADEP
PMTC

TECHNICAL OPERATING BUDGET (TOB)

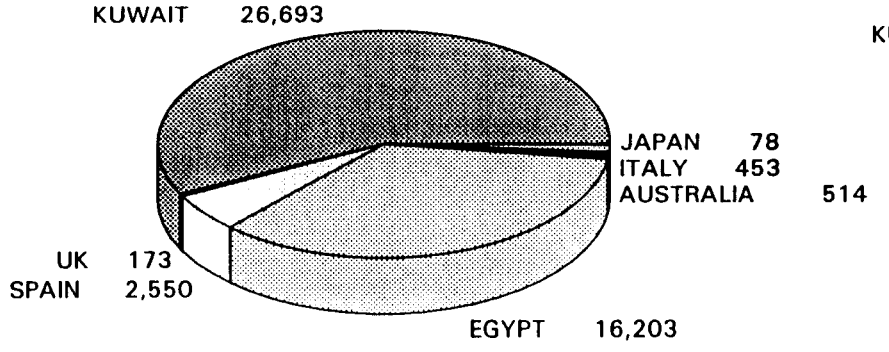
62M (42.4%)
FLEET & RESERVE

TOTAL 146M

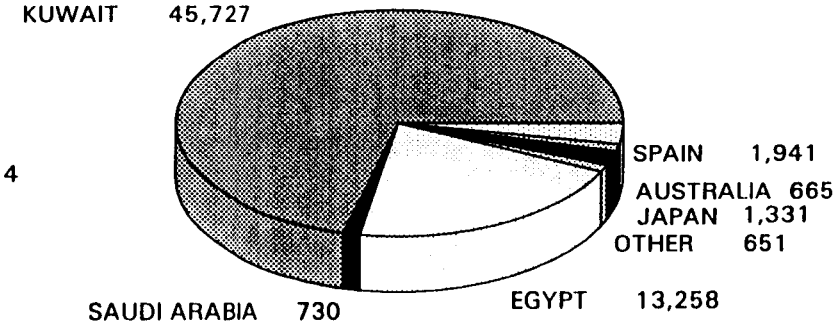
SOURCES: RESOURCE AUTH
& NAVCOMPT 2276

FMS FUNDING BY COUNTRY

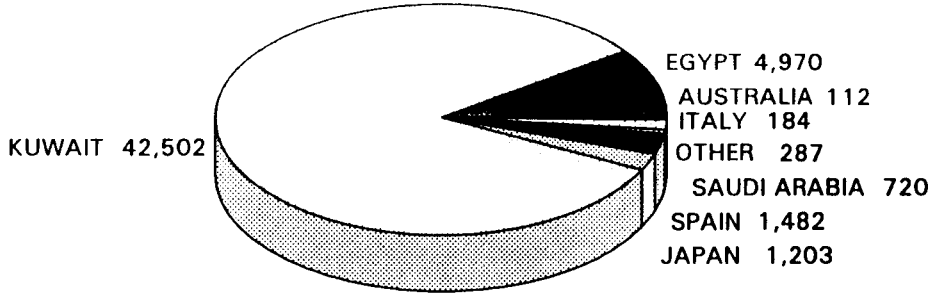
$ IN THOUSANDS



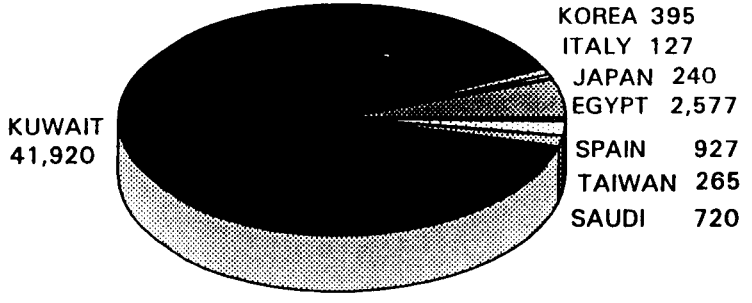
FY 92



* FY 93



* FY 94



FY 95

DEC94

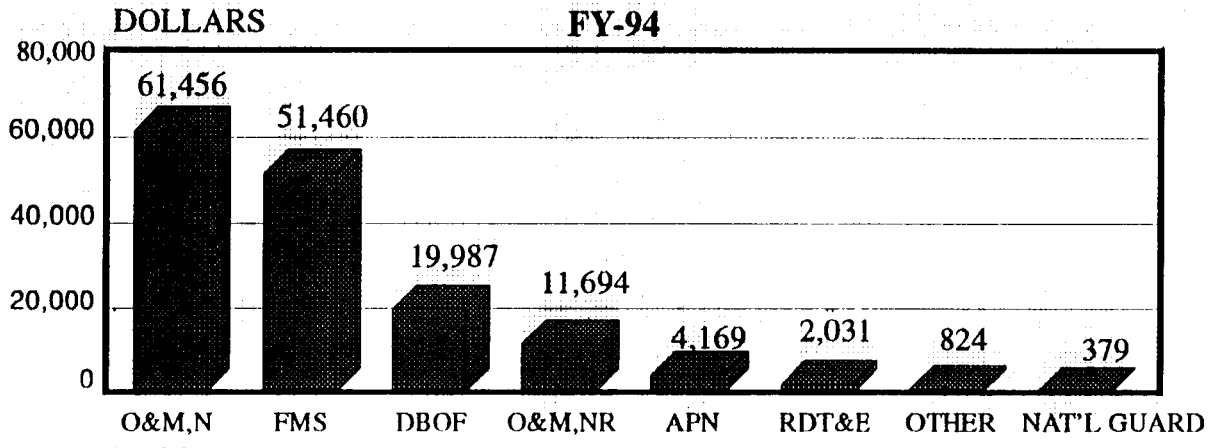
*OTHER INCLUDES UK AND TAIWAN

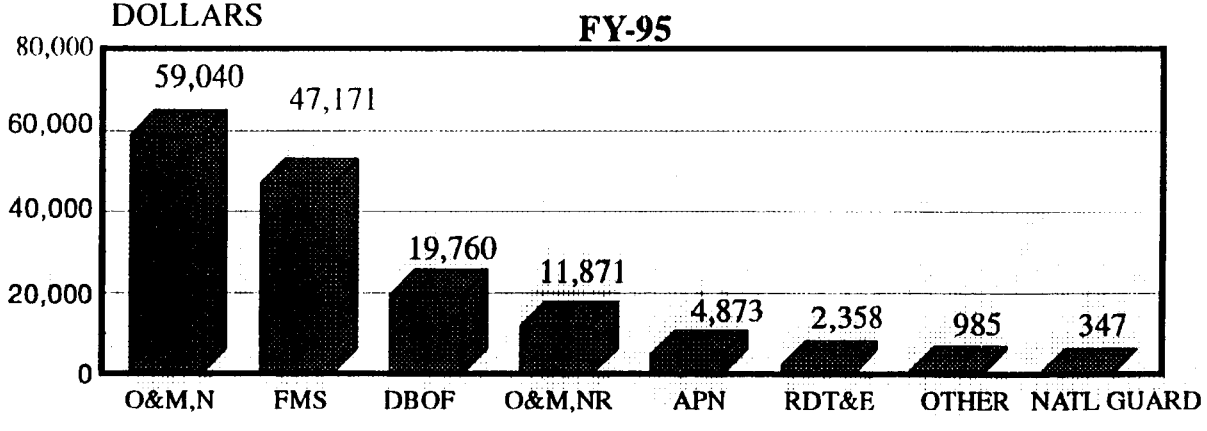
MIS
92_FMS

ENGINEERING & TECHNICAL SERVICES (ETS)

FUNDING

AUTHORIZATIONS BY TYPE OF FUND

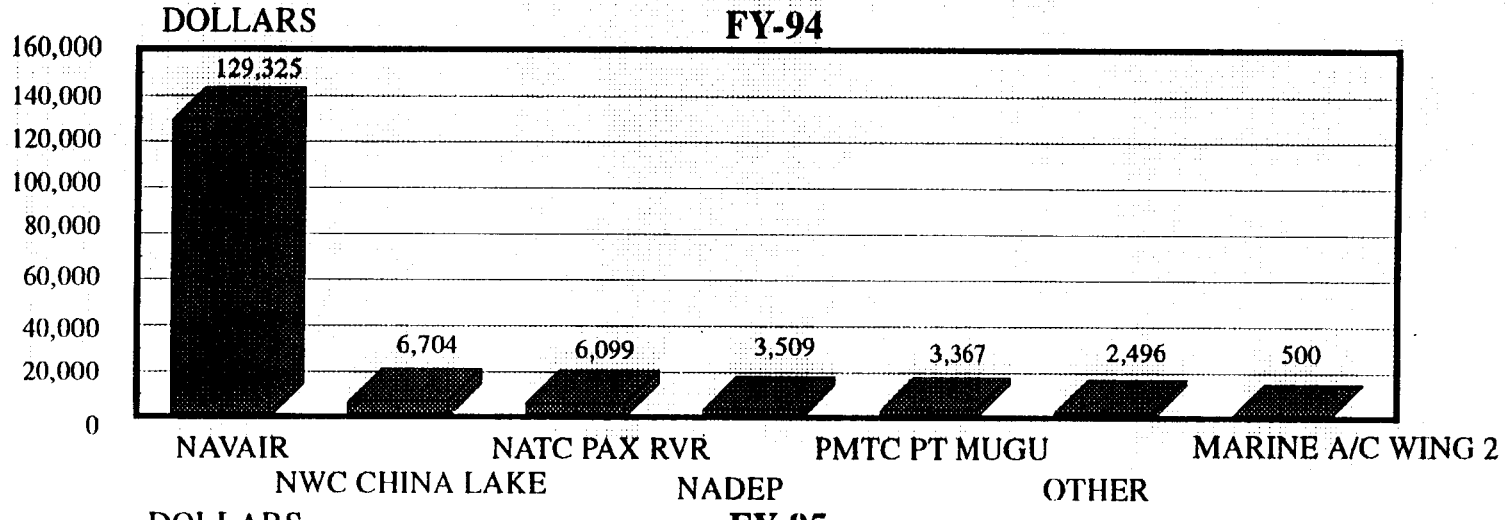


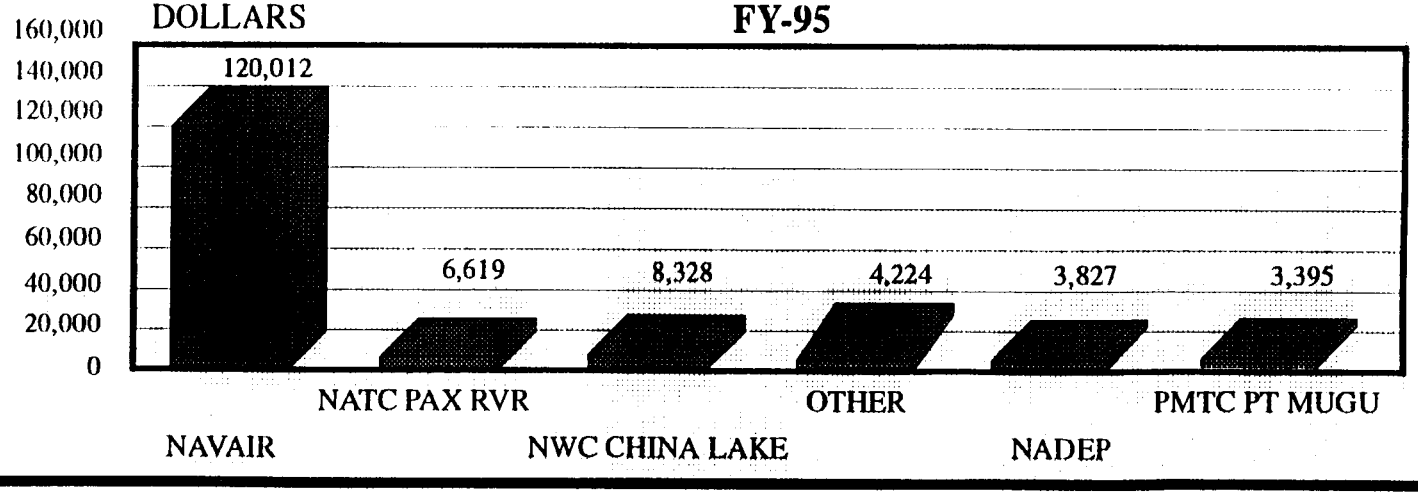


ENGINEERING & TECHNICAL SERVICES (ETS)

FUNDING

AUTHORIZATIONS BY GRANTOR

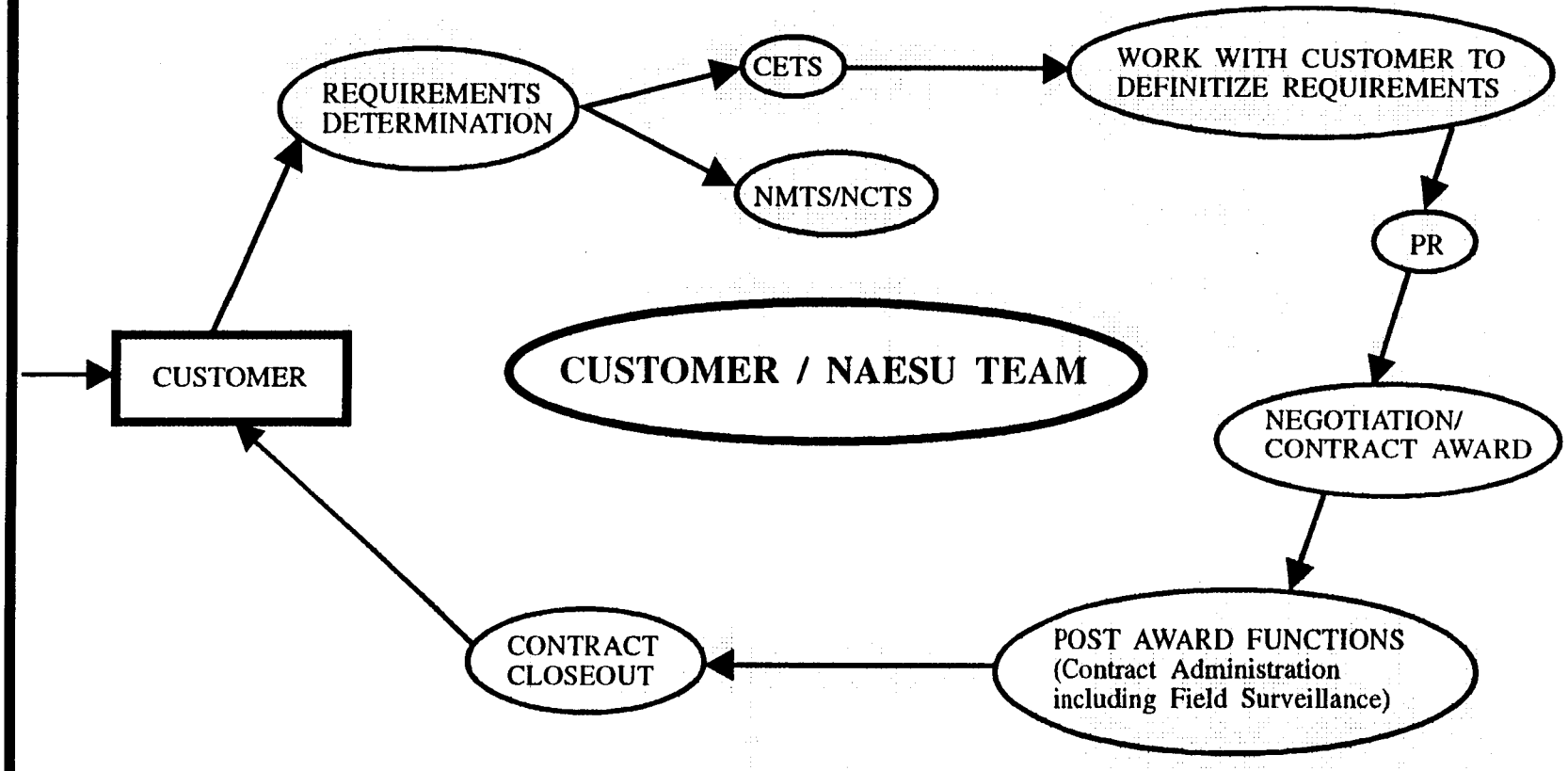




NAESU OVERVIEW

CONTRACTING ETS

TEAMED ACQUISITION PROCESS



customer is represented @ negotiations

NAESU OVERVIEW

ECONOMIES OF SCALE THROUGH
CENTRALIZED CONTRACTING

SMALLER ACQUISITION FORCE REQUIRED

- PROGRAM MANAGERS
- CONTRACT SPECIALISTS
- FIELD CONTRACTING OFFICER'S REPRESENTATIVE AND TECHNICAL ASSISTANT

POLICY & METHODOLOGY STANDARDIZATION

- CONSISTENT TERMS & CONDITIONS
- REDUCED MAN DAY RATES

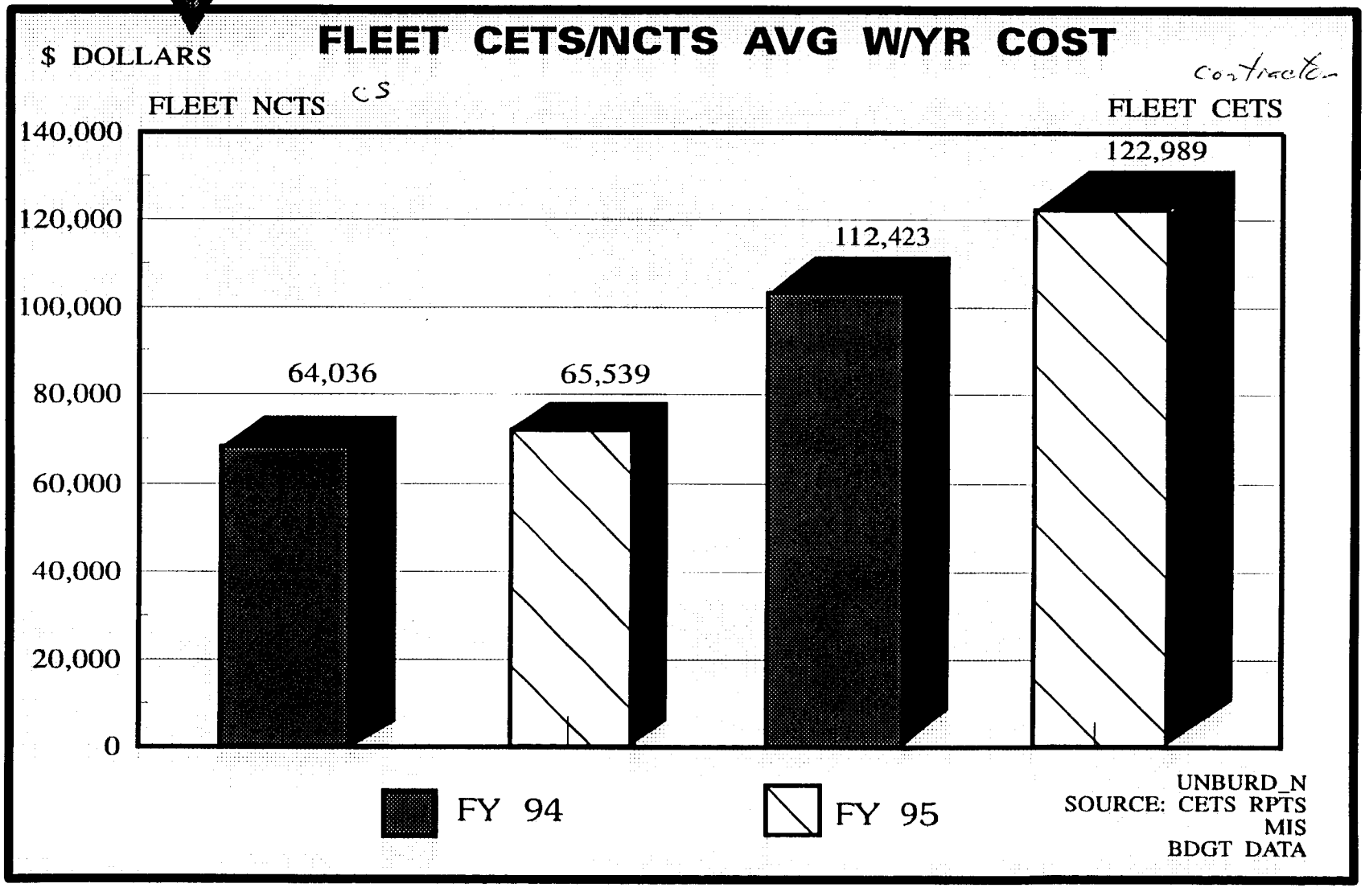
CONSOLIDATED CONTRACTS

- ECONOMIC ORDER QUANTITY (EOQ) POLICIES
- LESS CONTRACTOR IN-PLANT SUPPORT SPREAD OVER ALL NAVAL AVIATION CETS

NAESU OVERVIEW

UNBURDENED RATES

FLEET CETS/NCTS AVG W/YR COST



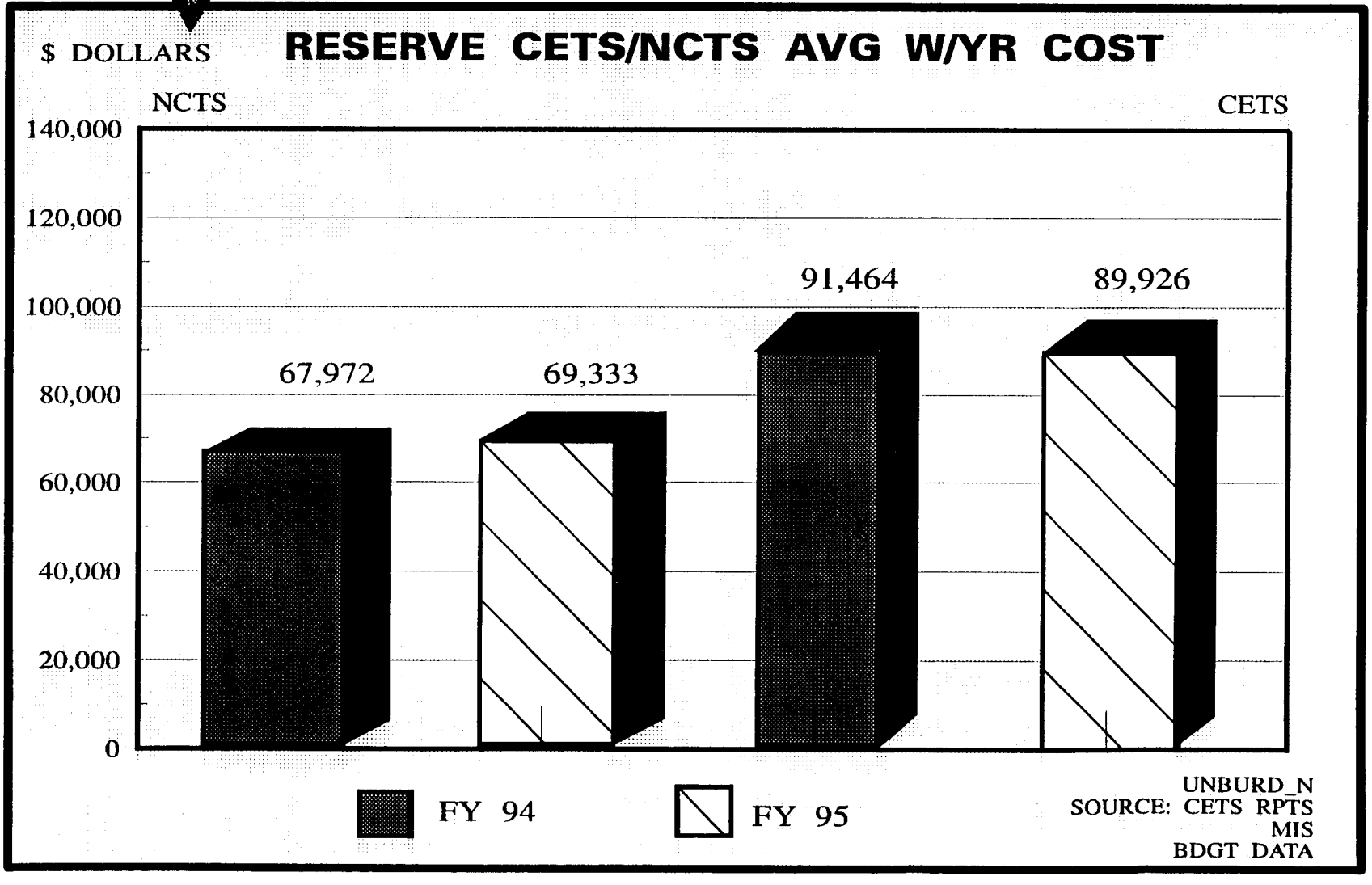
DEC 1994

FLEET

AF etc pg $180K-$210K

NAESU OVERVIEW

UNBURDENED RATES



NAESU OVERVIEW
CONTRACTING ETS

NAESU FIELD SERVICE CONTRACTORS

Quantity/Type: 99 Labor Hour/Indefinite Delivery/Quantity, 14 Cost Plus Fixed Fee, 89 Labor Hour/Definite Quantity, 3 Basic Ordering Agreements

NOTE:

- Indefinite Delivery/Quantity Contracts are Labor Hour Type
- Man Day Rates are Fixed
- Direct Reimbursable costs vary with each contractor
  - Household moves
  - TDY to Support Emergent Requirements/ Tech Assists
  - Overseas Allowances (Housing, Dependents, Education)
  - Bonuses

NAESU OVERVIEW

INVOICES

$ PROCESSED / $ DISALLOWED

	INVOICES PROCESSED	$ PROCESSED	AVG $ / INVOICE	INVOICES DISALLOWED	$ DISALLOWED	AVG $ DISALLOWED
FY 91	5,075	116M	22,857	509	1,261K	2,477
FY 92	4,959	117M	23,593	434	1,627K	3,749
FY 93	4,309	118M	27,385	302	1,181K	3,911
FY 94	4,467	123M	27,535	251	1,213K	4,833

SOURCES:
BACKLOG REPORT
$ DISALLOWED REPORT

NAESU OVERVIEW
INITIATIVE

EDUCATION AND TRAINING DIVISION

DIVISION CONSOLIDATES INTO ONE UNIT ALL EDUCATION & TRAINING ISSUES FORMERLY SCATTERED THROUGH THE COMMAND

FOCUS IS TO CREATE AND MAINTAIN AN ENVIRONMENT WHICH ENCOURAGES GROWTH AND DEVELOPMENT AND FACILITATES EMPLOYEES' PROGRESS AS THEY WORK TOWARD REALIZATION OF THEIR POTENTIAL

DIVISION SERVICES INCLUDE --

- JOB PERFORMANCE TRAINING
- DAWIA TRAINING
- MANDATORY TRAINING (STDS CONDUCT, ETC.)
- DEVELOPMENTAL PROGRAMS OVERSIGHT (SEMDP/INTERN/CO-OP)
- CONTINUING EDUCATION
- NEW EMPLOYEE ORIENTATION / INDOCTRINATION
- EXPLORATION OF NEW/ALTERNATIVE TRAINING RESOURCES
- IDP DEVELOPMENT AND FOLLOW THROUGH
- QUALIFICATIONS, CERTIFICATIONS

stds apply to contractors mil & civilians

NAESU OVERVIEW
INITIATIVES

QUALITY IMPROVEMENT INITIATIVE (QII)

SUMMARY: USES NAVY TRAINING IMPROVEMENT PROGRAM (NTIP) MODEL TO ASSESS EACH INDIVIDUAL NCTS TRAINING NEEDS AND TO MEASURE EFFECTIVENESS OF TRAINING RECEIVED

STATUS:
- BASELINE TESTING FOR ALL NCTS COMPLETED
- ANALYSIS AND FOLLOW-UP TRAINING EFFORTS NOW UNDERWAY
- SELF-NOMINATING TRAINING SUGGESTED FOR INDIVIDUALS SCORING SIGNIFICANTLY LOWER THAN OVERALL COMMAND MEAN SCORES

ISSUES: CURRENTLY SEEKING ADDITIONAL QUESTIONS TO INCREASE BANK SIZE FOR FUTURE ASSESSMENTS

NAESU OVERVIEW

INITIATIVES

JOINT ENGINEERING & TECHNICAL SERVICES (JETS) SUBGROUP

SUMMARY: NAESU HAS TAKEN LEAD ON WORKING JOINT ISSUES WITH AIR FORCE AND ARMY ETS MANAGERS

STATUS:
- IDENTIFIED JOINT ISSUES
- PREPARED DRAFT DOD DIRECTIVE TO ESTABLISH ETS POLICY
- SUBMITTED DRAFT CHARTER AND POA&M TO ALB

ISSUES: ~~ALB~~ WILL RECOMMEND TO JACG THAT JETS SUBGROUP BE ESTABLISHED BY JLC, SINCE ETS IS BEYOND THE SCOPE OF ALB OR JACG

no longer member of aviation logistics board

NAESU OVERVIEW
INITIATIVES

CONTRACT SURVEILLANCE

SUMMARY: ONE OF NAESU'S FUNCTIONS IS TO ENSURE THE CUSTOMER RECEIVES QUALITY, TIMELY SERVICE. SURVEILLANCE INCLUDES ENSURING CONTRACTORS PROVIDE EXACTLY WHAT WAS REQUESTED IN THE CONTRACT AND THE SERVICES REMAIN NON-PERSONAL IN NATURE.

STATUS: WITH THE NAVSUP REVISION TO NAVSUPINST 4205.3 SERIES AND THE RECENTLY DELEGATED OFF SITE COR AUTHORITY, NAESU REVISED SURVEILLANCE PROCEDURES. CUSTOMERS PROVIDE INPUT, NAESU PERSONNEL ARE RESPONSIBLE FOR SURVEILLANCE AND CERTIFICATION. PILOT PROGRAM WAS GRUMMAN DEC 1993, MC AIR FEB 1994. ONLY NAVSUP FIELD ACTIVITY GRANTED MULTIPLE COR AUTHORITY AND EXERCISING IT.

PLANNED ACTIONS ALL OTHER CONTRACTORS WILL BE IMPLEMENTED BY 01 JAN 95

contractors also get customer evaluation

DEC 1994

contractors are surveilled by CONTSURV trained technician not contract types

NAESU OVERVIEW

INITIATIVES

ETS CONTRACTING CONSOLIDATION

SUMMARY: TOO MANY NAVAIR SOURCES HAVE BEEN CONTRACTING FOR ETS AND RELATED SERVICES. NAESU CAN CONSOLIDATE THESE EFFORTS AND ACT AS THE ONE POC FOR ETS CONTRACTING.

STATUS: NAESU IS MAKING VISITS TO VARIOUS PMA's TO EDUCATE THEM ON THE BENEFITS OF ETS CONTRACT CONSOLIDATION. NAESU HAS ALSO REQUESTED PCO AUTHORITY.

ISSUES:

- INITIATIVE SAVES RESOURCES BY PROVIDING SYSCOM WITH ONE POC FOR ALL ETS AND RELATED SERVICES.
- REDUCES POTENTIAL DUPLICATION OF EFFORTS, ACHIEVES ECONOMIES OF SCALE.

NAESU OVERVIEW

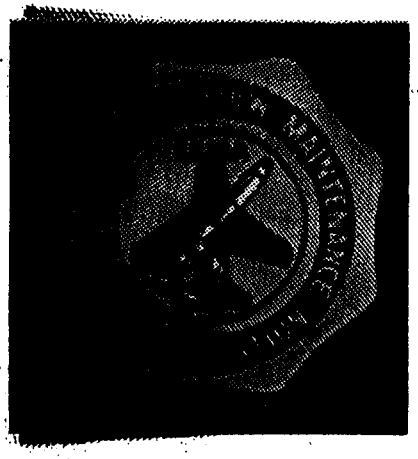
INITIATIVES

WEAPON ETS

SUMMARY: CONSOLIDATION OF ALL NAWCWPNDIV WEAPON ETS REQUIREMENTS (MISSILE & CONVENTIONAL ORDNANCE) WITH NAESU WILL ESTABLISH A SINGLE BUDGET ACTIVITY FOR ALL ETS, PROVIDE CENTRALIZED MANAGEMENT AND PROCUREMENT, INCREASE ON-SITE TECHNICAL CAPABILITY AND REDUCED COST.

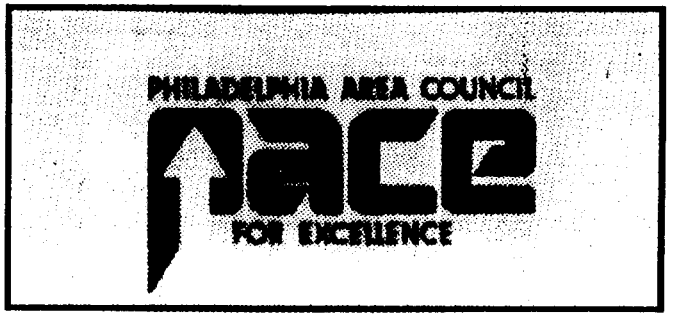
STATUS:
- POINT PAPER SUBMITTED 16 SEP 93.
- MEETINGS HELD WITH REPRESENTATIVES OF NAWCWPNDIV POINT MUGU, NAESU, NAVAIR AND ORDNANCE COMMUNITY.
- PROPOSED MOA DRAFTED.
- PRELIMINARY AGREEMENT IN SUPPORT OF CONSOLIDATION REACHED.
- MOA BEING REVIEWED.

ISSUES:
- FUNDING LEVELS FOR FY-95 AND BEYOND.
- PROCEDURE FOR DETERMINATION OF OVERALL REQUIREMENTS.
- WEAPON ETS OIC POSITION, STATUS AND FUNCTION.
- APPROVAL OF MOA.



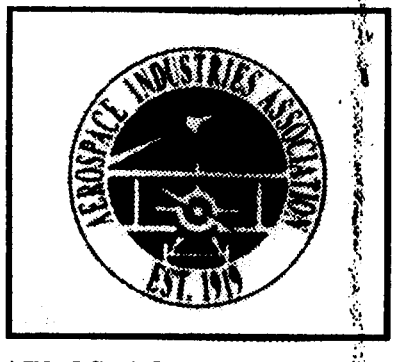
PROFESSIONAL AVIATION
MAINTENANCE ASSOCIATION, INC.

SOCIETY OF LOGISTICS ENGINEERS

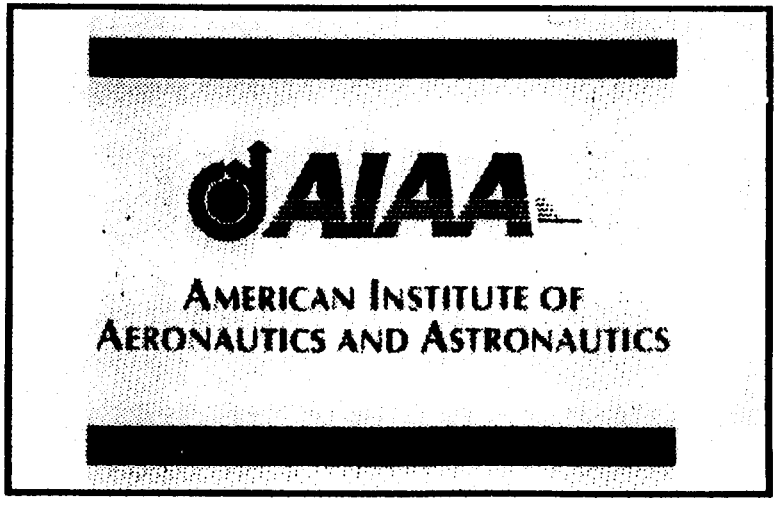


PHILADELPHIA AREA CONCIL
FOR EXCELLENCE

NATIONAL AIR TRANSPORT ASSOCIATION

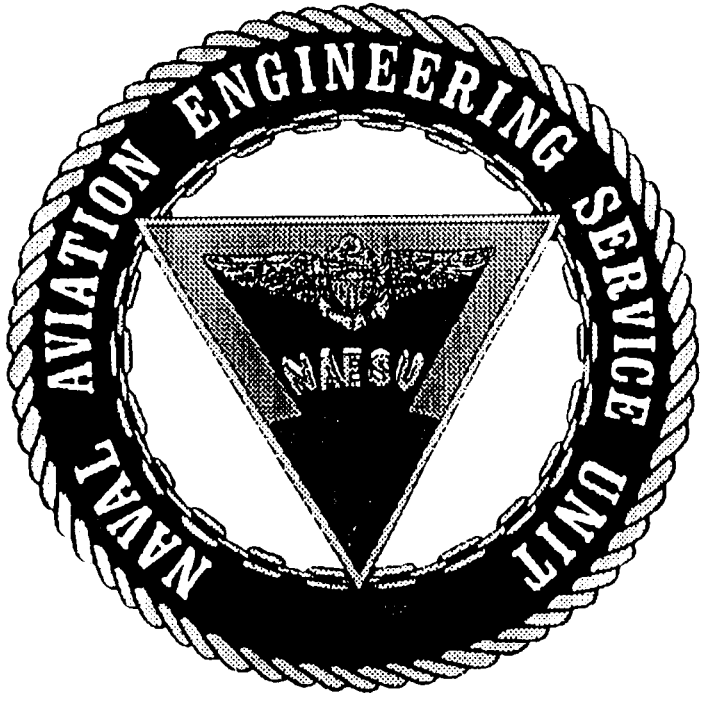


AEROSPACE INDUSTRIES
OF AMERICA, INC.



AMERICAN INSTITUTE OF
AERONAUTICS AND ASTRONAUTICS

Document Separator



CDR J. D. VAN SICKLE
COMMANDING OFFICER

NAESU OVERVIEW

HISTORY

- 31 DEC 1942: ESTABLISHED AS AIRBORNE COORDINATING GROUP AT NRL WASH D.C. WITH A POOL OF SPECIALISTS FOR TEMPORARY DUTY TO TRAIN MILITARY PERSONNEL
- JAN 1959: RENAMED NAVAL AVIATION ENGINEERING SERVICE UNIT AND TASKED TO SUPPORT ALL AVIATION RELATED SYSTEMS AND EQUIPMENT.
- 1962: NAESU DETACHMENTS AT NORTH ISLAND AND NORFOLK ESTABLISHED.
- 1965: NAESU ASSIGNED ADMINISTRATIVE RESPONSIBILITY FOR ALL NAVAIR ETS.
- 1966: CONVERSION PROGRAM OF CONTRACTOR TO CIVIL SERVICE SUPPORT BEGINS.
- 1976: FIRST FEMALE ENGINEERING TECHNICAL REPRESENTATIVE HIRED.
- 1985: CNO DIRECTS PLANNING 0 ETS DEPLOYED ABOARD SHIPS.
- 1990: NEW APPROACH TO ETS - LONG TERM PLANS EMPHASIZING ORGANIC CAPABILITY IMPLEMENTED.
- 1992: DMRD 949A ESTABLISHED TO SAVE OVER TWO MILLION DOLLARS.

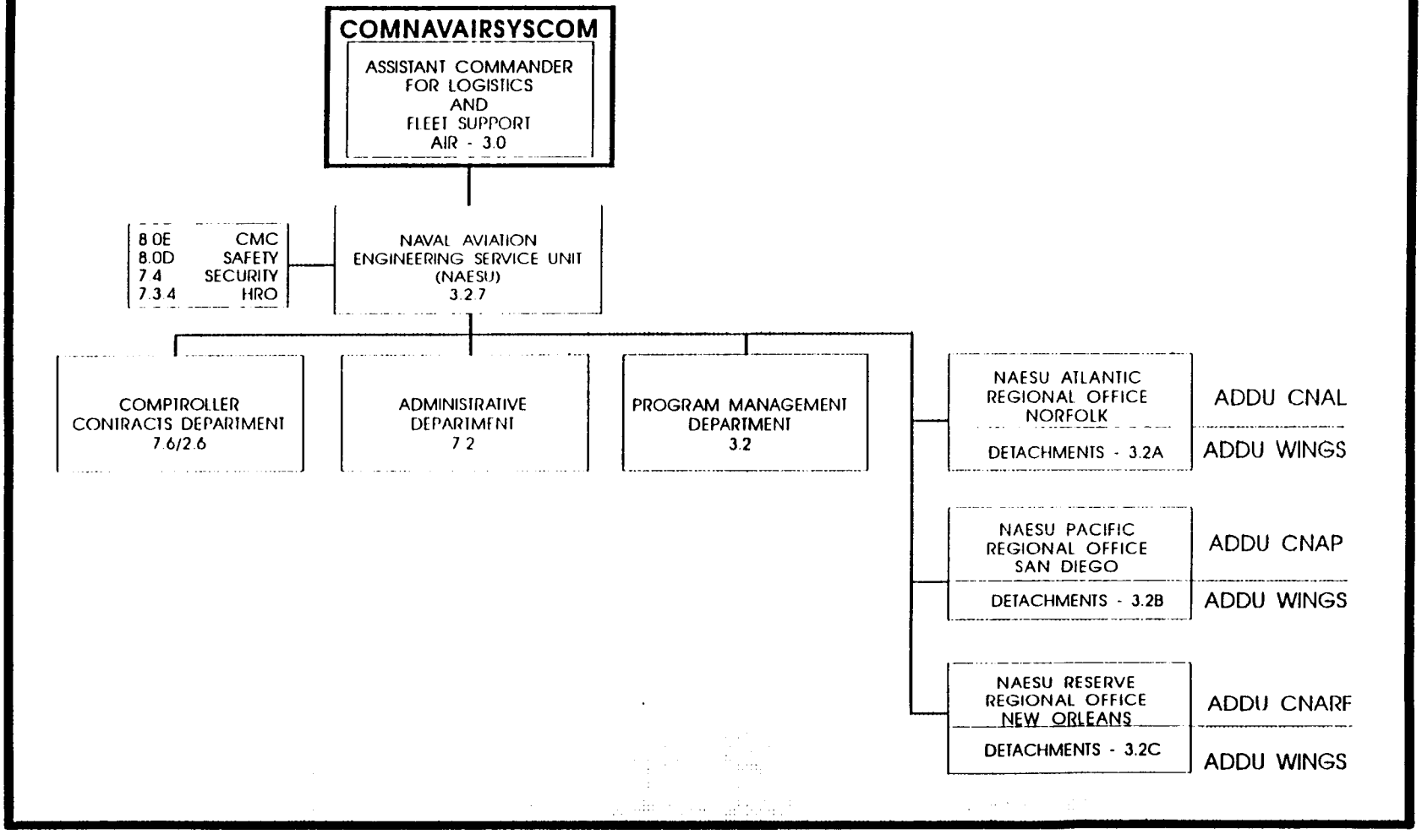
MISSION STATEMENT

NAESU IS AN OPERATIONS SUPPORT COMMAND WHICH:

A.) PROVIDES IMMEDIATE, WORLD WIDE, ENGINEERING, TECHNICAL ASSISTANCE AND TRAINING TO DEPLOYED U.S. AND ALLIED COMBATANT AND SUPPORT AVIATION FORCES IN THE INSTALLATION, MAINTENANCE, REPAIR AND OPERATION OF ALL TYPES OF AVIATION SYSTEMS AND EQUIPMENT.

B.) SHALL PROVIDE IMMEDIATE EMPIRICAL AND OBSERVATIONAL FIELD DATA AND INFORMATION TO COGNIZANT LOGISTICS AND ENGINEERING ACTIVITIES FOR THE MANAGEMENT OF EXISTING; AND THE DEVELOPMENT OF NEW; AVIATION WEAPON SYSTEMS AND ASSOCIATED EQUIPMENT.

NAESU OVERVIEW
ORGANIZATION



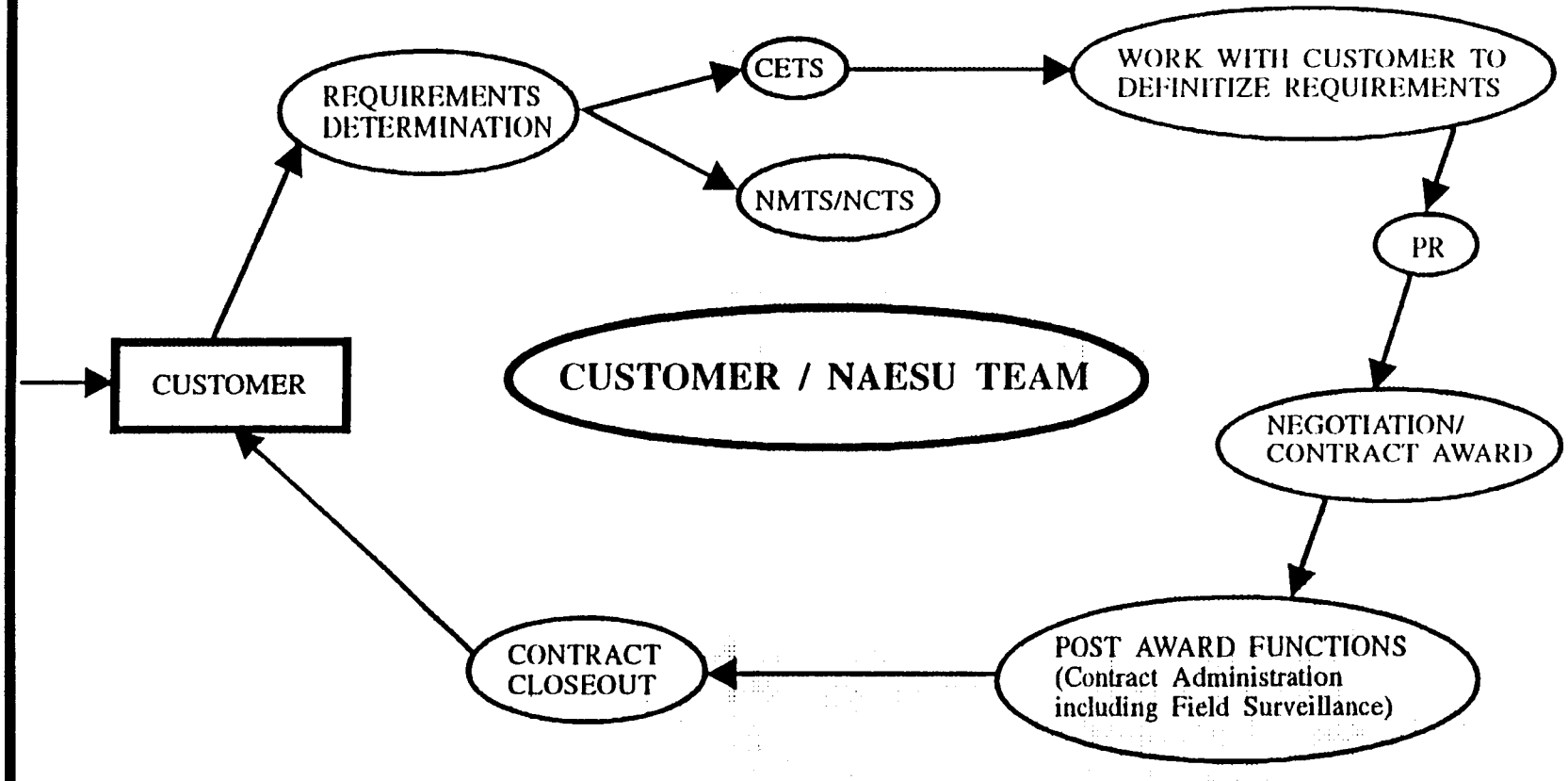
NAESU COMMAND FUNCTIONS
HEADQUARTERS

- Resource, support, manage, and maintain all Naval Aviation Field Service Functions
  * Define, justify, and defend at the budget table all Engineering and Technical Service requirements.
  * Procure, train and deploy all Technical Representatives.
  * Ensure program standardization for rapid acquisition and deployment of field service personnel
    + Field readiness
    + Contracting readiness
    + Feedback to logistics and engineering systems
  * Ensure certification, qualification licensure and proficiency of field service personnel.
- Operate centralized resourcing and management; decentralized administration and employment of engineering and technical services.
- Intensely Customer focused.

NAESU OVERVIEW

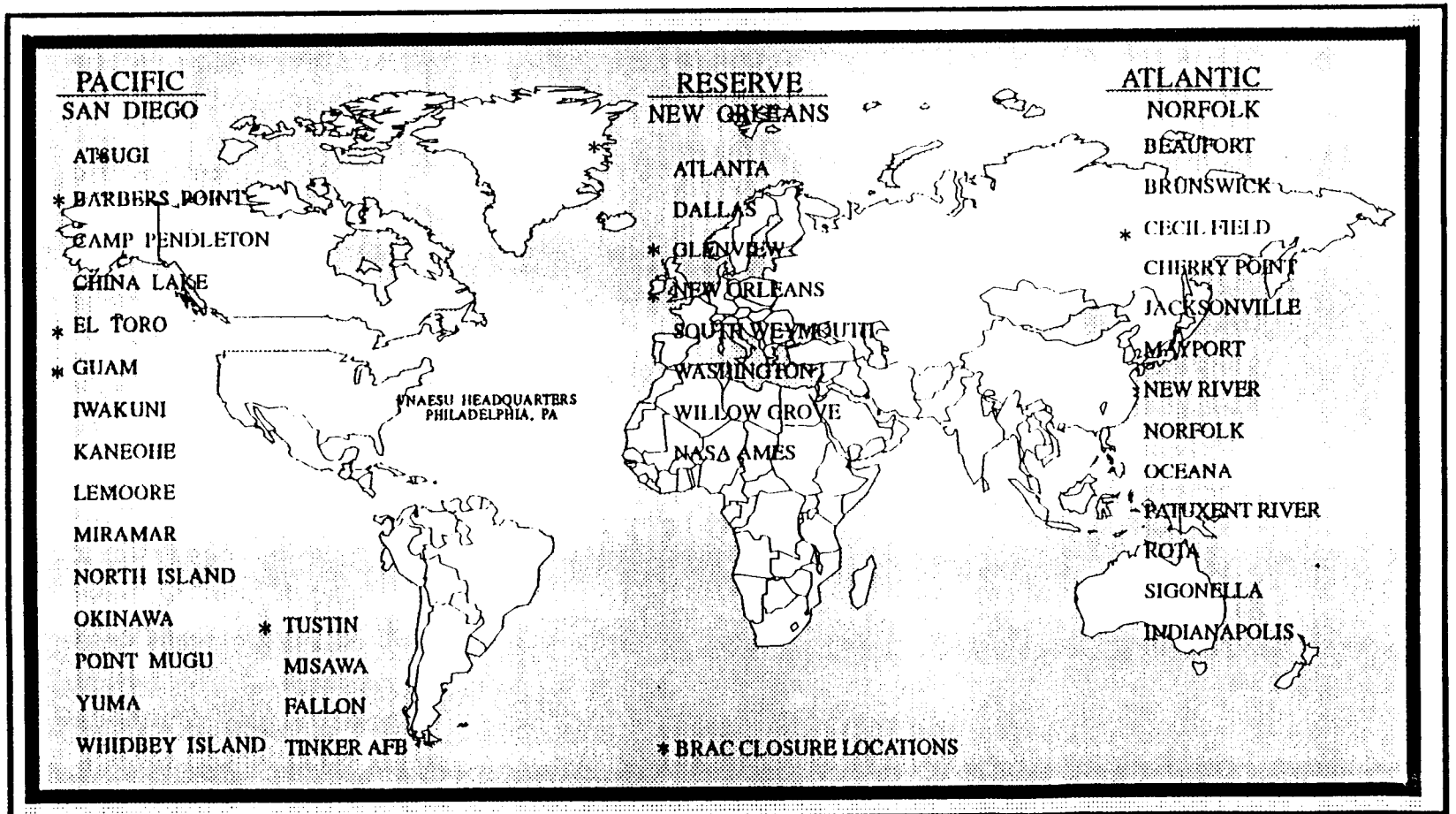
CONTRACTING ETS

TEAMED ACQUISITION PROCESS



NAESU OVERVIEW
ORGANIZATION

FIELD ORGANIZATION



ETS PROCESS

- TROUBLESHOOT ON SITE & IDENTIFY PROBLEM
  - Personnel
  - Training
  - Support Equip
  - Supply
  - Tech Data
  - Facilities
  - Maintenance
  - Design Interface
  - Transportation
  - Pubs
- CORRECT ON-SITE
  - On-Site Cybernetics (Cost Effective)
- FEEDBACK TO ENGINEERING & LOGISTICS SYSTEMS
  - System Cybernetics
  - Bridge Engineering - Logistics Disciplines

NAESU OVERVIEW

SCOPE

- NAESU COVERS EVERY PIECE OF GEAR & EQUIPMENT WITHIN THE NAVY'S AVIATION INVENTORY

- NAESU COVERS MANY PIECES OF EQUIPMENT THAT ARE NO LONGER IN THE INVENTORY OR SUPPORTED BY OTHER NAVAIR/NAVY ACTIVITIES

- **NAESU IS THE ACKNOWLEDGED LEADER FOR AVIATION ETS**

NAESU OVERVIEW

MISSION

ENGINEERING TECHNICAL SERVICES (ETS)

FOUR TYPES OF TECHNICAL REPS - IN TWO CATEGORIES:

DOD	INDUSTRY (Contractor Field Support - CFS)
- Civil Service (NCTS)	- Competitive (CETS)
- Military (NMTS)	- Prime (CETS)

OTHER SERVICES

- Contractor Plant Services (CPS)
- Contractor Maintenance Services (CMS)

NAESU OVERVIEW

CUSTOMERS

- PRIMARY CUSTOMERS ARE ALL FLEET & RESERVE NAVY AND MARINE AVIATION UNITS
- OTHER CUSTOMERS INCLUDE:

* FMS
* NAVAIR HQ
* NAWC HQ
* NAWC AD
* NAWC WD
* NADEPS
* SPAWARS
* FAA
* U.S. COAST GUARD
* U.S. ARMY
* U.S. AIR FORCE

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MANPOWER

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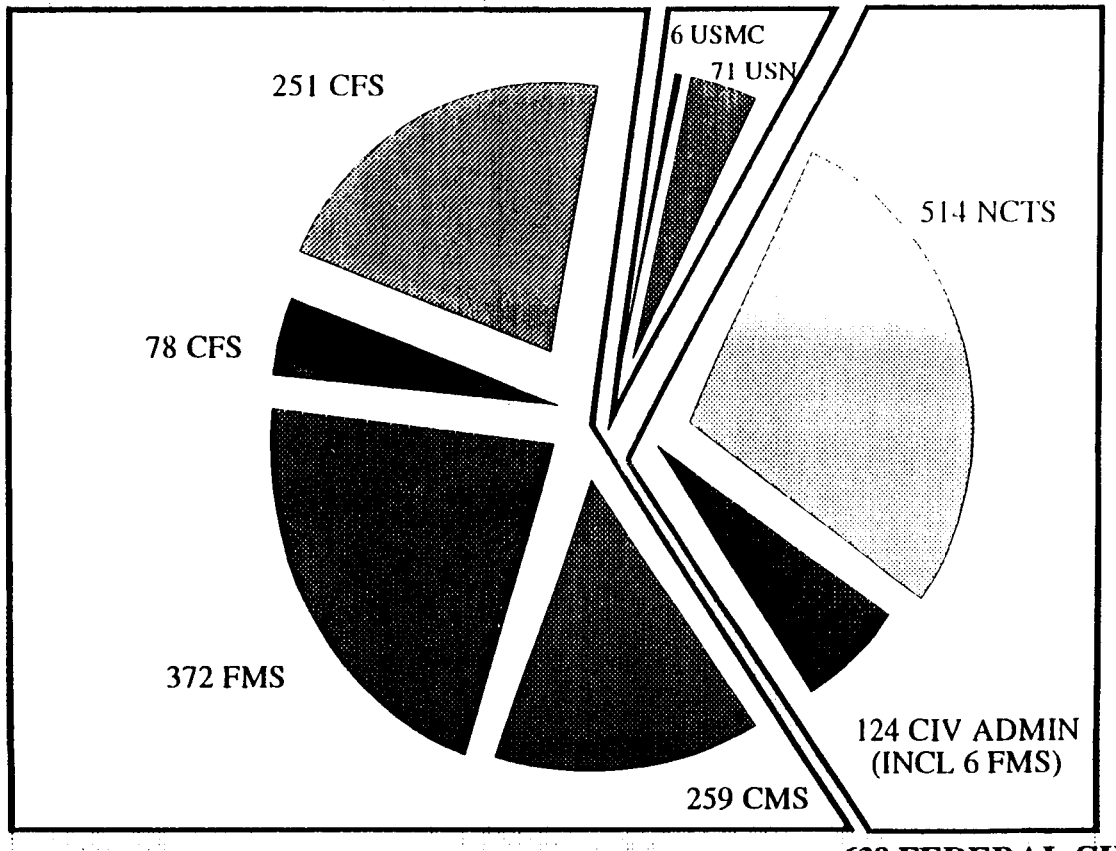
960 CONTRACTOR TECH/REPS (57.3%)

77 MILITARY (4.6%)



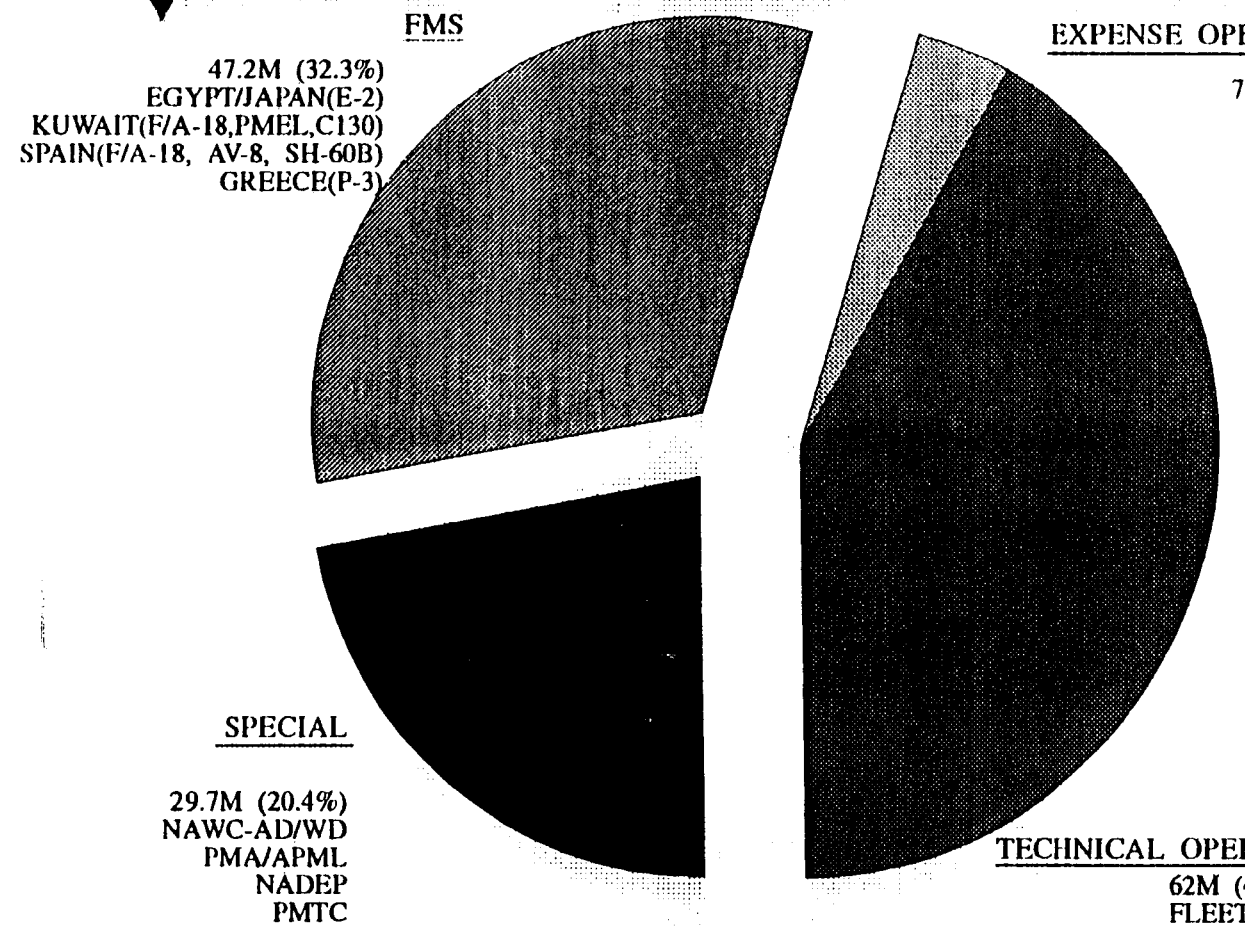
5-7% ASO
1% NAOEP
access to NAVILCO

638 FEDERAL CIVILIANS (38.1%)

COMMAND TOTAL 1675

NAESU OVERVIEW

FUNDING ALL SOURCES (FY-95)



FMS

47.2M (32.3%)
EGYPT/JAPAN(E-2)
KUWAIT(F/A-18,PMEL,C130)
SPAIN(F/A-18, AV-8, SH-60B)
GREECE(P-3)

EXPENSE OPERATING BUDGET (EOB)

7.1M (4.9%)

DIRECT APPROPRIATION

69.1M (47.3%)
(O&MN / O&MNR)

SPECIAL

29.7M (20.4%)
NAWC-AD/WD
PMA/APML
NADEP
PMTC

TECHNICAL OPERATING BUDGET (TOB)

62M (42.4%)
FLEET & RESERVE

TOTAL 146M

SOURCES: RESOURCE AUTH
& NAVCOMPT 2276

NAESU OVERVIEW

INITIATIVES

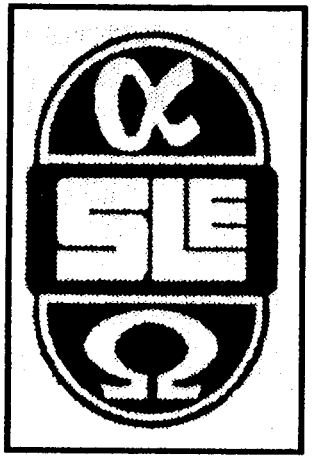
JOINT ENGINEERING & TECHNICAL SERVICES (JETS) SUBGROUP

SUMMARY: NAESU HAS TAKEN LEAD ON WORKING JOINT ISSUES WITH AIR FORCE AND ARMY ETS MANAGERS

STATUS:
- IDENTIFIED JOINT ISSUES
- PREPARED DRAFT DOD DIRECTIVE TO ESTABLISH ETS POLICY
- SUBMITTED DRAFT CHARTER AND POA&M TO ALB

ISSUES: ALB WILL RECOMMEND TO JACG THAT JETS SUBGROUP BE ESTABLISHED BY JLC, SINCE ETS IS BEYOND THE SCOPE OF ALB OR JACG

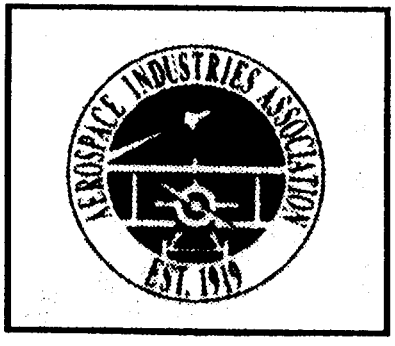
PROFESSIONAL AVIATION
AINTENANCE ASSOCIATION, INC.



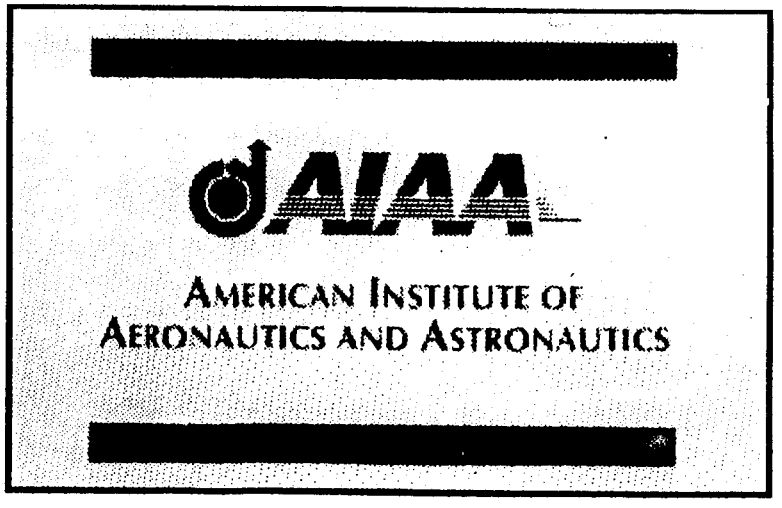
SOCIETY OF LOGISTICS ENGINEERS

PHILADELPHIA AREA CONCIL
FOR EXCELLENCE

ATIONAL AIR TRANSPORT ASSOCIATION



AEROSPACE INDUSTRIES
OF AMERICA, INC.



AMERICAN INSTITUTE OF
AERONAUTICS AND ASTRONAUTICS

NAESU OVERVIEW
INITIATIVES

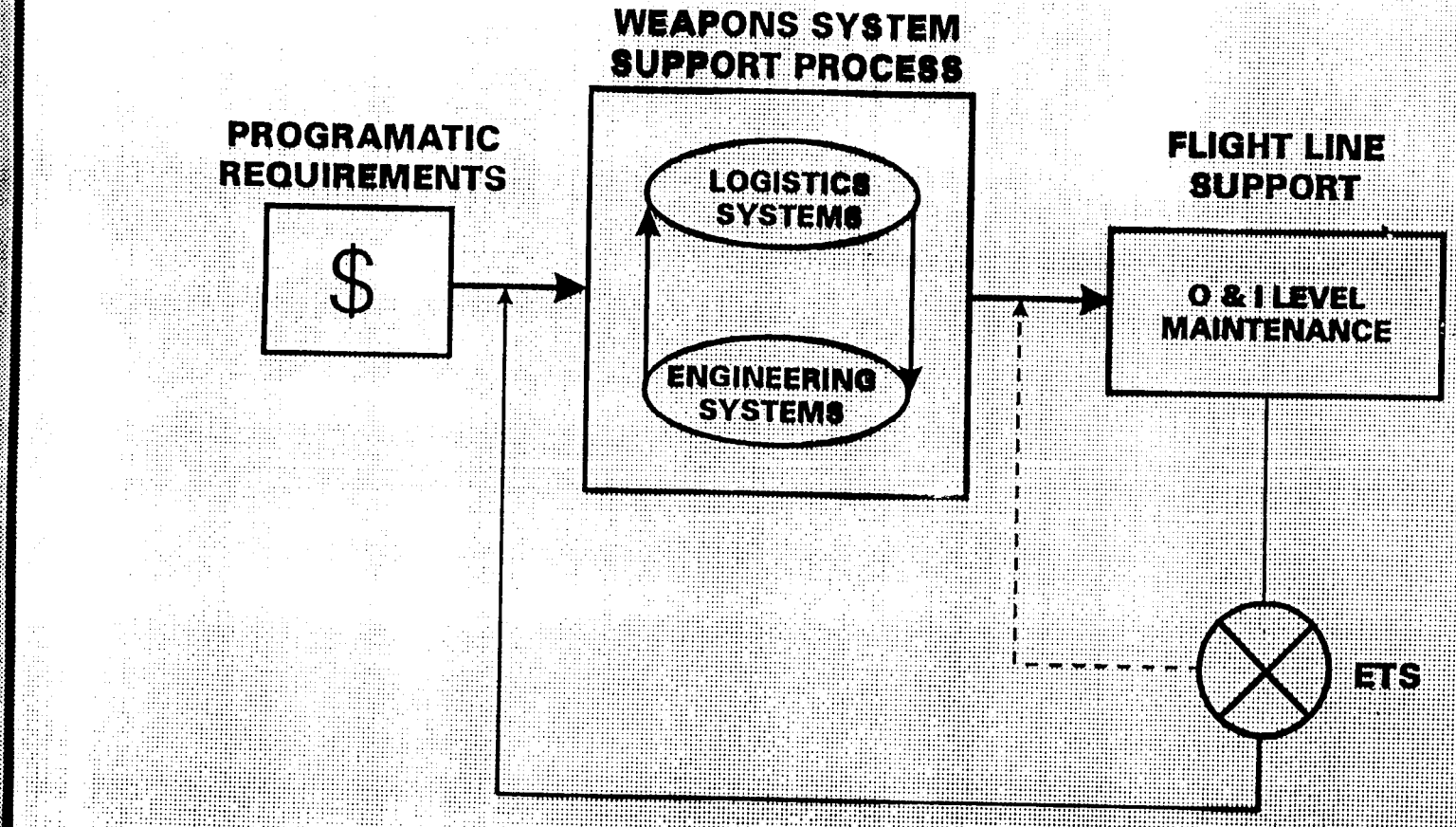
CONTRACT SURVEILLANCE

SUMMARY: ONE OF NAESU'S FUNCTIONS IS TO ENSURE THE CUSTOMER RECEIVES QUALITY, TIMELY SERVICE. SURVEILLANCE INCLUDES ENSURING CONTRACTORS PROVIDE EXACTLY WHAT WAS REQUESTED IN THE CONTRACT AND THE SERVICES REMAIN NON-PERSONAL IN NATURE.

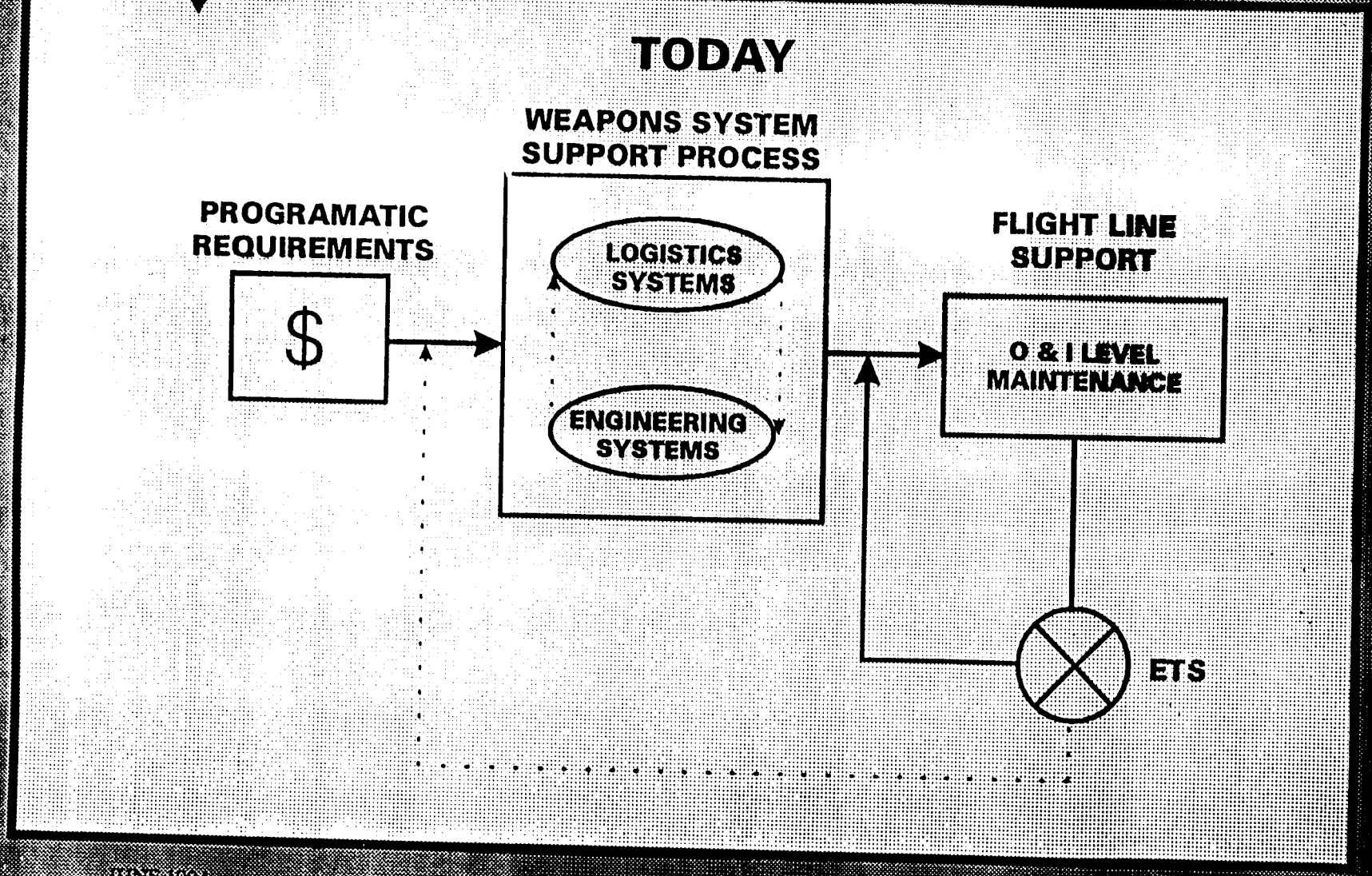
STATUS: WITH THE NAVSUP REVISION TO NAVSUPINST 4205.3 SERIES AND THE RECENTLY DELEGATED OFF SITE COR AUTHORITY, NAESU REVISED SURVEILLANCE PROCEDURES. CUSTOMERS PROVIDE INPUT, NAESU PERSONNEL ARE RESPONSIBLE FOR SURVEILLANCE AND CERTIFICATION. PILOT PROGRAM WAS GRUMMAN DEC 1993, MC AIR FEB 1994. ONLY NAVSUP FIELD ACTIVITY GRANTED MULTIPLE COR AUTHORITY AND EXERCISING IT.

PLANNED ACTIONS ALL OTHER CONTRACTORS WILL BE IMPLEMENTED BY 01 JAN 95

NAESU OVERVIEW
AS ORIGINALLY DESIGNED



NAESU OVERVIEW
WHERE DO WE FIT?



NAESU OVERVIEW

NAESU COMMAND FUNCTIONS

* SUPPORT, MANAGE & MAINTAIN AVIATION ETS PROGRAM
* PERFORM LOGISTIC ELEMENT MANAGEMENT OF AVIATION ETS
* MANAGE AVIATION FMS ETS PROGRAMS
* PREPARE BUDGETARY INFORMATION FOR THE NAVAIR ETS PROGRAM
* CENTRAL PROCUREMENT ACTIVITY FOR ALL AVIATION CETS & CMS
* COLLECT, EVALUATE AND PUBLISH TECHNICAL INFORMATION ORIGINATED BY/OR DEVELOPED FROM ETS

NAESU OVERVIEW

ECONOMIES OF SCALE THROUGH
CENTRALIZED CONTRACTING

SMALLER ACQUISITION FORCE REQUIRED

- PROGRAM MANAGERS
- CONTRACT SPECIALISTS
- FIELD CONTRACTING OFFICER'S REPRESENTATIVE AND TECHNICAL ASSISTANT

POLICY & METHODOLOGY STANDARDIZATION

- CONSISTENT TERMS & CONDITIONS
- REDUCED MAN DAY RATES

CONSOLIDATED CONTRACTS

- ECONOMIC ORDER QUANTITY (EOQ) POLICIES
- LESS CONTRACTOR IN-PLANT SUPPORT SPREAD OVER ALL NAVAL AVIATION CETS

Document Separator

MISSION STATEMENT

NAESU IS AN OPERATIONS SUPPORT COMMAND WHICH:

A.) PROVIDES IMMEDIATE, WORLD WIDE, ENGINEERING, TECHNICAL ASSISTANCE AND TRAINING TO DEPLOYED U.S. AND ALLIED COMBATANT AND SUPPORT AVIATION FORCES IN THE INSTALLATION, MAINTENANCE, REPAIR AND OPERATION OF ALL TYPES OF AVIATION SYSTEMS AND EQUIPMENT.

B.) SHALL PROVIDE IMMEDIATE EMPIRICAL AND OBSERVATIONAL FIELD DATA AND INFORMATION TO COGNIZANT LOGISTICS AND ENGINEERING ACTIVITIES FOR THE MANAGEMENT OF EXISTING; AND THE DEVELOPMENT OF NEW; AVIATION WEAPON SYSTEMS AND ASSOCIATED EQUIPMENT.

APRIL 1995
approved

NAESU IS AN OPERATIONS SUPPORT COMMAND WHICH:

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approved

PREVENT PROBLEMS

Techreps get grades from cus tomers

Document Separator

ROBERT A. BORSKI
3D DISTRICT, PENNSYLVANIA

COMMITTEES:
TRANSPORTATION AND INFRASTRUCTURE
RANKING DEMOCRAT—SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT

STEERING COMMITTEE

REGIONAL WHIP

Congress of the United States
House of Representatives
Washington, DC 20515

WASHINGTON OFFICE
ROOM 2182
RAYBURN HOUSE OFFICE BLDG.
(202) 225-6251
FAX: (202) 225-4628

DISTRICT OFFICES:
7141 FRANKFORD AVE.
PHILADELPHIA, PA 19136
(215) 335-3355
FAX: (215) 333-4608

2630 MEMPHIS ST.
PHILADELPHIA, PA 19125
(215) 426-4616

April 5, 1995

Mr. Charles A. Bowsher
Comptroller General of the United States
General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Comptroller:

I am writing to bring to your attention several issues relating to the Navy's recommendation to close the Naval Aviation Engineering Service Unit (NAESU) Headquarters located in Philadelphia and relocate the activity to NADEP North Island. I believe these issues must be addressed by the General Accounting Office (GAO) in its April 15 report to Congress analyzing the 1995 base closure recommendations.

I have been working with representatives of NAESU to analyze the Navy's recommendation. We believe the recommendation is flawed for the following reasons:

* While the recommendation claims NAESU Headquarters in Philadelphia is a technical center, it failed to score NAESU for technical functions.

* The recommendation incorrectly claims NAESU Headquarters performs similar functions to NADEP North Island.

* The Navy failed to consider absorbing NAESU functions within ASO, even though it has already spent $712,000 of BRAC 91 funds to move NAESU to the ASO compound. Absorbing NAESU within ASO would be more beneficial to the fleet and the taxpayer, saving $8 million more than the relocating NAESU to NADEP North Island.

* The recommendation incorrectly assumes that a majority of NAESU's current workforce will move to NADEP North Island. In fact, 93 percent will not make the move. The loss of this critical expertise will significantly impair fleet readiness.

* The recommendation states that 14 people from NAESU's California Detachments/Regional Offices will be able to fill the Headquarters billets, without giving an explanation of how this can be achieved. The individuals working in this office are military, clerical and technical personnel with no training or experience in the headquarters functions of ETS management and contracting.

While I realize you are operating under severe time constraints, I would greatly appreciate your efforts to investigate these matters to the fullest extent possible.

As always, I am available to discuss these matters further. Please do not hesitate to contact me.

Sincerely,

ROBERT A. BORSKI
Member of Congress

RAB/mdv

cc: Honorable Alan Dixon
Defense Base Closure and Realignment Commission

Document Separator

ORIGINAL

ORDER FOR WORK AND SERVICES - NAVCOMPT FORM 2275 PAGE 1 OF 1

1.This order must be accepted on a reimbursable basis only and is subject to the conditions on page 2.

2.DOCUMENT NUMBER: N0006095WRDOD10

3.REF. NUMBER	4.FUNDS EXPIRE ON	5.WORK COMPL DAT	6. DATE PREPARED	7.AMENDMENT NUMBER
V00060	SEPT. 30, 1996	SEPT. 30, 1996	5-Feb-95	ONE

8.FROM COMMANDER IN CHIEF, US ATLANTIC FLEET
1562 MITSCHER AVE STE 250
NORFOLK, VA 23551-2487

9.FOR DETAILS CONTACT
DEBBIE CURRY (804)444-6541

10.TO:
COMMANDING OFFICER
NAVAL AVIATION ENGINEERING SERVICE UNIT
U.S. NAVAL SHIPYARD
BLDG. 76, 4TH FLOOR, ATTN: COMPTROLLER
PHILADELPHIA, PA. 19112-5088

11.MAIL BILLINGS AND ACCEPTANCE TO:
UIC 068732
DEFENSE ACCOUNTING OFFICE, DAO-CL
NORFOLK, BLDG X132 CODE IECAB
NORFOLK, VA 23511-6096

12.ACCOUNTING DATA TO BE CITED ON RESULTING BILLING

A.ACRN	B.APPN	C.S/H	D.OB/CL	E.BCN	F.S/A	G.AAA	H.TT	I.PAA	J.COSTCODE	K.AMOUNT
AA	97X0510	60A0	000	00060	2	068732	2D	RDOD10	000605956020	$106,000.00

L. TOTAL THIS DOCUMENT $106,000.00

M. CUMULATIVE TOTAL $331,000.00

13. PROJECT ORDER ------> ECONOMY ACT ORD XXX
FIXED PRICE ----------
COST REIMBURSABLE XXX
Applicable paragraphs from page #2:
1,2,3,4,5,7,8,&9

14.DESCRIPTION OF WORK TO BE PERFORMED AND OTHER INSTRUCTIONS:

A. FY95 BRAC II FUNDING PROVIDED IN SUPPORT OF NAESU RELOCATION AS A RESULT OF NAVSTA PHILADELPHIA CLOSURE.

B. DOCUMENT ALSO CORRECTS PAA AND COST CODE FIELDS IN LINE OF ACCOUNTING.

PLEASE FAX ACCEPTANCE COPY TO DSN 564-8247/COM (804)444-8247
REQUEST SUBMIT NAVCOMPT FORM 2193 ON AN EXCEPTION BASIS.

COPY TO:
DAO-CL NORFOLK (IECAB)
CINCLANTFLT N02F12D, N4611

ALT 5/7
TECH Emma

ACCEPTANCE COPY

15.I certify that the funds cited are properly chargeable for the work or services requested.

AUTHORIZING OFFICIAL (NAME, TITLE AND SIGNATURE)
D. C. Daulton
D. C. DAULTON, RESOURCE & FINANCIAL REPORTS OFFICER

DATE: 8-Feb-95

16.This order is accepted and the work or services will be provided in accordance herewith.

ACCEPTING OFFICIAL (NAME, TITLE AND SIGNATURE)
Karen W. Deery
KAREN W. DEERY
BUDGET/ACCOUNTING OFFICER

DATE: 2/8/95

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1
To Karen Deery | From Debbie Curry
Co. NAESU | Co. CINCLANTFLT
Dept. | Phone # 804-444-6541
Fax # 215-897-5918 | Fax # 804-444-6111

act 57K

REQUEST FOR CONTRACTUAL PROCUREMENT - NAVCOMPT FORM 2276

1.THIS REQUEST MUST BE ACCEPTED ON A DIRECT CITATION BASIS ONLY AND IS SUBJECT TO THE CONDITIONS LISTED ON PAGE 2.	2.DOCUMENT NO N0006094RCDOD21

3.REFERENCE NO	4.FUNDS EXPIRE ON	5. DMS	6. PRIORITY	7. DATE REQUIRED	8.AMENDMENT NO
V00060	30 SEP 95				NEW

9.FROM: COMMANDER IN CHIEF, U. S. ATLANTIC FLEET 1562 MITSCHER AVE STE 250 NORFOLK VA 23551-2487	10.FOR DETAILS CONTACT: DEBBIE CURRY DSN 564-6541 COMM (804) 444-6541
11.TO: COMMANDING OFFICER NAVAL AVIATION ENGINEERING SERVICE UNIT BLDG. 76, 4TH FLOOR, FISCAL DIVISION PHILADELPHIA, PA. 19112-5088	12.MAIL INVOICES TO: UIC 068732 DEFENSE ACCOUNTING OFFICE, DAO-CL NORFOLK, BLDG X132 CODE IECAB NORFOLK, VA 23511-6096

13. ACCOUNTING DATA TO BE CITED ON RESULTING CONTRACTS

A. ACRN	B. APPROPRIATION	C. SUBHEAD	D. OBJ.CLASS	E. BU.CONTROL	F. SA	G. AAA	H. TT	I. PAA	J. COST CODE	K. AMOUNT
AA	97X0510	1104	000	00060	2	068732	2D	X94602	6094RCDOD21	$285,000.00

14. AMOUNTS WILL NOT BE EXCEEDED IN THE OBLIGATION DOCUMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ISSUER.	L. TOTAL THIS DOCUMENT	$285,000.00
	M. CUMULATIVE TOTAL	$285,000.00

15. PROCUREMENT BY CONTRACT OF THE FOLLOWING ITEMS IS REQUESTED. THESE ITEMS ____ ARE ____ ARE NOT INCLUDED IN THE INTERSERVICE SUPPLY SUPPORT PROGRAM AND REQUIRED INTERSERVICE SCREENING ______ HAS ______ HAS NOT BEEN ACCOMPLISHED.

A. ACRN	B. NO./FSC	D. NAT STOCK NO., SPEC & DRAWING NO., etc	E. QUANTITY	F. UNIT	G. EST UNIT PRICE	H. ESTIMATED AMOUNT
		FUNDING ISSUED FOR PROJECT DESIGN AND FACILITY RENOVATIONS COSTS TO RELOCATE NAESU TO ASO PHILADELPHIA				$285,000.00

ORIGINAL

16. SEE ATTACHED PAGES FOR DELIVERY SCHEDULES, PRESERVATION AND PACKAGING INSTRUCTIONS, SHIPPING INSTRUCTIONS AND INSTRUCTIONS FOR DISTRIBUTION OF CONTRACTS AND RELATED DOCUMENTS.	I. GRAND TOTAL $285,000.00

17. TRANSPORTATION ALLOTMENT (Used if FOB Contractor's plant)

18. I CERTIFY THAT THE FUNDS CITED ARE PROPERLY CHARGEABLE FOR ITEMS REQUESTED.	AUTHORIZING OFFICIAL (NAME, TITLE AND SIGNATURE) [signature] D.C. DAULTON, RESOURCE & FINANCIAL RPTS OFFICER	DATE 09-Aug-94
19. THIS REQUEST IS ACCEPTED AND THE ITEMS WILL BE PROVIDED IN ACCORDANCE HEREWITH.	ACCEPTING OFFICIAL (NAME, TITLE AND SIGNATURE)	DATE

ORIGINAL

ORDER FOR WORK AND SERVICES - NAVCOMPT FORM 2275 PAGE 1 OF 1

1.This order must be accepted on a reimbursable basis only and is subject to the conditions on page 2.

2.DOCUMENT NUMBER N0006095WRDOD10

3.REF. NUMBER	4.FUNDS EXPIRE ON	5.WORK COMPL DAT	6. DATE PREPARED	7.AMENDMENT NUMBER
V00060	SEPT. 30, 1995	SEPT. 30, 1995	8-Dec-94	BASIC

8.FROM COMMANDER IN CHIEF, US ATLANTIC FLEET
1562 MITSCHER AVE STE 250
NORFOLK, VA 23551-2487

9.FOR DETAILS CONTACT
DEBBIE CURRY (804)444-6541

10.TO:
COMMANDING OFFICER
NAVAL AVIATION ENGINEERING SERVICE UNIT
U.S. NAVAL SHIPYARD
BLDG. 76
PHILADELPHIA, PA. 19112-5088

11.MAIL BILLINGS AND ACCEPTANCE TO:
UIC 06R732
DEFENSE ACCOUNTING OFFICE, DAO CL
NORFOLK, BLDG X132 CODE IECAB
NORFOLK, VA 23511-6096

12.ACCOUNTING DATA TO BE CITED ON RESULTING BILLING

A.ACRN	B.APPN	C.S/H	D.OB/CL	E.BCN	F.S/A	G.AAA	H.TT	I.PAA	J.COSTCODE	K.AMOUNT
AA	97X0510	60A0	000	00060	2	06R732	2D	595602	6095WRDOD10	$225,000.00
									L. TOTAL THIS DOCUMENT	$225,000.00
									M. CUMULATIVE TOTAL	$225,000.00

13. PROJECT ORDER --------> ECONOMY ACT ORD XXX
FIXED PRICE ---------- COST REIMBURSABLE XXX
Applicable paragraphs from page #2: 1,2,3,4,5,7,8,&9

14.DESCRIPTION OF WORK TO BE PERFORMED AND OTHER INSTRUCTIONS:

FY95 BRAC II FUNDING PROVIDED AS FOLLOWS IN SUPPORT OF NAVAL STATION PHIL. CLOSURE:
SYSTEMS FURNITURE ACQUISITION

PLEASE FAX ACCEPTANCE COPY TO DSN 564-8247/COM (804)444-8247
REQUEST SUBMIT NAVCOMPT FORM 2192 ON AN EXCEPTION BASIS.

COPY TO:
DAO-CL NORFOLK (IECAB)
CINCLANTFLT N02V12D, N441)

ALT 517
TECH

15.I certify that the funds cited are properly chargeable for the work or services requested.	AUTHORIZING OFFICIAL (NAME, TITLE AND SIGNATURE) D. C. DAULTON, RESOURCE & FINANCIAL REPORTS OFFICER	DATE 8-Dec-94
16.This order is accepted and the work or services will be provided in accordance herewith.	ACCEPTING OFFICIAL (NAME, TITLE AND SIGNATURE)	DATE 8 Dec 94

Document Separator

13. Labor Rates

13.1 Provide the following actual rates per hour, less direct materials, for your activity for FY 1993 and for FY 1997. Reproduce the table as necessary if reporting different rate structures for different functional areas, specifying the functional areas represented in each table.

Table 13.1: **Labor Rates ($)**

	FY 1993	FY 1997
Direct Labor Rate (less materials)	22.85	25.54
Production Expense	27.92	21.15
Overhead (G&A)	13.11	12.26
Fully Burdened Rate	63.88	58.95

SOURCE: DONIBIS 5 July 1994

Document Separator

EMPLOYEE GROUP

ANALYSIS OF NAESU

BRAC-95

PROPOSAL

Diery

add'l trips 140
93 trips HQ
NAVAIR HQ
$49.5 hr travel time

5 of 80 will move
(only 2 would have moved)

DOD BRAC RECOMMENDATION

DOES NOT MAKE

GOOD BUSINESS SENSE

FLEET READINESS DEGRADATION

LOSS OF 93% AVIATION EXPERTISE

HIGHER DEPOT OVERHEAD =
LESS ETS PER DOLLAR

AVIATION CUSTOMERS CONCERNS

THE LOGICAL PROPOSAL

IS TO BUILD ON THE BRAC 91

REVISED DECISION

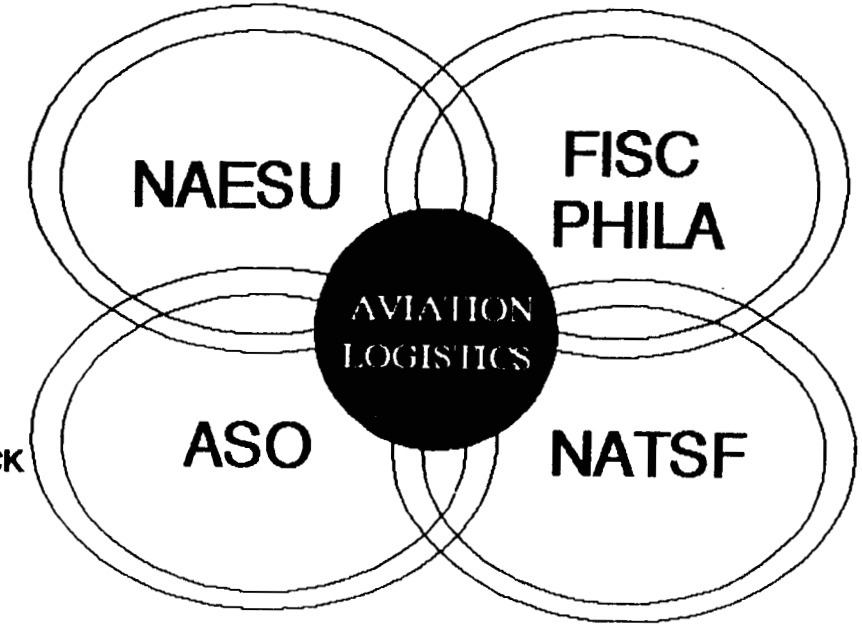
MERGE NAESU WITH ASO

- $712,000 ALREADY INVESTED
- ENHANCES MISSION CAPABILITY
- CREATES A PRODUCT SUPPORT GROUP
- PREVENTS PROBLEMS VS. CORRECTS PROBLEMS

COMMON LINKS

WEAPON SYSTEM TRAINING
& MAINTENANCE

SALTS
AVIATION PARTS FEEDBACK
PERSONNEL SUPPORT



NEGOTIATION TEAM
FOR 25 YRS

TECH PUBS

VS.

NO LINK WITH NADEP NORTH ISLAND!!

BRAC PROPOSAL	LOGICAL PROPOSAL
RELOCATE TO NADEP	REMAIN AT ASO
FLEET READINESS DEGRADATION	FLEET READINESS PRESERVATION
46 POSITIONS ELIMINATED	50 POSITIONS ELIMINATED
*44 POSITIONS REALIGNED	40 POSITIONS REALIGNED
NPV -29,546,000	NPV -35,743,000
1-TIME COST 2,535,000	1-TIME COST 703,000

*58 POSITIONS REALIGNED IN ORIGINAL SCENARIO

LOGICAL PROPOSAL BASED UPON SAME WORKLOAD ASSUMPTIONS AS BRAC PROPOSAL

Document Separator

RELOCATION SURVEY

80 CURRENT CIVILIAN EMPLOYEES SURVEYED

75 WILL NOT RELOCATE

5 WILL RELOCATE

RESULTS IN A LOSS OF 1,213 YEARS OF

GOVERNMENT EXPERIENCE

BRAC–95 SURVEY RESULTS

NAME	RELOCATE? YES	RELOCATE? NO	YRS OF GOVT SVC	MOS OF GOVT SVC	YRS OF AVTN EXP	MOS OF AVTN SVC	YRS OF NAESU SVC	MOS OF NAESU SVC	CURRENT TRANSPORTATON DRIVE	CARPOOL	PUB TRANS
ACQUAROLO		1	14	1	12	1	12	1	1		1
ALDRIDGE		1	20	3	14	3	3	5	1		
ALLEN		1	24	8	24	8	20				1
BELLAMY		1	7		7		7		1		
BONNO		1	18	7	18	7	1	8		1	
BREEN		1	32	7	36		28	7	1		
BREYER		1	45	11	19	6	13	9	1		
BRUNSON		1	8	10	8	10	8	10			1
CANE		1	17	8	17	8	17	8	1		
CAPECE		1	11		3	8	3		1		
CAVALLARO		1	24	10	24	10	21	3	1		
CITRONE		1	32		9		9		1		
CLEMMER		1	9		1		1		1		
COLEMAN		1	11	3	11	3	11	3	1		
COLOT		1	16		8		8		1		
CRAIG		1	23	5	1		1		1		
DAWES		1	9	6	9	6	9	6	1		
DEERY		1	21	8	21	8	21	8	1		
DITORO		1	14	10	7		7		1		
DORAN		1	17	6	17	6	17	6	1		
DUPRE		1	26	8	9	7	9	7	1		
EBERHARD		1	8	2	4	6	3	10	1		
FANELLI		1	9	9	9	9	9	9	1		
FINLEY		1	1	11	1	11	1	11	1		
FLYNN		1	3	7	3	7	3	7	1		
FOSTER		1	5	6	2	0	2	0	1		
FRUMENTO	1		26	5	1	4	1	4	1		
GAIL		1	15		12		12		1		
GERRARD	1		22	6	22	6	22	6	1		
HELMS		1	5	11	5	11	5	11	1		
HOGUE		1	6		1		1		1		
HUFFINES	1		26	6	26	6	23	3	1		
JONES	1		24	2	10	3	10	3	1		
KELLY		1	3	7	3	7	3	7	1		
KINNEY		1	4		4		4				1
LABENZ		1	6		2		2		1		
LAWTON		1	5	8	3	6	0	8	1		
LEBERTE		1	18	7	1		1		1		
LISANTI		1	18	10	17		17		1		
LITTLEJOHN		1	17	6	5	3	9	2	1		
LIVINGSTONE		1	13	11	13	11	13	11	1		
LUND		1	18	5	13	4	13	4		1	
LYNCH		1	28		14		14		1		
MACK		1	32		36		22		1		
MANNING		1	8		1	6	1	6		1	
MARTIN		1	14	4	5	6	5	6	1		

MOWAD		1	26	8	26	8	17		1		
MYERS		1	13	1				1	1		
NEWPHER		1	20	2	5	9	3	6	1		
NEWTON		1	22	6	18	2	18	2	1		
NOONAN		1	3	2	3	2	3	2		1	
NUGENT	1		30	8	23	5	23	5	1		
NULPH		1	6	10	6	10	6	10			1
O'TOOLE		1	22	8	4		4		1		
ONYSCHUK		1	8		6		3		1		
POLIDORE		1	8	1	8	1	8	1	1		
PORTER		1	6	2	6	2	6	2	1		
POWELL		1	27	10	14	0	27	10			1
PRESSEY		1	18	3	4	10	1	10	1		
RICCI		1	29	3	25		17	6	1		
ROBINSON		1	14	9	7	7	7	7	1		
ROMANO		1	22	6	1		1		1		
RUSH		1	23	4	22	10	16	10	1		
SABOL		1	15		13	6	13	6	1		
SAVAGE		1	18	3	2	1	2	1	1		
SCHWARTZ		1	8	9	8	9	8	9	1		
SCIMECA		1	13	4	6		6		1		
SEMORA		1	32	8	43		36		1		
SMITH		1	7	2	1	4	1	4			1
SOUTHERLAND		1	5	10	5	10	5	10			1
STEARNS		1	30	6	35		28	6	1		
TABOR		1	34	10	15		15		1		
TENTILUCCI		1	21	3	19	3	19	3	1		
UPSHAW		1	4		4		4				1
VAN GIESEN		1	17		7		7		1		
WALL		1	14	3		8		8			1
WATSON, CHERYL		1	5	10	5	10	5	10			1
WATSON, EMMA		1	17	4	5		1		1		
WEISBERG		1	15	8	14	7		7	1		
WHITE		1	24	4	24	4	24	4			1
TOTAL	**5**	**75**	**1308**	**401**	**872**	**325**	**756**	**329**	**65**	**4**	**12**
CONVERT MONTHS TO YEARS			**1341**		**899**		**783**				

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

34 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

15 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

15 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Walter T. Talt
NAME

3/2/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

_____ NAME _____ DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

5 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

5 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

NAME DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

7 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

7 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

7 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Ray Bellamy
NAME

3-16-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

16 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Hoke
NAME

3/2/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

3 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

3 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 7 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Celeste M. Kelly
NAME

3-21-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

6 YEARS Ø MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

2 YEARS Ø MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

2 YEARS Ø MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lynn Labenz
NAME

21 Mar 95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

32 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

36 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

22 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Robert Mach
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

22 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS 0 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 0 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lauren Rivera
NAME

3/21/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

15 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

____ YEARS 7 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☒ CARPOOL ☐ PUBLIC TRANSPORTATION

NANCY WEISBERG
NAME

3-20-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

14 YEARS 1 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

12 YEARS 1 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

12 YEARS 1 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Rita C. Acquarulo
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

20 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14 YEARS 3 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 5 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] NAME

3/15/95 DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

24 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

24 YEARS 8 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

20 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Venetta A. Allen
NAME

3-15-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

18 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 8 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☑ CARPOOL ☐ PUBLIC TRANSPORTATION

Gale Bono
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

32 YEARS 07 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

34 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

25 YEARS 07 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

C. BREEN
NAME

3-20-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

25 YEARS 11 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

____ YEARS 2 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 5 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[redacted] NAME [redacted] DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

8 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

8 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

8 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☒ PUBLIC TRANSPORTATION

Louise Burson
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

17 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

17 YEARS 8 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

17 YEARS 8 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Karen L. Cone
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

11 YRS _____ YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

3 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 9 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

John Pagano
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

24 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

24 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

21 YEARS 3 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Jesse Caballero
NAME

3.16.95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

32 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

9 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Jules C. Tetreault
NAME

3-16-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

9 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

BLAKE CLEMMER
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

1 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

11 YEARS 3 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 2 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[illegible] [illegible]

NAME DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

16 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

9 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

BOB COLOT
NAME

3/7/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

23 YEARS 5 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Anita N Craig
NAME

3-16-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

9 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

9 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Charlotte Davis
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

21 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

21 YEARS 8 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

21 YEARS 8 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Karen W Deery
NAME

2/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

14 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

7 YEARS 8 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

7 YEARS 8 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lisa DeLoro
NAME

3/16/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

17 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

17 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

17 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lillian Doan
NAME

3-15-95
DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

26 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

9 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS 7 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

R. Dupre
NAME

3/1/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

8 YEARS 2 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS 8 MONTHS Helicopters

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[illegible] NAME

20 MAR 95 DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

9 YEARS 9 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

9 YEARS 9 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS 9 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] 3/5/94

NAME DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

1 YEARS 11 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS 11 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 11 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] [illegible]
NAME

07-11-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

17 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 3 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

9 YEARS 2 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

William L. Littlejohn
NAME

3/16/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

17 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

17 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Anna L. Lisanti
NAME

2/20/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 5 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

13 YEARS 4 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

13 YEARS 4 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☒ CARPOOL ☐ PUBLIC TRANSPORTATION

Helga Lund
NAME

03/16/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

13 YEARS 11 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

13 YEARS 11 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

13 YEARS 11 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[illegible] NAME

[illegible] DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

28 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

14 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Linda Lynch
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☒ CARPOOL ☐ PUBLIC TRANSPORTATION

_____ NAME _____ DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

14 YEARS 4 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

5 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Paul Martin
NAME

3/16/94
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

26 YEARS 0 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

26 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

17 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lee Farmer
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

13 YEARS 1 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

____ YEARS ____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

____ YEARS 1 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Peggy D Myers
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

20 YEARS 2 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 9 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Linda Naumpher
NAME

3/7/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

22 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

18 YEARS 2 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

18 YEARS 2 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Linda Newton — NAME

3/15/95 — DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

3 YEARS 2 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

3 YEARS 2 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 2 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☒ CARPOOL ☐ PUBLIC TRANSPORTATION

Pat Noonan
NAME

3/20/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

Document Separator

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

16 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

N/A YEARS N/A MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

12 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Diane E Nolch
NAME

March 1st 1995
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

_____ NAME _____ DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

8 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

6 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] NAME

15 Dec 95 DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

8 YEARS 1 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

8 YEARS 1 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

8 YEARS 1 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Lila J. Polidore
NAME

5/30/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

_____ YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

_____ YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

_____ NAME _____ DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

27 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14 + YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

27 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☒ PUBLIC TRANSPORTATION

Thomasine A. Powell
NAME

6/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Signature NAME

3/16/95 DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

29 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

25 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

17 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[illegible] NAME

3/17/94 DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

14 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

7 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

7 YEARS 7 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Mattie E. Robinson
NAME

16 Mar 95
DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

23 YEARS 4 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

22 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

16 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

RON RUSH
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

15 YEARS 0 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

13 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

13 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☒ CARPOOL ☐ PUBLIC TRANSPORTATION

Eileen Sabol
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

2 YEARS 1 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

2 YEARS 1 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

DEBORAH SAVAGE
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

8 YEARS 9 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

2 YEARS 9 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

2 YEARS 2 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

S[illegible]

NAME DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

1 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

2 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

0 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Rose Sizemore
NAME

2/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?
If I were still working, Yes, However now I will be retired/No

☐ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

32 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

23 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

26 (29 c.s.) YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] NAME

3-17-95 DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

7 YEARS 2 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS 4 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS 4 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☒ PUBLIC TRANSPORTATION

Carol A. Smith
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

30 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

35 YEARS — MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

28 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

I expect To retire before 30 Jun 96, before The anticipated consolidation with NADEP North Is

NAME W. G. Stearns 16 Mar 95 DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☒ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

26 YEARS 5 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

0 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS ~~4~~ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

John Fruncillo
NAME

3/20/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

[X] YES [ ] NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

26 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

26 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

23 YEARS 3 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

[X] DRIVE [ ] CARPOOL [ ] PUBLIC TRANSPORTATION

PHILIP HUFFORD
NAME

27 MAR 95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☒ YES ☐ NO

If I'm invited

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

22 YEARS 6 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

22 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

22 YEARS 6 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Susan L Gerard
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☒ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

30 YEARS 8 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

23 YEARS 5 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

23 YEARS 5 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Jim Nugent
NAME

3-15-95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

THE RECOMMENDATION FROM BRAC-95 IS TO CLOSE NAESU HQ AND CONSOLIDATE WITH NADEP NORTH ISLAND.
IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

17 YEARS 4 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS — MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS — MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Emmit Watson
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

24 YEARS 4 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

24 YEARS 4 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

24 YEARS 4 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Chanette L. White
NAME

15 Mar 95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

3 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

3 YEARS 7 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

3 YEARS 7 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[signature] NAME [illegible] DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

15 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

12 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

12 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Kelly A. Day — NAME

3/16/95 — DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

5 YEARS 11 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 11 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

5 YEARS 11 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Thomas P Kelly
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

4 YEARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

4 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

4 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☑ ~~PUBLIC~~ Sepr. Parking transit TRANSPORTATION

Elizabeth Kinney
NAME

3/16/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

5 YEARS ? MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

3 YEARS 6 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

____ YEARS 9 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☑ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Andrea Lawton
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

18 YEARS 7 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

1 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

1 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Carol L. Fabiati
NAME

5/16/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

21 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

19 YEARS 3 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

19 YEARS 3 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

AL TENANT 3-2-95

NAME DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

How many years of aviation experience do you have

Any position that you have held in which you supported an aviation activity. This includes administrative support.

USS NIMITZ SUPPLY DEPT. FLIGHT DECK V-1 DIVISION
ROTARY WING TEST DIRECTORATE MATERIAL/SUPPLY OFFICE
A.I.M.D. NAVAL BASE PUERTO RICO MATERIAL SUPPLY DIV.
N.H.E.S.D. SUPPLY/ADMIN CLERICAL ETC.

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

21	7
YEARS	MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

14	7
YEARS	MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

4	10
YEARS	MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☒ PUBLIC TRANSPORTATION

Karen Deery — NAME

5/15/95 — DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

17 YFARS _____ MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

7 YEARS _____ MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

7 YEARS _____ MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☒ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

Karen Van Giesen
NAME

3/17/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☑ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

14 YEARS 3 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

____ YEARS 9 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

____ YEARS 5 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☑ PUBLIC TRANSPORTATION

Thomas Smith
NAME

4/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☐ YES ☒ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

5 YEARS 10 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

5 YEARS 10 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

5 YEARS 10 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☒ PUBLIC TRANSPORTATION

Cheryl R Watson
NAME

3/15/95
DATE

PLEASE RETURN TO KAREN DEERY
THANK YOU FOR YOUR COOPERATION

BRAC-95 SURVEY

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IF THIS RECOMMENDATION IS ACCEPTED - WILL YOU RELOCATE TO SAN DIEGO, CALIFORNIA?

☒ YES ☐ NO

HOW MANY YEARS OF GOVERNMENT SERVICE DO YOU HAVE?

24 YEARS 2 MONTHS

HOW MANY YEARS OF AVIATION EXPERIENCE DO YOU HAVE?

10 YEARS 3 MONTHS

HOW MANY YEARS OF NAESU SERVICE DO YOU HAVE?

10 YEARS 3 MONTHS

DO YOU CURRENTLY DRIVE TO WORK OR TAKE PUBLIC TRANSPORTATION?

☐ DRIVE ☐ CARPOOL ☐ PUBLIC TRANSPORTATION

[redacted] 3-10-95

NAME DATE

PLEASE RETURN TO KAREN DEERY

THANK YOU FOR YOUR COOPERATION

Document Separator

NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION
SHIP SYSTEMS ENGINEERING STATION
PHILADELPHIA, PA.

NSWC
Naval Surface Warfare Center
CARDEROCK DIVISION
PHILADELPHIA

BRAC 95 Visit By
Mr. David Epstein

6 April 1995

NSWC-CARDEROCK RECOMMENDATIONS CONCERNING THE PROPOSED RELOCATION OF EIGHT FACILITIES FROM ANNAPOLIS, MD TO PHILADELPHIA, PA

DRAFT


LEGEND
ROADS & PARKING AREAS
BUILDINGS
STRUCTURES
PIERS/FENCES/WALLS/SIDEWALKS
N
633
619
PWD
PROP SHOP FOUNDRY
PWD
56
1000
PROP SHOP

NSWC-CARDEROCK RECOMMENDATIONS CONCERNING THE PROPOSED RELOCATION OF EIGHT FACILITIES FROM ANNAPOLIS, MD TO PHILADELPHIA, PA AS A RESULT OF BRAC 95

SUMMARY

The Secretary of Defense recommendations to the 1995 Base Realignment and Closure (BRAC) Commission include the relocation of eight facilities from Annapolis to Philadelphia. These facilities are:

(1) **ADVANCED SHIPBOARD AUXILIARY MACHINERY**
(2) **ELECTRIC POWER TECHNOLOGY**
(3) **ADVANCED ELECTRIC PROPULSION DEVELOPMENT**
(4) **PULSE POWER**
(5) **ADVANCED PROPULSION MACHINERY**
(6) **MACHINERY ACOUSTIC SILENCING**
(7) **SEA SURVIVAL LIFE SAVING SYSTEMS**
(8) **NON-CFC LABORATORY**

On 17 March 1995, a team from Philadelphia met with their counterparts in Annapolis to tour the targeted facilities to gain better understanding of these facilities and their support requirements. On the following Monday, 20 March, the Philadelphia Team hosted the Annapolis Team to show them our facilities and to present a rough plan for the location of the Annapolis facilities in Philadelphia.

After reviewing our proposal and the information regarding our facilities, Annapolis and Philadelphia concurred that the Annapolis R&D facilities must be integrated into the Philadelphia site to simultaneously achieve:

- synergy with related ISE facilities and capabilities
- retention of physical and operational connectivity essential to an increasingly system focused R&D and ISE programs.

This integration encourages collocation of equipments where practical. It also permits machinery R&D and ISE facilities to be clustered to allow desired interconnection.

SUMMARY (Continued)

Several of our facilities are planned to move into Building 1000 to meet the requirements of BRAC 91. Our goal is to minimize the duplication of facilities and to promote synergism between research and development scientists and engineers and in-service engineers. Our proposal, which uses all of the main "retained" NAVSSES buildings (Buildings 633, 77H and 1000), provides an efficient and effective integration for technical development.

Attached are preliminary comparisons and layouts of integrated R&D and ISE facilities in three major building complexes at the Philadelphia Site. Additional buildings and alternative facility arrangements are being examined to more completely meet all integration goals and requirements.

(1) ADVANCED SHIPBOARD AUXILIARY MACHINERY FACILITY

Auxiliary machinery is defined as pumps, air compressors, hydraulics, piping and valves, distillation plants, heat exchangers, refrigeration, and oxygen generator systems that support all aspects of operation such as propulsion, combatant systems, life support, weapons, acoustics, depth, and maintenance for surface ships, submarines, and craft.

The Annapolis facility is composed of smaller sites consisting of the Ventilation and Filtration Systems, Compressed Air, Steering and Diving and Hydraulics, Trim and Drain Pump, Piping, Advanced Centrifugal Pump Loop, and Fuel Cell facilities that allow controlled operation of machinery components over the full range of operating conditions while controlling variables such as pressure, temperature, stress, flow rates and heat transfer in order to conduct experiments.

As an aggregate this facility is approximately 20,000 ft^2, with 5000 ft^2 requiring floor loading of 300 lbs/ft^2, and 3500 ft^2 of high-bay (16 ft) area. It has a total of 2.3 Megawatts of installed electric power, uses 1600 gallons/minute of cooling capacity along with 100 tons of chilled water capacity, and requires other services such as low pressure air, varying degrees of crane capacity, and low pressure steam.

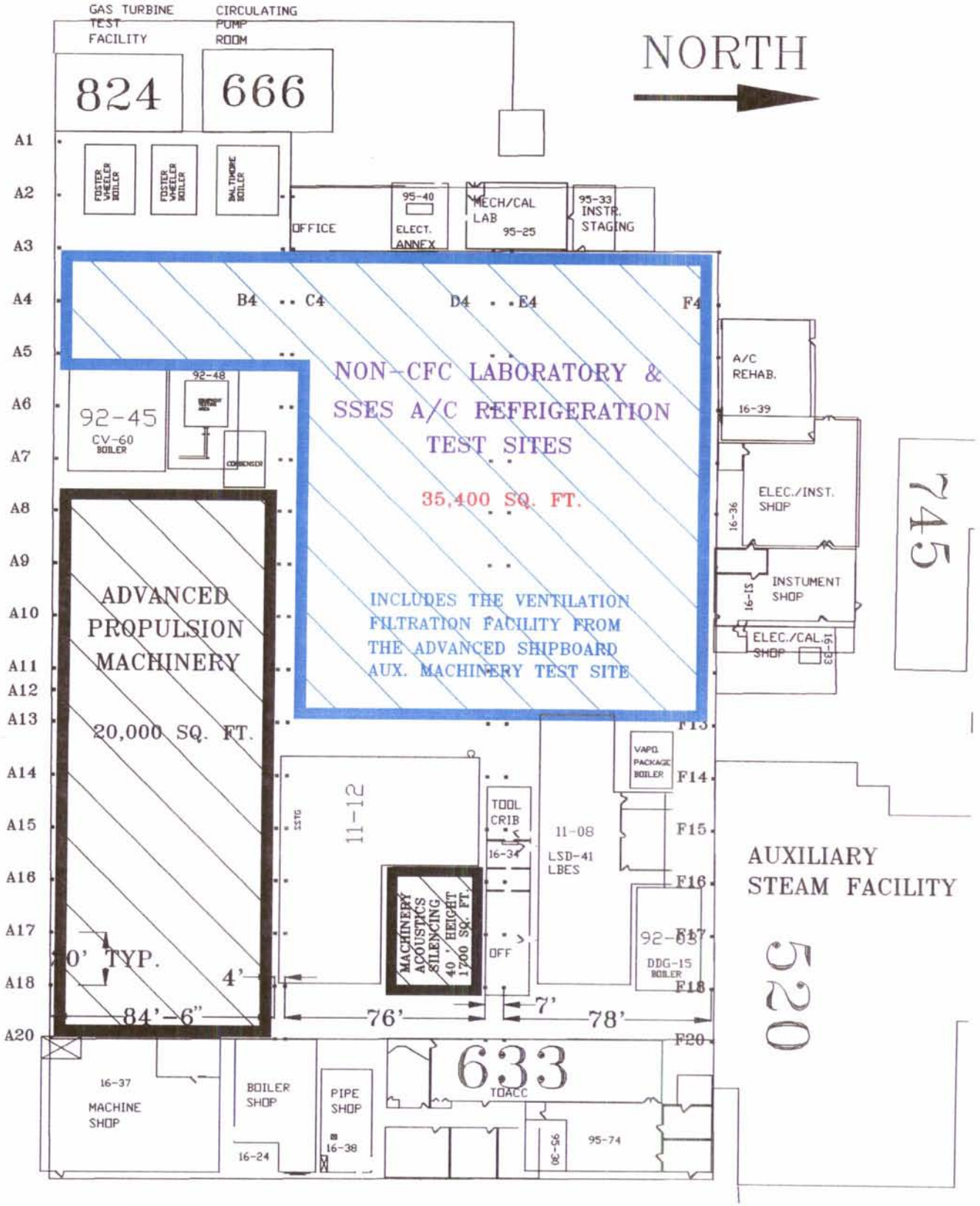
Some of the smaller sites are already represented by similar facilities in Philadelphia and would be integrated into the existing Philadelphia facilities where the infrastructure is already in place to support these sites. Specifically, the Compressed Air, Trim and Drain Pump, Pump Seal and Variable Capacity Pump, and Advanced Centrifugal Pump Loop should be incorporated into the similar facilities in building 77H.
The Ventilation & Filtration Systems would be located in Building 633. The remaining components of the Advanced Shipboard Auxiliary Machinery Facility would be located on the third floor of building 1000 where sufficient space and electric power are available.

(1) ADVANCED SHIPBOARD AUXILIARY MACHINERY DEVELOPMENT FACILILTY

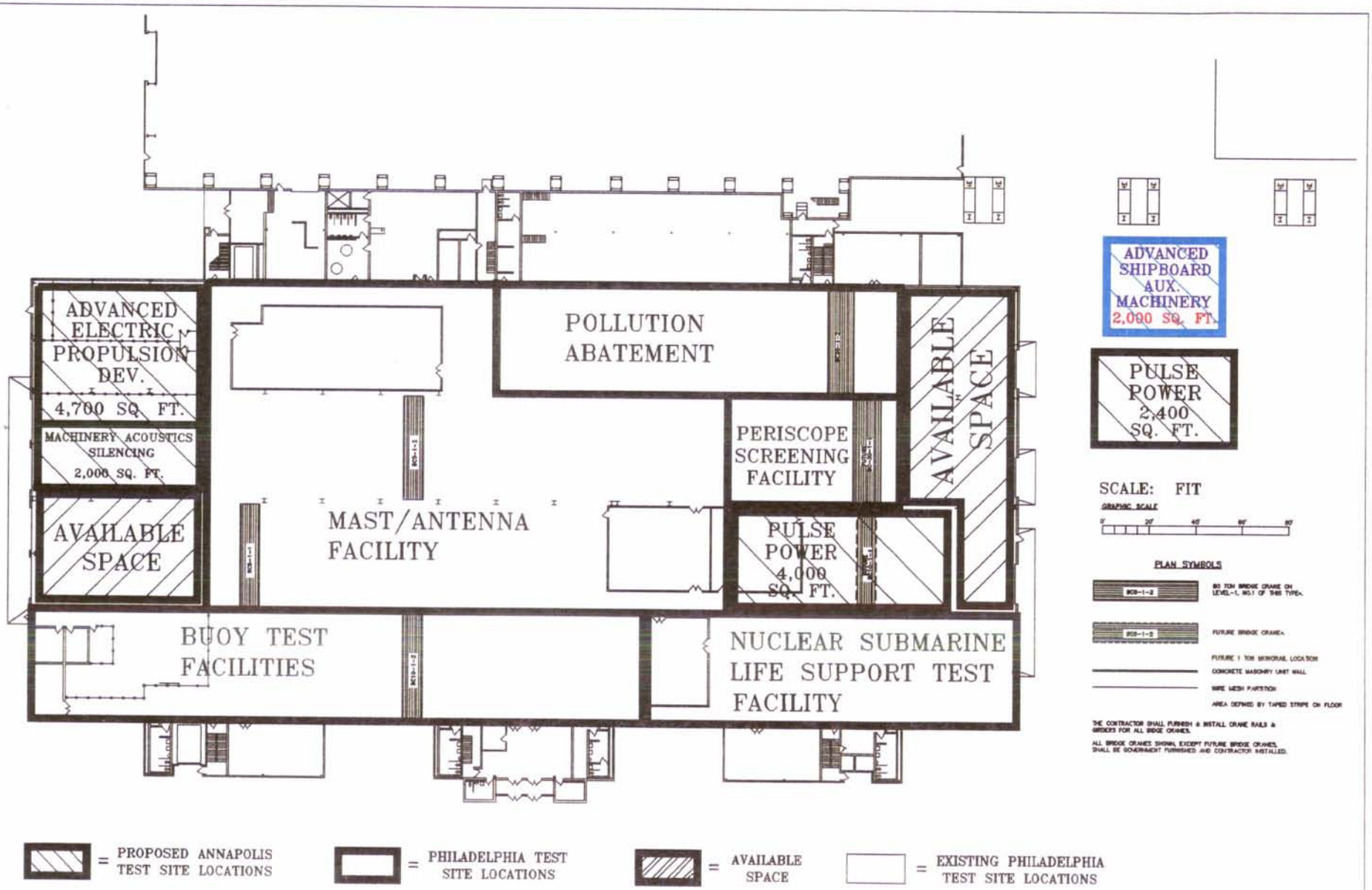
ANNAPOLIS			PHILADELPHIA		
COMPONENT	**FT^2**	**REQUIREMENTS**	**SITE CAPABILITIES**	**FT^2**	**LOCATION**
Ventilation & Filtration Systems	2400	480v, 440v, 208v, 110v 12 ft clearance fresh water shop air	480v, 440v, 208v, 110v 40 ft high bay fresh water shop air	2400	633
Compressed Air	2000	500 gpm cooling water 450 kw 480v 300 lbs/ft^2 floor load	900 gpm cooling water 1100 kVA 480 VAC 300 lbs/ft^2 floor load 100 gpm chilled water	2000	77H Integrate w/existing
Steering and Diving and Hydraulics & fluids with quiet hydraulic power source	3500	Data acq/reduction ctr 15 ft high bay 440v, 110 v Low background noise 300 gpm cooling water	TOACC 18 ft high bay 440v, 110v low background noise 300 gpm *	3500	1000, 3rd Floor
Composite Machinery with Flex Connector & Hose Fac.	8200	440v, 220v, 110v shop air 35 gpm fresh water	440v, 220v, 110v shop air 35 gpm *	8200	1000, 3rd Floor
Trim & Drain Pump Pump Seal, Variable Capacity Pump with AC to DC inverter	1000	440v 1600 gpm salt water 5000 lb hoist	440v 1600 gpm 5 ton crane	1000	77H Integrate w/existing
Pipe & Machinery Structural Test Facility with hydraulic power supply	1500	300 lb/ft^2 floor loading 150 kw of 440v 5 ton crane 30 gpm cooling water 17 ft clearance	300 lb/ft^2 flr load ** 150 kw 440v 80 ton crane 30 gpm * 18 ft clearance	1500	1000, 3rd Floor
Fuel Cells	2000	440v, 110v 60 gpm cooling water 1 ton crane	440v, 110v 60 gpm cooling water * 1 ton crane	2000	Outside 1000

(1) ADVANCED SHIPBOARD AUXILIARY MACHINERY DEVELOPMENT FACILILTY					
ANNAPOLIS			PHILADELPHIA		
COMPONENT	FT^2	REQUIREMENTS	SITE CAPABILITIES	FT^2	LOCATION
Advanced Centrifugal Pump Loop with Air Flow Modeling Facility	1500	150 amp 440v shop air	150 amp 440v shop air	1500	77H Integrate w/existing facility

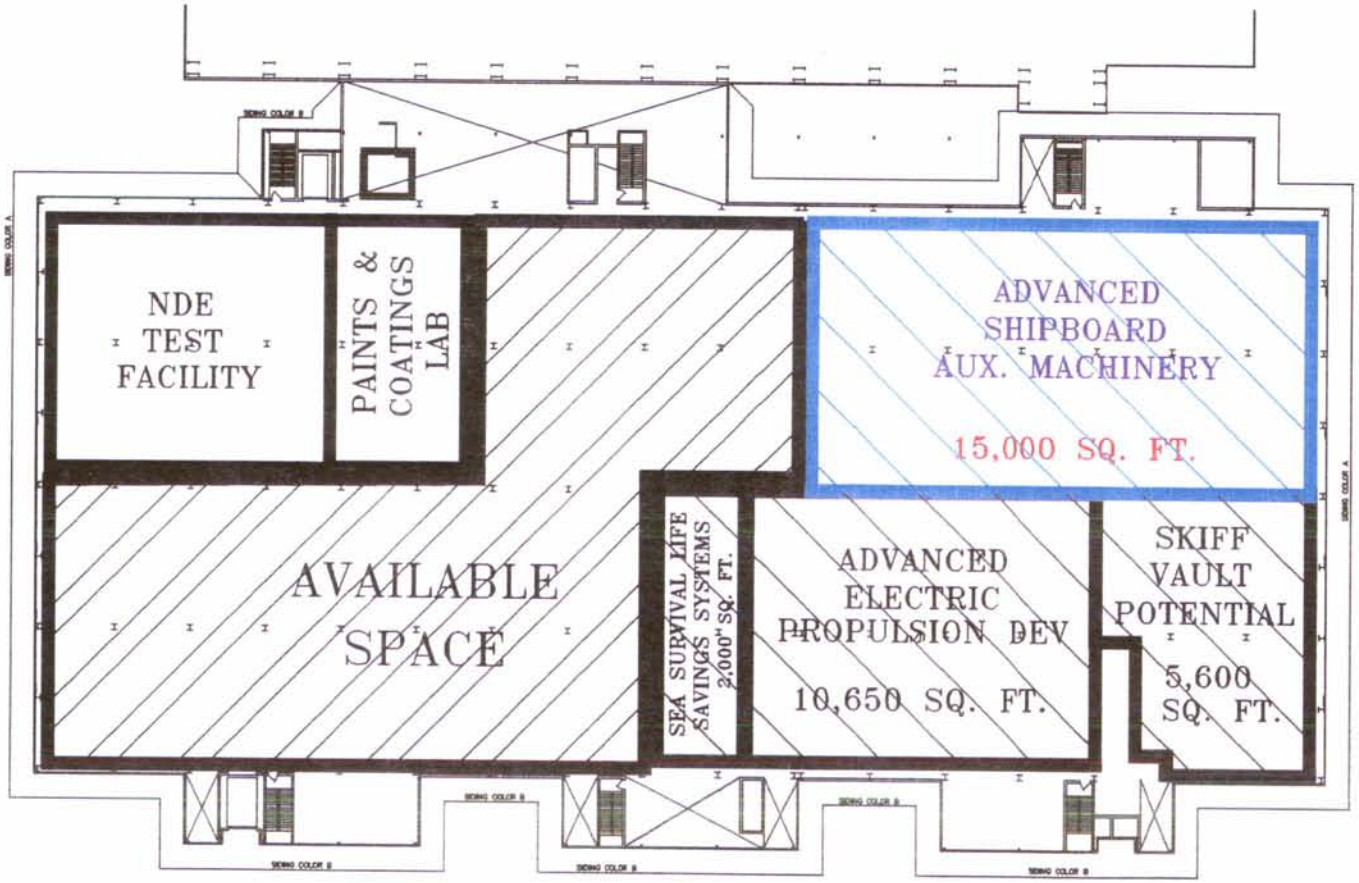
* A cooling tower/system will have to be designed and constructed for BLDG 1000.
** Some areas of the floor may have to be reinforced. Some areas on this floor will accept this load and more.



BUILDING 633



BUILDING 1000 – FIRST FLOOR



SCALE: FIT

GRAPHIC SCALE

= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 1000 – THIRD FLOOR

(2) ELECTRIC POWER TECHNOLOGY FACILITY

The Electric Power Technology Facility consists of laboratory areas as follows: Power Distribution Laboratory, Power Electronics Laboratory, Machinery Controls Laboratory, and a Fiber Optics Laboratory. It encompasses 3600 ft^2.

It is recommended that the Electric Power Technology Facility be located in the east bay of Building 77H. The labs would occupy the first floor and additional labs and offices would be created on the mezzanine above. This space would amount to a total of 28,000 ft^2. In addition, we would utilize the space (identified as storage) behind the east bay. This space comprises 8000 ft^2.

This site has many advantages, both for Annapolis and Philadelphia. The space is already prepared for use by the Philadelphia site Electric Power System Branch (Code 934). This branch closely parallels the Annapolis Power Distribution Systems Branch (814). The equipment utilized by these branches is similar. We expect a high synergism by integrating the test sites.

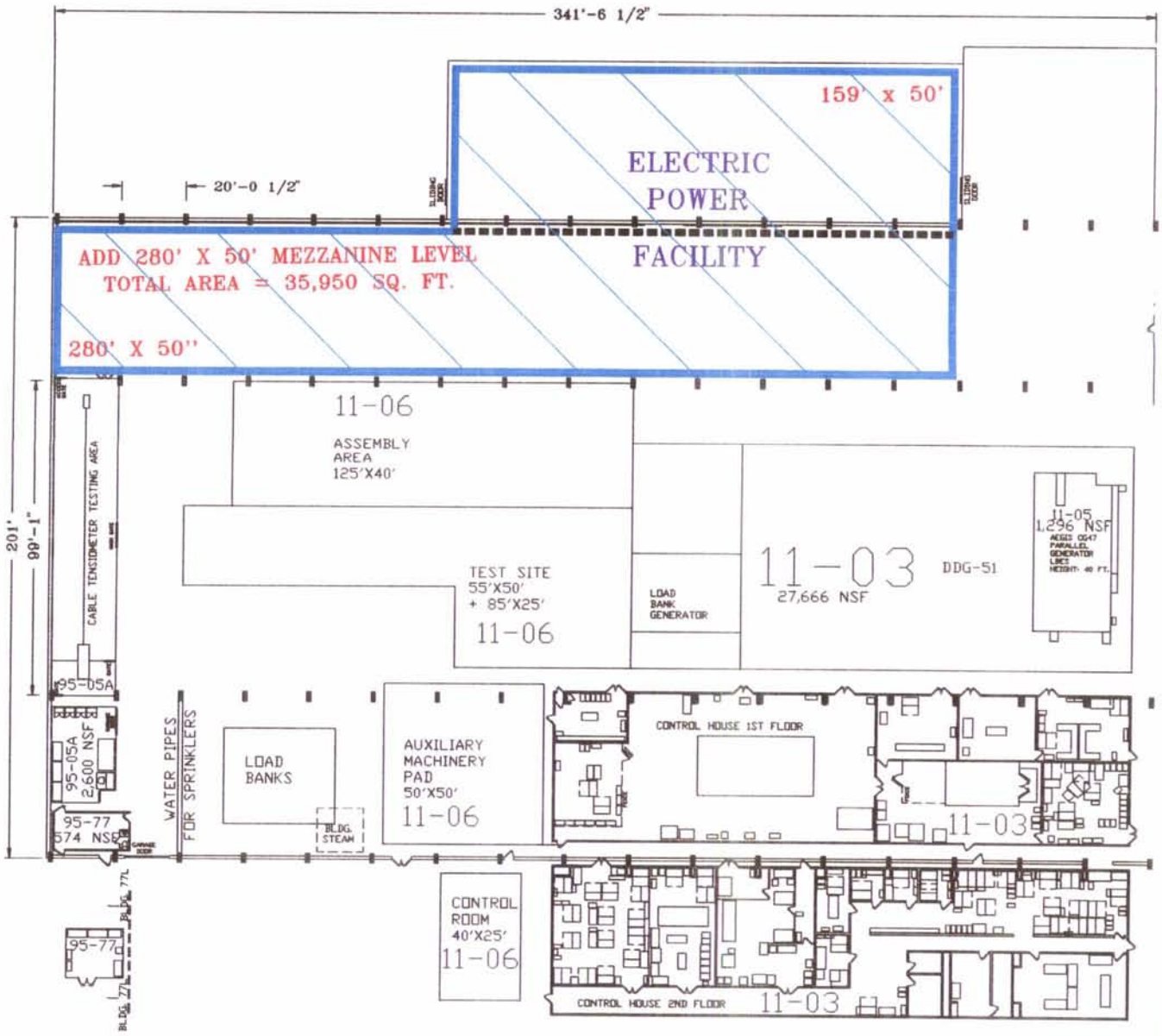
Building 77H is equipped with high loading floors, machinery bedplates, erected electrical test cells, more than adequate cooling water, and more than adequate space for load banks. It also has steam and fuel available if needed. Building 77H is generally reserved for full scale testing. Some of these programs developed by Annapolis were scheduled to transition pre-BRAC 95 anyway. They were scheluded to be moved to Building 77H. These programs were: Standardized Machinery Controls, Zonal Electrical Distribution, Integrated Power System, and other component level tests for the AEGIS program.

Additionally, the Annapolis Fiber Optics laboratory could be consolidated with the SSES Code 953 Fiber Optics Laboratory located at the south end of Building 77H in the west bay. This would reduce the Electric Power Technology lab space requirements at the north end of Building 77H.

We expect that any shortcomings in utilities or enclosed test cells at this space would be very minor and easily remedied. If there is still a shortfall in space at this location, we recommend that the shortfall be located with the Advanced Electric Propulsion Development Facility on the third floor of Building 1000. This area has more than adequate space for any other labs or offices and was previously suggested by Annapolis as being acceptable.

(2) ELECTRIC POWER TECHNOLOGY FACILITY		
CHARACTERISTIC	**ANNAPOLIS**	**PHILADELPHIA (77H NORTH END)**
Space (square feet)	Total 35,993	14,000 Level 1 14,000 Mezzanine 8,000 Storage Area Total 36,000
Overhead Clearance (feet)	10 to 14	14
Floor Loading (PSF)	100 to 400	Level 1 and Mezzanine 250 to 500
Electric Power (Volts, KVA)	450V, 440V, 220V 2.4KV, 13.8KV, 4540KVA	450V, 440V, 220V * up to 8000KVA
Cooling Water (GPM)	230	Up to 25,000 w/connecting line

* Voltage requirements are easily met with installation of a transformer.



= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= AVAILABLE SPACE

= PHILADELPHIA TEST SITE LOCATIONS

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 77H NORTH

(3) ADVANCED ELECTRIC PROPULSION DEVELOPMENT FACILITY

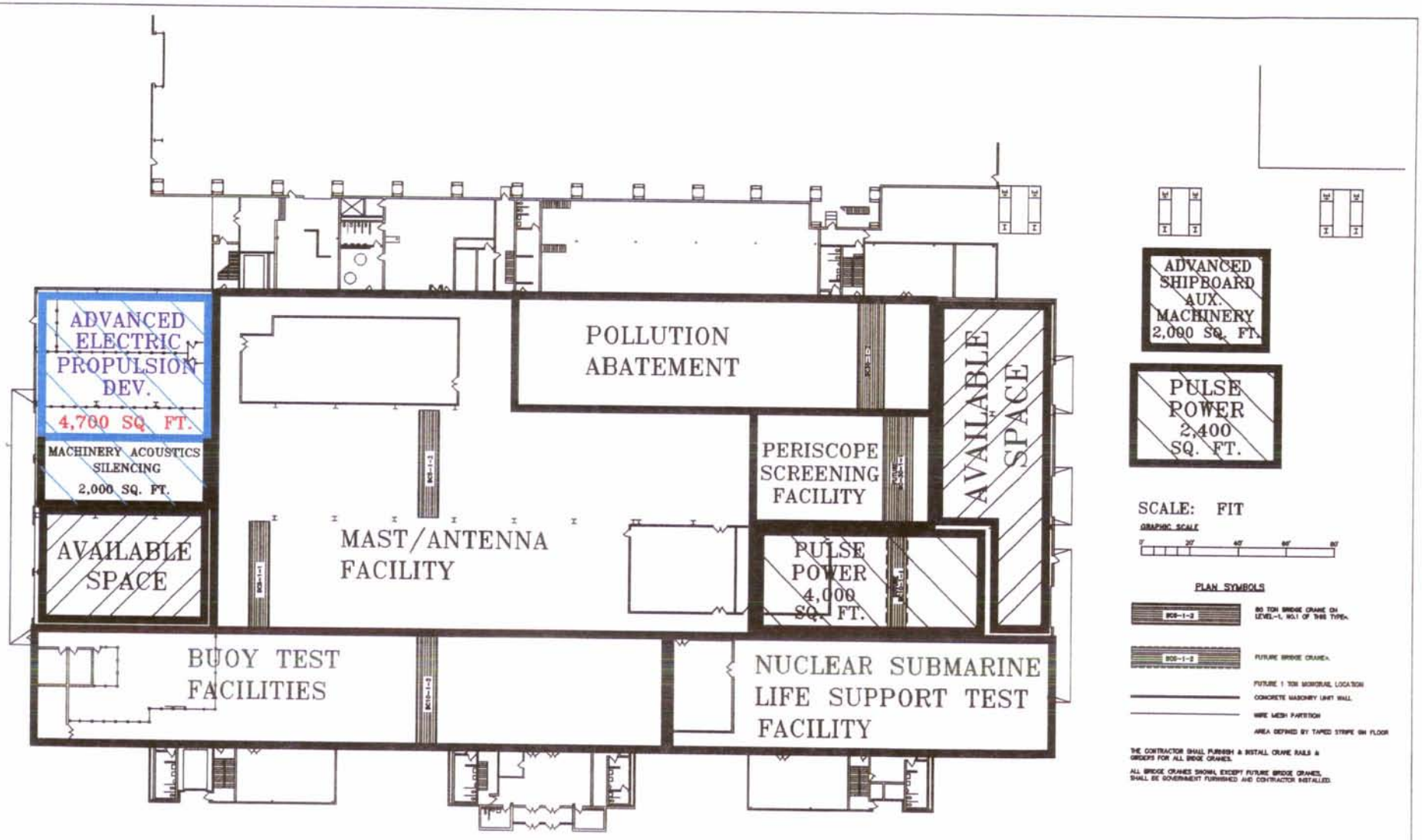
This facility's major capabilities include: multi-megawatt electric drive evaluation facilities, including 200,000 amp power supply and full scale current collector test facility, cryogenics delivery systems, superconducting magnetic design and fabrication capability.

It is recommended that this facility be divided into two locations in Building 1000. The heavier equipment would be located on the first floor where high floor loading exists. The balance of the Advanced Electric Propulsion Development Facility would be located on the third floor. This will provide more than adequate space for any other labs and offices. If needed, specialized walls or space could be erected to prevent any stray electromagnetic interferences from high energy emitting equipment.

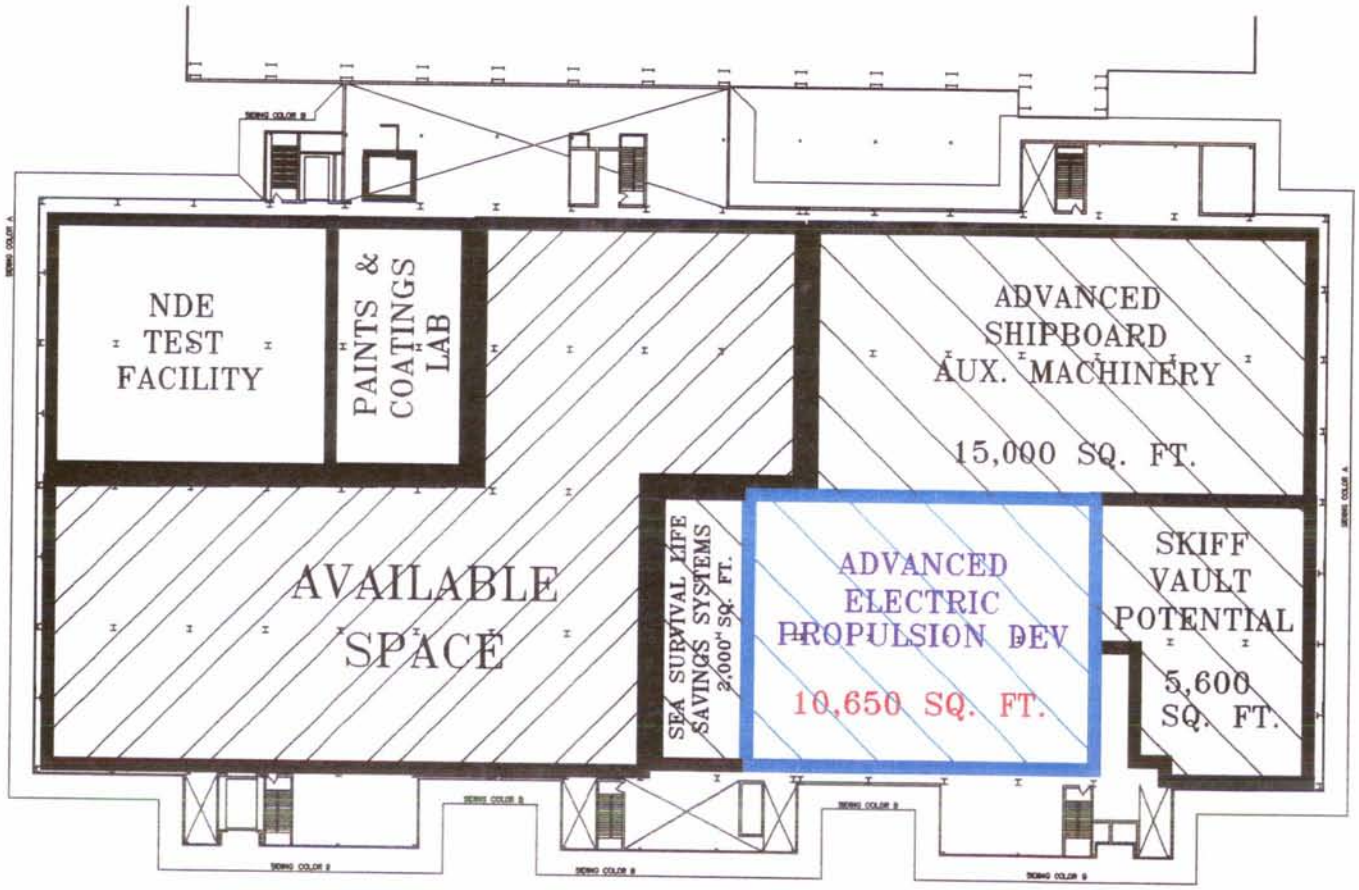
(3) ADVANCED ELECTRIC PROPULSION DEVELOPMENT FACILITY		
CHARACTERISTIC	**ANNAPOLIS**	**PHILADELPHIA (BLDG. 1000)**
Space (square feet)	Total 15,350	Level 1 - 4,000 Level 3 - 11,350 ------ Total 15,350 plus more on level 3 & 4 if needed
Overhead Clearance (feet)	14 to 20	20 to 30
Floor Loading (PSF)	400 - (11,350 sq ft) 200 - (4,000 sq ft)	Level 1 - 400 (4,700 sq ft) Level 3 - 400 (6,650 sq ft) flooring strengthended Level 3 - 200 (4,000 sq ft)
Electric Power (Volts, KVA)	13.8KV, 440V, 208V 7550KVA	13.8KV, 440V, 220V * up to 8000KVA
Crane (tons)	5 to 18	5 to 30
Cooling Water (GPM)	1350	Phila. will be providing a new cooling system to cover all of bldg. 1000 needs
JP-5 Fuel Storage and Containment	Gas Turbine not currently installed but Annapolis requests capability of 267 gal/hr	Phila. will either relocate a storage tank or procure a new tank and will combine w/Pulse Power Lab needs

* Voltage requirements are easily met with installation of a transformer.

(3) ADVANCED ELECTRIC PROPULSION DEVELOPMENT FACILITY (CONT'D)		
CHARACTERISTIC	**ANNAPOLIS**	**PHILADELPHIA (BLDG. 1000)**
Permits	Gas Turbine Operation	Permits already exists
Load Banks	Locate outside	This site is near outside wall
Shop Air	Pressure not specified	80-100 PSIG
Clear Area for High Magnetic Field test	35' x 35'	Phila. has abundent space on level 3
Liquid Metal Handling Room	250 sq. ft.	Phila. has various metal handling rooms that can accommodate this need
Clean Room	400 sq. ft.	Phila. has various that can accommodate this need. We will need to install a filtration system



BUILDING 1000 – FIRST FLOOR



SCALE: FIT

GRAPHIC SCALE

= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 1000 – THIRD FLOOR

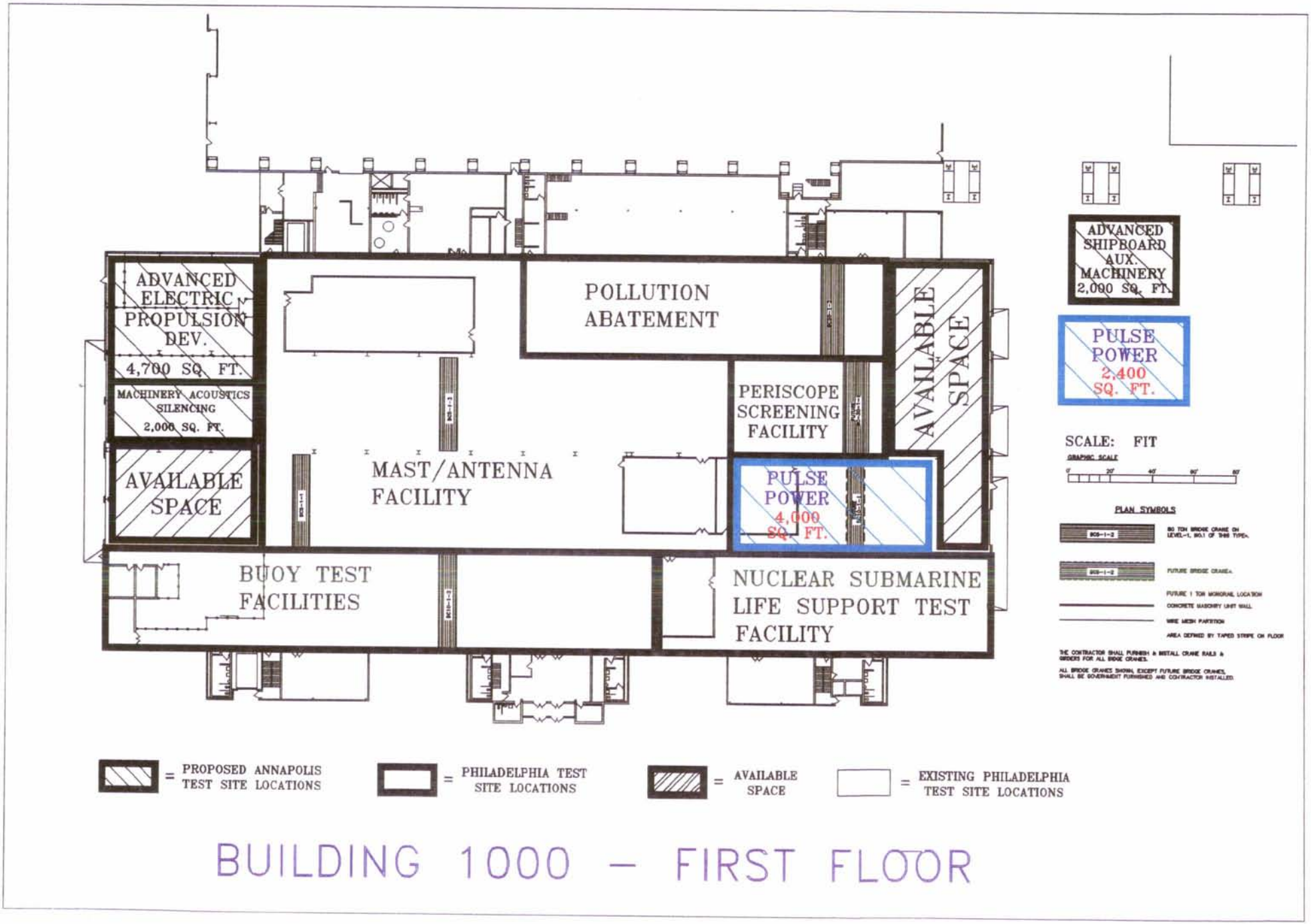
(4) PULSE POWER FACILITY

This facility currently occupies two trailers in Annapolis. These trailers are periodically moved to Dahlgren, VA for testing and returned. Currently, the trailers are housed in Annapolis in a shed type enclosure. This arrangement provides for additional weather protection and for open space around the trailers to minimize personnel and equipment exposure to the electro-magnetic interference (EMI) generated by this equipment when being tested.

It is recommended that this facility be located on the first floor of Building 1000 where adequate space is available and there is access via large doors for moving the trailers into and out of the building as necessary for testing. If needed for personnel safety, shielding could be installed around this location.

(4) PULSE POWER FACILITY		
CHARACTERISTIC	**ANNAPOLIS REQUIREMENT**	**PHILADELPHIA CAPABILITY**
SPACE-inside (square feet)	4,000	4000 in bldg. 1000 D
Space-outside (square feet)	2,400 on open 40' x 60' concrete pad	Unlimited square feet outside bldg. 1000
Overhead Clearance (feet)	14	30
Crane (tons)	10	30
Floor Loading (pounds per square foot)	Not specified; trailer weighs 40 tons & needs access to highways	400 pounds/square foot with access to highways
High Voltage Grounding Grid	Yes	Will need to be installed
Physical Separation & Isolation of test equipment for personnel safety	8' Distance from equipment plus walls for isolation	8' distance is available and walls will be erected
EMI Shielding from other sites	Shielded walls	Walls will be provided
Climate Control	Minimize humidity on high voltage systems	Space will be properly climate controlled typical of other spaces on level 1
Permits	Gas Turbine Operation	Some permits already exists; if necessary these permits can be modified or a new one issued

(4) PULSE POWER FACILITY (CONT'D)		
CHARACTERISTIC	**ANNAPOLIS REQUIREMENT**	**PHILADELPHIA CAPABILITY**
Noise Abatement	No decibel level was provided	Phila. has in the past and will continue to meet noise limitations
Electrical Power	Dedicated 2MVA, 13.8V, 3phase, 60HZ power feed w/switchgear	Bldg. 1000 has 8MVA, however Annapolis is bringing their transformer, so Phila. will provide connection from nearby feed and will provide switchgear
Cooling Water (GPM)	500	Phila. will be providing a new cooling system to cover all of bldg. 1000 needs
JP-5 Fuel Storage (Gals)	2000 minimum; currently Annapolis draws from a very large (1M +) tank	Phila. will either relocate a storage tank or procure a new tank 2000 minimum capacity
JP-5 Fuel Containment	System to contain spill from tank	Phila. will install whatever fuel containment system that is needed for safe operation
Cabling and Cable Trays	100-150 feet of cabling and cable trays	Phila. will provide whatever cabling and trays Annapolis can not bring



BUILDING 1000 – FIRST FLOOR

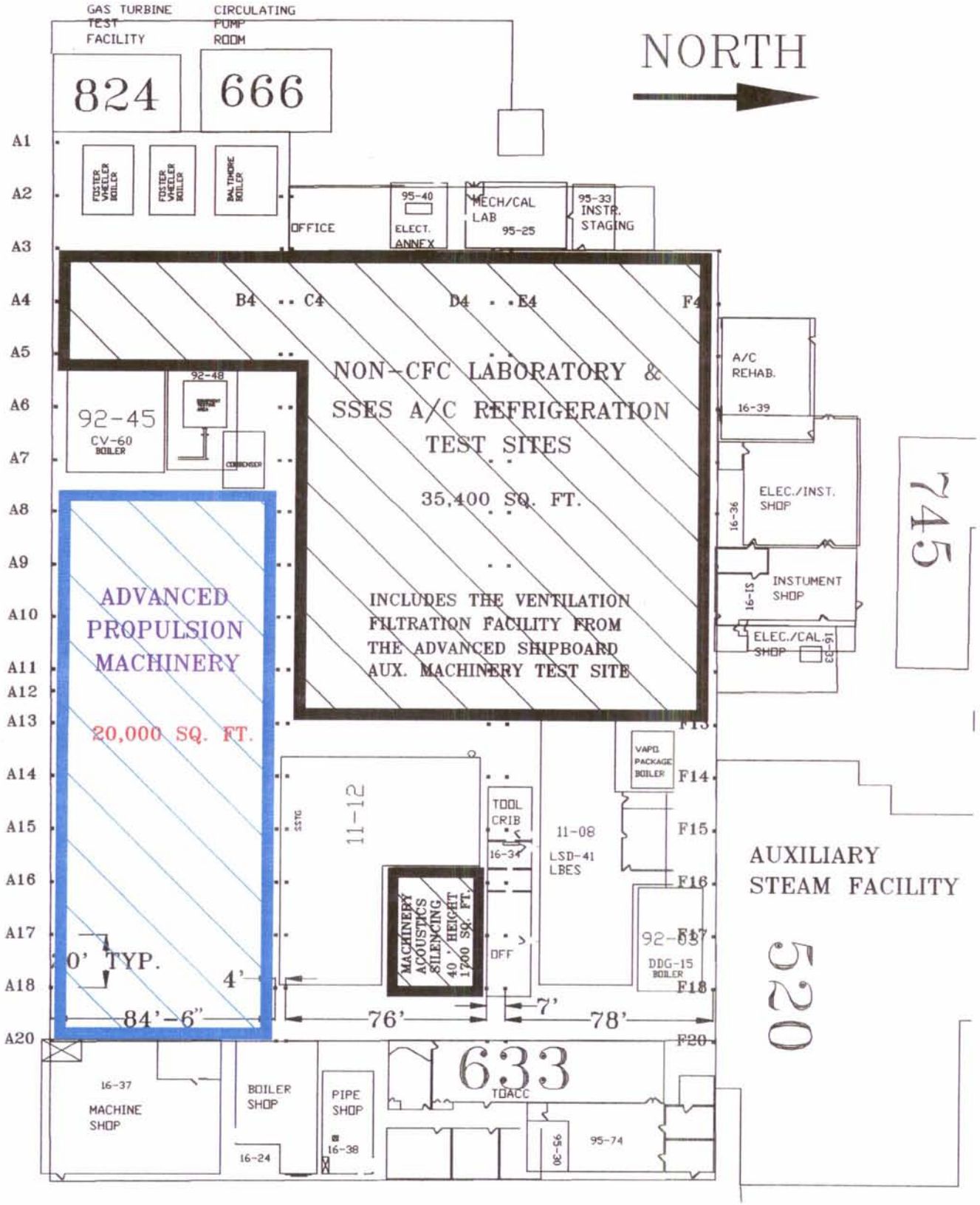
(5) ADVANCED PROPULSION MACHINERY FACILITY

This facility consists of a full scale submarine shaft line and thrust bearing, shaft seal facility, seal test stand support, a line shaft bearing test facility, a full scale composite shaft test facility, a small scale composite shaft test area, and a small engine test facility. The aggregate facility occupies approximately 20,000 ft^2 of floor space, requires some areas of high floor loading, fuel storage, cooling water, 440v electrical service, and a high-bay area with crane service.

It is proposed to locate this facility in the south bay of Building 633 where adequate floor space, overhead clearance, crane service, fuel service, electrical power and cooling water meet the Annapolis requirements. Some normal floor modification may be required for the Submarine Shaft line, otherwise all floor loading requirements are met. In addition, there is close proximity to machine shops, electrical shops, and instrumentation shops for quick modifications to equipment as experiments expose the need to make changes.

(5) ADVANCED PROPULSION MACHINERY FACILILTY

ANNAPOLIS			PHILADELPHIA		
COMPONENT	**FT^2**	**REQUIREMENTS**	**SITE CAPABILITIES**	**FT^2**	**LOCATION**
Full Scale Shaft Line	4200	400 Amps 440 350 gpm cooling water 1000 lbs/ft^2 low noise	Meets all electrical, cooling water, fuel storage, acoustic, and floor loading requirements	20,000	633
Composite Shaft Landbased Test Facility	4800	150 amps 440 v 20 gpm cooling water			
Composite Shaft Small Scale Test Equipment	650	300 Amps 440v 40 gpm cooling water			
Fleet Shaft Seal Facility	4600	930 Amps 440v 100 gpm fresh water 90 gpm cooling water			
SSN-21 Shaft Seal Facility	1600	460 Amps 440v 1 gpm fresh water 20 gpm cooling water			
Shaft Bearing Facility	2500	225 Amps 440v 15 gpm cooling water			
Engine Development Laboratory	1850	250 Amps 440v 250 gpm cooling water inlet/exhaust ducts Fuel storage Noise enclosure			



BUILDING 633

(6) MACHINERY ACOUSTIC SILENCING FACILITY

The Machinery Acoustic Silencing Facility is an integrated complex composed of three (3) major test cells, each constructed as semi-anechoic facilities, with over 8,000 ft^2 of test area and bays ranging in heights of 12 ft to 50 ft, namely:

1. Quiet Ventilation Fan R&D Facility, within which is an anechoic platform, with a floor area of 3500 ft^2 and a 50 ft high bay.

2. Quiet Pump R&D Facility with a floor area of 2500 ft^2 and a high bay in excess of 12 ft.

3. Resilient Mount/Structural Acoustics Facility consisting of three (3) areas:

   a) Mount Facility with a floor area of 900-1000 ft^2 and a bay height equal to or in excess of 12 ft.

   b) Damping Technology Facility with a floor area of 2000 ft^2 and a 12 ft high bay.

   c) 1/3 Scale Model Facility with a floor area of approximately 1856 ft^2 and a lifting height of approximately 32 ft above an isolated metal/concrete floor of 700 ft^2.

The Machinery Acoustics Silencing Facility requires clean low noise electrical power of 440v, 3 phase, 400 Hz, and DC, 15 kVA (110 and 208 v), 460 VAC, and 30 kVA (120 and 220 v); proper earth grounding provisions; 3 to 15 ton overhead crane capacity; shop air; cooling water (20 gpm fresh and 235 gpm river); floor loading capacity of 350 lbs/ft^2.

It is proposed that the Machinery Acoustics Silencing Facility be integrated with the existing NSWCCD-SSES Facilities of Buildings 633, 77H, and 1000 wherein the above requirements of electrical power, grounding provisions, crane capacity, air and water and floor load capacity in excess of 350 lbs/ft^2 already exist and/or can be readily provided.

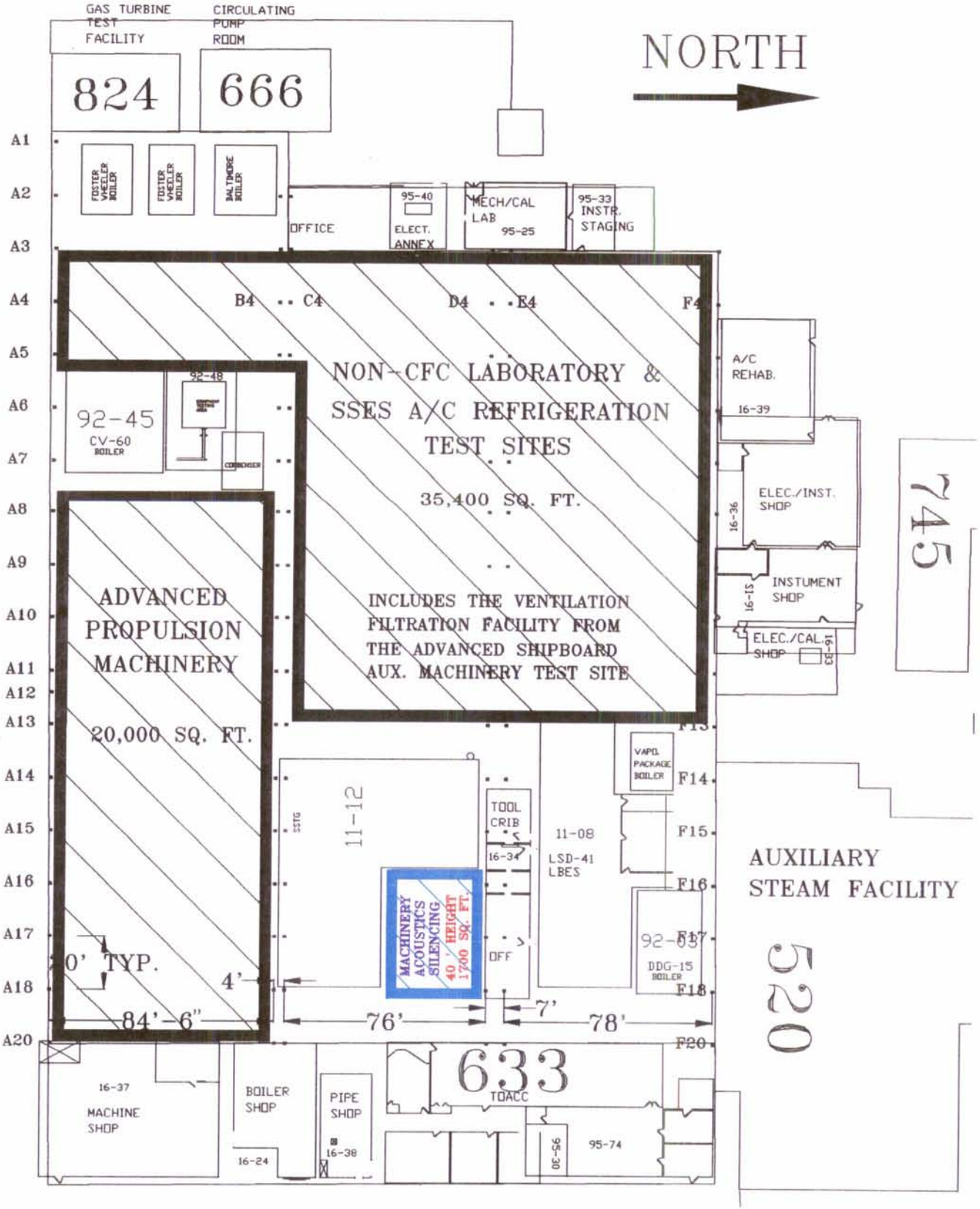
Sites proposed for buildings 633, 77H, and 1000 will exhibit and provide acoustic design characteristics equal to or greater that those acoustic characteristics designed for the SSN-21 Main Propulsion Machinery testing conducted in building 633 and the Diesel-Generator test site presently under construction in building 77H. It is important to note that in order to meet the acoustic requirements for sound and vibration testing of the SSN-21 an isolated test site with an acoustic enclosure of semi-anechoic design was constructed to enclose the main propulsion machinery. This design (and subsequent procurement) enabled NAVSSES to realize a 55 decibel transmission loss across the barrier. When coupled with an average "in the building" noise level of 92 decibels the 55

(6) MACHINERY ACOUSTIC SILENCING FACILITY (Continued)

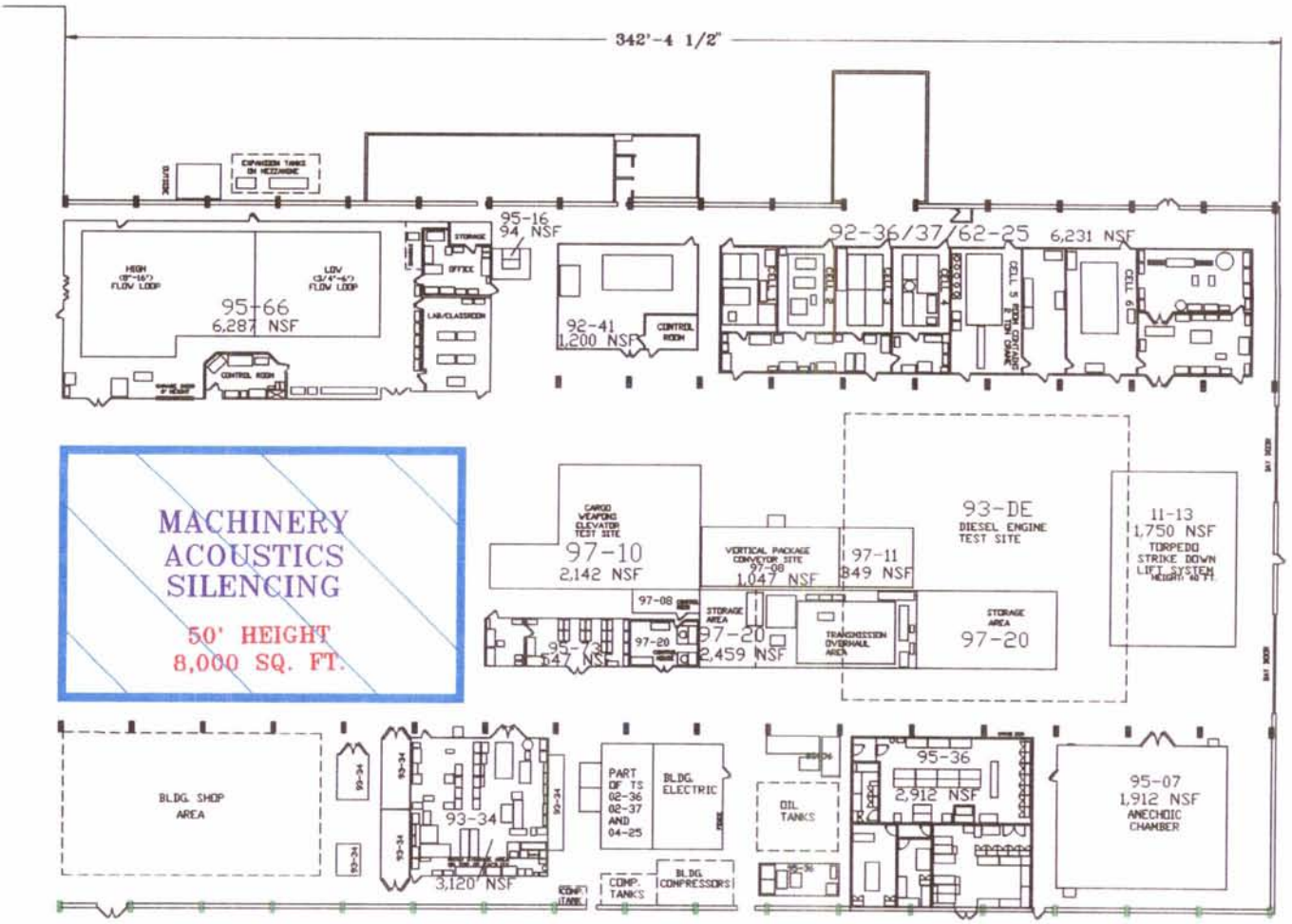
decibel noise loss enabled NAVSSES to measure noise levels within the enclosure of about 40 decibels. Additionally, within the chamber itself the Noise Reduction Coefficient is estimated to be about 1.05. This means that sound measurements from the machinery being tested would only be comprised of the machinery (not reflections or noise external to the barrier). These noise levels are extremely low, certainly low enough for any conceivable developmental measurements for decades. This technology will be employed at the proposed sites and will meet the requirements of all equipment to be removed from Annapolis.

(6) MACHINERY ACOUSTIC SILENCING FACILITY

ANNAPOLIS			PHILADELPHIA		
COMPONENT	**FT^2**	**REQUIREMENTS**	**SITE CAPABILITIES**	**FT^2**	**LOCATION**
Quiet Ventilation Fan R&D Facility	3500	Low Noise Elec Pwr - 440v, 3 phase, 400 HZ, & DC 15 kVA (110 & 208 v) 460 VAC	Low Noise Elec Pwr - 440v, 3 phase, 400 HZ, & DC 15 kVA (110 & 208 v) 460 VAC	3500	77H
Quiet Pump R&D Facility	2500	30 kVA (120 & 220 v) Earth Grounding 3 to 15 Ton Overhead Crane Shop Air	30 kVA (120 & 220 v) Earth Grounding 3 to 15 Ton Overhead Crane Shop Air	2500	633
Resilient Mount/Structural Acoustics Facility	4556	20 gpm fresh water 235 gpm river water 350 lbs/ft^2 floor loading	20 gpm fresh water 235 gpm river water 350 lbs/ft^2 floor loading	4556	77H & 1000



BUILDING 633



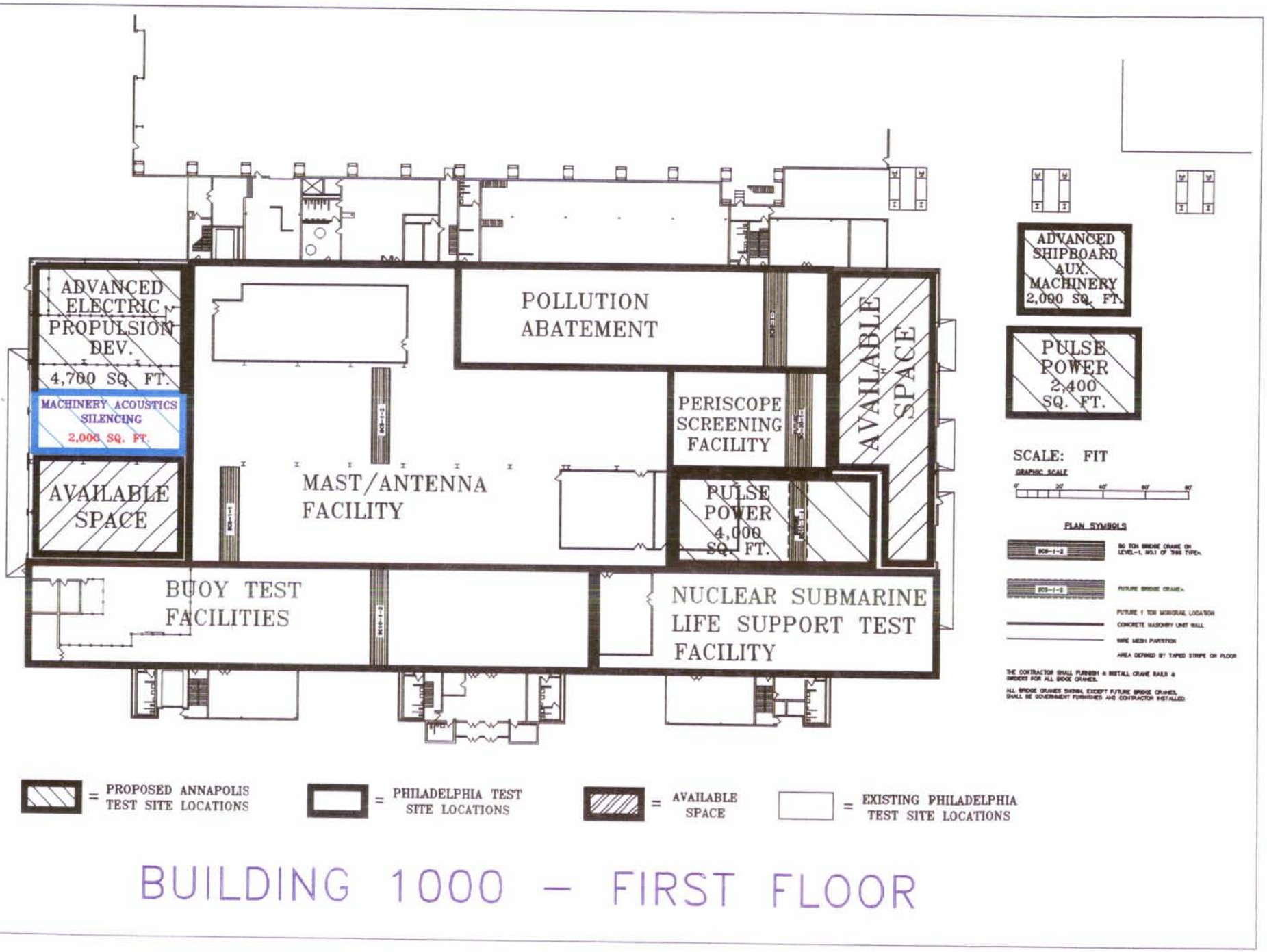
= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= AVAILABLE SPACE

= PHILADELPHIA TEST SITE LOCATIONS

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 77H SOUTH



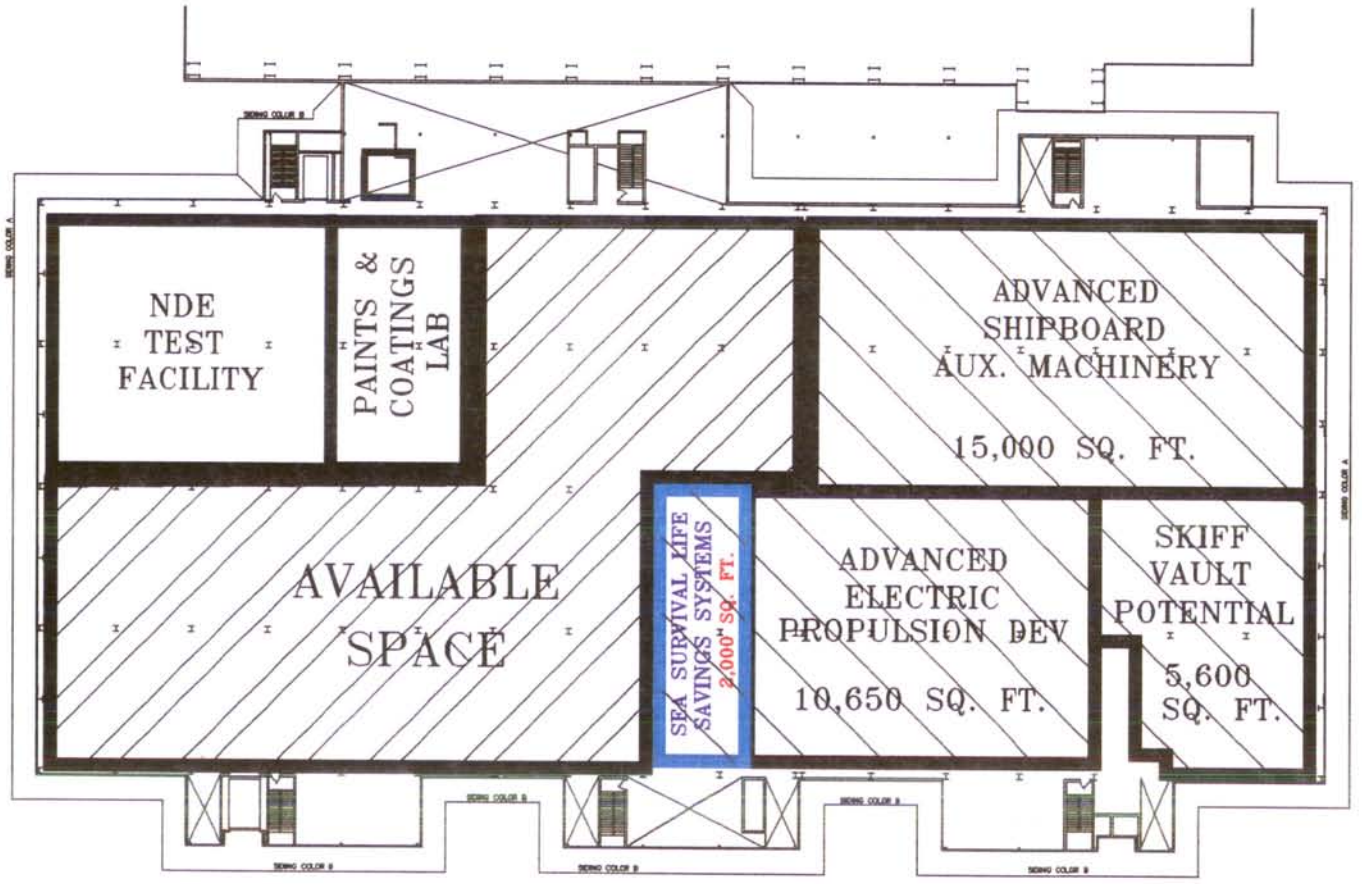
BUILDING 1000 – FIRST FLOOR

(7) SEA SURVIVAL LIFE SAVING SYSTEMS FACILITY

This facility exists to investigate, identify and correct the causes of product failures and poor operational performance in the area of sea safety equipment and consists primarily of benchtop and wall mounted equipment for small scale testing, sample conditioning, sample ageing, life-cycle simulation, and sample preparation.

It is recommended that this facility be integrated with the Philadelphia damage control and Chemical, Biological, and Radiation protection functions. This facility would be located on the third floor of Building 1000 where adequate space and support services are available.

(7) SEA SURVIVAL LIFE SAVING SYSTEMS					
ANNAPOLIS			PHILADELPHIA		
COMPONENT	FT^2	REQUIREMENTS	SITE CAPABILITIES	FT^2	LOCATION
Sea Survival Life Saving Systems	2000	240v, 110v A/C & Humidity Control potable water	240v, 110v A/C & Humidity Control potable water	2000	1000, 3rd Floor



SCALE: FIT

= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

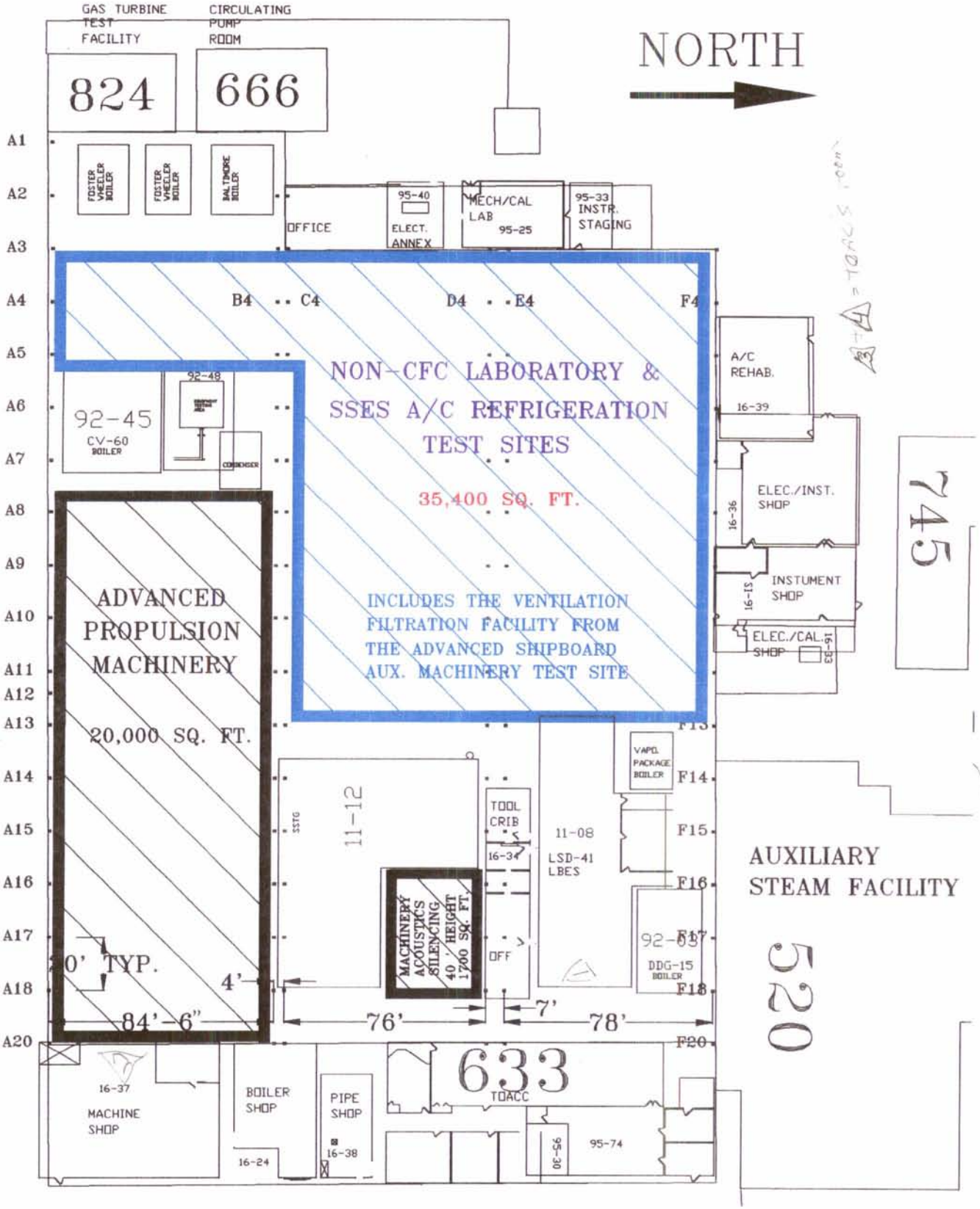
BUILDING 1000 – THIRD FLOOR

(8) NON-CFC LABORATORY

The Non-CFC Laboratory is a large complex composed of many test facilities integrated and interconnected by a variety of shared water systems, electrical power distribution systems and data acquisition and analysis systems. Overall it encompasses 30,000 ft^2 of floor space with very high floor loading (550 lbs/ft^2) in a high-bay area (16 ft) with 15 ton crane service. The facility requires 6,000 gallons/minute of cooling water and 560 kilowatts of 480v, 60 hertz, three phase electrical power.

It is proposed that this facility be integrated with the existing Philadelphia Air Conditioning and Refrigeration Site and be located in building 633. This arrangement will permit the continuation of both the Annapolis and Philadelphia Non-CFC program with minimal schedule impact. In the targeted location there is 33,000 ft^2 of floor space capable of handling the high floor loading specified with a minimum overhead clearance of 40 ft. Additionally, 50,000 gallon/minute of cooling water capacity already exists in this area with heat rejection to the Reserve Basin and can support air conditioning plants over the full range of conditions encountered in service. This is an unlimited source of cooling water with NO environmental restrictions. There is also sufficient electrical power from a substation that was installed to support the now idle Improved Performance Machinery Program Test Site. This area also has 50 ton crane service and is tied into our Test Operations and Analysis Control Center (TOACC). TOACC is an automatic, computerized data collection, storage, and retrieval system which provides for high speed remote data acquisition as well as local data acquisition at the test site.

(8) NON-CFC LABORATORY					
ANNAPOLIS			PHILADELPHIA		
COMPONENT	FT^2	REQUIREMENTS	SITE CAPABILITIES	FT^2	LOCATION
Non-CFC Laboratory	30000	6 MW elec power 16 ft high bay 6000 gpm cooling water 15 ton crane 550 lbs/ft^2 floor load Data Acquisition	> 6 MW elec power 40 ft high bay 50,000 gpm cooling water 50 ton crane > 550 lbs/ft^2 floor load Data Acquisition (TOACC)	33,000	633



= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= AVAILABLE SPACE

= PHILADELPHIA TEST SITE LOCATIONS

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 633

CONSOLIDATED

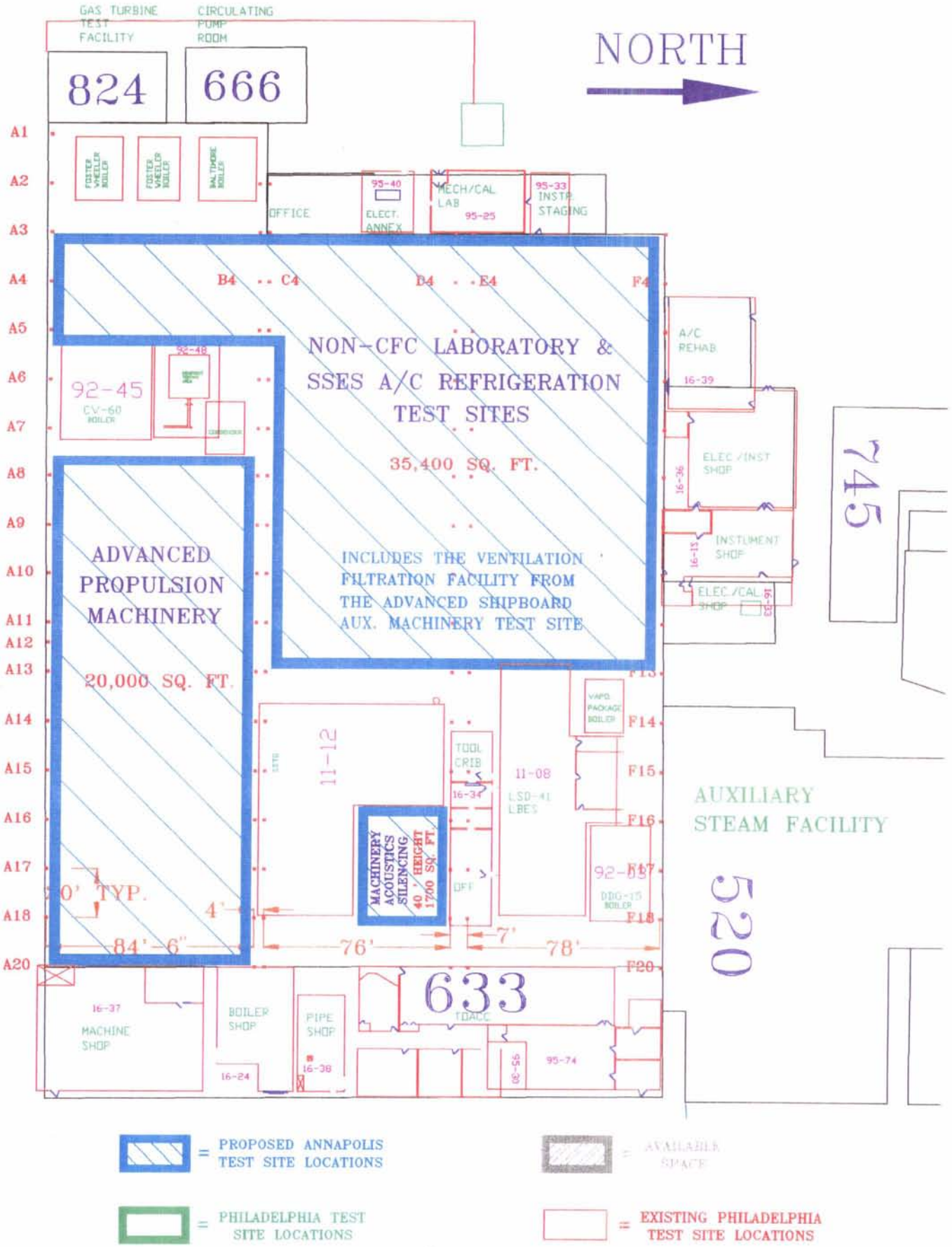
PHILADELPHIA

SITE PLAN

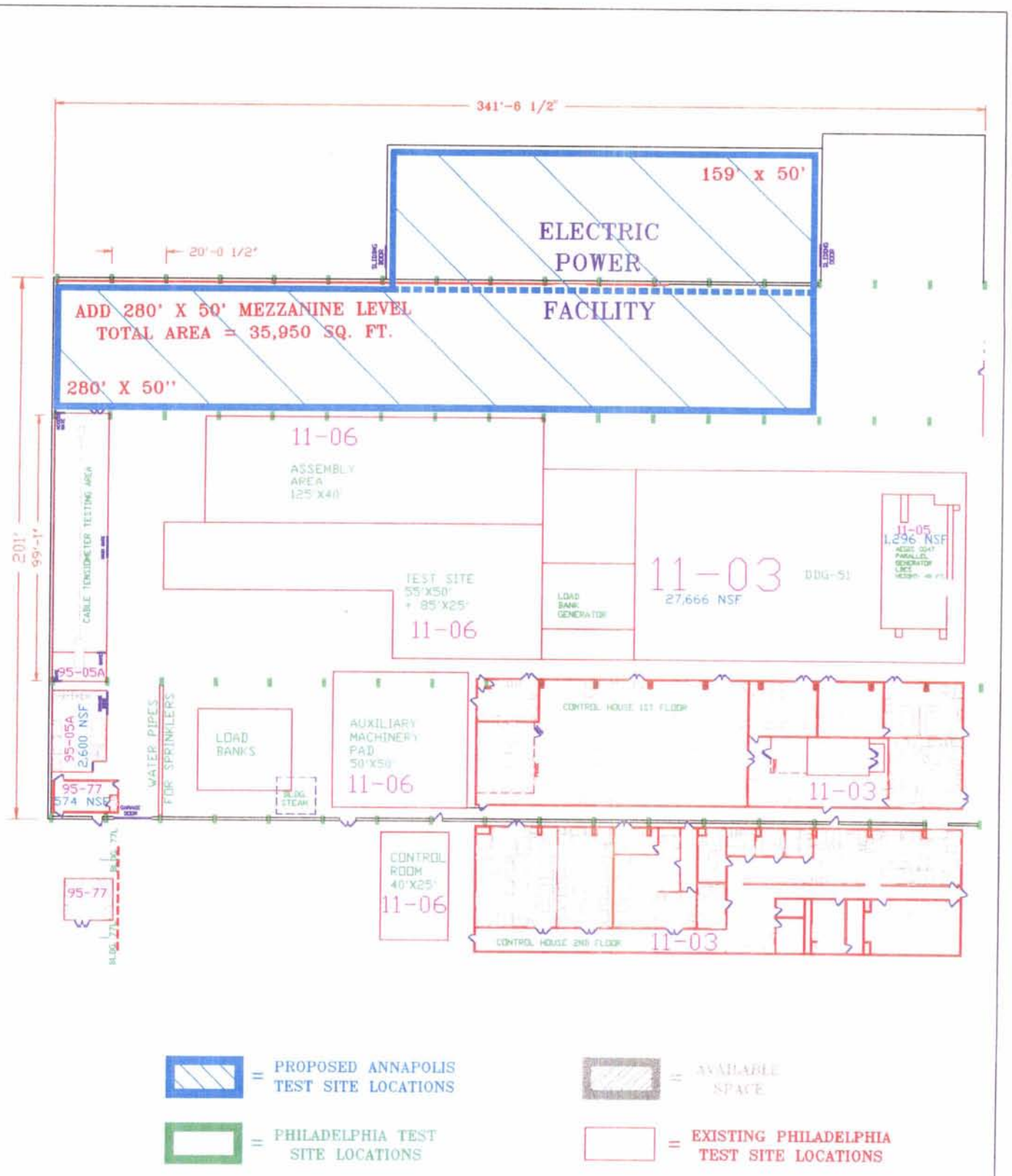
BLDG 633

BLDG 77H

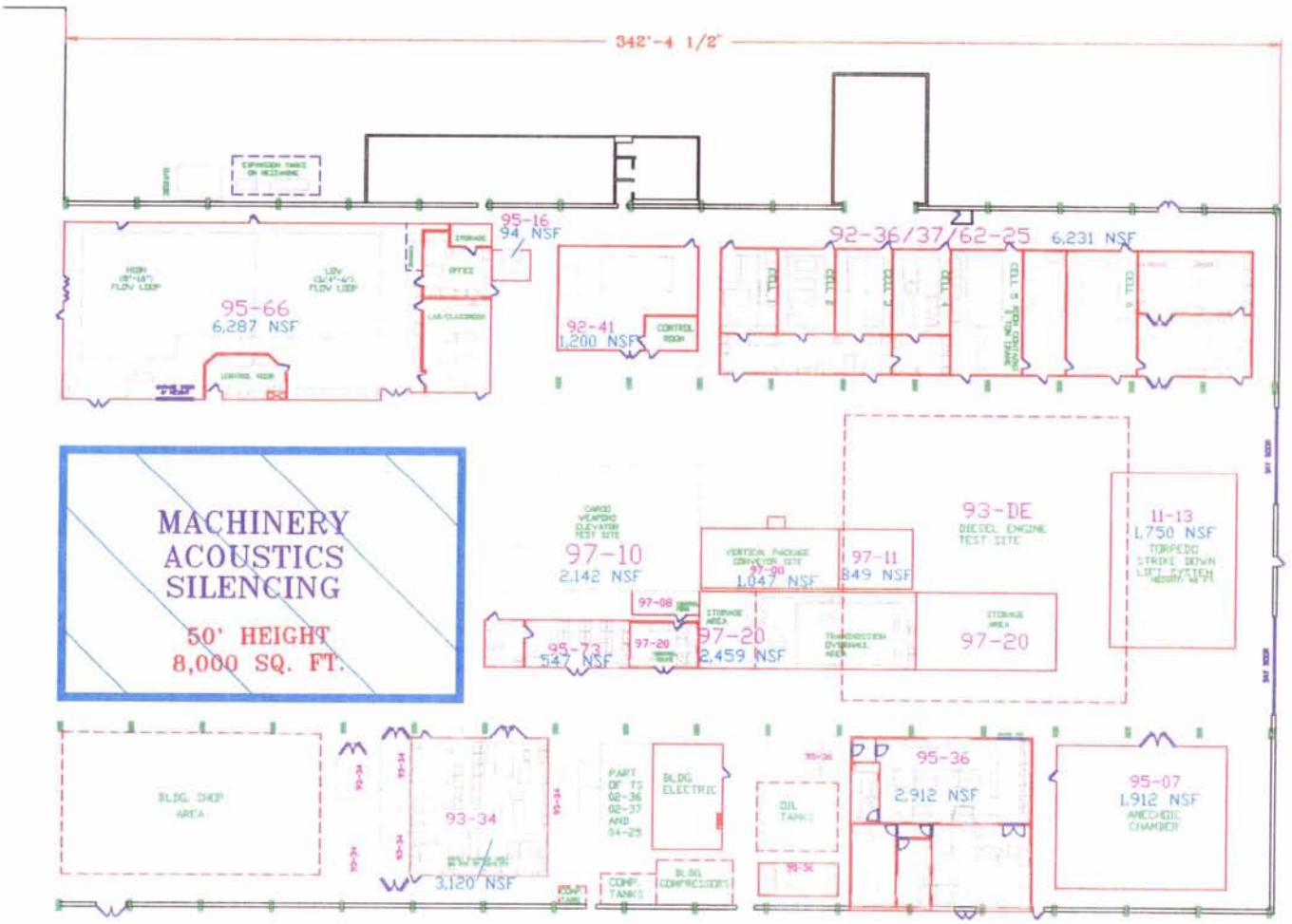
BLDG 1000



BUILDING 633



BUILDING 77H NORTH



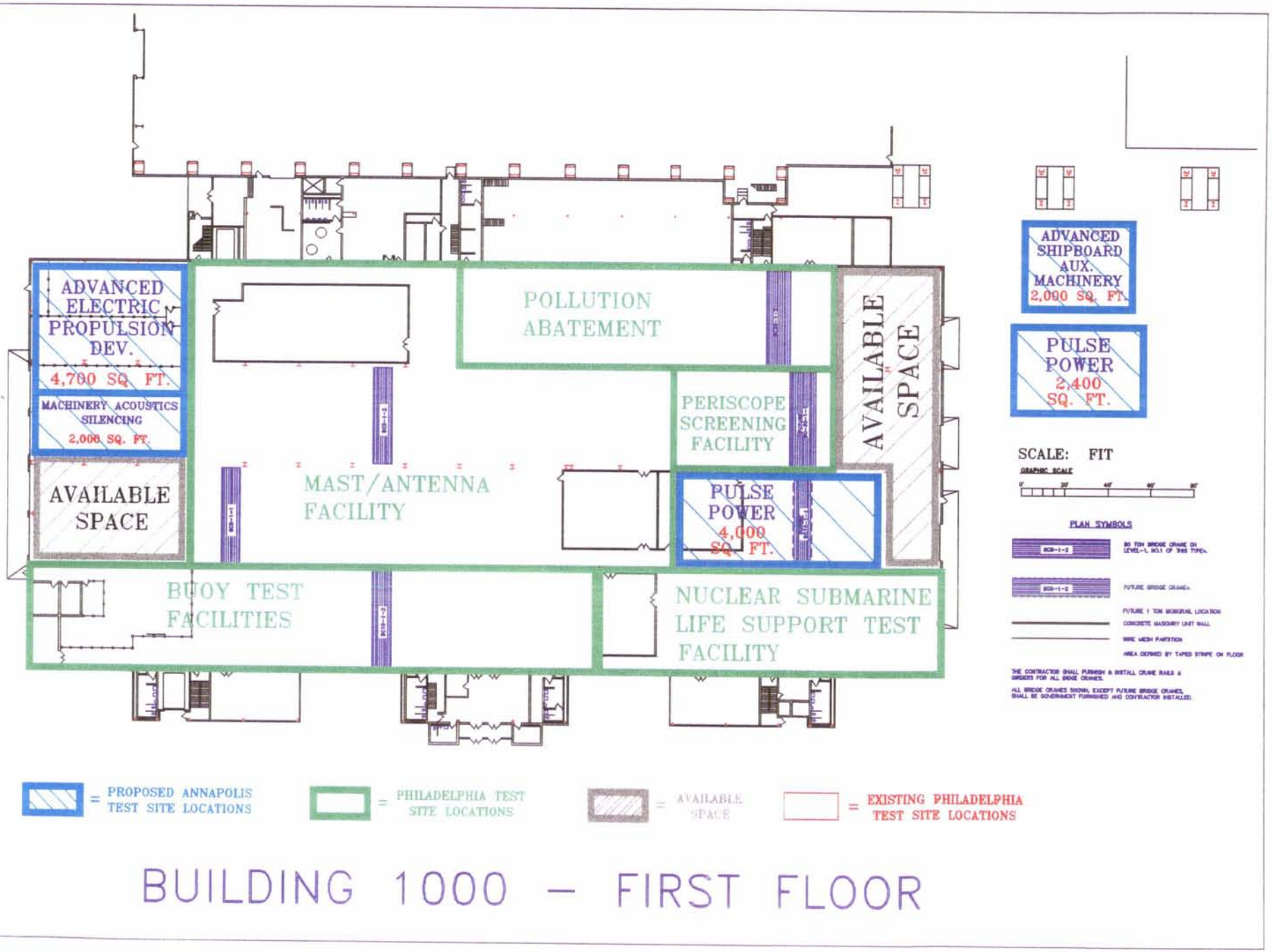
= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= AVAILABLE SPACE

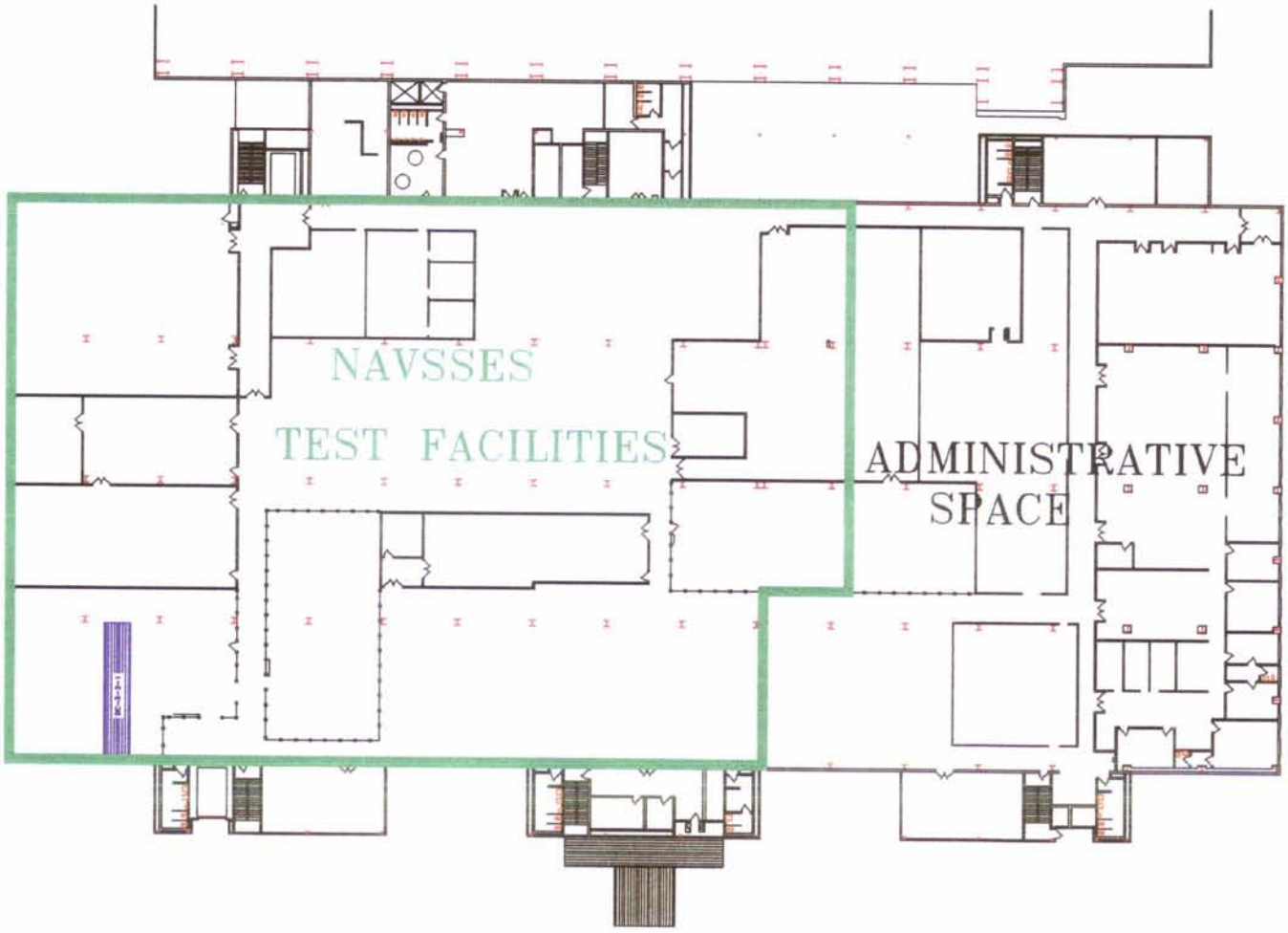
= PHILADELPHIA TEST SITE LOCATIONS

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 77H SOUTH



BUILDING 1000 – FIRST FLOOR



SCALE: FIT

GRAPHIC SCALE

PLAN SYMBOLS

80 TON BRIDGE CRANE ON LEVEL-1, NO.1 OF THIS TYPE.

FUTURE BRIDGE CRANE.

FUTURE 1 TON MONORAIL LOCATION

CONCRETE MASONRY UNIT WALL

WIRE MESH PARTITION

AREA DEFINED BY TAPED STRIPE ON FLOOR

* THE CONTRACTOR SHALL FURNISH & INSTALL CRANE RAILS & GIRDERS FOR ALL BRIDGE CRANES.

* ALL BRIDGE CRANES SHOWN, EXCEPT FUTURE BRIDGE CRANES, SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED.

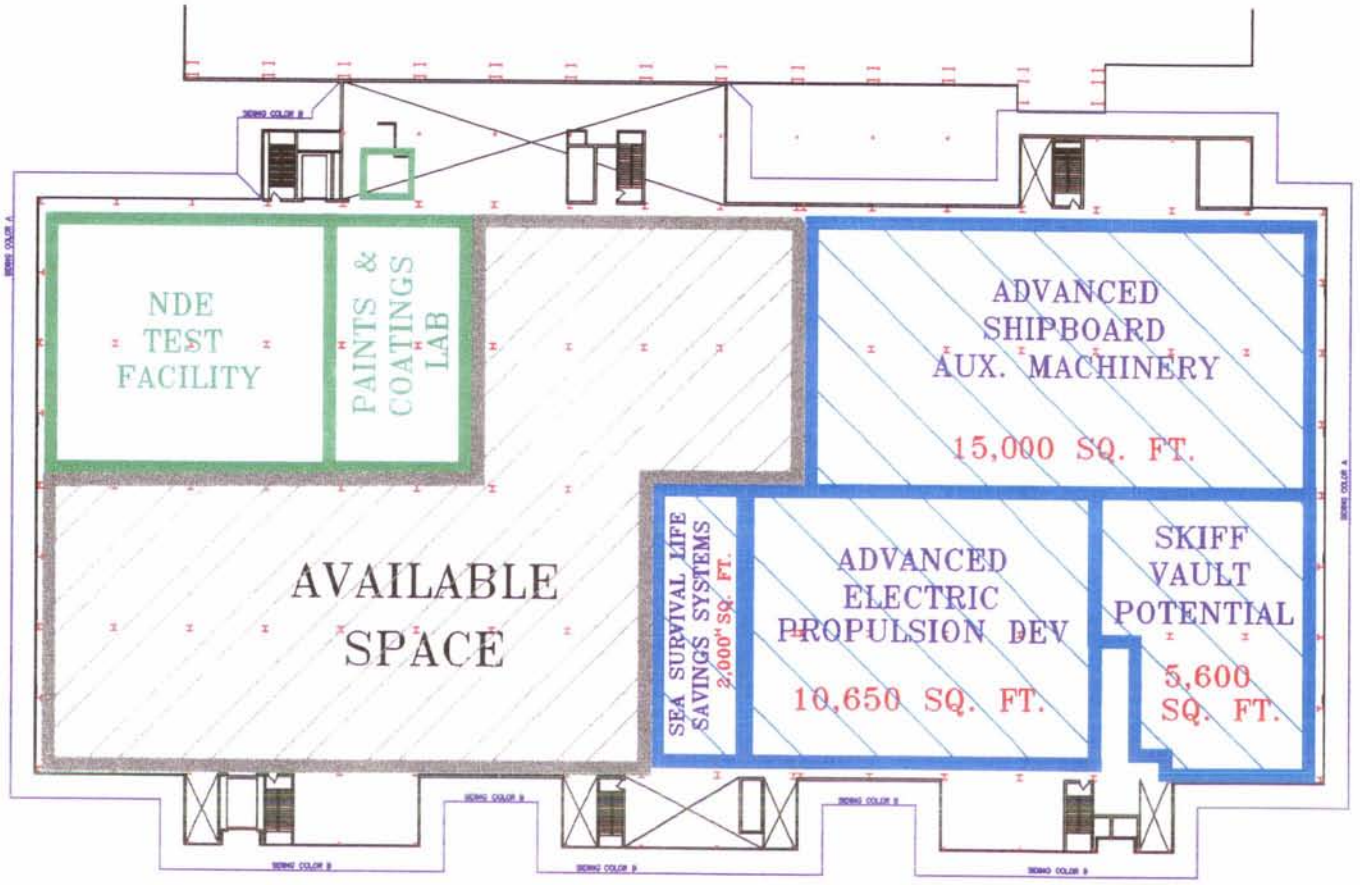
= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 1000 – SECOND FLOOR



SCALE: FIT

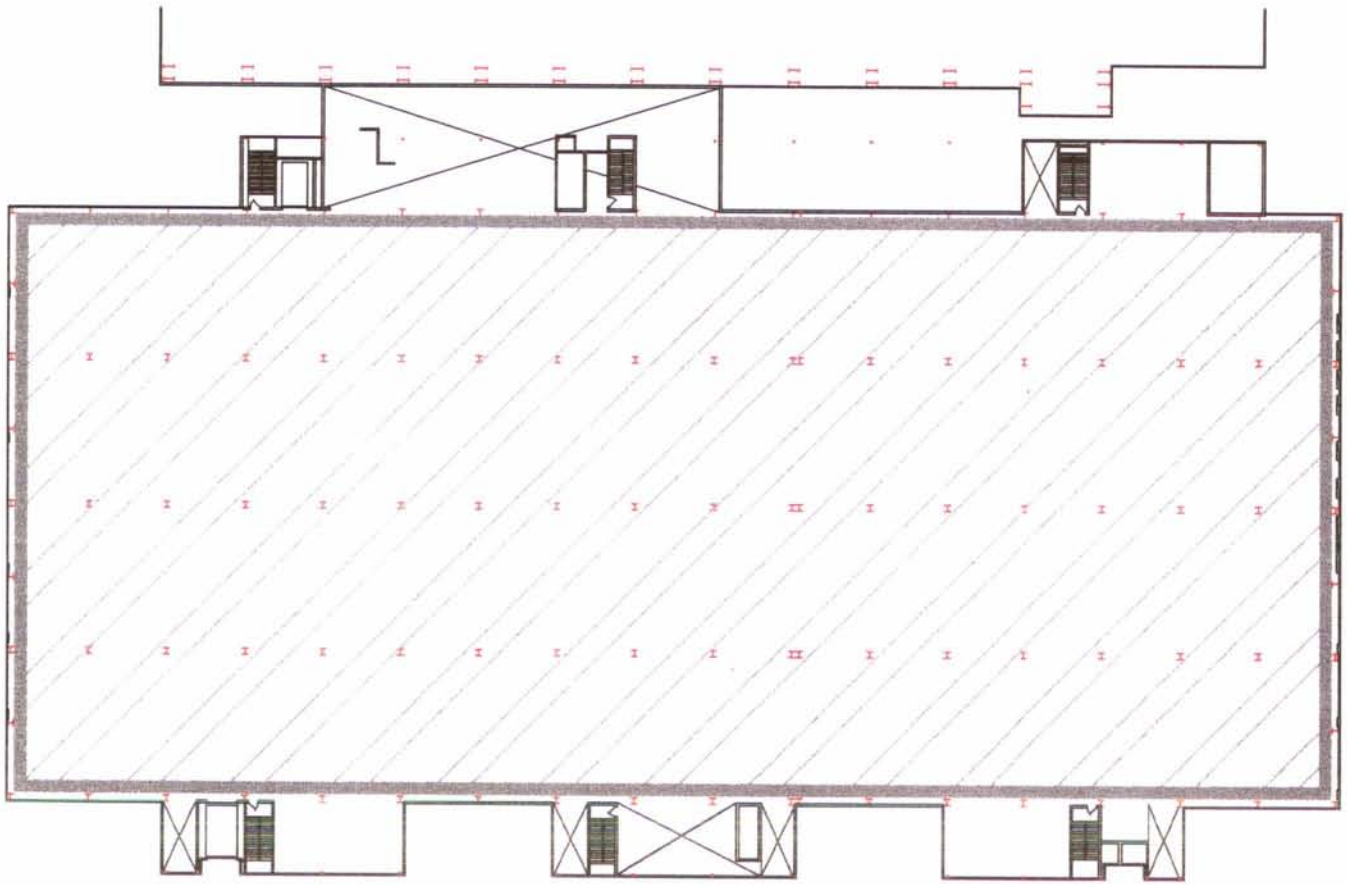
= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 1000 – THIRD FLOOR



SCALE: FIT

GRAPHIC SCALE

PLAN SYMBOLS

BCS-1-2 — 80 TON BRIDGE CRANE ON LEVEL-1, NO.1 OF THIS TYPE.

BCS-1-2 — FUTURE BRIDGE CRANE.

FUTURE 1 TON MONORAIL LOCATION

CONCRETE MASONRY UNIT WALL

WIRE MESH PARTITION

AREA DEFINED BY TAPED STRIPE ON FLOOR

* THE CONTRACTOR SHALL FURNISH & INSTALL CRANE RAILS & GIRDERS FOR ALL BRIDGE CRANES.

* ALL BRIDGE CRANES SHOWN, EXCEPT FUTURE BRIDGE CRANES, SHALL BE GOVERNMENT FURNISHED AND CONTRACTOR INSTALLED.

= PROPOSED ANNAPOLIS TEST SITE LOCATIONS

= PHILADELPHIA TEST SITE LOCATIONS

= AVAILABLE SPACE

= EXISTING PHILADELPHIA TEST SITE LOCATIONS

BUILDING 1000 – FOURTH FLOOR

PERSONNEL

LOADING

BY BUILDING

PROJECTED FY-97 PERSONNEL LOADING BY BUILDING

	TOTAL	PROJECTED LOADING BLDG. 4	PROJECTED LOADING BLDG. 619	PROJECTED LOADING BLDG. 29	PROJECTED LOADING BLDG.1000	PROJECTED LOADING BLDG. 77H	PROJECTED LOADING FIREHOUSE BLDG. 56
AVAILABLE SF		147,400	39,548	27622	100,550		
MAXIMUM LOADING @ 150sf/person	2,167	982	264	184	670	21	46
PROJECTED LOADING	1,790	977	260	170	316	21	46
BALANCE AVAILABLE	377	5	4	14	354	0	0

CIVILIAN	1602
MILITARY	13
CONTRACTORS	24
PSD OFFICE	17
ANNAPOLIS	281
SUBTOTAL	1937
SHOP & TRANS	-120
WHS & HAZMAT	-27
TOTAL ADMIN	1790

EXISTING

NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION
SHIP SYSTEMS ENGINEERING STATION
PHILADELPHIA, PA.

NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION
SHIP SYSTEMS ENGINEERING STATION
PHILADELPHIA, PA.

NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION PHILADELPHIA

BACKGROUND

The Naval Surface Warfare Center, Carderock Division, Ship Systems Engineering Station (NSWCCD-SSES) is located on the Philadelphia Naval Base. Founded in 1910, the engineering station has a long history of technical innovation.

The Station evolved from a fuel oil testing plant in 1910 to a full-scale naval engineering center, providing life cycle engineering services for the U.S. Navy, U.S. Coast Guard, Army Corps of Engineers, foreign navies, and the commercial maritime community. NSWCCD-SSES currently employs about 1,600 people. Engineers, scientists, and technicians comprise approximately 80% of this employee base.

The Station has the life cycle responsibility and the capability to test and engineer the full range of shipboard systems and equipment from main propulsion systems to digital controls and electric power. Its test facilities are also uniquely environmentally permitted to conduct testing within current requirements.

Additionally, the Station possesses a corporate knowledge of more than 20,000 years of machinery systems technical experience and is the dominant source of hull, mechanical and electrical (HM&E) engineering support, including logistics, for the Navy.

MISSION

- Provide engineering and technical management of HM&E ship systems
- Provide test and evaluation of HM&E ship systems
- Provide in-service engineering of HM&E ship systems & equipment
- Perform such other responsibilities as assigned by Commander, Naval Surface Warfare Center, Carderock Division

TECHNICAL CAPABILITIES

- Areas of technical leadership/responsibilities in ship systems

  - Marine Gas Turbines
  - Ship Survivability
  - Shock & Vibration
  - Submarine Life Support
  - High & Low Pressure Air
  - Submarine Antenna
  - Fiber Optics
  - Materials & Fluid Systems
  - Paints & Coatings
  - Corrosion Prevention
  - Diesel Propulsion
  - Aerosol Separators
  - Failure Analysis
  - Non-Destructive Testing
  - Metallurgy
  - Chemical Analysis
  - Machinery Control Systems
  - Vertical Package Conveyors
  - Steam Propulsion Systems
  - Cargo/Weapon Elevators
  - Condition Based Maintenance
  - A/C, Refrigeration and Ventilation
  - Electronic Cooling Systems
  - Undersea Vehicle Sail and Deployed Systems
  - Radar Cross Section Measurement
  - Electrical Power Generation
  - Environmental Pollution Abatement
  - Volumetric Flow Calibration
  - Petroleum, Oil and Lubrication
  - Data Collection and Calibration

NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION PHILADELPHIA

FACILITIY CAPABILITIES

- The station's facilities infrastructure includes:
  - More than 515,000 square feet of test space.
  - 96,700 square feet of special reinforced floors.
  - Can produce one million pounds of steam per hour.
  - Environmentally compliant cooling water system with a capacity of more than 150,000 gallons per minute.
  - Can store 1.3 million gallons of fuel oil.
  - 14,000 Kwh of electric power available.
  - Centralized data acquisition and analysis system fiber optically linked to all major test sites.

MAJOR TEST SITE FACILITIES

- Boiler Components Test Facility
- Steam Propulsion Test Facility
- Data Collection and Calibration Facility
- Gas Turbine Development Facility
- Small Gas Turbine Test Facility
- Diesel Engine Development Facility
- Mission Support Facility
- Environmental Systems Facility
- Power Generation Test and Evaluation Facility
- Materials and Processes Facility
- Fiber Optics Facility
- Undersea Deployed Systems Facility
- Compressed Air Systems Facility
- AC&R Test Facility
- Survivability Engineering Facility
- Steam Propulsion Support Facility
- Cargo and Weapon Systems Facility

ENGINEERING SERVICES

- Key part of Station Mission is In-Service Engineering. This includes the following responsibilities:
  - Design
  - Systems & Engineering
  - Test & Evaluation
  - Software Maintenance
  - Safety
  - Configuration Management
  - Installation
  - Training & Manning
  - Integrated Logistics Support
  - Maintenance Engineering
  - Production Support
  - Test Equipment

STEAM PROPULSION TEST FACILITY
SUBMARINE PROPULSION & AUXILIARY POWER TEST SITE
ONLY NAVY SUBMARINE PROPULSION & ELECTRICAL GENERATION TEST SITE

MAIN PROPULSION UNIT TEST SITE HISTORY

Design and construction of the Main Propulsion Test Site occurred between 1984-1987 to provide an independent facility to evaluate various manufacturer's stream turbine propulsion units. Unique facility systems include a Centralized Boiler Operation Station and the incorporation of a Stream Conditioning Station providing a realistic shipboard system for testing.

MAIN PROPULSION UNIT TEST SITE ACCOMPLISHMENTS

The test and evaluation of two major Submarine Class Improved Performance Machinery Programs for the Los Angeles Class (SSN-688) and the Seawolf Class (SSN-21) were accomplished at this site. Specific accomplishments include:

- Full power testing of Improved SSN-688 Class Main Propulsion Unit
- Full power testing of SSN-21 Class prototype Main Propulsion Unit
- Uncovered 980 Discrepancies during testing of which 90% were corrected and retested at NSWCCD-SSES

Today's submarines use safety, full power, and economy procedures developed during testing at this facility.

ELECTRICAL POWER GENERATION TEST SITE

This site was designed and constructed between 1988-1992. This facility is capable of performance testing of one Ship Service Turbine Generator (SSTG) set from a Trident Class submarine. Alternate bearing technology will be tested and evaluated on one of these SSTG sets beginning in December 1994.

FACILITY ADVANTAGES

The Main Propulsion Site and Electrical Power Site provide numerous advantages to the Navy and DOD in general. These sites maintain the Navy's capability to provide tested solutions to Fleet equipment problems without tying up operational ships. Today's test engineer is the Fleet's In-Service Engineer who is well trained and experienced. These facilities are the only full power capable sites within the U.S. which provide the Navy with impartial, third party testing of various manufacturer's equipment.

FUTURE/POTENTIAL USERS

Future uses of these facilities include test and evaluation of the new attack submarine main propulsion unit and turbine generator; and use as beds for overhauled and repaired main propulsion units and SSTGs. New technologies such as: alternate bearings, quiet steam flow valves, sound damping mounting improvements and active force cancellation will also be evaluated.

STEAM PROPULSION TEST FACILITY
MULTI-PURPOSE STEAM EQUIPMENT TEST COMPLEX
LARGEST CONSOLIDATED HIGH PRESSURE STEAM TEST FACILITY IN THE U.S.

FLEET OPERATIONAL UNITS

Currently, the Navy utilizes Steam Generators (Boilers) on over 190 of the ships in the active Fleet. These include: Main Propulsion Boilers on Boiler-Power Ships (75), Reboilers for nuclear powered ships (16), Auxiliary Boilers for Diesel and Nuclear Powered Ships (42) and Waste Heat Boilers for Gas Turbine Ships (60).

STEAM EQUIPMENT TEST COMPLEX CAPABILITIES

In response to stream power Fleet assets, NSWCCD-SSES Philadelphia's Steam Complex is capable of providing the following services:

- Testing of all the main propulsion systems for all future nuclear and conventional steam ships
- Producing over one million pounds per hour of superheated or saturated steam
- Steam pressure up to 1,500 psi
- High quality feedwater
- Fuel and water storage
- State of the art instrumentation
- EPA permits for water/gas discharge

SAMPLING OF TESTS COMPLETED

- Seawolf (SSN-21) propulsion steam turbine/plant tested
- Flow tests of LHD boiler superheater
- Flow testing of SSN-21, SSN-688 and CVN-68 main feed and steam valves
- Flow testing of main feed pumps or other water pumps for conventional or nuclear ship systems
- Heat exchanger performance testing

DUAL USAGE FOR DEFENSE CONVERSION

NSWCCD-SSES Philadelphia Steam Complex can support various other federal and private stream equipment development and testing.

- Military Sealift Command (MSC)
- Foreign Military Sale/Lease (FMS)
- Government Stationary Steam Plant Facilities
- Private Industry

DATA COLLECTION AND CALIBRATION FACILITY
TEST OPERATIONS ANALYSIS AND CONTROL CENTER
CENTRALIZED COMPUTER BASED DATA MONITORING AND ANALYSIS FACILITY

SITE UNIQUENESS/PURPOSE

The Test Operations Analysis and Control Center (TOACC) at the NSWCCD Ship Systems Engineering Station is the largest Fleet machinery vibration and performance data-bases in the Navy; no OEM has a comparable capability. The 100 percent government developed and operated center, with the higher throughput (hundreds of machines per week) supports data monitoring, analysis and archiving; operator console monitoring; and safety and alarm displays/warnings. It is fully instrumented to replicate AEGIS ships.

FUNCTIONS

TOACC provides the capability for independent assessment and smart buyer capabilities for systems/equipment being tested at NSWCCD-SSES. It can also be used for validation of expert diagnostic rules and virtual reality prototyping. Additionally, the Center can be utilized as a multi-media data communication hub to other engineering activities. The technologies contained within the Center include:

- High speed computerized data acquisition
- Complex vibration signal processing and automated analysis
- Electronic circuit design, analysis and fabrication
- Artificial intelligence hardware and software development and application

CAPABILITIES

A sampling of the Test Operations Analysis and Control

CAPABILITIES

A sampling of the Test Operations Analysis and Control Center's capabilities are listed below:

- Fiber optic linked to remote sites
- Real time data capture, display and storage
- On-line calculations and analysis
- Electronic data links to/from Fleet engineering teams
- Satellite connection to deployed ships (SALTS)

BENEFITS

Among the benefits of utilizing the facilities located within TOACC are:

- Centralized concept eliminated duplication of hardware and labor.
- Modular building blocks plus needs of test engineers/sponsors equal cost-effective, customized solutions.
- The on-line processing/analysis capability results in optimum real-time engineering testing decisions.

IMPACTS

TOACC supports shipboard systems throughout the full life-cycle (R&D) prototype/acceptance, training, and deployed operation) and its automated vibration screening and analysis provides 48-hour turn-around on reports to the Fleet. The site/Fleet data contained within the Center is the source for diagnostic expert system rule generation. Additionally, the existing resources facilitate efficient component/small-scale testing at NSWCCD-SSES.

DATA COLLECTION AND CALIBRATION FACILITY
VOLUMETRIC FLOW CALIBRATION LABORATORY (VFCL)
DOD's ONLY CERTIFIED 10,000 GPM FLOW CALIBRATION AND T&E FACILITY

FLEET IMPACT

The Volumetric Flow Calibration Laboratory (VFCL) provides the Fleet with efficient, affordable machinery health monitoring; cost effective predictive maintenance; maximum system readiness and operation; logistics support and troubleshooting problem resolution by telephone; and qualified enlisted personnel, through on-site training.

VFCL BENEFITS

Use of the VFCL provides measurement traceability to national standards; and gives NSWCCD-SSES a "smart buyer" capability for flowmeter technology that is not attainable elsewhere. The Fleet data archived here yields class-wide problem identification and resolution.

VFCL CAPABILITIES

Independent and simultaneous flow calibrations utilizing both high flow and low flow systems can be accomplished at the VFCL. It allows SSES to calibrate both intrusive and non-intrusive flowmeters. It also is utilized for research, development, specification, testing, and evaluation of various types of flowmeters and piping system dynamics. Flowmeter training is conducted at the VFCL for both civilian and military personnel.

VFCL UNIQUENESS

The VFCL is the only facility of its kind in the world and is certified by the National Institute of Standards and Technology (NIST). The lab replicates all surface ship and submarine piping systems.

VFCL SPECIFICATIONS

- 0-10,000 GPM of fresh water
- Copper, copper/nickel, brass, stainless steel, and carbon steel piping in 3/4" thru 16" diameter sizes
- 0.5% of flow rate system accuracy

AWARDS & RECOGNITION

- LOA from NAVSEA for outstanding Fleet support (Sept 1992)
- Outstanding Customer Service Award (Dec 1992)
- Excellence in Government Award, Silver Medalist (May 1993)
- Total Quality Leadership Cost Reduction Award (Septr 1993)

FUTURE PLANS

- Installation of additional test pipe sections to increase capabilities for new ship classes
- Upgrading the control system to improve efficiency and productivity
- Installation of overhead rail system for more efficient handling of large intrusive flowmeters

REPLACEMENT COST = $4,000,000

GAS TURBINE DEVELOPMENT FACILITY
INTERCOOLED RECUPERATED GAS TURBINE DEVELOPMENT FACILITY
ONLY GAS TURBINE DEVELOPMENT TEST FACILITY IN THE NAVY

ICR LBTS ACCOMPLISHMENTS

The Intercooled Recuperated Westinghouse/Rolls Royce RB211 gas turbine engine is the Navy's propulsion gas turbine for the 21st century. Currently the site has accomplished the following:

- Test site design completed ahead of schedule and cost
- Construction 70% complete
- Planning developmental and production test programs with Navy and industry

ICR LBTS BENEFITS

Early design changes developed at a land based test site save Fleet wide retrofits. There is a 50% cost reduction benefit for testing at ICR test site vice shipboard. In-house expertise reduces Fleet introduction costs and drives down the cost of follow-on engineering changes - documented. Shipboard crews learn from the experienced test site engineers.

UNIQUE SITE CAPABILITIES

The ICR LBTS is designed to make extremely accurate fuel, air and torque measurements necessary to determine the performance capabilities of various types of gas turbines and diesels. Items such as rapid engine change out/in, electrical propulsion testing and large diesel testing make the test site extremely flexible.

ICR LBTS PROGRAMS

- ICR development testing
- ICR production testing (dual/joint use)
- Electric propulsion testing
- Crew training
- Capability to accommodate large gas turbine and diesel engines
- Fast turnaround capability

ICR LBTS ECONOMICS

- Expenditures thru FY94: $ 6M
- Potential savings:
  - Ship Integration $ 1M
  - Hot Plant Training $ 10M
  - IPS Testing $ 5M
  - ICR Production Testing $ 10M

  $ 26M
- Fuel Savings per Ship per Year $ 1.3M

SMALL/MEDIUM GAS TURBINE AND AEROSOL TEST COMPLEX
SMALL/MEDIUM GAS TURBINE TEST FACILITY
THE ONLY LANDING CRAFT AIR CUSHION GAS TURBINE TEST FACILITY

SMALL/MEDIUM GAS TURBINE FACILITY

The Small/Medium Gas Turbine Test Facility was designed and constructed to test gas turbine engines up to 10,000 horsepower. The facility consists of two explosion proof test cells that are fully supported by an automatic fire suppression system, river and city water, low pressure shop air, steam and 120/140 volts AC and 24 volt DC electrical power. Both the TF40B and T-62T-40-7 gas turbine engines are located in test cell number Two, to minimize operating and maintenance costs.

ACCOMPLISHMENTS

NSWCCD-SSES has successfully tested and validated components for TF40B, such as:

- Exhaust Diffuser
- Exhaust Gas Temperature Limiter
- Foreign Object Damage Screen

The latest materials and technologies have been installed and evaluated on the T-62-T-40-7 gas turbine at NSWCCD-SSES. Some examples of these are as follows:

- Carbon and Ceramic Seal
- Electronic Sequencing Unit
- Flexible Fuel Manifold

Fleet support testing accomplishment includes LCAC on-line detergent wash fluid evaluation, cold weather emissions testing and alternate fuels testing.

REPLACEMENT

The following valves are estimated for the replacement of the Small/Medium Gas Turbine Facility.

Building $900,000

Engine Hardware $600,000

Auxiliary Systems $1,200,000

SMALL/MEDIUM GAS TURBINE AND AEROSOL TEST COMPLEX
AEROSOL SEPARATOR TEST FACILITY
THE ONLY NAVY GAS TURBINE INTAKE FILTER TEST FACILITY

AEROSOL SEPARATOR HISTORY

The cleanliness of air entering a gas turbine engine is critical to its performance, as well as, to the safety of equipment and personnel. The Navy has selected NSWCCD-SSES Philadelphia to be the qualification facility for all gas turbine inlet filters. NSWCCD-SSES Philadelphia's experience in gas turbine testing and Fleet support aids in the overall analysis in the effectiveness of new Aerosol Separators (i.e. filters). NSWCCD-SSES utilizes laser technology in the evaluation of the separators' effectiveness in removing various sized particles and concentrations.

CAPABILITIES

Aerosol Separator Test Facility is capable of the injection of salt water spray and sand/dust to simulated actual conditions experience anywhere within the Navy's operating limits. Environmental conditions such as relative humidity, temperature and velocity can be controlled in this facility.

PREVIOUS TESTING

The NSWCCD-SSES Philadelphia facility has been used to support qualification testing for the DDG-51, LCAC and A1M1 Tank.

FUTURE TESTING

- Advanced Amphibious Assault Vehicle Inlet Filtration System
- DDG-51 Inlet Filtration System Water Wash Blow-Back Cleaning System for in-place cleaning

DIESEL ENGINE DEVELOPMENT FACILITY
FFG-7 SHIP SERVICE DIESEL ENGINE DEVELOPMENT FACILITY
THE ONLY BASELINE CONFIGURATION FFG-7 CLASS DIESEL ENGINE SITE

FFG-7 TEST SITE HISTORY

The FFG-7 Ship Service Diesel Engine Facility has been utilized to complete component and system testing. Highlights of testing include: mechanical and safety shutdown devices, starting air compressor for gas turbine engines, brushless excitation system, lube oil strainer, and fuel filter.

ACCOMPLISHMENTS

- Transient Load Tests
- Performance Enhancement Program
- 2,000 Hour Reliability Test
- High Speed Rotor Test
- Air/Oil Separator Test (Environmental Impact)
- Numerous Component Improvement Tests
- Engine changes and improved components installed throughout the Fleet

FFG-7 CLASS SHIPS

The FFG-7 Class has the largest population of ships (50) within the active Fleet today. FFGs are used in the following roles: carrier escort, convoy escort, anti-submarine warfare and anti-drug enforcement operations.

BENEFITS

- Improved engine reliability
- Increased engine mean time before overhauls
- Enhanced engine performance
- Reduced maintenance load

REPLACEMENT/RELOCATION COSTS

Replacement cost $5 million

Movement cost $5.75 million

DIESEL ENGINE DEVELOPMENT FACILITY
DIESEL ENGINE TEST SITE
ONLY SSN-688 CLASS EMERGENCY DIESEL AND SNORKEL VALVE TEST SITE

PRESENT AND FUTURE USE

The Diesel Engine Test Site provides wide ranging support from testing environmental factors to performance testing. The site can support more than one ship class, such as, SSN-688, MHC and MCM ship classes. Current and future uses include:

- Exhaust Emission Reduction Program
- Marine Corp Rotary Engine Validation
- Mine Hunter Coastal Class Engine Durability Test
- MCM-3 Class MPDE Improved Parts Validation
- Submarine Engine Block Repair Validation
- Prototype Data Collection and Analysis System

PAST UTILIZATION

In the past the Diesel Engine Test Site has been utilized to support: Navy distillate fuel programs, shale oil fuel program, coal derived fuel program, fuel qualification procedure, submarine EDG blower overhaul procedure, MCM-3 Class MPDE qualification, FFG-7 Class SSDG qualification, and Dyna-Star engine qualification.

MULTIPLE USE FACILITY

The Diesel Engine Test Site is a multi-facet facility capable of engine tests, component test, fuel test, lube oil test, prototype tests and can be used as a repair facility.

BENEFITS

The site provides a number of direct benefits to the Fleet such as new fuel technologies which provide for lower costs; improving engine performance; acquisition of in-house expertise gained during testing, which expedites resolution of Fleet problems.

REPLACEMENT/RELOCATION COSTS

Replacement cost $6.7 million

Moving cost $7.0 million

DIESEL ENGINE DEVELOPMENT FACILITY
LSD-41 PROPULSION SYSTEM LAND BASED ENGINEERING SITE
THE ONLY LARGE MEDIUM - SPEED DIESEL ENGINE HOT PLANT

WHIDBEY ISLAND (LSD-41) CLASS

Whidbey Island (LSD-41) Class ships are Amphibious dock landing ships that transport Marines. These ships play a major role in the Littoral Warfare strategy "from the Sea" concept. Military actions such as Desert Storm, Bahrain, Somalia, Haiti and Cuba have utilized these ships. Currently, there are eight operational LSD-41 ships with four additional ships under construction.

LSD-41 LBES ACCOMPLISHMENTS

- Development and Acceptance Testing
  - 350 engineering changes applied to lead ship
  - Operational lessons learned incorporated
- Engine Power Component Investigation Following Initial Ship Delivery
  - Only test facility available
- Crew Familiarization with Propulsion System
  - 400 + crew members trained on "Hot Plant"

LSD-41 SITE HISTORY

Design and construction of the LSD-41 Land Based Engineering Site was in response to significant developments in large diesel engines and machinery control systems. The site replicates the Starboard Propulsion Plant of the LSD-41 Class. Prior to Fleet implementation, construction techniques, diesel system modifications, and operational procedures were evaluated at the site.

FUTURE APPLICATIONS

Future applications for the LSD-41 include testing the main propulsion system for the LPD-17 (LX) Class, Standard Machinery Control System (SMCS), crew familiarization U.S. and foreign military, exhaust emissions control techniques.

BENEFITS

A unique facility for testing an integrated diesel propulsion system. Direct benefits to the Navy include the development of a Center for the Navy's Diesel system knowledge, resolution of Fleet problems and crew familiarization training.

REPLACEMENT/RELOCATION COSTS

Replacement cost $40 million

Movement cost $55 million

T&E AND ISE MISSION SUPPORT FACILITY
MAIN PLANT AUXILIARY STEAM
SUPPORT SYSTEMS FOR T&E OF ALL TYPES MAIN PROPULSION MACHINERY

MAIN PLANT AUXILIARY SYSTEMS

This machinery functions as part of the main plant auxiliary steam system and supports the steam facility which is used for testing machinery for all steam propelled ships in the Navy. The Main Propulsion Plant Systems consist of feedwater treatment facility, fuel oil facility, and main steam facility. These systems can also be utilized to test Fleet pumps, valves, dearating tanks and boiler feedwater equipment.

The following additional industrial support facilities are contained within this complex. These facilities, as well as, all of the industrial test sites and facilities at NSWCCD-SSES, are maintained and operated by a core of highly trained blue collar workers to provide industrial support for our T&E and ISE mission.

- Machine Shop
- Boiler Shop
- Pipe Shop
- Electrical Shop
- Instrument Shop
- Carpenter Shop
- Insulation Shop
- Gear Disassembly Shop
- Tool Crib
- Shop Stores

Replacement cost = $7.9

MAIN PLANT CAPABILITIES

Support facility features/capabilities required for test and evaluation are 1,000,000 gallons of fuel storage; distilling plant capable of 25,000 gallons of feedwater; 1,000,000 gallons per minute of cooling water for test sites within building 633. Additional ancillary systems include a 200,000 gallon per minute cooling water system in building 77H, waste recovery and disposal; electrical load distribution systems; and a steam conditioning system.

PAST AND PRESENT PROGRAMS

Some of the tests supported by this facility in the past:

- SSN-688 Class (IPMP-1) and SSN-21 Class MPU (IPMP-2)
- FFG-7 Class and DDG-963 Main Propulsion
- Landing Craft Air Cushion (LCAC)

Some of the tests currently supported:

- LSD-41 Class Main Propulsion and Control Systems
- Ships Service Steam Turbine Generator
- DDG-51 Class Main Propulsion, Control System, and Electrical Generator
- CG-47 Class Ship Service Gas Turbine Generator and Controls
- FFG-7 Class Ship Service Diesel Generator

ENVIRONMENTAL SYSTEMS FACILITY
ENVIRONMENTAL POLLUTION ABATEMENT TEST SITE
ONLY NAVY IN-SERVICE ENVIRONMENTAL SYSTEMS EQUIPMENT LABORATORY

SITE INFORMATION

This site has provided the Fleet with effective pollution abatement system testing as an integrated system rather than at component levels for fifteen years. The site ensures Fleet compliance with present and future environmental regulations without impacting ship's operation. This site includes a state-of-the-art Analytical Laboratory, full operation oil/water separator systems, air/gas emissions test equipment, sanitary waste sub-systems, a hazardous materials, waste spill response test lab and an automated data acquisition system for effective system/component testing. This site is designed to simulate various shipboard installations and supports processing both controlled and extreme characteristics of waste water influent. The replacement value of this site currently exceeds $2.5M.

Direct Fleet cost savings:

- Saved the Navy $9M while providing the Fleet with a more reliable oil content monitor.
- Use of state-of-the-art equipment produces a yearly operational savings of $100K.
- Machinery alterations developed on the site produce yearly savings of near $200K.
- Saved maintenance time and lowered cost by providing the Fleet with a reliable oily waste transfer pump.

ACCOMPLISHMENTS

The Environmental Pollution Abatement Test Site aided the Navy during deployments such as Desert Storm and conducting various analysis of ship's influent and hazardous material support. Some examples of our accomplishments include:

- Conducted bilge water characterization study for the U.S. Coast Guard polar ice breakers.
- Evaluated oil pollution problems related to compensated fuel systems.
- Developed a hazardous material spill response kit for Fleet distribution.

ONGOING PROJECTS

Currently, Environmental Pollution Abatement facilities are being utilized to support the Fleet, as well as, joining with local universities and the EPA to improve maritime abatement procedures.

- Evaluate oil/water separator effluent characteristics under controlled conditions.
- Evaluate bilge cleaners compatible with Navy oil/water separators.
- Joint venture with universities and private industry to study transport phenomena of oily waste mixtures flowing thru piping and oil water separators.

POWER GENERATION T&E FACILITY
CG 47/DDG 51 POWER GENERATION SYSTEMS/ELECTRICAL EQUIPMENT SITES
NAVY'S ONLY COMPREHENSIVE GAS TURBINE/ELECTRICAL PLANT TEST FACILITY

FACILITY MISSION

Gas turbine powered electric generation and distribution is critical to the ship's mission by supplying all shipboard electric power requirements through efficient, reliable, and survivable systems.

ACCOMPLISHMENTS

The power generation and electrical equipment sites have been utilized extensively to support the Navy's conversion of power generation from steam turbine to gas turbine technology. Some of NSWCCD-SSES accomplishments include the following:

- CG 47 Waste Heat Boiler Systems Development & Testing
- DDG 993 Class GTG Upgrade Development
- DDG 51 High Pressure Start Air System Development Testing
- DDG 51 Advanced Gas Turbine Control System Testing
- Gas Turbine Generator Performance Testing
- Generator Protection Circuitry Improvements
- Voltage Regulator Improvements
- Power Line Carrier

VALUE TO THE FLEET

The Fleet has benefited from test and evaluation at NSWCCD-SSES Philadelphia by equipment changes, maintenance and operational procedure changes which reduce the number of manyears of maintenance and support required on these systems. Additionally, these facilities have been utilized to train Navy personnel. Listed below are examples of support to the Fleet.

- 34 CG 47/DDG 51 crews received supplemental training to date
- 34 engineering improvements (ECPs) developed
- 2,500 engineering improvement kits issued to the Fleet
- $17M saved to date from engineering improvements and testing

MATERIALS & PROCESSING FACILITY
SIMULATED - SERVICE CORROSION TEST SITE
SOLE COMMERCIAL/GOVERNMENT SITE FOR SYSTEM CORROSION PREVENTION

BEARING TEST FACILITY

Bearings are used in over 90% of the equipment used by the Fleet. Hence, the testing and improvements in bearing technology greatly effects the operational Fleet.

- Testing of lubricating and refrigerant oil to ensure inferior product is not supplied to the Fleet.
- Used to qualify oil for compliance to miliary specifications/stringent machinery requirements.
- Oil used in main reduction gears, air compressors, air conditioners, refrigeration systems, gas turbine generators, and steam turbines minimizes machinery failure due to oil-related problems.
- Substantial cost savings of $10 million for main reduction gear, $2 million for gas turbine generator, per unit.
- Decreases chances for catastrophic failure of machinery.

MODEL BOILER/DIESEL COOLANT TEST LOOP FACILITY

The Model Boiler/Diesel Coolant Test Loop Facility provides the in-service engineer with resources to resolve Fleet problems using smaller scaled equipment which reduces testing costs. Listed below are examples of benefits and accomplishments of this test facility.

- Allows preliminary testing of boiler water and coolant treatments at a reasonable cost.
- Reduces the cost of performing expensive full-scale tests. Saves >$200,000 per test.
- Use of polymeric dispersants was evaluated prior to shipboard trials.
- Polymers used successfully to flush feedwater system on Wisconsin for recommissioning.

MATERIALS & PROCESSING FACILITY
PAINTS & COATINGS TEST SITE
COATINGS, COVERINGS & STEALTH MATERIALS FOR TOMORROW'S NAVY

CAMOUFLAGE PAINT REPLACEMENT PROGRAM

Increased the serviceability of submarine coating system (from 6 weeks to 2 years) for major cost savings of approximately $2K/ship/year.

RUBBER-BOOTED SONAR DOME INVESTIGATION

Identification of adhesive problems relating to the adherence of rubber boots to submarine sonar domes. Loss of rubber boot during service (2 in last 3 years) >$1 million.

DEVELOPMENT OF SIGNATURE COATING MATERIALS

Materials R&D to reduce detectability of surface ships and submarines.

ENVIRONMENTALLY SAFE ANTIFOULANT PAINTS

Development of new coating systems designed to prevent bio-fouling, and at the same time, meet or exceed EPA regulations regarding the ban on toxic based antifoulant.

MATERIALS & PROCESSING FACILITY
METALLURGICAL & FLUID SYSTEMS TEST SITE
SOLE FLUIDS & MATERIALS TEST SITE FOR PENTAGON-DELEGATED AGENT

WATER & ANALYTICAL CHEMISTRY TEST SITE

Elemental analysis vital to development of chelant boiler feedwater treatment. Chelant treatment reduced need for inspections and cleanings of boiler watersides: resulting in $30 million savings per year. Kudos from vice-president Al Gore.

Developed EDTA cleaning method for removal of soft waterside deposits, reducing the need for high pressure waterjet cleaning. Savings of $20,000 per cleaning.

Eliminated routine acid cleanings due to NSWCCD-SSES-established criteria based on composition and depot thickness. Cost savings of $40,000 per boiler for cleaning and hazardous waste disposal.

Developed vapor compressor distiller treatment and diesel engine coolant treatment which decreases operational down-time and cleaning costs.

PETROLEUM ANALYSIS TEST SITE

Laboratory sets criteria and policy for oil analysis program for the Navy. Part of the Tri-Service Program established by the Joint Chiefs of Staff.

NSWCCD-SSES-developed equipment enables ship's force to diagnose potential failures to oil-wetted machinery. Reduces engine failures due to accurate oil monitoring. Reduces frequency of oil changes, resulting in a reduction of hazardous
waste disposal of used oil. This saves approximately $35,000 per ship in disposal costs of oil.

Supported Desert Storm by providing on-site oil analysis for Army and Navy equipment.

METALLURGICAL TEST SITE

The Metallurgical Test Site supports the testing of advanced material composites and metals which increase equipment life and equipment performance which saves dollars. Some examples of material uses and tests are ceramic blade replacement for gas turbines, ISOTTA Fraschini engine component tests, and underwater/surface welding procedures.

TERMINAL ANALYSIS TEST SITE

Terminal Analysis Test Site is used to determine physical properties. The qualification of adhesives for use in special hull treatment coatings for submarines, recoatings cost $1.2 million per submarine were tested at this site. Characterizing aircraft carrier flight non-skid deck covering. Cost of re-coating is $2 million per carrier. Characterize polymeric materials i.e. gaskets, o-rings, paints, hull coatings, and variety of shipboard materials.

FIBER OPTIC TEST AND EVALUATION FACILITY
FIBER OPTIC LABORATORY
DOD's ONLY CERTIFIED FIBER OPTIC QPL AND T&E LABORATORY

FIBER OPTICS LABORATORY PURPOSE

To test and qualify fiber optic components for shipboard and land-based use. Develop designs and installations for Local Area Networks (LANS) using Fiber Optic technology. NSWCCD-SSES Philadelphia provides testing and repair of Fiber Optic Cable systems. NSWCCD-SSES Philadelphia personnel provide Fiber Optic LAN operation and repair training.

FIBER OPTIC ADVANTAGES

- Low weight
- High data transfer rate
- Immunity to electromagnetic interference
- "Mature" technology (telecommunications)

FIBER OPTIC LABORATORY TEST SERVICES

- Optical Tests
- Dimensional Tests
- Mechanical Tests
- Environmental Tests

FIBER OPTIC LAN CAPABILITIES

- Testing LAN Topology Design
  - USS MT. WHITNEY (LCC-20) Testbed
  - LAN configuration tested: FDDI, Ethernet
  - Software Compatibility Test
  - Hardware Compatibility Test
  - Test, evaluate, and monitor performance
- Testing Fiber Optic Cable Plant
  - Cable Attenuation Test
  - Cable Assembly Link Loss Test
  - Cable Continuity Test
  - Cable Plant End-to-End Attenuation Test
  - Test and Certification of Cable Plant
- Installation and Repair
  - Fault isolation and repair
  - Mechanical splicing
  - Connector termination

UNDERSEA VEHICLE SAIL AND DEPLOYED SYSTEMS FACILITY
RADAR CROSS SECTION MEASUREMENT FACILITY
VERSATILE RF/ELECTROMAGNETIC ELECTRONICS LABORATORY

RADAR CROSS SECTION FACILITY ACCOMPLISHMENTS

The Radar Cross Section Measurement Facility provides cost savings improvements through the introduction of improved materials (composites). These improvements not only cut costs but also increase the effectiveness of the system.

- Saved government approximately $300K ($100/year) by introduction of AN/BRD-7 absorber screening.
- Introduced periscope/antenna composite absorber to reduce maintenance costs and extend service life (AN/BRD-7, Type 15L).
- Introduced "Tripleband" absorber to improve mission effectiveness.

TESTS COMPLETED/PLANNED

- Anechoic Chamber Characterization Testing
- Radar Camouflage Unit Developmental Testing
- Electromagnetic Interference Testing of Shipboard Blackbox Prototype
- Radome Transmission Measurement and Material Testing

BENEFITS

Provides the In-Service Engineering Agent with an on-site and cost-effective means to:

- Assess new surveillance and avoidance capabilities for submarine sail mounted sensors.
- Simulate and investigate operational failures/ deficiencies.
- Test and validate system improvements.
- Validate depot repairs.
- Cultivate/maintain government technical expertise and corporate knowledge.

UNDERSEA VEHICLE SAIL AND DEPLOYED SYSTEMS FACILITY
TOWED BUOY TEST SITE
UNIQUE FACILITY FOR TOWED HANDLING SYSTEM

TOWED BUOY TEST SITE

Fleet Ballistic Missile Submarine Towed Buoy Facility consisting of the following sites for deployed communication handling systems:

- AN/BRR-6 Buoy Test Site (Trident Unique). Full AN/BRR-6 Towed Buoy Antenna System mounted on a partial Trident submarine hull, which accurately duplicates Trident submarine installation for developmental production and operational testing (mechanical and electrical).

- OE-305/BRR Buoy Test Site (SSBN 640 and Trident Capable). Actual shipboard installation of AN/BRA-8 and OE-305 Towed Buoy Handling Systems.

TOWED BUOY TEST SITE ACCOMPLISHMENTS

- Saved Government approximately $15M by influencing cancellation of AN/BRR-6A on Trident Class.

- Validated redesign of depth and destruct canister.

- Validated redesign of tone.

TESTS COMPLETED/PLANNED

- SSBN 739 Failed Servo Valve Test.

- AN/BRR-6A Tension Sheave Test.

- AN/BRR-6 Depth and Destruct Canister Redesign Validation.

- AN/BRR-6B Modification Testing.

BENEFITS

Provides the In-Service Engineering Agent with an on-site and cost-effective means to:

- Perform independent assessment of new capabilities for deployed antenna handling systems.

- Simulate and investigate operational failures/ deficiencies.

- Test and validate system improvements.

- Validate technical documentation.

- Conduct training of Navy and civilian personnel.

UNDERSEA VEHICLE SAIL AND DEPLOYED SYSTEMS FACILITY
SUBMARINE ANTENNA CYCLE TEST STAND
UNIQUE FACILITY FOR SAIL MOUNTED SYSTEMS

SUBMARINE ANTENNA FACILITY

SSN/SSBN Submarine Facility consisting of the following sites for communication, navigation and surveillance HM&E systems:

- Antenna Cycle Test Stand. Enclosed 4 bay tower to mechanically test new and current antenna sail mounted systems and components.
- Mast Bend Test Apparatus. Fixture to structurally certify new and repaired mast farings.
- Antenna High Power RF Test Site. Open field facility to electrically and electronically test new and current antenna systems and system components.

SUBMARINE ANTENNA FACILITY ACCOMPLISHMENTS

- Developed AN/BRA-34 and OE-207/BR Mast Assembly Designs for SSN and SSBN Classes.
- Resolved Trident OE-207 Antenna Baseplate Failures resulting in cost savings of approximately $340K per year.
- Developed/validated Mast Repair Procedure to reduce maintenance costs by approximately 30%.

TESTS COMPLETED & PLANNED

- AN/BRA-34 and OE-207/BR Mast Assembly Developmental Testing
- OE-207/BR Antenna Baseplate Testing
- Improved Mast Fairing Design Developmental Testing for all Submarine Classes
- Mast Fairing Production Acceptance Testing for all Antenna Systems
- NPM EHF Mechanical Support Group Developmental Testing (SSN 688 and SSN 21)
- Antenna Electrical/Electronic Modification Testing
- High Data Rate Antenna Developmental Testing (SSN 688, SSN 21, NSSN)

BENEFITS

Provides the In-Service Engineering Agent with an on-site and cost-effective means to:

- Perform independent assessment of new sail system capabilities.
- Simulate and investigate operational failures/deficiencies.
- Test and validate system improvements/ documentation.
- Conduct training of Navy and civilian personnel.
- Cultivate/maintain government technical expertise and corporate knowledge.

UNDERSEA VEHICLE SAIL AND DEPLOYED SYSTEMS FACILITY
ELECTRONIC TEST AND ENGINEERING SITE
ADVANCED ANTENNA DIAGNOSTIC FACILITY

ELECTRONIC TEST & ENGINEERING SITE

SSN/SSBN Submarine Facility consisting of the following sites for communication, navigation and surveillance HM&E systems.

- Antenna Electronic Test and Engineering Site. Lab area used for the repair, test and manufacture of submarine antenna electrical/electronic components and prototypes.
- Hydrostatic Pressure Site. Fully automatic hydrostatic test tank (5' dia x 40') used to pressure test and certify submarine antenna systems, sub-assemblies, whips, cables and fittings.
- Fiberglass/Plastic Fabrication Site. Support facility used to repair/fabricate submarine antenna and periscope mast fairing assemblies.

ACCOMPLISHMENTS

- Assessed/implemented global positioning system for SSN and SSBN Class submarines.
- Provided upgraded, high data rate communications capabilities (DAMA, JTIDS) to allow joint task force operations.
- Developed Navy test standards for antenna group equipment.

TESTS COMPLETED & PLANNED

- AN/BRA-34 and OE-207/BR Production/Overhaul Acceptance Testing (SSN 688 and Trident)
- AN/BRA-34 and OE-207/BR Modification Testing (SSN 688 and Trident)
- GPS Development/Operational Testing (SSN 688 and Trident)
- DAMA Development/Operational Testing (SSN 688 and Trident)
- JTIDS Developmental Testing (SSN 688)

BENEFITS

Provides the In-Service Engineering Agent with an on-site and cost-effective means to:

- Perform independent assessments of new capabilities for sail and deployed systems.
- Simulate and investigate operational failures/ deficiencies.
- Test and validate system improvements.
- Conduct training of Navy and civilian personnel.

COMPRESSED AIR SYSTEM FACILITY
COMBAT SYSTEMS ELECTRONIC COOLING SYSTEM TEST SITE
SOLE PROVIDER OF ELECTRONIC COOLING SYSTEM TESTING FOR THE FLEET

ELECTRONICS COOLING WATER SITE

Tests and evaluates the electronic cooling water skids used to cool high powered weapons electronics preventing overheating and system shutdown.

- AEGIS Spy Radar (DDG51, CG47)
- Sonar Electronics (DDG51, CG47, DD963, FFG7
- Electronic Warfare/Jamming (all Surface Ships)
- Missile Control Systems (CGs, DDGs, FFGs, CVN)
- Close In Weapons Fire Control (all Surface Ships)
- Aircraft Control Radars (CVN, LHD)

CAPABILITIES

Full scale testing of: Heat exchangers, pumps, valves, strainers, temperature regulators, deionizers, flow switches, alarms.

- Flows to 300 gallons per minute
- Pressures to 250 psig
- Capacity up to 2 million BTUs/hour
- Cooling air system test facility

CONSTRUCTION MILESTONES

- Construction Approval 2/92
- AEGIS Skid Installation 4/93
- Complete Mechanical 2/95
- Complete Electrical 4/95
- Environmental Enclosure 7/95
- Mission Readiness Review 10/95
- Full Scale Lightoff 11/95

BENEFITS

- Independent test and evaluation
- Crew training
- Proof-in software/logistics
- Demonstrate new maintenance concepts
- Alternate source qualification
- First article testing

COMPRESSED AIR SYSTEM FACILITY
HIGH AND LOW PRESSURE AIR SYSTEM TEST SITE
THE NAVY'S ONLY FULL SCALE ENVIRONMENTAL CONTROLLED AIR TEST SITE

COMPRESSED AIR SYSTEMS

Compressed air systems are utilized by a large number of equipment and systems such as: starting air for engines/generators; emergency breathing air; submarine emergency surfacing; aircraft launch and recovery; and combat systems support. Compressed air systems air vital to a ship's operation.

CAPABILITIES

The High and Low Pressure Air System Test Site is capable of testing all configurations of surface ships and submarines. Some of the test facilities capabilities and characteristics are listed below:

- Air system testing up 5,000 psig
- Variable operating environment
- Sea water cooling
- Capacity exceeds two CVNs

MAJOR TESTS CONDUCTED

- Alternate Parts Qualification
- AEGIS Ship Air System Qualification
- DDG-51/SSN-21 Compressor Qualification
- Desiccant Standardization Test
- Dehydrator First Article Test
- Hygrometer Endurance Test

FLEET COST SAVINGS

- Alternate Parts Qualification. Saved to date - $8 million
- RIX HP Air Compressor Qualification. Estimated savings - $1 million
- AEGIS LP Air System Qualification. Estimated savings - $1/2 million
- Air System Dryer Test. Estimated savings - $2 million

A/C, REFRIGERATION AND VENTILATION TEST FACILITY
AIR CONDITIONING, REFRIGERATION AND VENTILATION TEST SITE
ONLY SITE FOR TESTING HVAC SYSTEMS IN THE NAVY

NAVY HVAC SYSTEMS

HVAC Systems are vital to the operation and performance of personnel and equipment under various environmental conditions. Equipment and systems which can be tested and evaluated at NSWCCD-SSES Philadelphia include the following:

- Air condition plants
- Refrigeration plants
- Ventilation systems
- CBR protective systems
- Damper/precipitators

TEST & EVALUATION CONDUCTED

- Alternate refrigerant testing. CFC free refrigerants will reduce ozone depletion
- Shipboard backfit modifications
- Toxic/fire damper evaluations/critical to ship's survivability
- Ventilation system testing
- Chemical, biological, radiological protection system testing

TECHNICAL COMMUNITY TEAMING

- Naval Sea Systems Command
- Environmental Protection Agency
- Military Sealift Command
- Coast Guard
- Commercial Companies (Dupont, Castrol, York, etc.)

COST SAVINGS

- Reduced refrigerant leaks = $5 million
- A/C plant condenser failure elimination = $50 million
- Ventilation system improvements = $2 million
- CBR filter changes = $3 million

A/C, REFRIGERATION AND VENTILATION TEST FACILITY
SUBMARINE LIFE SUPPORT TEST SITE
THE FREE WORLD'S ONE AND ONLY SUBMARINE LIFE SUPPORT TEST SITE

TESTING PROGRAMS

Current test and evaluation support:

- Chlorofluorcarbon compatibility
- Oxygen generating plant land based techeval
- Gas management system endurance
- Central atmosphere monitoring system carbon monoxide analyzer replacement
- Electrolytic oxygen generator power supply silencing
- New attack submarine oxygen system

ACCOMPLISHMENTS

The Life Support Test Site has been used extensively to support testing of new configuration of HVAC equipment for Trident and Seawolf submarine classes. New system and design criteria will save $17M per submarine. New chlorofluorcarbon replacements have been demonstrated and tested at NSWCCD-SSES Philadelphia. Additionally, these facilities have designed and demonstrated a modification to the Seawolf oxygen systems which saves the Navy $4M per submarine.

SHIPS EQUIPMENT

- Gas management system
- Electrolytic oxygen generator
- Central atmosphere monitoring system
- Carbon dioxide scrubber
- Carbon monoxide and hydrogen burner
- Oxygen generating plant

BENEFITS TO NAVY

- Unique - free world's only
- Smart buyer - fly before buy
- Honest broker - no $ conflicts
- ISEA and RDT&E Agent - serve the Fleet
- Experience - since 1967
- Modification saved Navy $4M per submarine

SURVIVABILITY ENGINEERING FACILITY
SHOCK AND VIBRATION LABORATORY
THE NAVY'S MOST COMPREHENSIVE ENVIRONMENTAL T&E FACILITY

SURVIVABILITY ENGINEERING FACILITY

The Survivability Engineering Facility includes various laboratories necessary to test and evaluate ship survivability.

- Shock and Vibration Laboratory
- Heavy Mechanical Test Site
- Component Environmental Test Laboratory
- Electromagnetic Conformance Laboratory
- Temperature Test Laboratory
- ARC Fault Detector System Test Laboratory
- Infrared Thermographic Test and Evaluation Laboratory
- Moisture Monitoring Laboratory
- Electric Power Systems Instrument Site
- Chemical Instrumentation Test Site

SHOCK & VIBRATION ENGINEERING FACILITY

Evaluate shipboard components, assemblies and systems to determine and improve their ability to not only survive but function reliably during and subsequent to the imposition of combat-induced vibration and shock effects.

ARC FAULT LABORATORY

- Helium-Cadmium Laser System
- AFD Training Unit
- AFD Photo Sensor Calibration
- Configuration Control/Management Drawing Changes/Revisions

ELECTROMAGNETIC CONFORMANCE LABORATORY

Electromagnetic conformance is critical to safe operation of equipment onboard ship. NSWCCD-SSES Philadelphia is capable of testing and designing corrections to equipment to meet Military Standard-461 compliance. Testing and evaluation can be accomplished in an automated fashion.

ENVIRONMENTAL TEST LABORATORY

NSWCCD-SSES Philadelphia environmental facilities are capable of testing the effects of equipment operation and performance with following conditions: salt spray, temperature ranges from -100°F to 392°F, and 0 to 100% relative humidity.

INFRARED THERMOGRAPHIC LABORATORY

- Infrared/Visible Spectrum Overlay Analysis Evaluations
- Low (-20 DEG F) and High (1500 DEG F) Temperature Analysis Capabilities
- Microscopic Thermographic Capabilities

CARGO & WEAPONS HANDLING SYSTEM FACILITY
CARGO/WEAPONS ELEVATOR ENGINEERING SITE
THE ONLY ONE OF ITS KIND

WHY WAS THIS SITE BUILT?

Because: There are over 600 elevators in the Fleet with over 240 design variations.

Solution: Develop three standard designs which standardizes components, drawings, specifications at a cost savings in construction and maintenance.

WHERE IS STANDARD ELEVATOR INSTALLED?

- AOE-6 Class, AOJ-177 Class
- LSD-49 Class, LHD-1 Class
- Plus Standard Components on 400 plus Elevators

WHY DO TESTING HERE VICE FLEET?

- Fleet has shunned high risk shipboard tests in past due to impact on mission operation
- 100 + testing specialists at NSWCCD-SSES
- 60 elevator personnel at NSWCCD-SSES
- Saves money

FLEET CUSTOMER FEEDBACK

INSURV Elevator Inspection Data For Calendar Year 1993

"The AOE-6 Class (standard) elevators were exceptional, with safety deficiencies in only one of seven elevators (14%)."

Compared with the total "Of 213 elevators inspected, 48% had safety related deficiencies."

RADM P. R. Olson, President INSURV Board

WHAT ELSE IS THE SITE USED FOR?

Supports the training of elevator inspectors (INSURV BOARD) as well as a trainer for Fleet personnel.

COMPLETED TESTING

The Cargo/Weapons Elevator Engineering Site has been utilized to test the following: prove the standard elevator design; simulate shipboard voltages; dynamic braking; effectiveness of watertight doors; and hydraulic equipment performance.

FUTURE TESTING

- Programmable logic controller for CVN-76
- Flush deck watertight hatch
- Personnel safety barrier

CARGO & WEAPONS HANDLING SYSTEM FACILITY
VERTICAL PACKAGE CONVEYOR TEST SITE
THIS SITE IS SAVING LIVES

VERTICAL PACKAGE CONVEYOR ACCOMPLISHMENTS

- Reduced personnel injuries and deaths
- Successful prototype lab and Fleet testing
- Standardized Fleet safety features
- Established Fleet 2-man rule for operation
- Standardized all technical documentation
- Standardized electrical control system
- Reduced in service/life cycle costs

UNIQUE CAPABILITY

- Only conveyor test site for appraising engineering designs and modifications.
- Has full scale versions of shipboard conveyors.
- Only units with same and opposite side handling at the top level to support continuous testing, especially full load.

VALUE TO THE NAVY

Test site to continue keeping conveyors safe

- Testing does not interfere with Fleet operations
- Can be used for problem replication and troubleshooting to support Fleet.

VALUE TO IN-SERVICE ENGINEERS

- Failures in the Fleet can be readily recreated, evaluated, resolved, and converted, when needed, into alterations.
- Solutions are proofed before Fleet implementation.
- Technical documentation is proofed for alterations.
- New ideas are tested.

VALUE TO COMMERCIALIZATION

- Commercial Off The Shelf (COTS) components, can be tested
- Readily adapts for new designs
- Provides feedback to commercial sector

GAS TURBINE DEVELOPMENT FACILITY
GAS TURBINE SHIP LAND BASED ENGINEERING SITE
DUPLICATES THE FREE WORLD'S FRONT-LINE COMBATANT

GAS TURBINE SHIP LAND BASED ENGINEERING SITE

The Gas Turbine Ship Land Based Engineering Site was constructed at NSWCCD-SSES between 1986-1989 in response to significant independent development efforts including a software based machinery control system, a newly designed LM2500 gas turbine engine with uprated power, and integrated electronic controller, and an uprated ship's electrical generation system.

ACCOMPLISHMENTS

- First time integration of all propulsion equipment ahead of shipyard construction schedule.
- Tested over 30 versions of computer control system software for DDGs and AOEs.
- Conducted over 128 machinery tests.
- Identified over 600 deficiencies.
- Saved/eliminated two ship trials ($4M cost savings).
- Trained over 200 Naval and Fleet personnel.

SHIP EQUIPMENT ON-SITE

- Propulsion Gas Turbine engine (2)
- Reduction Gear
- Electric Generators and Gas Turbine engines (2)
- All support systems water, fuel, oil, high pressure air
- Computerized control system
- Computerized data collection system

Replacement cost $147M

ONGOING AND PLANNED TESTING

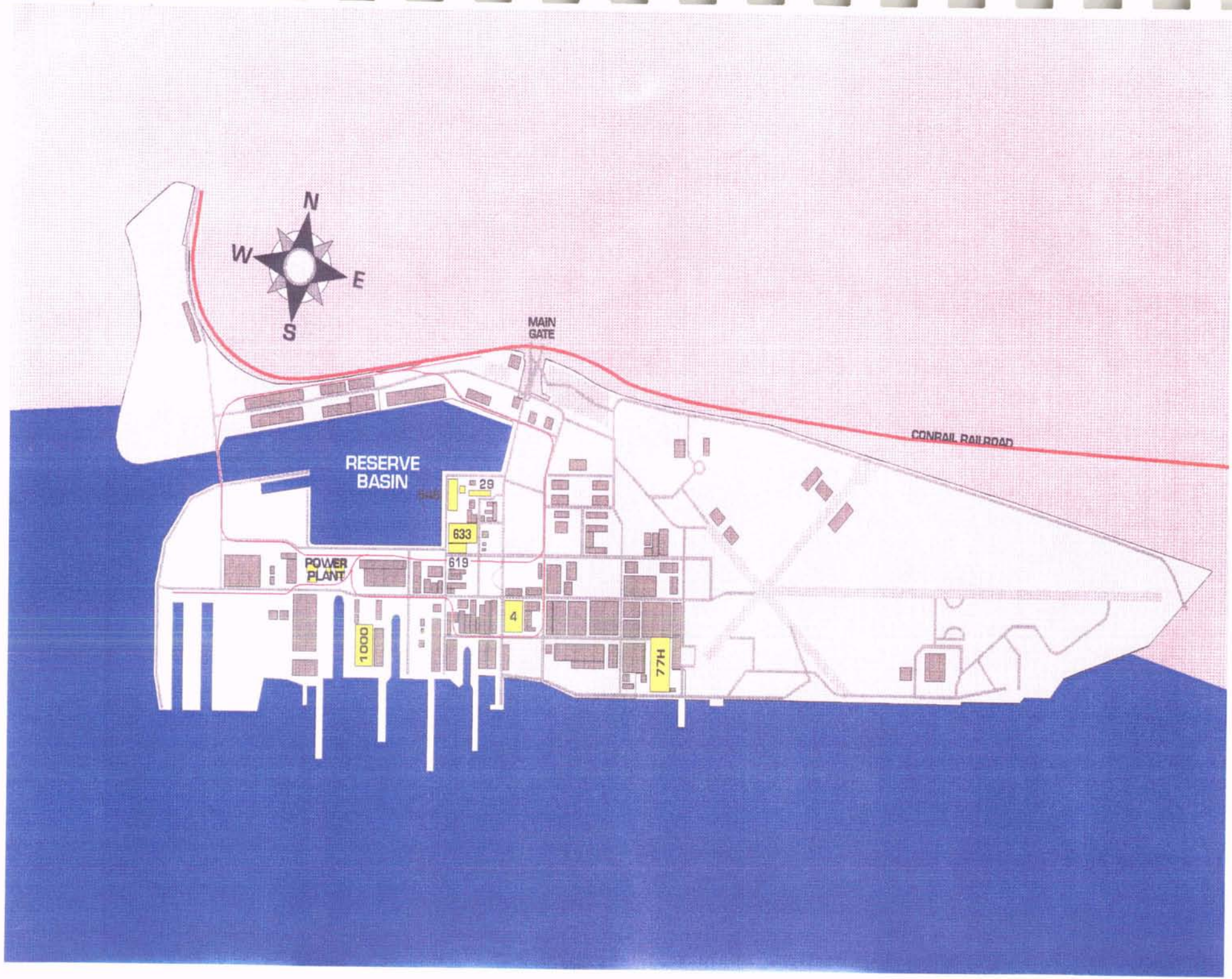
Some examples of current and future testing are listed below:

- Embedded training consoles
- New engine controller
- New machinery control system
- New fiber optic communications
- Electric generator upgrade
- New air starter unit
- New ICR engine integration

BENEFITS

- Early design changes save Fleet wide retrofits.
- 50% cost reduction for testing at LBES vice ship.
- In-house expertise drives down the cost of engineering changes - documented.
- Crews learned from the experienced test site engineers.

Reduces schedule, cost and technical risk.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POWER PLANT
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Document Separator

ACTIVITY STATUS REVIEW FOR COMMISSIONER CORNELLA

By the Naval Air Technical Services Facility
and the
Logistics Technical Data Competency

CDR James E. Burd
Commanding Officer NATSF
Technical Data Competency Leader (3.3)

Mr. William G. Smith
Technical Director
Asst. Technical Data Leader (3.3A)

OUTLINE

- Mission
- Organization (Present and Vision)
- Services and Products
- Major Programs
- Media Transformation
- Relocation Data and Impacts

NAVAL AVIATION SYSTEMS TEAM

NATSF MISSION

To provide technical services, as directed, in the development, preparation, publication, and distribution of aeronautic technical and maintenance management information to designated naval and service-wide activities. Exercise technical guidance of systems of reproduction and distribution for specified engineering design data (drawings). Perform such other tasks as may be assigned.

NAVAL AVIATION SYSTEMS TEAM

ORGANIZATION

(People)

3.3 Technical Data

PRESENT (NATSF)

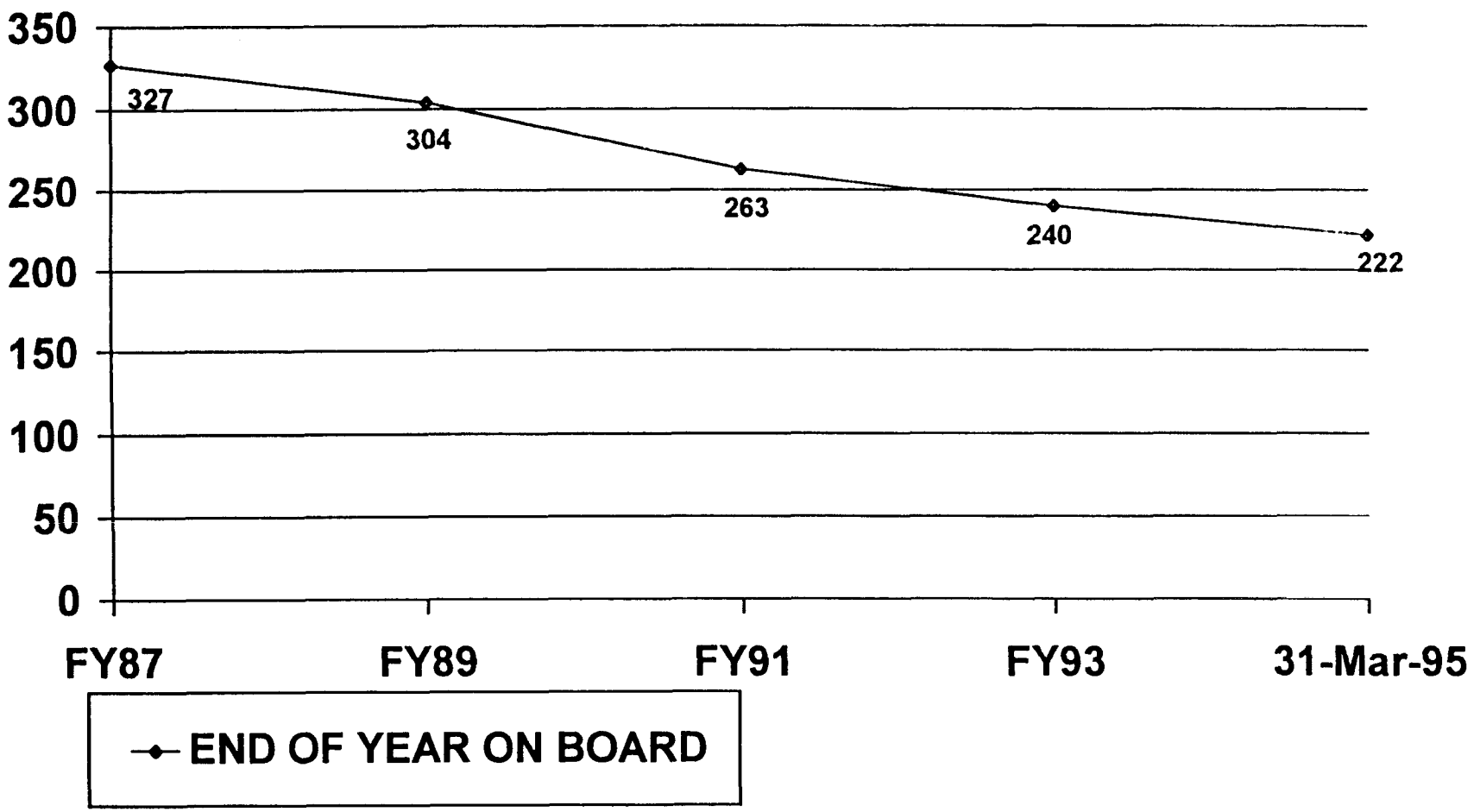
			AVG. GRADE
PHILADELPHIA:			
Civilian		222	8.3
Military		4	
DETACHMENTS:			
Civilian		65	11.8
Military		6	
Total:	Civilian	287	9.1
	Military	10	

VISION (CAO)

3 NADEPS / NAWC AD / NAWC WD / TSD ORLANDO

Total: 521?

NATSF ON-BOARD TREND PHILADELPHIA ONLY



NOTE: INCLUDES TEMPS AND PART-TIME PERMANENT EMPLOYEES

NAVAL AVIATION SYSTEMS TEAM

SERVICES

3.3 Technical Data

- **Acquisition/Quality Assurance/ Distribution of NAVAIR Technical Manuals**
  - Maintenance and Operations Manuals for all Naval Aviation airframes, missiles, equipment and weapons including Foreign Military Sales Country customers
  - Full Life Cycle Updates
  - FOIA and Cash Sales
- **Repository/Archives for all NAVAIR Technical Data**
  - Microfilm and Digital Engineering Drawings
  - NAVAIR Technical Manuals

PRODUCTS

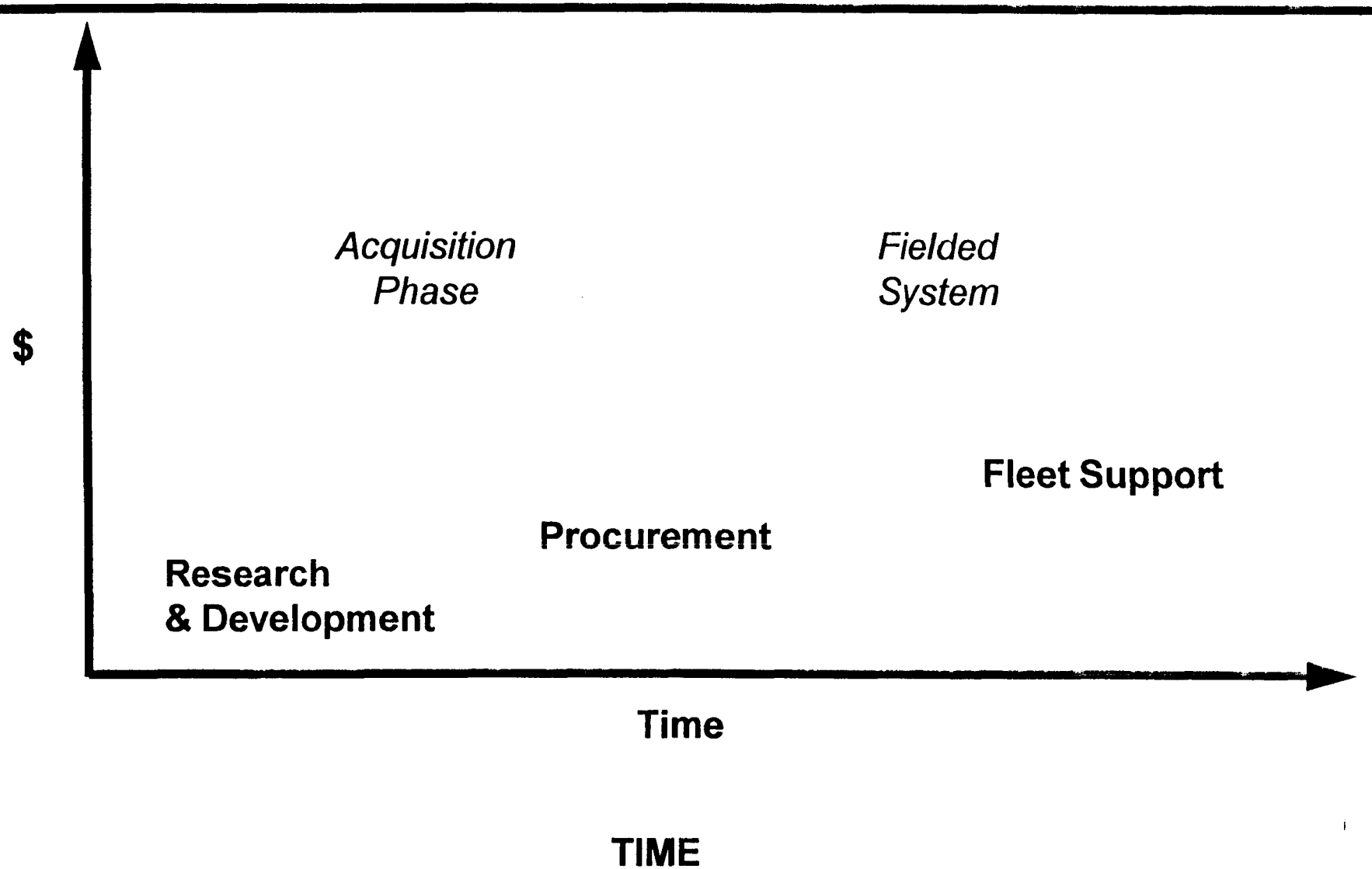
Technical Publications

Line Items	39,467
Revisions per Year	917
Changes per Year	1,943

Engineering Drawings (Aperture Cards)

Active	11 M
Archives	26 M

WEAPONS SYSTEM LIFE CYCLE FUNDING



PROGRAMS

- Automated Technical Information System - Air (ATIS - AIR)
- Joint Engineering Data Management Information and Control System (JEDMICS)
- Joint Computer Aided Acquisition and Logistics Support (JCALS)
- Ozone Depleting Substances (ODS)

NAVAL AVIATION SYSTEMS TEAM

MEDIA TRANSFORMATION

3.3 Technical Data

Publications:

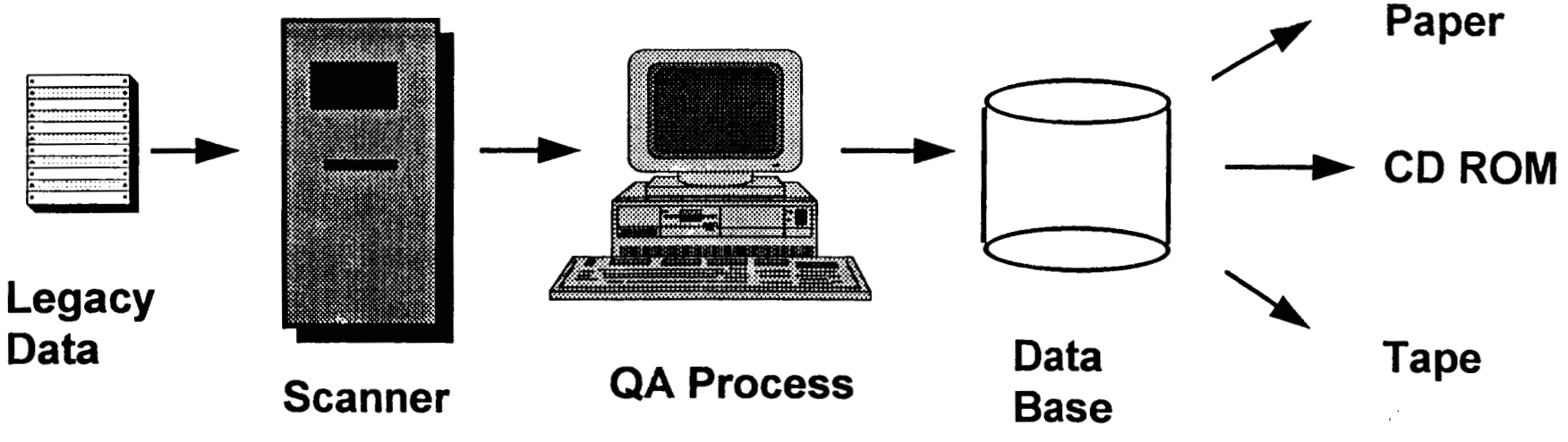
Paper → ATIS / AIR → IETMS

Drawings:

Aperture Cards → JEDMICS

Technical Manual Print on Demand System:

- Reduces Shelf Stock
- Automatic Collation of Changes
- Prototype System in Philadelphia
- Full Production in Apr 95



NAVAL AVIATION SYSTEMS TEAM

RELOCATION TO SAN DIEGO

3.3 Technical Data

RECOMMENDATION: CLOSE NATSF, PHILADELPHIA, PA AND CONSOLIDATE NECESSARY FUNCTIONS, PERSONNEL AND EQUIPMENT WITH NADEP, NORTH ISLAND, CA

- OUR ESTIMATE, BASED ON KNOWLEDGE OF THE MAKE-UP AND PERSONAL SITUATIONS OF OUR POPULATION, IS THAT 20% OR APPROXIMATELY 45 EMPLOYEES WILL ACTUALLY MAKE THE MOVE

NAVAL AVIATION SYSTEMS TEAM

RELOCATION (CONT.)

OUR RELOCATION ESTIMATE IS BASED ON THE AGE OF OUR EMPLOYEES AND THE FACT THAT MANY EMPLOYEES ARE SECONDARY NOT PRIMARY WAGE EARNERS FOR THEIR FAMILY.

Philadelphia population grade split:	Estimated % that will move:
GS-7 and below = 113	>10% ~ 10 people
GS-8 and above = 109	33% ~ 35 people

NAVAL AVIATION SYSTEMS TEAM

IMPACT ON TRAVEL

- CURRENT
  - PHILADELPHIA TO WASHINGTON, DC
    - 2010 TRIP DAYS
    - 609 TRIPS (170 ONE DAY & 113 TWO DAYS)
  - LOCAL PHILADELPHIA TRAVEL
    - 88 TRIP DAYS
    - 59 TRIPS
  - PHILADELPHIA TO SAN DIEGO, CA
    - 163 TRIP DAYS
    - 36 TRIPS
  - PHILADELPHIA TO OTHER LOCATIONS IN CA
    - 130 TRIP DAYS
    - 26 TRIPS

NAVAL AVIATION SYSTEMS TEAM

IMPACT ON TRAVEL (CONT.)

- PROJECTED
  - SAN DIEGO TO WASHINGTON, DC
    - 3000 TRIP DAYS (+1.5 DAYS MORE PER TRIP)
    - 600 TRIPS
  - LOCAL SAN DIEGO TRAVEL
    - 100 TRIP DAYS
    - 40 TRIPS
  - SAN DIEGO, CA TO PHILADELPHIA
    - 140 TRIP DAYS
    - 60 TRIPS
  - SAN DIEGO TO OTHER LOCATIONS IN CA
    - 90 TRIP DAYS
    - 40 TRIPS
- RESULT = +1000 TRIP DAYS FOR SAME # TRIPS @$150/DAY + ADDED TRAVEL (AIRFARE VS. TRAIN =$200/TRIP).

TOTAL INCREASE = $250,000/YR

NAVAL AVIATION SYSTEMS TEAM

RELOCATION IMPACTS

- NAVAL AIR SYSTEMS COMMAND
- NAVAL AVIATION ENGINEERING SERVICES UNIT
- AVIATION SUPPLY OFFICE
- DEFENSE PRINTING SERVICE
- NAVY INTERNATIONAL LOGISTICS CONTROL OFFICE

NAVAL AVIATION SYSTEMS TEAM

IMPACT ON NAVAIR

- INCREASED TRAVEL COSTS FOR PROGRAM MANAGERS AND SUPPORT PERSONNEL TO TRAVEL TO AND FROM SAN DIEGO
- REDUCED ABILITY TO HAVE LOGISTIC MANAGEMENT SPECIALISTS ATTEND SHORT NOTICE MEETINGS IN DC (DRIVING OR TRAIN VS. FLYING CROSS COUNTRY)
- ONCE NAVAIR HQ RELOCATES TO PAX RIVER TRAVEL WILL BECOME MORE DIFFICULT FROM SAN DIEGO. IT'S ONLY A 200 MILE DRIVE FROM PHILADELPHIA

NAVAL AVIATION SYSTEMS TEAM

COOPERATION WITH NAESU

3.3 Technical Data

- NAESU MOVE TO ASO COMPOUND SUMMER '95
- PRELIMINARY DISCUSSIONS HELD CONCERNING ADVANTAGES OF MERGING SUPPORT AREAS:
  - -ADMINISTRATION
  - -BUDGET
  - -ADP
  - -LIAISON WITH ASO HUMAN RESOURCES OFFICE
  - -FACILITIES LIAISON WITH ASO PUBLIC WORKS
  - -OTHERS TO BE INVESTIGATED (E.G. CONTRACTS)
- REDUCES THE NEGATIVE IMPACT OF DOWNSIZING BY USING THE STRENGTHS OF EACH ACTIVITY, BASED ON EXPERIENCE, TO MUTUAL ADVANTAGE.

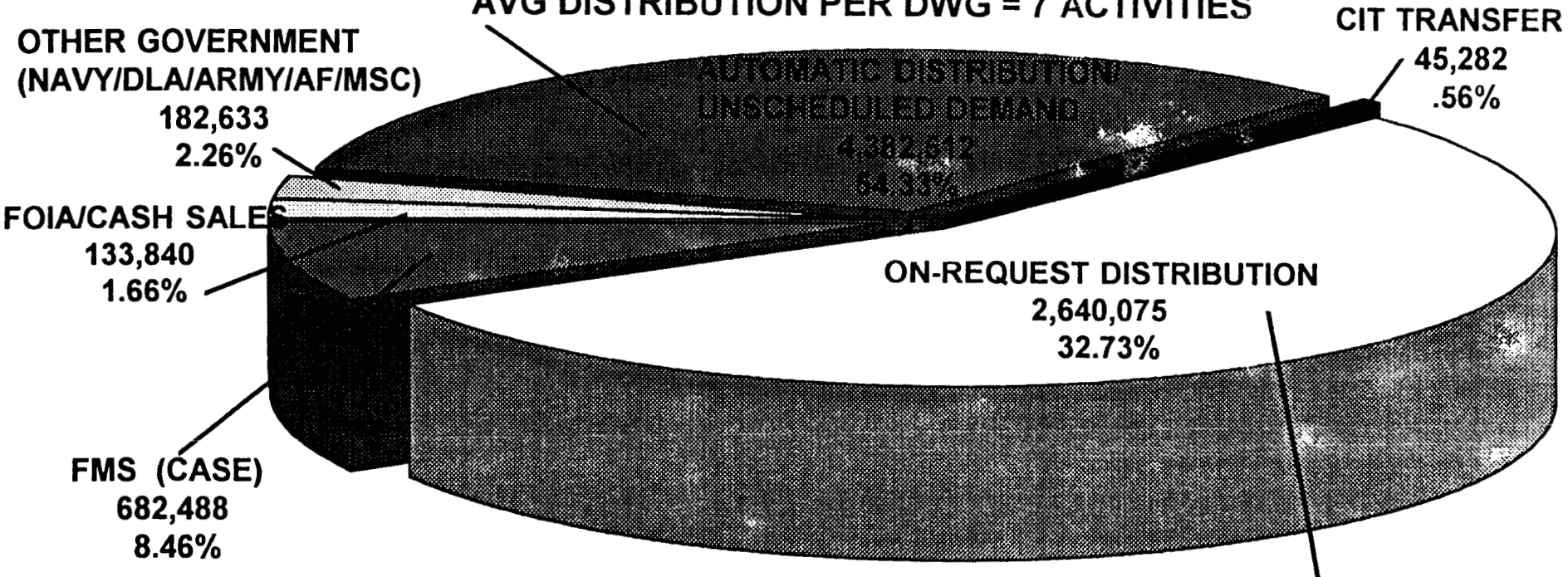
NAVAL AVIATION SYSTEMS TEAM

NATSF PROGRAM SUPPORT

3.3 Technical Data

FY94

FLEET SUPPORT ACTIVITIES
AVG DISTRIBUTION PER DWG = 7 ACTIVITIES



ASO COMPETITIVE PROCUREMENT
AVG BIDSET = 43 DWGS
47 SETS

TOTAL FRAMES PRODUCED

FY90	14,744,818
FY91	12,930,858
FY92	12,202,352
FY93	8,617,457
FY94	8,066,830

IMPACT TO ASO

ENGINEERING DRAWINGS

- WE WILL CONTINUE ENGINEERING DRAWING SUPPORT
- BIDSET PROCESSING TIME MAY INCREASE FROM THE CURRENT 2 TO A TOTAL OF 5 DAYS
- SOME MAJOR PROCESSES AND RESPONSIBILITIES WILL HAVE TO CHANGE
- OPERATING COST INCREASES
  - FED EX COSTS FOR SHIPPING = $5K
  - DEDICATED HIGH SPEED TRANSMISSION LINE BETWEEN PHILADELPHIA/SAN DIEGO FOR JEDMICS = $1M/YR

NAVAL AVIATION SYSTEMS TEAM

IMPACT TO ASO (CONT.)

ENGINEERING DRAWINGS (CONT.)

- TRANSITION TO DIGITAL THROUGH CY98. SOME DATA WILL ALWAYS REMAIN IN APERTURE CARDS/HARD COPY FORMAT
  - ARCHIVAL
  - MYLARS
  - ILLEGIBLE
  - HIGHLY CLASSIFIED
  - USE BY NON-DIGITAL CUSTOMERS
- HARD TO PREDICT AND/OR MEASURE PROBLEMS
  - TRAINING
  - DOWN TIME ON THE LINE
  - TIME DIFFERENCE
  - ETC.

NAVAL AVIATION SYSTEMS TEAM

IMPACT TO ASO (PG. 3)

TECHNICAL MANUALS

- DOMESTIC SUPPORT
  - 46,716 ITEMS IN SHELF STOCK
  - NATSF & ASO WORK FACE TO FACE TO RESOLVE STOCK ISSUES
- FMS UNIQUE SUPPORT
  - INPUT TO SPONSOR APPROVAL SYSTEM
  - RESOLVE REPORTS OF DISCREPANCY
  - COORDINATE STOCK DRAWS AND ESTABLISH AUTOMATIC DISTRIBUTION REQUIREMENTS

NAVAL AVIATION SYSTEMS TEAM

IMPACT TO ASO (PG. 4)

3.3 Technical Data

TECHNICAL MANUALS

- WORK UNIT CODES
  - WITH ASO PROVISIONING PERSONNEL DETERMINE WUC ASSIGNMENTS/DELETIONS (1,550/YR)
  - REPOSITORY FOR NAVAIR MAINTENANCE PLANS (INQUIRIES = 500/YR FROM ASO)
  - PART NUMBER TO WUC CROSS-REFERENCE DATA BASE FOR SPARES BUYS (3,000/YR)
- TECHNICAL MANUAL REQUIREMENTS FOR PROVISIONED SPARES BUYS (TMCRs) (250/YR)
- REFERENCE POINT FOR ASO (4,500/YR)
- ON-THE SPOT COPIES OF TMs & TDs (1,000/YR)
- COPIES OF ARCHIVED TDs FOR ASO LIBRARY (1,500/YR)

NAVAL AVIATION SYSTEMS TEAM

OTHER IMPACTS

- NAVILCO
  - 82 FMS CASES
  - 33 COUNTRIES
  - $3.0M/YR AUTOMATIC DISTRIBUTION

> LOSE ABILITY FOR DIRECT INTERFACE WITH FOREIGN CUSTOMERS ON SHORT NOTICE TO RESOLVE ISSUES

- DELIVERIES
- BILLING
- REQUIREMENTS

OTHER IMPACTS

- **DEFENSE PRINTING SERVICE**
  - 16,000 PRINT/REPRINT ACTIONS/YR
  - $6.0M/YR

> LOSE ABILITY FOR DIRECT INTERFACE TO RESOLVE ISSUES

- PRINTING ORDERS
- BILLING
- TECHNICAL MANUAL PRINT-ON-DEMAND SYSTEM (TMPODS)

NAVAL AVIATION SYSTEMS TEAM

SYNERGY WITH NADEP, NORIS

- APPROXIMATELY 10% OF OUR TECHNICAL BUSINESS WILL BENEFIT THROUGH CLOSER TIES TO ONE OF OUR INDUSTRIAL CUSTOMERS FOR BOTH TECHNICAL DATA AREAS ON THOSE PROGRAMS MANAGED BY NADEP, NORTH ISLAND
- SOME BENEFIT CAN BE DERIVED THROUGH THE INTERCHANGE OF KNOWLEDGE MADE POSSIBLE BY CLOSE PROXIMITY TO THE ENGINEERS AND TECHNICAL WRITERS AND THE ABILITY TO WALK OUT AND TOUCH SOME OF THE HARDWARE FOR WHICH WE MANAGE THE TECHNICAL DATA

THANK YOU

FOR YOUR TIME AND INTEREST

Document Separator

IMPACT TO U.S. NAVY & USAF AVIATION

CLOSURE OF THE

WARMINSTER

DYNAMIC FLIGHT SIMULATOR

M.P. Taylor, Jr.
Captain USN (Ret)

NAWCAD WAR

- Base Closure and Realignment Report - March 95
  - Recommendation: Close the Naval Air Warfare Center, Aircraft Division, Pennsylvania . . .
  - Justification: . . . Closure and excessing of the Human Centrifuge / Dynamic Flight Simulator further reduces excess capacity and provides the opportunity for the transfer of this facility to the public educational or commercial sectors, thus maintaining access on a as-needed basis

Purpose

- Requirement remains for the services to perform:
  - Crew systems integration, pilot vehicle interface, laser eye protection, controls and displays, information management, performance assessment and enhancements, aircraft / aircrew vulnerability & survivability, female aviators, chemical, biological and radiological protection and high-G tolerance training
- Both Warminster and Brooks AFB facilities are closing
- Potential critical gaps in both meeting needs of the services and drain of technical skills
- Seamless transition requires BRAC Commission attention

National Asset

- DFS unique because it is both a:
  - World-class high-G flight simulation capability for current and future fighter-attack cockpits and
  - Evaluation of new flight equipment or cockpits configurations in the actual environment in which they will be used
- Military value include:
  - Unsurpassed high-G flight simulation
  - Cockpits and models of current and future aircraft
    - F/A-18, F-14A, F-14D, F-16, and ATF
  - Replication of dangerous controlled and uncontrolled flight maneuvers
    - Max-G turns, departures, flat spins, thrust vectoring

National Asset (cont)

- Full environment mission simulation
  - Terrain following
  - Weapon deployment maneuvers
  - Air combat maneuvering
  - Missile evasion
- Crew equipment RDT&E (Combat Edge)
- G-tolerance improvement training (GTIP)
- Spatial awareness training
- Departure / spin recovery training

Summary

- Warminster DFS represents the premier center of excellence / capability to most effectively meet both service requirements

DFS vs Centrifuges

Characteristic	NAWC AD - DFS	WPAFB - DES	Brooks AFB / Holloman AFB	NAS Lemoore	NASA Ames	NASA Goddard
Radius	15m (50 ft)	6m (20 ft)	6m (20 ft)	7.6m (25 ft)	6m (20 ft)	18m (60ft)
G-Onset Rate	13 G/sec	1 G/sec	6 G/sec	6 G/sec	1 G/sec	1-2 G/sec
Cockpit Axis Controls *	2 - Active	2 - Active, Limited Performance	1 - Passive	2 - Active	1 - Passive	None
Flight Simulation Capable	Yes - Demonstrated	Not Possible	Not Possible	Not Possible	Not Possible	Not Possible
Comments	F14A, F14D, F18, ATF, Generic Fighter	Very Low Performance	BRAC 95	Dedicated to G Tolerance Training	Very Low Performance	Low Performance Not Man-Rated

*** Flight simulation requires 2 actively controlled axes**

Recommendation

- Until privatization becomes operational, provide interim DOD support to ensure interservice requirement needs are met

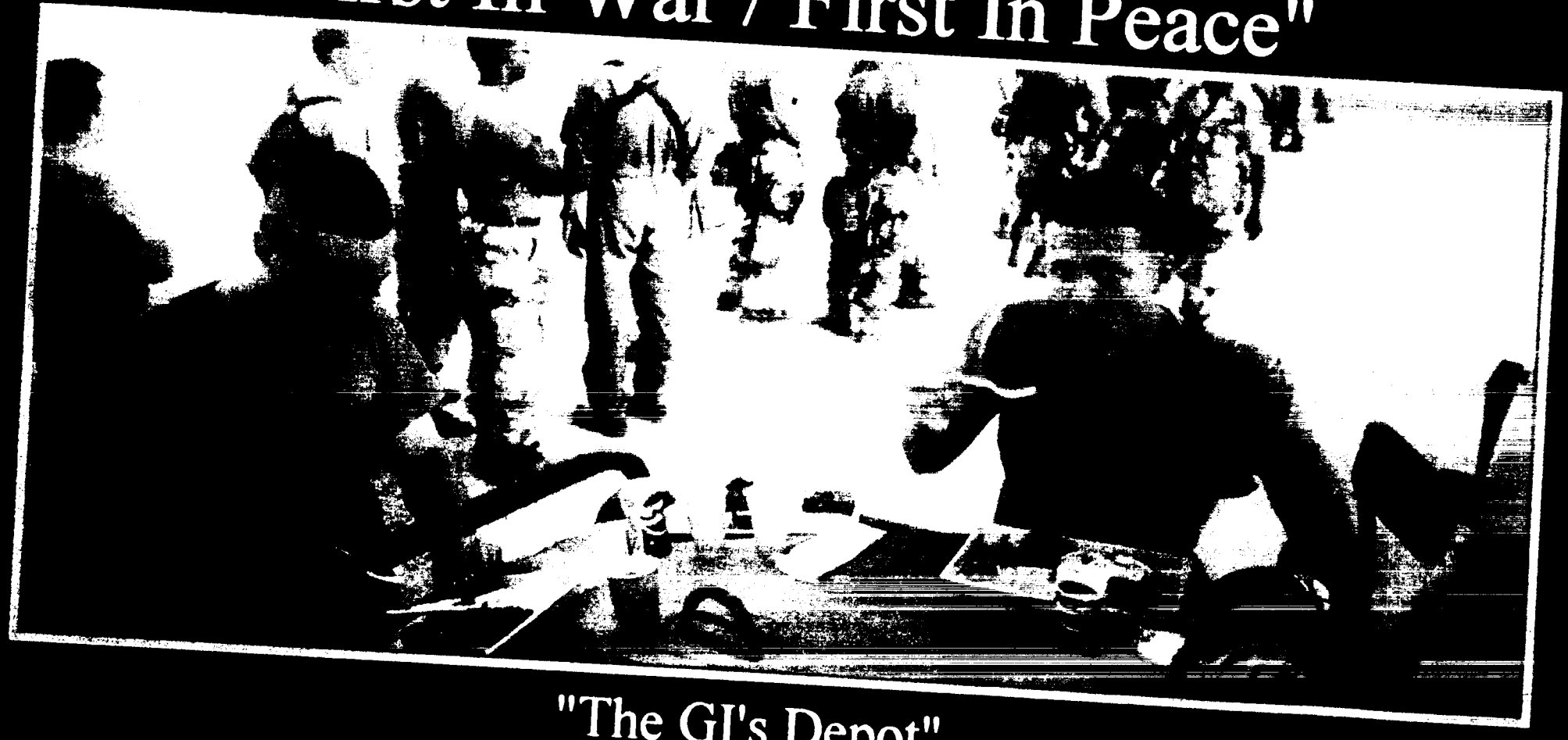
Document Separator

AMERICAS

Americas Distribution Center

Defense Depot - Memphis, Tennessee (DDMT)

"First In War / First In Peace"



"The GI's Depot"

DDMT- Community Presentation
Briefing Outline

- Military Value Factors
  - Diverse Missions
  - Transportation Infrastructure
  - Uniqueness of DDMT
  - Joint Service Operations
  - Thruput/Surge Capacity
- COBRA Related Issues
- Issues Relating to DLA Analysis
- Conclusion

World-Wide Coverage for Humanitarian Mission Support

MEMPHIS TRANSPORTATION INFRASTRUCTURE

- Truck
  - North-South & East-West Interstates
  - 200 Truck Lines

- Rail
  - Six Class I Railroads
  - 96 Freight Trains Daily
  - Micro-Bridge & Mini-Bridge Service

- Airport
  - World's Largest Cargo Airport (3.6 Million Metric Tons)

- Outport (Port of Memphis)
  - 3,140,000 Short Tons Shipped in 1993

TABLE OF CONTENTS

MEMPHIS, TENNESSEE

COMMUNITY PRESENTATION

TO THE

1995 BASE REALIGNMENT AND CLOSURE

COMMISSION

Birmingham, Alabama
April 4, 1995

Slide # 1

TABLE OF CONTENTS

MEMPHIS

America's Distribution Center

Memphis City Aerial

DISTRIBUTION HUB

- **AIR**

  - **MEMPHIS INTL AIRPORT - #1 WORLD CARGO AIRPORT**
    $500M EXPANSION
    BEST ON-TIME FLIGHT PERFORMANCE
    WEATHER - LESS THAN 1 HR BELOW APPROACH MINIMUM
    PORT OF ORGIN U.S. CUSTOM
    FOREIGN TRADE ZONE DESIGNATION
    TOP 10 ON-TIME ARRIVALS

  - **FEDERAL EXPRESS**
    1 MILLION PACKAGES 1 DAY WORLDWIDE: SUPERHUB 2M LBS/DAY
    PART BANK EXPRESS SERVICE

  - **SIX ALTERNATE AIRPORTS**

  - **44 CARRIERS/AIRLINES**

  - **MILITARY AIR TERMINALS**
    MILLINGTON
    AIR NATIONAL GUARD: 500,000 LBS/DAY

DISTRIBUTION HUB

- SURFACE (MOTOR CARRIERS)
- - HIGHWAY SYSTEM
  - INTERSECTION I-40 AND I-55
  - INTERSTATE I-240
  - SEVEN STATE HIGHWAYS
  - 65% POPULATION OVERNITE
  - TWO INTERSTATES PROPOSED: ATLANTA TO MPHS & INDIANA TO HOUSTON
- - CARRIERS
  - OVER 200 COMPANIES/ 100 TERMINALS
  - UPS - DOUBLED OPERATIONS
  - REGIONAL FREIGHT CONSOLIDATION POINTS

DISTRIBUTION HUB

- RAIL

  - 6 MAJOR RR'S/96 FREIGHT TRAINS IN/OUT DAILY
  - INTERMODEL TRUCK BULK TRANSFER FACILITIES

- WATER
  - 2ND LARGEST INLAND PORT
  - 25K MILES OF INLAND WATERWAYS
  - THREE HARBORS: 11M TONS ANNUALLY
  - 5 PUBLIC TERMINALS/6 COMM BARGE LINES
  - FORIEGN TRADE ZONE DESIGNATION

AVERAGE DAILY RAIL & TRUCK TRAFFIC CAPACITY PEACETIME AND MOBILIZATION

(By Rail Car)

	Memphis (DDMT)	Mechanicsburg (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)
Peacetime	**1.6**	1.0	0.9	0.9	0.1	0.0
Mobilization	**4.1**	2.6	2.2	4.3	0.3	0.0

(By Truckload)

Peacetime	**459**	196	185	122	142	92
Mobilization	**1,129**	491	461	306	358	232

THESE TWO CHARTS DEMONSTRATE CAPABILITY TO HANDLE TRUCK AND RAIL TRAFFIC THROUGH THE DEPOT FACILITIES.

TRUCK:

PEACETIME: DDMT EASILY SURPASSES THE OTHER DEPOTS WITH ITS CAPABILITY TO PROCESS TRUCK TRAFFIC INTO AND OUT OF THE DEPOT. MEMPHIS REPRESENTS 39 PERCENT OF THE TOTAL DLA DEPOT CAPABILITY AND EXCEEDS A TWO TO ONE RATIO OVER ITS NEAREST COMPETITOR.

MOBILIZATION: DDMT'S CAPABILITIES CONTINUE TO DOMINATE THE OTHER DEPOTS DURING MOBILIZATION REPRESENTING NEARLY 38 PERCENT OF THE TOTAL DLA CAPABILITY AND MAINTAINS ITS TWO TO ONE RATIO OVER ITS NEAREST COMPETITOR. MEMPHIS NOT ONLY CONTINUES TO EXCEED THE TOTAL COMBINED EFFORTS OF THE BOTTOM THREE DEPOTS (TRACY, OGDEN AND COLUMBUS), IT EVEN EXCEEDS THE CAPABILITIES OF THE SECOND AND THIRD PLACE CONTENDERS (MECHANICSBURG AND RICHMOND).

RAIL:

PEACETIME: THOUGH NOT TO THE DEGREE AS IT DOES IN TRUCK TRAFFIC, MEMPHIS CLEARLY OUTDISTANCES THE OTHER DEPOTS WHEN IT COMES TO RAIL TRAFFIC CAPABILITY. OGDEN'S RANKING DURING MOBILIZATION REFLECTS ITS UNIQUE MISSION OF PROCESSING MODULAR MILITARY HOSPITAL (DEPMEDS) SHIPMENTS VIA RAIL FLAT CAR. THIS WORKLOAD REPRESENTS MORE THAN 50 PERCENT OF OGDEN'S RAIL TRAFFIC AND IF IT WERE DISCONTINUED, MEMPHIS WOULD DEMONSTRATE THE SAME CAPABILITIES IN RAIL AS IT DOES IN TRUCK. REGARDLESS, MEMPHIS STILL REPRESENTS A MAJOR PLAYER IN RAIL TRAFFIC.

OVERALL, MEMPHIS CONTINUES TO RANK NUMBER ONE.

Source: An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

DESERT STORM - RESULTS

- B - Rations (Hot Meals)
  - 0 + 12 Days: 450 pallets - 45,000 meals
  - 0 + 8 Months: 60 million meals
  - How? DDMT & Mphs Community Partnering

- Subsistence
  - Shipped 1/2 of all food for U. S. Air & Ground Troops in Middle East

- Quality Service
  - Increased 100,000 Tons above Normal Workload
  - Customer complaints .001%
  - On Time Shipping Effectiveness 98.07%
  - Receiving Effectiveness 97.3%
  - Personnel Processing - 900 Temporaries

- Conclusions, DDMT
  - Highest daily truck traffic - peacetime or mob
  - Highest daily rail traffic - peacetime or mob
  - No capacity problems - truck or rail

DDMT USE OF TRUCK AND RAIL DURING OPERATIONS DESERT SHIELD/DESERT STORM

	Memphis (DDMT)	Mechanicsburg (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)
Avg Daily Truckload: In	**420**	160	108	120	90	60
Avg Daily Truckload: Out	**148**	88	126	35	90	58
Avg Daily Truckload: In/Out	**568**	248	234	155	180	118
Avg Monthly Rail Cars: In	**103**	5	70	45	78	0
Avg Monthly Rail Cars: Out	**25**	0	0	23	0	0
30 Day Avg Rail Cars: In/Out	**126**	6	69	66	75	0

THESE TWO CHARTS DEMONSTRATE MEMPHIS' FACILITY UTILIZATION DURING PEACETIME AND DURING MOBILIZATION. SOME POINTS WORTH NOTING:

DDMT IS THE ONLY DEPOT ABOVE AVERAGE FOR TRUCK DURING PEACE-TIME AND DURING MOBILIZATION.

DDMT IS ONLY ONE OF TWO DEPOTS ABOVE AVERAGE FOR RAIL TRAFFIC ON A 30 DAY AVERAGE.

DDMT HAS THE HIGHEST FIGURES FOR BOTH TRUCK AND RAIL TRAFFIC DURING PEACETIME AND DURING MOBILIZATION.

MEMPHIS STANDS OUT FROM ALL OTHER DEPOTS IN ITS CAPABILITIES TO SUPPORT THE DISTRIBUTION NEEDS OF THE MILITARY SERVICES. ITS GEOGRAPHIC LOCATION, CAPACITY TO HANDLE VOLUME, AND THE SURROUNDING MAJOR DISTRIBUTION NETWORK SYSTEM ARE NOT DUPLICATED ANYWHERE ELSE IN THE NATION. MEMPHIS ACCOMMODATES 38% OF THE PEACETIME AND MOBILIZATION DEPOT UTILIZATION AMONG THE SIX ACTIVITIES REFLECTED.

Summary of Depot Transportation Survey

Facility Utilization - Mobilization

	Memphis (DDMT)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)	Average
Avg Daily Truckload: In	**420**	160	108	120	90	60	
Avg Daily Truckload: Out	**148**	88	126	35	90	58	
Avg Daily Truckload: In/Out	**568**	248	234	155	180	118	250
Avg Monthly Rail Traffic: In	**103**	5	70	45	78	0	
Avg Monthly Rail Traffic: Out	**25**	0	0	23	0	0	
30 Day Avg Rail Traffic: In/Out	**126**	6	69	66	75	0	57

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

Summary of Depot Transportation Survey

Facility Utilization - Peacetime

	Memphis (DDMT)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)	Average
Avg Daily Truckload: In	**168**	64	43	48	36	24	
Avg Daily Truckload: Out	**59**	35	51	41	36	23	
Avg Daily Truckload: In/Out	**227**	99	94	62	72	47	100
Avg Monthly Rail Traffic: In	**41**	2	28	18	31	0	
Avg Monthly Rail Traffic: Out	**10**	0	0	9	0	0	
30 Day Avg Rail Traffic: In/Out	**51**	3	27	27	30	0	24

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

DESERT STORM - RESULTS

- B - Rations (Hot Meals)
  - 0 + 12 Days: 450 pallets - 45,000 meals
  - 0 + 8 Months: 60 million meals
  - How? DDMT & Mphs Community Partnering

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  - Receiving Effectiveness 97.3%
  - Personnel Processing - 900 Temporaries

- Conclusions, DDMT
  - Highest daily truck traffic - peacetime or mob
  - Highest daily rail traffic - peacetime or mob
  - No capacity problems - truck or rail

DDMT Rail/Port Assets & Capabilities

- 26 Miles of Operational Rail On DDMT
- Rail Lines Run Directly To Loading Ramps
- Rail System Ties Into Intermodal Rail Capability at Port of Memphis
- Containerization Capability at DDMT and Port of Memphis
- Ability to service ocean-going vessels 88% of the year

MEMPHIS INTERNATIONAL AIRPORT
CARGO OPERATIONS

- 99.2% of flights at Memphis are cargo-related.
- 261,810 aircraft movements in/out of Memphis are cargo-related.
- 3.6 million metric tons shipped annually through Memphis.
- Ranked #1 cargo airport in the world by Airports International magazine, Geneva 1994.
- FedEx provides CRAF support with ability to move 15.3 million pounds of cargo utilizing the following 50 aircraft:
  - Thirteen MD 11's
  - Two 747's
  - Thirty-five DC-10's

Analysis of alternatives

DLA's analysis of distribution depots was greatly influenced by military judgment. There are several tenets that were held constant throughout the deliberative process:

- When a Military Service determined that a Maintenance Depot was surplus to their needs, DLA would consider closing collocated distribution functions. The logic was twofold: first, the maintenance depot is by far the biggest customer and primary reason for DLA presence; and second, complete closure of that facility infrastructure generates the best economic return to DoD.

- In the case of Stand-Alone Depots, throughput capacity and storage space to support a two front contingency scenario is paramount. Containerization and consolidation points (CCP) and airlift capability to support mobilization are required. Activities that can provide this type of support, one on each coast, are strongly favored for retention.

- To maximize efficiencies and reduce overall costs, take advantage of storage space at depots collocated with another activity.

Analysis of staffing requirements to accommodate workload moving from a closed, disestablished, or realigned site considered POM reductions and other efficiencies gained from economies of scale. DLA has ongoing initiatives such as activity based costing, benchmarking, tailored logistics, Distribution Standard System, and discrete pricing. These initiatives, along with significant workload reductions, are projected to decrease DLA's distribution workforce prior to FY 01. Further, consolidation of workload at fewer sites is projected to improve productivity within direct labor by 25 percent. In addition, non-direct labor requirements are expected to reduce by 25 percent through elimination of duplicate effort. Taking these factors into consideration, it is projected that only 60 percent of the direct labor would be required to perform the workload transferred from a disestablished depot to a gaining depot; and, only 35 percent of the non-direct labor would be required at the gaining depot. All percentages first allowed for previously programmed POM changes. In the case of a realigned depot, which will be used primarily for slow moving and war reserve materiel, only 20 percent of the workforce (after POM changes) will be transferred to an active depot. A small contingent will remain to perform distribution duties at the realigned site.

DLA looked at numerous scenarios that provided support to the overall Concept of Operations. The scenario disestablishing DDRT and DDLP; closing DDMT and DDOU; and realigning DDCO yielded the best mix of sustaining workload capacity, utilizing storage

Document Separator

Department of Defense
Logistics Strategic Plan

EDITION 1994

Prepared by the
Office of the
Deputy Under Secretary of Defense
(Logistics)

Enc 1 4

- The Department must define and act upon an understanding of its required logistics core competencies and prepare to source logistics from the most competent providers;

- The Department's logistics capabilities must be treated as part of the national industrial capability;

- Military commanders require near real-time information concerning materiel and logistics support capability in order to fight and win.

Assumptions about the Future Logistics Environment

I. The focus shift from global to highly diverse, regional conflicts--for peacekeeping, humanitarian, or combat missions--demands agile logistics support. Agility requires greater mobility, complete asset visibility, rapid response to requirements, and improved management information to assert necessary control over employment of logistics resources. The process that begins with the identification of a requirement or need, and ends when the customer accepts delivery, must be streamlined.

II. Ships and aircraft (both military and commercial) available to the DoD that are able to carry military equipment to both improved and unimproved locations will continue to be a constraint to deploying forces. Expanded intermodal transportation, including containerization, will somewhat compensate for this constraint. For airlift, there will be an increased reliance on commercial assets to augment military strategic airlift capability in the future. As transportation, rather than storage, becomes the prime contributor to the DoD's ability to deliver material on time, the importance of managing information about intransit assets and the status of movements becomes paramount.

III. Logistics information will become a principal commodity of the logistics system. As resources decline, the demands for assured communications will increase. At the same time, both information and supporting facilities will become a more lucrative target as the information explosion accelerates, systems become increasingly integrated, and processes become more automated.

IV. Industrial base implications of the future logistics environment.

A. There will continue to be an overall reduction in defense logistics-related work, diminishing sources of manufacture, potential loss of domestic sources of supply or transfer to off-shore sources, and a decrease in the capability to surge. The economic and political ingredients of defense will need to be increasingly integrated with logistics planning.

B. Many of the weapon systems in the DoD inventory today will remain in use well into the next century. Modernization of older systems will require the DoD to support a broader range of old and new technologies.

EXECUTIVE SUMMARY

Defense Distribution Depot Memphis

- One of the Largest Supply Depots in DoD
- Provides Logistical Support for **ALL** Military Services
- Commodities:
    - Medical
    - Subsistence
    - Clothing
    - Hazardous
    - Repair Parts

- Modernized Depot With
    - Mechanized Bin Complex
        - 1.8 Million Square Feet
        - Mechanized Bin/Bulk Receiving Systems
        - Automated High-Rise Storage Areas
        - Carousels
        - Flow Racks
        - Central Packing Facility
        - Automated Transportation Terminal System
    - Bulk Complex
        - 2 Million Square Feet
        - Mechanized Medical Facilities
        - Automated Hazardous Storage Facility
        - Unique Subsistence/B-Ration Operation
        - Major Clothing Storage
    - Large Commodity Shed Complex
        - 1.2 Million Square Feet
        - Heavy Construction
        - Industrial
        - General
        - Drums
        - Cable
        - POL Products

- Facilities in Outstanding Condition
    - Age 36 years vs. 50 years for DoD Facilities
    - Time Frame to Upgrade - 2.5 years vs. 10 years for DoD Facilities

- Strategically Located in the Center of the U.S.
- Possesses the Finest Transportation Network in DoD With Access to:
    - 200 Truck Lines
    - 44 Air Carriers
    - 9 Air Lines
    - 6 Commercial Barge Lines
    - 2 Military Air Terminals
    - 6 Major Rail Systems
    - Located 2 Miles from Federal Express Super Hub

- During Operation Desert Shield
    - Had the Highest Volume of Outbound Tonnage of All DLA Depots
    - Second Leading Depot in Total Weight of DLA Owned Commodities
    - Hired 900 Temporary Personnel
    - Short Training Learning Curve - Distribution Skills Already Exist in Area

- Only Depot Above Average for Truck Traffic During Peacetime and Mobilization
- Above Average for Rail Traffic During Peacetime and Mobilization

SUMMARY

Defense Distribution Depot Memphis is one of the top performers in DLA. DDMT is an ideal depot to support U.S. Military Operations if the major logistics criteria are:

- **Performance**
- **Strategic Location**
- **Infrastructure**
- **Contingency Support**

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Cameron Station
Alexandria, Virginia 22304-6100

DEFENSE LOGISTICS AGENCY

SUPPORT OF OPERATIONS DESERT SHIELD/STORM

AUGUST 1990-MARCH 1991

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11443-24871 (00013), submitted by M.D. SALISBURY, DDOU-TT, 790-7398, (801)399-7398.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/09/90.

3. (U) KEYWORDS: CCP, CONTAINER CONSOLIDATION, SHIPMENTS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: WEST COAST CONTAINER CONSOLIDATION POINT (CCP).

5. (U) OBSERVATION: SHIPMENTS OF MATERIAL FROM DLA ACTIVITIES WEST OF THE MISSISSIPPI RIVER TO THE EAST COAST CCP WERE BOTH INEFFICIENT AND EXPENSIVE.

6. (U) DISCUSSION: NUMEROUS SHIPMENTS OF ODS MATERIAL FROM THE WEST COAST DLA DEPOTS WERE TRUCKED OR FLOWN CROSS-COUNTRY TO THE EAST COAST CCP AT NEW CUMBERLAND ARMY DEPOT (NCAD). MANY SIGNIFICANT SHIPMENT DELAYS WERE ENCOUNTERED AT NCAD AS NCAD EXPERIENCED GRID-LOCK. CUSTOMER SERVICE WAS COMPROMISED; THE COMMERCIAL CARRIER INDUSTRY WAS FRUSTRATED AND INCONVENIENCED AS CARRIAGE UNDERLOAD DELAYS WERE ENCOUNTERED. FURTHER, IT WAS NOT COST EFFECTIVE DUE TO DEMURRAGE/DETENTION COSTS AND EXPENSIVE CROSS-COUNTRY LINE HAUL RATES. THIS ISSUE WAS SURFACED EARLY ENOUGH IN THE OPERATION THAT APPROPRIATE CHANGES COULD HAVE BEEN MADE TO CORRECT THE PROBLEM.

7. (U) LESSON LEARNED: MORE THAN ONE CCP IS NEEDED TO MEET TRANSPORTATION REQUIREMENTS OF LARGE CONTINGENCIES SUCH AS ODS.

8. (U) RECOMMENDED ACTION: UTILIZE MORE THAN ONE CCP. A WEST COAST CCP, UTILIZING TRANS-PACIFIC LINE HAUL SERVICES FOR DLA DEPOTS WEST OF THE MISSISSIPPI, WOULD HAVE IMPROVED CUSTOMER SERVICE (BY DECREASING PIPE-LINE TIMES AND AVOIDING THE NCAD GRID-LOCK) AND WOULD HAVE BEEN MORE COST EFFECTIVE. COST SAVINGS COULD HAVE BEEN REALIZED THROUGH SHORTER LINE-HAUL AND AIR FREIGHT COSTS, AS WELL AS CHEAPER OCEAN CARGO RATES (BASED ON USE OF MID-EAST FEEDERS WHICH REDUCED INSURANCE COSTS OF PRIME CARRIER, THEREBY REDUCING CARGO RATES). LOGISTICS SUPPORT PLANNING FOR CRISIS/CONTINGENCIES MUST CONSIDER THE THROUGH-PUT CAPABILITIES OF THE CCPS AS WELL AS CUSTOMER SUPPORT AND TRANSPORTATION COSTS.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

DDMT - MEMPHIS TN.

DATA ELEMENTS		DATA
COMMUNITY ECONOMICS		
General Obligation Bond Rating		Aa
Monthly Homeowner Costs (1996 Dollars)		Shelby County $806
Average Federal Salary Rate: GS 7, Step 5 (1996 Dollars)		$28,075
	WG 5, Step 4 (1996 Dollars)	$24,725
Monthly Owner Costs as a % of Monthly Average:		
Federal Salary rate	GS 7, Step 5	34.5%
	WG 5, Step 4	39 1%
TRANSPORTATION		
Public Service Transportation to Installation?		Yes
Distance from Installation to Airport		3 miles
Airport Hub Size		Medium
Number of Main Interstate Highways		2
Number of Spur Interstate Highways		1
Number of 4-Lane U.S. Highways		3
Number of 2-Lane U.S. Highways		2
UTILITIES		
Is Community's Utilities Systems Able to Absorb 25%/50%/100% Increases in Activity Population?		Yes/Yes/Yes
WORKFORCE AVAILABLITY		
Permanent Civilian Personnel Strength at Principal Duty Station (30 September 1994):		1,379
Estimated Time to Increase Civilian Staff by:		
	50%	1-4 months
	100%	5-6 months
HOUSING		
New Housing Starts:	1990	4,564
	1991	4,696
	1992	6,064
	1993	7,012

AIRPORT HUB SIZE: Hub size based on passenger traffic not cargo. Memphis International Airport is #1 Air Cargo Handler in the World. Air National Guard and FedEx Superhub within 3 miles.

DDJC - SAN JOAQUIN

DATA ELEMENTS		DATA	
COMMUNITY ECONOMICS			
General Obligation Bond Rating		Lathrop	Aa
		Tracy	Aa
Monthly Homeowner Costs (1996 Dollars)		San Joaquin County	$1,014
Average Federal Salary Rate: GS 7, Step 5 (1996 Dollars)			$28,075
	WG 5, Step 4 (1996 Doll		$28,831
Monthly Owner Costs as a % of Monthly Average:			
Federal Salary rate	GS 7, Step 5		43.3%
	WG 5, Step 4		42.2%
TRANSPORTATION			
		Lathrop	Tracy
Public Service Transportation to Installation?		No	No
Distance from Installation to Airport		3 miles	19 miles
Airport Hub Size		Non-Hub	
Number of Main Interstate Highways		1	1
Number of Spur Interstate Highways		2	2
Number of 4-Lane U.S. Highways		0	0
Number of 2-Lane U.S. Highways		0	0
UTILITIES			
Is Community's Utilities Systems Able to Absorb 25%/50%/100% Increases in Activity Population?		Yes/Yes/Yes	
WORKFORCE AVAILABLITY			
Permanent Civilian Personnel Strength at Principal Duty Station (30 September 1994):		Lathrop & Stockton	686
		Tracy	844
Estimated Time to Increase Civilian Staff by:	50%	1-4 months	
	100%	5-6 months	
HOUSING			
New Housing Starts:	1990	2,958	
	1991	1,912	
	1992	2,508	
	1993	2,572	

DDSP - SUSQUEHANNA

DATA ELEMENTS		DATA	
COMMUNITY ECONOMICS			
General Obligation Bond Rating		New Cumberland	None
		Mechanicsburg	None
Monthly Homeowner Costs (1996 Dollars)		Cumberland County	$864
		Dauphin County	$818
Average Federal Salary Rate: GS 7, Step 5 (1996 Dollars)		$28,075	
WG 5, Step 4 (1996 Dollars)		$26,536	
Monthly Owner Costs as a % of Monthly Average:			
Federal Salary rate	GS 7, Step 5	Cumberland County	36.9%
		Dauphin County	35.0%
	WG 5, Step 4	Cumberland County	39.1%
		Dauphin County	37.0%
TRANSPORTATION			
		New Cumberland	Mechanicsburg
Public Service Transportation to Installation?		Yes	Yes
Distance from Installation to Airport		12 miles	16 miles
Airport Hub Size		Small	
Number of Main Interstate Highways		3	3
Number of Spur Interstate Highways		1	1
Number of 4-Lane U.S. Highways		4	4
Number of 2-Lane U.S. Highways		4	4
UTILITIES			
Is Community's Utilities Systems Able to Absorb 25%/50%/100% Increases in Activity Population?		Yes/Yes/Yes	
WORKFORCE AVAILABLITY			
Permanent Civilian Personnel Strength at Principal Duty Station (30 September 1994):		New Cumberland	1,245
		Mechanicsburg	809
Estimated Time to Increase Civilian Staff by:			
	50%	1-4 months	
	100%	5-6 months	
HOUSING			
New Housing Starts:	1990	2,454	
	1991	2,186	
	1992	2,554	
	1993	2,677	

CIVILIAN RESERVE AIR FLEET (CRAF)

FY95 COMMITMENT BY EXPRESS CARRIERS

AIRCRAFT TYPE	CRAF ELIGIBLE AIRCRAFT	AIRCRAFT COMMITED TO CRAF	PERCENT OF ELIGIBLE FLEET COMMITTED	PERCENT OF FY 95 CRAF CARGO FLEET	TOTAL TONNAGE COMMITTED TO CRAF	PERCENT OF FY 95 CRAF TONNAGE
FEDERAL EXPRESS						
B747-200F	6	6			540	
MD11	13	13			1066	
DC10-30F	22	22			1650	
DC10-10F	11	11			495	
TOTAL	52	52	100%	39%	3751	68%
UPS						
B747-100F	12	4			360	
DC8-73F	27	0			0	
DC8-71F	24	0			0	
TOTAL	63	4	6%	4%	360	6%
EMERY						
DC8-73F	8	8				
DC8-71F	7	7				
DC8-63F	14	14				
DC8-62-F	6	0				
DC8-50F	2	0				
TOTAL	37	29	78%	11%	1305	24%
AIRBORNE EXPRESS						
DC8-63-F	5	0				
TOTAL	5	0	0%	0%	0	0%
DHL						
DC8-63F	3	1				
TOTAL	3	1	33%	0%	45	1%
BURLINGTON EXPRESS						
DC8-71	5	0				
DC8-63	9	1				
TOTAL	14	1	7%	1%	45	1%

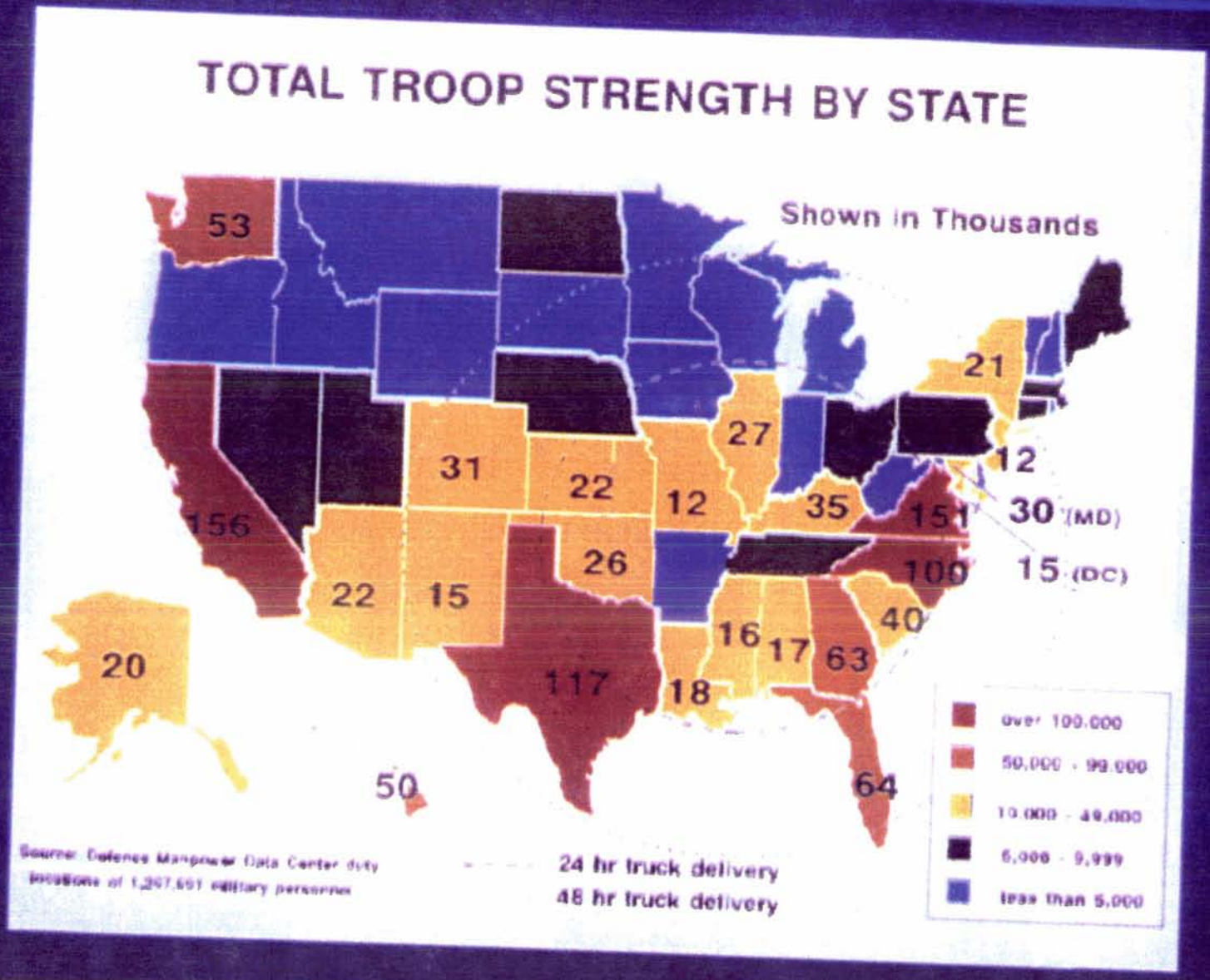
DLA Analysis of DDMT Transportation Assets

Mission Suitability Factor Weighting

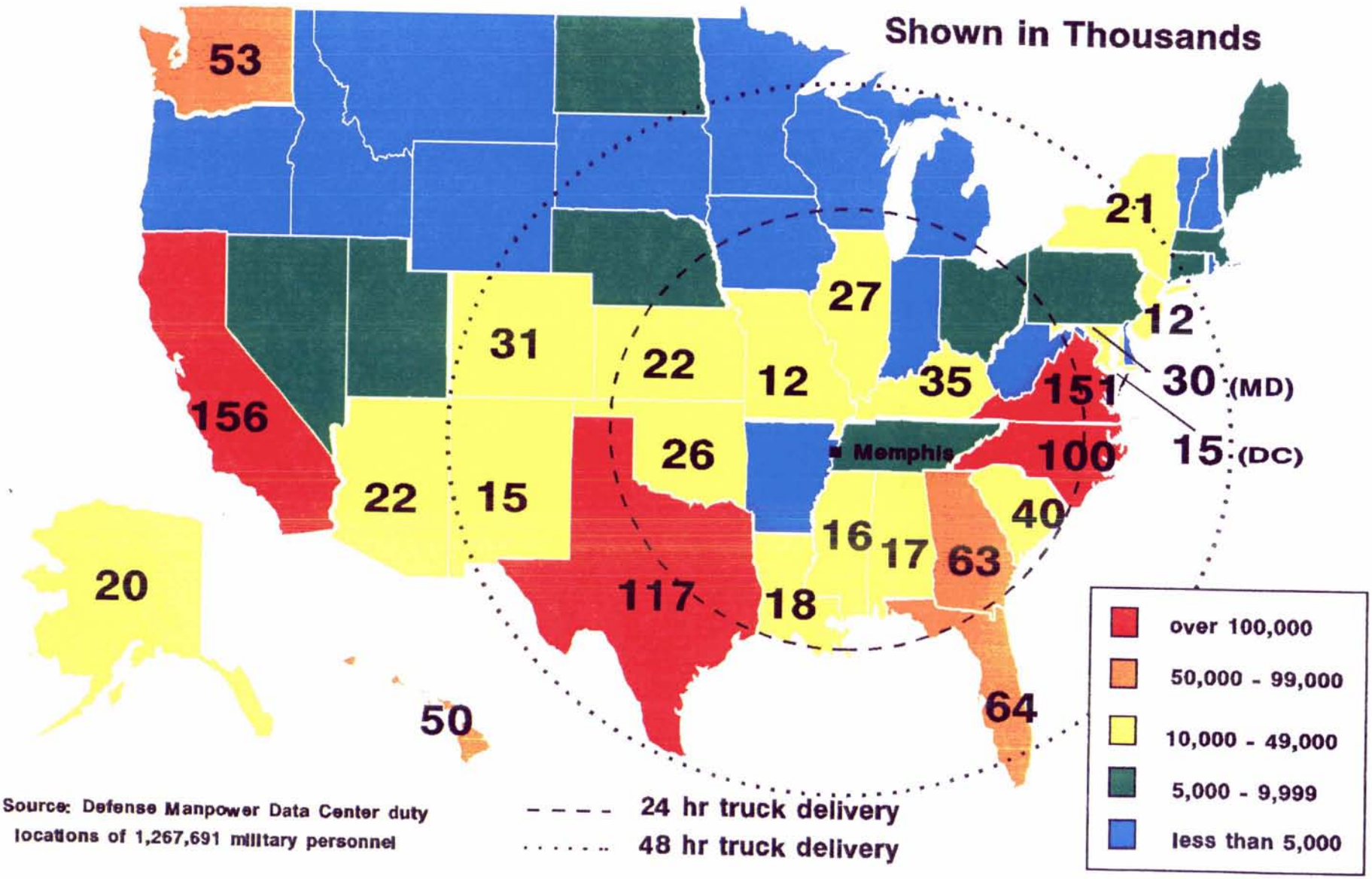
Rail	0
Surface	0
Air	10
Water	10

Document Separator

DDMT 24/48 Hour Processing



TOTAL TROOP STRENGTH BY STATE



Source: Defense Manpower Data Center duty locations of 1,267,691 military personnel

	Decending Order		
	State	Abbr.	Total Active Military
	California	CA	156,670
	Virginia	VA	151,136
	Texas	TX	117,653
	North Carolina	NC	100,615
	Florida	FL	64,408
	Georgia	GA	63,174
	Washington	WA	53,478
	Hawaii	HI	49,769
	South Carolina	SC	40,551
	Kentucky	KY	35,195
	Colorado	CO	31,272
	Maryland	MD	30,042
	Illinois	IL	27,913
	Oklahoma	OK	26,553
	Arizona	AZ	22,861
	Kansas	KS	22,072
	New York	NY	21,579
	Alaska	AK	20,631
	Louisiana	LA	18,834
	Alabama	AL	17,512
	Mississippi	MS	16,446
	District of Columbia	DC	15,745
	New Mexico	NM	15,359
	Missouri	MO	12,416
	New Jersey	NJ	12,302
	North Dakota	ND	9,858
	Ohio	OH	9,366
	Nebraska	NE	9,266
	Connecticut	CT	8,844
	Nevada	NV	8,713
	Tennessee	TN	8,170
	Pennsylvania	PA	7,587
	Massachusetts	MA	5,891
	Maine	ME	5,812
	Utah	UT	5,176
	Arkansas	AR	4,783
	Delaware	DE	4,656
	South Dakota	SD	4,644
	Montana	MT	4,402
	Idaho	ID	4,111
	Michigan	MI	3,851
	Wyoming	WY	3,808
	Puerto Rico	RQ	3,359
	Rhode Island	RI	3,291
	Indiana	IN	2,525
	Oregon	OR	1,592
	New Hampshire	NH	1,022
	Minnesota	MN	917
	Wisconsin	WI	812
	West Virginia	WV	524
	Iowa	IA	423
	Vermont	VT	82
	Virgin Islands	VQ	20
			1,267,691.00

Dutloc	State	Abbr.	Total Active Military	
1	Alabama	AL	17,512	1.38%
2	Alaska	AK	20,631	1.63%
4	Arizona	AZ	22,861	1.80%
5	Arkansas	AR	4,783	0.38%
6	California	CA	156,670	12.36%
8	Colorado	CO	31,272	2.47%
9	Connecticut	CT	8,844	0.70%
10	Delaware	DE	4,656	0.37%
11	District of Columbia	DC	15,745	1.24%
12	Florida	FL	64,408	5.08%
13	Georgia	GA	63,174	4.98%
14	Guam	GU		0.00%
15	Hawaii	HI	49,769	3.93%
16	Idaho	ID	4,111	0.32%
17	Illinois	IL	27,913	2.20%
18	Indiana	IN	2,525	0.20%
19	Iowa	IA	423	0.03%
20	Kansas	KS	22,072	1.74%
21	Kentucky	KY	35,195	2.78%
22	Louisiana	LA	18,834	1.49%
23	Maine	ME	5,812	0.46%
24	Maryland	MD	30,042	2.37%
25	Massachusetts	MA	5,891	0.46%
26	Michigan	MI	3,851	0.30%
27	Minnesota	MN	917	0.07%
28	Mississippi	MS	16,446	1.30%
29	Missouri	MO	12,416	0.98%
30	Montana	MT	4,402	0.35%
31	Nebraska	NE	9,266	0.73%
32	Nevada	NV	8,713	0.69%
33	New Hampshire	NH	1,022	0.08%
34	New Jersey	NJ	12,302	0.97%
35	New Mexico	NM	15,359	1.21%
36	New York	NY	21,579	1.70%
37	North Carolina	NC	100,615	7.94%
38	North Dakota	ND	9,858	0.78%
39	Ohio	OH	9,366	0.74%
40	Oklahoma	OK	26,553	2.09%
41	Oregon	OR	1,592	0.13%
42	Pennsylvania	PA	7,587	0.60%
43	Puerto Rico	RQ	3,359	0.26%
44	Rhode Island	RI	3,291	0.26%
45	South Carolina	SC	40,551	3.20%
46	South Dakota	SD	4,644	0.37%
47	Tennessee	TN	8,170	0.64%
48	Texas	TX	117,653	9.28%
49	Utah	UT	5,176	0.41%
50	Vermont	VT	82	0.01%
51	Virginia	VA	151,136	11.92%
52	Virgin Islands	VQ	20	0.00%
53	Washington	WA	53,478	4.22%
54	West Virginia	WV	524	0.04%
55	Wisconsin	WI	812	0.06%
56	Wyoming	WY	3,808	0.30%
Total			1,267,691.00	

		> 1000	
State	Abbr.	Total Active Military	
Minnesota	MN	917	0.07%
Wisconsin	WI	812	0.06%
West Virginia	WV	524	0.04%
Iowa	IA	423	0.03%
Vermont	VT	82	0.01%
Virgin Islands	VQ	20	0.00%
		1000-5000	
State	Abbr.	Total Active Military	
Arkansas	AR	4,783	0.38%
Delaware	DE	4,656	0.37%
Idaho	ID	4,111	0.32%
Indiana	IN	2,525	0.20%
Michigan	MI	3,851	0.30%
Montana	MT	4,402	0.35%
New Hampshire	NH	1,022	0.08%
Oregon	OR	1,592	0.12%
Puerto Rico	RQ	3,359	0.26%
Rhode Island	RI	3,291	0.26%
South Dakota	SD	4,644	0.36%
Wyoming	WY	3,808	0.30%
		5000 - 10000	
State	Abbr..	Total Active Military	
Connecticut	CT	8,844	0.69%
Maine	ME	5,812	0.46%
Massachusetts	MA	5,891	0.46%
Nebraska	NE	9,266	0.73%
Nevada	NV	8,713	0.68%
North Dakota	ND	9,858	0.77%
Ohio	OH	9,366	0.74%
Pennsylvania	PA	7,587	0.60%
Tennessee	TN	8,170	0.64%
Utah	UT	5,176	0.41%
		10,000 - 50,000	
State	Abbr.	Total Active Military	
Alabama	AL	17,512	1.37%
Alaska	AK	20,631	1.62%
Arizona	AZ	22,861	1.79%
Colorado	CO	31,272	2.45%
District of Columbia	DC	15,745	1.24%
Hawaii	HI	49,769	3.91%
Illinois	IL	27,913	2.19%
Kansas	KS	22,072	1.73%
Kentucky	KY	35,195	2.76%
Louisiana	LA	18,834	1.48%
Maryland	MD	30,042	2.36%
Mississippi	MS	16,446	1.29%
Missouri	MO	12,416	0.97%
New Jersey	NJ	12,302	0.97%
New Mexico	NM	15,359	1.21%
New York	NY	21,579	1.69%
Oklahoma	OK	26,553	2.08%

South Carolina	SC	40,551	3.18%
		50,000 - 100,000	
State	**Abbr.**	**Total Active Military**	
Florida	FL	64,408	5.05%
Georgia	GA	63,174	4.96%
Washington	WA	53,478	4.20%
		> 100,000	
State	**Abbr.**	**Total Active Military**	
California	CA	156,670	12.30%
North Carolina	NC	100,615	7.90%
Texas	TX	117,653	9.23%
Virginia	VA	151,136	11.86%

CONUS BASES WITH OVER 100 PERSONNEL
SERVED BY TRUCK
WITHIN 24 HOURS FROM DDMT

STATE	BASE	ENLISTED	OFFICER	CIVILIAN	TOTAL
ALABAMA	Anniston Army Depot	129	11	915	1,055
	Fort McClellan	2,757	402	839	3,998
	Redstone Arsenal	1,628	405	8,460	10,493
	Fort Rucker	2,943	2,249	1,995	7,187
	Birmingham Map Ags	-0-	-0-	119	119
	Maxwell AFB (Incl. Gunter)	2,905	1,815	2,102	6,822
ARKANSAS	Pine Bluff Arsenal	67	20	584	671
	Little Rock AFB	3,712	704	462	4,878
FLORIDA	HQ Stricom, Orlando	4	52	469	525
	Naval Training Cntr. Orlando	5,276	773	1,569	7,618
	Pensacola NAS	2,409	2,178	2,677	7,264
	Corry Station NTTC	2,075	81	146	2,302
	Jacksonville NAS	4,925	999	3,632	9,556
	Key West NAS	1,243	178	362	1,783
	Pensacola Nav Hospital	528	234	274	1,036
	Cecil Field NAS	2,896	269	318	3,483
	Mayport Navsta	3,250	452	477	4,179
	Whiting Field NAS	780	719	175	1,674

	Patrick AFB	2,071	596	1,120	3,787
	Eglin AFB	12,868	2,546	3,460	18,874
	Homestead AFB	3	-0-	248	251
	MacDill AFB	2,561	798	470	3,829
	Tyndall AFB	4,107	790	626	5,523
GEORGIA	Fort Benning	14,256	1,795	2,421	18,472
	Fort Gordon	7,365	1,416	2,163	10,944
	Fort Gillem	652	315	296	1,263
	Fort Stewart	17,754	2,120	1,531	21,405
	Fort McPherson	790	403	2,294	3,487
	Atlanta NAS	289	57	92	438
	Kings Bay Nav Sub Base	2,865	255	1,032	4,152
	Albany MCLB	938	122	1,544	2,604
	Moody AFB	3,273	343	330	3,946
	Robins AFB	3,168	672	6,131	9,971
	Savannah AFS	2	1	959	962
ILLINOIS	Rock Island Arsenal	125	58	3,976	4,159
	Fort Sheridan	215	56	32	303
	Savanna Army Depot Act	2	2	325	329
	Great Lakes NTC	19,361	317	1,209	20,887
	Naval Hospital, Great Lakes	1,080	293	430	1,803

	Glenview NAS	313	46	94	453
	Scott AFB	3,456	2,181	2,824	8,461
	Ohare Iap Ars	-0-	-0-	387	387
INDIANA	Fort Benjamin Harrison	1,194	291	546	2,031
	Crane Nav Weapon Sup Cntr	90	16	3,273	3,379
	Grissom AFB	5	3	407	415
	DFAS Indianapolis Center	95	30	8,843	8,968
KANSAS	Fort Leavenworth	1,589	2,124	1,361	5,074
	Fort Riley	12,818	1,689	1,321	15,828
	McConnell AFB	1,713	259	398	2,370
	Forbes Field Ags	-0-	-0-	106	106
KENTUCKY	Fort Campbell	20,110	2,884	1,812	24,806
	Fort Knox	9,639	1,216	2,731	13,586
	Louisville NWC	11	5	975	991
LOUISIANA	New Orleans Mil OC Terminal	201	45	223	469
	Fort Polk	10,950	1,175	1,484	13,609
	New Orleans NAS	200	39	374	613
	New Orlenas NSA	772	111	1,032	1,915
	Barksdale AFB	4,537	636	626	5,799

MISSISSIPPI	Pascagoula Naval Station	1,250	192	1,799	3,241
	Gulfport NCBC	780	70	337	1,187
	Meridian NAS	1,390	369	228	1,987
	Columbus AFB	684	531	261	1,476
	Keesler AFB	5,334	466	1,572	7,372
MISSOURI	Fort Leonard Wood	5,822	698	1,485	8,005
	Atcom St. Louis (AVSCOM)	71	12	3,846	3,929
	Whiteman AFB	3,042	319	361	3,722
	DFAS Kansas City Center	178	40	1,224	1,442
N. CAROLINA	Fort Bragg	37,736	5,784	3,979	47,499
	Sunnypoint Mil Ocean Term	7	6	150	163
	Camp Lejeune MCB	32,060	2,091	866	35,017
	Cherry Point MCAS	7,071	994	2,151	10,216
	New River MCAS (Helicopter)	3,795	595	95	4,485
	Charlotte/Douglas IAP AGS	-0-	-0-	107	107
	Pope AFB	3,952	536	281	4,769
	Seymour Johnson AFB	3,770	382	409	4,561
OHIO	Rickenbacker AGB	5	9	168	182
	Wright-Patterson AFB	3,224	3,917	11,782	18,923
	Newark AFS	44	14	819	877
	Columbus Defense Depot	198	58	4,662	4,918

	Electronics Center - Dayton	-0-	10	1,878	1,888
	DFAS Columbus Center	-0-	-0-	4,372	4,372
	DFAS Cleveland Center	-0-	-0-	4,963	4,963
OK.	McAlester Army Ammo Plant	9	4	271	284
	Fort Sill	13,083	1,395	1,801	16,279
	Altus AFB	2,355	227	375	2,957
	Tinker AFB	6,883	1,545	6,340	14,768
	Vance AFB	395	497	90	982
SC.	Fort Jackson	7,334	519	1,326	9,179
	Charleston Naval Station	3,141	347	1,730	5,218
	Naval Hospital, Charleston	86	18	14	118
	Beaufort MCAS	3,433	442	349	4,224
	Parris Island MCRD	5,787	239	246	6,272
	Charleston AFB	4,059	611	714	5,384
	Shaw AFB	4,713	581	400	5,694
TN.	Memphis NAS	6,495	267	569	7,331
	Arnold AFB	50	77	178	305
	Nashville Metro ARPI-AGS	-0-	-0-	136	136
	Memphis Defense Depot	-0-	-0-	5,804	5,804

TEXAS	Fort Bliss	11,283	1,710	2,160	15,153
	Fort Hood	37,732	4,930	2,778	45,440
	Fort Sam Houston	5,536	2,582	3,850	11,968
	Red River Depot	18	12	877	907
	Corpus Christi Army Depot	10	8	893	911
	Kingsville NAS	934	272	305	1,511
	Dallas NAS	696	110	279	1,085
	Corpus Christi NAS	979	850	657	2,486
	Bergstrom AFB	11	1	405	417
	Brooks AFB	782	426	1,026	2,234
	Carswell AFB	27	2	233	262
	Dyess AFB	3,771	639	297	4,707
	Goodfellow AFB	2,191	386	397	2,974
	Kelly AFB	3,444	853	7,404	11,701
	Lackland AFB	13,061	2,096	2,311	17,468
	Laughlin AFB	708	532	326	1,566
	Randolph AFB	3,252	1,916	2,512	7,680
	Reese AFB	608	540	265	1,413
	Sheppard AFB	6,048	789	1,232	8,069

CONUS BASES WITH OVER 100 PERSONNEL
SERVED BY TRUCK
WITHIN 48 HOURS FROM DDMT

STATE	BASE	ENLISTED	OFFICER	CIVILIAN	TOTAL
CO.	Fort Carson	15,954	2,002	1,794	19,750
	Fitzsimons Army Med Ctr	987	599	1,176	2,762
	Pueblo Army Depot Act	3	2	157	162
	Buckley AGB	-0-	-0-	275	275
	Peterson AFB	4,569	2,410	1,946	8,925
	Lowry AFB	86	25	567	678
	USAF Ac.DOD MERB/CGB	1,102	1,021	1,093	3,216
	DFAS Denver Center	124	19	5,380	5,523
DC.	Walter Reed Army Med Ctr	1,986	1,605	2,897	6,488
	Washington Navdist HQ	2,609	1,303	11,589	15,501
	Naval Air Fac. Wash, DC	335	49	69	453
	Bolling AFB	1,547	607	838	2,992
FLORIDA	HQ Stricom, Orlando	4	52	469	525
	Naval Training Cntr. Orlando	5,276	773	1,569	7,618
	Pensacola NAS	2,409	2,178	2,677	7,264
	Corry Station NTTC	2,075	81	146	2,302
	Jacksonville NAS	4,925	999	3,632	9,556
	Key West NAS	1,243	178	362	1,783

	Pensacola Nav Hospital	528	234	274	1,036
	Cecil Field NAS	2,896	269	318	3,483
	Mayport Navsta	3,250	452	477	4,179
	Whiting Field NAS	780	719	175	1,674
	Patrick AFB	2,071	596	1,120	3,787
	Eglin AFB	12,868	2,546	3,460	18,874
	Homestead AFB	3	-0-	248	251
	MacDill AFB	2,561	798	470	3,829
	Tyndall AFB	4,107	790	626	5,523
KANSAS	Fort Leavenworth	1,589	2,124	1,361	5,074
	Fort Riley	12,818	1,689	1,321	15,828
	McConnell AFB	1,713	259	398	2,370
	Forbes Field Ags	-0-	-0-	106	106
MD.	Aberdeen Proving Ground	2,806	406	5,335	8,607
	Fort Detrick	615	255	1,034	1,904
	Fort George Meade	6,890	1,499	4,725	13,120
	Fort Ritchie	876	62	700	1,638
	Annapolis NS (Incl. USNA)	674	652	3,213	4,539
	Havmedcom-Bethesda NMC	2,249	1,530	2,027	5,606
	Indian Head Nav Ord Sta	315	66	2,332	2,713
	Patuxent River NAS	2,283	429	3,532	6,244

	Andrews AFB	2,818	610	1,498	4,926
MICHIGAN	Naval Air Fac, Detroit	203	45	100	348
	K. I. Sawyer AFB	1,420	123	187	1,730
	Kurtsmith AFB	-0-	-0-	689	689
MN.	Minn/St. Paul IAP ARS	-0-	-0-	162	162
NEBRASKA	Offutt AFB	6,366	1,828	1,096	9,290
NJ.	Fort Dix	1,299	192	967	2,458
	Fort Monmouth	939	307	7,100	8,346
	Picatinny Arsenal	37	73	3,884	3,994
	Lakehurst Nav Air Engr Ctr	520	64	1,900	2,484
	McGuire AFB	3,554	533	844	4,931
PA.	New Cumberland Army Depot	265	44	1,984	2,293
	Carlisle Barracks	255	417	436	1,108
	Letterkenny Army Depot	26	23	1,646	1,695
	Scranton Army Ammo Plant	23	11	1,049	1,083
	Willow Grove NAS	367	71	615	1,053
	Naval Base, Philadelphia	779	103	3,944	4,826
	Nav Ships Parts Ctrl Cir ICP	43	87	4,214	4,344
	Personnel Ctr - Philadelphia	13	62	2,824	2,899
	Industrial Center, Philadelphia	-0-	-0-	1,886	1,886

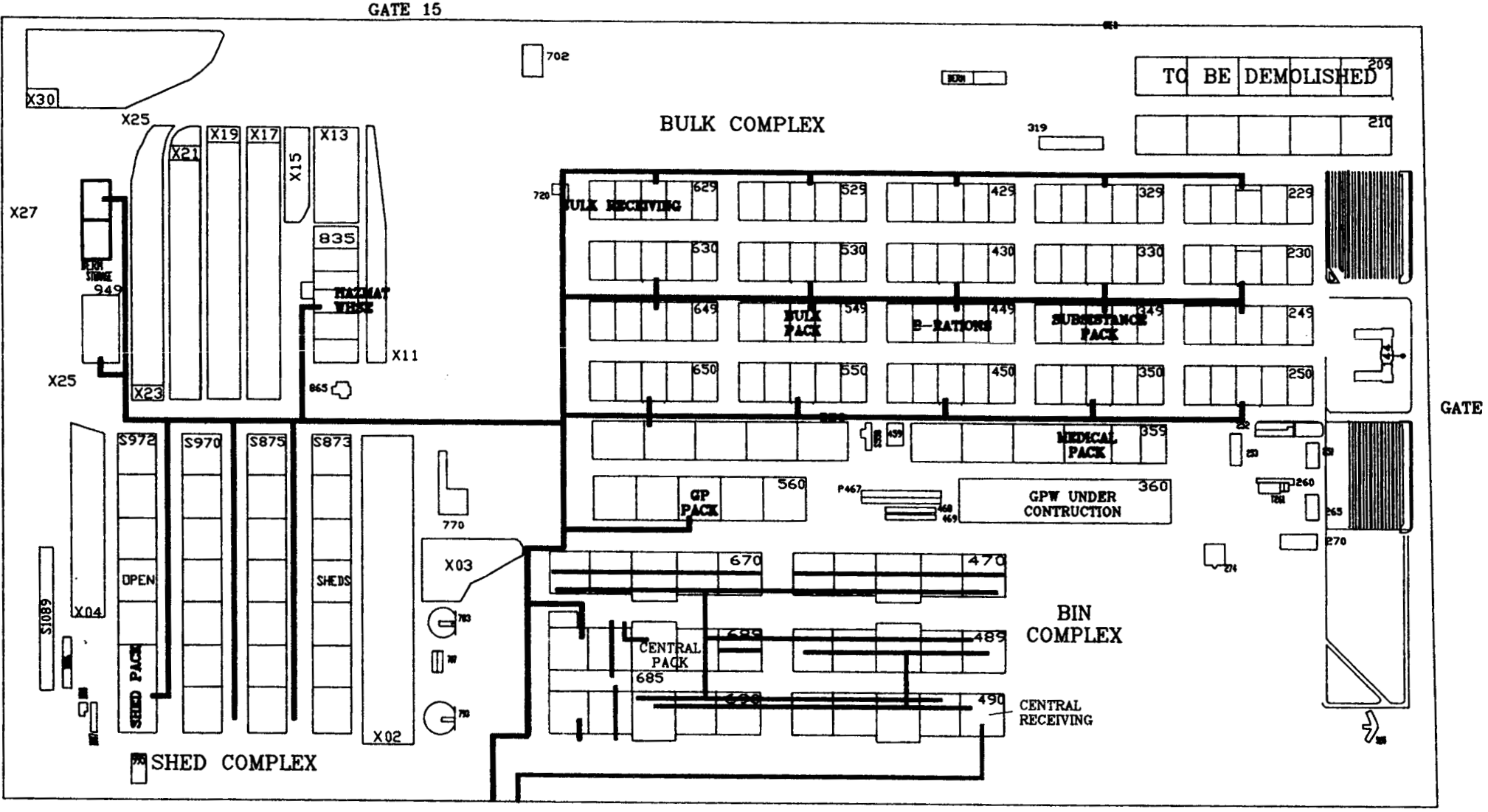
R.I.	Newport Navedtracen	1,537	1,706	4,137	7,380
	Quonset State Airport AGS	-0-	-0-	102	102
TEXAS	Fort Bliss	11,283	1,710	2,160	15,153
	Fort Hood	37,732	4,930	2,778	45,440
	Fort Sam Houston	5,536	2,582	3,850	11,968
	Red River Depot	18	12	877	907
	Corpus Christi Army Depot	10	8	893	911
	Kingsville NAS	934	272	305	1,511
	Dallas NAS	696	110	279	1,085
	Corpus Christi NAS	979	850	657	2,486
	Bergstrom AFB	11	1	405	417
	Brooks AFB	782	426	1,026	2,234
	Carswell AFB	27	2	233	262
	Dyess AFB	3,771	639	297	4,707
	Goodfellow AFB	2,191	386	397	2,974
	Kelly AFB	3,444	853	7,404	11,701
	Lackland AFB	13,061	2,096	2,311	17,468
	Laughlin AFB	708	532	326	1,566
	Randolph AFB	3,252	1,916	2,512	7,680
	Reese AFB	608	540	265	1,413
	Sheppard AFB	6,048	789	1,232	8,069

VA.	Pentagon - Army	1,352	2,253	3,063	6,668
	Arlington Hall Station	43	71	1,128	1,242
	Fort Belvoir	1,753	682	3,459	5,894
	Fort Eustis	4,807	637	1,819	7,263
	Fort Story	907	57	-0-	964
	Fort Lee	4,221	940	1,896	7,057
	Fort Monroe	305	522	1,417	2,244
	Fort Myer	1,741	394	2,077	4,212

Document Separator


MISSISSIPPI RIVER
INTERMODAL
CONTAINER
FACILITY
RAIL
ACCESS

DDMT MATERIAL WORK FLOW



BIN RECEIPTS/STOW

BIN PACK/CENTRAL PACK

BULK RECEIPTS/STOW/PACK/OUTLOAD

RECEIVING FULL TRUCK LOADS ALL BULK/SHED WHSES

TRANSPORTATION TERMINAL DEPOT WIDE

INTRA-DEPOT TRANSPORTER TRUCK SERVICE

-N-

DDMT
"Uniquely Suited For The Mission"

- DLA Prototype / Test Bed Missions at DDMT
- B-Ration Program
- Desert Shield / Desert Storm
- HAZMAT Capacity For Current and Future Needs

DPSC-HROUB 24 MARCH 1995

SUBJECT: [redacted]

MEMO TO: SHIRLEY DANDRIDGE/SHARON ABRAM
Defense Depot Memphis

1. Reference: Telephone conversations between S. Dandridge/ S. Abram, DDMT, and N. Colaiezzi, DPSC, on 23 March 1995.

2. Referenced telephone conversations informed Memphis of an upcoming major exercise - Bright Star. Bright Star 95 will be held in Egypt in mid-September 1995. Defense Depot Memphis is designated as the consolidation depot for subject exercise.

3. The following factors are furnished for your information:

a. All operational ration items needed to support subject exercise will be containerized at Memphis. These rations will included: Unitized B-Rations, Unitized T-Rations, UHT Milk, Pouch Bread, Flameless Heater Rations and regular B-ration items.

b. Containers will be packed and marked IAW special instructions provided by Army.

c. These rations will be required at the Port of Savannah, GA, NLT 10 August 1995. This will be confirmed at a later date.

d. Firm requirements for subject exercise will be furnished to DPSC NLT 15 May 1995.

e. Approximately 2,100 pallets of Unitized B-Rations will need to be assembled at Memphis for Bright Star. The Unitized T-Ration requirement is 1,980 pallets.

4. The points of contact for Bright Star at DPSC are Joanne Durante DSN 444-2958 or Nancy Colaiezzi, DSN 444-7718. The points of contact for Army are CW4 William Evans, DSN 572-2548 or CPT Thomas Carter, DSN 363-1412.

Nancy Colaiezzi

NANCY COLAIEZZI
B-Rations
Unitized Rations Branch
Operations Division
Operational Rations Unit
Directorate of Subsistence

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Cameron Station
Alexandria, Virginia 22304-6100

DEFENSE LOGISTICS AGENCY

SUPPORT OF OPERATIONS DESERT SHIELD/STORM

AUGUST 1990-MARCH 1991

MOBILIZATION VERSIONS OF SUBSISTENCE ITEMS: Mobilization versions of certain subsistence items were created for ODS. An example was the introduction of pouched bread wrapped in cellophane. Pouched bread is a new item which is a small individual loaf of bread normally packaged in heavy laminated material to extend shelf-life. For ODS, adequate amounts of the heavy laminated material were not available for the production quantities needed. Therefore, approval was obtained from the Army to package the bread in a cellophane type of package because consumption would be very close to the manufacture date, making the long shelf-life an unnecessary constraint. Requirements for pouched bread grew from an anticipated requirement of 6 million to over 20 million units.

UNITIZED B-RATION SUPPORT

Prior to ODS, unitized B-Rations had not been used in large quantities and were not purchased by DPSC. ODS was the first real employment of unitized B-Rations worldwide. Unitized B-Rations consist of palletized meals configured to support 200-400 personnel (including entrees with condiments and utensils). The food items are prepared, cooked, and served by mess personnel and are not considered a combat meal. These unitized B-Rations were critical to meeting shortfalls in combat rations, permitting MREs and Tray-Packs to be retained for use by combat units who lacked the ability to prepare and cook meals. In excess of 53 million unitized B-Ration meals were shipped for ODS support.

During the early phases of ODS, Defense Depot Memphis, TN (DDMT) was given an additional mission of assembling and shipping unitized B-Rations. DDMT's work force responded to the challenge with not only increased production but also increased productivity. From an initial requirement of producing 70,000 meals a day, DDMT was assembling and shipping more than 516,000 meals each day by the end of the hostilities. Per person productivity rose from 286 to 619 meals per day. An additional 846 temporary personnel were hired to support the B-Ration project.

B-Ration assembly was also performed at Defense Depot Region West (DDRW) requiring 250 additional personnel to be hired and a projected need for up to 800 in a timeframe of 3 months. The new personnel were hired and in place to support ODS requirements without degradation to normal personnel services and the ongoing DDRW consolidation occurring as a result of Defense Management Decisions.

MEALS-READY-TO-EAT

The demand for MREs also greatly increased in support of ODS from a peacetime norm of 3.6 million meals per month to 12 million meals per month.

Demands were satisfied through innovative contracting initiatives and significant achievements in distribution and transportation support. These initiatives included shipments to the theater of operation from commercial sources, depots, and caves in Europe. These actions enabled us to place over 60 million cases of MRE war reserves in the theater within the first 60 days of ODS.

OPERATION DESERT SHIELD/STORM SHIPMENTS IN SHORT TONS

DEPOT/ACTIVITY	ODS	DONATIONS	TOTAL
DDCO	1,766	N/A	1,766
DDRV	47,574	28	47,602
DDRW	40,257	457	40,714
DDOU	22,592	N/A	22,592
DDMT	107,324	N/A	107,324
DDMP	38,790	2,280	41,070
DPSC	75,671*	22,500*	98,171
TOTALS	333,974	24,808	358,782

*DPSC ARRANGED TRANSPORTATION

SPECIAL ODS TRANSPORTATION PROGRAMS

To achieve the most responsive delivery of the highest priority requirements to Saudi Arabia, DLA utilized the dedicated, daily airlift program referred to as "Desert Express." To assure daily overseas flight schedules were met, DLA utilized domestic airlift to deliver "war stopper" materiel such as chemical suits, medical supplies, electronic instruments, and desert uniforms to Charleston AFB, the port of embarkation. Delivery to Charleston was usually within 1 day from the time the materiel was pulled from depot stock.

For larger shipments assigned to surface transportation, DLA assisted in the creation of the "Special Mideast Sealift Agreement." This agreement greatly reduced transit times from CONUS to the Mideast and resulted in lower overall transportation costs. Painstaking cargo planning and scrupulous day-to-day oversight of DLA transportation operations guaranteed optimal use of the agreement and resulted in the delivery of over 19,000 containers to the Mideast in just over a 6 month period. This represents 52 percent of all DoD container shipments destined to the Mideast.

Dependable delivery of materiel to aerial and water ports of embarkation required many unique and special arrangements with surface carriers. DLA traffic managers were able to obtain firm commitments from carriers through the use of guaranteed traffic agreements, dedicated truck movements, dual driver assignments, and designation of alternate equipment for DLA cargo only. The comprehensive manner in which these arrangements were made enhanced the ability of the traffic manager to tailor movement requirements to deliver materiel to the intended destination within a matter of hours before the scheduled departure to the Mideast.

Faced with potential delays resulting from congestion at the ports of embarkation, DLA traffic managers were successful in getting vendors to fill containers in lieu of shipping to a consolidation point to fill the containers. This action resulted in a more efficient and expeditious movement of the materiel to the theater commander at significant cost savings.

DDMT

INFRASTRUCTURE INVESTMENT

PROJECT	BLDG	PDA	CMPL	MILCON	CMPL
CENTRAL PACK	689	$13,477,237	JUL90	N/A	
HAZ WHSE/RACK SYS	835	2,333,276	SEP89	7,670,572	
HAZ WHSE/PACK SYS	835	564,144	APR91	AS ABOVE	
HAZ WHSE RECOUP	865	N/A		404,000	FEB86
BULK PACK	549	423,432	DEC91	N/A	
GPW I	360	1,983,417	JAN93	6,966,100	JUL91
				(MOD) 480,000	
GPW II	360	2,100,000	DEC96	6,136,143	DEC95
FLAMMABLE STORAGE	925	N/A		1,019,000	SEP94
ATS, TRANSPORTATION	685	9,335,598	APR94	N/A	
TERMINAL					
DINING FACILITY		N/A		404,000	FEB86
BULK RECEIVING	629	3,719,943	DEC94	1,255,115	DEC92
TOTAL		33,937,047		23,854,930	

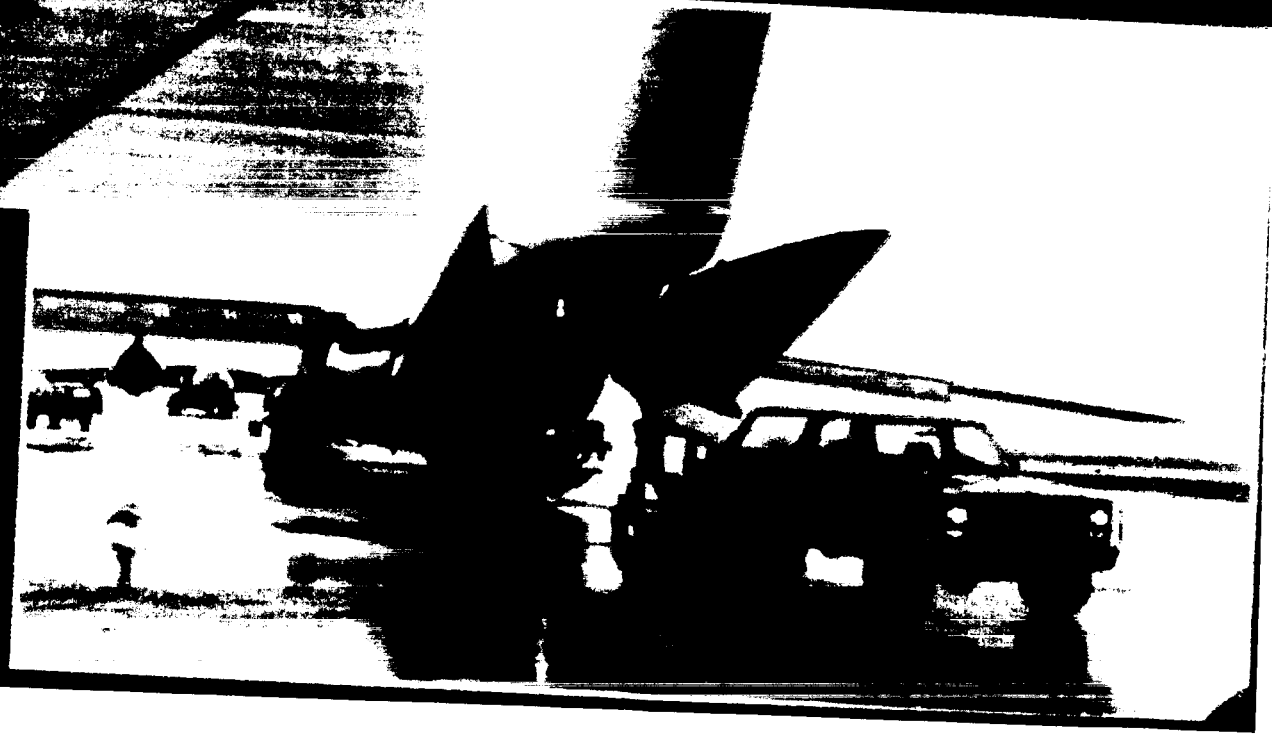
UNIQUE OPERATIONAL FACILITIES

			NSF	TCF	ACF	OCF	REPLACMNT COST
DDMT	19	Subsist Bldg 229/1-5	67,748	1,219,464	948,472	618,406	5,732,389
		Subsist Bldg 349/1-5	67,997	1,223,946	961,958	866,762	5,291,955
		Subsist Bldg 350/1-5	66,895	1,204,110	936,630	889,703	5,291,955
		Subsist Bldg 449/1-5	102,340	1,842,120	1,432,760	1,432,760	5,291,955
		Medical Chill 359/4	4,221	38,206	38,206	34,385	10,269,164
		Med Tem Contr 560	41,048	928,340	926,340	426,202	9,160,040
		Flammable Bld 319	7,491	65,687	55,587	44,572	1,720,429
		Flammable Bld 925	24,944	424,048	99,776	49,888	6,303,576
		Hazardous Bld 835/1-	32,123	803,075	803,075	2,767	8,472,559
		Recoup Bldg 865	3,419	27,352	27,352	27,352	687,562
		Paint Bth Bldg 1086	9,240	110,880	110,880	110,880	981,779
		Paint Bth Bldg 1087	4,686	468,760	46,860	46,860	936,269
		Sandblst Bldg 108	3,378	30,402	30,402	30,402	570,046
		RCRA DRMO Bl 308	4,128	45,408	45,408	45,408	319,407
		Igloo Bldg 783	2,146	12,876	12,876	12,876	563,259
		Igloo Bldg 793	1,608	9,648	9,648	9,648	532,944
		Entomology Bldg 737	2,347	14,082	14,082	14,082	808,335
		Steel Ldg Fac Bl 995	9,656	115,872	115,872	115,872	1,006,551
		Central Pak Bl 689/2-	79,600	1,671,600	1,671,600	1,671,600	13,477,237
DDAG	0						
DDBC	6	SEC Whs Bldg 625	n/a	n/a	n/a	n/a	n/a
		HAZMAT Stor Bldg					
		Railhead Loadng/Unl					
		Pres/Pkg Whse 5					
		Break Bulk Term B232					
		NBC Test/Eval Lab					
DDCO	0						
DDHU	4	Automated Stor Mod	27,735	909,708	909,708	662,095	14,951,409
		Weapons	23,106	488,226	306,348	148,083	4,110,416
		Classified	12,803	282,863	213,066	155,523	2,044,872
		Hazardous	10,235	120,830	72,477	64,179	2,791,992
DDJC	5	Bldg 330	179,936	10,203,996	10,203,996	6,969,329	162,300,000
		Whse 17-5 Reefer	35,924	502,936	502,936	417,760	8,510,000
		Quality Assur Lab	n/a	n/a	n/a	n/a	1,058,210
		Non-destrctve Tst Fac	n/a	n/a	n/a	n/a	1,036,000
		Subsistence Whse	93,000	2,325,000	1,860,000	1,765,400	69,900,000
DDJF	0						
DDLP	4	Paint Booth Blg 320	968	15,488	15,488	n/a	n/a
		Weapons/Classif Whs	43,795	569,335	569,335	495,048	n/a
		Radioactive Warehse	9,072	117,936	117,936	99,112	n/a
		Rail Facilities	n/a	n/a	n/a	n/a	n/a
DDMC	4	Spray Paint Shop	3,657	50,670	50,253	50,670	29,269
		Sign Shop	1,928	19,328	19,328	19,328	8,300
		Monrail System	n/a	n/a	n/a	n/a	n/a
		Foam Machine	8,494	152,892	152,892	91,735	n/a
DDNV	6	CD 20	33,000	327,000	327,000	186,000	1,967,804
		CD 21	27,000	326,000	326,000	293,000	1,647,809

		CD 22	10,000	137,000	118,000	44,809	690,735
		X 218	22,000	409,000	386,000	143,000	5,806,770
		W-128	34,000	447,000	339,000	368,000	3,415,672
		CEP-156	63,000	984,000	984,000	790,000	30,665,974
DDOO	1	Bldg 11 Secure Stor	n/a	n/a	n/a	n/a	n/a
DDOU	7	Cyl/Sandblast Fac	10,450	155,640	155,640	n/a	1,517,201
		Electronic Test Fac	2,403	34,723	34,723	n/a	1,753,052
		Bearings Facility	4,860	70,227	70,227	n/a	558,849
		DEPMEDS	3,152,222	50,014,333	50,014,333	n/a	42,668,945
		Railhead	n/a	n/a	n/a	n/a	n/a
		Dry Nitrogen Storage	1,288	11,592	11,592	n/a	77,630
		Humanitarian Assist	31,440	435,444	435,444	n/a	1,931,283
DDRT	6	Vehicle Paint Booth	n/a	n/a	n/a	n/a	n/a
		Combat Veh Test Trk					
		Internal Railyard					
		60Ton Bridge Crane					
		Adhesive Storage Fac					
		HAZMAT Stor Fac					
DDRV	4	Analytical Lab	420	3,360	3,360	3,360	44,940
		ODS/Cylinder Oper	43,020	602,280	516,240	516,240	2,616,907
		ISO sheltr/sewing ops	43,020	602,280	516,240	516,240	2,616,907
		Hazardous Storage	163,913	2,628,233	2,362,097	1,771,568	29,200,000
DDSP	8	Integratd Mtl Complex	282,193	3,908,992	3,908,882	3,908,992	35,200,000
		Eastern Distrib Cntr	1,699,258	42,481,450	42,481,410	42,481,450	287,400,000
		Asbestos Pack/Stor	44,800	627,200	627,200	627,200	97,000
		Industrl Steel Complx	120,000	1,440,000	1,440,000	1,440,000	10,818,717
		CARC Painting Booth	1,428	24,042	24,042	24,042	625,000
		Medical Set Assemb	120,000	1,800,000	1,800,000	1,800,000	8,173,599
		Vault Reefer Freeze	54,360	543,600	543,600	543,600	3,897,540
		Tray Pak	120,000	1,800,000	1,800,000	1,800,000	8,173,579
DDST	1	Bldg 1530	77,202	2,161,656	2,161,658	1,621,242	15,566,523
DDTP	1	Shelter Mvmt/Hndlg	185,008	4,810,208	4,440,192	1,687,450	6,810,719
DDWG	4	Weapons Storage	11,506	218,614	201,355	171,152	483,022
		Container Fabric	50,900	n/a	n/a	n/a	2,424,367
		Classified Storage	30,365	570,765	531,213	493,763	1,274,033
		Hazardous	23,715	279,561	259,284	189,978	4,630,000

Document Separator

DDMT - "Jointness in Action"



DDMT - AIRLIFT

Number of C-141 flights conducted in conjunction with DDMT.

1,480	-	1991
855	-	1992
1,078	-	1993
1,078	-	1994
227	-	1995 (to date)

Document Separator

DLA Primary Distribution Site (PDS) Requirements

- PDS Characteristics
  - Substantial Capital Investment
    - -- Mechanization
    - -- Consolidation/Containerization
    - -- Storage/Thruput Capacity

- DDMT designated as a PDS in 1990. DLA unilaterally redesignated DDMT as a stand-alone depot, despite increasing capability.

DDMT

INFRASTRUCTURE INVESTMENT

PROJECT	BLDG	PDA	CMPL	MILCON	CMPL
CENTRAL PACK	689	$13,477,237	JUL90	N/A	
HAZ WHSE/RACK SYS	835	2,333,276	SEP89	7,670,572	
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DINING FACILITY		N/A		404,000	FEB86
BULK RECEIVING	629	3,719,943	DEC94	1,255,115	DEC92
TOTAL		33,937,047		23,854,930	

MAJOR INVESTMENTS

DPSC-HROUB 24 MARCH 1995
SUBJECT: Exercise Bright Star

MEMO TO: SHIRLEY DANDRIDGE/SHARON ABRAM
Defense Depot Memphis

1. Reference: Telephone conversations between S. Dandridge/ S. Abram, DDMT, and N. Colaiezzi, DPSC, on 23 March 1995.

2. Referenced telephone conversations informed Memphis of an upcoming major exercise - Bright Star. Bright Star 95 will be held in Egypt in mid-September 1995. Defense Depot Memphis is designated as the consolidation depot for subject exercise.

3. The following factors are furnished for your information:

a. All operational ration items needed to support subject exercise will be containerized at Memphis. These rations will included: Unitized B-Rations, Unitized T-Rations, UHT Milk, Pouch Bread, Flameless Heater Rations and regular B-ration items.

b. Containers will be packed and marked IAW special instructions provided by Army.

c. These rations will be required at the Port of Savannah, GA, NLT 10 August 1995. This will be confirmed at a later date.

d. Firm requirements for subject exercise will be furnished to DPSC NLT 15 May 1995.

e. Approximately 2,100 pallets of Unitized B-Rations will need to be assembled at Memphis for Bright Star. The Unitized T-Ration requirement is 1,980 pallets.

4. The points of contact for Bright Star at DPSC are Joanne Durante DSN 444-2958 or Nancy Colaiezzi, DSN 444-7718. The points of contact for Army are CW4 William Evans, DSN 572-2548 or CPT Thomas Carter, DSN 363-1412.

Nancy Colaiezzi

NANCY COLAIEZZI
B-Rations
Unitized Rations Branch
Operations Division
Operational Rations Unit
Directorate of Subsistence

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BRACEG MINUTES 7 FEB 1995

Advantages/Disadvantages

Advantages

Columbus

- o Co-located, Easy to Vacate At A Later Date
- o Spread Some O/H At Columbus Site

Memphis

- o Good Distribution Location Should Future Dist Support Be Req'd
- o Great Facilities, Both Storage & Operational.
- o Close To Fed Ex, Could Play In Specialized Customer Support.
- o Hazardous Facilities
- o Great Depot For Backup If Required During Contingency or Catastrophe,
- o May Be Needed To Support Customers In 3 Day Scenario
- o MIL Value #3 Behind 2 PDS's

Red River

- o Could Provide Support To Army For Serviceable End Items
- o Tenant To Lone Star, Easy To Vacate At Later Date
- o Could Take Over Rubber Shop For Army

Disadvantages

- o Obsolete Facilities
- o High RPM Cost , Possible MILCON

- o Stand Alone, Could Be A Problem To Vacate At Late, Date.

- o Oklahoma, San Antonio, Albany, and Anniston Can Provide Army Support
- o Not In as Good Of A Location As Memphis to Support 3 Day Delivery
- o 65% of Whses are Less Than 30,000 SF More Costly To Maintain And Operate

Realign Memphis

Increases Available Cube

- 22 Percent (8M ACF)
- 33 Percent (14M ACF) If We Utilize Substandard Buildings

Potential To Reduce One Time Cost

- $25M RPM
- $14M-$25M Racking AF Hangers

Good Possibility To Further Spread Depot Fixed Cost Through Tenant Sharing

CONCEPT PLAN

FOR THE CONSOLIDATION OF DISTRIBUTION FUNCTIONS

AT SUPPLY DEPOTS

5 OCTOBER 1990

Region	Cmd Site	Primary Site	Special/Remote Sites
DDRE	New Cumberland	New Cumberland/ Mechanicsburg**	*Letterkenny
			*Tobyhanna
			Norfolk
			Richmond
			Cherry Point
			Charleston
			*Albany
			Jacksonville
			Warner Robbins
DDRC	Memphis	Memphis	Columbus
			*Anniston
			Pensacola
			*Corpus Christi
			San Antonio
			Oklahoma City
			Red River
DDRW	Tracy	Tracy/Sharpe**	Sacramento (AF)
			*Sacramento (A)
			Oakland
			San Diego
			Puget Sound
			*Barstow
			Ogden (AF)/ Ogden (DLA)**
			*Tooele

* Proposed Remote Warehouses
** Operates as a single distribution site

3. Installation Support Operations

a. Support services will be performed in several different ways throughout the sites involved in the consolidation. Support services are defined as contracting services, base supply support, maintenance support for equipment to include Materiel Handling Equipment (MHE), Mechanized Materiel Handling Equipment (MMHE), Mechanized Materiel Handling System (MMHS) and government-owned and leased vehicles. Also included are motorpool services, recycling, fuel delivery, office equipment repair and janitorial services. Additionally, facilities engineering support as well as administrative support services to include forms, audio-visual services and environmental protection support are included. DLA management and control programs and procedures for installation services will be used at all distribution sites covered by this plan. The Base Operations Support System (BOSS) will be implemented at the region headquarters. Other distribution sites in the region will use the BOSS or the host base support system if more cost effective.

b. Composition of Regions

(1) Regional Headquarters Site - Responsible for the administration, resourcing, operational support, and distribution policy for all sites within the region. Due to the current repository of DLA systems, policies, and procedures, the regional command site will be at a current DLA site within the region or at a complex that includes a DLA site so that overhead personnel currently at six DLA depots can be used to staff the three regional headquarters. (Exhibit I)

(2) Primary Distribution Sites(PDS) - A major distribution facility or facilities within the region that is the primary wholesale consumable item shipping, receiving, and freight consolidation hub for the region. The criteria for the location of primary distribution sites are; location of users, vendors, transportation hubs, current capability and capacity, thruput capacity, and potential for expansion. (Exhibit II)

(3) Specialized Distribution Sites(SDS) - Other sites in the region that will meet specialized stockage requirements such as maintenance support, bulk items, hazardous items. Specialized distribution sites will receive materiel directly from vendors or from Regional Freight Consolidation Centers (RFCC) and ship directly to user or to RFCCs, unless specific economic and support conditions dictate otherwise.

(4) Remote Warehouses - Facilities that are extensions of an assigned distribution site. They will be used primarily to store reparables and inactive items. (Exhibit VI)

c. Regional Organization

(1) The proposed Defense Distribution Operation will consist of Headquarters DLA, three Defense Distribution Regions (DDR), three PDS, sixteen SDS, and eight remote warehouses. Each DDR will consist of a central headquarters for the distribution sites within its area of responsibility (AOR).

(2) Headquarters DLA will establish depot management policy and will exercise operational command and control over Defense Distribution Operations.

(3) The regional headquarters will be located at New Cumberland, Memphis, and Tracy and will be composed of the Region Commander and his staff. The staff will consist of the offices of: Comptroller, Civilian Personnel, Military Personnel, Installation Services, Contracting, Telecommunications and Information Systems, Quality Assurance, Command Security, Counsel and the Directorate of Regional Distribution Management. Additional functions such as public affairs, safety and health, equal employment, small business and internal review will be located on the Region Commander's personal staff. The regional headquarters will be responsible for all support functions for their region such as: implementing higher headquarters policy,

Defense Distribution Activities

PROPOSED
DISTRIBUTION SITES AND REMOTE WAREHOUSES

FOR OFFICIAL USE ONLY

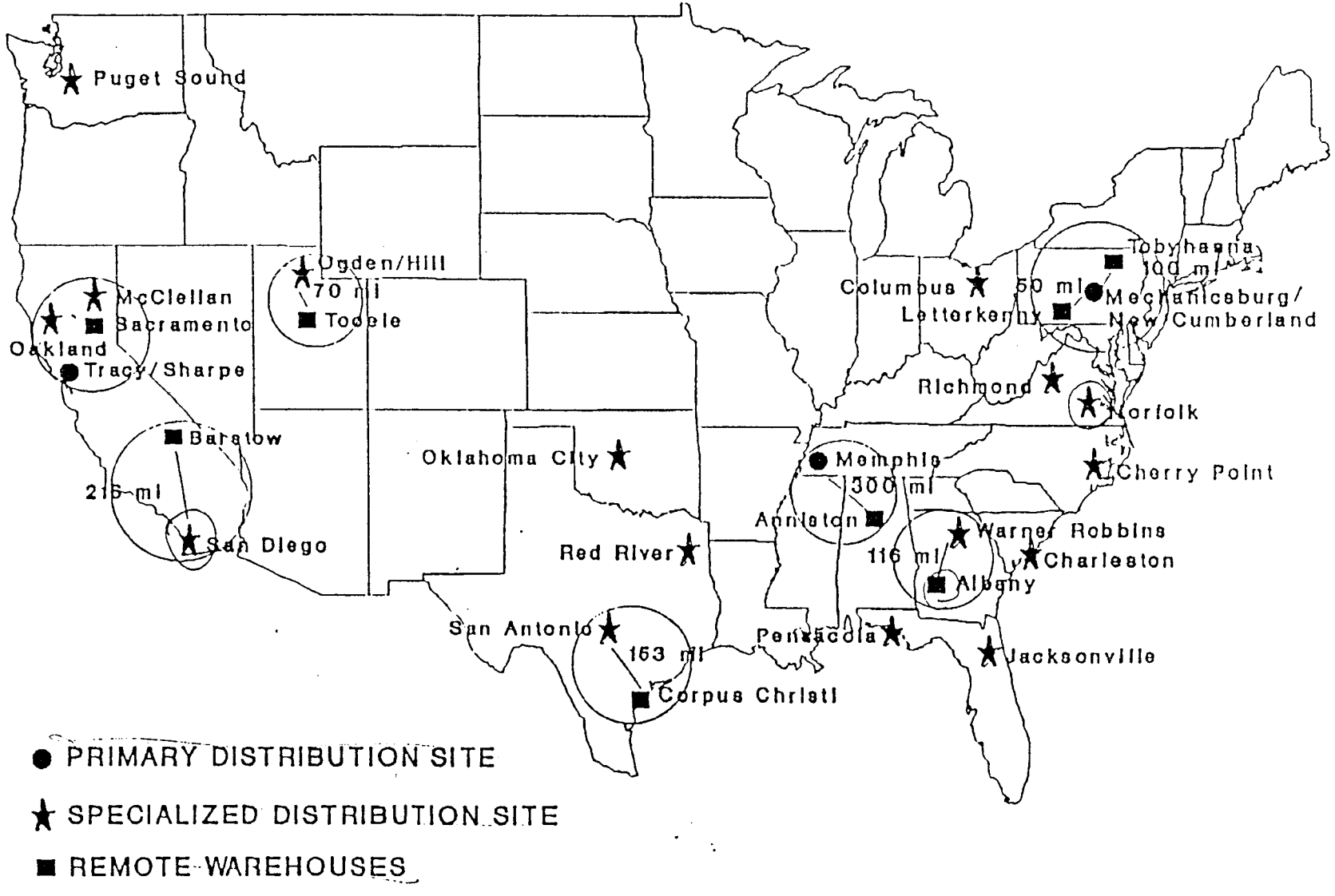

EXHIBIT VI

DDMT - THRUPUT/SURGE CAPACITY

Thruput

- Average daily lines in and out peaked at 17,819 in September 1990.

Surge Capacity

- Actual surge capability is 46,000 line items vs DLA assumption of 23,000.
- Desert Shield / Desert Storm performance.
- Capability for three shifts, eight hours, five days (3,8,5) during surge.

THROUGHPUT CAPABILITY
MATERIAL HANDLING SYSTEMS

• **CENTRAL PACK, WHSE 689**		
◆ Bin, Section 2	18,200	LIs
◆ LTL, Section 3	3,200	LIs
• **CENTRAL RECEIVING, WHSE 490**		
◆ Sections 2 and 3	2,950	Lis
	4,700	CTNs
• **TRANSPORTATION TERMINAL**		
◆ Sorter	6,468	CTNs
◆ Outload Pallets	701	PLTs
◆ Carton Delivery System	850	CTNs
• **MEDICAL, WHSE 359**	2,800	LIs
• **BULK PACK, WHSE 549, SECTION 4**	850	LIs
• **HAZARDOUS, WHSE 835, SECTION 3**	560	LIs
• **BULK RECEIVING, WHSE 629, SECS 3/4/5**		
◆ Sorter	3,250	CTNs
◆ Pallet Induct/Inspect	1,050	PLTs
◆ Pallet Outbound	1,195	PLTs
• **NON-MECH AREAS**		
◆ Open Storage	600	LIs
◆ Subsistence	200	LIs

TOTAL LINE ITEMS PROCESSED IN OUT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL FY	DAILY AVERAGE
1980	329,741	348,313	314,202	332,600	326,252	384,952	368,070	369,086	333,015	340,608	363,183	348,063	4,158,085	**16,500**
1981	353,743	370,667	311,910	319,443	350,503	384,533	372,041	355,513	329,944	335,459	370,443	344,814	4,199,013	**16,662**
1982	367,594	347,508	362,676	318,045	357,789	404,734	384,119	374,200	321,763	334,572	355,141	319,047	4,247,188	**16,853**
1983	359,397	346,120	337,546	300,760	335,417	372,013	355,969	356,980	331,358	352,444	382,085	369,838	4,199,927	**16,666**
1984	370,095	357,562	350,557	348,873	378,056	402,493	365,753	372,151	354,025	349,928	394,063	378,682	4,422,238	**17,548**
1985	361,367	355,670	366,206	292,639	336,373	386,213	368,880	362,241	338,745	345,246	412,782	366,123	4,292,485	**17,033**
1986	386,443	367,499	351,313	305,392	350,300	375,457	349,100	365,545	382,722	311,496	344,204	402,850	4,292,321	**17,033**
1987	350,395	360,555	349,581	352,398	376,574	413,268	422,893	385,456	372,517	376,308	379,679	370,406	4,510,030	**17,896**
1988	379,235	342,291	345,317	289,867	353,585	395,295	369,749	367,410	339 053	330,892	353,909	343,081	4,209,684	**16,705**
1989	331,494	320,019	327,449	298,536	362,138	380,948	364,210	363,475	354,428	343,266	399,362	293,297	4,138,622	**16,423**
1990	380,860	346,425	315,684	325,557	305,129	315,003	302,296	368,613	326,935	353,519	360,586	374,210	4,074,817	**16,169**
1991	342,998	292,574	297,676	326,940	343,566	345,065	326,243	337,698	305,376	309,621	386,285	377,402	3,991,444	**15,839**
1992	355,869	284,883	289,677	270,210	292,901	328,236	316,704	286,080	273,585	278,957	311,353	340,958	3,629,413	**14,402**
1993	278,877	217,778	271,213	235,000	257,760	297,742	298,512	287,686	286,926	251,039	279,385	269,830	3,231,748	**12,824**
1994	238,184	221,087	220,873	202,832	221,253	239,720	224,664	237,022	214,724	195,029	218,892	208,627	2,642,907	**10,488**

SOURCE: F-9 DATA

DURING TIMES OF NATIONAL CRISIS, THE GOVERNMENT OF THIS COUNTRY MOBILIZES ITS FORCES TO MEET THE THREAT. THE DEPOTS ARE PART OF THIS MOBILIZATION PROCESS AND THEIR ABILITY TO RESPOND TO THAT DEMAND IS SHOWN ON THIS CHART. MEMPHIS PROCESSED ALMOST 29 PERCENT MORE LINES OF MATERIAL THAN IT'S CLOSEST COMPETITOR. MEMPHIS, ONCE AGAIN, LEADS THE WAY AS NUMBER ONE.

Mobilization

(Lines In/Out)

Memphis (DDMT)	Richmond (DDRV)	Tracy/Sharpe (DDRW)	Mechanicsburg* (DDMP)	Ogden (DDOU)	Columbus (DDCO)
334,523	260,221	257,649	254,134	242,187	189,427

*Less DICOMMS

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

THESE TWO CHARTS DEMONSTRATE MEMPHIS' FACILITY UTILIZATION DURING PEACETIME AND DURING MOBILIZATION. SOME POINTS WORTH NOTING:

DDMT IS THE ONLY DEPOT ABOVE AVERAGE FOR TRUCK DURING PEACE-TIME AND DURING MOBILIZATION.

DDMT IS ONLY ONE OF TWO DEPOTS ABOVE AVERAGE FOR RAIL TRAFFIC ON A 30 DAY AVERAGE.

DDMT HAS THE HIGHEST FIGURES FOR BOTH TRUCK AND RAIL TRAFFIC DURING PEACETIME AND DURING MOBILIZATION.

MEMPHIS STANDS OUT FROM ALL OTHER DEPOTS IN ITS CAPABILITIES TO SUPPORT THE DISTRIBUTION NEEDS OF THE MILITARY SERVICES. ITS GEOGRAPHIC LOCATION, CAPACITY TO HANDLE VOLUME, AND THE SURROUNDING MAJOR DISTRIBUTION NETWORK SYSTEM ARE NOT DUPLICATED ANYWHERE ELSE IN THE NATION. MEMPHIS ACCOMMODATES 38% OF THE PEACETIME AND MOBILIZATION DEPOT UTILIZATION AMONG THE SIX ACTIVITIES REFLECTED.

Summary of Depot Transportation Survey

Facility Utilization - Peacetime

	Memphis (DDMT)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)	Average
Avg Daily Truckload: In	**168**	64	43	48	36	24	
Avg Daily Truckload: Out	**59**	35	51	41	36	23	
Avg Daily Truckload: In/Out	**227**	99	94	62	72	47	100
Avg Monthly Rail Traffic: In	**41**	2	28	18	31	0	
Avg Monthly Rail Traffic: Out	**10**	0	0	9	0	0	
30 Day Avg Rail Traffic: In/Out	**51**	3	27	27	30	0	24

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

Summary of Depot Transportation Survey

Facility Utilization - Mobilization

	Memphis (DDMT)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)	Average
Avg Daily Truckload: In	**420**	160	108	120	90	60	
Avg Daily Truckload: Out	**148**	88	126	35	90	58	
Avg Daily Truckload: In/Out	**568**	248	234	155	180	118	250
Avg Monthly Rail Traffic: In	**103**	5	70	45	78	0	
Avg Monthly Rail Traffic: Out	**25**	0	0	23	0	0	
30 Day Avg Rail Traffic: In/Out	**126**	6	69	66	75	0	57

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

THESE TWO CHARTS DEMONSTRATE CAPABILITY TO HANDLE TRUCK AND RAIL TRAFFIC THROUGH THE DEPOT FACILITIES.

TRUCK:

PEACETIME: DDMT EASILY SURPASSES THE OTHER DEPOTS WITH ITS CAPABILITY TO PROCESS TRUCK TRAFFIC INTO AND OUT OF THE DEPOT. MEMPHIS REPRESENTS 39 PERCENT OF THE TOTAL DLA DEPOT CAPABILITY AND EXCEEDS A TWO TO ONE RATIO OVER ITS NEAREST COMPETITOR.

MOBILIZATION: DDMT'S CAPABILITIES CONTINUE TO DOMINATE THE OTHER DEPOTS DURING MOBILIZATION REPRESENTING NEARLY 38 PERCENT OF THE TOTAL DLA CAPABILITY AND MAINTAINS ITS TWO TO ONE RATIO OVER ITS NEAREST COMPETITOR. MEMPHIS NOT ONLY CONTINUES TO EXCEED THE TOTAL COMBINED EFFORTS OF THE BOTTOM THREE DEPOTS (TRACY, OGDEN AND COLUMBUS), IT EVEN EXCEEDS THE CAPABILITIES OF THE SECOND AND THIRD PLACE CONTENDERS (MECHANICSBURG AND RICHMOND).

RAIL:

PEACETIME: THOUGH NOT TO THE DEGREE AS IT DOES IN TRUCK TRAFFIC, MEMPHIS CLEARLY OUTDISTANCES THE OTHER DEPOTS WHEN IT COMES TO RAIL TRAFFIC CAPABILITY. OGDEN'S RANKING DURING MOBILIZATION REFLECTS ITS UNIQUE MISSION OF PROCESSING MODULAR MILITARY HOSPITAL (DEPMEDS) SHIPMENTS VIA RAIL FLAT CAR. THIS WORKLOAD REPRESENTS MORE THAN 50 PERCENT OF OGDEN'S RAIL TRAFFIC AND IF IT WERE DISCONTINUED, MEMPHIS WOULD DEMONSTRATE THE SAME CAPABILITIES IN RAIL AS IT DOES IN TRUCK. REGARDLESS, MEMPHIS STILL REPRESENTS A MAJOR PLAYER IN RAIL TRAFFIC.

OVERALL, MEMPHIS CONTINUES TO RANK NUMBER ONE.

Average Daily Truck Traffic Capacity

Peacetime and Mobilization

	Memphis (DDMT)	Mechanicsburg (DDMP)	Richmond (DDRV)	Tracy (DDTC)	Ogden (DDOU)	Columbus (DDCO)
Peacetime	**459**	196	185	142	122	92
Mobilization	**1,129**	491	464	358	306	232

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

Average Daily Rail (Train) Traffic Capacity

Peacetime and Mobilization

	Memphis (DDMT)	Tracy (DDTC)	Richmond (DDRV)	Ogden (DDOU)	Mechanicsburg (DDMP)	Columbus (DDCO)
Peacetime	**1.6**	1.0	0.9	0.9	0.1	0.0
Mobilization	**4.1**	2.6	2.2	4.3	0.3	0.0

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

These charts depict the depot's capabilities to manage incoming and outgoing traffic. These charts portray the DLA depot capabilities to process throughput in terms of truck and rail traffic.

TRUCK:

Memphis has 14 percent greater throughput capacity than second ranked Ogden and exceeds the combines abilities of Richmond, Columbus and Tracy.

RAIL:

Once again, Memphis overwhelms the other depots. It would take the combined abilities of all the other depots to equal what Memphis alone could perform.

When considered with all the other facets of capacity and capability, the data portrayed in these two charts substantiates Memphis' position as a critical link in the strategic supply and distribution chain of DoD.

THROUGHPUT CAPACITY
NO. OF RAIL DOCKS

	Memphis (DDMT)	Ogden (DDOU)	Columbus (DDCO)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Tracy (DDTC)
RECEIVING	**193**	163	54	36	15	13
SHIPPING	**194**	163	54	36	15	14
TOTAL	**387**	326	108	72	30	27

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

THROUGHPUT CAPACITY
NO. OF TRUCK DOCKS

	Memphis (DDMT)	Ogden (DDOU)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Columbus (DDCO)	Tracy (DDTC)
RECEIVING	**268**	226	159	144	62	31
SHIPPING	**268**	246	164	150	59	60
TOTAL	**536**	472	323	294	121	91

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

These charts depict the depot's capabilities to manage incoming and outgoing traffic.

The first chart depicts current operations. Memphis leads the depots in terms of overall truck and rail access.

The second chart examines each depot's potential for meeting a surge requirement or for sustaining an on-going operation. During a sustained effort, rail becomes the more practical and economical means of achieving supply objectives. Only Memphis, Tracy and Richmond have potential to increase rail traffic. When examined in association with the ability to handle truck traffic, Memphis is clearly superior.

To reiterate, it is critical that traffic have adequate access to and egress from the facility to avoid long queues, effectively manage traffic flow, and meet the demands of both surge and sustained operations. Memphis has the best overall capability to fulfill the total mission requirement.

THROUGHPUT CAPACITY - PEACETIME
NO. OF GATES

	Memphis (DDMT)	Tracy (DDTC)	Mechanicsburg* (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Columbus (DDCO)
TRUCK	**2**	1	2	1	1	1
RAIL	**2**	2	1	1	1	0

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

THROUGHPUT CAPACITY - MOBILIZATION
NO. OF GATES

	Memphis (DDMT)	Tracy (DDTC)	Richmond (DDRV)	Mechanicsburg* (DDMP)	Ogden (DDOU)	Columbus (DDCO)
TRUCK	**9**	1	6	4	3	3
RAIL	**3**	4	2	1	1	0

Source:
An Assessment of Rail and Container Handling Capabilities at DLA Depots. (Study) - 30 Jan 1991

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NOV 1 1 ... DEC ...

Ques ITEM **DDMT**

V 44 **MILCON funded or in process that increases storage capacity?** Y/N: YES

If yes, ID # of NSF,TCF,ACF

SEE ATTACHED

	NSF	TCF	ACF
FY 1994	86,136	2,153,400	1,888,736
FY 1995			
FY 1996			
FY 1997			
FY 1998			

V 45 **MILCON funded or in process that increases thruput capacity?** Y/N: YES SEE ATTACHED

If yes, describe & explain how much on a separate sheet, ID projects separately for fiscal years 94, 95, 96, 97, & 98. CLEARLY ID QUESTION NUMBER.

V 46 **Capability to expand in cube?** Y/N: YES

If yes, provide method & TCF,ACF

method	TCF	ACF
Bldg 670/3-5 16' pallet racks	139,968	391,656
Bldg 690/1-3 20' package racks	– 148,668	212,489
SEE ATTACHED		

V 47 **Maximum rated thruput**

Source: DOSO-DE ltr, 4 Oct 94
DDMT-T ltr, 13 Oct 94,

ALSO SEE ATTACHED

	lines in	lines out
bin	1,200	18,577
bulk	871	2,403
hazardous	0	0
chill	0	0
CCP	0	0
TOTAL	2,071	20,980

V 48 **Max surge thruput capacity avail to accomodate contingency mobilization?**

ALSO SEE ATTACHED

	FIRST 8 HR SHIFT lines in	FIRST 8 HR SHIFT lines out	additional capacity with 2nd 8 HR SHIFT lines in	additional capacity with 2nd 8 HR SHIFT lines out
bin	1,200	18,577	1,200	18,577
bulk	872	2,403	872	2,403
hazardous	25	70	25	70
chill	1	3	1	3
CCP	0	0	0	0
TOTAL	2,098	21,053	2,098	21,053

Source: DOSO-DE ltr, 4 Oct 94 and DDMT-T ltr, 13 Oct 94

PLEASE Go To the Top of the Screen and to the RIGHT

DESERT STORM - RESULTS

- B - Rations (Hot Meals)
  - 0 + 12 Days: 450 pallets - 45,000 meals
  - 0 + 8 Months: 60 million meals
  - How? DDMT & Mphs Community Partnering

- Subsistence
  - Shipped 1/2 of all food for U. S. Air & Ground Troops in Middle East

- Quality Service
  - Increased 100,000 Tons above Normal Workload
  - Customer complaints .001%
  - On Time Shipping Effectiveness 98.07%
  - Receiving Effectiveness 97.3%
  - Personnel Processing - 900 Temporaries

- Conclusions, DDMT
  - Highest daily truck traffic - peacetime or mob
  - Highest daily rail traffic - peacetime or mob
  - No capacity problems - truck or rail

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COBRA Analysis

- Not germane because 50% mission goes to Base X.
- Real world problems are not encountered with fictitious Base X.
- Cost calculation does not include replacement facilities for DDMT's HAZMAT facilities.

COBRA ANALYSIS
MILCON
(THOUSANDS OF DOLLARS)

DESCRIPTION	MILCON CATEG	USING REHAB	REHAB COST	NEW MILCON	NEW COST	TOTAL COST
DDCO						
DDCO - RACK OUT DDCO	OTHER	0	N/A	0	N/A	1,000
DDLP						
DDAA - 36 ACRE HARDSTAND	OTHER	0	N/A	0	N/A	15,590
DDMT						
XDDMT - DDMT TENANTS	ADMIN	5,460	454	0	0	454
DDOU						
DDRW - ADMIN SPACE	ADMIN	33,186	3,516	0	0	3,516
DDJC - REHAB HAZARD WRHS	HAZAR	83,657	7,345	0	0	7,345
XDDHU - ADMIN SPACE	ADMIN	122,590	11,084	0	0	11,084
DDRT						
DDAA - 44 ACRES HARDSTAND	OTHER	0	N/A	0	N/A	19,040

SOURCE: COBRA
SUPPLEMENTAL CHARTS: PDA/MILCON ALC RACK

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BRAC 95
COBRA Run Depot
RNW

Close Defense
Distribution Depot
Memphis Tennessee
(DDMT)

Data As Of 19:47 12/23/1994, Report Created 13:50 02/09/1995

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Starting Year : 1996
Final Year : 1998
ROI Year : 2001 (3 Years)

NPV in 2015($K): -244,319
1-Time Cost($K): 85,740

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	43	411	0	0	0	0	454	0
Person	-1,439	-6,027	-12,208	-16,535	-16,535	-16,535	-69,279	-16,535
Overhd	1,140	1,125	-701	-7,250	-7,250	-7,250	-20,186	-7,250
Moving	5,436	10,940	16,624	0	0	0	33,000	0
Missio	0	0	0	0	0	0	0	0
Other	13,094	13,552	14,527	0	0	0	41,173	0
TOTAL	18,274	20,000	18,242	-23,785	-23,785	-23,785	-14,838	-23,785

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	1	3	3	0	0	0	7
Enl	0	2	2	0	0	0	4
Civ	100	200	200	0	0	0	500
TOT	101	205	205	0	0	0	511
POSITIONS REALIGNED							
Off	0	0	1	0	0	0	1
Enl	0	0	11	0	0	0	11
Stu	0	0	0	0	0	0	0
Civ	0	200	564	0	0	0	764
TOT	0	200	576	0	0	0	776

Summary:

Close DDMT. Move 20% of stock to DDSP. HAZ material and remainder of stock will move to Base X. Personnel will transfer commensurate with workload requirement. Remainder of personnel will be eliminated. Fifty percent of mission and support equipment will move to Base X. DDRE-MT HQ personnel will return to DDRE HQ at Susquehanna.

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	0	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		0
Personnel		
Civilian RIF	0	
Civilian Early Retirement	0	
Civilian New Hires	72,680	
Eliminated Military PCS	0	
Unemployment	0	
Total - Personnel		72,680
Overhead		
Program Planning Support	0	
Mothball / Shutdown	0	
Total - Overhead		0
Moving		
Civilian Moving	0	
Civilian PPS	0	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		0
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		0
Total One-Time Costs		72,680
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		72,680

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

TOTAL PERSONNEL REALIGNMENTS (Out of DDMT(LOSE), TN):

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	1	0	0	0	1
Enlisted	0	0	11	0	0	0	11
Students	0	0	0	0	0	0	0
Civilians	0	200	475	0	0	0	675
TOTAL	0	200	487	0	0	0	687

SCENARIO POSITION CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	-1	-3	-3	0	0	0	-7
Enlisted	0	-2	-2	0	0	0	-4
Civilians	-100	-200	-200	0	0	0	-500
TOTAL	-101	-205	-205	0	0	0	-511

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
0	0	0	0

PERSONNEL SUMMARY FOR: XDEPOT

BASE POPULATION (FY 1996, Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
3	1	0	686

PERSONNEL REALIGNMENTS:
From Base: DDMT(LOSE), TN

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	0	0	0	0	0
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	200	200	0	0	0	400
TOTAL	0	200	200	0	0	0	400

TOTAL PERSONNEL REALIGNMENTS (Into XDEPOT):

	1996	1997	1998	1999	2000	2001	Total
Officers	0	0	0	0	0	0	0
Enlisted	0	0	0	0	0	0	0
Students	0	0	0	0	0	0	0
Civilians	0	200	200	0	0	0	400
TOTAL	0	200	200	0	0	0	400

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
3	1	0	1,086

PERSONNEL SUMMARY FOR: DDSP, PA

BASE POPULATION (FY 1996, Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
7	2	0	2,054

Data As Of 19:47 12/23/1994, Report Created 13:50 02/09/1995

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		0	200	200	0	0	0	400
Civilians Moving		0	136	128	0	0	0	264
New Civilians Hired		0	64	72	0	0	0	136
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	64	72	0	0	0	136

* Early Retirements, Regular Retirements, Civilian Turnover, and Civilians Not Willing to Move are not applicable for moves under fifty miles.

Not all Priority Placements involve a Permanent Change of Station. The rate of PPS placements involving a PCS is 50.00%

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	0	0	0	0	0	0	0
Civ Retire	0	0	0	0	0	0	0
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	0	0	0	0	0
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	0	0	0	0	0
OTHER							
Program Plan	0	0	0	0	0	0	0
Shutdown	0	0	0	0	0	0	0
New Hires	0	34	38	0	0	0	73
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	34	38	0	0	0	73

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	0	0	0	0	0
Civ Moving	0	0	0	0	0	0	0
Other	0	34	38	0	0	0	73
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	34	38	0	0	0	73

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	566	1,132	1,132	1,132	1,132	5,094	1,132
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	566	1,132	1,132	1,132	1,132	5,094	1,132
TOTAL NET COST	0	600	1,170	1,132	1,132	1,132	5,167	1,132

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT

ONE-TIME COSTS ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	0	0	0	0	0	0	0
Civ Retire	0	0	0	0	0	0	0
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	0	0	0	0	0
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	0	0	0	0	0
OTHER							
Program Plan	0	0	0	0	0	0	0
Shutdown	0	0	0	0	0	0	0
New Hires	0	35	41	0	0	0	76
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	35	41	0	0	0	76

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT

RECURRINGCOSTS ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	583	1,201	1,237	1,274	1,312	5,607	1,352
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	583	1,201	1,237	1,274	1,312	5,607	1,352
TOTAL COSTS	0	618	1,242	1,237	1,274	1,312	5,683	1,352

ONE-TIME SAVES ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
Land Sales	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	0	0	0	0	0	0

RECURRINGSAVES ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	0	0	0	0	0	0
TOTAL SAVINGS	0	0	0	0	0	0	0	0

Department : DLA
Option Package : DEPOT RNW
Scenario File : C:\COBRA508\DEPOTRNW.CBR
Std Fctrs File : C:\COBRA508\DEPOTS.SFF

Base: XDEPOT

ONE-TIME NET ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	0	0	0	0	0
Civ Moving	0	0	0	0	0	0	0
Other	0	35	41	0	0	0	76
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	0	35	41	0	0	0	76

RECURRING NET ($K)-INFLATED-	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	583	1,201	1,237	1,274	1,312	5,607	1,352
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	583	1,201	1,237	1,274	1,312	5,607	1,352
TOTAL NET COST	0	618	1,242	1,237	1,274	1,312	5,683	1,352

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ISSUES RELATING TO DLA ANALYSIS

- Installation Military Value Analysis
  - Mission scope calculation is not relevant
  - Missions are portable and could be returned to DDMT
  - Portability of tenant missions (mission scope) skews analysis

- Since 1993, the following portable missions were moved by DLA from DDMT:
  - Defense Industrial Plant Equipment Center
  - Defense Distribution Region Central
  - Defense Systems Automation Center

- Mission scope constituted 30% of DLA's Installation Military Value ranking and significantly skewed the outcome.

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

IN REPLY REFER TO DLA-L

19 FEB 1993

SUBJECT: Realignment of Defense Distribution Regions

TO: Commander, Defense Distribution Region East
Commander, Defense Distribution Region West

1. I have approved the realignment of the current Defense Distribution Regions into two Regions--East and West, effective 14 February 1993. The Defense Distribution Region Central (DDRC) is disestablished and the current subordinate elements of that region are reassigned as follows:

TO DDRE	TO DDRW
Defense Distribution Depot Memphis, Memphis, TN	Defense Distribution Depot Red River, Texarkana, TX
Defense Distribution Depot Anniston, Anniston, AL	Defense Distribution Depot San Antonio, San Antonio, TX
Defense Distribution Depot Warner Robins, Warner Robins, GA	Defense Distribution Depot Oklahoma City, Oklahoma City, OK
Defense Distribution Depot Pensacola, Pensacola, FL	Defense Distribution Depot Corpus Christi, Corpus Christi, TX
Defense Distribution Depot Albany, Albany, GA	
Defense Distribution Depot Jacksonville, Jacksonville, FL	

A General Order concerning this realignment is enclosed.

2. The Defense Distribution Depot Ogden (DDOU), to include the Hill and Tooele sites, will become a Secondary Level Field Activity (SLFA) of DDRW.

3. In conjunction with this realignment, you will establish additional Deputy Commander positions with primary duty as follows:

a. The current Commander, DDRC, will become a Deputy Commander of DDRE, duty-stationed in Memphis, TN, with responsibility for the newly realigned DDRE depots.

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ► 7

To DDRC	From DLA-OW
Dept./Agency	Phone # 284-6091
Fax # 683-6769	Fax # 667-7768

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

b. The current Commander, DDOU, will also serve as a Deputy Commander of DDRW, duty-stationed in Ogden, UT, with responsibility for the newly realigned DDRW depots.

4. The Commander, DDRE, and the Commander, DDRW, should submit a detailed implementation plan to the Executive Director, Supply Operations, by 16 March 1993. These plans should address all aspects of implementation to include organizational realignment and name changes as appropriate. The current staff resources at Memphis and Ogden are expected to be integrated into the Region HQ staffs and should play a central role in the development of the implementation plan. There are no current plans to physically relocate the Region staffs. The Commander, DDRE, is requested to assist the Commander, DDRW, with the transition of the depots in Texas and Oklahoma to DDRW control.

5. Necessary support to the current DDRC and DDOU elements will continue to be provided as presently constituted until such time as your plans are approved.

1 Encl

EDWARD M. STRAW
Vice Admiral, SC, USN
Director

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

IN REPLY REFER TO DLA-L

19 FEB 1993

SUBJECT: Realignment of Defense Distribution Regions

TO: Commander, Defense Distribution Region Central

1. I have approved the realignment of the Defense Distribution Regions into two Regions--East and West, effective 14 February 1993. With this realignment, DDRC is disestablished. A General Order announcing this realignment is enclosed. Your current subordinate elements are reassigned as follows:

TO DDRE	TO DDRW
Defense Distribution Depot Memphis, Memphis, TN	Defense Distribution Depot Red River, Texarkana, TX
Defense Distribution Depot Anniston, Anniston, AL	Defense Distribution Depot San Antonio, San Antonio, TX
Defense Distribution Depot Warner Robins, Warner Robins, GA	Defense Distribution Depot Oklahoma City, Oklahoma City, OK
Defense Distribution Depot Pensacola, Pensacola, FL	Defense Distribution Depot Corpus Christi, Corpus Christi, TX
Defense Distribution Depot Albany Albany, GA	
Defense Distribution Depot Jacksonville, Jacksonville, FL	

2. In conjunction with this realignment, DDRE will establish a Deputy Commander position with primary duty of oversight of Defense Depots Memphis, Anniston, Warner Robins, Pensacola, Albany, and Jacksonville. You will become a Deputy Commander of DDRE, duty-stationed in Memphis, TN.

3. The Commanders, DDRE and DDRW, have been tasked to develop implementation plans by 16 March 1993. The current staff resources at Memphis are expected to be integrated into the DDRE Region staff and should play a major role in the development of the implementation plan. There is no current plan to physically relocate the staff of the former DDRC.

19 FEB 1993

SUBJECT: Realignment of Defense Distribution Regions

4. Necessary support to your current elements will continue in their present configuration until the plans are approved.

1 Encl

EDWARD M. STRAW
Vice Admiral, SC, USN
Director

cc: DDRE
DDRW

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

IN REPLY REFER TO DLA-L

19 FEB 1993

SUBJECT: Realignment of Defense Distribution Regions

TO: Commander, Defense Distribution Depot Ogden

1. I have approved the realignment of the Defense Distribution Regions into two Regions--East and West, effective 14 February 1993. With this realignment, DDOU, including the Hill and Tooele sites, will become a secondary level field activity (SLFA) of DDRW. A General Order announcing this realignment is enclosed.

2. In conjunction with this realignment, DDRW will establish a Deputy Commander position with primary duty of oversight of Defense Depots Ogden (including the Hill and Tooele sites), Red River, San Antonio, Oklahoma City, and Corpus Christi. You will serve in a dual capacity as a Deputy Commander, DDRW, and as Commander, DDOU, duty stationed in Ogden, UT.

3. The Commanders, DDRE and DDRW, have been tasked to develop implementation plans by 16 March 1993. The current staff resources at Ogden are expected to be integrated into the DDRW Region Staff and should play a major role in the development of the implementation plan. There is no current plan to physically relocate the DDOU staff.

4. Necessary support to your current elements will continue in their present configuration until the implementation plans are approved.

1 Encl

EDWARD M. STRAW
Vice Admiral, SC, USN
Director

cc: DDRW

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

DLA-LP

22 February 1993

GENERAL ORDER
NO. 4 -93

I. Reference:
A. General Order 26-91 dated 26 Sep 91.
B. General Order 14-92 dated 11 Mar 92.
C. General Order 15-92 dated 11 Mar 92.
D. General Order 16-92 dated 11 Mar 92.
E. General Order 17-92 dated 11 Mar 92.
F. General Order 18-92 dated 11 Mar 92.
G. General Order 19-92 dated 11 Mar 92.
H. General Order 20-92 dated 11 Mar 92.
I. General Order 21-92 dated 11 Mar 92.
J. General Order 28-92 dated 9 Apr 92.

II. Authority: DLA-D approval of DLA-L Staff Summary Sheet dated 10 February 1993 , subject: Realignment of Defense Distribution Regions East and West.

III. Pursuant to cited authority and effective 14 February 1993:
A. The Defense Distribution Region Central (DDRC) is disestablished.
B. The current subordinate elements of that Region are reassigned as follows:

TO DDRE	TO DDRW
Defense Distribution Depot Memphis, Memphis, TN	Defense Distribution Depot Red River, Texarkana, TX
Defense Distribution Depot Anniston, Anniston, AL	Defense Distribution Depot San Antonio, San Antonio, TX
Defense Distribution Depot Warner Robins, Warner Robins, GA	Defense Distribution Depot Oklahoma City, Oklahoma City, OK
Defense Distribution Depot Pensacola, Pensacola, FL	Defense Distribution Depot Corpus Christi, Corpus Christi, TX
Defense Distribution Depot Albany, Albany, GA	
Defense Distribution Depot Jacksonville, Jacksonville, FL	

C. The Commander, DDRC, will become a Deputy Commander of DDRE, duty-stationed in Memphis, TN, responsible for primary oversight of the depots realigned to DDRE.

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

DLA-LP

22 February 1993

GENERAL ORDER
NO. 4-93

D. The Defense Distribution Depot Ogden (DDOU), including Hill and Tooele sites, is redesignated as a secondary level field activity (SLFA) of DDRW.

E. The Commander, DDOU, will serve in a dual capacity as a Deputy Commander of DDRW, responsible for primary oversight of the depots realigned to DDRW, and as Commander, DDOU.

IV. Administrative, security, and logistical support will continue in their present configuration until implementation plans are approved by the Executive Director, Supply Operations.

BY ORDER OF THE DIRECTOR:

ROGER C. ROY
Assistant Director
Office of Policy and Plans

DISTRIBUTION
2

depot as a stand-alone depot or site would only make sense if the majority of the depot's customers were already "outside the fence line" and retaining the capacity allowed an additional base to close elsewhere.

E. The scenarios presented reflect what we have heard of the Services proposals. DLA will not be able to finalize its recommendations until we know exactly what the Services recommend. Depot proposals are also linked to Inventory Control Point (ICP) recommendations. DoD needs to be informed that we cannot make recommendations until 48 hours after the Services finalize their recommendations.

F. The Director expressed concern that we not suboptimize our decisions because of limited DLA capacity at a collocated site to which work was being realigned. If more distribution capacity is needed to support the maintenance mission, DLA should ask the appropriate Service to make additional space available, rather than shifting the workload to a stand-alone depot. Since the Distribution Stock Positioning Plan assumes support to maintenance had to be relocated with the maintenance mission, even if it was necessary to build or renovate to handle the increased requirement, the system will not be suboptimized.

III. FOLLOW-UP ACTIONS:

A. Inform the Assistant Secretary of Defense (Economic Security) that DLA will not be able to provide preliminary recommendations until 48 hours after the Services provide their preliminary recommendations--DD.

B. Reevaluate realigning Defense Distribution Depot Jacksonville rather than closing it if the Navy choses to close the maintenance activity. Support to the fleet through Mayport would not go away, even if the maintenance mission did--CAAJ(BRAC).

C. Compare the cost of running the Defense General Supply Center/Defense Distribution Depot Richmond compound to the cost of running the Aviation Support Office (ASO) Compound. Use the best ASO related data available, even if it appears understated--CAAJ(BRAC).

D. Compare the costs and benefits of closing various ICP/Depot combinations, including closing the ASO compound--CAAJ(BRAC).

2 Encl

M. V. McMANAMAY
Team Chief
DLA BRAC

GARY S. THURBER
Deputy Director
(Corporate Administration)

LAWRENCE P. FARRELL, JR.
Major General, USAF
Principal Deputy Director

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ISSUES RELATING TO DLA ANALYSIS (Cont.)

Installation Military Value Ranking

With Mission Scope

Columbus, OH	-	1
New Cumberland, PA	-	2
Richmond, VA	-	3
Tracy/Sharpe, CA	-	4
Ogden, UT	-	5
Memphis, TN	-	6

Without Mission Scope

Ogden, UT	-	1
Memphis, TN	-	2
Richmond, VA	-	2
New Cumberland, PA	-	4
Columbus, OH	-	4
Tracy/Sharpe, CA	-	6

Figure 2.3
Installation Military Value Elements

Measure of Merit	Points
Mission Scope	**300**
Significant missions	(150)
DLA tenants	(100)
Non-DLA tenants	(50)
Mission Suitability	**200**
Age and condition of buildings	(125)
Condition of Infrastructure	(75)
Operational Efficiencies	**200**
Base Operating Support costs	(100)
Real property maintenance costs	(100)
Expandability	**300**
Facility/Installation expansion	(280)
Environmental, historical and other limiting factors	(20)
Total Points	**1000**

Figure 2.4
Installation Military Value Analysis Results

Installation	Mission Scope	Mission Suitability	Operational Efficiencies	Expandability	Total
Columbus, OH	298	85	106	278	**767**
New Cumberland, PA	212	90	164	215	**681**
Richmond, VA	139	191	110	209	**649**
Tracy/Sharpe, CA	167	111	136	209	**623**
Ogden, UT	96	137	174	204	**611**
Memphis, TN	49	127	158	225	**559**

Summary

The assessment of Installation Military Value was used to determine the relative ranking of each installation in the BRAC decision-making process. The assessment complies with the DLA BRAC Decision Rules by considering the minimization of infrastructure costs, favoring the maximum use of shared overhead, and providing data that could further optimize the use of remaining DLA space.

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ISSUES RELATING TO DLA ANALYSIS (Cont.)

- Factors Not Properly Considered

  - Thruput
  - "Just in Time"
  - Containerized Cargo
  - HAZMAT
  - Weather
  - Rail
  - Surface
  - Jointness

- Failure to Consider 3rd PDS is inconsistent with National Military Strategy

  - Surge/cost implications
  - Contingency & Humanitarian Requirements
  - DLA Desert Storm "Lessons Learned" report in 1992 recommended another major consolidation point due to costs and inefficiencies of east/west coast cargo transit

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Cameron Station
Alexandria, Virginia 22304-6100

DEFENSE LOGISTICS AGENCY

SUPPORT OF OPERATIONS DESERT SHIELD/STORM

AUGUST 1990-MARCH 1991

DOCUMENTATION ENHANCEMENTS

Based upon a request from the theater that the backlog of cargo created difficulty in locating specific shipments, DLA took the lead to develop revised marking techniques. For subsistence shipments, DLA personnel designed and applied never before used labels to permit the receiving activity to immediately determine the contents of each container upon receipt. As a further step, procedures were established to provide advance notification for each container shipped, description of the contents, and the name of the vessel.

Additionally, for all depot shipments, DLA took the lead to develop a prototype DoD laser optical card record to replace the paper shipping manifests. The prime objectives of the card were threefold:

a. Facilitate receipt confirmation at destination (DSU, primary storage facility, etc.) with one transaction.
b. Preclude opening of van/container to view contents.
c. Permit development of a line-item/quantity record of contents of loaded containers/436L pallets.

Although this project was not completed prior to the conclusion of Desert Storm, it remains a viable project and promises to help alleviate problems of in-transit visibility of cargo in the pipeline from depot to the end user.

DONATION PROGRAM

In addition to meeting mission requirements, DLA transportation personnel were actively involved in the movement of items donated by the private sector to U.S. Forces in the Persian Gulf. DLA transportation personnel provided transportation movement information to the donor including packaging information and to which DLA depot to ship the donated items. After receipt at the depot, personnel verified the property, checked for proper packaging, stuffed containers for shipment, and arranged onward movement to USCENTCOM or other approved destinations with appropriate authorities. While special arrangements were frequently required for shipment of the donations, the shipments were made without any degradation to the primary military missions.

TRANSPORTATION OBSERVATIONS

ACHIEVEMENTS

-- DLA shipments were integrated into dedicated movement programs.

-- Extensive use of Containers at DLA depots and at vendor locations promoted efficiency and economy and reduced overall transportation costs.

FUTURE CHALLENGES

-- Readily available and accurate information regarding contents of containers requires additional work.

04/09

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11443-24871 (00013), submitted by M.D. SALISBURY, DDOU-TT, 790-7398, (801)399-7398.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/09/90.

3. (U) KEYWORDS: CCP, CONTAINER CONSOLIDATION, SHIPMENTS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: WEST COAST CONTAINER CONSOLIDATION POINT (CCP).

5. (U) OBSERVATION: SHIPMENTS OF MATERIAL FROM DLA ACTIVITIES WEST OF THE MISSISSIPPI RIVER TO THE EAST COAST CCP WERE BOTH INEFFICIENT AND EXPENSIVE.

6. (U) DISCUSSION: NUMEROUS SHIPMENTS OF ODS MATERIAL FROM THE WEST COAST DLA DEPOTS WERE TRUCKED OR FLOWN CROSS-COUNTRY TO THE EAST COAST CCP AT NEW CUMBERLAND ARMY DEPOT (NCAD). MANY SIGNIFICANT SHIPMENT DELAYS WERE ENCOUNTERED AT NCAD AS NCAD EXPERIENCED GRID-LOCK. CUSTOMER SERVICE WAS COMPROMISED, THE COMMERCIAL CARRIER INDUSTRY WAS FRUSTRATED AND INCONVENIENCED AS CARRIAGE UNDERLOAD DELAYS WERE ENCOUNTERED. FURTHER, IT WAS NOT COST EFFECTIVE DUE TO DEMURRAGE/DETENTION COSTS AND EXPENSIVE CROSS-COUNTRY LINE HAUL RATES. THIS ISSUE WAS SURFACED EARLY ENOUGH IN THE OPERATION THAT APPROPRIATE CHANGES COULD HAVE BEEN MADE TO CORRECT THE PROBLEM.

7. (U) LESSON LEARNED: MORE THAN ONE CCP IS NEEDED TO MEET TRANSPORTATION REQUIREMENTS OF LARGE CONTINGENCIES SUCH AS ODS.

8. (U) RECOMMENDED ACTION: UTILIZE MORE THAN ONE CCP. A WEST COAST CCP, UTILIZING TRANS-PACIFIC LINE HAUL SERVICES FOR DLA DEPOTS WEST OF THE MISSISSIPPI, WOULD HAVE IMPROVED CUSTOMER SERVICE (BY DECREASING PIPE-LINE TIMES AND AVOIDING THE NCAD GRID=LOCK) AND WOULD HAVE BEEN MORE COST EFFECTIVE. COST SAVINGS COULD HAVE BEEN REALIZED THROUGH SHORTER LINE-HAUL AND AIR FREIGHT COSTS, AS WELL AS CHEAPER OCEAN CARGO RATES (BASED ON USE OF MID-EAST FEEDERS WHICH REDUCED INSURANCE COSTS OF PRIME CARRIER, THEREBY REDUCING CARGO RATES). LOGISTICS SUPPORT PLANNING FOR CRISIS/CONTINGENCIES MUST CONSIDER THE THROUGH-PUT CAPABILITIES OF THE CCPS AS WELL AS CUSTOMER SUPPORT AND TRANSPORTATION COSTS.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

Pa. Turnpike Commission Approval Clears Way for Connector Route Design, Construction at DDSP

By Philip Lucius
DDRE Public Affairs

Following nearly ten years of negotiations, the Pennsylvania Turnpike Commission (PTC) said yes in April to a nearly $4.5 million access route to the Eastern Distribution Center at New Cumberland.

The Commission accepted its and Pa. Department of Transportation engineers' recommendation of a northern access route to the depot, thereby clearing the way to proceed with the final design and construction.

The northern route runs parallel to the Turnpike between Route 114 and Old York Road. The recommendation has been forwarded to the Federal Highway Administration for final approval.

This decision didn't happen overnight. It was the result of careful planning over several years to meet the Department of Defense's future needs.

In 1978, the U.S. Army divided its United States distribution network into three regions. Later, the Department of Defense retained the three region concept with the eastern regional headquarters at DDRE. In 1985, construction began on a $240 million Eastern Distribution Center [EDC], completed in 1990, which serves United States military forces in Europe, Central and South America, the Far East, and states east of the Mississippi. With the new facility, truck traffic was projected to increase. A Pennsylvania Turnpike Interchange to improve access to the New Cumberland facility for commercial carriers was also planned.

The state legislature, in 1985 and 1990, passed laws directing the Pennsylvania Turnpike Commission to construct an interchange to serve the EDC. The plan was to confine truck traffic to the Turnpike and connecting highways away from the two-lane streets and roads used for neighborhood traffic.

In August 1986, nearly $5.3 million was requested from the Department of Army for the interchange. A state supporter, Sen. John Shumaker, met with the PTC to encourage action. U.S. Congressman Bill Goodling urged Pennsylvania's governor, William Casey, to support the interchange and in Washington, Rep. John Murtha introduced a bill to provide the federal portion of the funding.

In August 1988, an amendment was added to the fiscal year 1989 Military Construction Bill to provide $5.3 million of estimated construction funds.

So, in 1990, the PTC contracted with Kidde Consultants Inc. to conduct environmental and engineering studies on the proposed site for the Turnpike Interchange. During that study, primary wetlands were identified. The depot was willing to replace any destroyed wetlands by creating manmade ones in a different location, allowed under federal law. Building the interchange over wetlands would have doubled the cost to between $10 and $14 million. In September 1992, the PTC decided not to build a new interchange to provide direct access to the depot.

In the process of proceeding with the project, alternatives were to be identified and evaluated. Commission officials proposed four alternatives: one proposal had depot traffic exit Route I-83 at interchange number 18 and travel a short distance on Route 114 before entering the new access road. The proposed road was on the north side of the Pa. Turnpike and ran parallel to it. It deposited traffic at Springers Lane, which goes into the depot. The second proposal covered a similar distance on the south side of the turnpike and required traffic to turn left onto Old York Road before entering the depot at Springers Lane. Both roads would be substantially within the existing turnpike right-of-way. The third alternative was to improve the existing Route 114. This alternative is a standard evaluation criteria; however, federal funding cannot be used for this. The final alternative was to do nothing at all.

Several public hearings were held to discuss the proposed connector routes with the public.

The nation's concern for easy access to military installations has a long history.

The 1941 Defense Highway Act authorized full cost of access roads to military establishments and essential industrial plants. All non-critical highway work was deferred during World War II, and the use of critical materials was reduced to a minimum. New construction was mostly on access roads to military installations, defense plants, ports, and similar defense needs.

On June 29, 1956, President Eisenhower signed the Federal Aid Highway Act (1954) into law and launched the National System of Interstate and Defense Highways.

Today the requirement for an access road is critical to DDRE for several reasons. Pennsylvania is the most flood-prone state in the nation. Since 1971, the state has weathered 17 federally declared major disasters and emergencies — 13 of them floods. March of this year had 22.8 inches of snow and 5.63 inches of other precipitation.

During March, flooding from relentless rain and melting snow closed one access route to DDRE and caused problems for property owners along the Yellow Breeches Creek near DDRE. Flooding from the Yellow Breeches prompted a state of emergency in New Cumberland, where a portion of the downtown was threatened.

"The northern route will better serve traffic heading to the DDRE, because it provides the most direct access," said Jeffery C. Davis, engineering project manager for the Pa. Turnpike Commission. "Most of the property needed to build this route is already within the Turnpike's right-of-way, and retaining walls will be constructed to minimize the amount of property to be purchased for the construction of the access road."

↑

WEATHER

Chapter 2

The Force Structure Plan

Background

Public Law 101-510 requires the Secretary of Defense to submit to the Congress and the Commission a force structure plan for fiscal years 1995 through 2001. The force structure plan which follows incorporates an assessment by the Secretary of the probable threats to the national security during the fiscal year 1995 through 2001 period, and takes into account the anticipated levels of funding for this period. The plan comprises three sections:

- The military threat assessment,
- The need for overseas basing, and
- The force structure, including the implementation plan.

The force structure plan is classified SECRET. What follows is the UNCLASSIFIED version of the plan.

Section I: Military Threat Assessment

The vital interests of the United States will be threatened by regional crises between historic antagonists, such as North and South Korea, India and Pakistan, and the Middle East/Persian Gulf states. Also the collapse of political order as a result of ethnic enmities in areas such as Somalia and the former Yugoslavia will prompt international efforts to contain violence, halt the loss of life and the destruction of property, and re-establish civil society. The future world military situation will be characterized by regional actors with modern destructive weaponry, including chemical and biological weapons, modern ballistic missiles, and, in some cases, nuclear weapons. The acceleration of regional strife caused by frustrated ethnic and nationalistic aspirations will increase the pressure on the United States to contribute military forces to international peacekeeping/enforcement and humanitarian relief efforts.

The United States faces three types of conflict in the coming years: deliberate attacks on U.S. allies or vital interests; the escalation of regional conflicts that eventually threaten U.S. allies or vital interests; and conflicts that do not directly threaten vital interests, but whose costs in the lives of innocents demand an international response in which the United States will play a leading role.

Across the Atlantic

The Balkans and parts of the former Soviet Union will be a source of major crises in the coming years as political-ethnic-religious antagonisms weaken fragile post-Cold War institutions. These countries may resort to arms to protect narrow political-ethnic interests or maximize their power vis-à-vis their rivals. The presence of vast stores of conventional weapons and ammunition greatly increases the potential for these local conflicts to spread. Attempts by former Soviet republics to transform into democratic states with market economies and stable national boundaries may prove too difficult or too costly, and could result in a reassertion of authoritarianism, economic collapse, and civil war.

In the Middle East, competition for political influence and natural resources (i.e., water and oil), along with weak economies, Islamic fundamentalism, and demographic pressures will contribute to deteriorating living standards and encourage social unrest.

The major threat of military aggression or subversion in the Persian Gulf region may well emanate from Iran. Iran will find its principal leverage in subversion, propaganda, and in threats and military posturing below the threshold that would precipitate U.S. intervention.

Iraq will continue to be a major concern for the region and the world. By the turn of the century, Iraq could pose a renewed regional threat depending on what sanctions remain in place and what success Iraq has in circumventing them. Iraq continues to constitute a residual threat to some Gulf states, particularly Kuwait.

Across the Pacific

The security environment in most of Asia risks becoming unstable as nations reorient their defense policies to adapt to the end of the Cold War, the collapse of the Soviet empire, the breakup of the former Soviet Union, and the lessons of the Persian Gulf War. Political and economic pressures upon Communist or authoritarian regimes may lead to greater instability and violence.

Our most active regional security concern in Asia remains the military threat posed by North Korea to our treaty ally, the Republic of Korea. Our concerns are intensified by North Korea's efforts to develop weapons of mass destruction and the associated delivery systems.

China's military modernization efforts of the last two decades will produce a smaller but more capable military with modern combat aircraft, including the Su-27 FLANKER. By the end of the decade China will also have improved strategic nuclear forces.

Japan's major security concerns will focus primarily on the potential emergence of a reunified Korea armed with nuclear weapons, on the expanding Chinese naval threat, and on the possibility of a nationalistic Russia.

In South Asia, the principal threat to U.S. security will remain the potential of renewed conflict between India and Pakistan. The conventional capabilities of both countries probably will be eroded by severe budget pressures, internal security obligations, and the loss of Superpower benefactors.

The Rest of the World

This broad characterization covers regions not addressed above and is not intended to either diminish or denigrate the importance of U.S. interests, friends, and allies in areas beyond Europe and the Pacific.

In Latin America, democratic foundations remain unstable and the democratization process will remain vulnerable to a wide variety of influences and factors that could easily derail it. Virtually every country in the region will be victimized by drug-associated violence and crime.

In Africa, chronic instability, insurgency, and civil war will continue throughout the continent. Two major kinds of security issues will dominate U.S. relations with the region: noncombatant evacuation and conflict resolution. Operations most likely to draw the U.S. military into the continent include disaster relief, humanitarian assistance, international peacekeeping, and logistic support for allied military operations. Further, conflict resolution efforts will test the growing reputation of the United States for negotiation and mediation.

Direct threats to U.S. allies or vital interests that would require a significant military response in the near-future are those posed by North Korea, Iran, and Iraq. More numerous, however, are those regional conflicts that would quickly escalate to threaten vital U.S. interests in southeastern Europe, Asia, the Middle East, Africa, and Latin America. These conflicts would pose unique demands on the ability of U.S. Armed Forces to maintain stability and provide the environment for political solutions. Finally, there will be a large number of contingencies in which the sheer magnitude of human suffering and moral outrage demands a U.S. response, probably in concert with the United Nations.

Section II: Justification for Overseas Basing

Although we have reduced overseas presence forces, we nevertheless will continue to emphasize the fundamental role of mobile, combat-ready forces in deterring aggression by demonstrating our commitment to democratic allies and friends, and promoting regional

stability through cooperation and constructive interaction. This is achieved through peacetime engagement, conflict prevention, and fighting to win. Overseas presence activities such as combined exercises, port visits, military-to-military contacts, security assistance, combating terrorism and drug trafficking, and protecting American citizens in crisis areas will remain central to our strategy. U.S. influence will be promoted through continuing these overseas operations.

Over the past 50 years, the day-to-day presence of U.S. forces in regions of geostrategic importance to U.S. national interests has been key to averting crises and preventing war. Our forces throughout the world show our commitment, lend credibility to our alliances, enhance regional stability, and provide crises response capability while promoting U.S. influence and access. Although the number of U.S. forces stationed overseas has been significantly reduced, the credibility of our capability and intent to respond to any crisis will continue to depend on judicious overseas presence. Overseas presence is also vital to the maintenance of the collective defense system by which the U.S. works with its friends and allies to protect our mutual security interests while reducing the burdens of defense spending and unnecessary arms competition.

Europe, Middle East, Southwest Asia

U.S. interests in Europe, the Mediterranean, the Middle East, Africa, and Southwest Asia, require continuing commitment. We must maintain forces, forward stationed and rotational, with the capability for rapid reinforcement from within the Atlantic region and from the United States when needed.

The end of the Cold War significantly reduced the requirement to station U.S. forces in Europe. Yet, the security of the United States and of Europe remain linked, and continued support of the evolving Atlantic Alliance is crucial. Our long-term stake in European security and stability, as well as enduring economic, cultural, and geopolitical interests require a continued commitment of U.S. military strength.

Our overseas presence forces in Europe must be sized, designed, and postured to preserve U.S. influence and leadership in the Atlantic Alliance and in the future security framework on the continent. The remaining force is a direct response to the uncertainty and instability that remains in this region. Forward-deployed forces provide an explicit and visible commitment to the security and stability of Europe. Pre-positioned and afloat equipment supports rapid reintroduction of CONUS-based forces should the need arise in Europe or elsewhere.

Persistent Iraqi challenges to Persian Gulf security provide a solid grounding for continued U.S. presence in the region. Air, ground, and maritime deployments, coupled with

pre-positioning, combined exercises, security assistance, and infrastructure, supported by a European and regional enroute strategic airlift infrastructure, greatly enhanced our recent crisis-response force buildup. Our future commitment will include rotational deployments of battalion-sized maneuver forces, land-based tactical aviation units, and five surface combatants, reinforced by pre-positioned and afloat equipment, access agreements, bilateral planning, periodic exercises, deployments of Carrier Battle Groups (CVBGs), Amphibious Ready Groups (ARGs), and Marine Expeditionary Units (Special Operations Capable) (MEUs(SOC)), visits by senior officials, and security assistance.

Pacific Forces

U.S. interests in the Pacific, including Southeast Asia and the Indian Ocean, also require a continuing commitment. As Asia continues its economic and political development, U.S. overseas presence will continue to serve as a stabilizing influence and a restraint on potential regional aggression and rearmament.

A strong U.S. naval and land-based presence is designed to buttress our interests in the region. A carrier and amphibious force, including 1(+) CVBG and one Marine Expeditionary Force with one MEU(SOC) will be forward-based in this region. One Army division, less one brigade, with supporting Combat Support (CS)/Combat Service Support (CSS) elements, and one Air Force Fighter Wing Equivalent (FWE) in South Korea and 1(+) FWE in Japan are forward-based in this region. In addition, presence in both Alaska and Hawaii will be maintained.

Elsewhere in the World

In the less-predictable yet increasingly important other regions of the globe, the United States seeks to preserve its access to foreign markets and resources, mediate the traumas of economic and social strife, deter regional aggressors, and promote the regional stability necessary for progress and prosperity. From Latin America to sub-Saharan Africa to the far-flung islands of the world's oceans, American military men and women contribute daily to the unsung tasks of nation-building, security assistance, and quiet diplomacy that protect and extend our political goodwill and access to foreign markets. Such access becomes increasingly critical in an era of reduced overseas presence, when forces deploying from the United States are more than ever dependent on enroute and host-nation support to ensure timely response to distant crises. In the future, maintaining overseas presence through combined planning exercises, pre-positioning and service agreements, combined warfighting doctrine, and interoperability could spell the difference between success and failure in defending important regional interests.

Contingency Forces

U.S. strategy for the come-as-you-are arena of spontaneous, often unpredictable crises requires fully trained, highly ready forces that are rapidly deliverable and initially self-sufficient. In regions where no U.S. overseas presence exists, these contingency forces are the tip of the spear, first into action, and followed if necessary by heavier forces and long-term sustainment. Therefore, such forces must be drawn primarily from the active force structure and tailored into highly effective joint task forces that capitalize on the unique capabilities of each Service and in the special operations forces. In this regard, the CINCs must have the opportunity to select from a broad spectrum of capabilities such as: airborne, air assault, light infantry, and rapidly deliverable armor and mechanized infantry forces from the Army; the entire range of fighter, fighter-bomber, and long-range conventional bomber forces provided by the Air Force; carrier-based naval air power, the striking capability of surface combatants, and the covert capabilities of attack submarines from the Navy; the amphibious combat power and rapid response Maritime Prepositioning Forces of the Marine Corps, which includes on-station MEU(SOC)s; and the unique capabilities of special operations forces. Additionally, certain reserve units must be maintained at high readiness to assist and augment responding active units. Reserve forces perform much of the lift and other vital missions from the outset of any contingency operation.

Section III: The Force Structure and Implementation Plan

	FY 94	FY 97	FY 99
ARMY DIVISIONS			
Active	13	10	10
Reserve	8	8	8
MARINE CORPS DIVISIONS			
Active	3	3	3
Reserve	1	1	1
AIRCRAFT CARRIERS	12	11	11
RESERVE CARRIERS	-	1	1
CARRIER AIR WINGS			
Active	11	10	10
Reserve	2	1	1
BATTLE FORCE SHIPS	387	363	344
AIR FORCE FIGHTERS			
Active	978	936	936
Reserve	795	504	504
AIR FORCE BOMBERS			
Active	139	104	103
Reserve	12	22	26

DoD Personnel
(End Strength in thousands)

	FY 94	FY 97	FY 99
ACTIVE DUTY			
Army	543	495	495
Navy	468	408	394
Marine Corps	174	174	174
Air Force	426	385	382
TOTAL	1,611	1,462	1,445
RESERVES AND NATIONAL GUARD	997	904	893
CIVILIANS	913	799	759

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ISSUES RELATING TO DLA ANALYSIS (Cont.)

- DLA BRACEG Minutes Indicate Pre-Determined Outcome
  - East Coast/West Coast (March 18, 1994)
  - DLA Concept of Operations and Strategy developed concurrently with BRAC recommendations (March 18, 1994)
  - Concept of operations changed to remove any appearance of a predecision (July 6, 1994)
- Subjectivity
  - Military Judgement
  - ". . . you can almost make the analysis say what you want it to say." (DLA testimony at 1995 BRAC hearing [March, 1995])

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
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IN REPLY REFER TO CAAJ (BRAC)

CLOSE HOLD

08 AUG 1994

MEMORANDUM OF MEETING

SUBJECT: Summary of Base Realignment and Closure (BRAC) Executive Group (BRACEG) Meeting - 6 July 1994

I. PURPOSE: To revisit the Inventory Control Point (ICP) and Distribution Concepts of Operations prior to presenting the Concepts to the Director. A list of BRACEG attendees is at enclosure 1. Briefing charts are at enclosure 2. Revised ICP and Distribution Concepts of Operations are enclosures 3 and 4, respectively.

II. BRIEF SUMMARY OF DISCUSSION:

A. Gen Babbitt indicated that he had some concern about the broad organizing principles associated with the ICP concept of operation approved by the BRACEG on 12 Apr 94. A revised concept of operation was presented that will allow more flexibility.

1. Items have traditionally been assigned to DLA ICPs on the basis of industry groupings. Assigning items based on the management process involved (i.e., military specification vs. commercial item), or venue (i.e., Air/Land/Sea), or weapon systems might make more sense. The traditional order focuses on the supplier. Venue and weapons system are oriented more to the customer. Structuring around management process is more internally focused. There are advantages and disadvantages to each principle. Modern technology and Commodity Business Units allow the choice of an organizing principle to be independent of basing decisions. The actual execution of the concept philosophy would be determined by what made the most business sense in light of the BRAC analysis process.

2. MMS recommended using the management process as the organizing principle. Several significant concerns were raised, including de-emphasizing moving to more commercial practices, moving away from "one face to industry," and diluting emphasis on weapon system support items.

3. The BRACEG agreed that the ideas and issues should be taken to the Director.

B. Minor changes associated with the Distribution region concept were reviewed.

1. The distribution Concept of Operations was changed to remove any appearance of a predecision about the location of the primary distribution sites. The concept was also changed to emphasize that command and control is the primary function of the Regions.

2. Another change emphasizes that the Commanders of Depots, which DLA is permitted to operate, should be the Base Commander. All other Depots should "buy" support services which do not require standardization from whatever source makes sense.

C. Key points in the distribution briefing were:

1. The distribution concept complements the distribution strategic plan and the ICP Concept of Operations.

2. It is developed around concepts of readiness and wartime contingencies balanced by peacetime support requirements.

3. Workload is declining. Only 57% of the thruput capacity (handling of lines in and out) is being used.

4. After BRAC 95 decisions are made we expect to have 25 million attainable cubic feet of storage capacity available or 4.7% excess capacity. The need to meet Service and DLA inventory reduction goals was discussed as was the fact that much of our capacity is used for Service asset stockage. We must rely on the Services to achieve their inventory reduction goals.

5. A command and control element (i.e., distribution regions) will continue to be needed in the east and west. The size needs to be determined.

6. Two Primary Distribution Sites (PDSs) or megacenters were identified--Defense Depots San Joaquin and Susquehanna. These PDSs cannot be replaced because of their mix of storage capacity and thruput capability.

D. We need to insure the concept of operations is well crafted so it fully supports our BRAC 95 decisions.

E. The DLA Internal Review Office (DDAI) will be reviewing the concepts of operations to insure data reflected in them is supported with back-up documentation.

III. DECISIONS REACHED:

A. Primary Distribution Sites at San Joaquin (Tracy and Sharpe facilities) and Susquehanna (Mechanicsburg and New Cumberland facilities) will not be reviewed in BRAC 95. Data on the sites will still be collected since both locations could be potential receivers. The data might also be required if the President's Commission or the OSD BRAC 95 Review Group requests alternatives to DLA recommendations.

Page 223

GENERAL FARRELL: That's right.

CHAIRMAN DIXON: Let's say we wanted to look at it suspiciously.

GENERAL FARRELL: If I wanted to take all the usable workload in the system and put it in Susquehanna, Susquehanna would be the most efficient depot in the system.

CHAIRMAN DIXON: And I'd like to see now – let me get that here a minute. It's been long enough ago in the testimony I kind of lost it. There are the six, kind of, main ones there.

GENERAL FARRELL: Those are the general distribution or stand-alone depots. They're not associated with a maintenance facility or a major fleet activity.

CHAIRMAN DIXON: So when this distinguished congressman from the First District in Utah talks about Ogden, he's talking about one of these six major ones here.

GENERAL FARRELL: I think he is. I think he is.

CHAIRMAN DIXON: Yeah. And then let me see, now, you left open out of those which ones?

GENERAL FARRELL: We left open the Susquehanna complex on the East Coast, which is comprised of New Cumberland, Mechanicsburg, two separate sites. We left open

Page 224

the San Joaquin primary distribution system on the West Coast, which is composed of two sites, Sharp and Tracy.

CHAIRMAN DIXON: Yeah.

GENERAL FARRELL: And we left open the Richmond facility in Richmond, Virginia.

CHAIRMAN DIXON: And then closed Columbus, Memphis and Ogden?

GENERAL FARRELL: We realigned Columbus –

CHAIRMAN DIXON: Realigned Columbus that had a 600 something loss, I remember. You had some loss, but you realigned it.

GENERAL FARRELL: Correct.

CHAIRMAN DIXON: And then closed Ogden and Memphis.

GENERAL FARRELL: Yes, sir.

CHAIRMAN DIXON: Okay. Now, I guess I have to ask you, do to the fact that I pursued this further, is there an objective analysis of this that supports what you said, or is that entirely a judgment call, or can you show us some kind of – in the record, is there some kind of material support for that that would bear out your decision-making process?

GENERAL FARRELL: Well, we did not try to take into account efficiencies of individual depots. We simply didn't

Page 225

think that we could calculate it.

CHAIRMAN DIXON: Well, I guess what I'm referencing there, General Farrell, and I don't want to pursue this too long right now because I realize that the hour is getting late, and you've done a fine job and made a good presentation, but the other services had this objective system where they gave points and things. Do you use that at all in your process?

GENERAL FARRELL: Yes, sir. In the military value analysis, we gave points.

CHAIRMAN DIXON: Oh, you do?

GENERAL FARRELL: Yes, sir.

CHAIRMAN DIXON: So in other words, if we did an analysis of those grading systems, would it support what you've done?

GENERAL FARRELL: I believe so, yes, sir. Let me just say anybody can go do an analysis, and you can establish your own criteria, and you can almost make the analysis say what you want it to say.

What we did was establish our criteria before we ever applied any points, and when we did apply the points, we didn't lift the names off. So we didn't know who was getting

Page 226

points and who wasn't.

But you can change the analysis simply by changing the measures of merit and the weights which you assign to them. And if you ask each individual depot to do the same analysis, you would get 18 different analyses because they would put the value, probably, on different things, probably on their strengths.

CHAIRMAN DIXON: There are a number of other questions that the congressman asks, and we're going to send those to you in writing, General Farrell.

Jim Chapman, the Honorable Congressman from First District in Texas regarding the Red River Depot asks these questions. I'm going to send all of them to you because it's somewhat lengthy.

But the two I'm going to ask you, he says, "Defense Logistic Agency's basis for analysis for co-located depots was 'when a military service determined that a maintenance depot was surplus to their needs, Defense Logistics Agency would consider closing co-located distribution functions.'"

And then he says, "Complete closure of the facility's infrastructure generates the best economic return to the Department of Defense, and my question is since the

Page 227

Army recommends leaving the ammunition mission School of Engineering and Logistics and Rubber Products facility open at Red River, and since the operation will require base operation support – Red River maintenance, sewage, water plant maintenance, rail crew support and power station maintenance, how does just changing the command to Lone Star Army Ammunition Plant reduce the infrastructure costs for the Department of Defense?"

GENERAL FARRELL: I'm not sure how to address that question except to say that when the maintenance guys leave, whoever is left is going to bear a proportion, a higher proportion of the installation infrastructure costs that remain behind, and some of those tend to be fixed.

The number of people to run installation, guard the gates, that's a fixed. So when one guy leaves, the rest of the people share a higher proportion of the cost. And the reason we didn't stay there is because we didn't need it for distribution.

And if we had stayed there, we would have had to have found a reason to stay there. We couldn't find a reason to stay there, and if we did stay there, we would have to find someplace else to close.

Page 228

CHAIRMAN DIXON: Well, he's got a number of questions in writing. I'm going to send them to you as well, General. And would you have your shop answer those as soon as you can?

GENERAL FARRELL: Yes, sir.

CHAIRMAN DIXON: The last question – and incidentally, this is a series, believe it or not, of 27 questions. Relax. I'm not going to ask them, but I'm going to send them to you, all right?

But Congressman Harold Ford, the distinguished congressman whose district contains Memphis, asks this question, two questions:

"Was the impact a base closure would have on economically disadvantaged communities considered by DLA when they assessed the economic impact and their recommendations? Did DLA compare the overall unemployment rate of the community in relation to the unemployment rate of rest of the state and surrounding areas? And do you believe the Commission should use this comparison as a criterion in its decision-making process?"

Now we're getting down to this economic question here. Large unemployment, I take it, in his district

CONCLUSIONS

- Installation Military Value analysis misapplied; when correctly applied DDMT is #2.
  - Mission scope calculation is not relevant
  - Missions are portable and could be returned to DDMT
  - Portability of tenant missions (mission scope) skews analysis

- Transportation Infrastructure
  - Memphis is "America's Distribution Center"
  - Largest Air Cargo Transport Center in the world

- DLA did not apply Desert Storm lessons learned -- highlighted requirements for additional CCP.

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DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Cameron Station
Alexandria, Virginia 22304-6100

DEFENSE LOGISTICS AGENCY

SUPPORT OF OPERATIONS DESERT SHIELD/STORM

AUGUST 1990-MARCH 1991

04/09/9

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11443-24871 (00013), submitted by M.D. SALISBURY, DDOU-TT, 790-7398, (801)399-7398.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/09/90.

3. (U) KEYWORDS: CCP, CONTAINER CONSOLIDATION, SHIPMENTS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: WEST COAST CONTAINER CONSOLIDATION POINT (CCP).

5. (U) OBSERVATION: SHIPMENTS OF MATERIAL FROM DLA ACTIVITIES WEST OF THE MISSISSIPPI RIVER TO THE EAST COAST CCP WERE BOTH INEFFICIENT AND EXPENSIVE.

6. (U) DISCUSSION: NUMEROUS SHIPMENTS OF ODS MATERIAL FROM THE WEST COAST DLA DEPOTS WERE TRUCKED OR FLOWN CROSS-COUNTRY TO THE EAST COAST CCP AT NEW CUMBERLAND ARMY DEPOT (NCAD). MANY SIGNIFICANT SHIPMENT DELAYS WERE ENCOUNTERED AT NCAD AS NCAD EXPERIENCED GRID-LOCK. CUSTOMER SERVICE WAS COMPROMISED, THE COMMERCIAL CARRIER INDUSTRY WAS FRUSTRATED AND INCONVENIENCED AS CARRIAGE UNDERLOAD DELAYS WERE ENCOUNTERED. FURTHER, IT WAS NOT COST EFFECTIVE DUE TO DEMURRAGE/DETENTION COSTS AND EXPENSIVE CROSS-COUNTRY LINE HAUL RATES. THIS ISSUE WAS SURFACED EARLY ENOUGH IN THE OPERATION THAT APPROPRIATE CHANGES COULD HAVE BEEN MADE TO CORRECT THE PROBLEM.

7. (U) LESSON LEARNED: MORE THAN ONE CCP IS NEEDED TO MEET TRANSPORTATION REQUIREMENTS OF LARGE CONTINGENCIES SUCH AS ODS.

8. (U) RECOMMENDED ACTION: UTILIZE MORE THAN ONE CCP. A WEST COAST CCP, UTILIZING TRANS-PACIFIC LINE HAUL SERVICES FOR DLA DEPOTS WEST OF THE MISSISSIPPI, WOULD HAVE IMPROVED CUSTOMER SERVICE (BY DECREASING PIPE-LINE TIMES AND AVOIDING THE NCAD GRID-LOCK) AND WOULD HAVE BEEN MORE COST EFFECTIVE. COST SAVINGS COULD HAVE BEEN REALIZED THROUGH SHORTER LINE-HAUL AND AIR FREIGHT COSTS, AS WELL AS CHEAPER OCEAN CARGO RATES (BASED ON USE OF MID-EAST FEEDERS WHICH REDUCED INSURANCE COSTS OF PRIME CARRIER, THEREBY REDUCING CARGO RATES). LOGISTICS SUPPORT PLANNING FOR CRISIS/CONTINGENCIES MUST CONSIDER THE THROUGH-PUT CAPABILITIES OF THE CCPS AS WELL AS CUSTOMER SUPPORT AND TRANSPORTATION COSTS.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

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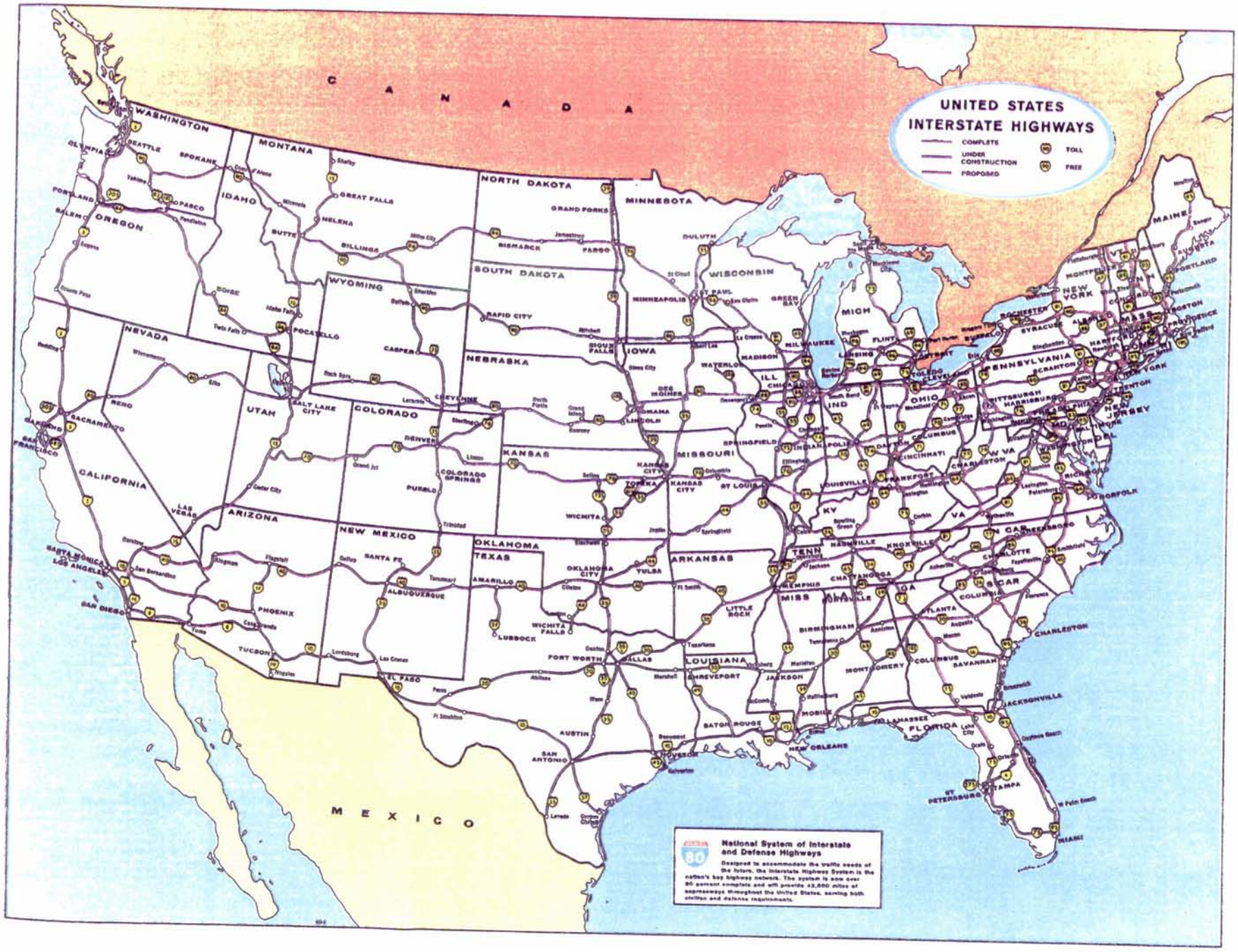
INDEX

INTERSTATE HIGHWAYS
THAT DIRECTLY SERVE MEMPHIS

- **Interstate 40**
- **Interstate 55**
- **Interstate 240 (Inner City Loop)**
- **Interstate 69 (Proposed)**


UNITED STATES
INTERSTATE HIGHWAYS
COMPLETE
UNDER CONSTRUCTION
PROPOSED
TOLL
FREE
CANADA
MEXICO
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
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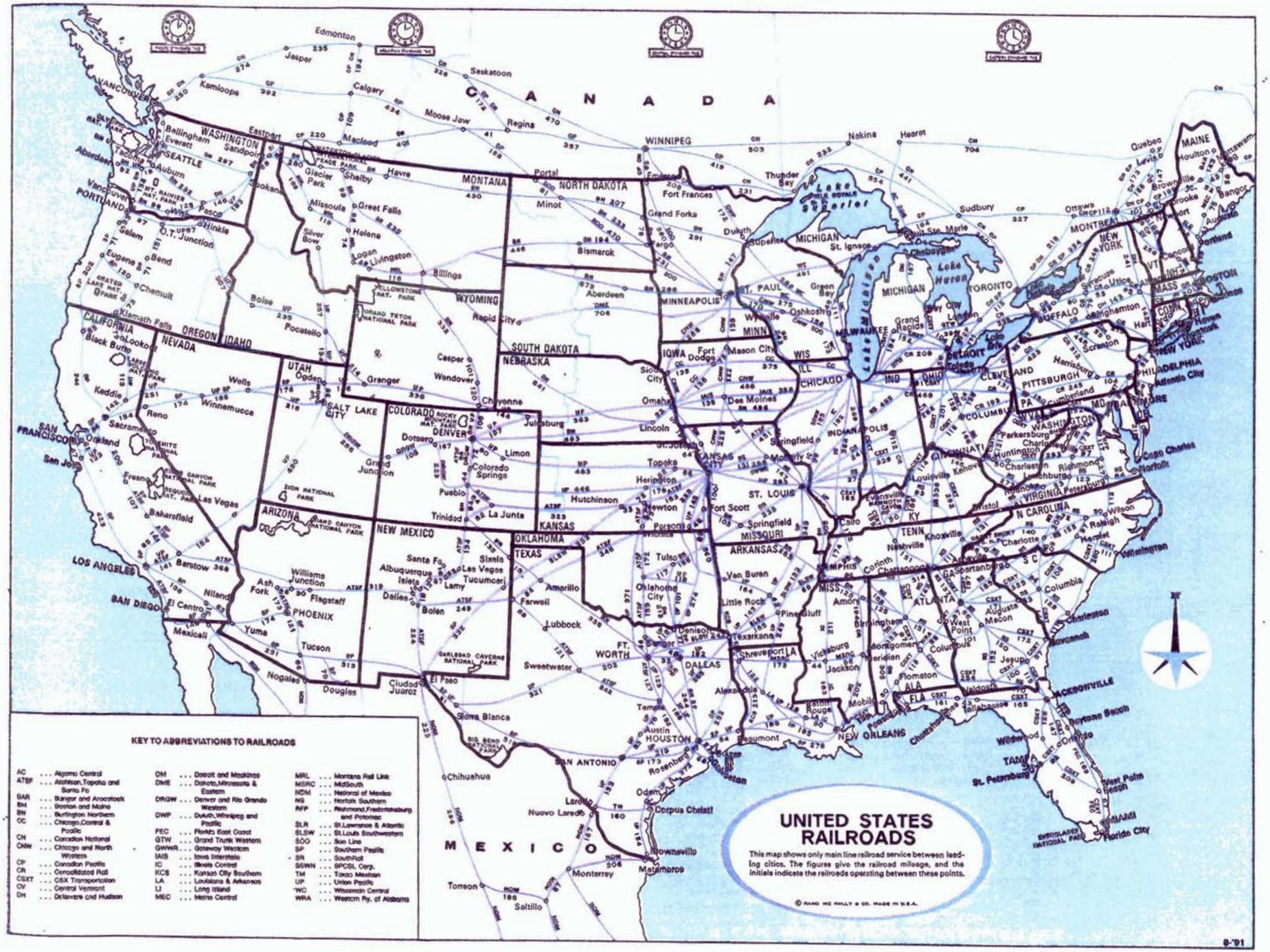
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
SOUTH CAROLINA
NORTH CAROLINA
VIRGINIA
WEST VIRGINIA
PENNSYLVANIA
NEW YORK
MAINE
VERMONT
NEW HAMPSHIRE
MASSACHUSETTS
RHODE ISLAND
CONNECTICUT
NEW JERSEY
MARYLAND
DELAWARE
SEATTLE
SPOKANE
PORTLAND
SALEM
OLYMPIA
BOISE
BILLINGS
GREAT FALLS
HELENA
BISMARCK
FARGO
GRAND FORKS
DULUTH
MINNEAPOLIS
ST PAUL
RAPID CITY
CASPER
CHEYENNE
DENVER
SALT LAKE CITY
RENO
SACRAMENTO
SAN FRANCISCO
LOS ANGELES
SAN DIEGO
LAS VEGAS
PHOENIX
TUCSON
EL PASO
ALBUQUERQUE
SANTA FE
AMARILLO
LUBBOCK
OKLAHOMA CITY
TULSA
WICHITA
KANSAS CITY
OMAHA
DES MOINES
SIOUX FALLS
MILWAUKEE
CHICAGO
MADISON
GREEN BAY
DETROIT
CLEVELAND
TOLEDO
BUFFALO
ROCHESTER
SYRACUSE
ALBANY
BOSTON
PROVIDENCE
HARTFORD
NEW YORK
PHILADELPHIA
BALTIMORE
WASHINGTON
PITTSBURGH
HARRISBURG
SCRANTON
ERIE
COLUMBUS
CINCINNATI
DAYTON
INDIANAPOLIS
FORT WAYNE
SOUTH BEND
LOUISVILLE
FRANKFORT
LEXINGTON
CHARLESTON
RICHMOND
NORFOLK
NASHVILLE
KNOXVILLE
CHATTANOOGA
MEMPHIS
LITTLE ROCK
BIRMINGHAM
ATLANTA
MONTGOMERY
COLUMBUS
SAVANNAH
CHARLESTON
JACKSONVILLE
TALLAHASSEE
TAMPA
ST PETERSBURG
MIAMI
NEW ORLEANS
MOBILE
BATON ROUGE
JACKSON
SHREVEPORT
DALLAS
FORT WORTH
AUSTIN
SAN ANTONIO
HOUSTON
CHARLOTTE
GREENSBORO
RALEIGH
National System of Interstate and Defense Highways
Designed to accommodate the traffic needs of the future, the Interstate Highway System is the nation's key highway network. The system is now over 90 percent complete and will provide 43,000 miles of expressways throughout the United States, serving both civilian and defense requirements.

CLASS I RAILROADS
THAT DIRECTLY SERVE MEMPHIS

- CSX Railroad
- Illinois Central Railroad
- Union Pacific Railroad
- Burlington Northern Railroad
- Norfolk Southern Railroad
- Southern Pacific Railroad



KEY TO ABBREVIATIONS TO RAILROADS

AC	Algoma Central	DM	Detroit and Mackinac	MRL	Montana Rail Link
ATSF	Atchison, Topeka and Santa Fe	DME	Dakota, Minnesota & Eastern	MSRC	MidSouth
BAR	Bangor and Aroostook	DRGW	Denver and Rio Grande Western	NDM	National of Mexico
BM	Boston and Maine	DWP	Duluth, Winnipeg and Pacific	NS	Norfolk Southern
BN	Burlington Northern	FEC	Florida East Coast	RFP	Richmond, Fredericksburg and Potomac
CC	Chicago, Central & Pacific	GTW	Grand Trunk Western	SLR	St. Lawrence & Atlantic
CN	Canadian National	GWWR	Gateway Western	SLSW	St. Louis Southwestern
CNW	Chicago and North Western	IAIS	Iowa Interstate	SOO	Soo Line
CP	Canadian Pacific	IC	Illinois Central	SP	Southern Pacific
CR	Consolidated Rail	KCS	Kansas City Southern	SR	South Rail
CSXT	CSX Transportation	LA	Louisiana & Arkansas	SSWN	SPCSL Corp.
CV	Central Vermont	LI	Long Island	TM	Texas Mexican
DH	Delaware and Hudson	MEC	Maine Central	UP	Union Pacific
				WC	Wisconsin Central
				WRA	Western Ry. of Alabama

UNITED STATES RAILROADS

This map shows only main line railroad service between leading cities. The figures give the railroad mileage, and the initials indicate the railroads operating between these points.

8-'91

MEMPHIS AND SHELBY COUNTY PORT COMMISSION

P. O. Box 13142 • Memphis, Tennessee 38113-0142 • (901) 948-4422 • Fax (901) 775-9818

PORT OF MEMPHIS

I. LOCATION

The port facilities in the Memphis metropolitan area are located in the southwest corner of the state of Tennessee at approximately 35 degrees latitude and 90 degrees 20 minutes longitude. The port facility is located on the "lock free" lower Mississippi River between miles 725 and 740. The average high temperature is 71.6 degrees while the average low temperature is 51.9 degrees. The port facilities in the Memphis area are operational year round. Memphis port facilities are approximately 400 river miles from St. Louis, Missouri, 200 river miles from Cairo, Illinois and 600 river miles from New Orleans, Louisiana.

II. FACILITIES

The port Facility consists of five public terminal with 11 berths. Cargo handling services include intermodal interchange capability, bulk loading facilities, chemical tank storage, LASH services, product specific warehousing and five grain elevators. Several terminals have large cranes available in the 100 to 300 ton class.

III. TRANSPORTATION SERVICES

The Memphis & Shelby County Port facilities are served by 6 class one railroad carriers, 2 barge fleeting services and a multitude of barge & truck transport services. The port facility has immediate access to interstate 40 and 55 and is located less than 15 minutes from the Memphis International Airport.

IV. PRIMARY CARGOS

Farm, food and kindred products, metallic ores and primary metallic products, forest products, petroleum and affiliated by-products, fertilizer, industrial chemicals and non-metallic minerals.

MEMPHIS AND SHELBY COUNTY PORT COMMISSION

P. O. Box 13142 • Memphis, Tennessee 38113-0142 • (901) 948-4422 • Fax (901) 775-9818

PORT OF MEMPHIS, TENNESSEE

The City of Memphis, TN is situated on the left bank (Mile 715-740 AHP) of the Mississippi River in the southwest corner of the state, approximately 640 miles north of New Orleans and approximately 270 miles below the confluence of the Mississippi and Ohio Rivers at Cairo, Illinois.

The Port of Memphis consists of two separate harbors: McKellar Lake and Wolf River located in the southern and northern portions of the city respectively. The Memphis and Shelby County Port Commission maintains jurisdiction over the McKellar Lake Harbor. The Port of West Memphis, Arkansas is on the right bank (Mile 727 AHP) across from Memphis.

The Port of Memphis, historically the second largest tonnage-wise on the shallow draft portion of the Mississippi River, is open to year-round, open-water navigation. This port location, near the center of the nation's vast inland waterway system, is in one of the fastest growing regions of the country. Combined with the air, road and rail avalibility, the port facilities have made Memphis the transportation and distribution center of the mid-south.

During the last decade, the Port of Memphis has averaged 11 to 13 million tons of products moved on an annual basis. The products moved are varied, but petroleum products, crude oil, coal, grain, steel products, cement, sand and stone represent approximately 85% of the cargo handled at the port.

The Port of Memphis is included in the Mississippi River and Tributaries Project. The project encompasses the Mississippi River alluvial valley from the Head of Passes to Cape Girardeau, Missouri. The project provides protection from floods by means of levees, flood walls, floodways, reservoirs (in Yazoo and St. Francis Basins), bank stabilization, and channel improvements. The project also provides for a 12 by 300 foot navigation channel between Baton Rouge, Louisiana and Cairo, Illinois; for slainity-control structures; and for channel realignment and improvement including bank stabilization and dikes to reduce flood heights, river meandering, and levee destruction by caving banks.

MEMPHIS HARBOR, (McKELLAR LAKE)

The Flood Control Act of 15 May 1928, (H.D. 90/70/1) as amended by subsequent acts, as modified and expanded by S.D. 51/80/1, approved 24 July 1946 provides for an off-river harbor with provisions for adequate terminal and industrial sites having both flood protection and direct access to water transportation. The principal features include:

A. Closure dam at the head of tennessee Chute with revetment, bank paving and sodding as required, and access approach to east abutment.

B. A 1,050 acre, above flood stage, industrial fill on Presidents Island, a dreded harbor with minimum dimensions 12 by 500 feet, contiguous to the fill, and corrective dredging in the main river; spoil to be placed on Presidents Island to create an industrial fill.

C. A dredged channel, 12 by 300 feet, in lower Tennessee Chute from the Mississippi River to Nonconnah Creek.

D. A levee along the left bank of the Chute and river about 11 miles long, extending from the hills south of Cypress Creek to high ground in the vicinity of North Horn Lake, with drainage structures and pumping plant to provide flood protection for 6800 acres of lowland and for realignment of Nonconnah Creek as required.

E. Extensions of existing sanitary sewer from its outfall near Nonconnah Creek to the Mississippi River at the lower end of Tennessee Chute.

Stage variation of the Mississippi River at the Memphis, Tennessee Beale Street gage from low water reference plane to bankfull and to protect flow line is 336 feet and 55 feet respectively. Dredged channels are maintained to a depth of 12 feet below low water at mile 725.5 AHP.

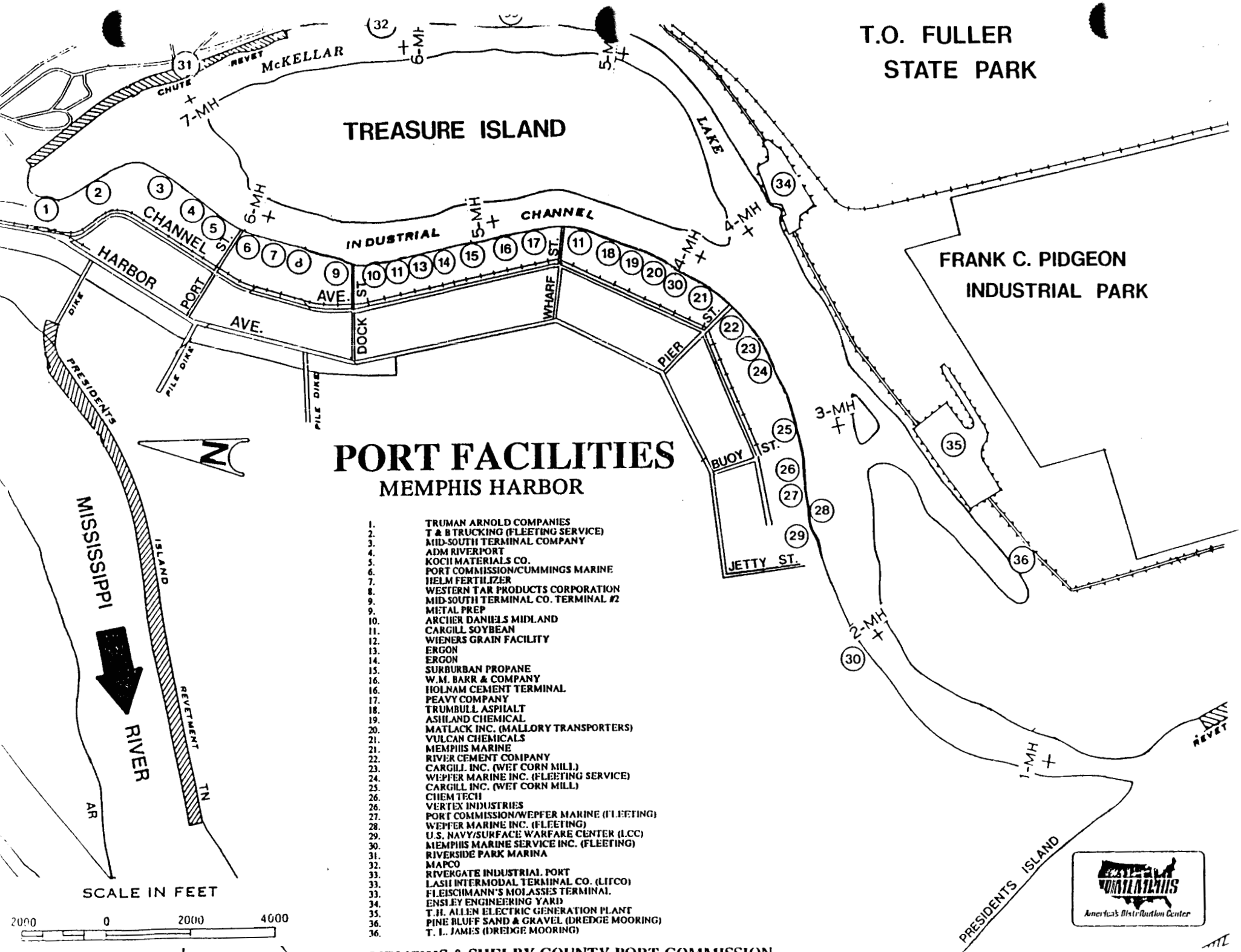
WOLF RIVER (MEMPHIS HARBOR), TENNESSEE

The Wolf River rises near the western edge of Tippah County, Mississippi, and flows generally northwesterly through Shelby County, TN. The Wolf River enters the Mississippi River above Memphis, TN (mile 738.7 AHP). The lower 3.5 miles of channel, parallel to the Mississippi River along the Memphis waterfront, became a slack-water harbor when the Wolf River was diverted through Mud Island to the Mississippi River by a flood control project, Wolf River and tributaries, under the Flood Control Act of 1958.

The project provides a channel 9 feet deep at low water from the mouth to mile 3, with bottom widths of 250 feet from the mouth to Keel Avenue (mile 1.75) and 200 feet from Keel avenue to mile 3.

From the U.S. Army Corps of Engineers Port Series No. 71, 1983.
Prepared by The Water Resources Support Center

MAJOR INLAND WATERWAYS OF NORTH AMERICA



PORT FACILITIES

MEMPHIS HARBOR

1. TRUMAN ARNOLD COMPANIES
2. T & B TRUCKING (FLEETING SERVICE)
3. MID-SOUTH TERMINAL COMPANY
4. ADM RIVERPORT
5. KOCH MATERIALS CO.
6. PORT COMMISSION/CUMMINGS MARINE
7. HELM FERTILIZER
8. WESTERN TAR PRODUCTS CORPORATION
9. MID-SOUTH TERMINAL CO. TERMINAL #2
9. METAL PREP
10. ARCHER DANIELS MIDLAND
11. CARGILL SOYBEAN
12. WIENERS GRAIN FACILITY
13. ERGON
14. ERGON
15. SURBURBAN PROPANE
16. W.M. BARR & COMPANY
16. HOLNAM CEMENT TERMINAL
17. PEAVY COMPANY
18. TRUMBULL ASPHALT
19. ASHLAND CHEMICAL
20. MATLACK INC. (MALLORY TRANSPORTERS)
21. VULCAN CHEMICALS
21. MEMPHIS MARINE
22. RIVER CEMENT COMPANY
23. CARGILL INC. (WET CORN MILL)
24. WEPFER MARINE INC. (FLEETING SERVICE)
25. CARGILL INC. (WET CORN MILL)
26. CHEM TECH
26. VERTEX INDUSTRIES
27. PORT COMMISSION/WEPFER MARINE (FLEETING)
28. WEPFER MARINE INC. (FLEETING)
29. U.S. NAVY/SURFACE WARFARE CENTER (LCC)
30. MEMPHIS MARINE SERVICE INC. (FLEETING)
31. RIVERSIDE PARK MARINA
32. MAPCO
33. RIVERGATE INDUSTRIAL PORT
33. LASH INTERMODAL TERMINAL CO. (LITCO)
33. FLEISCHMANN'S MOLASSES TERMINAL
34. ENSLEY ENGINEERING YARD
35. T.H. ALLEN ELECTRIC GENERATION PLANT
36. PINE BLUFF SAND & GRAVEL (DREDGE MOORING)
36. T. L. JAMES (DREDGE MOORING)

POP-FACTS: FULL DATA REPORT
CENSUS ' 90, UPDATES & PROJECTIONS
BY EQUIFAX NATIONAL DECISION SYSTEMS 800-866-6510
PREPARED FOR
Memphis Chamber

COORD: 3509349 9000112

DESCRIPTION	2.0 MILE RADIUS
POPULATION	
1999 PROJECTION	54,074
1994 ESTIMATE	52,820
1990 CENSUS	52,640
1980 CENSUS	62,794
GROWTH 1980-1990	-16.17%
HOUSEHOLDS	
1999 PROJECTION	18,931
1994 ESTIMATE	18,546
1990 CENSUS	18,372
1980 CENSUS	20,444
GROWTH 1980-1990	-10.14%
1994 ESTIMATED POPULATION BY RACE	52,820
WHITE	6.07%
BLACK	93.73%
ASIAN & PACIFIC ISLANDER	0.09%
OTHER RACES	0.11%
1994 ESTIMATED POPULATION	52,820
HISPANIC ORIGIN	0.24%
OCCUPIED UNITS	18,372
OWNER OCCUPIED	56.82%
RENTER OCCUPIED	43.18%
1990 PERSONS PER HH	2.87
1994 EST. HH BY INCOME	18,546
$150,000 +	0.65%
$100,000 TO $149,999	2.43%
$ 75,000 TO $ 99,999	2.65%
$ 50,000 TO $ 74,999	9.73%
$ 35,000 TO $ 49,999	10.74%
$ 25,000 TO $ 34,999	13.05%
$ 15,000 TO $ 24,999	21.82%
$ 5,000 TO $ 14,999	24.59%
UNDER $ 5,000	14.33%
1994 EST. AVERAGE HH INCOME	$28,566
1994 EST. MEDIAN HH INCOME	$20,075
1994 EST. PER CAPITA INCOME	$10,103

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DESCRIPTION	2.0 MILE RADIUS
1994 ESTIMATED POPULATION BY SEX	52,820
MALE	44.96%
FEMALE	55.04%
MARITAL STATUS	39,672
SINGLE MALE	17.89%
SINGLE FEMALE	19.78%
MARRIED	31.64%
PREVIOUSLY MARRIED MALE	9.41%
PREVIOUSLY MARRIED FEMALE	21.28%
HOUSEHOLDS WITH CHILDREN	7,574
MARRIED COUPLE FAMILY	35.16%
OTHER FAMILY - MALE HEAD	6.56%
OTHER FAMILY - FEMALE HEAD	57.09%
NON FAMILY	1.19%
1994 ESTIMATED POPULATION BY AGE	52,820
UNDER 5 YEARS	8.57%
5 TO 9 YEARS	8.38%
10 TO 14 YEARS	7.93%
15 TO 17 YEARS	4.78%
18 TO 20 YEARS	4.33%
21 TO 24 YEARS	4.80%
25 TO 29 YEARS	6.80%
30 TO 34 YEARS	8.14%
35 TO 39 YEARS	8.10%
40 TO 49 YEARS	10.43%
50 TO 59 YEARS	9.84%
60 TO 64 YEARS	4.54%
65 TO 69 YEARS	3.97%
70 TO 74 YEARS	3.25%
75 + YEARS	6.13%
MEDIAN AGE	32.71
AVERAGE AGE	35.17

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DESCRIPTION	2.0 MILE RADIUS
1994 ESTIMATED FEMALE POP. BY AGE	29,070
UNDER 5 YEARS	7.43%
5 TO 9 YEARS	7.57%
10 TO 14 YEARS	7.09%
15 TO 17 YEARS	4.28%
18 TO 20 YEARS	4.09%
21 TO 24 YEARS	4.63%
25 TO 29 YEARS	6.95%
30 TO 34 YEARS	8.38%
35 TO 39 YEARS	8.27%
40 TO 49 YEARS	10.72%
50 TO 59 YEARS	10.81%
60 TO 64 YEARS	4.86%
65 TO 69 YEARS	4.32%
70 TO 74 YEARS	3.60%
75 + YEARS	7.00%
FEMALE MEDIAN AGE	34.75
FEMALE AVERAGE AGE	37.07
POPULATION BY HOUSEHOLD TYPE	52,640
FAMILY HOUSEHOLDS	87.36%
NON FAMILY HOUSEHOLDS	12.02%
GROUP QUARTERS	0.62%
HOUSEHOLDS BY TYPE	18,372
SINGLE MALE	10.90%
SINGLE FEMALE	14.54%
MARRIED COUPLE	31.18%
OTHER FAMILY - MALE HEAD	5.60%
OTHER FAMILY - FEMALE HEAD	34.02%
NON FAMILY - MALE HEAD	2.21%
NON FAMILY - FEMALE HEAD	1.55%
POPULATION BY URBAN VS RURAL	52,714
URBAN	100.00%
RURAL	0.00%

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DESCRIPTION	2.0 MILE RADIUS
FEMALES 16+ WITH CHILDREN 0-17	22,145
WORKING WITH CHILD 0-5	4.45%
NOT WORKING WITH CHILD 0-5	0.65%
NOT IN LABOR FORCE WITH CHILD 0-5	2.68%
WORKING WITH CHILD 6-17	11.52%
NOT WORKING WITH CHILD 6-17	1.26%
NOT IN LAB. FORCE WITH CHILD 6-17	3.57%
WORKING WITH CHILD 0-5 & 6-18	3.69%
NOT WORKING WITH CHILD 0-5 & 6-18	0.90%
NOT IN LAB. FORCE W/CHILD 0-5 & 6-	2.56%
WORKING WITH NO CHILDREN	28.85%
NOT WORKING WITH NO CHILDREN	3.85%
NOT IN LAB. FORCE WITH NO CHILD.	36.02%
HOUSEHOLDS: AGE BY POVERTY STATUS	18,437
ABOVE POVERTY UNDER AGE 65	51.03%
ABOVE POVERTY AGE 65 +	16.56%
BELOW POVERTY UNDER AGE 65	23.76%
BELOW POVERTY AGE 65 +	8.65%
POPULATION 16+ BY EMPLOYMENT STATUS	38,767
EMPLOYED IN ARMED FORCES	0.28%
EMPLOYED CIVILIANS	51.19%
UNEMPLOYED CIVILIANS	7.31%
NOT IN LABOR FORCE	41.22%
POPULATION 16+ BY OCCUPATION	19,845
EXECUTIVE AND MANAGERIAL	6.08%
PROFESSIONAL SPECIALTY	8.11%
TECHNICAL SUPPORT	2.86%
SALES	9.22%
ADMINISTRATIVE SUPPORT	17.23%
SERVICE: PRIVATE HOUSEHOLDS	2.17%
SERVICE: PROTECTIVE	2.92%
SERVICE: OTHER	20.34%
FARMING FORESTRY & FISHING	1.35%
PRECISION PRODUCTION & CRAFT	7.32%
MACHINE OPERATOR	7.92%
TRANS. AND MATERIAL MOVING	6.08%
LABORERS	8.41%

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DESCRIPTION	2.0 MILE RADIUS
FAMILY BY NUMBER OF WORKERS	13,166
NO WORKERS	18.06%
ONE WORKER	36.95%
TWO WORKERS	30.76%
THREE + WORKERS	14.23%
HISPANIC POPULATION BY TYPE	52,640
NOT OF HISPANIC ORIGIN	99.77%
MEXICAN	0.10%
PUERTO RICAN	0.02%
CUBAN	0.00%
OTHER HISPANIC	0.12%
1994 HISPANIC RACE BASE	128
WHITE	22.03%
BLACK	59.07%
ASIAN	6.24%
OTHER	12.66%
POPULATION BY TRANSPORTATION TO WORK	19,542
DRIVE ALONE	65.66%
CAR POOL	19.40%
PUBLIC TRANSPORTATION	10.14%
DRIVE MOTORCYCLE	0.04%
WALKED ONLY	2.52%
OTHER MEANS	1.55%
WORKED AT HOME	0.70%
POPULATION BY TRAVEL TIME TO WORK	19,542
UNDER 10 MINUTES / WORK AT HOME	8.40%
10 TO 29 MINUTES	66.45%
30 TO 59 MINUTES	21.35%
60 TO 89 MINUTES	2.66%
90+ MINUTES	1.14%
AVERAGE TRAVEL TIME IN MINUTES	21.08
HOUSEHOLDS BY NUMBER OF VEHICLES	18,477
NO VEHICLES	27.42%
1 VEHICLE	41.44%
2 VEHICLES	22.35%
3+ VEHICLES	8.78%
ESTIMATED TOTAL VEHICLES	21,110

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DESCRIPTION	2.0 MILE RADIUS
POPULATION 25+ BY EDUCATION LEVEL	31,593
ELEMENTARY (0-8)	17.76%
SOME HIGH SCHOOL (9-11)	26.21%
HIGH SCHOOL GRAD. (12)	27.35%
SOME COLLEGE (13-15)	16.48%
ASSOCIATES DEGREE ONLY	3.33%
BACHELORS DEGREE ONLY	5.59%
GRADUATE DEGREE	3.30%
POPULATION ENROLLED IN SCHOOL	14,237
PUBLIC PRE - PRIMARY	4.41%
PRIVATE PRE - PRIMARY	0.67%
PUBLIC ELEM/HIGH	73.74%
PRIVATE ELEM/HIGH	1.54%
ENROLLED IN COLLEGE	19.64%
HOUSING UNITS BY OCCUPANCY STATUS	20,025
OCCUPIED	91.75%
VACANT	8.25%
VACANT UNTS	1,653
FOR RENT	52.88%
FOR SALE ONLY	12.41%
SEASONAL	0.84%
OTHER	33.87%
OWNER OCCUPIED PROPERTY VALUES	9,113
UNDER $25,000	15.46%
$25,000 TO $49,999	58.85%
$50,000 TO $74,999	21.08%
$75,000 TO $99,999	3.50%
$100,000 TO $149,999	0.72%
$150,000 TO $199,999	0.19%
$200,000 TO $299,999	0.15%
$300,000 TO $399,999	0.01%
$400,000 TO $499,999	0.01%
$500,000+	0.02%
MEDIAN PROPERTY VALUE	$40,577
TOTAL RENTAL UNITS	7,297
MEDIAN RENT	$214

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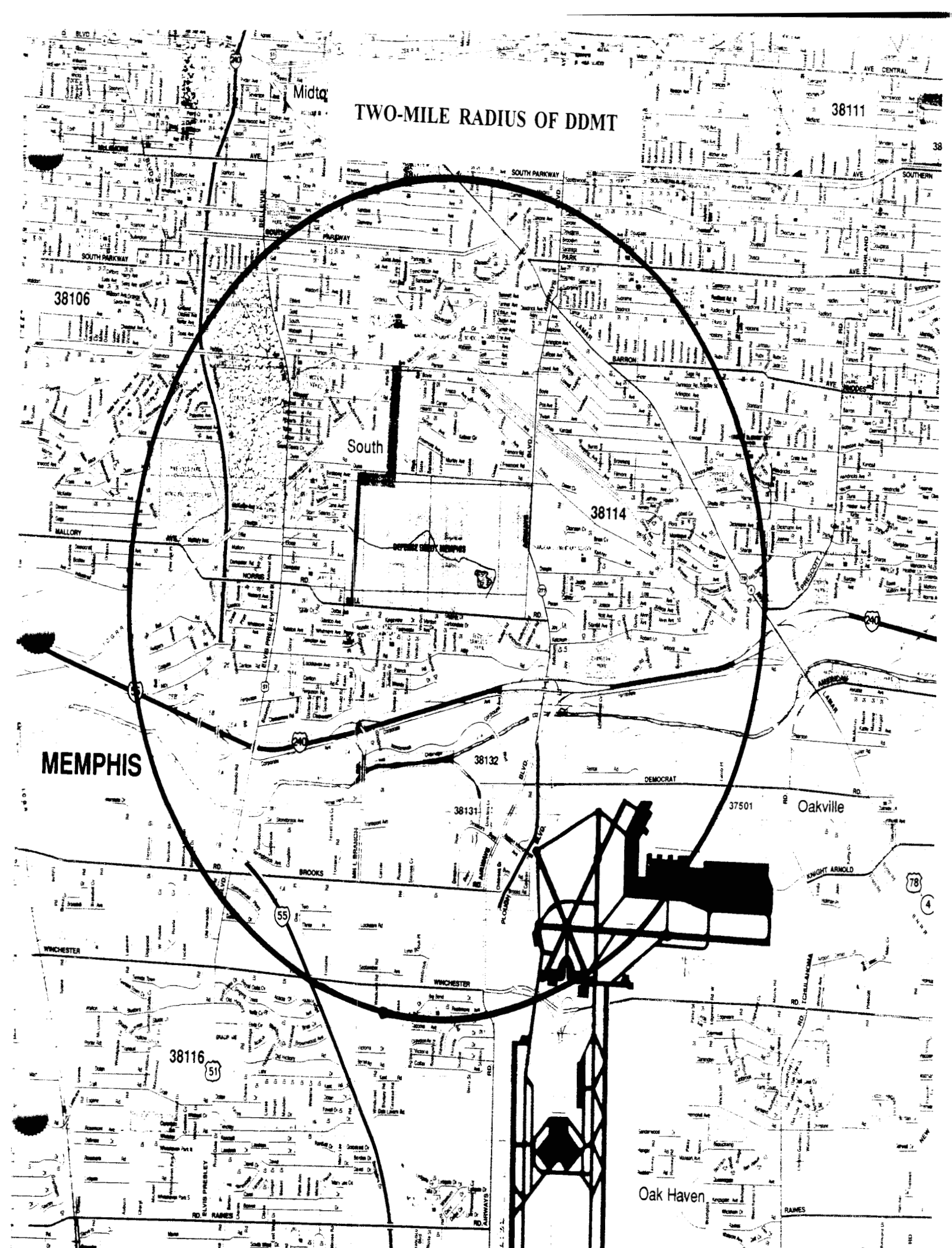
DESCRIPTION	2.0 MILE RADIUS
PERSONS IN UNIT	18,372
1 PERSON UNITS	25.45%
2 PERSON UNITS	26.51%
3 PERSON UNITS	18.40%
4 PERSON UNITS	13.41%
5 PERSON UNITS	7.88%
6 PERSON UNITS	4.19%
7 + UNITS	4.16%
YEAR ROUND UNITS IN STRUCTURE	20,025
SINGLE UNITS DETACHED	64.95%
SINGLE UNITS ATTACHED	4.96%
DOUBLE UNITS	8.26%
3 TO 9 UNITS	11.29%
10 TO 19 UNITS	4.61%
20 TO 49 UNITS	2.21%
50 + UNITS	0.65%
MOBILE HOME OR TRAILER	1.74%
ALL OTHER	1.34%
SINGLE/MULTIPLE UNIT RATIO	2.59
HOUSING UNITS BY YEAR BUILT	18,477
BUILT 1989 TO MARCH 1990	0.21%
BUILT 1985 TO 1988	0.44%
BUILT 1980 TO 1984	1.74%
BUILT 1970 TO 1979	8.17%
BUILT 1960 TO 1969	18.91%
BUILT 1950 TO 1959	33.17%
BUILT 1940 TO 1949	20.97%
BUILT 1939 OR EARLIER	16.40%


TWO-MILE RADIUS OF DDMT
MEMPHIS
Midto
South
Oakville
Oak Haven
38106
38111
38114
38116
38131
38132
37501
SOUTH PARKWAY
MALLORY
NORRIS RD
BROOKS
WINCHESTER
DEMOCRAT RD
KNIGHT ARNOLD
RAINES
BARRON
LAMAR
SOUTHERN AVE
ELVIS PRESLEY BLVD
DEFENSE DISTRIBUTION DEPOT MEMPHIS

CIVILIAN RESERVE AIR FLEET (CRAF)

FY95 COMMITMENT BY EXPRESS CARRIERS

AIRCRAFT TYPE	CRAF ELIGIBLE AIRCRAFT	AIRCRAFT COMMITED TO CRAF	PERCENT OF ELIGIBLE FLEET COMMITTED	PERCENT OF FY 95 CRAF CARGO FLEET	TOTAL TONNAGE COMMITTED TO CRAF	PERCENT OF FY 95 CRAF TONNAGE
FEDERAL EXPRESS						
B747-200F	6	6			540	
MD11	13	13			1066	
DC10-30F	22	22			1650	
DC10-10F	11	11			495	
TOTAL	52	52	100%	39%	3751	68%
UPS						
B747-100F	12	4			360	
DC8-73F	27	0			0	
DC8-71F	24	0			0	
TOTAL	63	4	6%	4%	360	6%
EMERY						
DC8-73F	8	8				
DC8-71F	7	7				
DC8-63F	14	14				
DC8-62-F	6	0				
DC8-50F	2	0				
TOTAL	37	29	78%	11%	1305	24%
AIRBORNE EXPRESS						
DC8-63-F	5	0				
TOTAL	5	0	0%	0%	0	0%
DHL						
DC8-63F	3	1				
TOTAL	3	1	33%	0%	45	1%
BURLINGTON EXPRESS						
DC8-71	5	0				
DC8-63	9	1				
TOTAL	14	1	7%	1%	45	1%

DDMT - AIRLIFT

Number of C-141 flights conducted in conjunction with DDMT.

1,480	-	1991
855	-	1992
1,078	-	1993
1,078	-	1994
227	-	1995 (to date)

MARKET RESEARCH AND CONSULTING

YOUNGER ASSOCIATES LLC

Memphis Defense Depot

Economic Impact Analysis

Direct Employment	1,600	(DDMT and Tenants)
Direct Payroll	$90,000,000	
Employment Multiplier[1]	2.1582	
Total Direct/Indirect Employment	3,453	
Indirect Employment	1,853	
Economic Impact Multiplier[2]	1.8681	
Total Impact on Household Earnings	**$168,129,000**	
Average Shelby County Work Force[3]	380,000	
Average Minority Work Force[4]	133,000	
Minority Job Loss Potential	1,881	1.41%
Direct 1600 x 77%[5]		
Indirect 1853 x 35%[6]		
Total Shelby County Minority Wages[7]	$4,470,529,000	
Potential Minority Wage Loss	$131,584,899	2.94%

2269 Jefferson • Memphis, TN 38104 • Phone: 800-748-2087

Notes:

1 RIMS II direct effect employment multipliers for warehousing/transportation.

2. RIMS II direct effect earnings multiplier for warehousing/transportation.

3. 1995 annual average employment projection based upon data supplied by Tennessee Department of Employment Security.

4. 1995 annual average minority employment projection based upon affirmative action data supplied by Tennessee Department of Employment Security.

5. Minority employment reported by DDMT

6. Minority employment Shelby County per affirmative action data.

7. Tennessee Department of Labor wage data with 20% benefits.

SLIDE SOURCE PAGE

SLIDE #8:	AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)	TAB A
SLIDE #9:	AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)	TAB A
SLIDE #12:	BRIEFING - "MILITARY VALUE STAND ALONE" - T. DORRIS, 22 SEP 94	TAB B
SLIDE #21:	F-9 FEEDER DATA HISTORICAL FILES, BRAC DATA CALL #V.48	TAB C
	AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)	TAB A
SLIDE #22:	DLA's NEW ERA OF DISTRIBUTION (29 MAR 94)	TAB D
	CONCEPT PLAN FOR THE CONSOLIDATION OF DISTRIBUTION FUNCTIONS AT SUPPLY DEPOTS, 5 OCT 1990	TAB E
SLIDE #28:	DLA SUPPORT OF OPERATIONS DESERT SHIELD/STORM, AUG 1990-MAR 1991	TAB F

Document Separator

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

IN REPLY REFER TO DLA-OT (Mr. Beatty/(AV)284-7121/jgd)

30 JAN 1991

SUBJECT: Draft Report - An Assessment of Rail and Container Handling Capabilities at DLA Depots

TO:

DDCO-D	DDMP-T	DDMT-D	DDOU-D	DDRV-D	DDRW-D
DCSC-W	DDMP-W	DDMT-W	DDOU-W	DGSC-W	DDRW-W
DDCO-TT	DDMP-M	DDMT-T	DDOU-T	DDRV-TT	DDRW-T
DRMR-CD	DDMP-TT	DDMT-TT	DDOU-TT	DRMO	
DIPEC-I	DRMO-XP	DIPEC	DRMR-O		

1. On 21 April 1989, funds were transferred from DLA to the Department of Transportation (Maritime Administration) to obtain contract support to analyze peacetime and mobilization rail and container operations at our depots. The results of the analyses will be used to assist in configuring the most efficient, economical and operationally advantageous depot transportation system. The contract was awarded to Leeper, Cambridge & Campbell Inc. (LCC) on 25 April 1990. On-site visits to the depots were conducted during the period May - July 1990. Subsequently, a simulation model was developed and verification completed with the depots in December 1990. The contractor has now completed a draft of the study and it is enclosed for your review and comments.

2. Since the recommendations growing out of the study will impact depot transportation and traffic management, receiving and shipping capability, allocation of manpower and facilities planning, design and maintenance, we cannot overemphasize the importance of giving the draft a very careful and thorough review. It is our intention to forward your comments to the contractor for incorporation in the final report, which we expect will be completed by 15 March 1991.

3. To assure completion of the final report on time, request your comments be forwarded as soon as practicable but not later than 25 February 1991.

Encl

WILLIAM J. ENDRES
Colonel, USAF
Chief, Transportation Division
Supply Operations

M E M O R A N D U M

TO: Ron Corkrey - MarAd
Gary Beatty - DLA

FROM: Joedy Cambridge - LCC

DATE: 24 January 1991

RE: Draft Final Report

Enclosed is a draft of the final report entitled "An Assessment of Rail and Container-Handling Capabilities at DLA Depots".

You will notice there are a few "gaps"; namely:

- Exhibit 2-1 needs to be inserted. This is a graph from a Trailer Train study showing the change which has occurred among intermodal ramp/terminal facilities. I have a 1989 version and am trying to determine whether a more current graph is available.

- In Chapter 2, additional narrative is to be inserted regarding Operation Desert Shield data. Gary may have some additional material to be inserted as well.

- In Chapter 5, I plan to insert a section of recommendations for follow-on research, incorporating tasks outlined in our letter proposal dated 27 September 1990, and adding research relating to Operation Desert Storm.

- I have included initial drafts of Appendices B and D, to which additional items are being added. We need to decide whether Appendix A should include a blank data collection form or completed forms for each depot. Individual depots may not want the raw data widely circulated--it may be more appropriate to include a completed data form in the individual depot simulation volumes. Rex is assembling Appendix C: Documentation.

We can discuss these and other issues at our meeting on Wednesday, January 30 -- 10 a.m. at LCC offices.

TABLE OF CONTENTS

LIST OF EXHIBITS

AN ASSESSMENT OF RAIL AND CONTAINER-HANDLING CAPABILITIES AT DLA DEPOTS

CONTRACT NO. DTMA91-89-R-90029

Draft Final Report

SUBMITTED TO:

U.S. Maritime Administration
U.S. Department of Transportation
400 Seventh Street, SW
Washington, DC 20590

SUBMITTED BY:

Leeper, Cambridge & Campbell, Inc.
700 N. Fairfax Street
Alexandria, VA 22314

in association with

Dymond Associates, Inc.
Gaithersburg, MD

Custom Technologies, Inc.
Alliance, OH

January 1991

deployment goals..." and "...to rely on the use of intermodal container resources and services furnished by the commercial transportation industry when doing so is responsive to military requirements."

In the commercial sector, international liner trade is almost exclusively containerized and benefits from the advantages of an intermodal system. It is anticipated that the majority of dry cargo vessels which would be available in mobilization will be containerships.[1] Commercial rail service and multimodal transportation companies continue to introduce new configurations of intermodal service and new technology. To take advantage of the efficiencies offered, the depots need to consider these developments in their depot planning efforts and work to expand and improve their interface with the commercial sector.

This project is aimed at (1) assisting DLA to comply with the DoD directive; (2) ensuring that depot infrastructure and assets are appropriate/adequate; and (3) melding its transportation operations into the commercial intermodal system to improve national transportation requirements.

APPROACH

The approach developed and applied herein evaluates the current operating posture of each DLA depot and its transportation requirements under a mobilization scenario. Existing data relating to assets, processes, and workload are reviewed. Individual depot site visits were made for the purpose of determining current rail/container-handling capabilities and requirements, truck capabilities and requirements, and the transport function. The visits also included examination and evaluation of commercially available intermodal transport facilities.

A simulation model of depot transportation functions (truck and rail inbound and outbound over a period of ninety (90) days) was developed and exercised under peacetime and mobilization scenarios.

The simulation results are supplemented by in-depth qualitative analyses of the existing rail configuration of each depot,

---

[1] In recognition of this fact, the Military Traffic Management Command (MTMC) and its Transportation Engineering Agency (TEA), in association with David Taylor Research Center (DTRC) and the USDOT Transportation Systems Center (TSC), have undertaken the Joint Unit Containerization Initiative to evaluate the effectiveness of existing policies, procedures, and deployed systems in transportation of military unit equipment using containerships.

- o If trucks cannot meet the requirements, what are the limiting factors?
- o Can these limitations/constraints be removed or corrected to meet the requirements?
- o If no alternative is available to enable adequate truck performance, what rail capability is required to fill the void?

A summary of the results for each depot are as follows:

DDRV: Truck facilities are adequate for projected mobilization requirements and rail is only required to handle current rail traffic.

DDMP: Truck facilities are adequate to handle projected mobilization requirements with limited congestion. Increased rail requirements would be limited to existing traffic flows based on non-capacity considerations.

DDCO: Truck facilities would not be severely constrained for projected OPLAN mobilization scenarios and therefore rail activity would not be required. Maintaining existing rail would serve primarily as a competitive alternative to truck or possible unforeseen long-range needs.

DDMT: Projected utilization rates and congestion conditions indicate no capacity problems for truck operations under project mobilization. No increased rail activity would be required beyond that necessary for rail-captive movements.

DDOU: Projected utilization rates are significantly below capacity and result in limited congestion, an indication that rail would not be necessary beyond requirements for rail-compatible movements such as DepMeds containers.

DDTC: Truck facilities can sustain mobilization workload requirements with limited congestion. Rail facilities would be justified based on specialized handling requirements for selected commodities or non-capacity considerations such as maintaining a competitive alternative to trucks or for intra-depot storage and transfer.

distribution system must interface with and complement the movement and control of all other noncontainerized DoD cargo.

2. The DoD policy is to rely on the use of intermodal container resources and services furnished by the commercial transportation industry when doing so is responsive to military requirements.

3. Containerized shipment shall be the preferred method, unless cost effectiveness or peculiar shipment requirements are an overriding factor.

The Directive states that Heads of DoD Components (of which DLA is one) shall, among other activities:

> Direct container system development to ensure that:
>
> > ...There is optimum compatibility with commercial container systems in general use in the industry...
> >
> > ...Related phases of research, development, ...logistic support, maintenance, and mobilization planning are coordinated to achieve a balanced program in total system development and integration.

The Directive further outlines the following procedures (emphasis added):

> ... 8. Logistic support systems, both existing and planned, shall be made to accommodate these DoD policies, and shall include a mix of commercial and DoD assets that function together to provide a source-to-user capability for handling, storing, and transporting containerized and breakbulk shipments.
>
> 9. Each DoD component shall coordinate with other concerned DoD Components in the development of concepts, procedures, software, and hardware that shall be used throughout the DoD system to use the full potential of a container-oriented distribution system.

Containerization is a primary element of most intermodal operations. This study considered a range of factors associated with increased containerization including depot equipment and facility costs, the impact on operations (i.e., need for additional support equipment and storage/transfer capacity), and potential productivity/efficiency gains.

- Nuclear War

Each depot has responsibilities under each of the five states of emergency, requirements which can be translated into transportation demand. The Field Activity Basic Emergency Plan (FABEP) for each depot gives details for these activities. The planning for these contingencies varies across depots, based on the material stored, transport links to ports of embarkation, expected periods of support, and final delivery point.

The type of transportation depends on size, weight, and necessary speed of delivery. The depots are positioned for geographic convenience and, while most depots store similar materials, there are special functions carried on at some depots (e.g., storage maintenance activities for IPE, storage for the National Defense Stockpile Fund managed by GSA, systems automation and other functions). In addition, the volume of material which moves through the different depots varies. Transportation into and out of each depot varies and requirements during mobilization vary by theater of conflict, timing, etc.

Depots ship material to final users as well as to other depots. These activities may differ markedly during mobilization, when combined depot shipments to overseas ports along with direct shipments from manufacturers present an accelerated view of the process. Time is critical in the choice of transportation mode and is affected by the capacity of the depot to move items to embarkation ports in appropriate packages (containers).

The analysis contained herein considers the existing assets of each depot since the purpose here is <u>not</u> to scrap and "start all over". Rail and truck assets, their reliability and maintainability, current and proposed asset acquisition plans, availability and linkage to complementary and substitute commercial equipment, all play a role in the cost-effective solution.

Another factor to be considered is the actual depot-specific volume of work. Receiving and shipping volumes, seasonal and other peaking, normal and contingency planning hours of operation, mode selection peculiarities, customer priorities, and the make-up of the cargo (bulk, oversize, outsize, heavy) all affect the decision process. The physical layout of the depot is important, as are unique operating procedures, special training by mode, the handling of accidents, damage, etc.

Another important factor is cost. Segmentation by mode, maintenance, modification, acquisition, and demurrage all are considerations when determining the proper mix of rail and truck. Safety, security, and local government regulations must also be considered in any solution.

reliability/confidence issue (discussed further in Section 3.0 below).

A second limitation is the rapidity and uncertainty of institutional changes to DLA depot distribution responsibilities. DoD depot consolidation and further development of the EDDS concept/functioning will certainly affect future transportation requirements of the DLA depots. While long-term plans and policy are being formulated, this study takes a "snapshot" in time, and evaluates the DLA depots given current and projected future operations.

Since transportation requirements may change in the future, the study team attempted to develop a tool which is generic in design, has wide applicability, is easy to operate, and will prove useful in evaluating the implications of these future developments.

A third limitation (or more appropriately "assumption") of this study is that the results and conclusions presented herein are based on current institutions and market forces. At present, many DLA transportation markets find truck carriage to be faster, more reliable, and cheaper than rail service. However, if increases in fuel prices and uncertainty regarding fuel supplies were to continue and escalate (particularly in light of current events), rail could become more competitive. Moreover, if programs such as the automatic downgrade (e.g., reclassifying designated air-eligible traffic to surface modes) increase and time requirements for shipments in general are relaxed, again rail could become competitive with truck. Sustainment under Operation Desert Shield/Desert Storm, depot consolidation, base closures, redeployment of other activities and other events all will impact current institutions and market forces and could affect the recommendations resulting from this study.

1.5 Report Format

The remainder of this report is divided into four sections. Chapter 2.0 presents a situation analysis, including (a) an overview of transportation and technology trends (with a focus on intermodalism); (b) a profile of the six depots, including physical layout, transportation network access, accessible commercial/intermodal facilities and services, and current level of container and workload activity; (c) possible implications of DoD consolidation and automation programs; (d) the potential impact of changed threat conditions; and (e) a preliminary analysis of the impact of Operation Shield on depot operations.

Chapter 3.0 discusses in detail the approach to evaluating rail/containerization requirements and capabilities at the depots. It includes a review of the secondary data sources, the

2.0 SITUATION ANALYSIS

2.1 Transportation and Technology Trends and The Implications on Military Logistics

The nation's transportation systems have produced significant productivity increases over the past decade. High capacity unit trains, double-stack cars, high volume trailers, double-and triple-bottom motor vehicles, jumbo containerships, and changes in labor work rules have combined with market deregulation to dramatically improve efficiency and productivity, and reduce the unit costs of physical distribution.

Since World War II, the U.S. civilian transportation network has become increasingly capital intensive, relying on rationalized fleet management and a minimum of maintenance and transfer-related idle time to lower transportation unit costs. In all sectors of the transportation industry, ton-mile capacity and production has increased faster than units of equipment due to higher load utilization and reduced dead-time at terminals. In the maritime and rail sectors particularly, the number of units of equipment has dropped dramatically as unit capacity has risen.

Efforts to improve productivity are continuing, with the introduction of new types of highly functionalized equipment and the utilization of new computer and communications technology to improve fleet management. New technology for surface transportation include:

- Double-stack rail service has enabled ports to extend their hinterlands from coast to coast and enabled carriers to expand their markets from coast to coast. Double-stack trains have been specially designed to shuttle large volumes of containers between coastal and inland hubs at substantial cost savings over conventional COFC/TOFC handling. These routes generally cross regions in which DLA depots are located.

- Technology now enables immediate rail to highway movement of goods. An example is the Norfolk Southern Triple Crown Service, which employs innovative RoadRailer trailers to provide customized door-to-door service for shippers along a dedicated system of north-south corridors.

- Increasingly, intermodal freight is being handled at rail hub centers which employ overhead cranes such as the straddle carriers or sideloaders which lift trailers and containers to or from rail flatcars. From these hub centers motor carriers are used to deliver shipments.

  Exhibit 2-1 illustrates the changes which have been taking place within the commercial terminal sector of the

- The existing intermodal interfaces between ocean, rail and truck systems are now precisely timed and equipment balanced. Unit trains of double-stack cars arrive at load center ports and are discharged and reloaded to match ocean carrier schedules. Short delays in one component of the distribution system is translated into geometrically reduced capacity throughout the system.

  It is essential that mobilization contingency planning incorporates new and future intermodal developments and addresses how specific requirements can affect or maximize existing ton-mile capacity.

- The continued expansion of minibridge intermodal service and the advent of post-Panamax container vessels in the east-west trades suggests an increasing requirement for compatibility with the double-stack unit trains.

- Civilian transportation equipment routing and tracking systems give positive identification of containers while on a major ocean carrier, trunkline railroad, or within a major port or intermodal hub. For equipment located in other environments or non-containerized cargo, there is only sporadic cargo visibility which degenerates with distance from a seaport. Military transportation systems must keep pace with the rapidly developing commercial sector to assure compatibility with commercial fleets.

- Container load ports are both congested and vulnerable to interdiction, and are geared towards fast turnaround of vessels and intermodal equipment. Handling of non-routine containers upsets productivity because they must be stored and loaded as special exception cargoes. There is little or no room in most load center ports for even a 10-day inventory of cargo or containers.

- Major containerports are increasingly tailoring development strategies to anticipated commercial modal splits. Increased volumes due to mobilization may result in congestion at these new specialized facilities due to a significant shift between motor and rail shipments.

- Sealed containers being source-loaded at a variety of locations and moving, in some cases, unguarded, leaves open the potential for sabotage as well as the inadvertent mixing of hazardous cargoes within a container.

- Changes in rail transportation technologies mean that rail sidings into or adjacent to plants are no longer required to the same extent which existed in the 1950s and 1960s. Similarly, the military must consider whether sidings into or adjacent to depots are required.

facilities and logistical plans compatible with existing commercial systems.

Within the commercial sector, carriers have been integrated into multimodal transportation companies--with rail, truck, marine, and/or air services combined under a single corporate entity--and look for ways to most effectively integrate and market their capacity and services. Carriers, as well as ports and airports, look for specific market niches which they can exploit.

Companies such as APL, CSXT, and BN have established intermodal/logistics subsidiaries for the purpose of developing markets to fill their capacity with both international and domestic traffic. These companies have in turn entered into agreements with one another, as well as with other third parties. The multimodal transportation companies, carriers, shippers, and various third parties, are entering into a variety of cooperative arrangements and agreements. The result is that in many cases, the shipper (including the depots) may not realize on which mode(s) their shipments ultimately move.

Such arrangements are in some cases triggered by shippers and consignees who are looking for ways to improve productivity and reduce costs through means such as investment in new technology and implementation of just-in-time (JIT) inventory systems. These developments in turn impose demands on the carriers and/or forwarders serving them, to provide the capacity and ability to load/unload goods and the need to ensure customers on-time delivery.

Over the past several years, there has been an effort to identify and increase awareness of these trends and other freight transportation issues as they relate to DoD cargo movements. At the same time, there has been concern that some freight transportation advances and innovation could require significant capital investment and/or ultimately result in higher freight rates to/from some depot locations.

The dilemma facing DLA is:

- Are current depot facility configurations and transportation systems adequate to meet future peacetime and mobilization requirements in consideration of the developing intermodal environment and proposed mission changes?

- Do peacetime and mobilization requirements warrant the cost of (1) maintaining and upgrading depot rail networks and (2) investment in new, improved, or expanded rail/container-handling facilities and services on depots?

- Is it cost-effective and practical for the depots to rely on improved interface with commercial sector for intermodal capabilities and services?

Exhibit 2-2

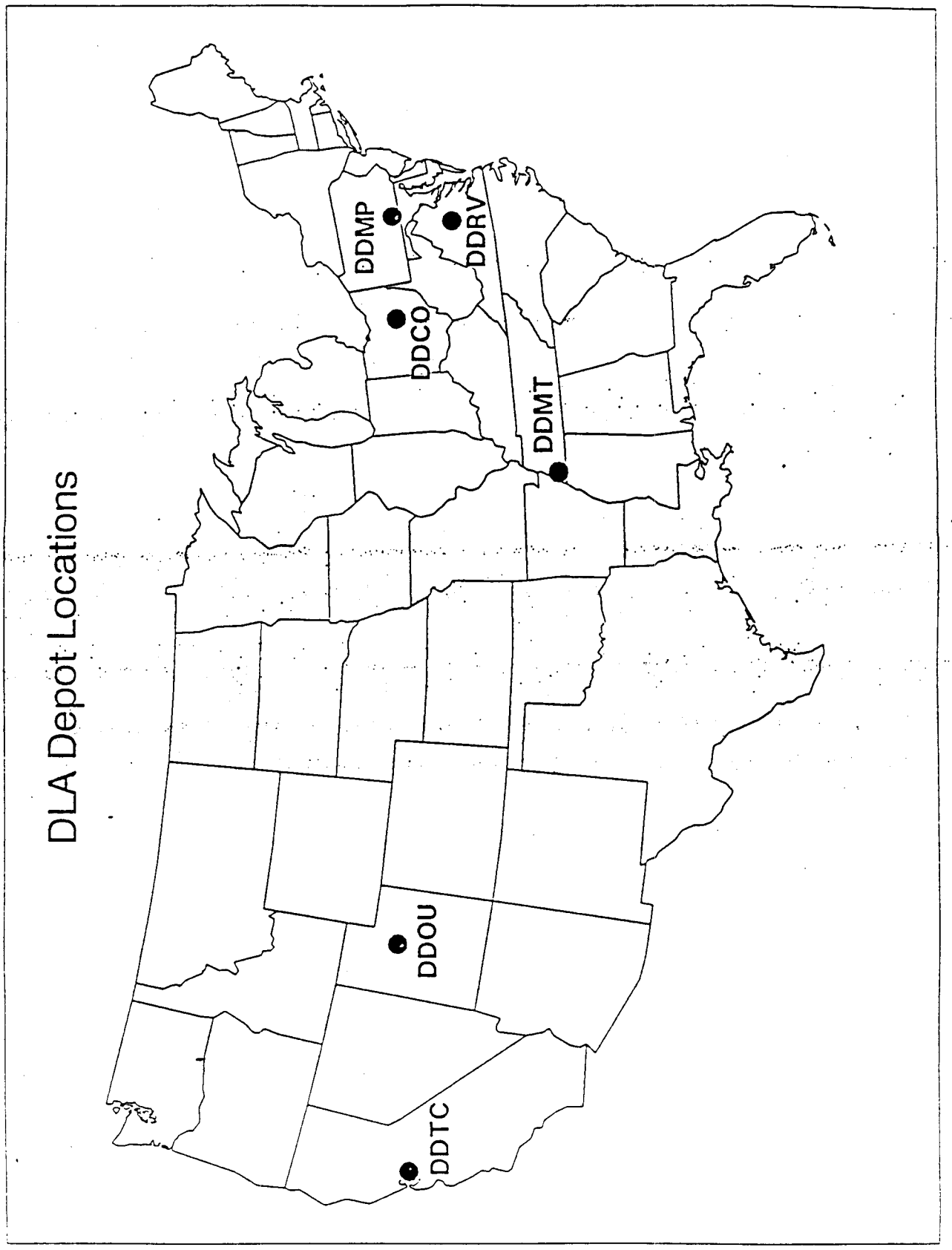


EXHIBIT 2-3

Shipment Volume by Depot and Commodity Group (FY 1988)

	Total Outbound (Mil Lbs	Percent of Total by Origin						
		DDRV	DDMP	DDCO	DDMT	DDOU	DDTC	Othe
Subsistence	439.7	12%	22%	0%	26%	0%	40%	0%
Clothing	112.6	20%	15%	14%	23%	9%	13%	4%
Controlled Substance	0.7	0%	53%	0%	21%	0%	26%	0%
Drums	18.2	38%	0%	0%	21%	28%	1%	13%
Hazardous Materials	256.3	29%	2%	1%	25%	25%	2%	15%
Steel Products	89.9	2%	19%	6%	16%	3%	34%	19%
Fasteners	18.0	3%	11%	18%	28%	16%	11%	14%
Reel Products	200.3	1%	35%	2%	22%	7%	27%	6%
Medical Products	77.8	0%	41%	0%	27%	7%	25%	0%
Electronic Products	20.1	26%	22%	0%	5%	26%	15%	6%
Bin Items	2.0	8%	13%	30%	12%	17%	6%	15%
Bulk Items	198.3	13%	14%	11%	20%	11%	16%	15%
	1,433.9	13%	19%	4%	23%	9%	23%	8%

Note: Shipments exclude textiles, retention stock, inactive stock, war reserve materials, EDDS shipments and non-CONUS destinations.

Source: DLA Depot Modernization Study (March 1990)

Exhibit 2-4 summarizes subsistence and other traffic by mode for fiscal year 1988.[3] As indicated, subsistence accounts for 35 percent of the inbound traffic and 29 percent of outbound traffic, and is the primary commodity group utilizing rail. Rail accounts for 98 percent of inbound subsistence shipments, but only 2 percent of outbound shipments, with the majority moving via truckload (50 percent) and seavan (29 percent). Rail accounts for very little of other commodity movements with truckload accounting for 85 percent of inbound movements and 33 percent of outbound movements and LTL accounting for 15 percent of inbound flows and 40 percent of outbound flows. Seavan movements are almost exclusively outbound, as is the traffic for other modes such as local delivery and parcel post.

2.2.3 Containerization Activity and Workload

In general, current containerization activities are limited to truck movements at five of the six depots and there is little or no capability for loading/unloading containers to/from rail cars or chassis on the individual depots; rather they are handled like truck trailers. In many cases, container-on-chassis movements require the cab to remain at the facility for cargo handling, a relatively inefficient utilization of motor vehicle equipment. The exception is DDOU, where there is a 50-ton Rough Terrain Vehicle/Container Handler (RTV/RTCH) to handle the DepMeds movements via COFC railcars on-site. The following are brief narratives on existing container capabilities and operations as determined depot visits and review of MTMC/TEA reports.

2.2.3.1 DDRV

There is little containerization activity at DDRV, with the exception of 10-15 seavans per month which are either trucked to Harrisburg for COFC/TOFC movement to the West Coast or drayed to Norfolk for export. When there are single movements of sufficient volume to fill a container, a decision may be made to source load through a vendor (DVD) rather than move the goods through the depot.

---

[3] This summary excludes certain movements such as non-CONUS movements (as noted in the exhibit) and includes activity at the service depots, but is generally representative of overall depot activity.

2.2.3.2 DDMP

DDMP handles seavan consolidation for vendors of medical supplies and equipment and of books and materials for American schools overseas. The depot also consolidates Air Force containerized movements of medical supplies, which are generally transshipped. Because NCAD is already a container consolidation point (CCP) wherein they receive and consolidate shipments from all DoD agencies, it is likely that under consolidation, DDMP could see its level of container activity decline.

2.2.3.3 DDCO

Currently, there is little or no containerization activity at DDCO; however, since medical supplies packing function is seen as a potential growth mission in the future, there could be an increase in containerization.

2.2.3.4 DDMT

DDMT handles some overseas seavan traffic and averages about 8-10 vans per month under pre-Desert Shield/Desert Storm operations. These vans move primarily to Puerto Rico, Cuba, and Panama. There is interest (and potential under the consolidation program) in developing DDMT into a container consolidation point for all the services, even if it required activity at an off-installation site. There is a strong indication that commercial double-stack rail service will be available in Memphis in the near future.

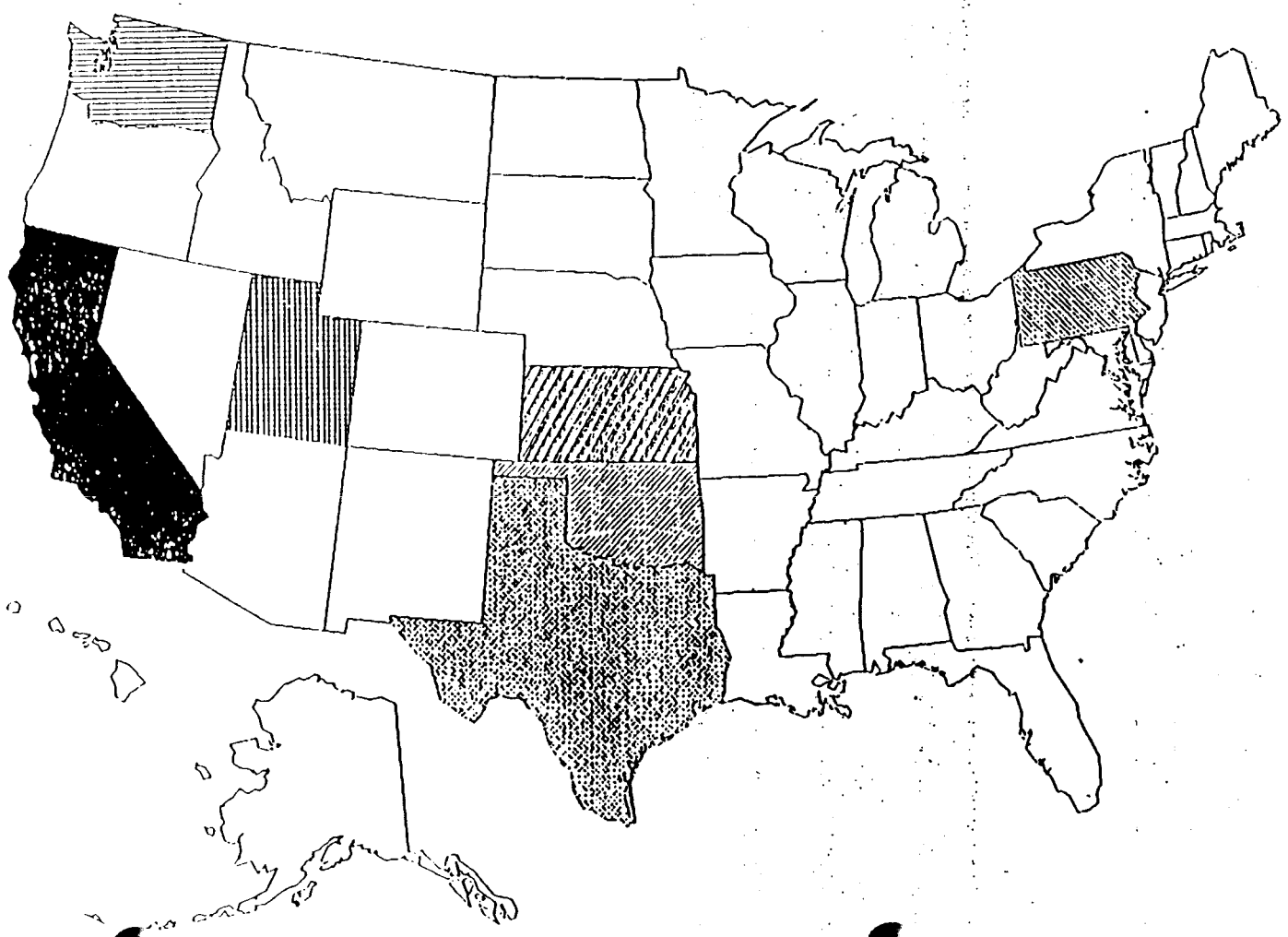
2.2.3.5 DDOU

The DepMeds mission is the major generator of containerized cargo at DDOU. For example, a 1000-bed hospital is comprised of 88 containers, which can be loaded on 22 railcars in a 4-hour period. DDOU estimates they ship and receive approximately 1,150 to 1,250 containers per year (100/month) in each direction. The DepMeds have a 20-year life, but are inspected and sometimes reconstructed every five years. The DepMeds mission will be ongoing as there are commitments through 1994, even in a down budget period.

Containers at DDOU are handled with a 50-ton rough terrain vehicle (RTV) or rough terrain container handler (RTCH), which is maintained on a daily and monthly basis. It operates 8-1/2 hours per day at a labor cost of $13/hour.

DD OGDEN

TOP 20 CUSTOMERS

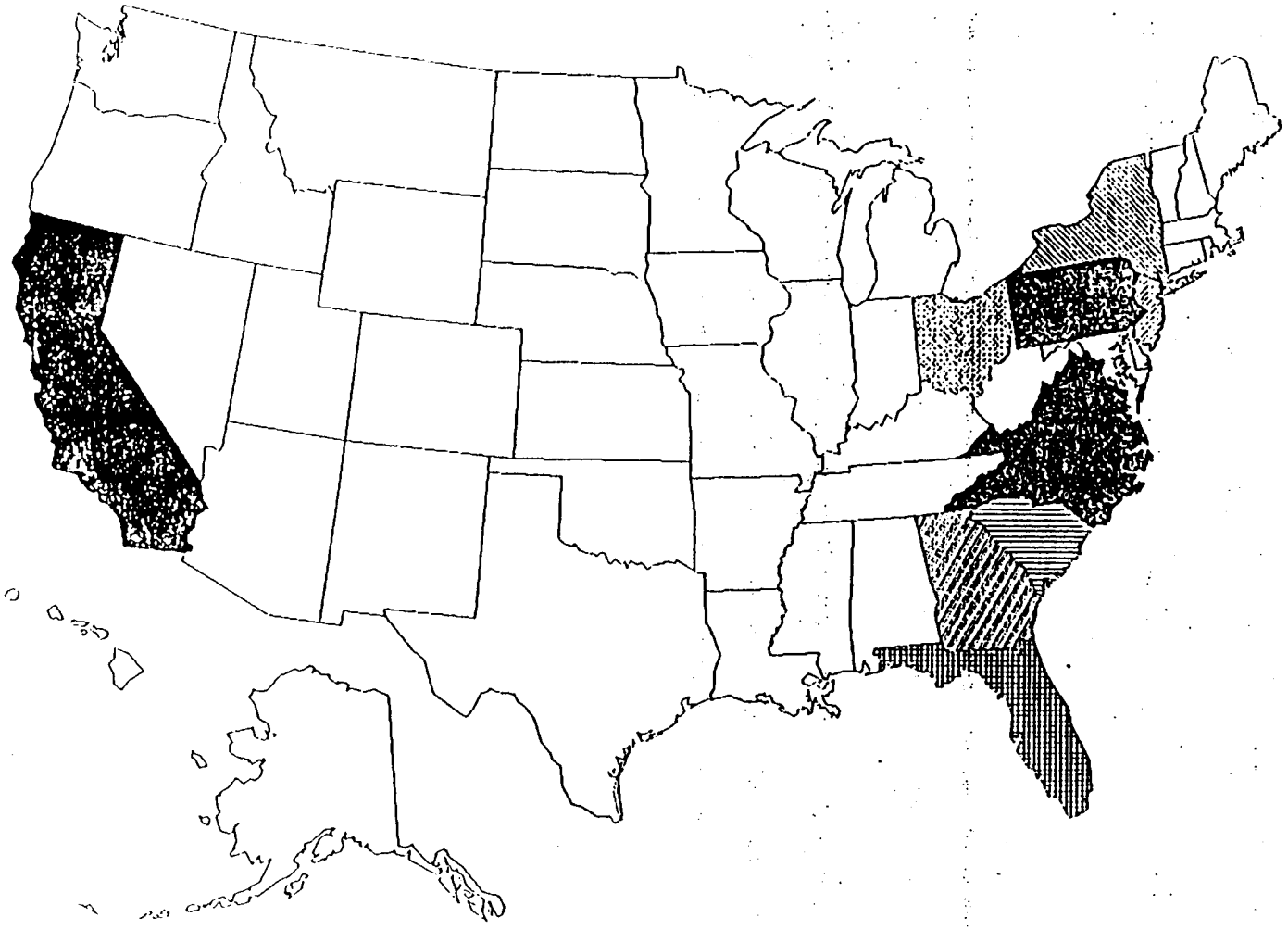


WEIGHT IN POUNDS

- 139844 to 160398
- 160398 to 207895
- 207895 to 223828
- 223828 to 558695
- 558695 to 1151146
- 1151146 to 3754546
- 3754546 to 3754547

DD RICHMOND

TOP 20 CUSTOMERS



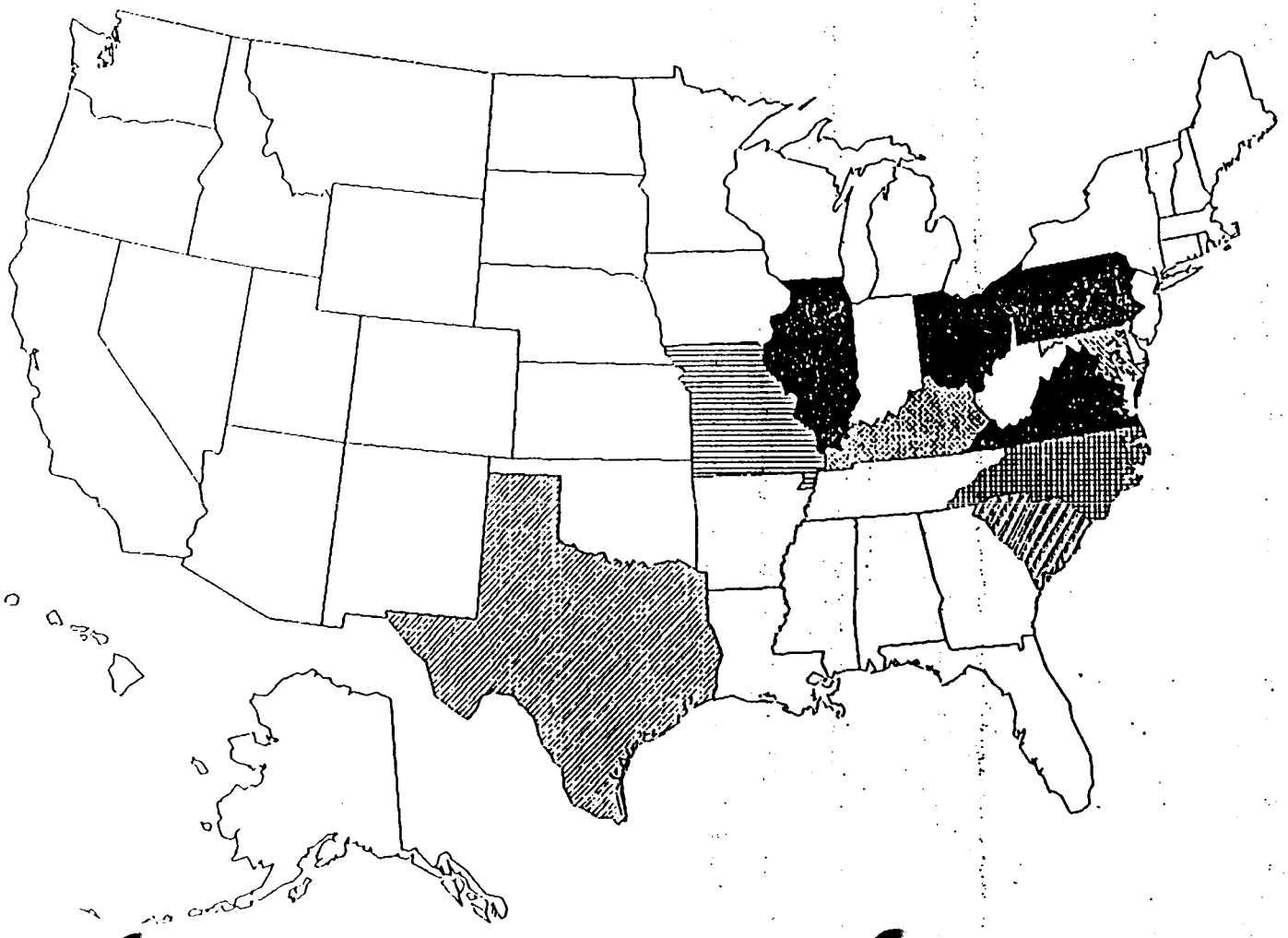
WEIGHT IN POUNDS

- 62579 to 97573
- 97573 to 139726
- 139726 to 214474
- 214474 to 284317
- 284317 to 300202
- 300202 to 300872
- 300872 to 1235612

Exhibit 2-5(c)

DD COLUMBUS

TOP 20 CUSTOMERS



WEIGHT IN POUNDS

- 32452 to 38386
- 38386 to 53726
- 53726 to 56456
- 56456 to 82770
- 82770 to 95430
- 95430 to 113183
- 113183 to 429832

2.2.4.2 DDMP

DDMP is a tenant of the NSPSC, which owns and operates the rail system on the depot. DDMP's primary rail access requirement is at subsistence warehouses where boxcar loads are received, while the Navy requires about 10 miles of track for movement of major parts for their vessels. Current facility installation plans call for a central rail corridor to be maintained as well as rail access to DDMP subsistence warehouses and Navy facilities.[4] In some areas, rail trackage has been graveled over and converted to parking and outside storage. This procedure leaves the option of reactivating rail in the future and alleviates drainage problems associated with paving these areas. The depot rail system connects to a Conrail secondary line and splits are maintained adjacent to potential rail staging areas.

2.2.4.3 DDCO

DDCO currently has an estimated ten (10) miles of usable track on the installation, operated by a 3-man rail crew. Maintenance is performed by in-house personnel and outside contractors. The railyard, where six of the nine tracks are usable, connects to the CSX/Conrail joint mainline. DDCO has two locomotives (60-ton and 80-ton) which are used approximately 25 hours per month. They also store a number of 80-foot boxcars on the depot. A crew from New Cumberland Army Depot (NCAD) comes in for annual maintenance of the rail equipment, in addition to that performed by in-house personnel on a weekly basis.

In recent years, DDCO has both removed trackage (which was then sold for salvage) and put other track back into service through regauging and upgrading. Plans for the new EDDS facility and the removal of track to accommodate construction have been put on hold. While there is direct rail access to (although not into) buildings on the facility, there is no longer a subsistence mission at DDCO.

---

[4] Final recommendations regarding rail to be maintained for DDMP use will necessarily depend on final depot consolidation plans. At NCAD, the depot with which DDMP will be joined under the consolidation program, recent rail improvements have been made at an estimated cost of $1 million. These were made in large part because of plans to relocate strategic stockpile materials off-depot. The new EDC at NCAD has a rail loading/unloading capability to handle three 80-foot cars at one time. It is anticipated this will be primarily for receipt of shipping materials to be used at the facility.

2.2.5 Commercial Interface

The following are brief summaries of the commercial interface at the six depots:

2.2.5.1 DDRV

DDRV is located adjacent to the CSX mainline; however, the DOD rail equipment available at DDRV cannot be moved on the main commercial rail lines. DDRV has been affected by the trend among commercial carriers to consolidate and reduce the number of terminal and ramp facilities, with CSX closing its intermodal ramp in Richmond, despite the fact it was a profitable operation. There is a container pool maintained in an area adjacent to the Port of Richmond, a few miles from the depot facilities.

At DDRV, motor carriers are expected to call for an appointment 24 hours in advance. On occasion, "gypsy" truckers arrive without an appointment and if they cannot be accommodated must either come back at an appointed time or drop off their trailer in the holding area. Specific days are set aside for local LTL truckers, coordinated through receiving and warehouse divisions.

2.2.5.2 DDMP

DDMP is located adjacent to the Conrail mainline and within a few miles of Conrail's COFC/TOFC trailvan facilities at Harrisburg. There are also major motor carrier hub facilities in the vicinity. There are three principal LTL carriers currently serving DDMP under the guaranteed traffic program: Carolina, CF, and St. Johnsbury.

DDMP is developing a plan regarding the availability of commercial resources, including materials handling equipment, portable ramps, etc. The perception is that these resources would be available within the immediate vicinity because of the significant commercial transportation which occurs within the Harrisburg/York region.

2.2.5.3 DDCO

DDCO links to the CSX/Conrail joint mainline and the Norfolk Southern mainline is within 1/2 mile of the depot. The Columbus area is a major rail and truck transportation center, with major commercial facilities including Conrail's Buckeye Yard where doublestack rail operations (utilizing three piggypackers) and TOFC activity takes place. Conrail officials indicate that while they are somewhat constrained for container and trailer storage and staging, there is considerable area available for expansion

The facility utilizes piggypacker equipment (approximate cost $625,000 per unit), along with hostlers and road tractors.

The UP intermodal ramp in North Salt Lake operates 7 days per week (6 am to 4 pm weekdays and 6 am to 2:30 pm weekends), with an average lift count of 4,700 units per month (200 trailers in/out per day), of which 600-700 are containers and the balance are trailers. There are 5 trains in and 5 trains out each day. The facility is divided into two years--one exclusively for APL stack trains, and the other to service all other customers. From the ramp, there are 2-3 truck carriers who serve DDOU, with 10-15 loads per week in and 10 loads per week out. UP Freight Services is the consolidator for some of the DDOU movements, with some goods consigned to specific drayage services. The UP facility has considerable expansion capacity, by moving the three shifts they could handle upwards of 6000 lifts per month with no facility changes.

There has been a problem at DDOU obtaining switching services from the commercial railroads, most notably UP.

BN has opened a "paper ramp" at Salt Lake; that is, they offer direct intermodal rates and service (through voluntary cooperative agreements) although they do not maintain a ramp or have rail lines serving Salt Lake.

2.2.5.6 DDTC (DDRW)

DDTC is bounded on two sides by commercial rail track. The depot has been affected by the terminal consolidation trend of the commercial carriers, with the SP closing their Stockton intermodal ramp (although a "paper ramp" still exists offering direct intermodal rates).

Availability of some types of motor carrier equipment as well as materials handling equipment can be a seasonal problem at DDTC, particularly during harvesting season (May-September).

2.3 DLA Depots in Context of Ongoing and Proposed DoD Changes

There are various programs (both ongoing and proposed) within DoD which have an impact on this study. As these programs are implemented, the scenarios for the depots may change. Among the issues which require further analysis within some program planning efforts are decisions on whether and how much rail would be used under the new systems and how the systems will accommodate procedures such as just-in-time inventory (JIT) to speed the flow through depots and direct vendor delivery (DVD). The study team recognized this during the study, since it affects the underlying assumptions in the study approach.

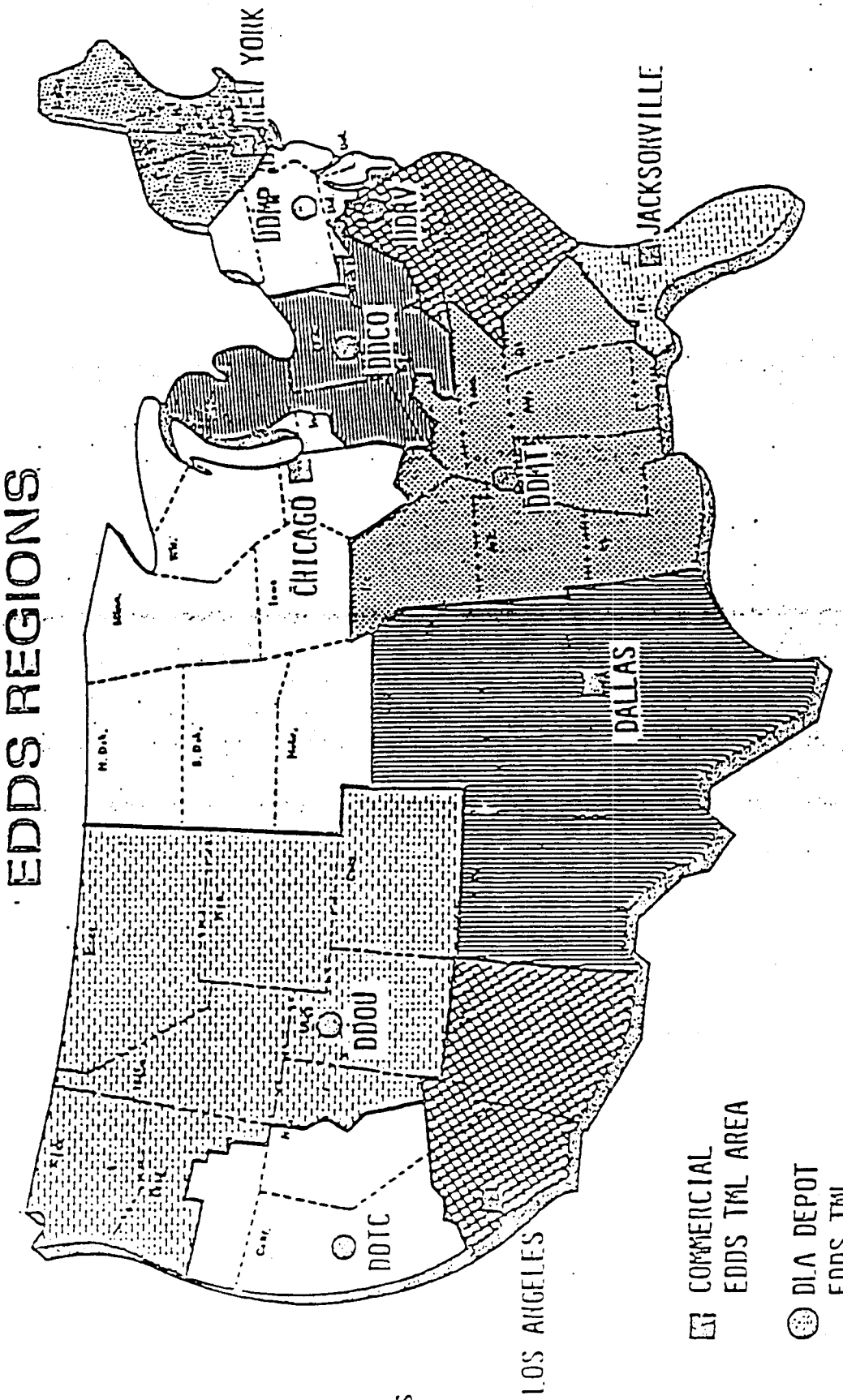

EDDS REGIONS
NEW YORK
JACKSONVILLE
CHICAGO
DALLAS
LOS ANGELES
DDOU
DDTC
COMMERCIAL
EDDS TML AREA
DLA DEPOT
EDDS TML

EXHIBIT 2-7

PROPOSED CANDIDATES FOR DEPOT CONSOLIDATION

Defense Logistics Agency:
- Tracy, CA (DDTC)
- Mechanicsburg, PA (DDMP)
- Richmond, VA (DDRV)
- Columbus, OH (DDCO/DCSC)
- Memphis, TN (DDMT)
- Ogden, UT (DDOU)

Army:
- Sharpe (CA)
- Sacramento (CA)
- New Cumberland (PA)
- Tobyhanna (PA)
- Seneca (NY)
- Pensacola (FL)
- Red River (AR)
- Corpus Christi (TX)
- Tooele (UT)
- Letterkenny
- Anniston
- Sierra

Navy:
- Oakland (CA)
- San Diego (CA)
- Puget Sound (WA)
- Pensacola (FL)
- Jacksonville (FL)
- Norfolk (VA)
- Charleston (SC)
- Cherry Point

Air Force:
- Sacramento (CA)
- Hill (UT)
- Warner Robbins (GA)
- Oklahoma City (OK)
- San Antonio (TX)

Marine Corps:
- Albany (GA)
- Barstow (CA)

supplies overseas. However, there appears to be similar space shortages at existing CONUS depot facilities, which may be exacerbated by shipping material back to the U.S. This suggests that some type of storage audit may be desirable at the depot facilities as part of the consolidation effort.

2.4 Non-Military Emergency Situations

The depots often respond to a variety of non-military emergency situations such as Hurricane Hugo and the Armenian earthquake. In many cases, however, these types of shipment move by air and require quick response. Truck transport to support air movements can better response to these situations.

2.5 Operation Desert Shield

The events of Operation Desert Shield provided the study team with insight into actual experience relating to use of rail, truck, and containerization in time of mobilization. Exhibits 2-8 2-9 provide sample data comparing levels of depot traffic for a three-month period prior to and for a three-month period during Operation Desert Shield. These data show:

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Verbal reports from depot personnel provided examples of transportation-related incidents which occurred at selected depots in the early stages of Operation Desert Shield:

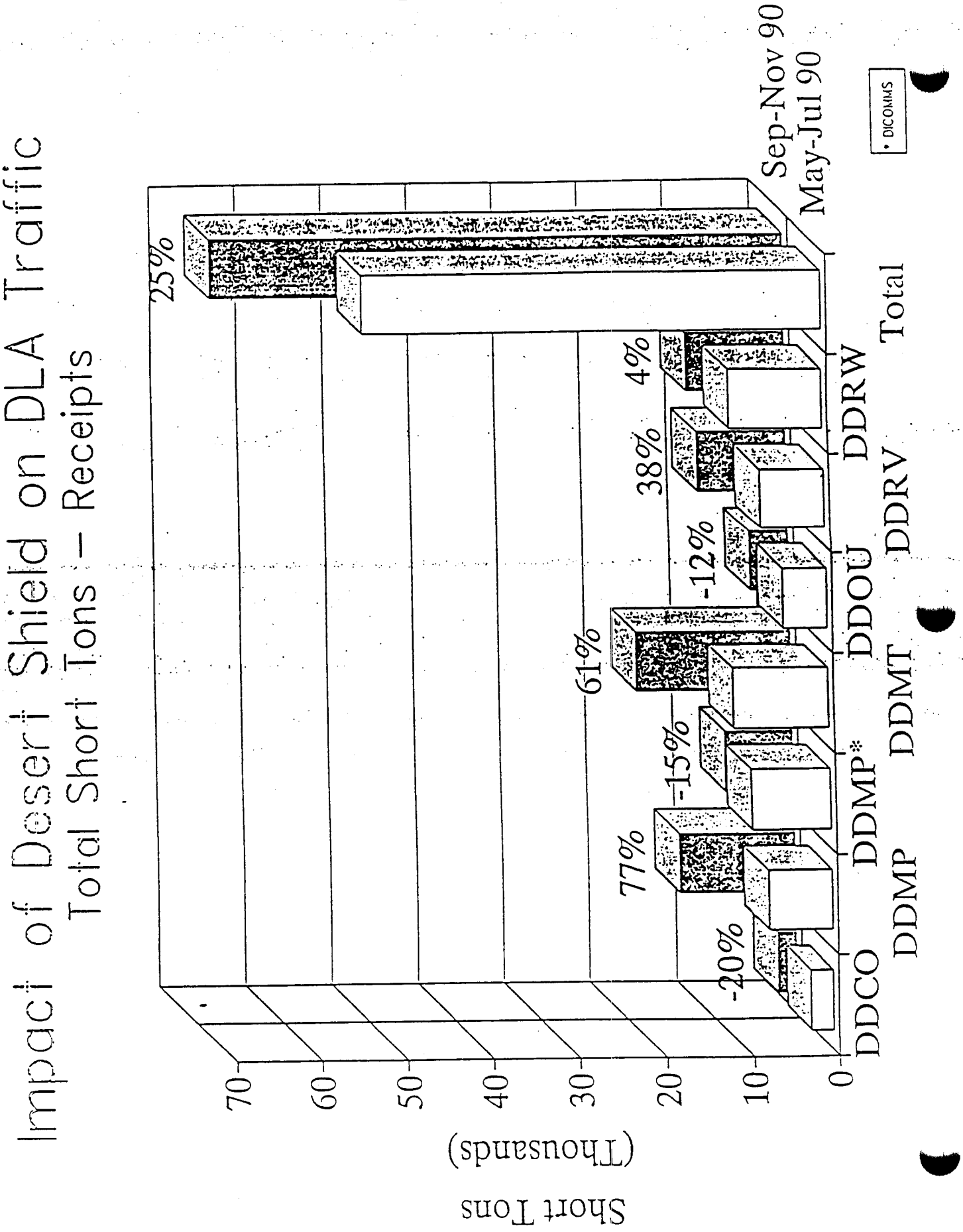
- An effort was made at DDMT to move some shipments by rail (boxcar) to Norfolk; however, 20% of boxcars offered by the railroads were rejected and it was evident that the 7-day rail transit time did not meet the time requirements for the mobilization shipments. Further, warehouse facilities at the Port of Norfolk are not oriented to boxcars, which was likely to result in further delays.

- Containerized movements generated in the sustainment phase of the operation are moving by rail (Memphis to Charleston). These are primarily B ration meal shipments, which are assembled from inbound subsistence, approximately 38 containers per day. The meals are palletized and then loaded into containers (sixty 200-250 pound pallets per 40'

Comparison of DLA Depot Traffic ...ore and After Desert Shield

Shipments	DDCO	DDMP	DDMP*	DDMT	DDOU	DDRV	DDRW	Total
			Lines					
May 1990	185,332	240,578	126,613	342,468	249,547	255,193	257,015	1,656,746
June 1990	163,357	255,704	116,325	306,572	221,439	235,657	210,919	1,509,973
July 1990	154,442	206,265	104,384	330,081	189,898	163,650	212,670	1,361,390
Monthly Average	167,710	234,182	115,774	326,374	220,295	218,167	226,868	1,509,370
September 1990	172,980	244,029	80,478	350,670	210,179	225,476	220,091	1,503,903
October 1990	174,255	232,968	100,802	320,514	209,959	232,145	241,386	1,512,029
November 1990	152,831	224,240	90,137	270,423	212,133	220,782	212,617	1,383,163
Monthly Average	166,689	233,746	90,472	313,869	210,757	226,134	224,698	1,466,365
Percentage Change	-1%	-0%	-22%	-4%	-4%	4%	-1%	-3%
Receipts								
May 1990	18,396	20,797	9,028	23,916	44,872	31,564	34,810	183,383
June 1990	21,039	19,886	10,218	19,240	44,800	31,227	28,884	175,294
July 1990	20,553	17,948	9,313	18,577	38,160	24,327	28,031	156,909
Monthly Average	19,996	19,544	9,520	20,578	42,611	29,039	30,575	171,862
September 1990	26,068	21,319	6,383	21,412	26,219	31,739	25,160	158,300
October 1990	23,230	20,830	10,074	20,570	33,422	34,717	35,587	178,430
November 1990	18,916	19,014	7,569	19,980	34,649	35,806	38,107	174,041
Monthly Average	22,738	20,388	8,009	20,654	31,430	34,087	32,951	170,257
Percentage Change	14%	4%	-16%	0%	-26%	17%	8%	-1%
Maximum Daily Trucks - Received								
Maximum Daily Trucks - Shipping								
Maximum Daily Trucks - Both								

Source: DLA Depots


Impact of Desert Shield on DLA Traffic
Total Short Tons – Receipts
Short Tons
(Thousands)
70
60
50
40
30
20
10
0
25%
-20%
77%
-15%
61%
-12%
38%
4%
DDCO
DDMP
DDMP*
DDMT
DDOU
DDRV
DDRW
Total
Sep-Nov 90
May-Jul 90
DICONMS


Impact of Desert Shield on DLA Traffic
Average Pounds per Line – Receipts
Pounds per Line
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2%
-60%
69%
-29%
25%
-4%
18%
20%
DDCO
DDMP
DDMP*
DDMT
DDOU
DDRV
DDRW
Total
Sep-Nov 90
May-Jul 90
DICOMMS

ıpact of Desert Shield on DLA Traffic

Total Lines – Shipments

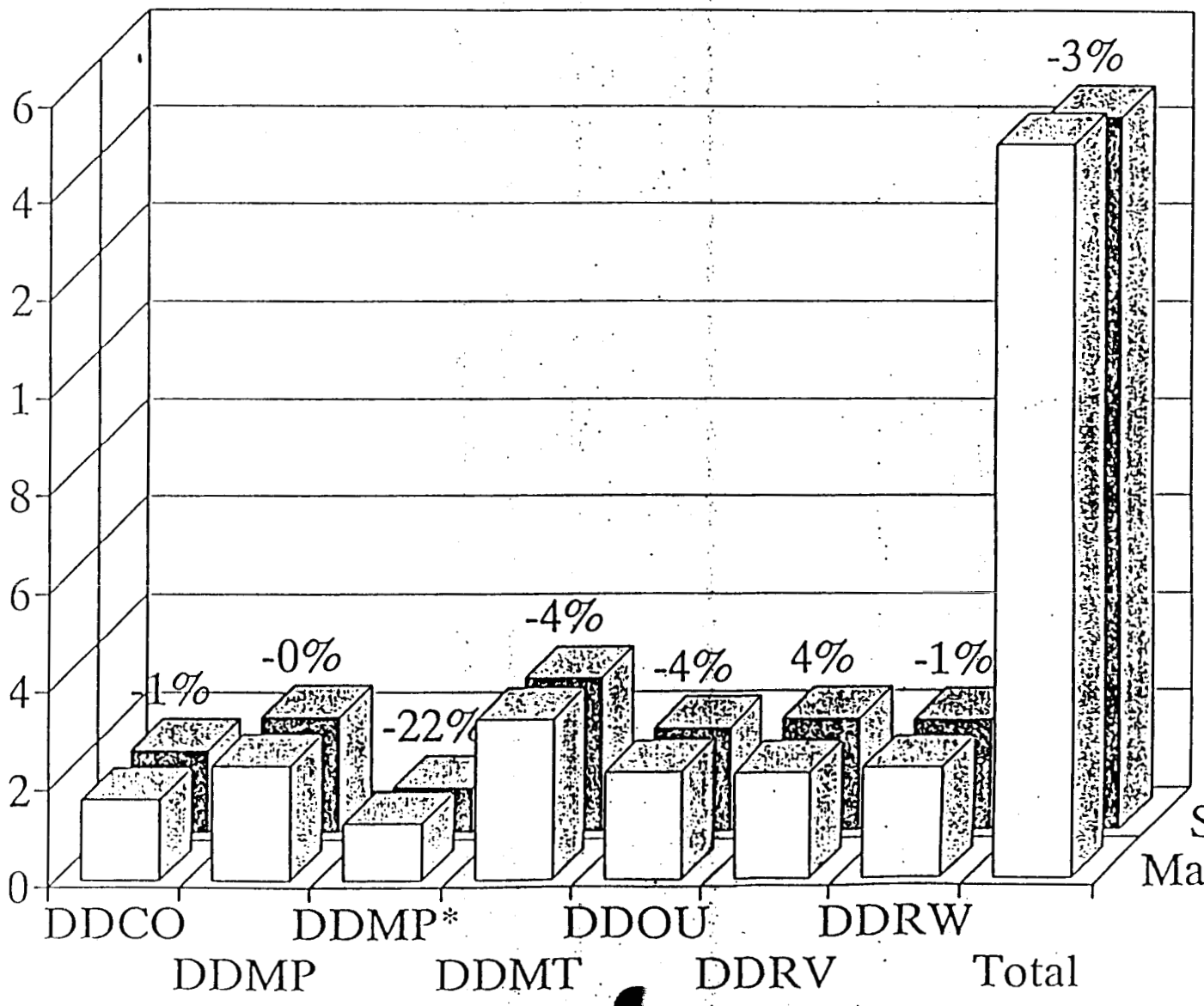


Exhibit 2-9 (Cont'd)

container or 15,000 pounds, which utilizes full cube). The pallets used for the meal shipments are built at the depot and generally brought back in containers to be reused. This has been found to be more cost-effective than continually having to produce new pallets.

- The rail transit time Memphis to Charleston (via CSX to Sea-Land vessels) is five days which is adequate for sustainment now that traffic patterns have been established.

- The containers are drayed to/from the depot on chassis via truck. Each truck that brings in an empty leaves with a loaded container, which is transshipped to the rail at a commercial railhead. It is a "load and drop shuttle" to the rail containerhead and is accommodated with existing commercial resources. As far as the depot is concerned these are still "truck moves", since the empty and loaded containers move in and out of the depot via truck and chassis.

- DDOU reported no increase in rail activity due to short time requirements and the lack of equipment, and characterized rail as "non-responsive" to the depot's critical needs. All of the DepMeds movements, which formerly would move exclusively by rail, were trucked to port of embarkation with some shipments moving to airports for airlift.

- Overall, the level of truck traffic at the depots has been manageable--the primary difference has been a reduction in LTL and an increase in TL movements. Larger volume shipments result in more direct warehouse shipment. There has been an increase in small air shipments during the operation. The drop in LTL has been primarily attributable to a reduction in LTL moves to bases and reserve units in the U.S. In "normal" circumstances the level of LTL and TL will shift back to previous levels.

- With respect to <u>vendor direct</u> (DVD) movements, a study now underway indicates that in some cases containerized vendor direct shipments of semi-perishable subsistence may not be as economical as depot consolidation (cube utilization is low). The steamship lines position the containers at the consolidation point and share responsibility for ensuring the containers are at the dock on time. Under vendor direct; the vendor is responsible for picking up the empty container at the port and returning it loaded.

  During this operation, some vendors who normally use rail transportation have had to shift to truck to meet the schedule dates for delivery to the depots--particularly those providing goods for the meal assembly and shipment process.

commandeer double-stack trains to rapidly shuttle cargo to seaports".[9]

- The nation's surface transportation system of trucks and railroads "had not been challenged" by Operation Desert Shield according to an official of the U.S. Transportation Command. He estimated that even in an "all-out war", military needs would take only 2 percent of the nation's trucking capacity.[10]

- Initial requests for containership capacity to support the military effort had U.S. flag shipping company executives concerned that they would be "stretching the limits of container capacity...making it very difficult to maintain usual service standards for commercial customers...".[11]

  However, the space offered by the carriers (in response to MSC requests for bids) was far greater than has been required. Shipments via Sea-Land, the major liner shipping company serving the East Coast ports, have averaged only 300 40-foot containers per week, far below the 1200-1600 containers projected by MSC.[12]

The following preliminary conclusions can be drawn from the Operation Desert Shield/Desert Storm experience:

- Unknown factors such as time, location, and type of conflict make it difficult to develop reasonable estimates of transportation requirements in time of mobilization.

- While rail may not be responsive in time of initial mobilization, it can play a role in the sustainment phase, which is approximately 95% sealift.

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[9] "U.S. Maritime Fleet Ready for War, Eyes Further Call to Military Service", Traffic World, January 21, 1991.

[10] "Pentagon's Prodigious Supply Line", Washington Post, August 22, 1990.

[11] "Ocean Carriers Picked to Aid Desert Shield", Journal of Commerce, September 6, 1990.

[12] "New Buildup in Persian Gulf to Require No Additional Capacity", Traffic World, November 19, 1990.

3.2 Collection and Review of Secondary Data and Information

The study team reviewed a variety of secondary data and information, both general in nature and depot specific. A bibliography of source and reference materials is provided in Appendix B to this report. The principal sources for depot-specific information included:

- MTMC/TEA reports on depot capabilities.
- Automation/modernization plans for individual depots
- Notes and correspondence compiled from DLA-OT files

The study team also compiled and reviewed material on intermodalism, containerization, and materials-handling relating to both the commercial sector and military applications. In addition, information on commercial terminal facilities and schedules was collected.

The team was provided with a copy of the "Compendium of Operations Research and Economic Analysis Studies" as of September 1989. This was reviewed to determine whether any of these studies or models may be relevant/complementary to the objectives of the rail and container-handling study. The team found that:

- While DORO has developed models which are reused and adapted for various purposes, there are no generic transportation models. Most models are unique to solve problems identified by Principal Staff Elements.

- DORO has developed simulation models for the purpose of evaluating proposed facility designs and in addressing workload considerations.

- There is a forecasting model which considers workload and flow shifts between depots. While this model considers a number of factors, it does <u>not</u> look at individual transactions or shipment sizes.

- MTMC utilized the Princeton rail model (ALK) in the MTMC/TEA depot profile reports.

- MTMC has in-place a freight information system (FINS) which identifies and sorts data on all depot shipments. The MTMC database is by freight classification rather than NSN. MTMC also has and maintains container files.

- DLA HQ maintains a list of data files from which data elements can be identified and/or extracted.

- There is limited trend information available from the MOWASP data; however, at the depots, divisions lack the staff

of transport modes, the variation in activities, and provide a realistic representation of the actual processes.

- o Data availability -- Analytical approaches differ in their requirements for data, including accuracy, historical base and so forth. Where data availability is a problem, certain techniques can be used to restore lost data, verify and smooth existing data, and in some cases, reduce data requirements.

- o Model operating characteristics -- Models which are used infrequently may be cumbersome, requiring long solution times and have structures which are difficult to alter. However, the design of model systems which are used more frequently must be sensitive to the user environment.

The choice of technique for the DLA depot transportation problem considers the following:

- o First, since the requirements of the depot transportation problem involve dynamic processes with stochastic events, deterministic statistical analysis by itself, is not a wise choice.

- o Second, since historical data are not readily available for most transport functions, the use of statistical analysis, such as regression models, is not applicable (even cross-sectional analysis would have to rely on only six depots and the statistical properties of small sample regression models are not well-known).

- o Thirdly, ease of model operation and alternation do not suggest heuristics, which are often cumbersome and quite detailed, requiring much expert opinion. Furthermore, heuristics require extensive data and data update would be a problem. Mathematical programming has dynamic properties but requires some type of optimization scenario and the stochastic nature of depot transport functions suggests "second best" solutions are applicable.

- o Finally, while it can present problems regarding future alteration and ease of operation, simulation does consider the dynamics of transportation and the stochastic nature of events, making it the preferred analytical technique for the purposes of this study.

Accordingly, a simulation model was developed to model rail and truck functioning at the DLA depots. This includes both inbound and outbound traffic and focuses on all processes which

These preliminary findings shifted the analytical objective so that the function hypothesis becomes:

> Rail networks are primarily needed at DLA depots if outbound trucks cannot perform the transportation portion of mobilization requirements in a timely manner.

This hypothesis makes exception for the following conditions:

- Certain material (DIPEC, DEPMEDS, strategic materials) may require rail carriage.
- The potential availability/use of rail may have a pro-competitive impact on the motor carrier pricing.
- Ports of embarkation may require rail/container delivery to avoid reloading and on-dock congestion.
- Inbound rail is economical for certain types of commodities, including subsistence items, which are bought in economic order quantities (EOQ).
- Rail may better serve some tangential depot activities (such as support for National Guard and Reserve exercises/missions).

The functional hypothesis drives the testing procedures. First the simulation model is exercised to determine if truck facilities can accommodate the stressful mobilization scenario. If trucks can handle all freight adequately, then the case to retain rail at the depot must be based on one or more the exceptions noted above. If trucks cannot handle the freight, then rail is evaluated within the simulation model.

The approach discussed herein is not an evaluation of the significance of rail to DLA requirements in general. It is quite possible that even in situations where trucks can handle all the depot traffic, rail carriage via TOFC or COFC occurs. The depot is unaware (and probably unconcerned) of how the truck or container travels once it leaves the depot. However, the fact is that rail may at times play an important role in transporting DLA material regardless of whether or not there is rail activity on the depot itself. Indeed, that potential allows DLA to keep its options open with regard to rail.

EXHIBIT 3-1

MAJOR COMPONENTS OF DLA SIMULATION MODEL

Traffic Characteristics

Truck Arrival Distribution (Daily Traffic)*
Distribution of Truck Traffic by Type (TL and LTL)
Train Arrival Distribution (Daily Traffic)*
Train Size (Rail Cars)
Distribution of Rail Traffic by Type (Box Car, Strategic Materials/Bulk, DIPEC/Heavy Lift, TOFC and COFC)

Facility Capabilities

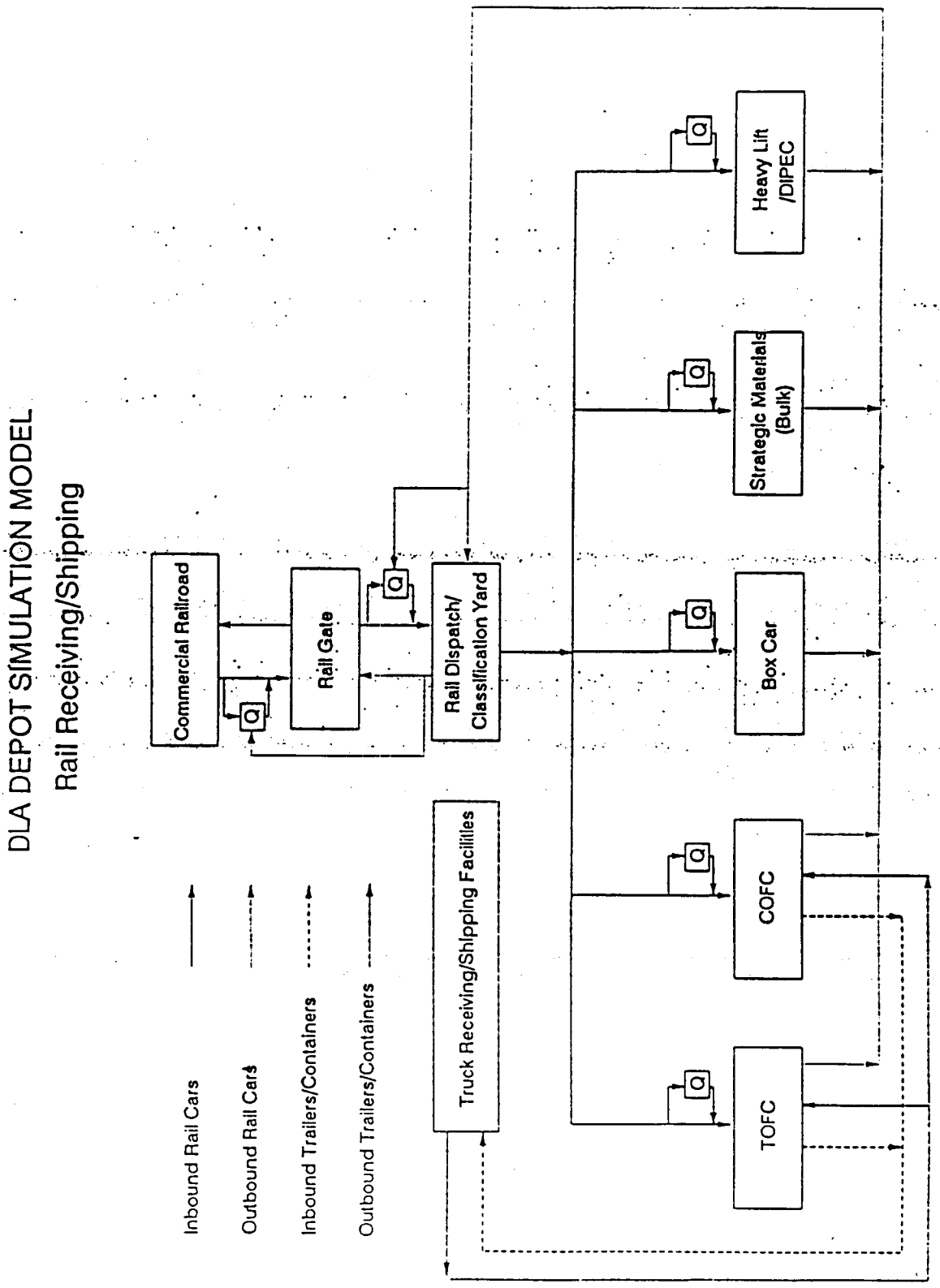
Daily Operating Hours (Shipping, Receiving and General)
Number of Truck/Rail Gates and Dispatch Stations
Number of Truck Receiving/Shipping Docks by Type
Number of Rail Car Processing Stations by Type
Number of Rail Car Switchers, Spotters and Yard Hustlers

Time Characteristics

Truck Gate/Dispatch Processing (Loaded and Empty)*
Truck Dock Loading/Unloading by Type*
Rail Gate/Dispatch/Switch Processing*
Rail Car Processing by Type*
Intra-Depot Transfer Between Processing Locations*

* Represented by probability distribution defined by mode, minimum and maximum.

Exhibit 3-3


DLA DEPOT SIMULATION MODEL
Rail Receiving/Shipping
Inbound Rail Cars
Outbound Rail Cars
Inbound Trailers/Containers
Outbound Trailers/Containers
Commercial Railroad
Rail Gate
Rail Dispatch/ Classification Yard
Truck Receiving/Shipping Facilities
Heavy Lift /DIPEC
Strategic Materials (Bulk)
Box Car
COFC
TOFC
Q

finished. While this representation may not necessarily reflect actual "peacetime" operations, it allowed the model to be calibrated for "mobilization" which is the focus of the analysis.

- The use of trailer pools and "drop-and-switch" operations (i.e., a tractor bringing in a loaded trailer and picking up a loaded trailer) was not uniform for all depots and difficult to represent in the model. The final version of the model requires an empty backhaul for all loaded vehicles resulting in the maximum use of gate and dispatch facilities. (One loaded truck will require two gate transits and two dispatchs.) This "conservative" assumption permits analysis of the "worst case" scenario in terms of gate/dispatch traffic.

- The "queue" statistics represent equipment (e.g., trucks, trailers, rail cars) which is waiting for a particular facility to become available, but need not necessarily mean that there is a physical back-up. Trailers may be parked inside or outside the depot, calls to truckers for either pick-up or delivery may be delayed, or the decision to use a particular depot may be altered. (Also note that during peacetime operations, vehicles are held in queues during "off hours", so queue statistics particularly at the dispatch office, may be misleading.)

- Initially, a preliminary utilization of the various depot facilities was computed and in some cases the depots were contacted for clarification where calculated values contrasted with the congestion points or utilization rates expressed in the survey.

- In evaluating freight terminal and dock utilization, "shipping" and "receiving" operations are handled separately at designated docks. While this is representative for LTL traffic, bulk warehouses probably handle both inbound and outbound traffic, and possibly both rail and truck. In general, the total warehouse docks were split evenly by mode to represent the fact that particular trucks will require dock space at particular warehouses. In some cases, docks were re-assigned based on relative traffic levels.

The model was run for a ninety-day period for both a peacetime and mobilization scenario. The model measures the queue length and utilization (average, minimum, maximum and standard deviation) for each of the depot function areas and equipment types over the run period and also counts the number of trucks, rail cars, trains, trailers and containers which are processed at various points. These "counters" include:

B.1 FACILITY UTILIZATION

		DDPV		DDMP		DDMT		DDOU		DDTC		DDCO	
		Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.
(a) Daily Operating Schedule													
Hours of Operations (excluding breaks)	-Receiving	8.5	24.0	7.5	24.0	16.8	24.0	8.5	24.0	7.5	24.0	14.5	24.0
	-Shipping	16.0	24.0	12.0	24.0	16.8	24.0	8.5	24.0	15.0	24.0	14.5	24.0
(b) Average Daily Truck Traffic: INBOUND													
No. of Truckload Vehicles		25.0	62.5	32.0	80.0	148.0	370.0	20.0	50.0	25.0	62.5	5.0	12.5
No. of LTL Vehicles (incl. LCL)		17.5	43.8	32.0	80.0	16.0	40.0	28.0	70.0	8.0	20.0	19.0	47.5
No. of SeaVan/Container Vehicles (Full Load)		0.5	1.3	0.0	0.0	4.0	10.0	0.0	0.0	3.0	7.5	0.0	0.0
No. of Vehicles per Day: TOTAL INBOUND		43.0	107.5	64.0	160.0	168.0	420.0	48.0	120.0	36.0	90.0	24.0	60.0
(c) Average Daily Truck Traffic: OUTBOUND													
No. of Truckload Vehicles		30.0	75.0	17.0	42.5	25.0	62.5	8.0	20.0	25.0	62.5	5.0	12.5
No. of LTL Vehicles (incl. LCL)		20.0	50.0	18.0	45.0	32.0	80.0	6.0	15.0	8.0	20.0	18.0	45.0
No. of SeaVan/Container Vehicles (Full Load)		0.5	1.3	0.0	0.0	2.0	5.0	0.0	0.0	3.0	7.5	0.0	0.0
No. of Vehicles per Day: TOTAL OUTBOUND		50.5	126.3	35.0	87.5	59.0	147.5	14.0	35.0	36.0	90.0	23.0	57.5
(d) Average Monthly Rail Traffic: INBOUND													
Subsistence (Boxcar)		25.0	62.5	0.0	0.0	41.0	102.5	0.0	0.0	22.0	55.0	0.0	0.0
General Merchandise (Boxcar)		3.0	7.5	2.0	5.0	0.0	0.0	7.0	17.5	8.0	20.0	0.0	0.0
Strategic Materials (Hopper Car)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heavy-Lift (Any Type Requiring Crane)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.5	0.0	0.0
Trailer-on-Flatcar (TOFC)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Container-on-Flatcar (COFC)		0.0	0.0	0.0	0.0	0.0	0.0	11.0	27.5	0.0	0.0	0.0	0.0
No. of Railcars: TOTAL INBOUND		28.0	70.0	2.0	5.0	41.0	102.5	18.0	45.0	31.0	77.5	0.0	0.0
(e) Average Monthly Rail Traffic: OUTBOUND													
Subsistence (Boxcar)		0.0	0.0	0.0	0.0	10.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
General Merchandise (Boxcar)		0.0	0.0	0.0	0.0	0.0	0.0	3.0	7.5	0.0	0.0	0.0	0.0
Strategic Materials (Hopper Car)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heavy-Lift (Any Type Requiring Crane)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trailer-on-Flatcar (TOFC)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Container-on-Flatcar (COFC)		0.0	0.0	0.0	0.0	0.0	0.0	6.0	15.0	0.0	0.0	0.0	0.0
No. of Railcars: TOTAL OUTBOUND		0.0	0.0	0.0	0.0	10.0	25.0	9.0	22.5	0.0	0.0	0.0	0.0
(f) Commercial Switching Activity													
Average Commercial Switches Per Week		3.0	7.0	0.9	2.7	7.0	14.0	4.0	42.0	3.2	3.2	N/A	N/A
No. of Rail Gates Utilized		1	1	1	1	2	2	1	1	2	2	N/A	N/A
No. of Rail Gates Available		2	2	1	1	2	2	1	1	4	4	N/A	N/A
Average Switch Train Size (# of Rail Cars)		2.2	2.3	0.5	0.4	1.7	2.1	1.6	0.4	2.2	5.6	N/A	N/A

		DDRV		DDMP		DDMT		DDOU		DDTC		DDCO	
		Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.
B.3 TRUCK TRANSPORTATION (Continued)													
										0	0		
(c) Transit Time (Minutes) to/from:													
LTL Terminal	- Average	5	5	5	5	10	10	5	5	5	5	5	5
	- Minimum	5	5	5	5	5	5	5	5	5	5	5	5
	- Maximum	5	5	5	5	25	25	5	5	35	35	5	5
Bulk Warehouse	- Average	15	15	7.5	7.5	10	10	10	10	5	5	10	10
	- Minimum	1	1	5	5	5	5	5	5	3	3	1	1
	- Maximum	45	45	10	10	25	25	20	20	12	12	45	45
(d) LTL Terminal Handling - Minutes/Vehicle (including positioning)													
Discharge Time	- Average	100	100	180	180	120	120	120	120	120	120	120	120
	- Minimum	45	45	120	120	30	30	30	30	15	15	60	60
	- Maximum	240	240	390	390	300	300	360	360	360	360	240	240
Loading Time	- Average	300	300	180	180	540	540	120	120	30	30	120	120
	- Minimum	150	150	120	120	420	420	30	30	30	30	60	60
	- Maximum	600	600	390	390	660	660	360	360	75	75	240	240
(e) Warehouse Handling - Minutes/Vehicle (including positioning)													
Discharge Time	- Average	150	150	45	45	90	90	144	144	120	120	120	120
	- Minimum	60	60	30	30	60	60	120	120	60	60	60	60
	- Maximum	360	360	75	75	360	360	360	360	240	240	240	240
Loading Time	- Average	150	150	45	45	300	300	144	144	30	30	120	120
	- Minimum	60	60	30	30	120	120	120	120	15	15	60	60
	- Maximum	360	360	75	75	360	360	360	360	45	45	240	240
% of Vehicles with 2-Way Loads													
Truckload		5%	5%	N/A	N/A	1%	1%	10%	10%	65%	65%	0%	0%
LTL		5%	5%	N/A	N/A	0%	0%	10%	10%			0%	0%
B.4 RAIL TRANSPORTATION													
(a) Depot Classification Yard (DCY):													
Switch Processing (Minutes/Car)	- Average	7.5	7.5	N/A	N/A	15	15	5	5	N/A	N/A	12	12
	- Minimum	5	5	N/A	N/A	15	15	5	5	N/A	N/A	10	10
	- Maximum	30	30	N/A	N/A	15	15	5	5	N/A	N/A	30	30

Exhibit 3-4 (Cont'd)

Exhibit 3-4 (Cont'd)

		DDRV		DDMP		DDMT		DDOU		DDTC		DDCO	
		Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.	Peacetime	Mobiliz.
B.4 RAIL TRANSPORTATION (Continued)													
(f) Cargo Discharge (Minutes/Car)													
Subsistence (Boxcar)	- Average	120	120	240	240	240	240	279	279	120	120	N/A	N/A
	- Minimum	120	120	120	120	210	210	270	270	90	90	N/A	N/A
	- Maximum	240	240	480	480	480	480	360	360	240	240	N/A	N/A
General Merchandise (Boxcar)	- Average	180	180	240	240	240	240	279	279	135	135	228	228
	- Minimum	120	120	120	120	210	210	270	270	120	120	120	120
	- Maximum	240	240	480	480	480	480	360	360	180	180	240	240
Strategic Materials (Hopper Car)	- Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heavy-Lift Movements	- Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	210	210	210	210
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	165	165	165	165
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	210	210	210	210
Trailer (TOFC)	- Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	120
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	60
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	240
Container (COFC)	- Average	N/A	N/A	N/A	N/A	N/A	N/A	93	93	N/A	N/A	120	120
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	90	90	N/A	N/A	60	60
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	120	120	N/A	N/A	240	240
(g) Cargo Loading (Hours/Car)													
Subsistence (Boxcar)	- Average	120	120	240	240	240	240	279	279	N/A	N/A	N/A	N/A
	- Minimum	120	120	120	120	210	210	270	270	N/A	N/A	N/A	N/A
	- Maximum	240	240	480	480	480	480	360	360	N/A	N/A	N/A	N/A
General Merchandise (Boxcar)	- Average	180	180	240	240	240	240	279	279	N/A	N/A	228	228
	- Minimum	120	120	120	120	210	210	270	270	N/A	N/A	120	120
	- Maximum	240	240	480	480	480	480	360	360	N/A	N/A	240	240
Strategic Materials (Hopper Car)	- Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heavy-Lift Movements	- Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	210	210
	- Minimum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	165	165
	- Maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	210	210

There are a number of interesting conclusions which can be drawn from this data analysis, including:

- DDMT had the highest daily truck traffic for both peacetime and mobilization, while DDCO had the lowest.

- DDMT also had the highest rail traffic while DDCO reported no activity.

- Rail car activity is primarily limited to subsistence and general merchandise box cars at all depots except DDOU which handles outbound containers of modular hospitals on flat cars.

- Operating hours during peacetime vary from one to two eight-hour shifts for both shipping and receiving with several depots having one shift for receiving and one shift for shipping.

- Four of the depots use only one truck gate and the remaining two use two. Additional gates available during mobilization range from zero to five.

- Two of the depots (DDMP and DDMT) do not utilize a separate dispatch/inspection station for truck. Processing time at the other depots vary from less than 1 minute to 10 minutes per truck with a 4-minute average.

- DDRV has the fewest LTL receiving docks (5) and DDCO has the most (24). The average unloading time is just over 2 hours with a range from 1.7 to 3.0 hours. DDRV also has the fewest LTL shipping docks (11) and DDMT has the most. Average loading time is 3.6 hours with a range from 0.5 (DDTC) to 9.0 hours (DDMT).

- DDTC also has the fewest TL docks (50) while DDOU has the most (434). Unloading time varies from 0.8 to 2.5 hours with an average time of 1.9 hours. Loading time ranges from 0.5 to 5.0 hours with a 2.2 hour average.

- DDTC had the fewest boxcar docks, while DDMT had the most. Average loading or discharging time was 2.8 hours with the maximum just under 5 hours. DDOU utilizes one container crane to load four containers on one COFC flatcar in 22 minutes.

The average statistics developed through the survey were utilized to calculate the static daily capacity for each depot's transportation facilities. The calculated capacity was then compared to average daily traffic estimates to verify existing

the reported mode, as maximum ranges were much greater than minimum ranges.[16]

- Detailed data were limited on the extent of backhaul truck utilization (i.e., loaded inbound trucks which are also loaded outbound). The "most conservative" assumption of no backhaul traffic was used to maximize gate and dispatch office traffic relative to a given level of inbound and outbound loads.

- The mobilization scenario runs were based on the assumed use of all available facilities under the hypothesis that available truck facilities would be utilized before additional rail or container activities were increased.

The remaining sections detail the simulation process for each depot. The results should be considered relative to the following factors:

- Input sources were generally limited; in some cases, the data are based on the personal experience of depot personnel with no standardized source;

- The use of a generalized model structure for all of the depots necessarily limited the detail and accuracy for any one depot;

- The combination of data scarcity and limited resources to run and refine the model restricted its calibration for current peacetime operations, although the results are verified and approved by depot personnel; and

- The simulation analysis is based on the current structure and configuration of the DLA depots and did not consider the possible impact of modified missions, depot consolidation, or general shifts in the national defense strategy.

[16] The triangular distribution produces random values such that half of all values are between the mode and the maximum and half are between the mode and the minimum, with an equal likelihood of any one value within the two ranges. The "average" will thereby differ from the mode unless the mode is halfway between the minimum and the maximum.

Selected Transportation Survey Data and Estimated Capacity for DLA Depots

	DDRV		DDHP		DDMT		DDOU		DDTC		DDCO		Average		Minimum		Maximum	
	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-ratio
ly Truck Traffic																		
TL Receiving	17.5 -	43.8 -	32.0 x	80.0 x	16.0 -	40.0 -	28.0 +	70.0 +	8.0 n	20.0 n	19.0 -	47.5 -	20.1	50.2	8.0	20.0	32.0	80.0
TL Shipping	20.0 +	50.0 +	18.0 +	45.0 +	32.0 x	80.0 x	6.0 n	15.0 n	8.0 -	20.0 -	18.0 +	45.0 +	17.0	42.5	6.0	15.0	32.0	80.0
	37.5 a	93.8 a	50.0 x	125.0 x	48.0 +	120.0 +	34.0 -	85.0 -	16.0 n	40.0 n	37.0 a	92.5 a	37.1	92.7	16.0	40.0	50.0	125.0
L Receiving	25.5 -	63.8 -	32.0 -	80.0 -	152.0 x	380.0 x	20.0 -	50.0 -	28.0 -	70.0 -	5.0 n	12.5 n	43.8	109.4	5.0	12.5	152.0	380.0
L Shipping	30.5 x	76.3 x	17.0 -	42.5 -	27.0 +	67.5 +	8.0 -	20.0 -	28.0 +	70.0 +	5.0 n	12.5 n	19.3	48.1	5.0	12.5	30.5	76.3
	56.0 -	140.0 -	49.0 -	122.5 -	179.0 x	447.5 x	28.0 -	70.0 -	56.0 -	140.0 -	10.0 n	25.0 n	63.0	157.5	10.0	25.0	179.0	447.5
ly Train Traffic	0.4 a	1.0 -	0.1 -	0.4 -	1.0 x	2.0 +	0.6 +	6.0 x	0.5 +	0.5 -	0.0 n	0.0 n	0.4	1.6	0.0	0.0	1.0	6.0
ly Rail Car Traffic																		
ox Car Receiving	0.9 +	2.3 +	0.1 -	0.2 -	1.3 x	3.4 x	0.2 -	0.6 -	1.0 +	2.5 +	0.0 n	0.0 n	0.6	1.5	0.0	0.0	1.3	3.4
ox Car Shipping	0.0 n	0.0 n	0.0 n	0.0 n	0.3 x	0.8 x	0.1 +	0.2 +	0.0 n	0.0 n	0.0 n	0.0 n	0.1	0.2	0.0	0.0	0.3	0.8
	0.9 +	2.3 +	0.1 -	0.2 -	1.7 x	4.2 x	0.3 -	0.8 -	1.0 +	2.5 +	0.0 n	0.0 n	0.7	1.7	0.0	0.0	1.7	4.2
trat. Materials Receiving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
trat. Materials Shipping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IPEC/Heavy Lift Receiving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
IPEC/Heavy Lift Shipping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OFC Receiving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFC Shipping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFC Receiving	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.4	0.9
OFC Shipping	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.5
	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.4	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.6	1.4

verage x=Maximum nimum -=Below Average +=Above Average

EXHIBIT 4-1

Selected Transportation Survey Data and Estimated Capacity for DLA Depots

	DDRV		DDMP		DDMT		DDOU		DDTC		DDCO		Average		Minimum		Maximum	
	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zation	Peace-time	Mobili-zatio
C Processing Stations																		
umber Available	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
verage Processing Mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C Processing Stations																		
umber Available	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
verage Processing Mins.	0	0	0	0	0	0	22	22	0	0	0	0	4	4	0	0	22	22
imated Daily Truck Capac ty																		
ate Processing	320 +	2,880 x	320 +	1,280 a	558 x	800 -	162 n	1,371 +	200 -	320 n	193 -	960 -	292	1,269	162	320	558	2,880
ruck Dispatch/Inspection	256 -	384 -	0 n	0 n	0 n	0 n	142 -	400 -	139 -	222 -	1,933 x	3,200 x	412	701	0	0	1,933	3,200
TL Receiving Docks	26 -	72 n	38 -	120 -	168 +	240 +	38 -	108 -	23 n	72 n	174 x	288 x	78	150	23	72	174	288
TL Shipping Docks	35 n	77 n	76 -	152 -	93 -	133 -	123 -	348 -	1,050 x	1,680 x	152 -	252 -	255	440	35	77	1,050	1,680
L Receiving Docks	473 -	1,334 -	1,440 +	5,024 x	2,323 x	3,328 +	769 -	2,170 a	94 n	300 n	276 -	456 -	896	2,102	94	300	2,323	5,024
L Shipping Docks	890 a	1,334 -	2,320 x	5,056 x	131 n	187 n	769 -	2,170 +	750 -	1,200 -	276 -	456 -	856	1,734	131	187	2,320	5,056
ystem Capacity	256 a	384 -	320 +	1,280 x	558 x	800 +	142 -	400 -	139 n	222 n	193 -	960 +	268	674	139	222	558	1,280
imated Daily Rail Capaci y																		
ox Car	228 -	342 -	108 -	432 -	1,621 x	2,322 x	596 +	1,683 +	190 -	303 -	0 n	0 n	457	847	0	0	1,621	2,322
trategic Materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IPEC/Heavy Lift	0	0	0	0	0	0	0	0	4	6	0	0	1	1	0	0	4	6
OFC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OFC	0	0	0	0	0	0	23	65	0	0	0	0	4	11	0	0	23	65
ystem Capacity	228 -	342 -	108 -	432 -	1,621 x	2,322 x	619 +	1,748 +	193 -	309 -	0 n	0 n	461	859	0	0	1,621	2,322
ck Capacity Utilization																		
ate Processing	58% -	16% -	62% -	39% -	81% x	142% +	77% +	23% -	72% +	113% +	49% n	24% -	66%	59%	49%	16%	81%	142%
ruck Dispatch/Inspection	55% +	91% +	0% n	0% n	0% n	0% n	80% +	71% +	93% x	146% +	4% -	7% -	39%	52%	0%	0%	93%	146%
TL Receiving Docks	69% +	61% +	85% x	67% +	10% n	17% -	73% +	65% +	36% -	28% -	11% -	16% -	47%	42%	10%	16%	85%	67%
TL Shipping Docks	57% x	65% +	24% +	30% +	34% +	60% +	5% -	4% -	1% n	1% -	12% -	18% -	22%	30%	1%	1%	57%	65%
L Receiving Docks	5% -	5% -	2% -	2% -	7% -	11% +	3% -	2% -	30% x	23% +	2% n	3% -	8%	8%	2%	2%	30%	23%
L Shipping Docks	3% -	6% +	1% n	1% -	21% x	36% +	1% -	1% -	4% -	6% +	2% -	3% -	5%	9%	1%	1%	21%	36%
l Capacity Utilization																		
ox Car	0% +	1% +	0% -	0% -	0% -	0% -	0% -	0% -	1% x	1% +	0% n	0% n	0%	0%	0%	0%	1%	1%
trategic Materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IPEC/Heavy Lift	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%
OFC	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
OFC	0%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%

verage x=Maximum n=Minimum -=Below Average +=Above Average

EXHIBIT 4-2 (Cont'd)

would also be used for mobilization.[19] All vehicles are weighed and inspected in an average time of 10 minutes for loaded trailers and 5 minutes for empty trailers.[20] The loaded truck dispatch time was the maximum for all depots. Inbound vehicles are routed to the freight/shipping terminal, central receiving, a bulk warehouse or open storage. The average transit time from the dispatch office to LTL facilities was 5 minutes and to bulk warehouses was 15 minutes (including delays).

Inbound LTL shipments under 10,000 pounds or 500 cubic feet are considered bin items and are handled at the central receiving facility. Incoming shipments are unloaded at this facility, inspected, and documented, and then staged and transferred to bin storage. Some larger items may be transferred to bulk warehouses via intra-depot tractor. A total of 5 receiving docks are currently used, the lowest number for all of the depots. The average discharge time was 1.7 hours per trucks which was also the lowest for all depots.

Outbound shipments meeting the same size criteria are shipped from the freight terminal after the items have been transferred from storage and accumulated into shipment lots. The survey data indicated a total of 10 to 12 LTL shipping docks, about average for all depots. A total of 16 shipping docks were estimated for a mobilization scenario. Average LTL load time was above average at 5 hours per truck.

Shipments exceeding the LTL shipment limit are considered bulk and handled directly to and from the bulk warehouse. DDRV has 278 bulk warehouse docks which is double the cross-depot average. Truckload loading and discharging times were the same at 2.5 hours per truck which was the maximum for receiving operations and above average for shipping operations.

Rail cars enter the depot via a single rail gate with the capacity to use an additional gate if necessary. Inbound and outbound rail cars are exchanged with the commercial railroads using switch trains averaging 2.2 cars and a frequency of 3 switches per week. Switch trains are processed and assembled at an average of 7.5 minutes per car at the classification yard which has a capacity for 200 cars. Intra-depot transfer of rail

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[19] "Dispatch" is used to denote all activities conducted inside the gate prior to terminal or warehouse dispatch or gate exit including documentation review, vehicle inspection and vehicle routing.

[20] The relative time required to process empty trucks through the gate and dispatch was estimated at 80 percent of the loaded time for all depots. DDRV revised this figure to 50 percent based on experience and the calculated capacity provided to depot personnel.

Simulation Run - Peacetime Calibration (DDRV)

The peacetime scenario resulted in 185 trucks transiting the truck gate and nearly 1 rail car being processed per day (see Exhibit 4-2). Truck traffic was evenly distributed between inbound and outbound for both LTL and truckload facilities with total truckload traffic exceeding LTL volumes by two-thirds.

The calibration results indicate moderate congestion at the gate (71 percent utilization), the dispatch office (50 percent), and the LTL shipping and receiving docks (65 percent and 74 percent respectively). As indicated, the average queue for the gate and dispatch office was 2.7 and 3.7 trucks which are both low considering the inclusion of "off-hours" delays. The LTL shipping docks had a very small average queue, and the receiving docks had a moderately high value based on the relative hours of operations. Truckload dock utilization was extremely low at 4 to 6 percent, although the average queue for the receiving docks was higher than that of shipping for the reasons mentioned above.

Rail activity was easily handled by existing facilities with very small utilization of gate/yard capacity and rail docks, and no queues. These results were reviewed and considered reasonable by depot personnel.

Simulation Run - Mobilization Projection (DDRV)

The mobilization scenario was based on the OPLAN traffic increase of 150 percent, 24-hour operations for both shipping and receiving, and full utilization of available facilities (an additional 5 truck gates, 5 LTL shipping docks and 1 rail gate). The simulation results (see Exhibit 4-3) indicate no significant congestion for all facilities with the highest average queue occurring at the dispatch office (1.9 trucks) based on an increase in utilization to 83 percent. The additional truck gates reduced the utilization rate to 20 percent with no queue, while dock utilization remained relatively stable. The "artificial" queues resulting from off-hours delays are eliminated, so no queues are evident at any of the dock facilities.

Rail activity remains very insignificant with facility utilization at or below 1 percent for all activities and no meaningful queues.

Conclusions (DDRV)

The simulation results correspond to the opinions of depot personnel that truck facilities are adequate for planned mobilization requirements and that rail is only required to handle current rail traffic.

EXHIBIT 4-3

DLA Depot Simulation Model Results

Richmond, VA (DDRV)
Case: Mobilization (Base Case)

Run Length: 90.0 Days

	Available	Daily Operating Hours	Utilization Rates Average*	Utilization Rates Maximum	Queue Length ** Average	Queue Length ** Maximum	Average Process. Hours	Average Daily Traffic	
Truck Gate	6	24.0	20%	100%	0.0	0.0	0.06	463.6	Trucks (LD+MT)
Dispatch	2	24.0	83%	100%	1.9	18.0			
Bulk Warehouse									
Receiving Docks	139	24.0	6%	13%	0.0	0.0	3.15	62.6	Trailers/Ctrs
Shipping Docks	139	24.0	7%	14%	0.0	0.0	3.16	75.6	Trailers/Ctrs
Freight Terminal									
Receiving Docks	5	24.0	77%	100%	0.5	8.0	2.12	43.5	Trailers/Ctrs
Shipping Docks	16	24.0	76%	100%	0.2	7.0	5.86	50.0	Trailers/Ctrs
Rail Gate	2	24.0	0%	50%	0.0	0.0	0.00	2.2	Trains
Classification Yard	1	24.0	1%	100%	0.0	1.0		2.2	Rail Cars (IB)
Rail Car Processing									
Box Car	30	24.0	1%	7%	0.0	0.0	2.70	2.2	Rail Cars
Strategic Materials	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
DIPEC/Heavy Lift	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
TOFC	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
COFC	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars

* Average utilization is based on the available processing units (e.g., gates or docks) and the designated daily operating hours (for shipping, receiving and "general"). Since loading and unloading operations may extend beyond the designated hours (to complete vehicles in progress), utilization may exceed 100 percent for less than 24-hour operating scenarios.

** Queue statistics include waiting during off-hours for partial day operations. In cases where there is no traffic (i.e., rail at some depots), the rail gate queue may indicate traffic due to the model's method of generating traffic.

traffic. An additional 26 docks could be utilized for mobilization. The average loading and discharging time per vehicle was 0.75 hours which are the lowest of all depots for receiving and well below average for shipping.

The rail traffic utilizes the only available rail gate and a 151-car capacity classification yard. Intra-depot transfer of rail cars is handled with two switching locomotives. There are no heavy-lift cranes for handling over-sized cargoes on flat cars. There are 36 rail docks which can be utilized during peacetime, with double that amount available for mobilization. The average discharge time for the general merchandise box cars is 4 hours per car.

Peacetime Utilization and Congestion (DDMP)

The depot's storage capacity of over 38 million cubic feet is estimated to be at 98.5 percent utilization with 100 percent anticipated during mobilization. Bulk warehouse utilization figures were not available, while LTL receiving and shipping utilization were estimated at 80 and 90 percent respectively.[22] These figures would increase to 100 percent under mobilization.

The only congestion point currently identified was the main truck gate where inbound trucks will sometimes back up onto the highway particularly during the morning rush hour when the gate first opens and passenger vehicle traffic is also peaking. Depot personnel attributed the congestion to truck drivers not adhering to arrival schedules.

It is anticipated that this congestion would worsen under mobilization with no other congestion points assuming a 24-hour operating day was utilized.

Simulation Run - Peacetime Calibration (DDMP)

The traffic generated by the model averaged 196 truck entries/exits per day via the truck gate and about one rail car every ten days (see Exhibit 4-4). Receiving accounted for about two-thirds of both TL and LTL traffic. The simulation completed execution with the only congestion at the LTL receiving docks which operated at 99 percent of capacity and had an average queue of 1.6 trucks. The gate utilization was 34 percent with a

[22] The discrepancy between these utilization rates and those estimated based on average processing characteristics led to the re-allocation of LTL docks between receiving and shipping. Even at the lower number of shipping docks, capacity utilization is well below 90 percent probably due to intra-facility cargo processing rather than dock handling.

minimal queue. Bulk warehouse docks operated at less than 2 percent of capacity, while the LTL shipping docks were utilized 32 percent of the simulation period.

As indicated, the limited rail traffic is easily handled by existing facilities with no queues.
The only significant differences in the projected utilization and congestion were as follows:

- For LTL shipping, the projected utilization of 32 percent was well below the 90 percent figure presented in the survey, probably indicating that trucks are occupying dock space during intra-depot processing instead of just for cargo loading.

- The gate results do not indicate the congestion experienced during early morning periods. The model assumes a relatively constant flow of traffic during the operating day, thereby depicting the scheduling system which the truck drivers are ignoring to create the queue. As the burden of the congestion falls upon the commercial truckers and does not strain depot facilities, the model results can be utilized.

Despite these differences, the results of the peacetime calibration were reviewed by DDMP personnel and found reasonable.

Simulation Run - Mobilization Projection (DDMP)

Mobilization traffic was estimated as a fixed increase of 150 percent over peacetime traffic for all types as stated in the OPLAN requirements.

Based on the projected 24-hour operating day, utilization at the LTL receiving docks fell to 85 percent with minor queue conditions (see Exhibit 4-5). Gate utilization similarly fell to 21 percent with no queue, while bulk warehouse activity remained relatively stable. The utilization rate for the LTL shipping docks was the only one to rise (to 37 percent), although still at a moderate level. Rail operations remained at very low levels with no observable congestion.

Conclusions (DDMP)

The simulation results indicate that truck facilities are adequate to handle the projected mobilization requirements with limited congestion. This conclusion would not be affected by the possible use of truck gates by passenger vehicles or Navy trucks, as the projected traffic should be manageable with just one gate (i.e., four gates at an average utilization of 21 percent is roughly equivalent to one gate at 84 percent). Increased rail

requirements would be limited to existing traffic flows based on non-capacity considerations.

4.1.3 DDCO - Columbus

Traffic Patterns (DDCO)

The peacetime truck traffic levels for DDCO were the lowest of all depots with no rail activity. The truck traffic is equally balanced between inbound and outbound movements with LTL accounting for over three quarters of the total traffic. The depot averages a total of 47 trucks per day over a 14.5 hour operating period.

Transportation Facilities and Operations (DDCO)

DDCO utilizes a single truck gate during peacetime, although there are two more gates used primarily for passenger vehicles which could be used for mobilization. The average gate processing time is 5 minutes per truck for the main gate which is comparable to the other depots. It was estimated that the other two gates could only handle about 5 trucks per hour (as opposed to 12 for the main gate) due to the competition with non-commercial traffic.

DDCO has only one dispatch/inspection processing location available for both peacetime and mobilization periods, but has a very low average processing time due to an inspection rate of only 2 percent (5 percent under mobilization).

LTL activity occurs at the central receiving facility (inbound), the freight terminal and the bin warehouses. There are 24 discharging locations (highest of all depots) and 21 shipping locations. Truckload activity occurs at the bulk warehouses which have a total of 76 cargo handling slots. Average loading and discharging times are both LTL and TL traffic is 2.0 hours per truck which is below average for all flows except inbound truckload.

Facility Utilization and Congestion (DDCO)

The depot's storage capacity was estimated to currently be at 98 percent of capacity with full utilization projected under mobilization. The LTL shipping docks are currently at full capacity, while the truckload docks were estimated at only 5 percent utilization and the LTL receiving docks at 20 percent.

The peacetime congestion points included:

EXHIBIT 4-6

DLA Depot Simulation Model Results

Columbus, OH (DDCO)
Case: Peacetime (Base Case)

Run Length: 90.0 Days

	Available	Daily Operating Hours	Utilization Rates Average*	Utilization Rates Maximum	Queue Length ** Average	Queue Length ** Maximum	Average Process. Hours	Average Daily Traffic	
Truck Gate	1	14.5	26%	100%	0.1	11.0	0.04	91.8	Trucks (LD+HT)
Dispatch	1	14.5	3%	100%	2.2	12.0			
Bulk Warehouse									
Receiving Docks	38	14.5	2%	11%	0.0	1.0	2.30	5.2	Trailers/Ctrs
Shipping Docks	38	14.5	2%	11%	0.0	1.0	2.36	5.0	Trailers/Ctrs
Freight Terminal									
Receiving Docks	24	14.5	12%	25%	0.0	1.0	2.31	18.3	Trailers/Ctrs
Shipping Docks	21	14.5	13%	29%	0.0	1.0	2.33	17.4	Trailers/Ctrs
Rail Gate	0	14.5	N/A	N/A	1.9	2.0	0.00	0.0	Trains
Classification Yard	1	14.5	0%	0%	0.0	0.0		0.0	Rail Cars (IB)
Rail Car Processing									
Box Car	0	14.5	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
Strategic Materials	0	14.5	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
DIPEC/Heavy Lift	0	14.5	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
TOFC	0	14.5	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
COFC	0	14.5	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars

* Average utilization is based on the available processing units (e.g., gates or docks) and the designated daily operating hours (for shipping, receiving and "general"). Since loading and unloading operations may extend beyond the designated hours (to complete vehicles in progress), utilization may exceed 100 percent for less than 24-hour operating scenarios.

** Queue statistics include waiting during off-hours for partial day operations. In cases where there is no traffic (i.e., rail at some depots), the rail gate queue may indicate traffic due to the model's method of generating traffic.

Conclusions (DDCO)

The simulation runs indicate that truck facilities would not be severely constrained for the proposed OPLAN mobilization scenario and therefore rail activity would not be required. As rail is not currently utilized at the depot, maintaining existing rail capacity would only be required to maintain a competitive alternative to truck or for anticipated long-range needs.

4.1.4 DDMT - Memphis

Traffic Patterns (DDMT)

Total peacetime truck traffic levels for DDMT was the largest of all the depots at 227 loaded trucks per day. The depot experienced the maximum traffic for inbound truckloads and outbound LTL, above average traffic for outbound truckloads, and below average LTL receipts. The truck traffic was primarily outbound for LTL (32 trucks out per day and 16 trucks in) and inbound for TL (152 trucks in and 27 trucks out). Peacetime activity occurs over a two-shift period of approximately 16.8 hours for both shipping and receiving.

DDMT also accounts for the greatest volume of rail traffic at an average of 51 rail cars per month (1.3 per day), all of which are subsistence box cars. Inbound traffic is four times outbound traffic.

The depot survey projections for mobilization requirements was based on a 32 percent rise in loaded truck traffic and a 331 percent rise in rail traffic as follows:

o	Inbound Truckload	+23%
o	Outbound Truckload	+52%
o	Inbound LTL	+63%
o	Outbound LTL	+34%
o	Inbound Subsistence Boxcars	+363%
o	Outbound Subsistence Boxcars	+200%.

These estimates for truck traffic are significantly lower than the general OPLAN estimates, while the rail increase in many times greater.

Transportation Facilities and Operations (DDMT)

DDMT has two truck gates which are both utilized for commercial traffic during normal peacetime operations. Average gate processing time is four minutes per truck which is the average for all depots. DDMT does not utilize a designated dispatch/inspection facility and conducts no inspection on vehicles. Inbound trucks are all sent to central receiving where

point is anticipated to worsen during mobilization based on a proportional increase in these types of traffic.

The calculated facility utilization rates indicated no capacity constraints for truck docks for both peacetime and mobilization, with LTL shipping facilities under mobilization having the highest rate (60 percent). Peacetime gate utilization was 81 percent of the estimated capacity of 558 entries/exits per day and rose to 142 percent under the OPLAN mobilization scenario. (This result led to an increase in the number of truck gates to four under mobilization in the simulation runs based on the availability of gates not currently used for commercial traffic and the ability to quickly activate gate facilities. Rail dock utilization was minimal for both peacetime and mobilization.

Simulation Run - Peacetime Calibration (DDMT)

The traffic generated by the model averaged 451 truck entries/exits per day via the truck gate and about eleven rail cars per week (see Exhibit 4-8). Receiving accounted for 86 percent of TL and 32 percent of LTL traffic. The simulation completed execution with the only congestion at the truck gates which operated at 82 percent of capacity and had an average queue of 3.8 trucks. (Note that the truck dispatch "congestion" consists entirely of trucks processed during off-hours awaiting the opening of the gate.) Bulk warehouse docks operated at 12 percent of capacity for receiving and 17 percent for shipping, while the LTL shipping and receiving docks were utilized 12 percent and 35 percent respectively.

As indicated, the limited rail traffic is easily handled by existing facilities with no queues.

The primary difference between the projected utilization and congestion and the survey results was the congestion at truck gates which was not identified by depot personnel. The queue conditions are not unusual for the high traffic levels which occur at DDMT and the results were thought to be reasonable by depot personnel upon review.

Simulation Run - Mobilization Projection (DDMT)

Mobilization traffic was estimated as a fixed increase of 150 percent over peacetime traffic for all types (as stated in the OPLAN requirements), in contrast to a 43 percent increase in daily operating hours (from 16.8 to 24.0 hours). Based on the increased number of truck gates (as discussed above), truck gate utilization falls to 69 percent and the average queue length was less than one truck (see Exhibit 4-9). Receiving and shipping operations at the bulk warehouses and receiving at the LTL

EXHIBIT 4-9

DLA Depot Simulation Model Results

Memphis, TN (DDMT)
Case: Mobilization (Base Case)

Run Length: 90.0 Days

	Available	Daily Operating Hours	Utilization Rates Average*	Utilization Rates Maximum	Queue Length ** Average	Queue Length ** Maximum	Average Process. Hours	Average Daily Traffic	
Truck Gate	4	24.0	69%	100%	0.3	15.0	0.06	1,128.7	Trucks (LD+MT)
Dispatch	0	24.0	N/A	N/A	0.0	0.0			
Bulk Warehouse									
Receiving Docks	208	24.0	22%	28%	0.0	0.0	2.85	376.9	Trailers/Ctrs
Shipping Docks	39	24.0	31%	59%	0.0	0.0	4.35	66.8	Trailers/Ctrs
Freight Terminal									
Receiving Docks	20	24.0	21%	65%	0.0	0.0	2.51	40.4	Trailers/Ctrs
Shipping Docks	50	24.0	60%	86%	0.0	0.0	9.01	79.6	Trailers/Ctrs
Rail Gate	2	24.0	1%	50%	0.0	0.0	0.06	4.1	Trains
Classification Yard	1	24.0	1%	100%	0.0	1.0		4.1	Rail Cars (IB)
Rail Car Processing									
Box Car	387	24.0	0%	1%	0.0	0.0	5.14	4.1	Rail Cars
Strategic Materials	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
DIPEC/Heavy Lift	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
TOFC	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars
COFC	0	24.0	N/A	N/A	0.0	0.0	0.00	0.0	Rail Cars

* Average utilization is based on the available processing units (e.g., gates or docks) and s designated daily operating hours (for shipping, receiving and "general"). Since loading and unload perations may extend beyond the designated hours (to complete vehicles in progress), utilization may ex d 100 percent for less than 24-hour operating scenarios.

** Queue statistics include waiting during off-hours for partial day operations. In cases where there is no traffic (i.e., rail at some depots), the rail gate queue may indicate traffic due to the model's method of generating traffic.

o	Inbound Truckload	+400%
o	Outbound Truckload	+1150%
o	Inbound LTL	-29%
o	Outbound LTL	+233%

The rail mobilization projections in the survey were only available for projected capacity, rather than volumes, and are therefore not relevant.

Transportation Facilities and Operations (DDOU)

DDOU utilizes just one truck gate during peacetime operations, with two additional gates available during mobilization. The primary truck gate is located on the west side of the depot. Average gate processing time is 3.5 minutes per truck which is slightly below average for all depots.

Dispatch and inspection is conducted at the truck inspection station which can handle one vehicle at a time. Inbound loaded trucks are dispatched to either the receiving facility (LTL) or the bulk warehouses, and all outbound vehicles are also cleared at this location. The average processing time is four minutes (below average for those depots with dispatch facilities) including processing of empty trucks. This average could be reduced significantly during mobilization by only weighing outbound TL shipments, thereby eliminating about half of the processing time for other vehicles.

Inbound LTL shipments are unloaded at the central receiving buildings and transferred to the appropriate storage location via conveyor. Outbound LTL shipments are similarly transferred from storage to the freight terminal for consolidation and outloading. The survey data indicated a total of 9 LTL receiving docks (below average) and 29 LTL shipping docks (about average). The average transit time between the dispatch office and the LTL facilities is 5 minutes, while the average discharge and loading times were 2 hours per truck. These last figures are both below average across all depots.

DDOU has a total of 434 truckload receiving and shipping docks which is the maximum for all depots and nearly twice the average number. The average truckload loading and discharge times were estimated at 2.4 hours per truck which is above average for both receiving and shipping.[23]

[23] The average time was estimated as the weighted average between the minimum time of 2 hours (90%) and the maximum time of 6 hours (10%) based on relative frequency of each (as identified in survey).

- Diversion of manpower resources to overnight air re-pack away from other transportation and shipping operations.

Again, these resource constraints were not within the scope of this transportation analysis and were not considered.

The calculated facility utilization rates indicated moderately high peacetime utilization (70 to 80 percent) for the truck gates, truck dispatch office and LTL receiving docks, and very low utilization of other dock facilities. Calculated rates were lower for mobilization particularly for gate processing based on the additional two gates available. Rail dock utilization was minimal for both peacetime and mobilization.

Simulation Run - Peacetime Calibration (DDOU)

The average daily truck traffic (see Exhibit 4-10) was 122 trucks via the gate and dispatch office (total in and out). The bulk warehouses load and discharge 8 and 21 trucks per day respectively, with the LTL terminal handling 28 inbound and 6 outbound trucks per day. There is an average of 0.9 rail cars processed per day (0.3 box cars and 0.6 COFC cars).

This "base case" resulted in limited congestion at the gate and dispatch office at 42 and 68 percent utilization respectively. The average queue of 0.3 trucks for the gate indicates no congestion, while the high maximum queue (and the average queue for dispatch) represents trucks arrivals and departures during the offhours.[24] Bulk warehouse utilization is low (2 to 4 percent), as is the utilization of LTL shipping facilities at 7 percent. Average queue lengths are similarly low.

The only points of congestion are the 9 LTL receiving docks with a estimated utilization of 103 percent. This result indicates that unloading operations required more than an 8.5 hour operating day (i.e., an addition 0.3 hours). The average queue of 2.7 trucks is relatively low based on this utilization rate and was considered reasonable by depot personnel.

The limited amount of rail activity was easily handled by available facilities. The single piece of container-handling equipment (RTCH) was utilized 6 percent of the operating day with

[24] Depot personnel indicated that trailers may be released for exit by warehousemen at the shipping terminal during non-operating hours for the dispatch office. This capability was not represented in the generalized model used for all depots, and is not relevant to the mobilization analysis.

no average queue. The rail gates, classification yard, and box car docks were used less than 0.5 percent.

Simulation Run - Mobilization Projection (DDOU)

The mobilization scenario was based on the 150 percent OPLAN increase in traffic compared with a near tripling in daily operating hours.

The "mobilization" truck traffic resulted in less congestion than for peacetime as expected (see Exhibit 4-11). The highest utilization again occurred at the LTL receiving docks with a 90 percent utilization and a 1.6 average truck queue. Gate utilization was only 12 percent, while the dispatch facility was in use 57 percent of the time. The queue conditions were insignificant. Dock utilization at the bulk warehouses and LTL shipping facility were comparable to peacetime levels, as were the queue levels.

No queues were indicated at the rail facilities with utilization varying from 1% for the rail gate and classification yard to 3% for the container crane. The limited level of box car traffic was easily handled at less than 0.5 percent utilization.

Conclusions (DDOU)

The projected utilization rates are significantly below capacity and result in limited congestion, an indication that rail would not be required beyond requirements for rail-captive commodities such as DepMed containers.

4.1.6 DDTC - Tracy

Traffic Patterns (DDTC)

Traffic levels for DDTC were below average for truck transport (at 72 loads per day) and above average for rail (at 31 rail cars per month). Truck traffic consisted of 16 truckloads and 56 LTL loads per day with inbound and outbound traffic equally balanced. The truckload volume was the lowest of all depots and the LTL figure was 12 percent less than the cross-depot average. Peacetime operations are based on a single shift of 7.5 working hours for LTL central receiving and the bulk warehouses, and double shifts (15.0 hours) for the truck gates

and dispatch office, the rail gates and the LTL freight terminal.[25]

DDTC accounts for above average volume of rail traffic at an average of 31 rail cars per month (about 1 per day), all of which is inbound. The distribution by commodity and car type is as follows: subsistence box car (71 percent of total), general merchandise box car (26 percent) and heavy lift cargoes from flat car or other (3 percent).

The depot survey projections for mobilization requirements was based on a 53 percent rise in loaded truck traffic and a 35 percent rise in rail traffic disaggregated as follows:

o	Inbound/Outbound Truckload	+39%
o	Inbound/Outbound LTL	+50%
o	Inbound Subsistence Boxcars	+36%
o	Inbound General Merchandise Boxcars	+38%
o	Inbound Heavy Lift on Flat/Other Car	0%.

These projections are significantly lower than the general OPLAN increase of 150 percent.

Transportation Facilities and Operations (DDTC)

DDTC has a single gate used for commercial traffic during normal peacetime operations and projected for use under mobilization. Average gate processing time is 5 minutes per truck which is higher than some other depots, but not by a significant amount. The dispatch/inspection facility can also only handle one vehicle at a time at an average processing time of 9 minutes. The number of vehicles which must be processed at the dispatch office is about 80 percent for a weighted processing time of 7.2 minutes per truck.

Inbound trucks are all sent to central receiving where LTL vehicles are unloaded and truckload traffic is directed to the appropriate warehouse. [What about new facility?] Inbound LTL shipments are inspected and then transferred to storage via conveyor or towveyor in the central receiving facility or via conveyor or tractor to other warehouses. Outbound LTL shipments are loaded at the freight terminal which is also connected to bin storage areas by conveyor or yard tractors.

The survey data indicated a total of 6 LTL receiving docks and 35 LTL shipping docks. The average transit time to the receiving facility from the dispatch office was 5 minutes.

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[25] The simulation model only permits the assignment of different operating hours by shipping and receiving, and not by mode or type of vehicle.

dispatch processing, but fell for the other facilities.[26] Peacetime gate utilization was 72 percent of the estimated capacity of entries/exits per day and rose to 113 percent under the OPLAN mobilization scenario, while dispatch utilization rose from 90 percent to 143 percent.

Simulation Run - Peacetime Calibration (DDTC)

The average daily truck traffic (see Exhibit 4-12) is 142 trucks via the gate and dispatch office (in and out combined). The bulk warehouses load and discharge 28 trucks per day, and the LTL terminal handles 8 inbound and 8 outbound trucks. There is an average of 1 inbound rail car (box car) per day.

Facility utilization is relatively low with the highest rate for the truck dispatch office at 58 percent. LTL freight terminal utilization was 48 percent for receiving and only 1 percent for shipping. The bulk warehouse dock utilization varied from 4 percent for outbound to 35 percent inbound, and gate utilization averaged 40 percent. There are relatively small queues at most of the facilities with none exceeding 1 vehicle.

Rail activity is easily handled with existing facilities with gate and box car dock utilization at 1 percent or less and no queues.

These results were reviewed and verified as reasonable by depot personnel.

Simulation Run - Mobilization Projection (DDTC)

Under mobilization conditions, gate and dispatch office utilization rose significantly based on the combination of increased truck traffic and the 60 percent rise in shipping hours and more than threefold increase in receiving hours (see Exhibit 4-13). Total truck traffic averaged 358 vehicles per day either entering or exiting via the gate, resulting in a 62 percent utilization for the gate and a 90 percent utilization for the dispatch office. Queue lengths remained low for these facilities at 0.4 and 1.8 vehicles respectively. Based on the increased

[26] The estimated daily capacity of 320 vehicles for the truck gate and 222 vehicles for the dispatch facility are below actual levels achieved during Desert Shield. The maximum number of loaded trucks processed in a single day through the gate from September 1990 to November 1990 was 183 (with no identified congestion). This value is equivalent to 366 loaded and empty vehicles processed, if no backhaul utilization is assumed. The higher processing times were still utilized in the model runs, producing a more conservative result.

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CSL Domestic Container Program/Frequent Flyer

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- 1990 Retailer Selection Guide

Norfolk Southern:
- Intermodal Terminal Directory
- Intermodal Transit Schedules
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- Track Star Intermodal Service Guide

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DDCO - Dated 12/31/89
DDMT - Dated 12/31/89

DLA DEPOT RAIL/CONTAINER-HANDLING ASSESSMENT

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DLA DEPOT RAIL/CONTAINER-HANDLING STUDY

APPENDIX B: BIBLIOGRAPHY OF SOURCE/REFERENCE MATERIAL

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DDCO - Dated 12/31/89
DDMT - Dated 12/31/89

DLA DEPOT RAIL/CONTAINER-HANDLING ASSESSMENT

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Document Separator

DEFENSE LOGISTICS AGENCY

MILITARY VALUE POINTS ASSESSMENT FOR STAND-ALONE DISTRIBUTION DEPOTS

PRESENTED BY:
Christina Dorris
22 September 1994

Close Hold

MILITARY VALUE POINTS ASSESSMENT FOR STAND-ALONE DISTRIBUTION DEPOTS

MISSION SUITABILITY (con't)

(20) B. Suitability location for current mission

1. What is the distance (in miles) from the depot to:

(a) Rail (0)
(b) Water (10) = (20)
(c) Surface (0)
(d) Air (10)

TOTAL LINE ITEMS PROCESSED IN OUT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL FY	DAILY AVERAGE
1980	329,741	348,313	314,202	332,600	326,252	384,952	368,070	369,086	333,015	340,608	363,183	348,063	4,158,085	**16,500**
1981	353,743	370,667	311,910	319,443	350,503	384,533	372,041	355,513	329,944	335,459	370,443	344,814	4,199,013	**16,662**
1982	367,594	347,508	362,676	318,045	357,789	404,734	384,119	374,200	321,763	334,572	355,141	319,047	4,247,188	**16,853**
1983	359,397	346,120	337,546	300,760	335,417	372,013	355,969	356,980	331,358	352,444	382,085	369,838	4,199,927	**16,666**
1984	370,095	357,562	350,557	348,873	378,056	402,493	365,753	372,151	354,025	349,928	394,063	378,682	4,422,238	**17,548**
1985	361,367	355,670	366,206	292,639	336,373	386,213	368,880	362,241	338,745	345,246	412,782	366,123	4,292,485	**17,033**
1986	386,443	367,499	351,313	305,392	350,300	375,457	349,100	365,545	382,722	311,496	344,204	402,850	4,292,321	**17,033**
1987	350,395	360,555	349,581	352,398	376,574	413,268	422,893	385,456	372,517	376,308	379,679	370,406	4,510,030	**17,896**
1988	379,235	342,291	345,317	289,867	353,585	395,295	369,749	367,410	339,053	330,892	353,909	343,081	4,209,684	**16,705**
1989	331,494	320,019	327,449	298,536	362,138	380,948	364,210	363,475	354,428	343,266	399,362	293,297	4,138,622	**16,423**
1990	380,860	346,425	315,684	325,557	305,129	315,003	302,296	368,613	326,935	353,519	360,586	374,210	4,074,817	**16,169**
1991	342,998	292,574	297,676	326,940	343,566	345,065	326,243	337,698	305,376	309,621	386,285	377,402	3,991,444	**15,839**
1992	355,869	284,883	289,677	270,210	292,901	328,236	316,704	286,080	273,585	278,957	311,353	340,958	3,629,413	**14,402**
1993	278,877	217,778	271,213	235,000	257,760	297,742	298,512	287,686	286,926	251,039	279,385	269,830	3,231,748	**12,824**
1994	238,184	221,087	220,873	202,832	221,253	239,720	224,664	237,022	214,724	195,029	218,892	208,627	2,642,907	**10,488**

SOURCE: F-9 DATA

NOV 1 1 19[illegible] DEC 2 2 19[illegible]

Ques ITEM DDMT

V.44 MILCON funded or in process that increases storage capacity? If yes, ID # of NSF,TCF,ACF

SEE ATTACHED

Y/N: YES

	NSF	TCF	ACF
FY 1994	86,136	2,153,400	1,888,736
FY 1995			
FY 1996			
FY 1997			
FY 1998			

V.45. MILCON funded or in process that increases thruput capacity?

Y/N: YES SEE ATTACHED

If yes, describe & explain how much on a separate sheet, ID projects separately for fiscal years 94, 95, 96, 97, & 98. CLEARLY ID QUESTION NUMBER.

V.46. Capability to expand in cube?

Y/N: YES

If yes, provide method & TCF,ACF

method	TCF	ACF
Bldg 670/3-5 16' pallet racks	139,968	391,656
Bldg 690/1-3 20' package racks	148,668	212,489
SEE ATTACHED		

V.47. Maximum rated thruput

Source: DOSO-DE ltr, 4 Oct 94
DDMT-T ltr, 13 Oct 94,

ALSO SEE ATTACHED

	lines in	lines out
bin	1,200	18,577
bulk	871	2,403
hazardous	0	0
chill	0	0
CCP	0	0
TOTAL	2,071	20,980

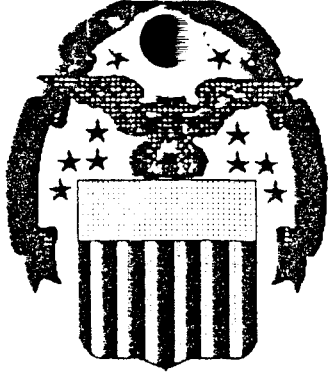
V.48. Max surge thruput capacity avail to accomodate contingency mobilization?

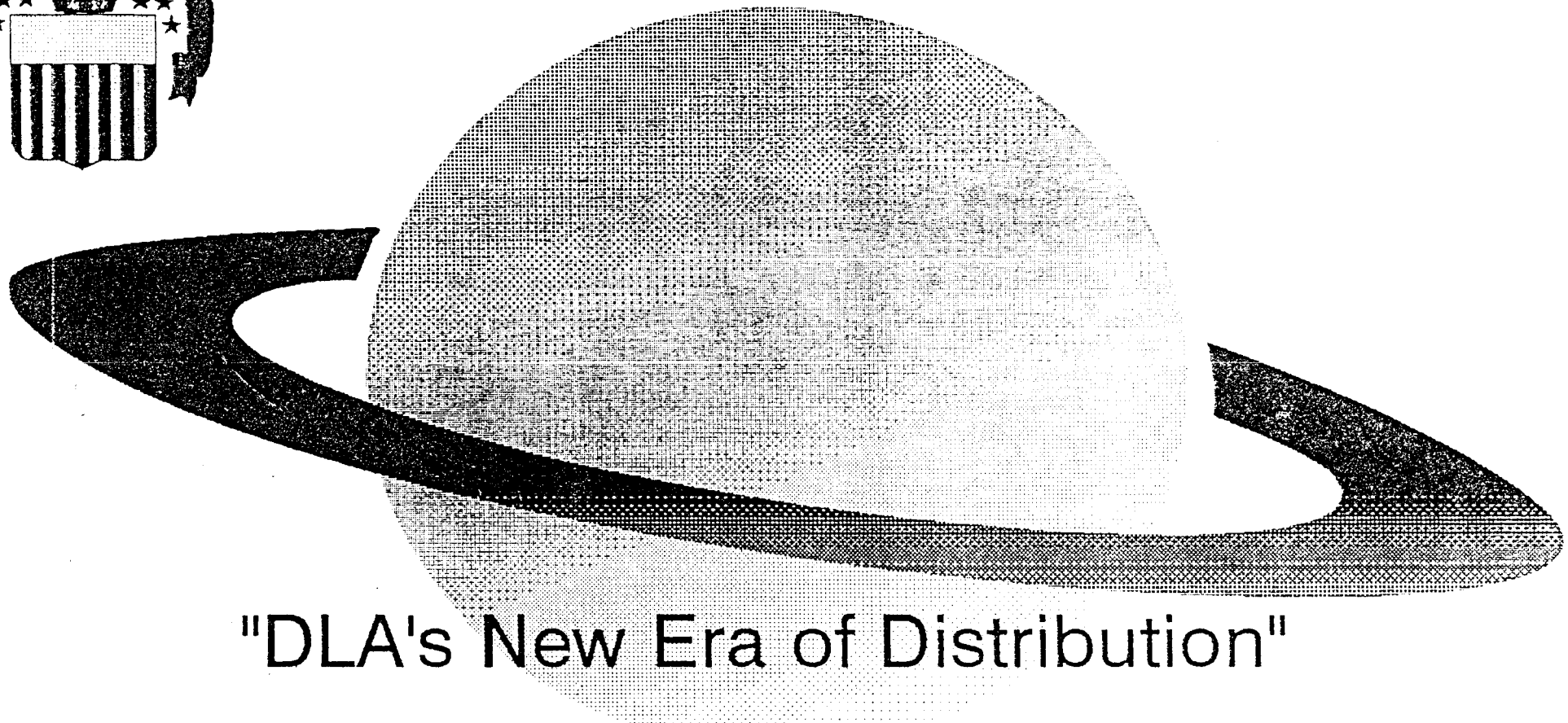
ALSO SEE ATTACHED

	FIRST 8 HR SHIFT lines in	FIRST 8 HR SHIFT lines out	additional capacity with 2nd 8 HR SHIFT lines in	additional capacity with 2nd 8 HR SHIFT lines out
bin	1,200	18,577	1,200	18,577
bulk	872	2,403	872	2,403
hazardous	26	70	26	70
chill	1	3	1	3
CCP	0	0	0	0
TOTAL	2,098	21,053	2,098	21,053

Source: DOSO-DE ltr, 4 Oct 94 and DDMT-T ltr, 13 Oct 94

PLEASE Go To the Top of the Screen and to the RIGHT





"DLA's New Era of Distribution"

Meeting The Challenge

PRESENTED BY:
BG MCFARLIN, USA
EXECUTIVE DIRECTOR, DISTRIBUTION
DEFENSE LOGISTICS AGENCY

Why PDSs, Standalones & Specialized Depots?

PRIMARY DISTRIBUTION SITES

- Substantial Capital Investment
  - Mechanization
  - Consolidation/Containerization
  - Storage/Thruput Capacity
- Proven Value in Desert Storm
- Mobility Support
  - Very Fast Moving Items
  - Surge Capacity
  - Ability to accept DVDs
- Redundancy

SPECIALIZED DEPOTS

- Colocated with Depot Maintenance
  - Stock Closest to Customer

STANDALONE DEPOTS

- Storage
  - Wholesale for Specific Commodities
  - War Reserve Materiel
  - Slow Moving Items
- Mobility Support
  - Quick Reaction to Contingencies

CONCEPT PLAN

FOR THE CONSOLIDATION OF DISTRIBUTION FUNCTIONS

AT SUPPLY DEPOTS

5 OCTOBER 1990

INDEX

Executive Summary

1. This concept plan covers the consolidation of the distribution functions at thirty DoD supply depots. It is in response to direction provided by the Assistant Secretary Defense for Production and Logistics to submit a concept plan and timetable for the transfer of the materiel distribution functions at DoD supply depots to the Defense Logistics Agency.

2. The objectives of the concept plan are to achieve savings through the consolidation of distribution functions while maintaining or improving readiness. The method of meeting these objectives is through consolidation of operations, standardization of systems and procedures, and maximum use of DoD storage capacity and facilities.

3. The basic strategy is the use of a regional management concept. The number of regions is based on the number of sites, the location of the sites, and the workload and storage capacity within each region. The purpose of the region is to have a reasonable management structure that will provide the span of control required to manage a large number of distribution sites while obtaining significant savings through consolidation. The latter will be accomplished by consolidating distribution management and administrative support functions at the three regional headquarters and reducing or eliminating similar functions at the distribution sites.

4. The distribution system will be composed of primary distribution sites, specialized distribution sites, and remote warehouses. The primary distribution sites will store active wholesale consumable items and will have sufficient surge and throughput capacity to be the major supplier and receiver of materiel in the region. This will result in operational savings by concentrating workload with highly efficient operations. The specialized distribution sites will stock unique and bulk items and will also be used to support local requirements and proximate major users such as depot-level maintenance activities. Remote warehouses will be used for inactive items and reparables. This combined use of all the sites will result in maximum efficiency, maximum use of storage capacity while maintaining or improving readiness.

5. The DLA presence at the distribution sites will range from a total facility management to maintenance of one or more remote warehouses for inactive materiel as a tenant. This will be determined and negotiated on a site by site basis.

6. The consolidation of distribution under a single manager along with technological and communication advances provides opportunities for the optimal use of all available distribution sites by all major users and ICPS. To capitalize on this, the plan includes developing a close relationship between ICPs, distribution sites, and major users to improve response times to users and to take advantage of economies in the positioning of materiel.

7. The Defense Distribution System will provide significant savings through standardization and operational efficiency. Although DDS implementation is essential to achieving the full savings potential from consolidation, there are significant achievable savings prior to DDS implementation. The wholesale distribution system will be supported by existing ADP systems until full DDS implementation.

8. The major source of savings from the supply depot consolidation will be from reduction of operational costs, DDS, transportation costs, and MILCON cost avoidance through maximum use of DoD storage facilities.

9. DLA will chair a Joint Flag-Level Review and Coordination Group to provide a forum for resolution of Service/DLA concerns.

1. Introduction

a. Background: As one of the major initiatives to improve the efficiency of operations in the Department of Defense, the Defense Management Review Document (DMRD) 902 proposed the consolidation of approximately 30 Department of Defense Supply Depots. On 12 April 1990, Deputy Secretary of Defense Donald J. Atwood approved the consolidation of materiel distribution functions at defense supply depots. The following day, 13 April 1990, Assistant Secretary of Defense Colin McMillan directed that the Defense Logistics Agency (DLA) plan and execute the prototype consolidation in accordance with the specific guidance provided in the plan dated 27 Mar 1990. DLA was also tasked with submitting, by 1 October 1990, detailed plans for the consolidation of materiel distribution functions in the Mechanicsburg, Pennsylvania, and Ogden, Utah areas and a concept plan and timetable for the transfer of the remaining materiel distribution functions at DoD supply depots.

b. Purpose: The purpose of this document is to present a plan and timetable for the development, implementation, and administration of consolidated distribution operations under DLA which will improve overall performance and assist in reducing costs for the Department of Defense.

c. Objectives:

(1) Consolidate material distribution functions at defense supply depots that will maintain or improve readiness and overall performance and meet customer requirements at reduced costs.

(2) Institutionalize software and procedures that will permit effective and efficient consolidated defense distribution system operations.

(3) Obtain the benefits of single agency management.

(a) Identify and institutionalize standard policies and procedures that will minimize receiving, packing and shipping points.

(b) Maximize the utilization of DoD facilities and installations to accomplish the most effective use of storage space.

(c) More efficient utilization of resources, such as manpower and equipment within DoD.

(d) Stock consolidation at a minimum number of primary sites resulting in larger shipment units, reduced packaging costs and improved shipment and transportation consolidation.

(e) Better management of retrograde materiel storage during a period of drawdown.

(f) Reduced overhead and indirect support of distribution.

(g) Cancellation of new warehouse facilities planned for construction.

d. Definition of Distribution: Distribution is defined as all actions involving the receipt of new procurement, redistributions and field returns; storage of materiel (includes care of materiel in storage/care of supplies in storage); issue materiel; consolidation and containerization of materiel; preservation, packaging, packing and marking; physical inventory; quality control; traffic management; other transportation services; unit materiel fielding and set assembly/disassembly; transshipment and minor repair.

e. Scope of Distribution Operations

(1) Applies to all stocks above the consumer level.

(2) Excludes ammunition, bulk petroleum and principle end items except where accommodation storage is requested by the Services.

(3) Installations included in the consolidation are listed in Appendix A and include associated remote storage sites.

f. Assumptions

(1) Consolidation efforts for the prototype (Defense Distribution Region West) and for those at Mechanicsburg/New Cumberland and Ogden/Hill AFB will continue under separately approved plans.

(2) At supply facilities with a depot maintenance mission, the need to maintain the facility as a supply point will be reassessed should the maintenance mission be phased out.

g. Distribution Operating Principles

(1) Maintain effectiveness in wartime

(2) Maintain efficiency in peacetime

(3) Provide the best utilization of DoD personnel, space, and equipment resources.

h. Distribution Operating Approach

(1) DLA will operate Defense distribution facilities at supply depots. DLA will manage DoD warehouse space.

(2) DLA policy, procedures, and support systems will be used in the operation of the distribution facilities.

(3) DLA will provide accommodation storage and store anything required by the Services, except ammunition and bulk petroleum, to meet Service/DLA ICPs requirements for the most efficient distribution.

(4) DLA will apply various distribution response options to meet Service requirements.

(5) Stockage location of DLA wholesale managed items will be determined by customer requirements and least cost alternatives.

(6) DLA will store Service-owned wholesale and retail materiel based on Service requirements. Special stock arrangements can be negotiated between the Service and DLA in the Master Memorandums of Agreement (MOAs).

(7) Establishment of the need for a DLA presence at remote warehouses will be determined on a site by site basis.

(8) DLA will store reparables at the distribution site collocated with the maintenance site unless other agreements are negotiated between the Service and DLA.

(9) DLA will provide service to all customers based on standard performance factors and Service requirements.

(10) Wholesale stockage which meets both wholesale and retail needs equates to least cost distribution.

(11) Region Commanders will interface and coordinate with the Service/DLA Inventory Control Points (ICPs).

(12) Service mobility exercises will be supported.

(13) Customer interface will be a service responsibility.

i. Review Process. DLA will chair a Joint Flag-Level Review and Coordination Group. This group will be furnished status of the consolidation effort and provide a forum for resolution Service/DLA concerns. This group will meet quarterly.

2. Regional Management Concept

a. Purpose - Supply depots will be organized and managed on a regional basis which will provide a reasonable management structure to obtain the most efficient and economical management and distribution operations. Regional management will provide the administrative control required to manage a large number of supply depots and will result in savings through the regional consolidation of distribution management and administrative support, such as physical inventory, workload planning, industrial engineering, comptroller, and personnel functions. This will reduce the administrative and overhead support costs at individual distribution sites.

b. Composition of Regions

(1) Regional Headquarters Site - Responsible for the administration, resourcing, operational support, and distribution policy for all sites within the region. Due to the current repository of DLA systems, policies, and procedures, the regional command site will be at a current DLA site within the region or at a complex that includes a DLA site so that overhead personnel currently at six DLA depots can be used to staff the three regional headquarters. (Exhibit I)

(2) Primary Distribution Sites(PDS) - A major distribution facility or facilities within the region that is the primary wholesale consumable item shipping, receiving, and freight consolidation hub for the region. The criteria for the location of primary distribution sites are; location of users, vendors, transportation hubs, current capability and capacity, thruput capacity, and potential for expansion. (Exhibit II)

(3) Specialized Distribution Sites(SDS) - Other sites in the region that will meet specialized stockage requirements such as maintenance support, bulk items, hazardous items. Specialized distribution sites will receive materiel directly from vendors or from Regional Freight Consolidation Centers (RFCC) and ship directly to user or to RFCCs, unless specific economic and support conditions dictate otherwise.

(4) Remote Warehouses - Facilities that are extensions of an assigned distribution site. They will be used primarily to store reparables and inactive items. (Exhibit VI)

c. Regional Organization

(1) The proposed Defense Distribution Operation will consist of Headquarters DLA, three Defense Distribution Regions (DDR), three PDS, sixteen SDS, and eight remote warehouses. Each DDR will consist of a central headquarters for the distribution sites within its area of responsibility (AOR).

(2) Headquarters DLA will establish depot management policy and will exercise operational command and control over Defense Distribution Operations.

(3) The regional headquarters will be located at New Cumberland, Memphis, and Tracy and will be composed of the Region Commander and his staff. The staff will consist of the offices of: Comptroller, Civilian Personnel, Military Personnel, Installation Services, Contracting, Telecommunications and Information Systems, Quality Assurance, Command Security, Counsel and the Directorate of Regional Distribution Management. Additional functions such as public affairs, safety and health, equal employment, small business and internal review will be located on the Region Commander's personal staff. The regional headquarters will be responsible for all support functions for their region such as: implementing higher headquarters policy,

establishing and implementing a regional stock positioning agreement and stock management plan, developing and executing the annual budget, maintenance and repair of facilities, and military and civilian personnel actions. Whenever possible, these functions will be accomplished at the regional headquarters rather than at the distribution sites. The Region Commander will exercise command and control over the regional headquarters and each distribution site within the region.

(4) The distribution sites will consist of the Site Commander, minimum support staff, sufficient operational personnel to receive, store and ship materiel, and facilities to satisfy storage requirements. Distribution site support personnel will receive and implement guidance from their functional directorate at regional headquarters but will be under the operational control of the Site Commander. Each distribution site will be responsible for implementing the region's stock management plan as it pertains to them. The Site Commander will report to and be responsible to the Region Commander for the distribution site's operation.

d. Stock Positioning - Positioning of items will be based on service requirements, customer support, demand, facility capability, and least cost or as agreed by the Service and DLA in the Master MOAs. Active wholesale consumable items and other designated items will be concentrated in the PDS to optimize stock picking operations and to maximize storage space utilization. Items will be positioned at one location within a region unless economy and/or customer support dictate otherwise. Stockage at other sites will be based on proximity to high volume users, e.g. maintenance facilities, bulk items which yield transportation savings, and other definitive economies. The Region Commander will make the stockage assignments within the PDS complex. Stockage at SDS will be coordinated with Service/DLA ICPs based on user requirements and regional distribution efficiency and capacity.

e. Transportation

(1) Transportation planning will be accomplished in close coordination with stock positioning planning to optimize transportation consolidation and to reduce shipment hold time.

(2) A single transportation officer will be appointed by the Director of Regional Distribution Management to develop regional transportation procedures consistent with HQ DLA policies and the regional transportation plan.

(3) Principle receiving, shipping, Consolidation and Containerization Point (CCP), and RFCC functions will be performed at the PDS. The RFCCs will be located at the PDS and other sites as required.

(4) All distribution sites will ship full truckloads from their respective bulk warehouses.

(5) All distribution sites will receive full truckloads direct from vendors and wholesale suppliers.

(6) Distribution site support personnel will closely coordinate less-than-truckload (LTL) shipments destined to the same customer to maximize the consolidation of these shipments using the "stop-off for loading" provision contained in the appropriate Guaranteed Traffic Agreement.

(7) If economically feasible, a commercial and/or organic LTL circuit for shipments will be established among the various sites to attain transportation consolidation savings.

(8) Transshipment functions, i.e., CCP operations, will be consolidated at the PDS.

f. ICP Interface - Master MOAs will be developed which will cover sites/region to ICP communications, distribution, use of distribution sites, stock positioning, and customer support.

g. Operational Consolidation - Similar operations and functions, e.g. CCPs, hazardous materiel, will be consolidated on an inter/intra regional basis.

h. Site Closures - Consolidation of missions, operations, functions along with other factors such as force reductions will provide basis for site closures. All existing distribution sites will be validated. Validation actions will be coordinated with the Services.

i. Regions

(1) The three region configuration is based on meeting the administrative requirements to manage a large number of sites, minimizing the overhead cost incurred to establish and maintain a region, and equitable workload distribution.

(2) The three geographical regions are Defense Depot Region East (DDRE), Defense Depot Region Central (DDRC), and Defense Depot Region West (DDRW) (Exhibits III, IV, V, VI).

Region	Cmd Site	Primary Site	Special/Remote Sites
DDRE	New Cumberland	New Cumberland/ Mechanicsburg**	*Letterkenny *Tobyhanna Norfolk Richmond Cherry Point Charleston *Albany Jacksonville Warner Robbins
DDRC	Memphis	Memphis	Columbus *Anniston Pensacola *Corpus Christi San Antonio Oklahoma City Red River
DDRW	Tracy	Tracy/Sharpe**	Sacramento (AF) *Sacramento (A) Oakland San Diego Puget Sound *Barstow Ogden (AF)/ Ogden (DLA)** *Tooele

* Proposed Remote Warehouses
** Operates as a single distribution site

3. Installation Support Operations

a. Support services will be performed in several different ways throughout the sites involved in the consolidation. Support services are defined as contracting services, base supply support, maintenance support for equipment to include Materiel Handling Equipment (MHE), Mechanized Materiel Handling Equipment (MMHE), Mechanized Materiel Handling System (MMHS) and government-owned and leased vehicles. Also included are motorpool services, recycling, fuel delivery, office equipment repair and janitorial services. Additionally, facilities engineering support as well as administrative support services to include forms, audio-visual services and environmental protection support are included. DLA management and control programs and procedures for installation services will be used at all distribution sites covered by this plan. The Base Operations Support System (BOSS) will be implemented at the region headquarters. Other distribution sites in the region will use the BOSS or the host base support system if more cost effective.

b. All base supply management will take place at the region headquarters. Equipment requirements, items to be stocked for each distribution site, stock fund dollar requirements and delivery locations at distribution sites will be identified. To ensure proper controls and accountability of all accountable equipment, one Accountable Property Officer (APO) will be appointed for each region and will be responsible for accountable equipment at all sites. The APO will appoint hand receipt custodians at each site who will be responsible for all accountable equipment at their site.

c. Analyses will be performed for services performed at the sites to determine the most efficient and economical way the service will be accomplished. A regional procedure to provide turn-in, storage, tracking and disposal of all generated waste will be developed. Regional procedures will be developed to maintain, update, and report on all air, water and other environmental protection permits. At distribution sites where DLA is a tenant, environmental matters will be processed by the host. Generally, where a distribution site is in tenant status, facilities engineering support will be obtained from the host installation.

4. System Support

a. Purpose: The approved concept for the supply depot consolidation requires system support which optimizes the opportunities for functional consolidation and streamlining to obtain maximum benefits. The Defense Distribution System (DDS) will consist of interfacing modules of DoD components' systems into a 'best-of-breed' system.

b. Functional Description:

(1) The DDS will be comprised of portions of existing Components' systems. The DDS will provide improved functionality over all Components' systems currently in use. The DDS receiving function provides for real-time access to ICPs' technical data files to support robust technical inspection of receipts, reducing the possibility of acceptance of non-conforming materiel. DDS receiving also provides for automated preparation and tracking of discrepancy reports. DDS provides a paperless environment in the warehouses, with real-time control of work processes, immediate supervisor visibility of work in progress, highly efficient work planning, and extensive use of bar-code technology to eliminate most opportunities for error. It also provides real-time balance-by-location features, thereby eliminating any in-float problems associated with reconciling quantitative balances. In the shipping function, DDS provides a fully automated shipment planning, traffic management and transportation documentation function, which permits taking full advantage of today's varied shipping options, such as multiple small parcel carriers, guaranteed traffic arrangements, and dedicated truck service.

(2) Some portions of existing Components' systems would have to be retained to support those functions not covered by the DDS. A major part of the development effort for DDS will be associated with the necessary interfacing with existing Components' systems.

c. Technical Description:

(1) DDS presents the functional user and the ADP operations community with a state-of-the-art solution to the support of the warehousing function to be used in the near term, as well as providing the opportunity to establish a common architectural platform for future modernization into a DoD standard system as envisioned by the Corporate Information Management (CIM) effort currently underway. From a warehouseman's point of view, the latest in radio frequency and bar-code technology is tied to fixed or mobile workstations in a manner which minimizes data entry, human error opportunity, and research efforts, richly employs man-to-materiel as well as materiel-to-man devices, and can be interfaced with a multitude of existing or planned automated materiel handling systems. The functional manager in the warehouse is provided 100% process control with extensive ability to plan workload, dynamically adjust resources, receive progress and error reports at his/her desk, and monitor human resource utilization in a near real time mode. The ADP operations manager is provided with a modern CPU architecture with all the attendant tools and automated operations utilities, closely coupled with fully redundant nonstop minicomputers to drive critical control and user interface processes. Additionally, significant portions of the system can be regionally consolidated onto a single main frame host, with distributed processing provided in multiple locations all supported by the same host.

(2) To support the operation of the DDS in a Component's activity which performs functions other than those associated with and supported by the DDS, each Component will continue to operate their own system to support these functions. These 'shell' systems would provide the interfaces with customers, the maintenance community, other Component-unique systems, industry, and the military forces in the field. The physical distribution functions would be excised from these systems and replaced by interfaces to the DDS. Fortuitously, each Component's 'shell' system operates in the same ADP environment as DLA's, which will facilitate the interface.

d. Benefits

(1) Tangible Benefits

(a) Elimination of duplicative software development and maintenance by the individual Service Central Design Activity (CDA).

(b) Consolidation of data center operations

(c) Reduced costs for the development of the Services shell systems.

(2) Intangible Benefits

(a) Baseline system for the CIM effort to develop a standard system for distribution depots.

(b) Facilitate implementation of policy changes through single system-wide application changes.

(c) Facilitate implementation of Modernization of DoD Logistics Systems (MODELS)

e. Implementation - An important part of attaining the efficiency and effectiveness from the consolidation effort involves the implementation of DDS within each region. The implementation schedule will be established based on future planned workload for each site from maximum to minimum, i.e. an attempt will be made to first implement DDS at primary distribution sites to reduce the impacts associated with the corresponding workload increases. Actions required for the actual implementation of DDS will basically parallel those currently in process for DDRW with the exception of system interface requirements which should be completed with the DDRW implementation.

5. Preliminary Savings Estimate - A detailed cost benefit analysis will be developed to document the implementation costs and savings to be accrued from consolidation of distribution functions and will be included in the detailed plan due December 1991. A preliminary savings estimate comprised of four components; operational, transportation, DDS, and MILCON cost avoidance without implementation costs has been developed to reflect the range of potential savings.

a. Operational - Operational savings will result from overhead consolidation, operational efficiencies and single system operations. Estimated annual operational savings are from $142 million to $260 million.

b. Transportation - Transportation savings will occur in two main areas. The first is the use of guaranteed traffic rates within the distribution system. The second is an increase in consolidation of shipments and a decrease in the number of LTL shipments. Projected annual transportation savings are $6 million.

c. DDS - Full benefits from single agency management cannot be achieved without a single operating system which provides visibility of all Region stocks. In addition to 5a, additional annual savings from implementation of the functionality of DDS at the distribution sites are estimated from $25 million to $43 million.

d. MILCON Requirements - There will be significant reductions in the overall DoD MILCON requirements. Consolidation will reduce duplicate stockage and will optimize the use of all storage space through a single manager. Various options for supply support to DoD maintenance operations will result in the reduction of stockage levels. Although MILCON requirements need to be scrubbed in the detailed implementation plan, our preliminary analysis indicates a cost avoidance of $392 million over the five year POM period.

APPENDIX B

LINE ITEM ISSUE/RECEIPT WORKLOAD (000)

DDRW	RECEIVING			SHIPPING			GRAND
	RETAIL	WHSL	TOTAL	RETAIL	WHSL	TOTAL	TOTAL
NSC-PS	0	150	150	0	359	359	508
SMALC	54	529	583	690	390	1080	1663
SAAD	81	92	173	119	90	209	382
DDTC	0	379	379	0	3012	3012	3391
NSC-O	0	399	399	0	1159	1159	1558
SHAD	19	119	139	29	718	747	885
DDOU	0	441	441	0	2586	2586	3027
OOALC	131	519	650	753	438	1191	1841
TEAD	115	43	158	161	37	197	355
MCLB-B	43	38	81	0	57	57	139
NSC-SD	0	852	852	0	1543	1543	2394
TOTAL	444	3560	4004	1753	10387	12139	16144

DDRC	RECEIVING			SHIPPING			GRAND
	RETAIL	WHSL	TOTAL	RETAIL	WHSL	TOTAL	TOTAL
OCALC	120	762	882	955	688	1643	2525
SAALC	92	728	820	698	828	1526	2346
DDCO	0	277	277	0	2106	2106	2383
ANAD	130	110	240	172	92	264	504
NSC-P	0	188	188	0	344	344	532
DDMT	0	318	318	0	3822	3822	4140
CCAD	154	38	193	243	29	272	465
RRAD	136	294	430	233	1510	1743	2173
TOTAL	631	2716	3347	2301	9419	11720	~~15068~~

DDRE	RECEIVING			SHIPPING			GRAND
	RETAIL	WHSL	TOTAL	RETAIL	WHSL	TOTAL	TOTAL
DDRV	0	426	426	0	2761	2761	3187
LEAD	201	80	281	227	96	323	604
NCAD	18	310	328	23	2311	2334	2662
DDMP	0	334	334	0	4091	4091	4425
TOAD	130	90	220	149	90	240	460
NSC-N	0	938	938	0	2450	2450	3388
MCAS-CP	0	210	210	0	467	467	677
NSC-C	0	263	263	0	918	918	1180
WRALC	101	668	769	731	700	1431	2200
MCLB-A	34	57	91	711	598	1309	1400
NSC-J	0	246	246	0	472	472	718
TOTAL	484	3621	4104	1841	14954	16795	~~20899~~

4.1

1.8 to 1.9

40%

APPENDIX C

STORAGE CAPACITY(000)

DDRW	AVAILABLE GROSS SF	NET SF	GROSS CF	NET CF
NSC-PS	1004	379	5539	448
SMALC	2498	916	14756	14756
SAAD	1639	684	10807	10807
DDTC	4525	1896	31732	27924
NSC-O	7102	2614	34704	29509
SHAD	3296	1429	29932	23783
DDOU	6765	2609	42458	42261
OOALC	2433	1245	20163	20163
TEAD	2454	1427	16812	12873
MCLB-B	2887	1472	21459	21459
NSC-SD	2884	995	13980	13217
TOTAL	37487	15666	242342	221232

DDRC	AVAILABLE GROSS SF	NET SF	GROSS CF	NET CF
OCALC	3227	1547	26043	27125
SAALC	4206	1981	27286	27286
DDCO	5463	2696	33822	31914
ANAD	3316	1927	24246	24246
NSC-P	788	231	3456	3050
DDMT	5536	2425	32980	32980
CCAD	329	129	5944	5944
RRAD	3257	1602	21189	21189
TOTAL	26122	12538	174966	173734

DDRE	AVAILABLE GROSS SF	NET SF	GROSS CF	NET CF
DDRV	4836	2429	35454	29975
LEAD	2498	2410	29653	29467
NCAD	3586	1789	25403	24418
DDMP	5939	2475	40225	31781
TOAD	2453	1319	22434	19353
NSC-N	7903	4482	52205	44178
MCAS-CP	659	287	5587	3074
NSC-C	1327	598	9629	7494
WRALC	3071	1564	24291	23859
MCLB-A	3892	1979	35632	26935
NSC-J	1071	391	6169	5602
TOTAL	37235	19723	287682	246136

APPENDIX D

STORAGE LOCATIONS

DDRW	LOCATIONS						BULK			BULK		
	BIN AVAIL	BIN OCC	% OCC	RACK AV	RACK OCC	% OCC	OPEN AV	OPEN OCC	% OCC	COV AV	COV OCC	% OCC
NSC-PS	204212	196043	96.00%	54566	52383	96.00%	64800	40300	62.19%	204000	176000	86.27%
SMALC	316427	280990	88.80%	95495	79045	82.77%	608032	594896	97.84%	456658	448869	98.29%
SAAD	84554	75382	89.15%	10996	10376	94.36%	799000	450000	56.32%	673000	606000	90.04%
DDTC	252264	146518	58.08%	134006	121304	90.52%	755000	338000	44.77%	1298000	1172094	90.30%
NSC-O	1206414	1146093	95.00%	65853	62560	95.00%	1117	715	64.01%	2614	2515	96.21%
SHAD	313058	133557	42.66%	51855	22213	42.84%	2952000	918000	31.10%	1409000	1225000	86.94%
DDOU	1385815	822690	59.37%	84111	72333	86.00%	2176000	401000	18.43%	2583000	2270000	87.88%
OOALC	318640	251576	78.95%	19292	17524	90.84%	595236	462238	77.66%	634008	611985	96.53%
TEAD	37015	34138	92.23%	6939	6713	96.74%	6393000	6333000	99.06%	1427000	1376000	96.43%
MCLB-B	4333	4333	100.00%	46350	46350	100.00%	1105000	1105000	100.00%	0	0	100.00%
NSC-SD							1197000	1060000	88.55%	642000	619000	96.42%
TOTALS	4122732	3091320	74.98%	569463	490801	86.19%	16646185	11703149	70.31%	9329280	8507463	91.19%

DDRC	LOCATIONS						BULK			BULK		
	BIN AVAIL	BIN OCC	% OCC	RACK AV	RACK OCC	% OCC	OPEN AV	OPEN OCC	% OCC	COV AV	OV OCC	% OCC
OCALC	228948	224368	98.00%	26935	26196	97.26%	532216	401095	75.36%	949226	924057	97.35%
SAALC	299687	288428	96.24%	472088	468388	99.22%	1718000	1500000	87.31%	1286277	1280844	99.58%
DDCQ	423149	412700	97.53%	206058	202558	98.30%	1371000	421000	30.71%	1632974	1609890	98.59%
ANAD	86886	70186	80.78%	15482	14878	96.10%	2411000	2411000	100.00%	1925000	1753000	91.06%
NSC-P	124462	72719	58.43%	27963	22231	79.50%	234000	229687	98.16%	100000	96400	96.40%
DDMT	517963	469792	90.70%	117723	106657	90.60%	5545000	1974000	35.60%	4816000	4816000	100.00%
CCAD	23214	3200	13.78%	70000	70000	100.00%	250000	215000	86.00%	129000	122000	94.57%
RRAD	173531	167874	96.74%	59265	57487	97.00%	4047000	3901000	96.39%	1604000	1595000	99.44%
TOTALS	1877840	1709267	91.02%	995514	968395	97.28%	16108216	11052782	68.62%	12442477	12197191	98.03%

DDRE	LOCATIONS						BULK			BULK		
	BIN AVAIL	BIN OCC	% OCC	RACK AV	RACK OCC	% OCC	OPEN AV	OPEN OCC	% OCC	COV AV	COV OCC	% OCC
DDRV	746848	702586	94.07%	in with bins		ERR	938000	734000	78.25%	2429000	2380000	97.98%
LEAD	110569	100142	90.57%	18268	17055	93.36%	1399000	1093000	78.13%	2411000	2085000	86.48%
NCAD	216512	207227	95.71%	47064	38724	82.28%	1562000	454000	29.07%	1795000	1758000	97.94%
DDMP	80231	79050	98.53%	68727	67579	98.33%	305	232	76.07%	1633	1608	98.47%
TQAD	70938	52905	74.58%	8000	7409	92.61%	1165000	824000	70.73%	1319000	1114000	84.46%
NSC-N	1019486	612975	60.13%	86760	76057	87.66%	744	660	88.71%	2700	2529	93.67%
MCAS-CP	87819	87819	100.00%	44538	44538	100.00%	316328	316328	100.00%	36264	36264	100.00%
NSC-C	290000	273000	94.14%	30000	28500	95.00%	948000	568000	59.92%	273000	263000	96.34%
WRALC	190857	152711	80.01%	285696	277987	97.30%	245000	226000	92.24%	1432000	1408000	98.32%
MCLB-A	102467	87097	85.00%	57566	48931	85.00%	14475	14475	100.00%	0	0	100.00%
NSC-J	223113	147620	66.16%	55453	43170	77.85%	166364	141409	85.00%	472241	354181	75.00%
TOTALS	3138840	2503132	79.75%	702072	649950	92.58%	6755216	4372104	64.72%	10171838	9402582	92.44%

APPENDIX E

THRUPUT CAPACITY - MECHANIZED

DDRW	MECHANIZED						SURGE MECHANIZED						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
NSC-PS	0	0	0	0	0	0	200	150	0	0	0	240	0	0				0
SMALC	370	95	20	344	3	1928	534	106	21	486	3	3195	69	90	95	71	100	60
SAAD																		
DDTC	8800	1100	0	0	0	980	14500	2000	0	0	0	2800	61	55				35
NSC-O	2133	0	0	0	0	702	6000	0	0	0	0	2400	36					29
SHAD	2744	0	0	0	0	512	4336	0	0	0	0	780	63					65
DDOU	5200	0	0	0	32	1414	7500	0	0	0	32	1975	69				100	72
OOALC	248	126	127	455	11	1486	273	139	140	628	12	1679	91	91	91	72	92	89
TEAD	740	17	0	0	0	537	940	20	0	0	0	680	78	85				79
MCLB-B	0	0	0	0	0	0	0	0	0	0	0	0						
NSC-SD	0	3731	0	0	0	703	0	4063	0	0	0	743		92				95
TOTALS	20235	5069	147	799	46	8262	34283	6478	161	1114	47	14492	59	78	91	71	97	57

DDRC	MECHANIZED						SURGE MECHANIZED						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
OCALC	3189	2177	0	713	111	2534	7218	5018	0	1426	278	6336	44	43		50	40	40
SAALC	700	1300	400	430	5	2500	1200	1900	600	800	20	4520	58	68	67	54	25	55
DDCO	5800	0	0	0	30	1000	6700	0	0	0	60	1600	87				50	63
ANAD	962	23	0	0	0	772	1390	90	0	0	0	1120	69	26				69
NSC-P	0	0	0	0	0	0	700	43	0	0	0	183	0	0				0
DDMT	0	3885	0	0	0	478	0	6800	0	0	0	900		57				53
CCAD	1052	23	0	0	0	651	1502	36	0	0	0	932	70	64				70
RRAD	6744	159	0	0	0	1458	7980	187	0	0	0	1725	85	85				85
TOTALS	18447	7567	400	1143	146	9393	26690	14074	600	2226	358	17316	69	54	67	51	41	54

DDRE	MECHANIZED						SURGE MECHANIZED						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
DDRV	4000	0	0	0	1379	900	4500	0	0	0	2500	1250	89				55	72
LEAD	1308	30	0	0	0	952	2416	57	0	0	0	1745	54	53				55
NCAD	9028	211	0	0	11021	1116	14592	341	0	0	17634	1800	62	62			63	62
DDMP	8320	0	0	0	0	554	10340	0	0	0	0	784	80					71
TOAD	918	22	0	0	0	250	1367	32	0	0	0	1100	67	69				22
NSC-N	2600	4400	0	0	284	2000	3500	6000	0	0	284	3500	74	73			100	57
MCAS-CP	0	0	0	0	0	0	0	0	0	0	0	0						
NSC-C	1646	0	0	0	0	541	1319	0	0	0	0	595	126					91
WRALC	402	543	2	365	55	1852	0	2615	0	0	0	3360	21					55
MCLB-A	0	0	0	0	0	0	0	0	0	0	0	0						
NSC-J	121	71	0	0	0	86	350	200	0	0	0	250	35	36				35
TOTALS	28343	5277	2	365	12739	8251	38384	9245	0	0	20418	14384	74	57			62	57

APPENDIX-F

THRUPUT CAPACITY - NON-MECHANIZED

DDRV	NON-MECH						NON-MECH SURGE						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
NSC-PS	853	569	0	0	171	590	550	650	0	0	200	960	155	88			86	61
SMALC	0	13	21	201	3	391	0	13	23	314	3	655		100	91	64	100	60
SAAD																		
DDTC	600	500	0	0	0	200	2000	1000	0	0	0	1000	30	50				20
NSC-O	0	2425	0	0	0	653	0	2425	0	0	0	653		100				100
SHAD	244	0	0	0	0	44	680	0	0	0	0	120	36					37
DDOU	0	1277	0	0	34	336	0	1277	0	0	32	525		100			106	64
OOALC	13	68	195	267	1	495	14	75	215	368	1	559	93	91	91	73	100	89
TEAD	39	70	0	0	0	179	50	90	0	0	0	230	78	78				78
MCLB-B	322	21	11	0	43	526	650	32	16	0	100	600	50	66	69			88
NSC-SD	0	3255	0	0	0	1395	0	3546	0	0	0	1476		92				95
TOTALS	2071	8198	227	468	252	4809	3944	9108	254	682	336	6778	53	90	89	69	75	71

DDRC	NON-MECH						NON-MECH SURGE						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
OCALC	0	37	8	70	28	634	0	74	16	140	70	1587		50	50	50	40	40
SAALC	0	0	0	0	0	500	0	0	0	0	0	600						83
DDCO	290	575	0	0	0	40	450	775	0	0	0	80	64	74				50
ANAD	51	90	0	0	0	258	75	130	0	0	0	372	68	69				69
NSC-P	302	210	0	0	464	505	900	390	0	0	574	736	34	54			81	69
DDMT	0	612	0	0	0	261	0	2000	0	0	0	500		31				52
CCAD	56	100	0	0	0	220	80	140	0	0	0	310	70	71				71
RRAD	355	630	0	0	0	486	419	746	0	0	0	575	85	84				85
TOTALS	1054	2254	8	70	492	2904	1924	4255	16	140	644	4760	55	53	50	50	76	61

DDRE	NON-MECH						NON-MECH SURGE						% OF SURGE IN USE					
	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC	SMPCL	LTL	TL	LOG	TRANSH	REC
DDRV	0	737	0	0	0	0	0	900	0	0	0	0		82				
LEAD	69	116	0	0	0	318	128	226	0	0	0	582	54	51				55
NCAD	476	845	0	0	0	369	768	1366	0	0	0	600	62	62				62
DDMP																		
TOAD	58	86	0	0	0	250	72	127	0	0	0	369	81	68				68
NSC-N																		
MCAS-CP	692	759	0	0	492	383	692	759	0	0	492	383	100	100			100	100
NSC-C	0	138	2074	0	412	480	0	138	1591	0	466	502		100	131		88	96
WRALC	10	240	0	250	0	340	SEE MECHANIZED - TOTAL SURGE											
MCLB-A	352	31	14	0	0	347	376	36	18	0	0	370	94	86	78			94
NSC-J	191	239	0	0	31	152	550	700	0	0	100	450	35	34			31	34
TOTALS	1848	3191	2088	250	935	2639	2586	4252	1609	0	1058	3256	71	76	130		88	82

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DEFENSE DISTRIBUTION REGION EAST

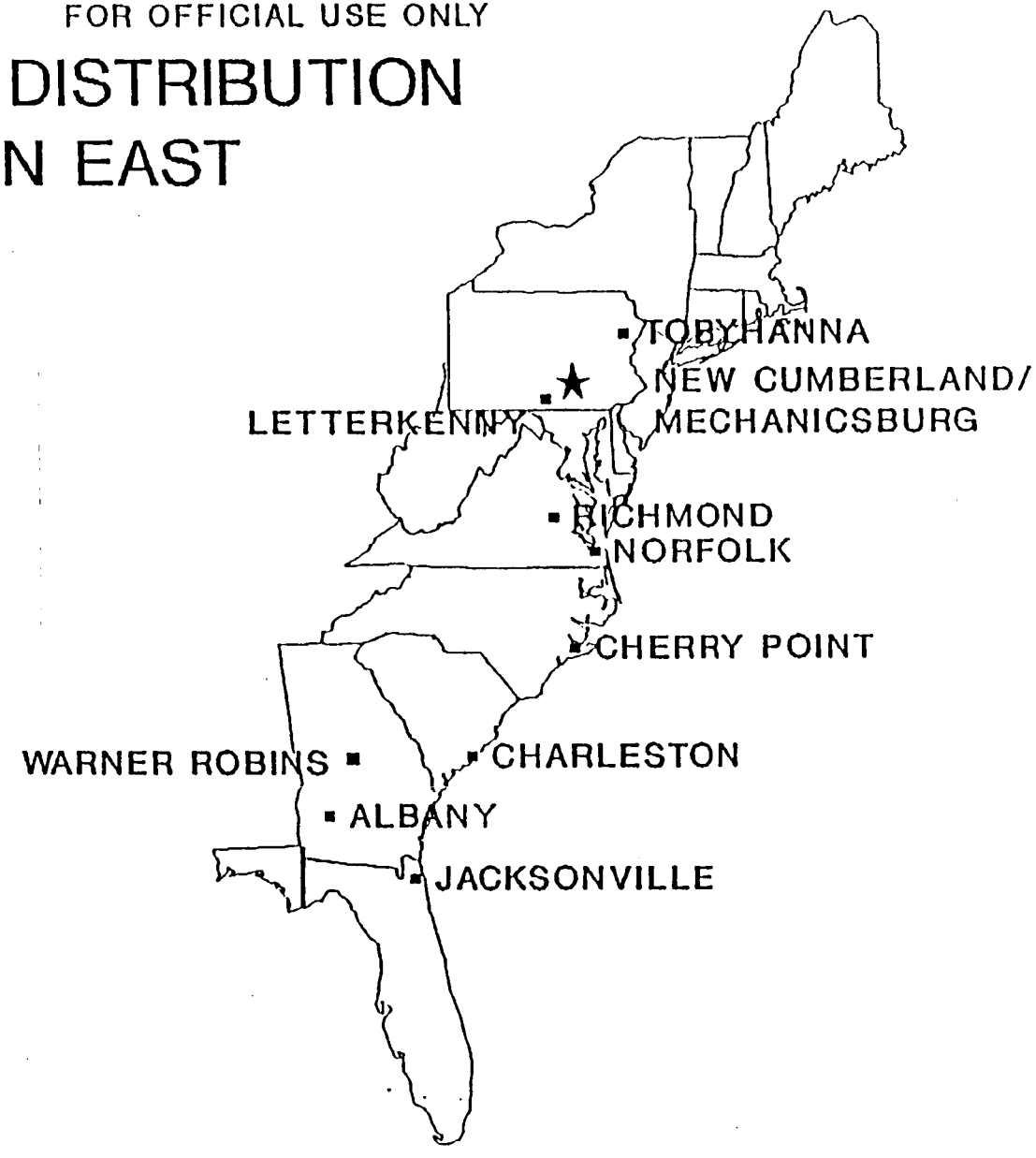

EXHIBIT III

DEFENSE DISTRIBUTION REGION CENTRAL

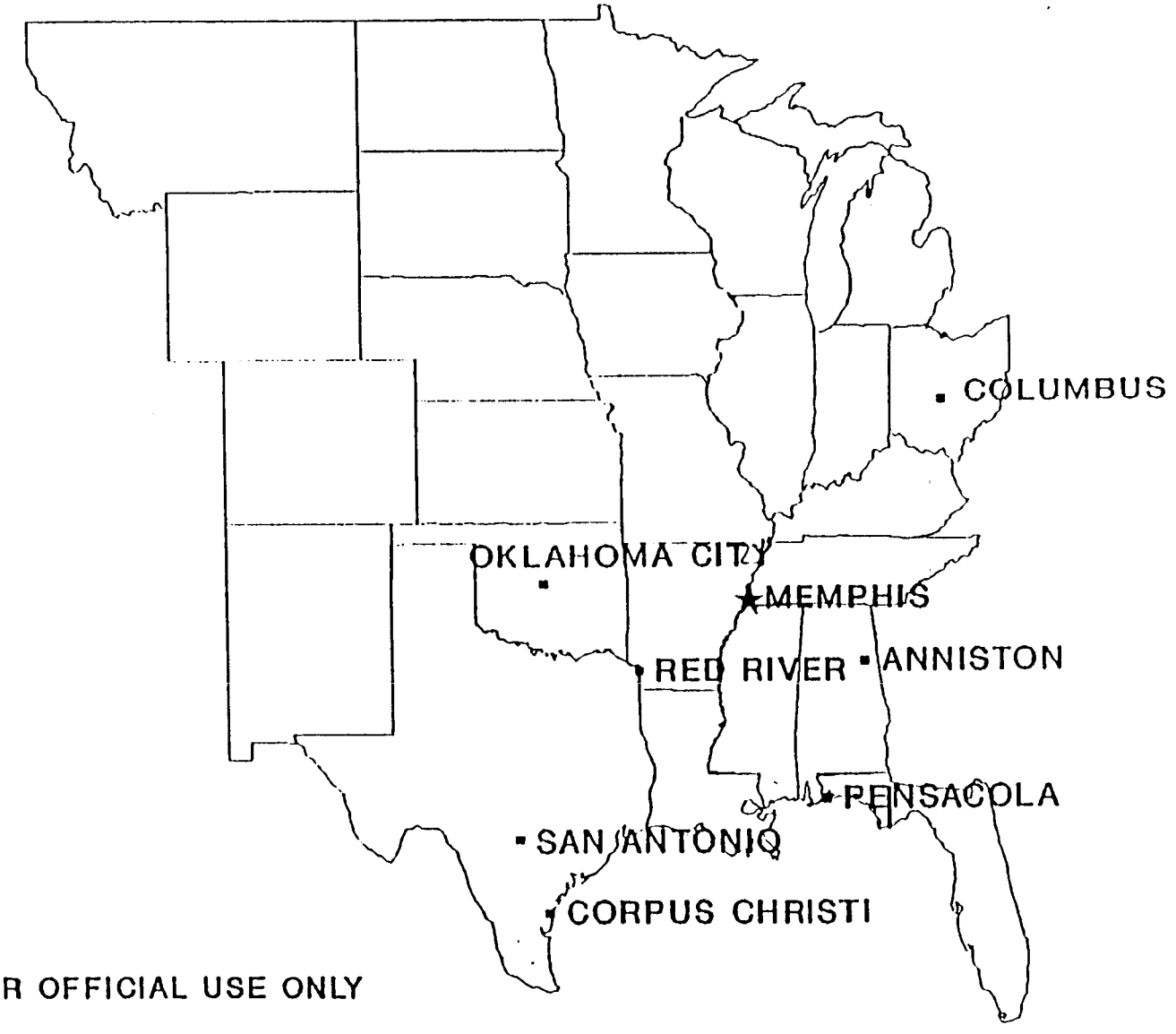

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EXHIBIT IV

DEFENSE DISTRIBUTION REGION WEST

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EXHIBIT V

Defense Distribution Activities.

PROPOSED
DISTRIBUTION SITES AND REMOTE WAREHOUSES

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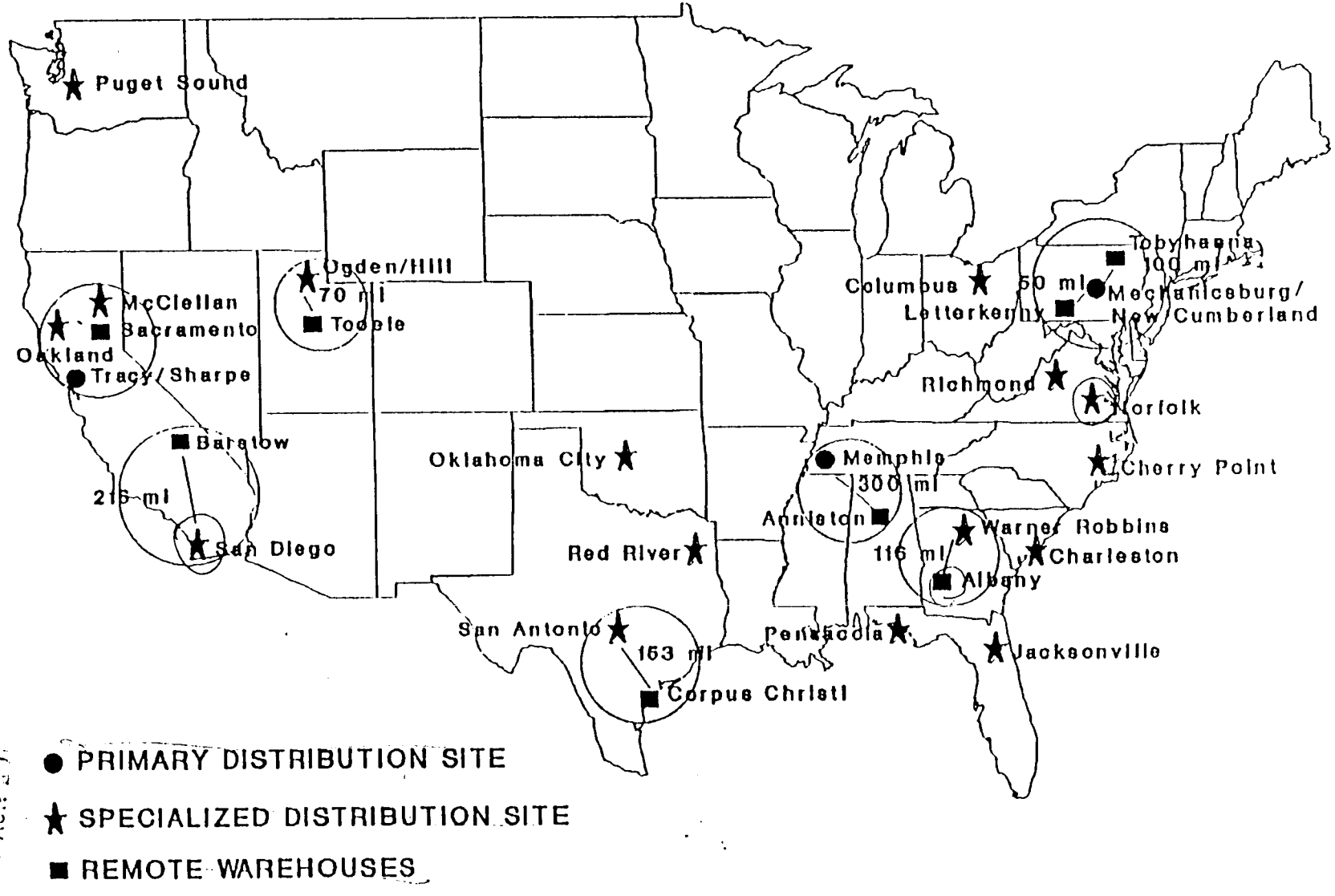


EXHIBIT VI

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Cameron Station
Alexandria, Virginia 22304-6100

DEFENSE LOGISTICS AGENCY

SUPPORT OF OPERATIONS DESERT SHIELD/STORM

AUGUST 1990-MARCH 1991

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

IN REPLY REFER TO DLA-L

21 MAY 1992

SUBJECT: Operation DESERT SHIELD/STORM After Action Report

TO: Commanders of DLA Primary Level Field Activities
Heads of HQ DLA Principal Staff Elements

1. Operation DESERT SHIELD/STORM was a challenging and dynamic real world operation which provided a significant test of the Agency's logistics support infrastructure. As a Supporting Agency to the Commander-in-Chief Central Command, DLA commenced providing a wide range of logistics support within 24 hours of the start of the operation. DLA's significant contribution to the success of the overall operation was widely recognized throughout the Services, the Joint Staff, and the Department of Defense. The entire Agency can be proud of its accomplishments in Operation DESERT SHIELD/STORM.

2. As with any exercise or real world operation, the after action analysis always highlights areas where procedures, communication, and coordination could be improved to enhance the effectiveness of the DLA response. Operation DESERT SHIELD/STORM is no exception. The lessons learned contained in this After Action Report provide a key starting point for assessment of those areas which hinder or degrade our maximum effectiveness as a Combat Support Agency.

3. The Operation DESERT SHIELD/STORM After Action Report is enclosed for your information and action. Mr. Rusty Burch (DSN 284-6335) is available to answer specific questions concerning the narrative report. Lt Col Linda Arndt (DSN 284-6450) is available to answer questions pertaining to the section on lessons learned.

Charles McCausland

1 Encl

CHARLES McCAUSLAND
Lieutenant General, USAF
Director

and pattern to the desert multicolored material and patterns. Within 24 hours, DLA shifted its own clothing factory from making coveralls to producing 1,000 sets of desert uniforms per week within the first month. Desert pattern material previously purchased and stocked by DLA allowed contractors to expedite production changes. When a new boot requirement surfaced, DLA had manufacturers make preproduction runs before formal requirements were submitted, thus expediting 160,000 pairs to the theater. Production of chemical suits was also expedited, and DLA shipped more than 300,000 suits above those already issued to U.S. Forces.

-- **BULK FUEL SUPPORT:** The Defense Fuel Supply Center (DFSC) awarded more than 100 petroleum supply and related service contracts to commercial suppliers. DFSC negotiations with Saudi Arabia and the United Arab Emirates resulted in free fuel from these nations and host nation support from Oman. These efforts helped ensure the availability of the almost 45 million barrels of petroleum for use by U.S. Forces. The abundance of host nation furnished fuel in the region was a significant logistics factor which reduced the cost of the conflict by $2.1 billion.

-- **CONSTRUCTION/BARRIER MATERIEL SUPPORT:** The Persian Gulf Conflict highlighted the difficulty of the industrial base to respond quickly to significantly increased requirements. During the conflict, DLA issued over 5.6 million fence posts, 1.5 million rolls of concertina and barbed wire, and 84 million sandbags. Stocks pulled from the European theater war reserves were used to augment increased production in order to meet requirements.

-- **MEDICAL SUPPORT:** Medical support to ODS involved over approximately 200,000 requisitions worth more than $526 million. In less than 5 days, DLA outfitted two medical ships (Comfort and Mercy) with 400 line items worth $1.2 million per ship. Another major project was the building and shipping of deployable medical systems (DEPMEDS). Of the 35 DEPMEDS which were shipped, 29 came out of DLA storage. To bring these 35 DEPMEDS up to full capacity, 228 modernization modules valued at $9 million (this included 31 new X-ray machines), 465 potency and dated modules valued at $6 million, and $23.3 million of supplies and equipment were added. In addition to DEPMEDS assemblies, 3200 major nonhospital assemblies (such as battalion aid stations, clearing aid stations, and chemical decontamination kits) valued at $23.5 million were built and shipped. Although the content of these major assemblies are predetermined, they are not prepackaged and were built to meet specific Service requests. DLA also shipped over 100,000 minor (standard stocked) assemblies, such as combat lifesaver and first aid kits, valued at $4.3 million. In addition, 50 emergency equipment buys were made in support of the aeromedical evacuation mission. DLA maintained a warm production base on several medical items, including nerve agent antidotes, allowing for the expansion and acceleration of production levels to meet Service requirements.

-- **WEAPON SYSTEMS SUPPORT:** During the Persian Gulf Conflict, DLA received 6.8 million requisitions for items registered in the DLA Weapon Systems Support Program. This included requisitions in support of units not deployed to the Persian Gulf. DLA activities took aggressive actions to improve weapons support including expediting contracts, searching for substitute items, seeking lateral support, and increasing demand factors on weapons items to meet the surge in Gulf requirements. DLA identified every item applicable to Desert Shield weapons systems and increased the support

OVERVIEW

The Defense Logistics Agency (DLA) support to Operation DESERT SHIELD/ STORM (ODS) commenced within hours of the invasion of Kuwait. During the period of August 1990 through 31 March 1991, DLA provided support in accordance with its assigned DoD mission. The mission execution included providing supply support, contract management, and technical and logistics services to all Military Services, unified commands, and several allied nations. The Agency responded to over 2 million requisitions valued at over $3.3 billion, excluding bulk fuel provided by host nation support.

DLA provided logistics and supply support in several key areas. Commodity and hardware support included subsistence; clothing; petroleum, oil, and lubricants (POL); bulk petroleum; construction and barrier material; medicine, medical supplies, and medical equipment; electronic items; industrial material; a multitude of general supplies; and weapons system repair parts.

DLA's Defense Contract Management Command (DCMC) expedited, accelerated, and surged production of ODS materiel from contractors both within the United States and overseas.

Logistics services provided by DLA included: establishing a Defense Reutilization and Marketing Office (DRMO) in Saudi Arabia; the Defense Industrial Plant Equipment Center (DIPEC) providing repair teams for ships in the Gulf; the Defense Technical Information Center (DTIC) providing research information; the Defense National Stockpile Center (DNSC) providing support through its William Langer Jewel Bearing Plant; the Defense Logistics Services Center (DLSC) providing catalog and item substitution support; and DLA establishing and running a Donation Program.

Specific Agency Highlights are summarized below:

--**SUBSISTENCE SUPPORT:** DLA provided three types of subsistence, filling requirements for over 225 million meals. The first type, A and B rations (fresh and easily reconstituted food products), were shipped to locations where cooks and facilities were available. The second type was Tray Pack or T-Rations, a hot meal composed of thermostabilized, prepared foods. The backbone of deployment subsistence support was the Meals-Ready-to-Eat (MRE), a complete combat meal in a pouch. DLA increased its total production from 2.4 million MREs a month to over 28 million per month. DLA supplemented this with two initiatives. The first was commercial Meals, Ordered Ready-to-Eat (MORE), purchased off the shelf as a substitute to meet shortfalls in the T-Rations. The second initiative was the investment in production equipment which would have increased the total production capacity of MREs and T-Rations to 63.4 million meals per month.

--**CLOTHING SUPPORT:** DLA provided one billion dollars of clothing support by responding to 171,000 C&T related requisitions. Prior to the Persian Gulf Conflict, DoD emphasized building stocks to support a European scenario, with minimal desert requirements. With the deployment of the first units, DLA turned the production capabilities from the European woodland green material

objectives for the potential Desert Shield demand. Aggregate DLA weapon systems supply availability during this time period exceeded 88%.

-- **CONTRACT ADMINISTRATION:** The Persian Gulf Conflict placed heavy demands on the nation's industrial base to supply critical wartime materiel. The Defense Contract Management Command, its five Defense Contract Management Districts, and the Defense Contract Management Command International worked closely with defense contractors and procuring activities to maintain the flow of materiel to the troops. DCMC worked to expedite, accelerate and surge production and shipment of Desert Shield materiel, including items such as chemical protective equipment, clothing, aircraft engines and missiles. During the course of the operation, DCMC's Districts worked over 25,000 of these actions. For example, DCMC personnel worked with Raytheon and the Army Missile Command to resolve problems in the surged production of the Patriot Missile through production work-arounds and providing priority assistance for needed subcomponents.

-- **DEFENSE REUTILIZATION AND MARKETING SERVICE (DRMS):** DLA established a Defense Reutilization and Marketing Office (DRMO) at Dammam with an off-site branch at King Khalid Military City. Even though contingency plans called for DLA to assume responsibility for the disposal mission after hostilities, a CENTCOM request for establishment of a DRMO came by the end of August 1990. DRMS assembled a team under the direction of the DRMS Europe Region. The team made a firsthand assessment of the situation and developed a plan for creation of the DRMO. With CENTCOM approval, they began to implement the plan immediately. The first turn-ins were accepted on 29 November 1990.

-- **DEFENSE INDUSTRIAL PLANT EQUIPMENT CENTER (DIPEC):** DIPEC provided technical and maintenance support to all forces supporting ODS. Throughout the deployment and conflict, DIPEC responded to casualty report (CASREP) maintenance requirements aboard 38 ships, including aircraft carriers, frigates, sub tenders, destroyers, amphibious landing ships, missile cruisers, and communications ships. When hostilities broke out, DIPEC personnel were on board Navy vessels in the Persian Gulf. They also assisted the Army in repairing a lathe which machined a critical tank component.

-- **DEFENSE TECHNICAL INFORMATION CENTER (DTIC):** During the Persian Gulf Conflict, DTIC provided 194 bibliographical searches for customers and disseminated 389 technical reports on the general subject of desert warfare. The Information Analysis Centers (IACs) also responded to hundreds of technical inquiries by providing research on areas such as chemical warfare, chemical and biological defense, and the effects of high temperature on the stability and sensitivity of Army gun propellants.

-- **DEFENSE NATIONAL STOCKPILE CENTER (DNSC):** Defense production during the Persian Gulf Conflict was not constrained by a lack of industrial raw materials. Therefore no materials were ordered released from DLA's National Defense Stockpile of strategic and critical materials. However, orders for jewel bearings from the DLA-owned William Langer Jewel Bearing Plant jumped 500% during FY91 over FY90. In some instances, jewel bearings under contract but not yet shipped to the Stockpile were diverted to defense contractors. Among many critical items, jewel bearings are used in the guidance systems of precision weapons such as the Patriot and Tomahawk missiles.

-- **DONATIONS PROGRAM:** Prior to the Persian Gulf Conflict, donations were handled by the General Services Administration. In mid August, DoD made the decision to consolidate all programs under DLA. DLA set up a hotline and a dedicated office to handle the donation calls. In October, Public Law 2608 designated the DoD responsible for donations, and authority was delegated to DLA. During the conflict, the DLA Donation Office responded to over 11,000 inquiries. These inquiries generated 1,450 shipments of material valued in excess of $74 million. The Donation Program was a tremendous and unprecedented outpouring of public support, as well as a real morale booster for the troops. Quickly setting up a program to accept these donations was critical to keeping the good will of the American public.

-- **DLA LIAISON OFFICERS:** By C+30, DLA had a liaison officer in Saudi Arabia to coordinate all aspects of DLA's support to ODS. This initial effort would grow to include specialized liaison officers for key commodities such as medical and bulk and packaged petroleum. Contract administration and disposal operations were also represented by liaison personnel. This action helped ensure timely and quality support was provided to the deployed forces.

LESSONS LEARNED

Detailed Lessons Learned information is located in Volume II of this report.

As appropriate, Volume I highlights significant Agency achievements as well as future challenges for each of the key DLA commodities and services.

SUPPLY SUPPORT

SUPPLY SUPPORT OVERVIEW

DLA buys and manages over 3 million items used in common by all the Services. Key commodities include food, clothing, petroleum, medical, general, industrial, construction, and electronic supplies. In addition to commodity support, DLA also provides critical weapon systems support and repair parts to all the Services. Under the direction of Headquarters DLA, six Defense Supply Centers perform key functions such as computation of consolidated service requirements, contracting, requisition processing, distribution, and inventory accountability.

Figure 1 depicts the volume of gross requisitions and the dollar value processed by DLA's Supply Centers during Operations DESERT SHIELD/STORM. Responding to over 2 million requisitions worth over $3.3 billion (not including fuel which was worth $2.4 billion), DLA provided the critical items needed for deployment and sustainment of the forces engaged in ODS.

To support customer requisitions, between 1 August 1990 and 31 March 1991, DLA placed over 94,500 contracting actions in support of ODS which were valued at over $4.9 billion. The following table details this contract support by Supply Center, contract actions, and the dollar value.

CONTRACTS FOR OPERATION DESERT SHIELD/STORM
(3 AUGUST 1990 - 31 MARCH 1991)

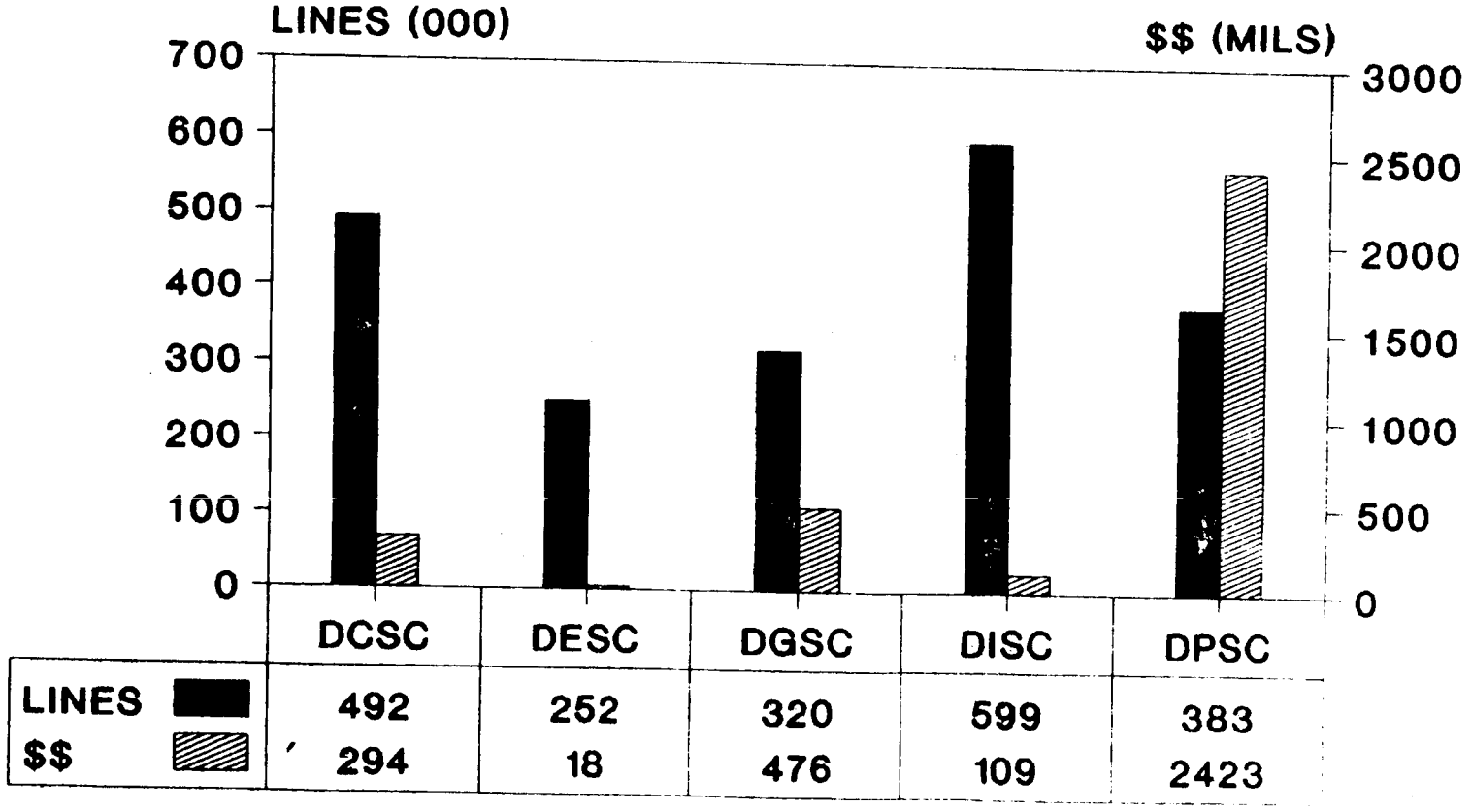
Supply Center	Number of Actions	Dollars (000)
DPSC**	3,178	$ 3,057,000
DISC	34,334	117,000
DGSC	5,528	253,000
DCSC	41,956	226,000
DFSC	111	1,265,000
DESC	9,400	34,000
TOTAL	94,507	$ 4,952,000

** Includes contract actions for subsistence, medical, and clothing and textiles.

Logistical services provided by Headquarters DLA and subordinate elements included a variety of engineering and technical support and standardization management. These functions were performed in support of the DLA procurement mission and to support supply operational requirements.

DLA surged the industrial base to its maximum capacity for many critical, high wartime demand items which represent industries dependent on DLA orders for certain military unique items. The IPP process surveys the industry and identifies capable sources for military items. Many planned sources do not have contracts in peacetime, but have allocated a certain amount of their production capacity for wartime. Other contractors do not plan with the Government, but may be willing to produce military items if asked. Identified through this program, many additional sources were awarded contracts.

OPERATION DESERT STORM
GROSS REQUISITIONS RECEIVED
As of 31 March 1991



Source: Center Response to Data Call

FIGURE 1

Examples are shown in the following table and illustrate cases where DLA has, in most cases, utilized the industrial base to the maximum extent possible in order to get the largest and fastest output achievable.

INDUSTRIAL BASE SURGE

ITEM	PRODUCTION RATE FROM	TO	INITIAL PROD LEADTIME	NUMBER OF CONTRACTORS
Chem Suits	33K/mo	135K/mo	120 days	4 to 7
Chem Gloves	111K/mo	133K/mo	30 days	Maintained 2 Dedicated KTRs
Combat Boots,	0	160K/mo	60 days	0 to 4
Desert BDUs (Coats & Trousers)	0	376K/mo	90 -120 days (60 days w/GFM, DPSC factory took 30 days)	0 to 16
Nerve Agent Antidotes	60K/mo	717K/mo	60 days	Surged 2 Critical KTRs
MREs	3M meals/mo	28.8M meals/mo	45 days	Surged 3 Dedicated Assembly KTRs
Tray Packs	1.3M meals/mo	4.7M meals/mo	45 days	3 to 5
B Rations	0	21.7M meals/mo	30 days	0 to 9
MOREs (Commercial, Shelf-stable Meals)	0	9.8M meals/mo (Average Rate)	15 days	0 to 5

Surging the base was greatly influenced by the Industrial Preparedness Program. IPP planning documents were used at the outset of the contingency as a starting point to surge the base. Even though IPP planning is aimed at full mobilization, portions of the program's outputs were applicable to ODS support. DLA IPP planners had a good overview of the capabilities of the industrial base for their particular area. The information available from the IPP program proved invaluable in finding alternate sources, commercial substitutes, and/or mobilization versions of certain items.

Based on a recommendation from the Joint Logistics Commanders, and in recognition of the outstanding contributions by DLA Industrial Preparedness Planners in supporting ODS, the "Secretary of Defense Superior Management Award" was presented to DLA.

DEFENSE PERSONNEL SUPPORT CENTER (DPSC)

OVERVIEW

The Defense Personnel Support Center, located in Philadelphia, PA, buys and manages food, clothing, and medical supplies for the Armed Forces. For the three commodities it manages, DPSC received over 383,000 requisitions in support of ODS. The dollar value was in excess of 2.4 billion. Specifics for each commodity are detailed below.

SUBSISTENCE SUPPORT

OVERVIEW

The wartime environment created by ODS required numerous changes to existing emergency subsistence support plans. HQ DLA and DPSC-Subsistence worked closely with the Services and industry to change and develop new feeding plans to realistically meet the requirements. In the first months of activity, the subsistence off-line manual processing effort was 10 times its normal activity. Subsistence support provided to the Services by DLA included filling 16,000 requisitions valued at almost $900 million. Around-the-clock support and a successful contracting program, which expanded the procurement base, enabled DPSC-Subsistence to meet the Services' requirements. The unusually high demands included rations such as: Meals-Ready-To-Eat (MREs), Tray Packs (T) Rations, Bulk and Unitized B-Rations, and a contingency test of the Meals-Ordered-Ready-To-Eat (MORE-CT) rations. The latter was designed to capitalize on the immediate availability of commercially available products - a major success story in subsistence support for ODS.

CONTRACT SUPPORT

Contracting played a crucial role in DPSC's successful accomplishment of its subsistence mission. In addition to securing routine items, there was a tremendous amount of effort expended to procure the numerous substitute items required to meet the production shortfalls in the Army's primary operational rations, the MRE and Tray-Pack.

RATING FOOD ORDERS: Under the authority of the Defense Production Act, as implemented under the Defense Priorities and Allocations System (DPAS), orders for defense supplies are given preference over a contractor's commercial business. Priorities for food items were previously and exclusively under the Department of Agriculture's jurisdiction. During ODS, the authority to rate food orders in support of troops and place these orders ahead of a contractor's commercial work was obtained from the Department of Commerce and Department of Agriculture. Government orders for food products in support of troops can now take precedence over competing commercial orders. The rating can only be placed on the end items, not on the food itself.

The most important aspect of this authority is the flow-down provision allowing the rating to be placed on subcontractor provided packaging materials and components. It is the packaging that makes combat operational rations military unique -- not the food that goes into the packages. This rating authority will have a direct impact on the Government's ability to accelerate contract deliveries for future contingency support.

MOBILIZATION VERSIONS OF SUBSISTENCE ITEMS: Mobilization versions of certain subsistence items were created for ODS. An example was the introduction of pouched bread wrapped in cellophane. Pouched bread is a new item which is a small individual loaf of bread normally packaged in heavy laminated material to extend shelf-life. For ODS, adequate amounts of the heavy laminated material were not available for the production quantities needed. Therefore, approval was obtained from the Army to package the bread in a cellophane type of package because consumption would be very close to the manufacture date, making the long shelf-life an unnecessary constraint. Requirements for pouched bread grew from an anticipated requirement of 6 million to over 20 million units.

UNITIZED B-RATION SUPPORT

Prior to ODS, unitized B-Rations had not been used in large quantities and were not purchased by DPSC. ODS was the first real employment of unitized B-Rations worldwide. Unitized B-Rations consist of palletized meals configured to support 200-400 personnel (including entrees with condiments and utensils). The food items are prepared, cooked, and served by mess personnel and are not considered a combat meal. These unitized B-Rations were critical to meeting shortfalls in combat rations, permitting MREs and Tray-Packs to be retained for use by combat units who lacked the ability to prepare and cook meals. In excess of 53 million unitized B-Ration meals were shipped for ODS support.

During the early phases of ODS, Defense Depot Memphis, TN (DDMT) was given an additional mission of assembling and shipping unitized B-Rations. DDMT's work force responded to the challenge with not only increased production but also increased productivity. From an initial requirement of producing 70,000 meals a day, DDMT was assembling and shipping more than 516,000 meals each day by the end of the hostilities. Per person productivity rose from 286 to 619 meals per day. An additional 846 temporary personnel were hired to support the B-Ration project.

B-Ration assembly was also performed at Defense Depot Region West (DDRW) requiring 250 additional personnel to be hired and a projected need for up to 800 in a timeframe of 3 months. The new personnel were hired and in place to support ODS requirements without degradation to normal personnel services and the ongoing DDRW consolidation occurring as a result of Defense Management Decisions.

MEALS-READY-TO-EAT

The demand for MREs also greatly increased in support of ODS from a peacetime norm of 3.6 million meals per month to 12 million meals per month.

Demands were satisfied through innovative contracting initiatives and significant achievements in distribution and transportation support. These initiatives included shipments to the theater of operation from commercial sources, depots, and caves in Europe. These actions enabled us to place over 60 million cases of MRE war reserves in the theater within the first 60 days of ODS.

MEALS-ORDERED-READY-TO-EAT

The Meals-Ordered-Ready-To-Eat (Contingency Test) (MORE-CT) was a new concept developed for ODS. Because of expected shortfalls in the availability of T-Rations and other meals, a totally commercial ration package was developed as a substitute - the MORE. The meal consists of a variety of commercial off-the-shelf heat and serve food items and consists of an entree, soup, desserts, and candy. Theater demand for rations increased from a 15-day reserve level to a 60-day reserve level (74.7 million meals) to be achieved by 15 January 1991. This requirement was received on 1 December 1990 and the 15 January deadline was met with the use of the newly developed MORE to offset shortfalls. The MORE ration was well received, with 6-8 million MORE rations shipped per month for ODS.

SUNDRY PACKS

The Sundry Packs (health and comfort items) furnished to each combatant was a new requirement for DPSC. Initial planning called for the Services to support this requirement for the first 90 days. When the requirement was placed on DPSC-Subsistence for earlier support, the staff reacted expeditiously, first contracting for bulk items and then shipping 100,000 units to the theater by day 30 (versus the day 90 requirement). This was quickly followed by an additional 150,000 units.

OTHER SUBSISTENCE SUPPORT

A significant achievement for DPSC subsistence personnel was meeting the demands for the Thanksgiving and Christmas holiday meals to support all troops in the theater. Through intensive management and coordination efforts, over $6 million of perishable and semiperishable foods were shipped to the theater ensuring that all Service personnel enjoyed the traditional holiday meals.

SUBSISTENCE OBSERVATIONS

ACHIEVEMENTS

-- In spite of enormous Service demands, subsistence requirements were met.

-- Contingency Test of MORE rations was a success and provides an alternative method of support in rapid buildups.

-- Unitized B-Ration assembly lines quickly established to provide better assembled B-Rations for use in a combat theater.

-- Sundry Pack support mission initiated in the first 30 days in contrast to the planned day 90 requirement.

FUTURE CHALLENGES

-- Service feeding plans, and DLA's ability to meet them, require review.

-- Alternative food options available from industry should be explored.

CLOTHING & TEXTILES (C&T)

OVERVIEW

During Operation DESERT SHIELD/STORM, DPSC received 171,000 C&T related requisitions worth one billion dollars (more than double the normal peacetime activity for C&T). The off-line manual processing effort of the DPSC C&T staff exceeded forty-three times the normal processing activity. At the onset of ODS, the DPSC C&T staff converted existing contract production lines from peacetime items to specific items needed for troop support in the Persian Gulf. A short list of the clothing and equipage items provided by DPSC in support of ODS included: chemical protective suits; camouflage suits and hats; body armor; protective gloves; parkas; jackets; various shoes and boots; tents; small arms cases; kevlar helmets; sunglasses and protective goggles. Many of these, because of new patterns, revised designs or fabric changes, resulted in the introduction of relatively new items to the supply system. This generated a need for intensive evaluation of the industry's production base and capabilities, and the redirection of existing contracts and inventory policies.

INCREASING THE INDUSTRIAL PRODUCTION BASE

The results attained by the DPSC C&T staff, in cooperation with other agencies, manufacturers, trade associations, and distribution activities was unprecedented. Two examples were the award of two contracts for critically needed chemical protective suits to two new firms within just 6 days, ($35 million value) and the negotiated acceleration of delivery dates and conversion of existing production lines within 2-3 days of notification.

To accommodate the manufacturing of new items, and to assist manufacturers doing business with the government for the first time, DPSC set up pre-award and post-award "Tiger Teams." These teams were comprised of specialists in the areas of contracting, manufacturing, supply, and experts from Natick Laboratories and Aberdeen Testing Grounds. To minimize delays, small groups of selected specialists went onsite to contractors' plants for investigation and resolution of problems. The DPSC C&T staff averaged three onsite visits per week providing support to manufacturers. These onsite visits resulted in the increase of manufacturers of chemical protection suits from four to seven, and identified new sources of supply for the charcoal and butyl components of the suits. This extensive outreach effort shortened the contracting lead time for multimillion dollar contracts from 9-12 months to 10-14 days.

CHEMICAL PROTECTIVE CLOTHING

In view of the real possibility of the use of chemical weapons, the first items requiring immediate procurement action were the DLA managed items composing the Chemical Protective Ensemble. The ensemble was composed of the

chemical protective suit, chemical protective gloves, green vinyl overboots, chemical protective headcover, and nerve agent antidotes. It was apparent that items would be needed in large quantities prior to receipt of requisitions from the Military Services.

To meet the rapidly expanding demand for chemical protective equipment, DPSC established additional "Tiger Teams" to develop the acquisition strategies required to procure large quantities of chemical protective suits. DLA successfully expanded the industrial base for this highly critical item by a multiple of seven. The expansion involved the immediate processing of documents to invest over $100 million for chemical protective suits. This process would normally have taken over 6 months, but was performed in less then 2 weeks. By the war's close, over 5.2 million chemical protective suits were under contract. Underlying this success was the work of the industrial preparedness planners who quietly, but systematically had been developing potential sources during the last 3 years. This work enabled DLA to quickly select the most capable and responsive contractors for ODS.

DESERT UNIFORM ITEMS

Desert uniform items were in short supply as previous industrial planning had not considered a desert war to be a strong possibility. As a result, less than 300,000 sets were in the inventory and available for mobilization. DPSC took immediate action to accelerate and convert existing contracts from woodland pattern camouflage to the six color desert pattern using material held in storage. Contracts for this multimillion dollar effort were executed in less than 14 days instead of 9 to 12 months. The main production problem was availability of the camouflage cloth which took 45 to 60 days to produce. Efforts to expedite the production of camouflage cloth resulted in an increase from 15 million yards to 63 million within 2 months. Once the cloth was available from the mills, contractors required 30 more days to provide initial production. By the end of December 1990, accelerated deliveries provided 350,000 camouflage shirts and trousers. However, to complicate matters, specification changes occurred resulting in many contract changes. Desert BDUs were made lighter in weight and reinforcing panels were removed to make them cooler to wear. The six color desert pattern was replaced with a three color pattern to provide better camouflage for the soldier. New cloth had to be made in the three color pattern and carefully fed into the production process to provide the largest number of items possible and to avoid production breaks. Desert BDUs, helmet covers, hats, field jackets and chemical protective suits were all required in the three color pattern.

DESERT BOOTS

Desert boots were another item which required substantial effort to meet changing requirements. The Vietnam era hot weather boot proved to be inadequate in the Saudi desert. The four manufacturers of military combat boots were able to respond to the Government's request for a "desert" version for mobilization. The firms converted to manufacturing the new desert boot within 2 days and the first of the new boots came off the production line within 1 month. The interim desert boot design had no drain holes, no steel sole plate, and was made of tan, flesh-out leather. Later improvements included a wicking "Coolmax" lining, a more cushioned insole, and a padded comfort collar. The final version was often referred to as the "Schwarzkopf

Boot." All modifications were incorporated into the contracts in record time and in such a manner to preclude disrupting production.

Discussions with the U.S. Army Natick Research, Development and Engineering Center were held on how to improve the specification, production, and testing and at the same time reduce the production lead time. By reducing the cure time for the rubber soles of the boot, a reduction in production time and in the procurement lead time of desert combat boots was attained.

NEW C&T ITEMS ADDED TO THE INVENTORY

The ODS operation resulted in the addition of 415 new NSNs (stock numbered items) to the clothing and textile inventory. New items usually take 120 to 180 days to enter the system and contract lead times of 6 to 9 months before significant production can begin. DPSC introduced new items into the system and began to get deliveries within 2 to 3 months. Examples of new items, in addition to the desert boot, included: a field jacket (first time manufactured in desert pattern), aviators battle dress uniform (a 2-piece Nomex suit, completely new in fabric and color), and an aviators chemical suit.

DPSC DIRECTORATE OF MANUFACTURING -- THE CLOTHING FACTORY

The responsiveness and flexibility of DPSC's clothing factory was a major factor in the successful support of the troops in the Persian Gulf. The clothing factory was able to take 800,000 yards of desert camouflage pattern cloth and direct the immediate conversion of ongoing assembly lines to provide critical items of clothing. The Manufacturing Directorate received the requirements for desert camouflage coats on 14 August and began shipping completed items by 29 August. Even with the added support of new commercial manufacturers, the DPSC factory remained a key supplier of a variety of ODS clothing requirements. The DPSC clothing factory daily production rate was 1,700 camouflage coats and trousers, 1,000 camouflage hats, 1,000 canteen covers, and 300 flyers' coveralls. In addition to the production items mentioned above, the clothing factory also satisfied a number of immediate requirements from the Services, such as a requirement from the Marine's tactical air elements to modify 181 survival vests to add a chemical protective breathing apparatus. An additional requirement involved the outfitting of a group of Kuwaiti students who had volunteered to return to the AO to act as guides and interpreters for our forces. Finally, the desert camouflage clothing for President and Mrs. Bush, Vice President Quayle, and other key leaders who visited the troops in Saudi Arabia was provided by DPSC's clothing factory.

CLOTHING AND TEXTILE OBSERVATIONS

ACHIEVEMENTS

-- Prior industrial preparedness planning enabled DLA to quickly select the most capable and responsive contractors for the manufacturing of chemical protective clothing.

-- In coordination with Defense Contract Management Districts, plant surveys were conducted to evaluate various industry plant capabilities and capacities for specialized requirements.

-- "Tiger Teams" working with industry, added new suppliers to the production base, new clothing items, and successfully resolved problems in record times.

-- The responsiveness and flexibility of the DPSC clothing factory helped meet early shortfalls. Existing DoD stocks of desert pattern cloth enabled rapid production of desert clothing at the DPSC clothing factory and by commercial producers.

FUTURE CHALLENGES

-- Item specification changes must be held to a minimum so as to reduce the volume of contract changes.

-- The Services must recognize that limited peacetime demand results in low inventories of some wartime required items.

MEDICAL MATERIEL SUPPORT

MEDICAL SUPPORT OVERVIEW

During ODS, DPSC-Medical personnel faced the enormous task of providing critical medical items needed for the deployment and sustainment of the large deployed force. The effort involved approximately 200,000 requisitions worth $526 million. The materiel required ran the gamut from antidote for chemical weapons to bandages for routine treatments. Among the larger procurements were: 6.9 million adhesive bandages, 2.143 million Nerve Agent Antidote Kits (Mark I), 1.5 million doses of Immune Serum Globulin, 1.1 million Atropine injectors, 639 thousand bottles of sunscreen lotion, and 720,000 cans of foot powder.

DEPLOYABLE MEDICAL SYSTEMS (DEPMEDS)

DPSC-Medical processed requisitions, and contracted for and coordinated supplies and equipment for 35 Deployable Medical System (DEPMEDS) hospitals. DEPMEDS maximize the capabilities of hospitals deployed in the theater through the use of a variety of standardized modules which allow the hospitals to be quickly tailored to the theater needs. DEPMEDs brings DoD medical support logistics out of the 1950s and 1960s (MASH type units) and into the 1990s. They played a critical role in theater medical readiness. Just one medium sized DEPMED, a 200 bed Combat Support Hospital, requires 22 MILVANS, weighs over 300,000 pounds, and contains approximately 3,400 line items.

Early in the DEPMEDS program, the Army realized that it would be necessary to field hospitals which were not 100 percent complete with all items if fielding schedules were to be met. The Ship Short Program was developed to fulfill requirements for stock in hospitals previously fielded. The program original intent was to ship about 5,000 lines per month; however, ODS requirements accelerated plans. In a 43 day period, Defense Depot Ogden assembled 44,069 lines of stock in 108 vans (30 hospitals worth) and shipped to Saudi Arabia.

DLA activities encountered and resolved a host of problems in the assembly of these units including tent replacements, utility package failures, outdated medical equipment, and temper tent, bed, and consumable shortages. Aggressive coordination with all Services, priority modifications, contractor support, and extensive overtime use enabled all DLA activities to meet the logistical challenges presented by the DEPMEDS requirements.

INDUSTRIAL BASE MAINTENANCE

Prior to ODS, the industrial base for several DLA managed medical items was dwindling because peacetime demands were not sufficient to sustain the base. DLA, in conjunction with OSD and the Military Services, was in the process of making crucial decisions on sizing the base. Budget pressures and military force downsizing implied that peacetime demand for these items would be further reduced. The contractors for critical items of the chemical protective ensemble (suits and gloves) and nerve agent antidotes autoinjectors (Atropine and Mark I Kits) were expected to go out of the business of supplying these military unique items.

Actions taken by HQ DLA and DPSC-Medical to maintain the production base for certain critical items is illustrated in the nerve agent antidote autoinjector case. DLA decided in prior years to preserve the nerve agent antidote autoinjector base with service contracts. Service contracts maintain the prime contractors' and subvendors' ability to supply product, but do not require the delivery of end items. Use of service contracts is often a lower cost solution than actual purchase of product for which the Services may have no requirement. In the case of the nerve agent antidote autoinjector, the use of service contracts allowed DLA to supply the autoinjectors in time to meet ODS demands. If the base had been allowed to disappear, it would have taken 24 months and $40 million to restore. Similar actions will be necessary in the future to maintain the industrial base for these and other critical items that have low peacetime demands.

OTHER MEDICAL SUPPORT INITIATIVES

DPSC-Medical also obtained, managed, and coordinated supplies and equipment for five Medical Supply Optical & Maintenance Battalions (MEDSOM), the hospital ships USNS Comfort and USNS Mercy, and numerous CONUS deployment centers. In conjunction with the assemblers at the depots, the Medical Inventory Control Points (ICP) assembled and shipped 465 potency and dated modules (biological items, chemical reagents, and items with a shelf-life), 300 hospital assemblies, and 3,200 non-hospital assemblies (X-Ray equipment, first aid stations, etc.). Noteworthy was the speed with which these assemblies were provided. For example, both hospital ships were outfitted in 5 days!

DPSC-Medical also equipped the aeromedical evacuation fleet, providing 717 transport ventilators, 374 ECG monitors, and 380 pulse oximeters, to name a few items.

In the first real test of the Basic Ordering Agreements for blood, DPSC-Medical activated contracts which provided 30,000 units of whole blood worth $2.3 million. This was about half of all the whole blood available in ODS.

In addition to American-based manufacturers, DPSC purchased immune globulin and chloroquine phosphate tablets from foreign sources. This was done to ensure adequate supplies were available to meet all requirements. In both instances, the Food and Drug Administration (FDA) agreed to test samples of every lot prior to release of stocks for troop use. The drugs were subsequently issued to military units in Saudi Arabia.

Over one thousand emergency procurements were processed ensuring timely support by DPSC-Medical in support of the theater operations. Other examples were encouraging vendors to work around the clock and on holidays, contracting for a vendor's full production capacity, using foreign as well as domestic vendors, loading high bulk items at the vendor's plant, having vendors ship materiel directly to the ports, and using time-phased delivery of critical materiel to deployment centers.

LIAISON OFFICERS

To ensure optimal support, medical logistics liaison officers were sent to the theater, to the United States Army Medical Materiel Center in Europe, and to depots. At the conclusion of hostilities a seven member team from HQ DLA and Defense Depot Ogden was also deployed to the theater to assist in redeployment of Army DEPMEDS hospitals.

MEDICAL OBSERVATIONS

ACHIEVEMENTS

-- DEPMED assemblies were built and shipped in a timely manner.

-- Maintenance of a warm industrial base for certain items (nerve agent antidotes) enabled DLA to meet requirements faster.

-- First ever whole-blood purchases were a success.

-- Successful purchase and use of drugs from overseas suppliers.

-- Use of medical logistics liaison officers greatly facilitated DLA medical support.

FUTURE CHALLENGES

-- Must recognize that limited peacetime demand for some medical items impacts the surge and sustainment capabilities of the American medical industrial base.

-- Early shortfalls in meeting some drug requirements, particularly chemical/biological antidotes, necessitated unique and difficult work-arounds to satisfy the customer.

DEFENSE FUEL SUPPLY CENTER (DFSC)

OVERVIEW

DFSC, located at Cameron Station, Alexandria, VA, is the Integrated Materiel Manager (IMM) for bulk petroleum products, petroleum services, natural gas, and coal for the military departments, DoD components and federal civil agencies. During the period 2 August 1990 through 31 March 1991, the Defense Fuel Supply Center provided unparalleled fuels support to U.S. Forces worldwide, from the continental U.S. and European bases to the Middle East. En route support was immediately established at U.S. and European locations and emergency contract procurements were obtained within days to support surge requirements four to five times higher than the normal demand. Within the AOR, reliable and sustainable fuel supply sources were established.

BULK PETROLEUM SUPPORT

A total of 44,825,480 BBLS/1,882,670,174 GALS of bulk petroleum products were consumed by U.S. Forces. Of this total, Saudi Arabia, United Arab Emirates, and Oman provided 41,835,132 BBLS/1,757,075,544 GALS of fuel.

The total cost of petroleum fuels consumed during ODS was $2.26 billion (calculated in U.S. dollars at $1.20 per gallon). The cost of U.S. supplied bulk petroleum products was $150.71 million and the cost of host nations supplied petroleum products was $2.108 billion.

The following types and quantities of fuel were consumed:

TYPE	BBLS	GALS
Commercial Aviation Turbine Fuel (JA1)	26,213,643	1,100,973,025
Military Aviation Turbine Fuel (JP4)	2,038,825	85,630,644
Naval Aviation Turbine Fuel (JP5)	4,034,681	169,456,619
Jet Propulsion Thermal Stabilized Fuel (JPTS)	55,642	2,336,977
Aviation Gasoline (AVGAS)	1,602	67,284
Diesel Fuel (DFX)	10,831,326	454,915,697
Automotive Gasoline (MGX)	565,388	23,746,303
Distillate Intermediate Fuel Oil (IFO)	887,417	37,271,535
Marine, Gas/Oil (MGO)	196,955	8,272,090

TANKER UTILIZATION AND SUPPORT

U.S. TANKERS EMPLOYED	
U.S. time charter	22
U.S. spot charter	2
U.S. Ready Reserve Fleet	3
TOTAL	27

ALLIED/HOST NATION TANKERS	
Allied time charter	2
Allied spot charter	9
Allied Kuwait	5
TOTAL	16

Before and during ODS, DFSC assisted the Navy and Department of Transportation in assessing the condition of cargo tanks of the Ready Reserve Fleet. Actions taken to correct deficiencies in the handling of aviation turbine fuel permitted the vessels activation and the avoidance of fuel quality problems. The timely deployment of the vessels was important to the success of the fuel logistics operations.

A record number of tankers were used in the Operation. Military Sealift Command was called upon to charter many new vessels to accomplish this task. DFSC personnel evaluated candidate spot charters to assess the tanker's ability to meet the suitability-to-load criteria. Tanker evaluations included a review of the two previous cargoes transported in comparison to the product to be loaded and an analysis to identify the minimum cleaning requirements for

charters unfamiliar with DFSC standards. These evaluations were accomplished for all spot charter offers as part of the Contracting Officer's pre-award actions. During one 24-hour period, MSC presented 75 tankers for evaluation.

DEFENSE FUEL REGION - MIDEAST SUPPORT

Defense Fuel Region (DFR)-Mideast is normally manned by nine civilian personnel; however, because of the tremendous increase in workload, DFSC augmented DFR-Mideast with 14 active duty officers, reserve officers, and civilians. The command relationship between DFR-Mideast and USCENTCOM was excellent. An agreement made early in the conflict between the DFSC Commander and CENTCOM left the command line for the DFR with DFSC vice chopping to USCENTCOM.

During host nation support negotiations with the Saudi government, the DFR-Mideast Commander was the key U.S. representative dealing with fuel issues. Fuel quality and technical issues were evaluated and counters to the Saudi proposals were exchanged. Negotiations were accomplished within a short time span and required immediate evaluation and consensus in establishing the fuel communities position on the various issues. The final agreement presented a workable quality program for the purchase, transportation, storage and delivery of quality fuel to the Services.

The agreement provided for free fuel for all U.S fuel requirements in Saudi Arabia and surrounding waters. This included the Red Sea, Arabian Gulf, Gulf of Oman, North Arabian Sea and Eastern Med forces in support of Desert Shield. The agreement also provided for free fuel additives to include thermally stable jet fuel. In addition to Saudi Arabia, the United Arab Emirates and Oman also provide free fuel. Host nation fuel contributions amounted to almost 42 million BBLS of fuel worth.

CONTRACTING INITIATIVES

DFSC awarded more than 100 contracts for petroleum supplies and related services in direct support of ODS. Fuel contracts ranged from less than $10,000 to support a truck convoy movement, to more than $200 million for bulk jet fuel resupply. In every case, contracts were awarded in a timely manner to responsible supply sources. These contracts provided fuel for airlift support, ships bunkers, convoy fuel support, bulk fuel into tankers, fuel additives and related services. Support was provided to 1,800 aircraft, 125 ships, and over 4,000 vehicles servicing 540,000 personnel at 28 locations.

There were some special contracting initiatives undertaken by DFSC personnel. At the onset of ODS, it was apparent that an inadequate inventory of jet fuel additives was on hand in Saudi Arabia, especially if the situation was prolonged. The quickest method to relieve the insufficiency was to purchase the additives through an existing contract in the Middle East.

During ODS, there was a requirement for JP5 in land-locked locations in Oman. A contract was made with Shell Markets Ltd. to transport JP5 by tank truck. The available storage facility did not have a truck fillstand to load JP5 so the contractor installed one for an initial cost of $198,000 with a follow-on fee of $.80 per barrel for handling.

Into-plane contracts were the only contracts in place in Saudi Arabia and surrounding countries to support the initial buildup for both jet and ground fuels. During ODS these contracts were used for into-bladder requirements at remote locations as well as at established airports.

The late submission of fuel requirements data by Service components and a lack of TPFDD deployment data, especially long range data and airflow information, made fuel support difficult. Fuel consumption rates increased up to 500 percent over normal levels without warning, reducing fuel stocks at some locations to a 1-day supply. Extraordinary actions were taken to prevent mission delays due to lack of fuel.

FUEL OBSERVATIONS

ACHIEVEMENTS

-- Unprecedented quantities of petroleum products were procured and issued in a timely manner to support the critical movement of troops and equipment.

-- DFSC assisted the Navy and Department of Transportation in assessing the condition of cargo tanks of the Ready Reserve Fleet, and also assisted MSC in evaluating adequacy of spot charters.

-- The command line for the DFR Mid-East was retained with DFSC vice chopping to USCENTCOM.

-- DFR Mid-East advised and supported the Free Fuel Agreement negotiations with the Saudi Government.

-- Into-plane contracts were extensively used to satisfy early emergency requirements.

FUTURE CHALLENGES

-- Earlier identification of fuel requirements in the theater and to support the TPFDD flow to include locations, require work by the Services.

-- Cannot expect HNS to meet such vast POL requirements in other regions of the world as in SWA.

DEFENSE GENERAL SUPPLY CENTER (DGSC)

OVERVIEW

DGSC, located in Richmond, VA, manages 413,000 general supply items. For ODS support, the five most significant DGSC support efforts included packaged petroleum, sand bags, folding cots, human remains pouches, and "fratricide prevention kits." All of the above items were critical to the war effort, had exceptionally high demands, and required extraordinary supply actions. Fratricide prevention kits became extremely important later in the conflict, as their nonavailability could have resulted in greater deaths of U.S. personnel from "friendly-fire."

PACKAGED PETROLEUM

Packaged petroleum proved to be a real challenge during the initial buildup phase because of the large quantity of nonconforming petroleum products in the wholesale and retail system, and funding constraints which handicapped replacing defective stocks prior to the buildup. In excess of 650 packaged POL items were used by the forces.

USCENTCOM's initial 90-day sustainment packaged petroleum requirement consisted of approximately 200 items with a total value of $40 million. The requirement included items for initial shortages and for sustainment. Seventy-six items required emergency procurement action, while the remaining items were available through existing stocks and contracts. To satisfy U.S. forces' requirements, DGSC used creative supply and procurement actions such as: buy-around public exigency buys, local buys in theater, use of quality proven commercial products, and lateral support between the wholesale and retail systems. Additionally, Petromin, a Saudi Arabian contractor, arranged for free issue of products such as brake fluid, synthetic aircraft lubricants, and selected greases. Before the free issue agreement was finalized, Petromin also assisted in the local procurement of products such as fog oil. The primary benefits of obtaining stocks in theater was availability of products for immediate consumption and a corresponding reduction in petroleum movement requirements.

Also, to better assist USCENTCOM and ARCENT, a packaged petroleum liaison officer was sent to the theater by DGSC. This action greatly facilitated requirements determination and ensured timely resupply actions.

SANDBAGS

Sandbags were one of the most demanded items in support of ODS, with demands far exceeding DLA assets. As DLA stocks were depleted, a worldwide search was conducted resulting in many requisitions being filled utilizing Army and Marine Corps stocks. Additional assets were obtained from Army European war reserve stocks.

Previous Industrial Preparedness Planning (IPP) scenarios were for a European war which required olive drab sandbags. For ODS, the Army required tan sandbags which were not in the inventory. There was only one approved source for either olive drab or tan fabric, which resulted in an insufficient quantity of heavyweight acrylic fabric to meet the Army's requirement. The Procurement and Technical Operations Directorates at DGSC conducted a survey of the fabric industry and, with the approval of Natick Labs, were able to identify additional types of acceptable material. Within a few days (over a weekend) and with the cooperation of Natick Labs, DGSC evaluated over 50 alternate materials and over 80 companies capable of sewing sandbags. The Contracting and Production Directorate also obtained the appropriate waivers to buy fabric from a foreign source. DGSC immediately contracted with a Canadian firm to supply over half the fabric needed for the required 50 million tan sandbags.

In addition, the DGSC Directorate of Contracting and Production awarded 13 letter contracts for heavyweight acrylic sandbags using the Paperless Ordering Procurement System (POPS). POPS uses electronic means to transmit

contract orders without a long "paper trail." This greatly accelerated the contract award process and enabled DGSC to award some contracts in a few hours.

The extraordinary supply and procurement actions cited above resulted in issuing 84 million sandbags in support of ODS. Prior to ODS, annual demand was approximately 1.4 million bags.

COTS

Demand for cots also far exceeded assets. Prior to ODS, annual demand was approximately 89,000; however, 198,464 cots were supplied in support of ODS. Many requisitions were filled by utilizing Army and Marine Corps war reserve stocks. To expedite shipments, contracting personnel took the following actions: premium pay was authorized to have contractors increase production, large requisitions were diverted from existing contracts to direct delivery, and additional sources of supply were found.

HUMAN REMAINS POUCHES

DGSC manages two types of human remains pouches, nylon and rubber. At the beginning of ODS, DGSC had an ample supply of nylon pouches on hand but only a small contract for rubber pouches. Although the two pouches are not listed as interchangeable, most deploying units accepted the available nylon pouches as a substitute.

Attempts to accelerate delivery of the rubber pouches were complicated because of the immediate nonavailability of the rubber material needed in the manufacturing process of the pouches. This shortage was caused by the time-consuming manufacturing process for the butyl rubber material.

DLA worked with the Army and the Defense General Supply Center to locate additional suppliers. Specification problems was an area that required additional actions. Consideration was given to the procurement of the body bags by part number (non-NSN item).

Alternatives were explored, including a human remains pouch used by the Coroner's Office in Washington DC. This pouch is black, rubberized, with four handles and is capable of handling decomposed bodies without leaking. This pouch was approved by Natick as a substitute. Once approved as the Type IIa human remains pouch, contracts were awarded within 3 days for 10,000 with an option for 12,000 more.

FRATRICIDE PREVENTION KITS - REFLECTIVE MARKING PROJECT

Fratricide prevention kits are used to provide visibility of friendly forces during combat scenarios. The kit is comprised of reflective tapes, panels, and various chemical light wands. During ODS, the demands for reflective material used in Fratricide Prevention Kits increased by over 40 percent. Demands completely depleted DGSC inventories, requiring emergency procurement actions to meet short fused ODS required delivery dates. Emergency buys were made with 3M and American Cyanamide and Chemical Devices. In some cases, premium pay was authorized, as well as express overnight/next day deliveries from the manufacturer's plant to the CONUS consolidation point

at New Cumberland Army Depot. Demands eventually exceeded the manufacturers' capability to deliver, and DGSC went to the commercial distribution network to fill some orders.

GENERAL SUPPLY OBSERVATIONS

ACHIEVEMENTS

-- An in-country liaison officer greatly facilitated requirements determination and ensured timely resupply actions for packaged petroleum products.

-- Use of the Paperless Ordering Procurement System (POPS) reduced procurement times significantly.

-- Flexibility in the use of Service war reserve stocks helped meet shortfalls.

-- Commercial packaged petroleum products were used to help meet huge contingency requirements.

FUTURE CHALLENGES

-- The Industrial Preparedness Program for DGSC managed items requires review in the following areas: timeliness and use of IPP Letter Contracts, adequacy of contracts, and availability of raw material to surge production.

-- The level of war reserve stocks of sandbags, cots, human remains pouches, and fratricide items needs review.

DLA HARDWARE CENTERS SUPPORT

OVERVIEW

DLA's three other "Hardware Centers" each made significant contributions to ODS through the management of their commodities.

The Defense Construction Supply Center (DCSC), located in Columbus, OH, manages 575,000 items which include construction materials, construction equipment and components, pipe, and automotive parts. ODS had a significant impact on demand activity. Categories of items which experienced significant increases were barrier materiel, filters, and heaters.

The Defense Electronics Supply Center (DESC), located in Dayton, OH, manages 980,000 items which include communication equipment, electron tubes, and integrated circuits. As the principal supplier of electronic components, DESC processed a quarter million orders for electronic parts in support of ODS. Top items requested: 330,000 electrical connectors, 220,000 fuses and lightning arrestors, 170,000 antennas, and 140,000 semiconductor devices.

The Defense Industrial Supply Center (DISC), located in Philadelphia, PA, manages 933,000 items which include industrial hardware items such as bearings, wire, and a variety of hardware supplies.

CONSTRUCTION ITEMS

Significant support from DCSC included the material detailed below. Requirements were significantly higher than normal causing extraordinary support efforts by the Center.

	NORMAL DEMAND (Qtr)	ODS REQUIREMENT
Concertina wire	25,000 rolls	1,508,945
Fence posts	155,000 each	5,621,864
Heaters	870 each	25,388

Problems with concertina wire were due to large demands, limited sources and a large dollar investment for the contractor. Heater problems consisted of changing specifications, passing the first article test, and the ability of subcontractors to keep pace.

Fence post support actions taken included working with the Army to identify additional sources for fence posts. A commercial substitute was disapproved by the Army because of the difference in the structural strengths of the posts. There were specification problems and the proposal was made to procure by part number (non-NSN item).

Space heater actions included working with the U.S. Army Troop Support Command, the U.S. Army Natick Research, Development and Engineering Center and the Defense Construction Supply Center to obtain additional substitutable replacement space heaters.

ELECTRONIC ITEM SUPPORT

Operation DESERT SHIELD/STORM's impact at the Defense Electronics Supply Center left little doubt about the high tech nature of the war in the Persian Gulf. Throughout the course of the war, DESC consistently had stock on the shelf ready to issue for 90 percent of the orders it received. To fill the remaining 10 percent of requests on backorder, DESC procured items from contractors, drew assets from other military sites, and substituted comparable parts for requested items where suitable. In addition to U.S. Forces, DESC also furnished electronic parts to units of 14 other nations engaged in the conflict.

Weekly order activity, in support of the Gulf war, rose from 2,500 requests for parts the first week in September to over 17,000 the week of February 15. Telephone traffic increased as well. DESC normally gets 400 calls a week from customers placing orders and checking on the status of their material. Calls doubled at the height of ODS.

The most noticeable impact of ODS on DESC workload was the surge in high-priority requests to support weapon systems and other critical equipment. About one-third of the 1 million items DESC currently manages are used in major defense systems. Summarized below is a sample of key ODS weapon systems which utilize electronic items managed by DESC:

WEAPON SYSTEM	DESC MANAGED ITEMS	ODS REQUISITIONS
Patriot Missile	5,880	12,228
Abrams (M1A1) Tank	2,135	2,661
AV-8B Harrier	9,170	8,625
F-18 Hornet	15,070	9,072
Tomahawk Missile	2,170	2,678
F-15 Eagle	17,835	13,473

(Requisition Period: August 1990 through February 1991)

INDUSTRIAL ITEMS

Industrial item requirements of Operation DESERT SHIELD/STORM were supported with an average supply availability of 87.8 percent for 599,000 requisitions valued in excess of $109 million. The Defense Industrial Supply Center increased lines of communication with the Services' major commands and depot facilities by having teams from the Customer Readiness Division visit these customers to identify issues before they became problems. This is identical to Critical Item Review visits to DISC customers. This provided much needed information on future usage and changes in replacement factors caused by the environment in theater.

There were various problems identified and resolved during ODS, i.e. helicopter tie-down kits, landing gear bearings, shackles, engine fan and compressor blades, and wheel studs for HEMMTs. Working with the Army Tank and Automotive Command, DISC also resolved numerous problems with the HUMMVs and increase the overall support by 2 percent. In several instances, the time from the point when new requirements were received until the material was in the customers' hands was less than 15 days.

TRANSPORTATION

OVERVIEW

Transportation elements of the Defense Logistics Agency successfully directed the consolidation and timely movement of over 700 million pounds of materiel during the mobilization, deployment and sustainment of allied forces during Operation DESERT SHIELD/STORM. The critical need for this materiel, specialized handling requirements, widely dispersed sources of supply, and extended lines of communications challenged even the most capable traffic managers and transportation professionals. The table below identifies, by Defense Depot, the amount of material shipped in support of ODS requirements. It also includes shipments made for the Donation Program.

OPERATION DESERT SHIELD/STORM SHIPMENTS IN SHORT TONS

DEPOT/ACTIVITY	ODS	DONATIONS	TOTAL
DDCO	1,766	N/A	1,766
DDRV	47,574	28	47,602
DDRW	40,257	457	40,714
DDOU	22,592	N/A	22,592
DDMT	107,324	N/A	107,324
DDMP	38,790	2,280	41,070
DPSC	75,671*	22,500*	98,171
TOTALS	333,974	24,808	358,782

*DPSC ARRANGED TRANSPORTATION

SPECIAL ODS TRANSPORTATION PROGRAMS

To achieve the most responsive delivery of the highest priority requirements to Saudi Arabia, DLA utilized the dedicated, daily airlift program referred to as "Desert Express." To assure daily overseas flight schedules were met, DLA utilized domestic airlift to deliver "war stopper" materiel such as chemical suits, medical supplies, electronic instruments, and desert uniforms to Charleston AFB, the port of embarkation. Delivery to Charleston was usually within 1 day from the time the materiel was pulled from depot stock.

For larger shipments assigned to surface transportation, DLA assisted in the creation of the "Special Mideast Sealift Agreement." This agreement greatly reduced transit times from CONUS to the Mideast and resulted in lower overall transportation costs. Painstaking cargo planning and scrupulous day-to-day oversight of DLA transportation operations guaranteed optimal use of the agreement and resulted in the delivery of over 19,000 containers to the Mideast in just over a 6 month period. This represents 52 percent of all DoD container shipments destined to the Mideast.

Dependable delivery of materiel to aerial and water ports of embarkation required many unique and special arrangements with surface carriers. DLA traffic managers were able to obtain firm commitments from carriers through the use of guaranteed traffic agreements, dedicated truck movements, dual driver assignments, and designation of alternate equipment for DLA cargo only. The comprehensive manner in which these arrangements were made enhanced the ability of the traffic manager to tailor movement requirements to deliver materiel to the intended destination within a matter of hours before the scheduled departure to the Mideast.

Faced with potential delays resulting from congestion at the ports of embarkation, DLA traffic managers were successful in getting vendors to fill containers in lieu of shipping to a consolidation point to fill the containers. This action resulted in a more efficient and expeditious movement of the materiel to the theater commander at significant cost savings.

DOCUMENTATION ENHANCEMENTS

Based upon a request from the theater that the backlog of cargo created difficulty in locating specific shipments, DLA took the lead to develop revised marking techniques. For subsistence shipments, DLA personnel designed and applied never before used labels to permit the receiving activity to immediately determine the contents of each container upon receipt. As a further step, procedures were established to provide advance notification for each container shipped, description of the contents, and the name of the vessel.

Additionally, for all depot shipments, DLA took the lead to develop a prototype DoD laser optical card record to replace the paper shipping manifests. The prime objectives of the card were threefold:

a. Facilitate receipt confirmation at destination (DSU, primary storage facility, etc.) with one transaction.
b. Preclude opening of van/container to view contents.
c. Permit development of a line-item/quantity record of contents of loaded containers/436L pallets.

Although this project was not completed prior to the conclusion of Desert Storm, it remains a viable project and promises to help alleviate problems of in-transit visibility of cargo in the pipeline from depot to the end user.

DONATION PROGRAM

In addition to meeting mission requirements, DLA transportation personnel were actively involved in the movement of items donated by the private sector to U.S. Forces in the Persian Gulf. DLA transportation personnel provided transportation movement information to the donor including packaging information and to which DLA depot to ship the donated items. After receipt at the depot, personnel verified the property, checked for proper packaging, stuffed containers for shipment, and arranged onward movement to USCENTCOM or other approved destinations with appropriate authorities. While special arrangements were frequently required for shipment of the donations, the shipments were made without any degradation to the primary military missions.

TRANSPORTATION OBSERVATIONS

ACHIEVEMENTS

-- DLA shipments were integrated into dedicated movement programs.

-- Extensive use of Containers at DLA depots and at vendor locations promoted efficiency and economy and reduced overall transportation costs.

FUTURE CHALLENGES

-- Readily available and accurate information regarding contents of containers requires additional work.

DEFENSE CONTRACT MANAGEMENT COMMAND

OVERVIEW

The second major mission area of DLA is contract administration services, which is carried out by the Defense Contract Management Command (DCMC). DCMC's mission is to provide worldwide contract management in support of DoD components, NASA, and other designated Federal and international organizations. The key DCMC mission elements include:

a. Assure contractor compliance with cost, delivery, technical, quality and other terms of the contract.
b. Accept products on behalf of the government.
c. Ensure the contractor is paid.

DCMC currently administers more than 500,000 contracts worth $750 billion involving 30,000 contractors. The Command of 20,250 personnel has five District Offices in the United States and eight Area Operations overseas.

From the very start of ODS, the staff of DCMC, its five districts, and DCMC International worked closely with defense contractors and procuring activities to maintain the flow of material to the troops. DCMC moved to expedite, accelerate, and surge production and shipment of ODS materiel such as chemical protective equipment, clothing, aircraft engines, and missiles. DCMC also provided the needed technical, pricing, and negotiation support for the increased volume of contract activity.

DCMC ODS WORKLOAD

Of the 278,000 new contracts received during ODS, 10,600 contracts and 2,100 contract modifications were reported to have supported ODS. Contracts, however, were not always identified or reported as supporting ODS related actions. Certain contract administration functions such as production surveillance, status reporting, and expediting of accelerated deliveries had increases in workload. Over 16,700 surveillance, 17,400 delivery status, and 13,700 expedite/acceleration actions were attributed to ODS.

All transportation and packaging functions had significant increases in workload, i.e., export traffic releases, air clearances, transportation control and movement documents (TCMDs), and expedited shipments. For example, the number of TCMDs relating to ODS totaled over 16,400 which is a 50 percent increase over the number normally handled. The additional workload was accomplished by prioritizing workload, rescheduling training, and using overtime.

DCMC ACHIEVEMENTS

The following examples are typical of the thousands of critical actions taken by DCMC personnel to ensure responsive support of ODS requirements:

Camouflage Pattern of M1A1 Vehicles: A specific workload impact was the requirement to change the final paint camouflage pattern of the M1A1, Main Battle Tank, from woodland green to desert sand. This task resulted in a modification to the production contract to download and repaint previously

accepted M1A1s. The contractor responded to the required change and blended the reworked vehicles into the normal production cycle to meet the required shipment dates and vehicle counts.

Shipment of M1A1s: Upon short notice, a fielding team made up of government and contractor personnel deployed to California to assist in deprocessing and hand-off of the first M1A1 issues to the Marine Corps. A second team was assembled and deployed to New Jersey to perform onsite preparation actions on the M1A1s deploying into theater. Five shipments, totaling 143 vehicles, were made during the early phase of the operation.

Shipment of M1A1 Related Government Funded Material (GFM): Over 450 pieces of high dollar M1A1 related GFM, including fire control components, laser range-finders, and engine electronic control units, were shipped. These items were in the initial demands from Army Commanders in the field. Over 3,000 roadwheels were shipped from production stocks on short notice to New Cumberland Depot for transshipment.

Contract for Tractors and Trailers: An intensive administrative effort involved a $10 million contract awarded for tractors and trailers with delivery beginning in 3 weeks. Coordinated effort between the administrative contracting officer (ACO) and the procuring contracting officer (PCO) resulted in successful and timely contract completion. Modifications were made to:

a. Break out a single line item into component items.
b. Specify multiple source inspector/acceptance points for subcontractors.
c. Establish billing prices for payments.
d. Increase quantity of units.
e. Reduce inspection requirements to identify, count, and condition.
f. Change "ship to" destinations.
g. Change inspection/acceptance to destination.
h. Modify accounting designations.

AV8 Harrier Aircraft Spare Parts: DCMC routinely provides special handling of AV8 Harrier aircraft spare parts in support of the Navy. Thirty-nine new buys outside the normal supply replenishment system were required to support ODS. These contracts were marked with the highest priority indicator used by the British industry. A total of 144 contracts to support ODS were administered.

Cold Weather Drawers/Undershirts: A $4.4 million contract for 985,000 cold weather drawers and 640,000 cold weather undershirts was awarded on 29 January 1991 with deliveries to be completed within 3 weeks. A diversion was issued on 30 January 1991 for 512,876 drawers and 271,095 undershirts to be sent to Saudi Arabia with a revised delivery date of 11 February 1991. As airlift was not available, the ACO coordinated with the PCO to ship via ocean vessel with departure on 14 February 1991. The transportation officer made arrangements to have over 50 containers at the contractors facility on 12 February 1991. Inspection and acceptance was performed over the weekend which allowed the contractor to begin loading the containers on 12 February 1991. All actions were completed by close of business 13 February 1991, and the materiel was delivered on time.

Portable Buildings: An urgent requirement existed for 41 portable buildings, 39'8" long by 30'10" high with a span of 75'3". The buildings are covered with a heavy, vinyl-like material that can withstand 120 mph winds and reduce the desert temperatures by 30 to 40 degrees. The buildings require no heavy equipment or site preparations. The assigned industrial specialist assisted the contractor, who was new to government contracting, in both technical and administrative areas to expedite the demonstration of building assembly to the customer, interpretation of contract requirements, and delivery of the buildings under a contract valued at $7.6 million.

Support to Patriot Missile System: As part of the Operation Bluestreak Program, the DCMC District Northeast was an active participant in the shipment of Patriot spare parts/repair parts to the Persian Gulf region. Bluestreak is a joint Government/contractor emergency alert system, established in September 1990 to ensure operational readiness of the Patriot missile system. The two primary goals of the alert system were to provide around-the-clock coverage for inspection and acceptance of emergency deliveries, and to provide assistance relative to the "change out" of tactical software/firmware for upgrading deployed Patriot missile systems from the older anti-aircraft version to the newer anti-missile/aircraft design.

By applying Operation Bluestreak procedures, 948 shipments of Patriot spare/repair parts were expedited to the Persian Gulf region. As a direct result of this effort, no Patriot battery downtime was reported during the ODS engagements.

FUTURE CHALLENGES

Throughout ODS there were untold numbers of instances where the buying activities contacted contractors directly for acceleration/status, new awards or redesignation of existing contracts to support ODS, without coordination with the Contract Administration Office (CAO). CMC districts need to emphasize with their major buying activities that coordination must continue with responsible CAO personnel concerning contract acceleration, priorities, shipping instructions, and delivery status regardless of the situation.

DEFENSE CONTRACT MANAGEMENT COMMAND - INTERNATIONAL (DCMCI)

OVERVIEW

In support of DoD's consolidation of contract administration services, DCMCI provides worldwide contractor oversight through eight area operations (AOs). Assignments of geographical areas of responsibility are based on international agreements, political considerations, and business efficiency. The eight area operations include Ottawa, Canada; Uxbridge, United Kingdom; Brussels, Belgium; Frankfurt, Germany; Ankara, Turkey; Tel Aviv, Israel; Kualalumphur, Malaysia; and Kimhae, Korea.

SIGNIFICANT DCMCI ACHIEVEMENTS

DCMAO OTTAWA

In response to an emergency letter contract for sandbags, DCMAO Ottawa specialists orchestrated the shipment of 12 million sandbags for multiple origin points. When air clearance was denied and the depots became saturated, the Military Ocean Terminal in Bayonne, NJ, was contacted and arrangements were made to containerize the sandbags en route.

On several occasions, DCMAO Ottawa specialists mobilized the efforts of the Canadian Department of National Defence, the buying activity, the contractor, commercial carriers, and Desert Express clearance authorities to ship lithium batteries within hours of receiving urgent requests.

DCMAO Ottawa personnel aggressively managed a contract for over a million gallons of various grades of lubricating oil. They quickly overcame early disagreements among the contractor, PCO, and the Canadian Government QAR to get shipments started. The contract required that 485 truckloads of oil be moved between 24 January and 19 February 1991. Despite shortages of carrier equipment and saturated depots, the DCMAO Ottawa Transportation Office delivered the goods.

DCMAO UXBRIDGE

Contract Administration Support (CAS) on spares to keep the U.S. Marine AV8Bs (Harriers) operational was a major requirement for DCMAO Uxbridge. These spares were shipped to MCAS Cherry Point. Identification of the requirement in Great Britain, inspection and acceptance of the product, and delivery in Saudi Arabia took only 48 hours.

Accelerated production and direct delivery to the Gulf of the "Precision Gunnery Training System" for the TOW and DRAGON intermitter missiles were accomplished. This simulator enabled U.S. Marines to train on the TOW and DRAGON systems under theater conditions prior to actual combat.

CAS was performed on accelerated production and delivery on an improvement to an electronic unit which was not performing well under desert conditions. The delivery of the improved part was accelerated, and it was delivered 6 months ahead of schedule thanks to the contractor. The cooperation of other defense contractors in the area was significant, as the new unit required equipment which the contractor, Marconi, did not yet possess. These contractors allowed Marconi to use the needed equipment, thereby enabling the accelerated delivery schedule.

Several urgent requirements for hardware and supplies associated with the chemical threat were supported by DCMAO Uxbridge. A $10 million contract for the Marine Corps for chemical protective suits was completed by February 1991.

Contracts for bridging, combat support boats, heads-up displays, and ejection seats were accommodated and delivered in support of the deployed forces.

At the request of the U.S. Embassy in London, DCMAO Uxbridge assisted in the rebuilding of Kuwait by providing instruction to contractors on bidding for contracts and filling out the required paperwork.

DCMAO FRANKFURT

A $50 million dollar letter contract was awarded to DCMAO Frankfurt to administer overhaul and repair of T63 and T707 aircraft engines at the Aeromaritime facility in Malta.

The U.S. Army Theater Aviation Maintenance Program (TAMP) contract in Madrid, Spain, changed from overhaul of the T-55 helicopter engines in the European theater to direct support of Desert Storm by diversion of the current production to Saudi Arabia.

Once hostilities were imminent, the contract management team in Frankfurt, involving the ACO, QA and transportation were kept busy with a $500 million co-production contract for the Patriot missile assembly. While expediting deliveries and diverting missiles to Saudi, 68 Patriots were rapidly shipped to the AOR.

DCMAO ANKARA

CAS was expedited on an accelerated manufacturing contract for F-16 aircraft for the Turkish Air Force. This contract ran from August through December 1990, with production rates doubled in the month of September. This surge had three objectives: (1) to augment two Turkish squadrons of F-16's which were deploying to the southwestern part of Turkey along the Iraqi border; (2) to demonstrate increased production capability due to the probability of a third country sale to Egypt; and (3) to show industrial base readiness in a crisis situation. All objectives were met, including the sale of 46 aircraft to Egypt from the industrial facility. All this was accomplished while the DCMAO faced a strike by Turkish employees which were also part of a national labor union.

TECHNICAL AND LOGISTICS SERVICES

OVERVIEW

The third major mission area of DLA, in support of Operations DESERT SHIELD/STORM, was to provide technical and logistics services. DLA administers a variety of DoD programs related to the logistics support of the Services. Each program is managed by a DLA Service Center. These programs and services include: the Federal Catalog System, the Defense Reutilization and Marketing Program, the Defense Industrial Plant Equipment Program, the Defense National Stockpile Program, and the Defense Research and Technology Information System. These programs help the Military Services and the Defense Agencies to develop, acquire, and efficiently use technical information and defense materiel and to dispose of materiel no longer needed.

DEFENSE LOGISTICS SERVICES CENTER (DLSC)

DLSC OVERVIEW

The Federal Supply Catalog System is essential to a supply system using a common nomenclature and serving all the Military Services. National Stock Numbers (NSN) are assigned and item descriptions are maintained for millions of active items in the catalog. The Defense Logistics Services Center (DLSC), which manages the catalog system, also maintains the Defense Logistics Information System, a data bank of information used in the design, purchase, transportation, storage, transfer, and disposal of government materiel.

DLSC is the central data base for NSN information. The information includes item description, cross-references to alternate sources of supply, and item managers. The data base is available on microfiche, limited access compact disk, and on-line remote terminal access.

OPERATION DESERT STORM/SHIELD SUPPORT

The DLSC mission, in support of Operation DESERT SHIELD/STORM (ODS), was to provide NSNs, alternate items, and sources of supply when only a part number or name was provided. DLSC also assigned emergency NSNs and source of supply coding for new items.

Significant actions included: on-line remote terminal access provided 16 to 24 hours a day depending on demand; stock number assignment time reduced from 24 hours to 3 hours; source of supply assignment (Commercial and Government Entity Codes) reduced from 15 days to 5 minutes; microfiche sets (100) provided to the Navy; and FEDLOG compact-disk sets provided to the Military Services for limited distribution directly to the field.

DEFENSE REUTILIZATION AND MARKETING SERVICE (DRMS)

DRMS OVERVIEW

The Defense Reutilization and Marketing Service (DRMS) is the activity responsible for the redistribution and disposal of Department of Defense excess personal property. Personal property is all material except real

estate which is bought and used by DoD. The DoD Reutilization and Marketing Program provides for the redistribution and disposal of DoD equipment and supplies no longer required by the original user. The program is accomplished through reutilization within the Department of Defense, transfer to other Federal agencies, donation to eligible recipients, sale to the general public, or destruction in an environmentally responsible manner. DRMS is also responsible for disposal of hazardous and toxic materials in compliance with all environmental laws and regulations. DRMS is a worldwide organization with offices on most major military installations.

OPERATION DESERT SHIELD/STORM SUPPORT

The DRMS mission, in support of Operation DESERT SHIELD/STORM, began during the early stages of deployment to Southwest Asia and continued after the redeployment of coalition forces from the Persian Gulf theater.

From the early stages, Defense Reutilization and Marketing Office Saudi Arabia provided a means for assigned U.S. forces to dispose of their excess material. A phased-in operation began in late November 1990 to accept turn-ins of unserviceable and nonrepairable items and scrap at a site shared with a major items cannibalization point. By the end of hostilities, the DRMO at Dammam and its subordinate branch site at King Khalid Military City were receiving up to 400 truckloads of property a day. The total receipts of DRMO Saudi Arabia through March were 8,137 line items with an acquisition value of over $19,750,000. The usable property inventory at that time was 1,585 line items with an acquisition value of over $6.5 million. As would be expected, turn-in and reutilization of property was minimal until the cease fire, but has grown dramatically since the redeployment began. If U.S. excess/surplus property is to be sold by the DRMO, the mission will continue even after the troops have left the theater. The sales effort would continue 90 days or more after receipt of excess has been cut off.

Additionally, the Army is performing the hazardous waste disposal mission in Saudi Arabia. The disposal support provided by DRMS in accordance with the Memorandum of Understanding (MOU) between United States Central Command and the Defense Logistics Agency for support during emergency and contingency operations was outstanding.

DRMS SUPPORT IN EUROPE

Significant actions occurred not only at the two DRMO sites established in the Kingdom of Saudi Arabia, but at many other DRMOs around the world, especially in Germany, where hundreds of military screeners combed through DRMO facilities to fulfill critical shortages to support their missions. Daily contact was maintained between DRMS operations divisions and the Military Services' headquarters to find assets and coordinate transportation. In addition to providing furniture, bedding, and accessories for the "Tent City" at Rhein Main Air Base, and medical material and equipment for Army and Air Force hospitals throughout Europe, DRMS also provided some of the operational supplies, equipment and furniture to establish DRMO Saudi Arabia.

DEFENSE INDUSTRIAL PLANT EQUIPMENT CENTER (DIPEC)

OVERVIEW

DIPEC, which became a site command of DGSC on 17 Jan 92, is collocated with Defense Depot Memphis and manages the DoD General Reserve of Industrial Plant Equipment (IPE) such as machine tools and general plant equipment owned by the Department of Defense. This equipment is used to develop, produce, maintain, and test weapons systems and other equipment essential to national defense. As a result of Operation DESERT SHIELD/STORM, DIPEC was challenged in a real world crisis situation, and it met it fully by providing a wide range of logistical support to the Military Services.

DIPEC SUPPORT

During the Gulf War period, DIPEC personnel responded to Navy Casualty Reports (CASREPs) and other emergencies by fielding maintenance teams to make critical IPE repairs onboard the USS Trenton, USS LaMoure County, USS America, USS Shreveport, USS Kennedy in the Persian Gulf/Red Sea, and the SRU in Bahrain. Repairs were also conducted onboard many other ships located throughout the world including aircraft carriers, frigates, submarine tenders, destroyers, amphibious landing ships, missile cruisers, and communication ships. Teams were also dispatched to make repairs at various Army facilities including the Lone Star Army Ammunition Plant, Texarkana, TX, and Letterkenny Army Depot, Chambersburg, PA.

DIPEC provided IPE from the General Reserve to various customers, including providing Anniston, AL, with a vertical jig mill. In addition, they shipped IPE to meet an urgent requirement in support of MK-83 Bomb Renovation at McAlester Army Ammunition Plant, McAlester, OK; and shipped a high priority requirement for a grinding machine under the loan program to produce metal products for Landmine Marker Protectors and Aircraft Berthing Units for the U.S. Army, Ft. Belvoir, VA.

DIPEC also provided IPE from the General Reserve Ready-For-Issue (RFI) Program - a Monarch lathe to meet the immediate needs of the USS L.Y. Spear. Technical assistance and technical data were provided both in and out of the AOR during this period.

DIPEC's procurement support included purchasing IPE parts for ships located in the Persian Gulf/Red Sea and shipping them by Desert Express, as well as supplies for DDMT to support their B-Ration assembly and palletization effort. DIPEC procurement processed 50 large purchases and approximately 592 small purchase contracts totalling approximately $15 million dollars for IPE parts, supplies and services to support ODS. Average turnaround time was approximately 6 days.

THE DEFENSE NATIONAL STOCKPILE CENTER (DNSC)

DNSC OVERVIEW

DNSC's mission is to provide strategic and critical raw materials to support defense industrial production during an extended national emergency. The Defense National Stockpile, of strategic materials and critical items, is

maintained by the Defense National Stockpile Center (DNSC). Ninety-one critical items are maintained by DNSC, thereby reducing the nation's dependence upon foreign sources of supply for the items in times of national emergency.

SUPPORT TO OPERATION DESERT SHIELD/STORM

During the period of ODS, DNSC monitored industrial production activity through liaison with Departments of Commerce and Interior, and through direct contact with certain producers, i.e., armor penetrating ammunition using heavy metals tantalum and tungsten. Also, Executive Orders were in place to authorize the use of required stockpile materials; however, the rapid conclusion of ODS resulted in minimum requirements for most stockpiled materials maintained by DNSC.

An example of an item required from the national stockpile was jewel bearings. The William Langer Jewel Bearing Plant in Rolla, ND, is the sole producer of precision jewel bearings in North America. The Langer plant, a Government-owned, contractor-operated facility, is administered by DNSC and is operated by the Bulova Corporation. Defense contractors producing precision instruments and guidance systems for most major weapons systems purchase jewel bearings from the Langer plant. These systems include all U.S. tactical fixed and rotary wing aircraft; the Abrams main battle tank; the Tomahawk, Hellfire, and Patriot missiles; and other sensitive systems such as satellites. The chart below depicts the growth of jewel bearing orders which increased by 145 percent during ODS.

JEWEL BEARING ORDERS BY DoD CONTRACTORS
(In thousands of bearings)

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1989-90	26	354	15	24	20	56	45	4
1990-91	32	64	270	260	23	445	68	166
% CHANGE	23%	-82%	1700%	980%	15%	690%	51%	4050%

DEFENSE TECHNICAL INFORMATION CENTER (DTIC) AND INFORMATION ANALYSIS CENTERS (IAC)

DTIC OVERVIEW

The DoD Scientific and Technical Information Program is an information system based on a central repository of scientific and technical reports generated by the Military Services and their contractors. The Defense Technical Information Center (DTIC) manages the program. Effective 21 July 1991, DTIC was disestablished as a DLA Primary Level Field Activity and the mission and functions were transferred to the Director, Defense Research and Engineering (DDR&E), DoD. However, during the ODS time period, DTIC was a subordinate element of DLA.

The Center is the central DoD facility for the acquisition, cataloging, storage, announcement, and secondary distribution of scientific and technical information. Additionally, DTIC makes available over 1.1 million technical research reports to over 3,700 registered organizations employing 150,000 scientists and engineers. DTIC's information products and services are based on three major data bases. Access to the data bases by authorized users is by individual request, on a recurring basis, and through the Defense RDT&E On-line System.

Information Analysis Centers (IACs) collect, store, review, analyze, and summarize scientific and technical information and engineering data within their specialized areas. DTIC has been designated by the USD(A) as the responsible agency for operational management of assigned contractor-operated DoD IACs. Currently there are 14 contractor-operated DoD IACs available to serve registered DTIC users.

DTIC SUPPORT TO OPERATION DESERT SHIELD/STORM

The DTIC mission, in support of Operation DESERT SHIELD/STORM, was to provide bibliographic searches for customers and disseminate technical reports on the general subject of desert warfare.

Significant actions which took place were: DTIC provided 194 bibliographical searches on the general subject of desert warfare; set up a current awareness bibliography and an identical Automatic Document Distribution for the Armed Forces Radiobiology Research Institute, Bethesda, MD; and transmitted 446 documents for ODS to the Military Services, OSD, and to the Congress.

IAC SUPPORT TO DESERT SHIELD/STORM

The Information Analysis Centers (IACs) were instrumental in responding to requests for information.

The Chemical Warfare/Chemical and Biological Defense Information Analysis Center and responded to 619 chemical warfare/chemical and biological defense technical inquiries.

The Survivability/Vulnerability Information Analysis Center responded to requests from the Air Force on the rescue and recovery Helo Experience of CH/HH-53 Helicopters.

The High Temperature Materials - Mechanical Electronic and Thermophysical Properties Information Analysis Center provided information to the US Army Tank Automotive Command on the thermoradioactive properties of desert sand, which was needed for thermal modeling of ground vehicle background for Desert Shield.

The Chemical Propulsion Informing Agency responded to a request from the Defense Technology Security Administration (DTSA) and Naval Ordnance Station, Yorktown, concerning possible foreign sources of HMX explosive/rocket propellant ingredient in light of the embargo on Iraq. DTSA wanted to

identify companies that may attempt to circumvent the trade restriction rules. The information was extracted from the Propellant Ingredients Sources Database.

The Guidance and Control Information Analysis Center was involved in a classified Desert Storm mission for the Army entitled "Independent Assessment of Selected Smart Weapons Technology."

SPECIAL AREAS OF INTEREST

PUBLIC AFFAIRS SUPPORT

DLA maintains Public Affairs Offices at Defense Supply Centers, Service Centers, Defense Contract Management Districts, Depots, and other major DLA field activities. These offices experienced a massive volume of queries from the media and other sources during Desert Shield/Storm and were hard pressed to meet the swell of requirements for information and interviews. The DoD total embargo on information regarding defense contracts/contracting posed a significant challenge.

HQs DLA responded to over 1500 requests and DLA field activities responded to over 2400 requests from citizens and news media for information and interviews. Over 700 requests for interviews with DLA personnel were satisfied. Over 200 inquiries were deferred or referred to appropriate DoD public affairs personnel. In addition to intense media interest in military logistics, there were numerous inquiries from parties interested in selling to the military and from individuals interested in donating to the troops in Saudi Arabia.

Inquiries and requests for information were received from a wide variety of media to include local and national television, trade journals, national periodicals, radio, and newspapers. Requests for background information, facts and figures, and interviews were released and granted in accordance with Public Affairs guidance furnished by the Office of the Secretary of Defense.

Through close coordination with the Headquarters Public Affairs staff, especially in the light of DoD constraints placed on the release of information, DLA Public Affairs specialists were able to meet the challenges of satisfying the need for information while protecting the operational security requirements of Operation DESERT SHIELD/STORM.

CIVILIAN PERSONNEL

The total DLA workforce is programmed at over 58,000 personnel with all but 1,316 being civilian.

Workload increases caused by ODS were generally met through overtime authorizations and tour of duty changes. Productivity increases were noted in several functional areas as DLA employees worked hard to ensure all ODS requirements were met.

DEFENSE DEPOTS

DLA's depot operations were impacted by increased requirements for pick, packing, and shipping of the millions of pounds of materiel ordered by the Military Services. Additionally, new requirements for assembling subsistence items, stock refurbishment, and component build programs were added to the depots' missions. Listed below are examples of the increases in mission and personnel requirements:

DEPOT	MISSION	PERSONNEL
Defense Depot Memphis (DDMT)	Assembling and shipping unitized B-Rations (516,000 meals/day)	846
Defense Depot Region West (DDRW)	Rework Decontamination Kits (179,903 kits)	610
DDRW	Assembling of B-Rations and Meals Ordered Ready to Eat (MOREs)	800

DLA CIVILIANS SERVE AS RESERVISTS

Almost 350 DLA civilian employees were called up or mobilized in support of Operations DESERT SHIELD/STORM. Headquarters DLA and 23 of DLA's Primary Level Field Activities were impacted by the callup. Defense Contract Management District Northeast provided 60 reservists, the largest single DLA contingent. Forty seven of the 60 activated personnel served as Quality Assurance Specialists. The callups were spread throughout the ODS period. Personnel shortfalls were overcome by job realignments and overtime.

DLA TELECOMMUNICATIONS

AUTODIN

The DLA telecommunications network, as a whole, provided the necessary support for Operations DESERT SHIELD/STORM. Worldwide MINIMIZE, established by the Joint Chiefs Of Staff, reduced the number of messages coming across the network. Imposition of MINIMIZE and other telecommunications impacts on selected DLA activities are addressed below.

MESSAGE TRAFFIC

During Operations DESERT SHIELD/STORM, the DLA Administrative Support Center (DASC) Communications Center increased operations from 16 hours to 24 hours a day. During ODS, the AUTODIN Communications system was severely over tasked. Although worldwide MINIMIZE helped to reduce the load, some commands circumvented the system by assigning higher precedences to transmitted messages. The established speed-of-service time goals for record communication support was greatly exceeded. High precedence traffic was slow and routine traffic was near a standstill. Precedence abuse became a standard way of operating to make the system work for a command's convenience.

DEFENSE AUTOMATIC ADDRESSING SYSTEM

The Defense Automatic Addressing System (DAAS) operated by DAAS Offices in Dayton, OH, and Tracy, CA, maintained constant 24-hour service for the routing of all military logistics transactions and messages throughout the entire duration of Operation DESERT SHIELD/STORM. DAASO was able to handle

all contingency logistics traffic which surged 20 percent over normal logistics traffic during the peak of activities.

DAASO has indicated that narrative message traffic should be the only type of traffic affected by MINIMIZE. Because of the confusion regarding MINIMIZE procedures, several activities sent hard copy messages to DAASO. DAASO did not have the resources to process all of the traffic that arrived either by written message or paper tape after the Joint Chiefs Of Staff imposed the worldwide MINIMIZE.

STANDARD AUTOMATED MATERIAL MANAGEMENT SYSTEM (SAMMS)

The SAMMS configuration data base was modified to varying degrees at each of the Supply Centers to meet ODS requirements. Examples of the modifications included: restructuring master files; extending transaction processing (TP) on-line availability; changes to baseline schedules; additional print facilities; support personnel on 24 hour recall and additional computer operators. Headquarters DLA Office of Information Systems and Technology provided some functional users the capability to access the SAMMS data base at Defense General Supply Center (DGSC) to track package petroleum products essential to the production of jet fuel.

FEDERAL LOGISTICS DATA (FEDLOG)

FEDLOG was an effective logistics tool for the Services and agencies. DLSC's Federal Logistics Data on CD ROM (FEDLOG) is an automated cataloging and research tool. FEDLOG significantly reduces the amount of time it takes to identify national stock numbered items and sources of supply for very generic requirements. DLA Headquarters also made extensive use of FEDLOG in support of our fighting troops and DLSC filled a request for 37 sets of FEDLOG for the Services to support the war. Each set contained a FEDLOG users manual, program disks, a set of FEDLOG CDs and a computer based training (CBT) course. For example, FEDLOG was provided to the Air Force Tactical Air Command Headquarters Emergency Supply Operations Center (ESOC) at Langley Air Force Base, VA, and to the DLA forward staff in Dhahran, Saudi Arabia.

DLA AUTOMATED SYSTEMS SUPPORT TO SERVICES/AGENCIES

During Operation DESERT SHIELD/STORM, the requirement for instant access to information became more critical and widespread. DLA's Office of Information Systems and Technology provided various users with on-line access to our Standard Automated Materiel Management System (SAMMS) operated at DLA Supply Centers, the DLA Warehousing and Shipping Automated System (DWASP) operated at DLA Depots, and the Defense Integrated Data System at the Defense Logistics Services Center. Examples of users were: Offices of the Assistant Secretary of Defense for Production and Logistics (OSD(P&L)); Army Deputy Chief of Staff for Logistics (DCSLOG); DLA liaison personnel stationed at Dhahran, Saudi Arabia; and 107 personnel stationed throughout the DLA Emergency Operations Centers. Additionally, 63 DLA ESOC personnel were given access to the Navy's Virtual Master Stock Inventory System (MSIR) for retail asset visibility at Navy inventory stock points.

Additionally, support to the Air Force's Tactical Air Command Headquarters at Langley Air Force Base, VA, was accomplished by DLA

establishing a temporary ESOC to aid in the expediting of critically needed supplies. The ESOC operation was equipped with three personal computers with modems and CD ROM readers for on-line access to various data bases as well as FEDLOG capability to cross match nouns with national stock numbers and potential manufacturing sources of supplies.

The Defense Logistics Services Center (DLSC), at the onset of ODS, extended the LOGRUN on-line system to a 24-hour operation. LOGRUN is an on-line item identification and cataloging tool which helps users in crossing functional and generic requirements to stock numbered items.

Headquarters DLA provided USEUCOM users a unique telecommunications package called the Logistics Inquiry Network (LINK). LINK provided USEUCOM with the means to inquire into several data bases located in the continental United States and Europe to retrieve information through electronic mail messages. The LINK permitted field personnel to access key logistics systems, such as SAMMS, without any previous experience or training on these systems. Recovered information was used to support maintenance, cannibalization, and supply redistribution decision making at various levels. ODS users were primarily those deployed from the European theater. This system also provided invaluable support during Operation PROVIDE COMFORT in the care and feeding of the Kurdish refugees.

As part of the ODS lessons learned, DLA has taken an active role in improving worldwide Total Asset Visibility (TAV). Thus far, DLA has participated in a Joint Logistics Commanders (JLC) effort on item intransit visibility with all the Military Services. DLA is also participating on an effort to improve retail asset visibility and is seeking to expand LINK capabilities to other users and to other systems.

DLA INDIVIDUAL MOBILIZATION AUGMENTATION (IMA) PROGRAM

OVERVIEW

The increased workload associated with mobilizing the nation's resources requires augmentation of the DLA workforce. Selected positions within the Agency have been identified to be filled by readily available and job-qualified military reserve personnel (IMAs). IMAs receive premobilization orientation and qualification training in the functions of their mobilization billets, including on-the-job training. In a wartime or national emergency, the IMA will be ordered to active duty in the assigned jobs for which they have been trained to augment regular DLA personnel. Mobilization augmentees are not intended to replace active duty personnel.

IMA UTILIZATION DURING OPERATIONS DESERT STORM/SHIELD

Forty-nine DLA IMA personnel were activated to support DLA ODS missions. The tables below identify the Military Services providing IMA support and the number provided. IMAs performed support duties in most DLA mission areas as reflected in the table.

SERVICE PARTICIPATION

NAVY	25
AIR FORCE	20
ARMY	4

GRADE STRUCTURE

COL/CAPT	6
LTC/CDR	10
MAJ/LCDR	17
CPT/LT	12
ENLISTED	4

ACTIVITY AND NUMBER OF IMAs

HEADQUARTERS DLA	13
DCMC	1
DESC	2
DFSC	9
DISC	5
DPSC	14
DDMT	4
DLA EUROPE	1

In addition to the personnel activations, many IMAs performed emergency annual training in support of their mobilization billets. This effort enabled many DLA activities to meet peak workload requirements caused by the Operations. Innovative solutions by the subordinate elements of DLA and the Reserve force overcame manpower problems.

IMA personnel performed a variety of duties to include working with the DoD Donation Program, augmenting DLA Emergency Supply Operations Centers, serving as Chief of Transportation at the Defense Fuel Supply Center, and serving as liaison personnel to various Military Service headquarters elements.

STRENGTHS AND WEAKNESSES OF THE DLA IMA PROGRAM

A detailed review of the DLA IMA program is being conducted by the DLA Reserve Forces Advisory Council (RFAC). Strengths of the program identified include the following:

a. Trained IMAs were available.
b. IMAs utilized during ODS performed as required.
c. IMAs served a valuable role in the DLA mission for ODS.
d. If ODS had continued longer, more reservists would have been called to active duty.
e. More reservists volunteered for recall to active duty than could be utilized.

Preliminary weaknesses of the program include the following:

a. Requirements exist for new/different IMA skills. For example, DRMS has been identified as an area that can be supported by reservists.
b. Some IMA billets were not filled at the time of ODS. If they had been filled, the reservists would have been called up.
c. Lack of preestablished "Service approved" recall procedures for DLA reservists caused difficulty in recalling reservists. In some instances, the approval process for recall took so long that ODS was over before the necessary reservists could be brought on board.

Overall, the DLA IMA program met the Agency's requirements. Planned improvements will ensure a viable program is in place,tested,and ready to support the next contingency.

DLA DONATION PROGRAM

OVERVIEW

With the outbreak of hostilities in Southwest Asia, DLA was tasked by the Department of Defense to coordinate and manage reception of the thousands of donations offered by patriotic citizens and organizations for the troops in the Persian Gulf. Until that time, the General Services Administration (GSA) had the authority and responsibility for accepting donations of personal property on behalf of the United States in accordance with the 1954 statute 50 U.S.C. 1151. In October 1990, Statute 10 U.S.C. 2608 was passed which gave the Secretary of Defense direct authority to accept donations of money and personal property in support of the crisis in Southwest Asia.

The Donations Program was established with the following goals:

a. To accept and facilitate shipment of personal items in support of the troops serving in the Persian Gulf in a timely manner with equitable distribution among the Services.

b. To respect the Saudi culture and customs by refraining from shipments of any items which would be deemed offensive or prohibited by Saudi law, such as tobacco, alcohol, or pork.

c. To maintain accountability of the donated items in order to instill public confidence, as well as to provide accountability for public funding donated to the U.S. Government.

A NEW DLA MISSION

The lack of historical precedent on how to handle donations from the public left the Agency to create its own system for managing the new program. DLA, with its usual mission of managing more than 2.9 million different consumable items, is accustomed to managing diverse commodities. But where in its nearly 30 year history had it accounted for such exotic items as 2,000 pounds of a dust control product, 4,000 pounds of macrame craft cord, 28,000 bottles of facial mist, and 20,000 puzzle books? Operations DESERT SHIELD/ STORM struck a chord of generosity in the hearts of Americans. Across the country, individuals, community groups, schools, and corporations donated everything from food to games to sports equipment to make life a little easier for American service men and women serving in Southwest Asia. The Donation Program proved to be one of DLA's most interesting and challenging missions encompassing gargantuan corporations, elementary school children, Hollywood movie stars, congressional aides, and the massive military logistical system.

STAFFING AND PROCEDURES

No one predicted the unprecedented outpouring of public support for the troops of Operation Desert Storm. The Donations Office was initially staffed with DLA Headquarters personnel who rotated on a weekly basis and Reservists serving annual tours. Ultimately, Individual Military Augmentees were activated to support the effort.

Initial plans were for DLA to accept only donations of items it normally procures and stocks for the Services. However, with the establishment of a donation hotline, the program greatly expanded. The Agency began tracking every offer, then coordinating with Central Command (Rear) to determine what

was desirable to send. From these early conversations, DLA and Central Command were able to compile a master list of acceptable items which was furnished to the media and the public.

Although the Agency was designated to accept bulk donations, those answering the hotline calls found themselves trying to explain why it was impractical for DoD to accept a couple dozen homemade cookies. When DoD established the "any Service member" address, it enabled the hotline personnel to instruct citizens to send small packages direct to Saudi Arabia.

When DLA accepted larger bulk donations, Agency personnel provided donors instructions on how to prepare their goods for export which required the material to be on pallets and banded or shrink-wrapped with plastic. Donors also had to arrange for and pay transportation costs to one of two DLA depots designated to accept donations for shipment - one depot on each coast was utilized. Once the item was received by the depot, DoD paid for the onward transportation costs and the DLA depot planned and coordinated the movement of the material.

In the early days of the program, many of the donated items moved by air, but as additional forces and equipment were committed to the buildup, DLA distribution personnel had to carefully balance logistical essentials with the "nice to have" donated items. In later phases of the effort, most donated items moved by sea.

By the end of the conflict in the Persian Gulf, the Donations Office had coordinated and facilitated over 1450 shipments and had responded to approximately 11,000 telephone inquiries. This required almost daily Congressional coordination. The total dollar value of the shipments exceeded $74 million.

DESERT SHIELD/STORM AFTER ACTION REPORT

Volume II

LESSONS LEARNED

Operation Desert Shield/Storm provided DLA with a unique opportunity to test its ability to support combat forces in a real contingency. Procedures which had been planned and in place for varying periods of time with only exercises to test them, received the litmus test during ODS. Not surprisingly, many of the procedures worked extremely well. But as always, plans cannot anticipate the exact reality. Procedures were modified, and new procedures were developed. Problems were identified and work arounds or solutions implemented.

In capturing these "lessons learned", the Logistics Readiness Division asked all PLFAs and PSEs to submit critique items on problems and innovations which worked well. Approximately 380 were submitted.

A DLA Headquarters Lessons Learned Working Group was formed with representatives from each PSE, and every submission was reviewed and an answer provided to the submitter. During the review process, like items were combined, some were rewritten to expand the focus, and others were worked to closure.

An initial review of the critique items identified those lessons learned with the most significant impacts on DLA, and these were briefed to the PLFA Commanders at the May 91 Commanders Conference. A subsequent indepth review did not add any new items to this list. However, since the briefing, some of the items have been combined. Appendix A lists DLA's Desert Shield/Storm lessons learned which are still open. The asterisks indicate those which were identified for the Commanders Conference briefing. Significant lessons learned which have been closed out are included in Appendix B for information and historical purposes, with the reason for closure indicated for each one. Appendix C contains all lessons learned submitted to the Joint Staff through the Joint Universal Lessons Learned System (JULLS).

Those items which remain open have been entered into the DLA Remedial Action Project Programm (RAPP) and status updates will be required until the items are closed out. Some lessons learned have not been resolved, but we are not keeping them open in RAPP. In each of these cases, the problem is being worked in another forum, and inclusion in RAPP would only serve to duplicate the followup process.

INDEX OF OPEN LESSONS LEARNED

* Significant Lessons Learned Briefed to PLFA Commanders

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 21849-09954 (00002), submitted by DDRW-C, CPT NELSON, 432-9292.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: THREATCON, THREAT CONDITIONS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: COORDINATION OF CONUS TERRORIST THREAT CONDITION (THREATCON) DECLARATION.

5. (U) OBSERVATION: NEED TO PROVIDE CONUS DOD INSTALLATION COMMANDERS THE INFORMATION NECESSARY TO EVALUATE THE REQUIREMENT TO CHANGE THE THREATCON LEVEL IN ACCORDANCE WITH APPLICABLE DIRECTIVES AND KNOWN, PROBABLE, AND/OR POSSIBLE THREATS TO THEIR INSTALLATION.

6. (U) DISCUSSION: THROUGHOUT THE OPERATION, VARIOUS CONUS DOD INSTALLATIONS/COMMANDS AND AREAS (I.E., CALIFORNIA ARMY NATIONAL GUARD) DECLARED HEIGHTENED THREATCONS. THE COMMANDERS OF THE COMMANDS USED INFORMATION/INTELLIGENCE THAT WAS NOT ALWAYS AVAILABLE TO ALL COMMANDS. THE FACT THAT OTHER LOCAL INSTALLATIONS HAD HEIGHTENED THEIR THREATCON WAS NOT IMMEDIATELY DISSEMINATED. EVEN MAJOR LOCAL COMMANDS WERE NOT FULLY AWARE OF INSTALLATIONS WITHIN THEIR AREA THAT HAD ELEVATED OR, AFTER THE CONFLICT, LOWERED THEIR THREATCON. A GEOGRAPHICALLY CENTRALIZED ORGANIZATION WOULD BE ABLE TO COLLECT, DISSEMINATE, AND MONITOR CONUS INSTALLATION THREATCON STATUS. DODD 2000.12 ADDRESSES RESPONSIBILITIES OF UNIFIED AND SPECIFIEC COMMANDERS TO PROVIDE THIS INFORMATION. THIS IS CLEARLY DEFINED FOR OCONUS ORGANIZATIONS, BUT LEAVES A VOID FOR CONUS ORGANIZATIONS.

7. (U) LESSON LEARNED: THERE IS A NEED FOR A CENTRAL SYSTEM FOR DETERMINING THREATCONS.

8. (U) RECOMMENDED ACTION: DOD SHOULD PURSUE A COORDINATED, GEOGRAPHICALLY ORIENTED SYSTEM TO COLLECT, MAINTAIN, DISSEMINATE, AND MONITOR THREATCONS. THE SYSTEM SHOULD INCLUDE ALL CONUS DOD ACTIVITIES AND COMMANDS.

9. (U) COMMENTS: OPR: DLA-I
THIS JULLS HAS BEEN DISCUSSED WITH OASD/SOLIC AND FORSCOM, OFFICE OF INTELLIGENCE AND COUNTER-INTELLIGENCE. AS A RESULT OF THESE CONVERSATIONS, IT IS BEING REFERRED TO THE JCS REMEDIAL ACTION PROJECT PROGRAM (RAPP). HOWEVER, UNTIL RESOLUTION, DLA SECURITY OFFICERS SHOULD COORDINATE WITH THE LOCAL POLICE AND LOCAL FBI OFFICE FOR INTELLIGENCE INFORMATION WHICH THE COMMANDER SHOULD USE TO ESTABLISH LOCAL THREATCON. HQ DLA POC FOR THIS RAPP IS MAJOR COOPER, DLA-IP, (703)274-6263 OR AV 284-6263.
STATUS: OPEN. REFERRED TO JCS RAP.

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11334-27136 (00001), submitted by MR. EVERARD, DLA-K, 284-6139, (703)274-6139.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: RESERVE CALL UPS, RESERVIST, MOBILIZATION, ODS, DESERT SHIELD/STORM, IMAS.

4. (U) TITLE: RESERVE CALL UPS - RESERVIST ISSUES.

5. (U) OBSERVATION: DESERT SHIELD/STORM AND THE CALLUP OF RESERVES AND USE OF IMAS HIGHLIGHTED SEVERAL CONTINUING ISSUES.

6. (U) DISCUSSION: IN SOME CASES, RESERVE CALLUPS RESULTED IN CRITICAL PERSONNEL POSITION VOIDS. THERE WERE NO MOBILIZATION POSITION DESCRIPTIONS. ALSO, CIVILIAN PERSONNEL OFFICES WERE REQUIRED TO GIVE GUIDANCE TO RESERVISTS WHEN THEY WERE CALLED UP, BUT OPM AND DLA GUIDANCE WAS NOT ALWAYS CLEAR ~~OR~~ TIMELY. HQ DLA GUIDANCE CAME OUT ABOUT THREE WEEKS AFTER ACTIVATIONS BEGAN.

SEVERAL PLFAS COMMENTED ON VARIOUS PROBLEMS ASSOCIATED WITH RESERVE CALL-UP. CERTAIN COMMANDERS FELT THE PERSONNEL PINCH WHEN SEVERAL RESERVISTS WERE CALLED UP AND THERE WERE NOT ENOUGH IMAS TO REPLACE THEM. CPOS COULD NOT GET CURRENT LISTS FROM THE DEFENSE MANPOWER DATA CENTER (DMDC). GUIDANCE FROM OPM AND OSD ON BENEFITS ISSUES WAS LACKING IN CLARITY.

7. (U) LESSON LEARNED: DLA MUST MAINTAIN ADEQUATE MANPOWER TO PROVIDE SUPPORT DURING CONTINGENCIES. TO ENSURE ADEQUATE MANNING, DLA MUST CONSIDER THE IMPACT OF RESERVE CALLUPS AND ENSURE MOBILITY POSITION DESCRIPTIONS ARE CURRENT. DLA ALSO NEEDS TO PROVIDE TIMELY AND CLEAR GUIDANCE TO RESERVISTS ON THEIR RIGHTS AND BENEFITS UPON RECEIPT FROM OSD. CPOS NEED CURRENT DATA FROM DMDC.

8. (U) RECOMMENDED ACTION: DLA-K SHOULD REVIEW POLICY AND GUIDELINES ADDRESSING RESERVISTS AND MOBILIZATION TO ENSURE ADEQUATE INFORMATION AND GUIDANCE IS AVAILABLE TO FIELD ACTIVITIES FOR PROPER PLANNING.

DLA-K WILL EXPRESS ITS NEEDS TO DMDC VIA A LETTER DETAILING INADEQUATE SERVICE FROM DMDC. DLA-K WILL SORT OUT DIFFERENT INTERPRETATIONS WITH REGARD TO RIGHTS AND BENEFITS PROGRAMS AND REQUEST CLARIFICATION FOR FUTURE CRISES.

9. (U) COMMENTS: OPR: DLA-K
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11334-98017 (00002), submitted by MR. EVERARD, DLA-K, 284-6139, (703)274-6139.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: NEO, NONCOMBATANTS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: NEO RECEPTION PLANNING.

5. (U) OBSERVATION: DLA DID NOT A HAVE DETAILED, LOCAL NEO PLAN.

6. (U) DISCUSSION: THE POSSIBILITY OF NEO WAS SURFACED WHEN OUR EMPLOYEES WERE UNDER FIRE AT DCMAO TEL AVIV IN ISRAEL. THERE APPEARED TO BE CONFUSION BETWEEN THE PLANS PEOPLE AND THE PERSONNEL PEOPLE AS TO WHAT ACTIONS SHOULD BE TAKEN, AND WHO WAS RESPONSIBLE FOR WHICH ACTIONS. ALSO, THERE WAS CONFUSION ABOUT USE OF A VOLUNTARY SAFE-HAVEN, OTHER THAN THE SAFE-HAVEN DECLARED BY THE STATE DEPARTMENT, SUCH AS SENDING SOME EVACUEES TO DCMAO FRANKFURT IN GERMANY. THERE WAS ALSO CONFUSION ABOUT STEPS TO PRODUCTIVELY USE EVACUATED EMPLOYEES, SUCH AS FOR TRAINING OR OTHER TASKINGS.

7. (U) LESSON LEARNED: DLA-K AND DASC-K WERE NOT PREPARED FOR IMPLEMENTATION OF NEO. WE NARROWLY AVOIDED BEING DESIGNATED A RELOCATION CENTER FOR AIR FORCE CIVILIAN EMPLOYEES AND DEPENDENTS BEING EVACUATED FROM ISRAEL. DASC HAS NO PLANS IN PLACE FOR SUCH AN EVENTUALITY. DLA-K'S AND DASC-K'S STANDARDIZED REGULATIONS COVERING US CITIZENS IN FOREIGN AREAS NEEDED UPDATING AND PURGING.

8. (U) RECOMMENDED ACTION: RECOMMEND AUGMENTING/EXPANDING BASIC EMERGENCY PLAN (BEP) DELINEATION OF RESPONSIBILITIES AND TASKS TO BE ACCOMPLISHED REGARDING RECEPTION OF EVACUATED NON-COMBATANTS.

9. (U) COMMENTS: OPR: DLA-K
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11343-88497 (00006), submitted by LT COL ARNDT, DLA-LC, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: BASIC EMERGENCY PLAN, BEP, CHECKLISTS, ESSENTIAL FUNCTIONS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: BASIC EMERGENCY PLAN UPDATE.

5. (U) OBSERVATION: ODS WAS UNLIKE ANY PREVIOUS EXERCISE AND THE AMOUNT AND TYPE OF SUPPORT DID NOT REFLECT PAST EXPERIENCE. THE GUIDANCE IN THE BEP WAS NOT ALWAYS ADEQUATE. SEVERAL PLFA AND PSE EMERGENCY PLANNER REPRESENTATIVES STATED THAT THE CHECKLISTS NEEDED TO BE UPDATED AS A RESULT OF ODS EXPERIENCES.

6. (U) LESSON LEARNED: LESSONS LEARNED FROM DESERT SHIELD/STORM NEED TO BE INCORPORATED INTO THE BEP.

7. (U) RECOMMENDED ACTION: EACH PSE REPRESENTATIVE SHOULD REVIEW THEIR ESSENTIAL FUNCTIONS AND THEIR CHECKLISTS. ALSO LOOK FOR AREAS WHERE INCREASED GUIDANCE MAY HAVE ALLEVIATED SOME OF THE PROBLEMS EXPERIENCED EARLY IN DESERT SHIELD. DLA-LC SHOULD INCORPORATE THESE UPDATED PROCEDURES, INSTRUCTIONS, AND CHECKLISTS IN THE BEP AND THE LRC STANDARD OPERATING PROCEDURES.

8. (U) COMMENTS: OPR: DLA-LC.
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12633-90737 (00030), submitted by LT COL ARNDT, DLA-LC, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DATA COLLECTION, WARTIME REPORTING, COMMAND AND CONTROL, SAMMS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: DATA COLLECTING AND REPORTING.

5. (U) OBSERVATION: HQ DLA DID NOT HAVE A NEAR-REAL-TIME DATA COLLECTING AND REPORTING SYSTEM WHICH WAS RESPONSIVE DURING DESERT SHIELD/STORM. THERE WAS DIFFICULTY IN COLLECTING DATA OR TRACKING ITEMS WHEN THE PROJECT CODE WAS NOT AVAILABLE. THE PLFAS WERE ALSO UNCERTAIN ABOUT WHAT TO REPORT IN SITREPS. THE HEADQUARTERS REQUIREMENTS FOR DATA CHANGED DURING THE OPERATION AND DATA REQUESTS WERE NOT ALWAYS COORDINATED BETWEEN PSES, RESULTING IN DUPLICATE REQUESTS. PLFAS REPORTED DATA AT HQ DLA REQUEST AND DEVELOPED SEPARATE PLFA PROGRAMS TO COLLECT THE DATA. DSAC DEVELOPED A STANDARD PROGRAM NEAR THE END OF THE OPERATION, BUT THE OPERATION WAS OVER BEFORE THE NEW PROGRAM WAS FULLY INTEGRATED.

6. (U) LESSON LEARNED: DLA NEEDS CLEAR WRITTEN GUIDANCE ON REPORTING REQUIREMENTS AND A FLEXIBLE, NEAR-REAL-TIME DATA COLLECTING AND REPORTING SYSTEM.

7. (U) RECOMMENDED ACTION: ESTABLISH A SPECIAL WORKING GROUP TO DETERMINE DATA REQUIRED AND DEVELOP A STANDARD AND RESPONSIVE NEAR-REAL-TIME METHOD TO COLLECT IT. INCORPORATE THE PROCEDURES INTO THE BEP AND THEN TEST DURING EXERCISES. AT THE BEGINNING OF A CONTINGENCY, DLA SHOULD CALL A MEETING TO DETERMINE IF CHANGES NEED TO BE MADE BASED ON THE NEW SCENARIO AND SHOULD INCORPORATE THESE CHANGES INTO THE DATA COLLECTING SYSTEM.

8. (U) COMMENTS: OPR: DLA-LC
A WORKING GROUP HAS BEEN FORMED AT DLA HQS TO ADDRESS THIS ISSUE. THE WORKING GROUP IS BEING LED BY LT COL MCCORMICK, DLA-LC, AV 284-6450.
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11344-64602 (00007), submitted by LT COL ARNDT, DLA-LC, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: MOBILITY TEAM, DLA FORWARD, FORWARD DEPLOY, DEPLOYMENT, ODS, DESERT SHIELD/STORM, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: DLA FORWARD/MOBILITY TEAM.

5. (U) OBSERVATION: DURING ODS DLA RECEIVED A REQUEST FROM CENTCOM TO ESTABLISH A PRESENCE IN THE THEATER OF OPERATION. REQUIREMENTS INCLUDED LIAISON POSITIONS, THE ESTABLISHMENT OF A DRMO, FUELS SUPPORT (ALREADY IN EXISTENCE), AND THE ESTABLISHMENT OF COMMUNICATIONS, BOTH VOICE AND DATA. THIS WAS THE FIRST TIME DLA PERSONNEL DEPLOYED IN A COMBAT SCENARIO. THE TEAM WAS HASTILY FORMED BASED STRICTLY ON A NECESSITY TO HAVE EXPERIENCED PERSONNEL CAPABLE OF RESOLVING PROBLEMS DEALING WITH ALL COMMODITIES PROVIDED BY DLA. BECAUSE DLA DID NOT HAVE A CONTINGENCY MISSION OR PERSONNEL DESIGNATED, ARRANGEMENTS FOR CHEMICAL PROTECTIVE CLOTHING, WEAPONS, INDIVIDUAL CLOTHING AND EQUIPMENT, COMMUNICATIONS AND ADP SUPPORT, AND OTHER EQUIPMENT AND FACILITY REQUIREMENTS WERE DONE ON AN AD HOC BASIS.

6. (U) LESSON LEARNED: DLA NEEDS A CAPABILITY TO FORWARD DEPLOY DURING CONTINGENCIES, A TEAM WITH IDENTIFIED POSITIONS AND EQUIPMENT.

7. (U) RECOMMENDED ACTION: ESTABLISH A SPECIAL WORKING GROUP TO DETERMINE PERSONNEL, EQUIPMENT, AND FACILITY REQUIREMENTS FOR A "DLA MOBILITY TEAM." DETERMINE REQUIREMENTS, SOURCE EQUIPMENT (INCLUDING ADP AND COMM), ESTABLISH REQUIRED MANNING DOCUMENTS AND IDENTIFY POSITIONS AGAINST THEM, AND WRITE PROCEDURES FOR THE FORMATION, DEPLOYMENT, AND OPERATION OF THE TEAM. DEVELOP REQUIRED AGREEMENTS FOR IN-THEATER FACILITY REQUIREMENTS.

8. (U) COMMENTS: OPR: DLA-LC
A WORKING GROUP HAS BEEN ESTABLISHED AND PROGRESS IS BEING TRACKED WITHIN DLA-LC. DLA/CINC MOU'S ARE BEING REVISED TO REFLECT LIAISON TEAM SUPPORT. STRAWMAN CONCEPT CURRENTLY BEING DEVELOPED FOR COORDINATION.
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 21941-02033 (00003), submitted by DLA-LC, LT COL ARNDT, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: LESSONS LEARNED, CRITIQUES, REMEDIAL ACTION PROJECT, RAPP, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: LESSONS LEARNED REPORTING PROCESS.

5. (U) OBSERVATION: AS A RESULT OF A DATA CALL FROM DLA HEADQUARTERS, LOGISTICS READINESS DIVISION, ALMOST 400 LESSONS LEARNED WERE SUBMITTED FROM THE PLFAS AND PSES. THESE WERE SUBMITTED ON CRITIQUE FORMS AND WERE NOT AUTOMATED.

6. (U) DISCUSSION: THE LARGE QUANTITY OF LESSONS LEARNED, COMBINED WITH THE LACK OF AUTOMATION MADE THE MANAGEMENT AND REVIEW OF THE LESSONS LEARNED A TEDIOUS AND DIFFICULT TASK. THIS WAS EXACERBATED BY THE FACT THAT MANY OF THE SUBMISSIONS WERE NOT SCREENED BY THE PLFAS PRIOR TO SUBMISSION. DUPLICATE SUBMISSIONS WERE RECEIVED FROM THE SAME ACTIVITY, SOME OF THE SUBMISSIONS HAD NOT BEEN VALIDATED, AND SEVERAL WERE DIFFICULT TO DECIPHER, AND REQUIRED PHONE CALLS TO THE ORIGINATOR TO DETERMINE WHAT WAS INTENDED.

7. (U) LESSON LEARNED: ALL LESSONS LEARNED SHOULD BE SUBMITTED IN AN AUTOMATED FORMAT. THIS WILL ALLOW FOR EASIER DISTRIBUTION, REVIEW AND UPDATE. ALSO, ALL LESSONS LEARNED SHOULD BE VALIDATED AT THE PSE OR PLFA COMMANDER LEVEL PRIOR TO SUBMISSION TO THE HEADQUARTERS LESSONS LEARNED PROGRAM. ONLY THOSE LESSONS WHICH REQUIRE HEADQUARTERS ACTION OR HAVE VALUE AS CROSS FEED INFORMATION (OF HOW A PROBLEM WAS SOLVED AT A LOWER LEVEL) SHOULD BE SUBMITTED TO THE HEADQUARTERS. THOSE LESSONS LEARNED WHICH CANNOT IMMEDIATELY BE CORRECTED WILL BE ENTERED INTO THE DLA REMEDIAL ACTION PROJECT PROGRAM (RAPP) FOR TRACKING AND FOLLOWUP.

8. (U) RECOMMENDED ACTION: THE JOINT UNIVERSAL LESSONS LEARNED SYSTEM (JULLS) SHOULD BE THE ONLY METHOD FOR SUBMITTING LESSONS LEARNED WITHIN DLA.

9. (U) COMMENTS: OPR: DLA-LC

DLA-LC HAS PROVIDED INFORMATION AND SOFTWARE TO THE FIELD FOR THE SUBMISSION OF LESSONS LEARNED USING JULLS. THIS LESSON LEARNED WILL REMAIN OPEN UNTIL PROCEDURES FOR THE DLA RAPP HAVE BEEN FINALIZED.

STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12942-98694 (00038), submitted by J. JASPER, DRMS-DP, 932-7212, (616)961-7212.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: PERSONNEL AUTHORIZ VOUCH, PAV, INDIVIDUAL EQUIPMENT, MOBILITY, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: PERSONNEL AUTHORIZATION VOUCHER (PAV).

5. (U) OBSERVATION: WHEN DESERT STORM BEGAN, WE FOUND THAT THERE WAS NO PAV AUTHORIZING NEEDED EQUIPMENT FOR OUR MILITARY PERSONNEL TRAVELING TO SAUDI ARABIA. THE U.S. ARMY INSISTS THAT A PAV IS NECESSARY TO PROVIDE PERSONNEL WEAPONS, PROTECTIVE MASKS AND ORGANIZATIONAL CLOTHING AND EQUIPMENT.

6. (U) DISCUSSION: DLA EUROPE HAS A MEMORANDUM OF UNDERSTANDING (MOU) WITH U.S. ARMY, EUROPE (USAEUR) TO PROVIDE DLA-EUR PERSONNEL WITH NEEDED EQUIPMENT DURING TIMES OF MAJOR EMERGENCY, MOBILIZATION AND WARTIME ON A NONREIMBURSABLE BASIS. THE LACK OF PAV FOR DLA-EUR PERSONNEL IS THE MAJOR BOTTLENECK--THE SAME SITUATION EXISTS FOR DLA PACIFIC PERSONNEL.

7. (U) LESSON LEARNED: PAVS ARE NEEDED IN ORDER FOR DLA PERSONNEL TO RECEIVE NEEDED CHEMICAL GEAR AND INDIVIDUAL EQUIPMENT.

8. (U) RECOMMENDED ACTION: REQUEST THAT A PAV BE ISSUED TO BOTH DLA-EUR AND DLA-PAC AND THAT NECESSARY CHANGES TO THE MOUS BE ACCOMPLISHED.

9. (U) COMMENTS: OPR: DLA-LR
THERE ARE TWO PARTS TO THIS PROBLEM: 1. THE ISSUE OF INDIVIDUAL EQUIPMENT FOR PERSONNEL PERMANENTLY ASSIGNED OUTSIDE THE CONTINENTAL UNITED STATES (OCONUS) AND 2. THE ISSUE OF INDIVIDUAL EQUIPMENT FOR PERSONNEL IN CONUS WHO HAVE A MOBILITY MISSION IN SUPPORT OF CONTINGENCIES.
DLA-LC IS WORKING A LESSON LEARNED ON DEVELOPING A DLA FORWARD TEAM, UNDER THE MOBILITY CONCEPT. PROVIDING EQUIPMENT FOR THESE PERSONNEL WILL BE ADDRESSED IN THAT ARENA. (JULLS # 11344-64602 (0007))
DLA-LR WILL WORK THE ISSUE OF AGREEMENTS FOR INDIVIDUAL EQUIPMENT SUPPORT FOR ALL PERSONNEL PERMANENTLY ASSIGNED OCONUS. THIS LESSON LEARNED WILL REMAIN OPEN UNTIL THIS ASPECT IS RESOLVED.
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12639-98976 (00033), submitted by DANIEL DILOSKI, DISC-OMR, 442-3661, (215)697-3661.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: NAMSA, NATO MUTUAL SUPPORT ACT, ACSA, CROSS SERVICING, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: NATO MUTUAL SUPPORT ACT (NAMSA).

5. (U) OBSERVATION: NORTH ISLAND WAS IN CRITICAL NEED OF COMPRESSOR BLADES FOR THE T64 HELICOPTER ENGINE WHICH WAS BEING USED TO OVERHAUL ENGINES RETURNING TO US FROM USE IN OPERATION DESERT STORM.

6. (U) DISCUSSION: OEM FOR T64 (GENERAL ELECTRIC) HAD LIMITED PRODUCTION CAPABILITY ON 2 NSNS NEEDED TO FACILITATE COMPLETION OF ENGINE OVERHAUL. GENERAL ELECTRIC PROVIDED TO DISC A LIST OF COUNTRIES THAT RECEIVED T64 ENGINE BLADES WITHIN THE LAST 2 YEARS. WITH DLA ASSISTANCE, SIGNIFICANT QUANTITIES OF BOTH COMPRESSOR BLADES WERE LOCATED IN GERMANY. IMS CONTACTED THE GERMAN FOREIGN OFFICE IN WASHINGTON, D.C. TO CONFIRM QUANTITIES AND INITIATE PROCUREMENT ACTION THROUGH A PROGRAM CALLED NAMSA. "NAMSA" IS A RELATIVELY NEW PROCUREMENT PROGRAM UNDER NATO WHERE SPECIFIC NATO COUNTRIES (CURRENTLY, THREE COUNTRIES PARTICIPATE) CAN PROCURE/BUY BACK MATERIAL CONSIDERED NECESSARY FOR THE SUCCESSFUL COMPLETION OF AN ESSENTIAL MILITARY MISSION. THE REQUIRED MATERIAL WAS LOCATED, PACKAGED, SHIPPED AND RECEIVED AT NAVDEP APPROXIMATELY 2 WEEKS AFTER FIRST CONTACT WAS MADE WITH GERMAN FOREIGN OFFICE.

7. (U) LESSON LEARNED: DSAA SHOULD BE USED TO SATISFY URGENT PRIORITY REQUIREMENTS.

8. (U) RECOMMENDED ACTION: RECOMMEND DLA WRITE AND DISTRIBUTE PROCEDURES TO UTILIZE THE NAMSA PROGRAM TO SATISFY URGENT HIGH PRIORITY REQUIREMENTS WHEN NO OTHER SOURCES ARE READILY AVAILABLE.

9. (U) COMMENTS: OPR: DLA-LR

THE RECOMMENDATION FOR EXPANDED INFORMATION ON THE NATO MUTUAL SUPPORT ACT (NAMSA), NOW CALLED THE ACQUISITION AND CROSS SERVICING AGREEMENTS (ACSA) SHOULD BE DISAPPROVED. THE REFERENCED ACQUISITION PROCESS WAS LABORIOUS. DFARS EXIGENCY CLAUSES WOULD HAVE PROVED MORE EXPEDIENT FOR DLA.

DEFENSE SECURITY ASSISTANCE AGENCY (DSAA) IS SPONSORING LEGISLATION WHICH WILL ALLOW THE RETURN OF MATERIEL OF US ORIGIN TO DLA AND THE MILITARY SERVICES UNDER THE MATERIEL RETURN PROGRAM (MRP). RECOMMEND THIS REMAIN OPEN PENDING OUTCOME OF THE LEGISLATIVE REVIEW.

STATUS: OPEN

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12635-55239 (00031), submitted by MAJ HUNTER, DLA-M, 284-3383, (703)274-3383.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: IMA, MOBILIZATION, RESERVES, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: ACTIVATION/MOBILIZATION OF DLA IMAS.

5. (U) OBSERVATION: DIFFICULTY WAS EXPERIENCED IN MOBILIZING DLA IMAS.

6. (U) DISCUSSION: SEVERAL PROBLEMS AROSE WHILE ATTEMPTING TO MOBILIZE DLA IMAS. THE SERVICES DID NOT HAVE PRE-ESTABLISHED PROCEDURES FOR THE MOBILIZATION OF IMAS, AND THEY CHANGED THE REQUIREMENTS FOR MOBILIZING THE RESERVISTS. IN ADDITION, SOME PLFA IMAS HAD NOT YET BEEN FULLY TRAINED FOR THEIR ASSIGNED POSITIONS. SOME PLFAS WERE NOT KNOWLEDGABLE OF HOW TO RECALL THEIR IMAS. PER DIEM FOR AIR FORCE IMAS RECALLED FOR LESS THAN 30 DAYS WAS THE RESPONSIBILITY OF THE RECEIVING PLFA/UNIT. FINALLY, THE INABILITY OF THE SERVICES TO RAPIDLY MOBILIZE REQUESTED RESERVISTS, SIGNIFICANTLY DEGRADED THE EFFICIENT UTILIZATION OF PERSONNEL.

7. (U) LESSON LEARNED: PRE-APPROVED IMA CALLUP PROCEDURES WITHIN DLA AS WELL AS WITH THE SERVICES MUST BE ESTABLISHED, AND THE IMAS MUST BE FULLY TRAINED AND READY TO ASSUME RESPONSIBILITIES WHEN RECALLED.

8. (U) RECOMMENDED ACTION: THE ENTIRE IMA PROGRAM NEEDS A COMPLETE REVIEW. DLA SHOULD CONDUCT A REVIEW OF RESERVE REQUIREMENTS AND REASSIGN DLA BILLETS AS NECESSARY. DLA SHOULD ALSO NEGOTIATE PRE-APPROVED CALLUP PROCEDURES WITH EACH SERVICE, INCLUDING AGREEMENTS ON PER DIEM. MOBILIZATION PROCEDURES SHOULD BE INCLUDED IN THE BEP. A PROCESS SHOULD BE ESTABLISHED TO IDENTIFY AND RAPIDLY TRAIN INCOMPLETELY TRAINED RESERVISTS IN THE EVENT OF HOSTILITIES. DLA HEADQUARTERS AND PLFAS SHOULD PERIODICALLY REVIEW RESERVE BILLET AND TRAINING REQUIREMENTS.

9. (U) COMMENTS: OPR: DLA-MDR

THE WARTIME MANPOWER PLANNING SYSTEM (WARMAPS) REQUIREMENTS STUDY (BEING CONDUCTED AS DIRECTED THE DLA DIRECTOR AND THE INDIVIDUAL MOBILIZATION AUGMENTEE TO THE DLA DIRECTOR) WILL ATTEMPT TO GET THE SERVICES TO IMPLEMENT AND PRE-APPROVE CALL-UP PROCEDURES. THIS IS CURRENTLY BEING COORDINATED. MOBILIZATION PROCEDURES WILL BE INCLUDED IN THE BEP.

THE FOLLOWING ITEMS HAVE BEEN ADDRESSED AND ARE CLOSED. RESERVISTS ASSIGNED TO DLA ARE TRAINED BY THE ACTIVITY TO WHICH THEY ARE ASSIGNED. IN ADDITION, THEY ARE REQUIRED BY REGULATION TO KEEP PROFICIENT IN THEIR ASSIGNED DUTIES. RESERVISTS ARE REQUIRED TO ATTEND FORMAL SCHOOLS AS DIRECTED BY THEIR SERVICE

TO MEET THE REQUIRED LEVEL OF PROFICIENCY IN THEIR SPECIALTY CODES (AFSC, MOS, NOBC).

PER DIEM AND CALLUP PROCEDURES WERE DISCUSSED WITH THE SERVICES. ACCORDING TO THE SERVICES, THEY WILL RETAIN THE AUTHORITY FOR DISTRIBUTION OF FUNDS AND PAYMENTS OF PER DIEM FOR RESERVISTS IN DLA. THE NUMBER OF RESERVISTS ON ACTIVE DUTY IS COUNTED AGAINST THE SERVICE MANPOWER BUDGET. THEREFORE, EACH SERVICE WILL GOVERN THEIR STRENGTH WITHIN THEIR PRESCRIBED BUDGET GUIDELINES. FOR EXAMPLE, DURING ODS, WHEN DLA WANTED RESERVISTS, DLA HAD TO COMPLY WITH THE SERVICES' PER DIEM POLICY.

PLFAS ARE PROVIDED INFORMATION ON IMA MOBILIZATION PROCEDURES AT THE QUARTERLY DLA RESERVE FORCES ADVISORY COUNCIL. THE JOINT RESERVE COORDINATOR BRIEFS FIELD COMMANDERS ABOUT NEW DLA PROCEDURES.

A SUGGESTION TO ESTABLISH VERBAL ORDER OF THE COMMANDER (VOCO) PROCEDURES FOR RESERVES WAS INVESTIGATED. HOWEVER, THIS WOULD BE IN VIOLATION OF PUBLIC LAW WHICH ESTABLISHES THE RESERVE FORCE. TO USE VOCO, A RESERVIST MUST BE ON ACTIVE DUTY WITHIN DLA BEFORE THESE PROCEDURES CAN BE PUT FORWARD.

STATUS: OPEN. PENDING FINAL RESOLUTION OF THE WARMAPS STUDY AND INCLUSION OF THE PROCEDURES IN THE BEP.

--- (U) SUBJECT: PERSONNEL

--- (U) INTEROPERABILITY: STRUCTURE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11345-06631 (00008), submitted by , DLA-O, 284-7975, (703)274-7975.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: WRM, WAR RESERVE STOCKS, PREPOSITIONED, EMERGENCY PROCUREMENT, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: ISSUE OF SERVICE-OWNED PREPOSITIONED WAR RESERVE STOCKS (PWRS).

5. (U) OBSERVATION: DURING THE FIRST FOUR WEEKS OF OPERATION DESERT SHIELD, THE DEFENSE PERSONNEL SUPPLY CENTER (DPSC) EMERGENCY SUPPLY OPERATIONS CENTERS (ESOCS) DEPLETED SOME DLA STOCKS BY ISSUING TO CUSTOMERS AS REQUISITIONS WERE RECEIVED. THE MILITARY SERVICES, ON THE OTHER HAND, MAINTAINED THEIR OWN STOCKS IN DLA DEPOTS AND IN PREPOSITIONED WAR RESERVE STOCKS.

6. (U) DISCUSSION: DURING THE FIRST FEW DAYS OF OPERATION DESERT SHIELD, THE ESOCS WERE OVERWHELMED BY A BARRAGE OF MESSAGE AND TELEPHONE TRAFFIC FROM UNITS ALL OVER THE WORLD REQUESTING IMMEDIATE SUPPORT. IN JUST A FEW DAYS, DLA STOCKS WERE DRAWN DOWN TO ZERO BALANCE, CAUSING DLA TO ABSORB BACK ORDERS AND INITIATE EMERGENCY BUYS.

DOD POLICY DEFINES PREPOSITIONED WAR RESERVES AS "THAT PORTION OF THE WAR RESERVE MATERIEL REQUIREMENT WHICH APPROVED SECRETARY OF DEFENSE GUIDANCE DICTATES BE RESERVED AND POSITIONED AT OR NEAR THE POINT OF PLANNED USE OR ISSUE TO THE USER PRIOR TO HOSTILITIES, TO REDUCE REACTION TIME AND TO ASSURE TIMELY SUPPORT OF A SPECIFIC FORCE AND/OR A SPECIFIC PROJECT UNTIL REPLENISHMENT CAN BE EFFECTED." IN MANY CASES, HOWEVER, MILITARY SERVICE OWNED PWRS IS COMMINGLED WITH DLA STOCK IN CONUS STORAGE LOCATIONS. WE BELIEVE IT WOULD BE PRUDENT TO DRAW DOWN SERVICE OWNED PWRS TO FILL SHORTFALLS.

DURING DESERT SHIELD/STORM, EMERGENCY PROCUREMENTS OF SUPPORT ITEMS WERE MADE DESPITE SERVICE WAR RESERVE INVENTORIES. J-4 WORKED WITH OSD/P&L WHO SPONSORED A STUDY CONDUCTED BY THE DEFENSE ANALYSIS AND STUDIES OFFICE (DASO) TO DETERMINE THE PRINCIPAL REASONS FOR THESE EMERGENCY PROCUREMENTS. THE STUDY WAS DEEMED INCONCLUSIVE DUE TO THE LIMITED DATA WHICH WAS AVAILABLE ON ODS DEMANDS AND AVAILABILITY.

7. (U) LESSON LEARNED: DEPLOYING FORCES WILL PLACE DEMANDS ON THE WHOLESALE SUPPLY SYSTEM IMMEDIATELY WITH REQUIRED DELIVERY DATES MUCH SOONER THAN D+60 ON WHICH OUR PLANNING IS BASED. PWRS RELATES TO A THEATER OF OPERATION, THUS PWRS FOR CINCEUR WILL NOT NECESSARILY BE PROVIDED IN SUPPORT OF A CONFLICT IN THE CINCCENT AOR.

8. (U) RECOMMENDED ACTION: OASD (P&L) SHOULD CONSIDER REVISIONS TO DOD WAR RESERVE POLICY TO ADDRESS THE USE OF SERVICE OWNED

PWRS IN EMERGENCY SITUATIONS, SUCH AS DESERT SHIELD. ADDITIONALLY, RECOMMEND DLA MANAGEMENT OF WAR RESERVE STOCKS, BOTH PWR AND OWR, FOR SELECTED DLA ITEMS OF SUPPLY.

9. (U) COMMENTS: OPR: DLA-OS. J-4 AND OASD (P&L) ARE REVISING A DODD ON WAR RESERVE POLICY. NEW OBJECTIVES AND PROCEDURES FOR WAR RESERVE PLANNING ARE BEING DEVELOPED, SUCH AS CORE WAR RESERVES, SWING STOCKS, ETC. THIS WAS SUBMITTED AS A JCS RAPP, BUT BECAME A NOTED ITEM.
STATUS: OPEN. THIS WILL REMAIN OPEN IN THE DLA-RAPP.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11635-43216 (00027), submitted by MR STAUFFER, DDRW-ROP(CCC), 462-2288, (209)982-2288.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: BASIC EMERGENCY PLAN, RECOVERY, DEMOBILIZATION, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: EXPANSION OF BASIC EMERGENCY PLANNING DOCUMENTS.

5. (U) OBSERVATION: EXISTING EMERGENCY PLANNING DOCUMENTS ARE GEARED FOR PREPARATION AND ENGAGEMENT OF ACTIVITY IN THE EMERGENCY/ARMED CONFLICT SITUATION, BUT DO NOT ADDRESS RECOVER ACTIVITIES ONCE THE EMERGENCY/CONFLICT SITUATION IS CONCLUDED.

6. (U) DISCUSSION: AS U.S. MILITARY PRESENCE IN THE PERSIAN GULF REGION GRADUALLY DECREASES, DDRW ANTICIPATES THE RECEIPT OF A LARGE QUANTITY OF RETURNED SUPPLIES. PREPARATION AND PLANNING IS NOT ACTIVELY UNDER WAY TO ACCOMMODATE THIS WORKLOAD. CURRENT EMERGENCY PLANNING DOCUMENTS DO NOT ADDRESS THIS PHASE OF ACTIVITY.

7. (U) LESSON LEARNED: DEMOBILIZATION PLANNING SHOULD BE INCLUDED IN THE BEP.

8. (U) RECOMMENDED ACTION: RECOMMEND BASIC EMERGENCY PLANNING DOCUMENTS BE EXPANDED TO INCLUDE PROCEDURES AND ACTIVITIES RELATED TO NORMALIZATION OF THE DISTRIBUTION SYSTEM AND THE LOGISTICS OF RECOVERING PERSONNEL, EQUIPMENT AND SUPPLIES AT THE CONCLUSION OF AN EMERGENCY OR ARMED CONFLICT.

9. (U) COMMENTS: OPR: DLA-O. OCR: DLA-LC
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11635-92407 (00028), submitted by MS WATSON, DDRW-O, 462-2288, (209)982-2288.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: INSPECTION, GAS MASKS, DECONTAMINATION KITS, DECON KITS, CHEMICAL PROTECTIVE MASKS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: INSPECTION OF CHEMICAL DECON KITS AND PROTECTIVE GAS MASKS.

5. (U) OBSERVATION: TROOP PREPARATIONS FOR PROTECTION FROM POSSIBLE CHEMICAL AND BIOLOGICAL WARFARE NECESSITATED THE 100% SURVEILLANCE INSPECTION AND REPACKAGING OF 200,000 INDIVIDUAL CHEMICAL DECONTAMINATION KITS PREVIOUSLY STORED IN KOREA.

6. (U) DISCUSSION: DDRW PREPARED AND STAFFED A WORK AREA TO PROCESS THE DECONTAMINATION KITS BEING FLOWN IN FROM KOREA. INSPECTION REQUIREMENTS AND PACKAGING SPECIFICATIONS WERE COORDINATED WITH THE ITEM MANAGER SO THAT PROCESSING COULD BEGIN UPON RECEIPT OF THE KITS. TWENTY-FOUR HOUR STAFFING WAS PROVIDED WITH TWO TWELVE-HOUR SHIFTS COMPOSED OF IN-HOUSE PERSONNEL. PROCESSING BEGAN 27 AUG 90 AND WAS COMPLETED 12 SEP 90. OF THE 200,000 KITS RECEIVED FROM KOREA, A TOTAL OF 179,903 SERVICEABLE KITS RESULTED FROM THE INSPECTION/REPACKAGING PROCESS.

7. (U) LESSON LEARNED: STOCK ROTATIONS AND SURVEILLANCE INSPECTIONS ARE NECESSARY TO ENSURE CHEMICAL PROTECTIVE GEAR IS READY FOR CONTINGENCIES.

8. (U) RECOMMENDED ACTION: RECOMMEND A REVIEW OF STOCK ROTATION AND SURVEILLANCE INSPECTION REQUIREMENTS FOR PREPOSITIONED WAR RESERVE MATERIAL. FURTHER RECOMMEND DEVELOPMENT OF PROCEDURES WHICH WILL SUPPORT AND ENSURE: 1) A CONSISTENT STATE OF READINESS IS MAINTAINED; 2) THE EXPENSE AND DELAYS OF EXTRA HANDS-ON INSPECTION/REPACKAGING CAN BE AVOIDED AND 3) CUSTOMER REQUIREMENTS CAN BE MET QUICKLY AND WITH UNCOMPROMISED CONFIDENCE IN PRODUCT SAFETY, QUALITY AND PERFORMANCE.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11535-12402 (00016), submitted by MS. WALKE, DDRV-TMI, 695-5230, (804)275-5230.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: INVENTORY, MANUAL COUNT, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: MANUAL COUNTS.

5. (U) OBSERVATION: INCREASE IN VOLUME OF MANUAL COUNT REQUESTS. IMPACT ON DENIAL RATE DUE TO EMERGENCY ISSUES.

6. (U) DISCUSSION: DURING ODS, THE VOLUME OF MANUAL COUNT REQUESTS MADE BY THE DSCS INCREASED DRAMATICALLY; HOWEVER, WHEN LOCATOR RECORDS AND SNIRS WERE OBTAINED, IT APPEARED THE REQUEST PROCESS WAS BEING ABUSED AND COUNTS WERE REQUESTED INAPPROPRIATELY. ALSO, WHEN STOCK WAS FOUND, THE ACCOUNTABLE RECORDS WERE NOT BEING ADJUSTED IN A TIMELY MANNER SO THE SAME STOCK NUMBER WAS COUNTED NUMEROUS TIMES. ADDITIONALLY, SINCE SAMMS POSTINGS WERE ALSO UNABLE TO KEEP UP WITH EMERGENCY ISSUES, DSCS WERE CALLING IN REQUISITIONS FOR STOCK ALREADY COMMITTED TO MROS IN OUR WORKLOAD BANK.

7. (U) LESSON LEARNED: MORE CONTROL OVER MANUAL INVENTORY COUNTS IS REQUIRED.

8. (U) RECOMMENDED ACTION: 1) ESTABLISH A SINGLE POC FOR MANUAL COUNT REQUESTS AT EACH DSC. PRESENTLY THERE ARE AS MANY AS 30 INDIVIDUALS AT CERTAIN DSCS AUTHORIZED TO CALL THE DEPOTS FOR MANUAL COUNTS. 2) THESE POCS SHOULD SCREEN THE NSNS BEFORE CALLING THE DEPOT TO ENSURE A LEGITIMATE EMERGENCY EXISTS. ROUTINE PROBLEMS AND INQUIRIES SHOULD FLOW THROUGH ROUTINE CHANNELS. 3) ESOC PERSONNEL SHOULD HANDLE SELECTED FSCS, SO TWO OR MORE INDIVIDUALS WON'T BE ISSUING THE SAME STOCK BALANCE.

9. (U) COMMENTS: OPR: DLA-OW
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11442-63217 (00012), submitted by LTCOL DUNCKHORST, DGSC-OSC, 695-5460, (804)275-5460.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: REQUISITIONS, AUTODIN, OFF-LINE, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: MISUSE OF OFF-LINE REQUISITIONING.

5. (U) OBSERVATION: MISUSE OF OFF-LINE REQUISITIONING

6. (U) DISCUSSION: ALL SERVICES, MAINLY THE NAVY, USED MESSAGES, NAVGRAMS, LETTERS OR TELEFAX TO SUBMIT LARGE QUANTITIES OF REQUISITIONS, VICE AUTODIN. THIS HELD TRUE EVEN DURING THE WORLD-WIDE MINIMIZE. THIS PRACTICE RESULTS IN DELAYS OF 12-36 HOURS DUE TO DATA ENTRY CONSTRAINTS. THE COST OF SUBMITTING REQUISITIONS THIS WAY IS EXTREME, E.G., ~~A~~ MESSAGE COSTS $10.00 PER ADDRESSEE ~~BA~~SED UPON MAN HOURS WRITING, EDITING, TRANSCEIVING, RECEIVING, WORKING IT AND FILING.

7. (U) LESSON LEARNED: CLEAR GUIDELINES FOR OFF-LINE REQUISITIONS NEED TO BE PUBLISHED.

8. (U) RECOMMENDED ACTION: REQUEST HQ DLA PUBLISH GUIDELINES TO THE SERVICES WHICH STRESS THE USE OF AUTODIN AS THE PRIMARY MEANS TO SUBMIT REQUISITIONS, FOLLOWED BY AUTOVON, LETTER, TELEFAX, THEN MESSAGE.

9. (U) COMMENTS: OPR: DLA-OS
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11443-24871 (00013), submitted by M.D. SALISBURY, DDOU-TT, 790-7398, (801)399-7398.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/09/90.

3. (U) KEYWORDS: CCP, CONTAINER CONSOLIDATION, SHIPMENTS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: WEST COAST CONTAINER CONSOLIDATION POINT (CCP).

5. (U) OBSERVATION: SHIPMENTS OF MATERIAL FROM DLA ACTIVITIES WEST OF THE MISSISSIPPI RIVER TO THE EAST COAST CCP WERE BOTH INEFFICIENT AND EXPENSIVE.

6. (U) DISCUSSION: NUMEROUS SHIPMENTS OF ODS MATERIAL FROM THE WEST COAST DLA DEPOTS WERE TRUCKED OR FLOWN CROSS-COUNTRY TO THE EAST COAST CCP AT NEW CUMBERLAND ARMY DEPOT (NCAD). MANY SIGNIFICANT SHIPMENT DELAYS WERE ENCOUNTERED AT NCAD AS NCAD EXPERIENCED GRID-LOCK. CUSTOMER SERVICE WAS COMPROMISED, THE COMMERCIAL CARRIER INDUSTRY WAS FRUSTRATED AND INCONVENIENCED AS CARRIAGE UNDERLOAD DELAYS WERE ENCOUNTERED. FURTHER, IT WAS NOT COST EFFECTIVE DUE TO DEMURRAGE/DETENTION COSTS AND EXPENSIVE CROSS-COUNTRY LINE HAUL RATES. THIS ISSUE WAS SURFACED EARLY ENOUGH IN THE OPERATION THAT APPROPRIATE CHANGES COULD HAVE BEEN MADE TO CORRECT THE PROBLEM.

7. (U) LESSON LEARNED: MORE THAN ONE CCP IS NEEDED TO MEET TRANSPORTATION REQUIREMENTS OF LARGE CONTINGENCIES SUCH AS ODS.

8. (U) RECOMMENDED ACTION: UTILIZE MORE THAN ONE CCP. A WEST COAST CCP, UTILIZING TRANS-PACIFIC LINE HAUL SERVICES FOR DLA DEPOTS WEST OF THE MISSISSIPPI, WOULD HAVE IMPROVED CUSTOMER SERVICE (BY DECREASING PIPE-LINE TIMES AND AVOIDING THE NCAD GRID=LOCK) AND WOULD HAVE BEEN MORE COST EFFECTIVE. COST SAVINGS COULD HAVE BEEN REALIZED THROUGH SHORTER LINE-HAUL AND AIR FREIGHT COSTS, AS WELL AS CHEAPER OCEAN CARGO RATES (BASED ON USE OF MID-EAST FEEDERS WHICH REDUCED INSURANCE COSTS OF PRIME CARRIER, THEREBY REDUCING CARGO RATES). LOGISTICS SUPPORT PLANNING FOR CRISIS/CONTINGENCIES MUST CONSIDER THE THROUGH-PUT CAPABILITIES OF THE CCPS AS WELL AS CUSTOMER SUPPORT AND TRANSPORTATION COSTS.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11445-32369 (00014), submitted by LTC FISHER, DPSC-N, 444-2651, (215)737-2651.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: SHIPMENT DOCUMENTATION, SHIPMENT, CONTAINER, CONTAINER IDENTIFICATION, DECALS, MARKING SYSTEM, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: SHIPMENT DOCUMENTATION.

5. (U) OBSERVATION: THE TRANSPORTATION CONTROL AND MOVEMENT DOCUMENT (TCMD), DD1384, IS NOT PROVIDING DETAILED DATA TO THE THEATER. FURTHER, THERE IS NO INTEGRATED SYSTEM TO PROVIDE ADEQUATE AND COMPLETE INFORMATION TO CUSTOMERS.

6. (U) DISCUSSION: THE THEATER REQUIRES FULL AND COMPLETE INFORMATION ON INCOMING CARGO. WITH THE TREMENDOUS AMOUNT OF CONTAINERS THAT WERE SENT TO THE THEATER, IT WAS AN OVERWHELMING OPERATION WITHOUT AN INTEGRATED AUTOMATED DATA PROCESSING (ADP) SYSTEM. REPORTS FROM THE THEATER INDICATED THAT CONTAINER CONTENTS COULD NOT BE PROPERLY IDENTIFIED AND RECEIPTED. SHIPPERS WERE INSTRUCTED TO UTILIZE TX9 TRAILER INFORMATION ON THE TCMD IMPROVING THE CARGO MANIFEST. ADDITIONALLY, SHIPPERS BEGAN USING PRESSURE SENSITIVE DECALS, DESCRIBING THE CONTENTS OF SUBSISTENCE VANS. THIS ALLOWED TIMELY IDENTIFICATION OF MEAL TYPE WITHIN THE CONTAINERIZED VAN WITHOUT CHECKING THROUGH THE DOCUMENTATION.

7. (U) LESSON LEARNED: THE THEATER WILL REQUIRE FULL AND COMPLETE DATA ON INCOMING CARGO. ALSO, AN INTEGRATED ADP SYSTEM WILL BE NEEDED TO ADEQUATELY PROCESS AND RECEIPT SUCH A LARGE VOLUME OF INCOMING CONTAINERS.

8. (U) RECOMMENDED ACTION: MTMC SHOULD: (1) PROVIDE EARLY GUIDANCE TO ALL SHIPPERS TO PROVIDE DETAILED DATA ON THE TCMD; (2) DEVELOP AN INTEGRATED SYSTEM TO PROVIDE ADVANCE INFORMATION TO CUSTOMERS; (3) DLA SHOULD EXAMINE PROS AND CONS OF PROVIDING A VISUAL MARKING SYSTEM, E.G., DECALS, ON ALL CLASSES OF SUPPLIES.

9. (U) COMMENTS: OPR: DLA-O
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11539-18840 (00018), submitted by MAJ CRAIG, DLA-P, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: IPP, INDUSTRY, MOBILIZATION, PLANNED PRODUCERS, PRODUCTION CAPABILITY, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: INDUSTRIAL PREPAREDNESS PLANNING (IPP).

5. (U) OBSERVATION: THE DEFENSE SUPPLY CENTERS AND DEFENSE CONTRACT MANAGEMENT COMMAND DISTRICTS HAD PROBLEMS IMPLEMENTING APPLICABLE PARTS OF THE IPP PROGRAM AND IPP LETTER CONTRACTS BECAUSE OF MISUNDERSTANDING OF THE AUTHORITIES REQUIRED AND OUTPUTS THE IPP PROGRAM.

6. (U) DISCUSSION: MANY PEOPLE EXPECTED THE IPP PROGRAM TO PROVIDE INSTANT RESPONSE TO ANY AND ALL CONTINGENT SITUATIONS THROUGH ACTIVATION OF IPP LETTER CONTRACTS. THE IPP LETTER CONTRACTS WERE DESIGNED TO BE USED IN A FULL MOBILIZATION FOR A MAJOR WAR. THIS ACTION REQUIRES A DECLARATION OF NATIONAL EMERGENCY BY THE PRESIDENT TO GRANT SPECIFIC AUTHORITIES TO SURGE THE INDUSTRIAL BASE FOR MILITARY ARTICLES AND SERVICES. ALTHOUGH OPERATION DESERT SHIELD/STORM (ODS) WAS A DECLARED NATIONAL EMERGENCY, IT ENTAILED ONLY PARTIAL MOBILIZATION LIMITED TO RESERVE TROOP STRENGTH CALL-UPS, DECLARED BY PRESIDENTIAL ORDER. THEREFORE, THIS PART OF THE IPP PROGRAM COULD NOT BE IMPLEMENTED. THIS DID NOT STOP THE ISSUANCE OF LETTER CONTRACTS WHICH WERE USED IF NEEDED.

IN ADDITION TO LETTER CONTRACTS, IPP PLANNING DATA WAS USED TO A GREAT EXTENT IN OBTAINING PRODUCTION INCREASES TO DETERMINE WHAT SUPPORT WAS REQUIRED BY INDUSTRY, TO IDENTIFY NEW SOURCES, AND IDENTIFY WAYS TO OVERCOME EXISTING BOTTLENECKS FOR MANY CRITICAL ITEMS. HOWEVER, THE DATA GENERATED FROM THE PROGRAM IS ONLY FOR PLANNING AND MAKES CERTAIN BASIC ASSUMPTIONS. IT IS ASSUMED THAT THERE WILL BE NO BARRIERS TO OBTAINING LABOR, MATERIALS, EQUIPMENT, AND FUNDING NECESSARY TO FULLY IMPLEMENT IPP PLANS. FISCAL REALITY DOES NOT PERMIT THE MASSIVE SPENDING REQUIRED TO FULLY RAMP INDUSTRY TO MAXIMUM MOBILIZATION OUTPUT (WHICH MAY BE 100 TIMES PEACETIME OUTPUT) FOR A SHORT TERM CONTINGENCY. AS A RESULT, THERE WERE MANY PERCEIVED IPP FAILURES BECAUSE OF MISUNDERSTANDING OF THE PURPOSE OF THE IPP PROGRAM AND INTENDED USE OF ITS OUTPUTS.

THE PURPOSE OF IPP IS TO PLAN WITH INDUSTRY TO INCREASE PRODUCTION TO SUSTAIN FORCES UNDER THE ASSUMPTION THAT DEMANDS FOR DAYS 0-60 OF A CONFLICT WILL BE COVERED BY WAR RESERVE STOCK (WRS) AND OTHER WAR RESERVE STOCK. INDUSTRIAL BUILD UP OCCURS

DURING DAYS 61-180, AND THE INDUSTRIAL BASE CAN THEN PROVIDE MATERIEL TO SUSTAIN THE MILITARY FORCE FROM DAY 181 FORWARD. THE IPP PROGRAM WAS NOT INTENDED TO FULLY SATISFY UNFUNDED WRS REQUIREMENT OR TO RECTIFY SHORTFALLS.

WAR RESERVE STOCKS AND INDUSTRIAL PREPAREDNESS MEASURES (IPMS) HAVE NOT BEEN FUNDED TO THE PLANNING LEVELS FOR SOME TIME. THEREFORE, DLA AND THE INDUSTRIAL BASE WERE ASKED TO START MEETING WARTIME SUPPLY DEMANDS ON DAY 1 OF THE CONFLICT. WITH NO TIME TO RAMP UP THE INDUSTRIAL BASE, MANY SHORTFALLS OCCURRED. BECAUSE OF ITS NAME, THE IPP PROGRAM WAS PERCEIVED TO BE ABLE TO PROVIDE ANY AND ALL MATERIEL REQUIRED. THE IMPACT OF MANY OF THESE SHORTFALLS WAS MITIGATED BECAUSE THE IPP PROGRAM DID PROVIDE MUCH OF THE INPUT DATA NEEDED TO IDENTIFY ALTERNATE ITEMS, COMMERCIAL SUBSTITUTES, ADDITIONAL CAPABLE SOURCES, AND OTHER MEASURES TO TRY TO MAKE UP THE SHORTFALLS. IPP PLANNED LETTER CONTRACTS WERE BROUGHT OUT AND WERE IMPLEMENTED WITHOUT FIRST "SCRUBBING" THE CONTRACT TO FIT THE SITUATION. IPP LETTER CONTRACTS ALSO MAKE ASSUMPTIONS WITH RESPECT TO CERTAIN AUTHORITIES BEING GRANTED AND EXCLUDE MANY REQUIREMENTS NORMALLY REQUIRED BY LAW. THEREFORE, SPECIFIC AUTHORITY WAS NOT FLOWED BY DLA TO ITS BUYING ACTIVITIES TO USE IPP LETTER CONTRACTS BECAUSE THAT AUTHORITY WAS NOT GRANTED TO DLA HQ. DLA GRANTED BROAD WAIVERS TO USE LETTER CONTRACTS (OTHER THAN IPP LETTER CONTRACTS) TO ALLOW AS MUCH LOCAL DECISION AND REVIEW AUTHORITY AS PRUDENT.

MANY PLANNED PRODUCERS WERE NOT ACTIVATED. SEVERAL EVEN REFUSED CONTRACTS BECAUSE OF BUSINESS CONSIDERATIONS IN VIEW OF WHAT WAS TO BE A RELATIVELY SMALL CONFLICT OVER A SHORT TIME PERIOD. UNDER THE THEN CURRENT POLICY, A PLANNED PRODUCER HAS NO LEGAL COMMITMENT TO FULFILL PLANNED PRODUCTION AND NO VEHICLE EXISTED UNDER THE LAW TO FORCE HIM TO PRODUCE WITHOUT DECLARATION OF A NATIONAL EMERGENCY. THEREFORE, ONLY CAPABLE PRODUCERS WERE SOUGHT WHO COULD PROVIDE THE ITEMS NEEDED IN A RELATIVELY SHORT TIME (LESS THAN SIX MONTHS, DEPENDING ON THE ITEM).

THE MAJORITY OF PERCEIVED IPP FAILURES WERE FOR ITEMS WHICH WERE NOT PLANNED OR HAD PLANNING COVERING ONLY VERY SMALL QUANTITIES COMPARED TO ODS DEMANDS. FURTHERMORE, THE US HAD NOT POSITIONED ITS INDUSTRY TO SUPPORT DESERT WARFARE. PLANNED PRODUCTION INCREASES FOR MANY ITEMS, ESPECIALLY THOSE SPECIFIC TO DESERT WARFARE, REQUIRED SUBSTANTIAL TIME AND INVESTMENT IN FACILITIES AND LABOR TO GAIN SIGNIFICANT PRODUCTION INCREASES.

OTHER CRITICAL ITEMS WERE IN SHORT SUPPLY BECAUSE THE LIMITED PRODUCTION CAPABILITY FROM A FRAGILE, PEACETIME INDUSTRIAL BASE COULD NOT MEET THE HUGE INCREASES SPROUTING FROM WATIME DEMAND IN THE IMMEDIATE TERM. FOR THESE TYPE OF ITEMS, ANNUAL PEACETIME REQUIREMENTS HAVE BEEN SO SMALL AS TO MAKE THE BUSINESS UNATTRACTIVE TO MANY PRODUCERS. ON THE WHOLE, SUCH ITEMS ARE MILITARY UNIQUE, HAVE LIMITED SHELF LIFE, HAVE LARGE WARTIME DEMANDS (BUT VERY LOW PEACETIME DEMANDS), AND A LIMITED PRODUCTION BASE. THESE CHARACTERISTICS ALL COMBINE TO RESULT IN A VERY SMALL PRODUCTION CAPACITY COMPARED TO WARTIME NEEDS.

ITEMS IDENTIFIED IN THIS CATEGORY ARE THE SUBJECT OF A SEPARATE LESSON LEARNED AND WILL BE ADDRESSED OUTSIDE OF THIS LESSON LEARNED.

7. (U) LESSON LEARNED: IPP POLICY SHOULD BE REWRITTEN TO BE MORE RESPONSIVE IN SUPPORT OF CONTINGENCIES. MORE TRAINING IS NEEDED TO MAKE PEOPLE AWARE OF THE IPP PROGRAM AND HOW TO USE ITS PRODUCTS.

8. (U) RECOMMENDED ACTION: OSD RECOGNIZED THE NEED TO REVISE THE IPP PROGRAM TO RECOGNIZE THE REALITITES OF A CHANGING WORLD SECURITY ENVIRONMENT. SOME OF THE SHORTCOMINGS NOTED IN ODS HAD BECOME APPARENT THROUGH PREVIOUS ANALYSIS AND EXERCISES. HOWEVER, THE DOD DIRECTIVES AND IMPLEMENTING POLICY AND REGULATIONS WERE NOT PROMULGATED AT THE TIME OF ODS. REVISED INDUSTRIAL BASE PROGRAM POLICY IS BEING FORMULATED AT THIS TIME. TRAINING WILL ALSO BE PROVIDED TO FIELD ACTIVITIES ON THE REVISED PROGRAM.

9. (U) COMMENTS: OPR: DLA-P

CLOSURE CRITERIA: POLICY ISSUANCE ON THE REVISED INDUSTRIAL BASE PROGRAM BY EITHER DOD OR DLA AS APPROPRIATE.

STATUS: OPEN. DRAFT DOD POLICY ISSUED.

THIS LESSON LEARNED COMBINES THE FOLLOWING LESSONS LEARNED:

A. ODS-03-01-02 INDUSTRIAL MOBILIZATION LETTER CONTRACTS FOR PLANNED PRODUCERS
B. ODS-03-01-04 INDUSTRIAL PREPAREDNESS PLANNING
C. ODS-03-04-02 INADEQUACY OF IPP CONTRACTS
D. ODS-03-04-05 INDUSTRIAL PREPAREDNESS PLANNING (IPP)
E. ODS-03-19-10 INDUSTRIAL PREPAREDNESS PLANNING (IPP) PROGRAM/SURGE
F. ODS-03-20-04 DESERT SHIELD/STORM CRITIQUE ITEMS
G. ODS-03-22-03 'JUST-IN-TIME-INVENTORY' - GOVERNMENT FURNISHED MATERIAL
H. ODS-03-22-04 INDUSTRIAL PREPAREDNESS PLANNING (IPP)
I. N/A INDUSTRIAL PREPAREDNESS PLANNING
J. N/A IPP PLANS NOT USED. IPP SCHEDULES NOT ACTIVATED
K. N/A INDUSTRIAL PREPAREDNESS PLANS (IPP)

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11542-43257 (00019), submitted by MAJ CRAIG, DLA-P, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: CONTRACT MANAGEMENT, CONTRACT WAIVERS, DELEGATION OF AUTHORITY, CONTRACT AWARDS, J&A AUTHORITY, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: DELEGATION AND WAIVERS OF CONTRACTING AUTHORITIES.

5. (U) OBSERVATION: ADMINISTRATIVE LEADTIME TO AWARD CONTRACTS CAN BE SHORTENED IF FIELD ACTIVITIES ARE DELEGATED CERTAIN ACQUISITION AUTHORITIES PRIOR TO OR AT THE OUTSET OF A CONTINGENCY. THE DELEGATIONS AND WAIVERS GRANTED BY DLA HQ EARLY DURING ODS WERE BENEFICIAL IN PROVIDING THE BEST SUPPORT POSSIBLE FOR DEPLOYED FORCES IN ODS.

6. (U) DISCUSSION: DLA HQ DELEGATED SUBSTANTIAL AUTHORITIES OF WAIVERS WITH RESPECT TO LETTER CONTRACTS, PRE-NEGOTIATION CLEARANCES, CONTRACT AWARD APPROVALS, ACQUISITION PLAN REVIEWS, COST AND PRICING DATA SUBMISSIONS, CERTAIN "JUSTIFICATION AND APPROVAL FOR OTHER THAN FULL AND OPEN COMPETION" (J&A) AUTHORITIES, AND OTHERS TO ACCELERATE THE ACQUISITION PROCESS FOR ODS RELATED ITEMS. SIMILAR DELEGATION/WAIVER ACTION WILL BE CONSIDERED FOR FUTURE CONTINGENCIES.

HOWEVER, TO ENSURE COMPLIANCE WITH THE LAW, REGULATIONS, AND THEN CURRENT ACQUISITION POLICIES, DELEGATIONS OF BROAD, SWEEPING AUTHORITIES AND WAIVERS SHOULD NOT BE AUTOMATICALLY INVOKED UNTIL THE SIZE AND NATURE OF THE CONTINGENCY, AND THE LEVEL OF CONFLICT HAVE BEEN DEFINED. THE ACTIONS NEEDED FOR A LOCAL EMERGENCY ARE CLEARLY DIFFERENT FROM THOSE REQUIRED FOR MOBILIZATION/NUCLEAR WAR. FURTHERMORE, THE FACTS OF A PARTICULAR ACQUISITION WILL DICTATE WHETHER SPECIFIC ACTIONS, SUCH AS BERRY AMENDMENT WAIVERS, THE USE OF CLASS J&AS, OR DELEGATION OF CERTAIN J&A AUTHORITIES TO PFLAS SHOULD BE PURSUED.

7. (U) LESSON LEARNED: DELEGATIONS AND WAIVERS OF CONTRACTING AUTHORITIES ARE NECESSARY TO PROVIDE TIMELY SUPPORT DURING CONTINGENCIES SUCH AS DESERT SHIELD.

8. (U) RECOMMENDED ACTION: A CHECKLIST ITEM IS PLANNED AS PART OF THE NEXT BASIC EMERGENCY PLAN (BEP) TO CONSIDER, AT THE OUTSET OF A CONTINGENCY, GRANTING DELEGATIONS/WAIVERS SIMILAR TO THOSE GRANTED FOR ODS.

9. (U) COMMENTS: OPR: DLA-P
CLOSURE CRITERIA: PROPOSAL TO INCLUDE A CHECKLIST ITEM IN THE DLA BASIC EMERGENCY PLAN (BEP) TO CONSIDER ISSUING SIMILAR WAIVERS AND AUTHORITY DELEGATIONS AS PROVIDED TO PLFA'S DURING ODS.
STATUS: OPEN. BEP CHECKLIST ITEM CURRENTLY IN REVIEW. RAP WILL BE CLOSED UPON COMPLETION OF REVIEW.
THIS LESSONS LEARNED COMBINES THE FOLLOWING LESSONS LEARNED:
ODS-03-01-05 CONTRACTING/CONTRACT MANAGEMENT
ODS-03-02-01 JUSTIFICATIONS FOR OTHER THAN FULL AND OPEN COMPETITION
ODS-03-02-04 FARS WAIVER DS-1 - WAIVER OF HEADQUARTERS REVIEW - OPERATION DESERT SHIELD
ODS-03-06-01 SMALL & SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLANS
ODS-03-10-01 CONTRACT REVIEW WAIVERS
N/A DELEGATION OF AUTHORITY AND CLASS JUSTIFICATION AND APPROVAL

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12642-42653 (00035), submitted by MR MELLON, DESC-SV-1, 986-5141, (513)296-5141.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: VALUE ENGINEERING, REDUCE LEAD TIME, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: VALUE ENGINEERING TECHNIQUE APPLIED TO TIME.

5. (U) OBSERVATION: AT THE BEGINNING OF DESERT SHIELD, PROCUREMENT WAS INITIATED FOR ITEMS BASED ON THE ANTICIPATED INCREASE IN DEMANDS. THESE PROCUREMENTS WERE OUT OF CYCLE AND SEVERAL ITEMS HAD VERY LONG PRODUCTION LEAD TIME (PLT). THIS SITUATION WOULD CAUSE SHORT SUPPLY OF CRITICALLY NEEDED ITEMS.

6. (U) DISCUSSION: VALUE ENGINEERING (VE) NORMALLY STRIVES TO ACHIEVE THE REQUIRED FUNCTION FOR THE LOWEST COST. HOWEVER, DURING THIS OPERATION THE BEST VALUE TO OUR TROOPS IS THE DELIVERY OF A NEEDED ITEM AT THE TIME OF NEED. THEREFORE, THE DESC VALUE ENGINEERING PROGRAM OFFICE APPLIED THE VE DISCIPLINE TOWARD THE REDUCTION OF LEAD TIME. HOWEVER, THE SHORT DURATION OF THE WAR COUPLED WITH THE RELATIVELY LOW EQUIPMENT LOSSES ABROGATED THE NEED FOR A QUICK RESUPPLY ON MANY ITEMS.

7. (U) LESSON LEARNED: VALUE ENGINEERING CAN CONTRIBUTE TO OUR ABILITY TO SUPPORT CONTINGENCIES SUCH AS DESERT STORM.

8. (U) RECOMMENDED ACTION: WHILE THE APPLICATION OF VALUE ENGINEERING TO TIME HAD LITTLE IMPACT DURING OPERATION DESERT SHIELD/STORM, IT DID SHOW THE POTENTIAL INHERENT IN THE VE PROGRAM. IT IS SUGGESTED THAT CONSIDERATION BE GIVEN FOR THE USE OF THE VE DISCIPLINE TO SOLVE DIFFICULT LOGISTICS PROBLEMS AS WELL AS THE ELIMINATION OF UNNECESSARY COSTS.

9. (U) COMMENTS: OPR: DLA-SEV

THE VALUE ENGINEERING (VE) PROGRAM DID NOT EXPERIENCE ANY OPERATIONAL PROBLEMS OR FIND ANY SHORTCOMINGS IN THE DLA LOGISTICS SYSTEM DURING THE DESERT SHIELD/STORM CONFLICT.

DESC HAS RECOMMENDED THAT VE TECHNIQUES BE USED NOT ONLY TO ELIMINATE UNNECESSARY COST, BUT ALSO INCREASE RELIABILITY, DECREASE REPAIR TIME, AND FACILITATE THE MOVEMENT AND AVAILABILITY OF THE SYSTEM REPAIR PARTS. DURING DESERT STORM, THE VE PROJECT SELECTION AT DESC CONCENTRATED ON STOCK LEVELS, ANTICIPATED DEMANDS, AND ITEM PRODUCTION LEAD TIME (TIME) INSTEAD OF THE TRADITIONAL COST VERSUS WORTH (PRICE). THE RESULTS OF SEVERAL FOCUSED EFFORTS OF APPLYING VE TECHNIQUES TO TIME INDICATED THAT VE COULD REDUCE BACKORDERS, DECREASE DELIVERY TIME, AND RAISE SYSTEM STOCK AVAILABILITY AS WELL AS SAVE DOLLARS.

THE PLAN OF ACTION WILL BE TO UTILIZE BOTH THE VE PRICE AND

TIME METHODS DURING NORMAL OPERATIONS TO ENHANCE THE MISSION CAPABILITY OF THE DEFENSE SUPPLY CENTERS. THE CENTERS WILL BE NOTIFIED OF THIS PROCEDURE.
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11547-71383 (00022), submitted by MS TUCKER, DGSC-SPP, 695-4345, (804)275-4345.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: PROJECT CODE, UMMIPS, SAMMS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: PROJECT CODE CHANGES.

5. (U) OBSERVATION: REQUISITIONS WERE RECEIVED WITHOUT PROJECT CODES. DURING THE OPERATIONS, ITEMS WERE UPGRADED AND PROJECT CODES CHANGED BUT THIS INFORMATION WAS NOT AUTOMATICALLY PASSED THROUGHOUT THE SYSTEM.

6. (U) DISCUSSION: RECOMMENDED BUYS WHICH ARE SUSPENSED TO TECHNICAL OPERATIONS AS A MISSING DATA WORK LIST INCLUDE THE UMMIPS PRIORITY AND PROJECT CODE IF APPLICABLE. THIS ALLOWS PROPER PRIORITY TO BE ASSIGNED WITHIN TECHNICAL OPERATIONS FOR PROCESSING. DURING DESERT STORM, REQUISITIONS ORIGINALLY RECEIVED WITHOUT A PROJECT CODE WERE SUBSEQUENTLY UPGRADED AND A CODE ASSIGNED. THIS INFORMATION WAS RECEIVED IN SAMMS BUT NO MECHANISM CURRENTLY EXISTS TO PASS THIS INFORMATION AUTOMATICALLY TO TECHNICAL OPERATIONS.

THE MISSING DATA WORK LIST ON-LINE (MDWL-ON-LINE) SYSTEM HAS BEEN DESIGNED AND IS CURRENTLY BEING PROGRAMMED BY DSAC. THIS SYSTEM, WHICH WILL BE A PART OF SAMMS, WILL HAVE THE CAPABILITY TO SHOW TO THE USER THE CURRENT DATA THAT EXISTS IN THE MISSING DATA FILE WHERE THE CURRENT PAPER-ORIENTED PROCESS DOES NOT. IF A PROJECT CODE IS ASSIGNED TO AN EXISTING RECOMMENDED BUY, OR A PRIORITY CODE IS UPGRADED, THIS INFORMATION MUST BE FED TO THE MISSING DATA FILE.

7. (U) LESSON LEARNED: CHANGED AND ADDED PROJECT CODES AND PRIORITY CODES SHOULD BE PRINTED IN THE MISSING DATA FILE.

8. (U) RECOMMENDED ACTION: TAKE THE NECESSARY STEPS TO ENSURE THAT THE CHANGED/ADDED PROJECT CODES AND PRIORITY CODES ARE PUSHED TO THE MISSING DATA FILE.

9. (U) COMMENTS: OPR: DLA-S
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11545-24679 (00020), submitted by MR LUVARA, DLA-SCT, 284-4403, (703)274-4403.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: MINIMIZE, LOGISTICS DATA, AUTODIN, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: LOGISTICS REPORTING DATA PROCEDURES DURING MINIMIZE.

5. (U) OBSERVATION: WHEN MINIMIZE WAS IMPOSED, IT STOPPED SUBMISSION OF NEEDED AUTOMATED LOGISTICS DATA IMPACTING DLA'S ABILITY TO HANDLE MANY ROUTINE TASKS THROUGH AUTOMATED MEANS. SUPPLY SUPPORT REQUESTS (SSR) DID NOT PROCESS. WEEKLY AUTODIN TRANSMISSIONS OF COMMERCIAL AND GOVERNMENT ENTITY (CAGE) FILES AND OTHER NEEDED DEFENSE LOGISTICS INFORMATION SYSTEM (DLIS) DATA WERE SUSPENDED.

6. (U) DISCUSSION: NEEDED ~~DATA SHOULD BE ALLOWED TO~~ FLOW TO LESSEN THE IMPACT ON AS MANY AUTOMATED FUNCTIONS AS POSSIBLE. MANY TRANSACTIONS, SUCH AS CERTAIN CONTRACT PAYMENTS AND IDENTIFICATION OF DEBARRED CONTRACTORS, HAD TO BE HANDLED MANUALLY. ALSO, TRANSACTIONS WERE LOST IN DLSC AND HAD TO BE REGENERATED AFTER MINIMIZE WAS LIFTED. CONTROL OF SSRS BECAME IMPOSSIBLE TO MAINTAIN. SSRS APPEARED TO BE DELINQUENT WHEN THEY WERE NOT. DLA-P, THE DSCS, DCMS, THE DEFENSE FINANCE CENTER, AND THE SERVICES RELY ON THE CAGE AND DLIS DATA TO CARRY OUT VITAL FUNCTIONS. THESE FUNCTIONS RELY ON THE TIMELY RECEIPT OF UPDATE INFORMATION. ALTERNATIVES, SUCH AS MAGNETIC TAPE IN AUTODIN FORMAT, WOULD NECESSITATE REPROGRAMMING BY EACH DISTRIBUTION SITE THROUGHOUT DOD TO HANDLE MAGNETIC TAPE IN LIEU OF THE AUTODIN TRAFFIC.

7. (U) LESSON LEARNED: DESPITE MINIMIZE, CERTAIN DATA MUST CONTINUE TO FLOW. THIS SHOULD BE CLEARLY OUTLINED BEFORE CONTINGENCIES OCCUR.

8. (U) RECOMMENDED ACTION: REVIEW THE TYPES OF DATA NEEDED TO ALLOW CRITICAL FUNCTIONS TO CONTINUE IN ORDER TO DETERMINE WHETHER THE DATA SHOULD CONTINUE TO FLOW IN VIEW OF THE NATURE AND STATUS OF THE CONTINGENCY. DLSC REVIEW THEIR MINIMIZE PROCEDURES AND MAKE NECESSARY PROGRAM/PROCEDURAL CHANGES TO ASSURE THESE CONDITIONS WILL NOT REOCCUR.

9. (U) COMMENTS: OPR: DLA-SC
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11545-93528 (00021), submitted by MR COFFIE, DLA-SMS, 284-7886, (703)274-7886.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: PROPERTY DISPOSAL, DRMO, ODS, DESERT SHIELD/STORM, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: PROPERTY DISPOSAL SUPPORT.

5. (U) OBSERVATION: DURING WAR OR EMERGENCY SITUATIONS, DLA PLANS AND AGREEMENTS WITH THE UNIFIED COMMANDS CALL FOR THE CINC TO TAKE OPCON OF EXISTING DRMOS IN THE AREA OF HOSTILITIES. DLA IS TO ASSUME/RESUME THE DISPOSAL FUNCTION AFTER HOSTILITIES OR AT THE END OF THE EMERGENCY SITUATION. AFTER CENTCOM REQUESTED A DRMO BE ESTABLISHED IN SAUDI ARABIA IT TOOK NEARLY THREE MONTHS BEFORE THE FIRST TURN IN WAS ACCEPTED.

6. (U) DISCUSSION: DLA CONTINGENCY PLANS SHOULD BE CHANGED TO PROVIDE FOR A TEAM OF DISPOSAL PERSONNEL TO BE MOVED TO ONE OR MORE DRMOS IN THE AREA OF HOSTILITIES TO PROVIDE FOR PROPERTY DISPOSAL UNDER THE OPCON OF THE THEATER CINC. THIS TEAM WOULD HAVE THE PROGRAM EXPERTISE TO ASSESS DISPOSAL REQUIREMENTS AND PROVIDE CONTINUITY OF DISPOSAL OPERATIONS. DRAFT AGREEMENTS, MEMORANDUMS OF UNDERSTANDING, OR OTHER PAPERS REQUIRED FOR OPERATIONS IN FOREIGN COUNTRIES COULD BE FINALIZED AND IMPLEMENTED WITH LITTLE DELAY. DLA SHOULD ALSO DETAIL AN OFFICER WITH DISPOSAL EXPERTISE TO THE UNIFIED COMMAND'S J4 STAFF.

FOUR OPTIONS FOR THE TEAM ARE BEING CONSIDERED: 1) USING INDIVIDUAL MOBILIZATION AUGMENTEES; 2) DESIGNATING CIVILIAN POSITIONS AS EMERGENCY ESSENTIAL; 3) CREATING A RESERVE UNIT FOR PROPERTY DISPOSAL; 4) CREATING A MOBILIZATION TEAM OF MILITARY PERSONNEL CURRENTLY ON ACTIVE DUTY IN DRMS AND ITS SUBORDINATE ACTIVITIES.

7. (U) LESSON LEARNED: DLA MUST BE ABLE TO RAPIDLY ESTABLISH DRMO OPERATIONS IN CONTINGENCY THEATERS.

8. (U) RECOMMENDED ACTION: RECOMMEND THAT DLA REVISE CONTINGENCY PLANS TO PROVIDE PROPERTY DISPOSAL SUPPORT ASSISTANCE AND GUIDANCE DURING WAR OR EMERGENCY SITUATIONS BY PROVIDING A TEAM OF EXPERIENCED PERSONNEL TO THE CINC. ONCE THE MEANS OF SUPPORT DURING WAR OR EMERGENCY SITUATIONS IS SETTLED, THE AGREEMENTS AND PLANS SHOULD BE REVISED TO RESOLVE THE REMAINING ISSUES.

9. (U) COMMENTS: OPR: DLA-SM
STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11339-29842 (00004), submitted by CPT CHAS. BASHAM, DCMDM-GBD, 444-4887, (301)339-4887.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: PRODUCTION DELEGATION, CONTRACT MANAGEMENT, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: PRODUCTION DELEGATION.

5. (U) OBSERVATION: SOME DESERT STORM CONTRACTS DID NOT RECEIVE ADEQUATE PRODUCTION SURVEILLANCE BECAUSE SURVEILLANCE WAS NOT DELEGATED.

6. (U) DISCUSSION: MANY CONTRACTORS HAVE MANUFACTURING FACILITIES FAR FROM THEIR HOME OFFICE. IN THIS CASE, A QUALITY ONLY DELEGATION IS MADE TO THE AO THAT HAS COGNIZANCE OF THE PLANT LOCATION. PRODUCTION DELEGATION IS ONLY MADE BY A MANUAL DELEGATION PROCESS WHICH IS RARELY USED DUE TO THE ADMINISTRATIVE BURDEN. THE RATIONALE IS THAT PRODUCTION CHIEFS WILL MAKE A DETERMINATION WHETHER PRODUCTION DELEGATION IS NECESSARY. IN REALITY, IT JUST ISN'T BEING DONE.

7. (U) LESSON LEARNED: DELEGATION OF PRODUCTION SURVEILLANCE WILL IMPROVE THE CONTRACT ADMINISTRATION PROCESS.

8. (U) RECOMMENDED ACTION: PRODUCTION DELEGATION SHOULD BE DONE AUTOMATICALLY ANYTIME THERE IS A QUALITY DELEGATION. THIS TYPE OF DELEGATION IS NOW BEING DONE THROUGH THE PROGRAM AND TECHNICAL SUPPORT DIVISION ON PROGRAM MANAGED CONTRACTS THROUGH MEMORANDUMS OF AGREEMENT BETWEEN AOS. DESERT STORM DEMONSTRATED WE NEED A FAST, RELIABLE SYSTEM TO AFFECT PRODUCTION DELEGATION ON NON-PROGRAM MANAGED CONTRACTS.

9. (U) COMMENTS: OPR: DCMC-EI

THE FOLLOWING POLICY IS IN COORDINATION:

PRODUCTION SURVEILLANCE WILL BE PERFORMED WHEN REQUESTED BY THE BUYING ACTIVITY. BUYING ACTIVITIES WILL PROVIDE THE CONTRACT ADMINISTRATION OFFICE (CAO) WITH A CUSTOMER PRIORITY LIST OF CONTRACTS AND CONTRACT LINE ITEMS THAT REQUIRE PRODUCTION SURVEILLANCE. THIS LIST, AS A MINIMUM, WILL BE UPDATED QUARTERLY. UPON DECLARATION OF AN EMERGENCY OR INCREASED DEFCON LEVEL, BUYING ACTIVITIES WILL PROVIDE THE CAO WITH REVISED SURVEILLANCE PRIORITIES.

STATUS: OPEN.

--- (U) SUBJECT: LOGISTICS

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11633-79032 (00026), submitted by CAPT FLOWERS, DFSC-DE, 284-7804, (703)274-7804.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: CHEMICAL GEAR, DEPLOY, ISSA, MOBILITY, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: AVAILABILITY OF CHEMICAL GEAR.

5. (U) OBSERVATION: THERE WERE NO SUPPORT AGREEMENTS WITH LOCAL MILITARY INSTALLATIONS TO OBTAIN CHEMICAL GEAR FOR DFSC OR DLA HQ PERSONNEL TASKED TO DEPLOY IN SUPPORT OF DESERT SHIELD/STORM.

6. (U) DISCUSSION: INITIALLY, THREE DFSC PERSONNEL DEPLOYED ON 9 AUG 90, WITH 48 HOURS NOTICE. PERSONNEL CONTACTED LOCAL MILITARY INSTALLATIONS REQUESTING ISSUE OF CHEMICAL GEAR. THERE WAS MUCH RESISTANCE TO ISSUING THE EQUIPMENT SINCE THERE WAS NO INTERSERVICE SUPPORT AGREEMENT AND WE WEREN'T ASSIGNED TO AN ORGANIZATION AT THE INSTALLATION. ANDREWS AFB AGREED TO ISSUE THE EQUIPMENT BY HAND RECEIPT. LATER PERSONNEL DEPLOYING WERE TOLD TO PICK UP CHEMICAL GEAR THROUGH THE DLA REPRESENTATIVE IN DHAHRAN, SAUDI ARABIA. PRIOR TO LEAVING CONUS, PERSONNEL WERE INFORMED BY THE DLA REPRESENTATIVE IN SAUDI ARABIA THAT CHEMICAL GEAR WOULD NOT BE AVAILABLE UPON THEIR ARRIVAL. CONSEQUENTLY, DFSC HAD TO PLEAD WITH PERSONNEL AT ANDREWS AFB TO ISSUE THE CHEMICAL GEAR.

7. (U) LESSON LEARNED: DLA PERSONNEL SUBJECT TO MOBILITY MUST HAVE READY ACCESS TO REQUIRED CHEMICAL GEAR AND INDIVIDUAL EQUIPMENT.

8. (U) RECOMMENDED ACTION: DLA ESTABLISH AN INTERSERVICE SUPPORT AGREEMENT WITH LOCAL INSTALLATIONS FOR HQ DLA AND DFSC PERSONNEL TO ACQUIRE CHEMICAL GEAR WHEN NECESSARY.

9. (U) COMMENTS: OPR: DASC

DASC IS IN THE PROCESS OF COORDINATING AN INTESERVICE SUPPORT AGREEMENT (ISA) WITH THE MILITARY DISTRICT OF WASHINGTON (MDW) FOR SPECIAL CLOTHING AND EQUIPMENT MENTIONED IN DESERT SHIELD/STORM CRITIQUE NUMBER ODS-01-03-02. THIS CLOTHING AND EQUIPMENT WILL INCLUDE WEATHER RELATED CLOTHING, CHEMICAL PROTECTIVE SUITS, AND GAS MASKS NEEDED BY PERSONNEL DEPLOYING TO THEATERS OF OPERATIONS FROM DLA ACTIVITIES IN THE METROPOLITAN WASHINGTON AREA. POC FOR THIS MATTER IS JIM MOFFET, DASC, AV 284-6060.

STATUS: OPEN

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12644-05090 (00037), submitted by R. J. ALLEN, DCSC-CCC, 850-3261, (614)238-3261.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: COMMAND & CONTROL CENTER, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: CONSOLIDATION OF COMMAND AND CONTROL CENTERS.

5. (U) OBSERVATION: IN THE INTEREST OF EFFICIENCY, EFFECTIVENESS, AND FISCAL RESPONSIBILITY, COMMAND AND CONTROL FUNCTIONS, I.E., COMMAND AND CONTROL CENTERS, IN THE COLUMBUS AREA SHOULD BE REGIONALIZED.

6. (U) DISCUSSION: THE AUTONOMY OF THE SEVERAL COMMANDS WITHIN THE COLUMBUS AREA IS WELL RECOGNIZED, AND IT IS IMPERTIVE THAT EACH RETAIN ITS INDIVIDUALITY AND RESPONSIBILITY. BUT, IN THE COLUMBUS AREA THERE ARE THREE DISTINCT FUNCTIONS HAVING COMMAND AND CONTROL FUNCTIONS, I.E., DCSC, DSAC AND DFAS, PLUS TWO SLFAS THAT ARE SUPPORTED BY DCSC. ALL THESE FUNCTIONS ARE PERFORMED WITHIN A MATTER OF SEVERAL HUNDRED ACRES, OR WITHIN A RADIUS OF SEVERAL CITY BLOCKS.

REALIZING THAT FOUR OF THE FIVE ORGANIZATIONS, THE EXCEPTION BEING DFAS, ARE DLA FIELD ACTIVITIES, AND THAT DFAS COULD BE SUPPORTED BY VIRTUE OF AN INTER-SERVICE SUPPORT AGREEMENT (ISSA), THOUGHT IS GIVEN TO REGIONALLIZING THE COMMAND AND CONTROL CENTER, TO SERVE ALL FUNCTIONS FROM ONE FACILITY WHILE CONSERVING SCARCE DOLLARS. THE CONSERVATION OF SPACE, THE NEED FOR REDUCED MANPOWER, AND THE EFFICIENCY GAINED BY HAVING ALL COMMUNICATION PASS THROUGH A SINGLE FOCUS ALL POINT TO A POSITIVE "SPAN OF CONTROL" AND "ECONOMY OF SCALE."

7. (U) LESSON LEARNED: CONSOLIDATION OF CCCS IN THE COLUMBUS AREA CAN POTENTIALLY SAVE RESOURCES.

8. (U) RECOMMENDED ACTION: RECOMMEND HEADQUARTERS CONSIDER THE CONSOLIDATION AND REGIONALIZATION OF COMMAND AND CONTROL FUNCTIONS IN THE COLUMBUS AREA WITHIN DCSC.

9. (U) COMMENTS: OPR: DCSC

WHILE THIS HQ RECOGNIZES THE POTENTIAL FOR RESOURCE SAVINGS, WE ALSO REALIZE THE IMPORTANCE OF COMMAND AND CONTROL CENTERS TO THE FIELD COMMANDERS. REQUEST DCSC LEAD A TEAM TO DETERMINE FEASIBILITY OF A COMBINED CCC OR SEPARATE CCC PERSONNEL OPERATING IN ONE FACILITY. TEAM SHOULD HAVE REPRESENTATIVES FROM EACH ACTIVITY AFFECTED AND A REPORT ON RESULTS SHOULD BE COORDINATED THROUGH ALL AFFECTED COMMANDERS AND FORWARDED TO DLA-L FOR CONSIDERATION.

STATUS: OPEN

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12541-55492 (00040), submitted by CAPT FLOWERS, HQ DLA, 284-7804, (703)274-7804.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: ODS, DESERT SHIELD/STORM.

4. (U) TITLE: REPOL FORMAT AND PROCEDURES.

5. (U) OBSERVATION: CURRENT REPOL REPORTING PROCEDURES AND FORMAT WERE NOT COMPLETELY FOLLOWED.

6. (U) DISCUSSION: SEVERAL DIFFERENT FORMATS WERE USED BY DEPLOYED UNITS DESPITE ATTEMPTS TO FOLLOW A SINGLE PUBLISHED FORMAT. UNITS SUBMITTED THE REPOL AT DIFFERENT TIMES AND RECIPIENTS WERE CONFUSED IN TRYING TO EXTRACT DATA. CONSUMPTION DATA IS NOT REQUIRED IN THE STANDARD REPORTING FORMAT.

7. (U) LESSON LEARNED: THE INCLUSION OF CONSUMPTION DATA WILL INCREASE THE VALUE OF THE REPOL.

8. (U) RECOMMENDED ACTION: JCS REVISE REPOL REPORTING PROCEDURES AND FORMAT TO INCLUDE INDENTIFYING CONSUMPTION DATA.

9. (U) COMMENTS: OPR: DFSC

FAILURE TO FOLLOW GUIDELINES FOR ONE STANDARD FORMAT IS A PROCEDURAL ITEM (JCS PUB 1-03.18 BULK PETROLEUM CONTINGENCY REPORT, [REPOL]). THE ADDITION OF CONSUMPTION DATA HAS BEEN DISCUSSED WITH J-4 LRD, AND IS NOW BEING RECOMMENDED AS A JCS RAPP ITEM.

STATUS: OPEN. RECOMMENDED AS A JCS RAPP ITEM.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

--- (U)

INDEX OF SIGNIFICANT CLOSED LESSONS LEARNED

* Significant Lessons Learned Briefed to PLFA Commanders

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11347-41322 (00010), submitted by LT COL ARNDT, DLA-LC, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: CRISIS ACTION TEAM, CAT, COMMAND CONTROL, CCC, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: MODIFIED CRISIS ACTION TEAM (CAT) AND CCC ACTIVATION.

5. (4) OBSERVATION: ODS WAS UNLIKE ANY PREVIOUS EXERCISES AND THE AMOUNT AND TYPE OF ACTIVITY IN SUPPORT OF ODS VARIED FROM ACTIVITY TO ACTIVITY. SOME ACTIVITIES FOUND IT NECESSARY TO BRING THEIR CCC ON LINE FULL TIME, OTHERS PART TIME OR NOT AT ALL. DLA-LC AUTHORIZED EACH PLFA COMMANDER TO DETERMINE THE REQUIRED LEVEL OF CCC ACTIVITY.

6. (U) DISCUSSION: DLA HEADQUARTERS CAT OPERATIONS WERE MODIFIED TO MEET THE REQUIREMENTS OF DESERT SHIELD. THESE MODIFICATIONS PROVIDED THE NECESSARY SUPPORT WHILE ALLOWING THE SPECIALISTS TO WORK ISSUES IN THEIR OWN AREA. THIS WAS PARTICULARLY IMPORTANT CONSIDERING THE LONG DURATION OF THE OPERATIONS IN COMPARISON TO NORMAL EXERCISES. HOWEVER WRITTEN PROCEDURES DID NOT EXIST FOR THE MODIFIED CAT. WHEN EACH PLFA COMMANDER ACTIVATED THEIR CCCS IN ACCORDANCE WITH THEIR NEEDS, THEY ALSO MADE DECISIONS IN CONCERT WITH GOOD RESOURCE MANAGEMENT. HOWEVER, SINCE NO PROCEDURES EXISTED FOR A MODIFIED OPERATION, EACH ACTIVITY DESIGNED THEIR OWN. THIS LED TO INCONSISTENCIES AND CONFUSION. INFORMATION FLOW DID NOT ALWAYS GO THROUGH THE CCCS, BUT WENT THROUGH FUNCTIONAL PERSONNEL, AND THE AMOUNT OF INFORMATION RECEIVED DID NOT ALWAYS MEET NEEDS. IN SOME CASES THERE WAS ALSO CONFUSION ABOUT RESPONSIBILITIES WITHIN PLFA CCC OPERATIONS.

7. (U) LESSON LEARNED: CRISIS ACTION TEAM AND COMMAND AND CONTROL CENTER OPERATING PROCEDURES MUST BE FLEXIBLE AND ALLOW FOR LESS THAN FULLY MANNED OPERATIONS OVER EXTENDED PERIODS OF TIME.

8. (U) RECOMMENDED ACTION: DLA-LC WILL PUBLISH THEIR MODIFIED CAT PROCEDURES WHICH CAN BE USED AS A GUIDELINE FOR PLFAS TO DEVELOP THEIR OWN PROCEDURES IN THEIR FABEPS. SPECIFIC MINIMUM REQUIREMENTS WILL BE OUTLINED TO CLARIFY INFORMATION FLOW AND CONTROL. BEFORE PUBLISHING THESE PROCEDURES, THIS WILL BE DISCUSSED AT THE PLANNERS CONFERENCE AND INPUTS WILL BE SOLICITED FROM PLFA AND PSE EMERGENCY PLANNERS.

9. (U) COMMENTS: OPR: DLA-LC

04/09/92

JULLS LONG REPORT

STATUS: PROCEDURES FOR A MODIFIED CAT OPERATION HAVE BEEN PUBLISHED IN DLA'S "LOGISTICS READINESS CENTER STANDARD OPERATING PROCEDURES (LRC-SOP)." THIS SOP, IN CONJUNCTION WITH THE NEXT BEP REVISION SHOULD ADEQUATELY CLARIFY MODIFIED CAT PROCEDURES AND INFORMATION FLOW. THIS ITEM IS CLOSED AS A SEPARATE ITEM. BEP UPDATE WILL BE FOLLOWED UNDER JULLS #11343-88497, BASIC EMERGENCY PLAN UPDATE.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 20138-24692 (00043), submitted by FRANK CONEEN, DLA-Z, 284-6375, (703)274-6375.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: E-MAIL, ELECTRONIC MAIL, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: E-MAIL COMMUNICATIONS.

5. (U) OBSERVATION: THE EIGHT HOUR TIME DIFFERENCE BETWEEN SAUDI ARABIA AND EASTERN CONUS (11 HOURS FOR WESTERN) MADE COMMUNICATIONS DIFFICULT BETWEEN PERSONNEL STATIONED IN THEATER AND DLA PERSONNEL IN CONUS. EVEN WITH TWENTY-FOUR HOUR STAFFING OF ESOCS, BUSY TELEPHONE LINES MADE COMMUNICATIONS DIFFICULT.

6. (U) DISCUSSION: E-MAIL CAPABILITY WAS ESTABLISHED BETWEEN OUR ACTION OFFICERS IN SAUDI ARABIA AND DLA PERSONNEL. SINCE WE ESTABLISHED THIS LINK OVER THE DEFENSE DATA NETWORK WHICH IS LINKED TO OTHER DOD, GOVERNMENT, AND NON-GOVERNMENT NETWORKS THIS GAVE PERSONNEL STATIONED IN SAUDI ARABIA WIDE ACCESS TO E-MAIL USERS IN CONUS. THIS PROVED BENEFICIAL IN THAT PERSONNEL COULD SEND MESSAGES TO SAUDI IN THE AFTERNOON AND EVENING EST WHEN PERSONNEL IN SAUDI ARABIA WERE NOT ON DUTY AND THEN GET ANSWERS BACK FIRST THING THE NEXT MORNING. THIS WORKED IN REVERSE. WITH FORWARDING CAPABILITY, IF SAUDI OR US PERSONNEL COULD NOT DIRECTLY ANSWER A QUESTION/PROBLEM, THE ORGINATOR'S REQUEST COULD BE AUTOMATICALLY FORWARDED THROUGH E-MAIL TO ANOTHER FOR RESOLUTION.

7. (U) LESSON LEARNED: DLA PERSONNEL NEED TRAINING IN THE USE OF E-MAIL TO ENSURE MAXIMUM USE DURING CONTINGENCIES.

8. (U) RECOMMENDED ACTION: WE DISCOVERED, THAT WHILE MANY USERS HAD BEEN GIVEN E-MAIL CAPABILITY, NONE HAD TAKEN THE TIME TO LEARN HOW TO USE IT. RECOMMEND THAT PLFAS BEGIN A VIGOROUS E-MAIL TRAINING INITIATIVE SUCH THAT FUNCTIONAL PERSONNEL CAN LEARN TO APPRECIATE AND UTILIZE E-MAIL CAPABILITY. AT THE PRESENT TIME IT APPEARS THAT ONLY "TECHIES" UTILIZE E-MAIL. GIVEN THE UNLIMITED MAIL BOX CAPABILITY THROUGH THE DDN, E-MAIL HAS THE POTENTIAL TO FACILITATE ALL TYPES OF COMMUNICATION.

9. (U) COMMENTS: NOTED ITEM. THE DLA END USER COMPUTING BRANCH IS IN THE PROCESS OF SELECTING A STANDARD AGENCY-WIDE ELECTRONIC MAIL SYSTEM. ONCE IN PLACE, THE EUC BRANCH WILL ESTABLISH POLICIES AND PROCEDURES FOR TRAINING AND UTILIZATION. (DLA-Z) DLA-LC WILL INCLUDE E-MAIL PROCEDURES FOR CCCS IN THE BEP. THIS WILL BE A SEPARATE ITEM TRACKED UNDER THE BEP UPDATE. JULLS # 11343-88497(00006). IN ADDITION, E-MAIL TRAINING FOR DLA PERSONNEL SUBJECT TO DEPLOYMENT WILL BE ADDRESSED UNDER JULLS # 11344-64602(00007), DLA FORWARD/MOBILITY TEAM.

STATUS: CLOSED

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 22640-40484 (00004), submitted by DCMDN-MR, MS DEMARAIS, 995-4232, ( ) -.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: LOGISTICS, SUPPLY, CRITICAL ITEMS LIST, CIL, CINC CIL.

4. (U) TITLE: CRITICAL ITEMS LIST.

5. (U) OBSERVATION: THERE IS A LACK OF VISIBILITY (I.E., CRITICAL ITEMS LIST) TO ENSURE THE MOST EXPEDIENT SUPPORT AND PRIORITIZATION OF CRITICAL ITEMS/SPARE PARTS.

6. (U) DISCUSSION: A JOINT SERVICE CRITICAL ITEMS LIST SHOULD BE DISTRIBUTED TO ALL INVOLVED ACTIVITIES (BUYING ACTIVITIES, DCMDs, ETC.) TO ALLOW FOCUS ON PRIORITY/CRITICAL ITEMS SPARE PARTS PLANNING.

7. (U) LESSON LEARNED: A JOINT CRITICAL ITEMS LIST WOULD HELP TO DETERMINE PRIORITIES FOR CRITICAL SPARE PARTS PLANNING.

8. (U) RECOMMENDED ACTION: DLA COORDINATE AND DISTRIBUTE A JOINT SERVICES CRITICAL ITEMS LIST.

9. (U) COMMENTS: DOCUMENTS EXIST (SUCH AS THE CINC CILs) WHICH OUTLINE PRIORITIES FOR PLANNING. HOWEVER, THESE LISTS ARE CLASSIFIED AND GENERALLY NOT DISTRIBUTED TO FIELD ACTIVITIES. FIELD ACTIVITIES AND CONTRACTORS SHOULD RESPOND TO THE PRIORITIES ASSIGNED TO REQUIREMENTS UNDER UMMIPS.

DLA SUBMITTED A JULLS ITEM TO THE JCS REMEDIAL ACTION PROJECT PROGRAM (RAPP) REQUESTING THE ADDITION OF DLA ITEMS TO THE CINC CILs. SINCE CINCs AND SERVICES DETERMINE THEIR CRITICAL ITEMS, JCS DID NOT WANT TO TAKE THIS ITEM FOR ACTION. SERVICE REPRESENTATIVES WERE AT THE RAPP MEETING AND ARE AWARE OF THE CONCERNS OF DLA AND OTHER SUPPORT AGENCIES. DLA HAS HAD SOME LIMITED SUCCESS IN GETTING CERTAIN ITEMS ADDED TO THE CILs.

DLA HAS ALSO CREATED A MISSION ESSENTIAL LIST OF DLA ITEMS. THESE ITEMS, HOWEVER, TEND TO BE MEDICAL AND C&T ITEMS RATHER THAN SPARE PARTS. ONE INTENT OF THIS LIST IS THAT IT BE USED AS A FEEDER REPORT TO THE CINCs, AND IT COULD BE VIEWED AS DLA'S VERSION OF A CIL.

THERE IS ALSO A MASTER URGENCY LIST (MUL) WHICH PRIORITIZES ITEMS FOR PRODUCTION. THE DPAS PROGRAM BASES ITS DX AND DO RATINGS ON THE MUL.

THE BOTTOM LINE IS THERE ARE SEVERAL METHODS BEING WORKED TO INCREASE OUR EFFECTIVENSS AT PLANNING. HOWEVER, AS WAS EVIDENCED IN DESERT STORM, DURING A CONTINGENCY, THE REAL PROBLEM IS THE ABILITY TO SUPPORT CHANGING PRIORITIES, AND THESE PRIORITIES WILL BE REFLECTED THROUGH MILSTRIP REQUISITIONS.

STATUS: CLOSED

03/05/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11636-75246 (00029), submitted by LT COL ARNDT, DLA-LC, 284-6450, (703)274-6450.

2. (U) Operation DESERT SHIELD/STORM conducted by on 02/28/91.

3. (U) KEYWORDS: LATERAL SUPPORT, VISIBILITY, TRACKING SYSTEM, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: TOTAL ASSET VISIBILITY (TAV).

5. (U) OBSERVATION: DURING OPERATION DESERT SHIELD/STORM, THERE WAS ONLY LIMITED VISIBILITY OF ASSETS IN THE DOD SUPPLY AND TRANSPORTATION SYSTEM. THIS CREATED PROBLEMS IN TWO SEPARATE AREAS. FIRST, DLA RECEIVED URGENT REQUIREMENTS FOR SOME ITEMS WHICH WERE NOT ON HAND IN DLA INVENTORIES. WHEN THE ITEMS WERE NOT AVAILABLE, DLA EXHAUSTED EVERY AVENUE TO FILL THESE REQUIREMENTS, INCLUDING PRIORITY BUYS. IN SOME CASES, HOWEVER, ASSETS WERE AVAILABLE ELSEWHERE IN DOD. WITHOUT TOTAL ASSET VISIBILITY, TIME, MONEY AND EFFORT WERE NOT ALWAYS ALLOCATED TO THE MOST CRITICAL ITEMS. AS THE CONTINGENCY PROGRESSED, DLA RECEIVED ACCESS TO SOME SERVICE SYSTEMS WHICH PROVIDED SOME VISIBILITY OF RETAIL ASSETS, BUT TOTAL ASSET VISIBILITY WAS NEVER ACHIEVED. THE SECOND PROBLEM ARISES WITH TRACKING ITEMS IN THE TRANSPORTATION SYSTEM AND ONCE IT IS ON THE GROUND IN THEATER. IN MANY CASES URGENT REQUIREMENTS HAD BEEN SHIPPED, BUT THE ITEM COULD NOT BE LOCATED IN THE TRANSPORTATION SYSTEM. SEAVANS AND PALLETS ARRIVED IN THEATER AT A RATE FASTER THAN THE CAPACITY TO UNLOAD AND UNPACK THEM.

6. (U) LESSON LEARNED: DOD NEEDS A SYSTEM WHICH WILL ALLOW VISIBILITY OF ASSETS THROUGHOUT THE WHOLESALE, RETAIL, AND TRANSPORTATION SYSTEM.

7. (U) RECOMMENDED ACTION: OASD(P&L) IS LEADING A PROJECT TO DEVELOP TOTAL ASSET VISIBILITY. DLA-O HAS REPRESENTATIVES ON THE OSD WORKING GROUPS. THIS ITEM WILL BE TRACKED THROUGH ESTABLISHED AVENUES WITH DLA-O PROVIDING PERIODIC UPDATES ON THE OSD EFFORT.

9. (U) COMMENTS: BASED ON RECOMMENDED ACTIONS, THE TAV LESSON LEARNED IS CLOSED AS A SEPARATE ISSUE WITHIN DLA.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 21848-24402 (00001), submitted by DLA-O, MR. DEANGELO, 284-6754, (703)274-6754.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: CONTAINER VISIBILITY, TRANSPORTATION VISIBILITY, INTRANSIT VISIBILITY, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: CONTAINER/PALLET VISIBILITY.

5. (U) OBSERVATION: THERE WAS A NEED FOR GREATER VISIBILITY OVER VAN/PALLET LOCATION AND CONTENTS.

6. (U) DISCUSSION: DESERT SHIELD/STORM CLEARLY DEMONSTRATED WE NEED GREATER VISIBILITY OVER VAN AND PALLET LOCATION AND CONTENTS. SOON AFTER THE DEPLOYMENT BEGAN, LARGE NUMBERS OF UNLOADED SEAVANS AND PALLETS BEGAN TO BUILD UP IN-COUNTRY. THE CONTENTS OF THE VANS AND PALLETS WERE VIRTUALLY "INVISIBLE" TO THE IN-COUNTRY LOGISTICIANS UNTIL THEY COULD BE ENTERED ON THE LOCAL UNIT SUPPLY RECORDS. EVEN THOUGH THE MATERIALS IN THESE CONTAINERS WERE WITHIN PHYSICAL REACH OF THE UNITS THAT MIGHT NEED THEM, DUE TO THE LACK OF VISIBILITY THEY WERE NOT AVAILABLE. AS A CONSEQUENCE, THESE MATERIALS WERE OFTEN REORDERED, CONTRIBUTING TO PORT CONGESTION AND INEFFECTIVE USE OF RESOURCES. DLA RECEIVED DAILY REQUESTS THROUGHOUT ODS FOR STATUS OF SHIPMENTS THAT WERE ALREADY IN THE PIPELINE AND OFTEN PROJECTED TO ALREADY BE IN COUNTRY. HOWEVER, ONCE OFFLOADED IN COUNTY, DLA LOST VISIBILITY OVER THE ASSETS.

7. (U) LESSON LEARNED: DOD NEEDS VISIBILITY OF ASSETS WHILE THEY ARE IN THE TRANSPORTATION SYSTEM.

8. (U) RECOMMENDED ACTION: TO CORRECT THIS PROBLEM, A SYSTEM MUST BE DEVELOPED TO ELECTRONICALLY TRANSFER BOTH SUPPLY ITEM AND TRANSPORTATION DATA TO IN-COUNTRY SUPPLY POINTS. THIS DATA MUST INCLUDE THE QUANTITIES IN THE VANS AND PALLETS DOWN TO THE NATIONAL STOCK NUMBER (NSN) LEVEL AS WELL AS THEIR LOCATION WITHIN THE PORT. THE TECHNOLOGY TO DO THIS ALREADY EXISTS, BUT REQUIRES UPGRADE AND LINKING OF EXISTING SERVICE AND DLA SYSTEMS. IF SUCCESSFUL, THE OSD EFFORT TO DEVELOP THE TOTAL ASSET VISIBILITY SYSTEM WILL GIVE US THE REQUIRED CAPABILITY. DLA HAS PROPOSED THAT INTRANSIT VISIBILITY BE SELECTED AS THE FIRST PHASE FOR DEVELOPMENT.

9. (U) COMMENTS: TRANSCOM IS WORKING MANY OF THESE ISSUES IN THEIR GLOBAL TRANSPORTATION NETWORK (GTN), AND OSD IS WORKING THE ENTIRE "TOTAL ASSET VISIBILITY" SPECTRUM.
STATUS: CLOSED

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12938-04903 (00041), submitted by LTC FAGAN, DPSC-H, 444-2922, (215)737-2922.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: SUBSISTENCE, WORKING GROUP, CLASS I, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: CLASS I (SUBSISTENCE) PROCESS ACTION TEAM.

5. (U) OBSERVATION: DURING THE FIRST 30-45 DAYS OF OPERTION DESERT SHIELD, DPSC WAS UNABLE TO OBTAIN ACCURATE THEATER REQUIREMENTS, FORECASTS, OR PRIORITIES OF ISSUE.

6. (U) DISCUSSION: DPSC RESPONDED TO EACH SERVICE, DLA AND THE CINC DURING THE DEPLOYMENT PHASE OF OPERATION DESERT SHIELD. UNFORTUNATELY, THERE WERE NUMEROUS EXAMPLES OF DUPLICATED EFFORT AND, IN CERTAIN CASES, VOIDS IN ACTION DUE TO THE PERCEPTION THAT SOMEONE ELSE WAS HANDLING THE ACTION. NUMEROUS PHONE CALLS AND COORDINATION OCCURRED BETWEEN DPSC AND THE "CUSTOMERS," BUT THERE WAS NO SENSE OF OVERALL DIRECTION OR COORDINATION. OFTENTIMES UP TO SIX PERSONNEL FROM A COMMAND WOULD REQUEST THE SAME INFORMATION. MUCH TIME WAS WASTED PROVIDING THE SAME INFORMATION TO SO MANY SOURCES. ALTHOUGH THE ARMY BECAME THE THEATER CLASS I MANAGER AT D+60, THEY HAD LITTLE KNOWLEDGE OF THE ACTIONS, STOCKAGE LEVELS, DESIRED ITEMS AND OTHER CRITICAL ELEMENTS OF THE OTHER SERVICES AND COMMANDS. BECAUSE OF THIS, THE AIR FORCE WAS PERMITTED TO RESUME MANAGEMENT OF THEIR CLASS I. THIS DECENTRALIZED MANAGEMENT AND LACK OF COORDINATION BETWEEN ARMY AND AIR FORCE PROVED INEFFICIENT WHEN BOTH SERVICES COMPETED FOR LIMITED DLA-OWNED B-RATION STOCKS.

7. (U) LESSON LEARNED: THE WHOLESALE SUBSISTENCE SUPPLY SYSTEM CAN REACT TO AND SUPPORT NUMEROUS CUSTOMERS WITHIN A THEATER OF OPERATIONS (TOPNS), HOWEVER, IT IS INFINITELY MORE EFFICIENT AND ECONOMICAL TO COORDINATE WITH AND SUPPORT ONE CENTRALIZED CUSTOMER (SUCH AS THE THEATER CLASS I MANAGER). AN ALTERNATIVE TO THIS WOULD BE THE ESTABLISHMENT OF A CLASS I PROCESS ACTION TEAM UNDER THE PRINCIPLES OF TOTAL QUALITY MANAGEMENT. KNOWLEDGEABLE REPRESENTATIVES FROM EACH SERVICE, THE TOPNS, AND DPSC SHOULD MEET AT LEAST WEEKLY TO RESOLVE CLASS I SUPPORT ISSUES. AD HOC MEETINGS OF THIS NATURE DID OCCUR DURING ODS.

8. (U) RECOMMENDED ACTION: ESTABLISH A CLASS I PROCESS ACTION TEAM COMPOSED OF REPRESENTATIVES FROM EACH SERVICE, THE TOPNS, AND DPSC AS SOON AS A CRISIS IS ANNOUNCED, WITH MEETINGS AS NECESSARY, IN ADDITION, THE THEATER CLASS I MANAGER SHOULD BE RESOURCED, STAFFED, AND TRAINED, PRIOR TO D+60, TO EFFECTIVELY ASSUME THIS IMPORTANT ROLE.

9. (U) COMMENTS: A SUBSISTENCE WORKING GROUP CHAIRED BY THE

ARMY DURING DESERT SHIELD/STORM REAPED SEVERAL BENEFITS. AS A MEMBER OF THE GROUP, DLA WAS AWARE OF PLANNING EFFORTS AND WAS ABLE TO GET REQUIREMENTS IN ADVANCE. CHANGES TO THE FEEDING PLAN WERE KNOWN IMMEDIATELY. ANOTHER ADVANTAGE WAS DIRECT AND IMMEDIATE FEEDBACK FROM THE SERVICES ON THEIR IMPRESSION OF DLA SUPPORT. DLA WILL ENCOURAGE ESTABLISHMENT OF SIMILAR JOINT COMMITTEES DURING FUTURE CONTINGENCIES. IN ADDITION, FUNCTIONAL COMMITTEES WITHIN THE AGENCY WILL BE ESTABLISHED WHEN DEEMED BENEFICIAL.

STATUS: CLOSED

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 20141-43980 (00044), submitted by JOHN GAGLIARDI, DPSC-P, 444-2606, (215)737-2606.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: COMBAT RATIONS, PRODUCTION EQUIPMENT, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: ACQUISITION OF PRODUCTION EQUIPMENT.

5. (U) OBSERVATION: DPSC REQUIREMENTS FOR COMBAT RATIONS COULD NOT BE MET DUE TO LACK OF SPECIALIZED PRODUCTION EQUIPMENT.

6. (U) DISCUSSION: CONTRACTORS WERE RELUCTANT TO INVEST IN SPECIALIZED EQUIPMENT SINCE PRIOR TO ODS IT APPEARED THAT THERE WOULD NOT BE ADEQUATE FUNDING TO SUPPORT ALL EXISTING PRODUCERS. IN SUCH AN ENVIRONMENT CONTRACTORS DO NOT WISH TO TAKE THE RISK OF FURTHER INVESTMENT IN PLANT AND EQUIPMENT THAT IS APPLICABLE ONLY TO GOVERNMENT BUSINESS.

7. (U) LESSON LEARNED: CONTRACTOR INVESTMENT IN SPECIALIZED EQUIPMENT NEEDED TO SURGE RATION PRODUCTION WAS NOT ADEQUATE.

8. (U) RECOMMENDED ACTION:

A. DLA ASSESS INDUSTRY NEED FOR ADDITIONAL PLANTS AND EQUIPMENT DURING THE INDUSTRIAL PLANNING PROCESS.

B. DOD SHOULD PROVIDE FUNDING TO SUPPORT DPSC ACQUISITION AND MAINTENANCE OF ADEQUATE EQUIPMENT TO SUPPORT MOBILIZATION NEEDS FOR COMBAT RATIONS.

C. DPSC SHOULD ACQUIRE ADDITIONAL EQUIPMENT AND FURNISH TO CONTRACTORS AS GOVERNMENT FURNISHED EQUIPMENT (GFE).

D. DPSC SHOULD MAKE PROVISIONS FOR STORAGE AND MAINTENANCE OF THIS EQUIPMENT.

9. (U) COMMENTS: BASED ON INFORMAL COORDINATION WITH THE ARMY, FUTURE REQUIREMENTS PROJECTIONS INDICATE THAT ADDITIONAL CAPACITY FOR MRES IS NOT NEEDED. THEREFORE ONLY $7.1M TRAY PACK EQUIPMENT IS PLANNED FOR PURCHASE. THIS EQUIPMENT IS PROGRAMMED IN FY 91 AND THE BALANCE HAS BEEN REQUESTED FOR FY 93.

STATUS: CLOSED (DLA-P)

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 20135-77572 (00042), submitted by T.C. KNUDSEN, DCMDM-GRDU, 444-5012, (215)320-5012.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: CONTRACTED DOCUMENTS, PROJECT CODES, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: IDENTIFICATION OF CONTRACTUAL DOCUMENTS.

5. (U) OBSERVATION: VARIOUS METHODS WERE USED TO IDENTIFY ODS CONTRACTUAL DOCUMENTS, I.E., PROJECT CODES, INK STAMPS, AND PEN AND INK ANNOTATIONS. CONTRACTS PHYSICALLY MARKED "ODS" PRESENTED NO PROBLEMS. THE USE OF PROJECT CODES, HOWEVER, DID PRESENT SOME PROBLEMS.

6. (U) DISCUSSION: ALL CONTRACTS DESTINED FOR ODS RECEIVED SPECIAL HANDLING AT DCMAO READING. THIS INCLUDED MAKING THEM A CATEGORY I CONTRACT FOR PRODUCTION SURVEILLANCE. THE LACK OF "ODS" ANNOTATION IN THE CLEAR RESULTED IN AN INABILITY TO PROMPTLY IDENTIFY THESE CONTRACTS. THE USE OF PROJECT CODES WOULDN'T HAVE PRESENTED A PROBLEM HAD THE CAOS BEEN PROVIDED A COPY OF THE CODES IN A PROMPT MANNER. A SEPARATE BUT RELATED ISSUE WAS ALSO EVIDENT ON THOSE EXISTING CONTRACTS WHICH WERE CONVERTED TO SUPPORT ODS. MOST TIMES, THE PROCURING COMMAND MERELY INFORMED THE CONTRACTOR BUT DID NOT COORDINATE THIS EFFORT WITH THE CONTRACT ADMINISTRATION OFFICE.

7. (U) LESSON LEARNED: IT WAS DIFFICULT TO IDENTIFY CONTRACTS IN SUPPORT OF DESERT SHIELD UNLESS THEY WERE CLEARLY STAMPED OR ANNOTATED.

8. (U) RECOMMENDED ACTION: THE USE OF ODS IN THE CLEAR WAS THE EASIEST AND SUREST WAY TO IDENTIFY CONTRACTS IN SUPPORT OF OUR OPERATION. THE WIDE PUBLICITY GIVEN THIS TERMINOLOGY IN THE MEDIA FACILITATED READY IDENTIFICATION BY BOTH CONTRACTOR AND GOVERNMENT PERSONNEL ALIKE. PROJECT CODES, IF UTILIZED, MUST BE PROMULGATED THROUGHOUT THE WHOLE LOGISTICS FIELD, NOT JUST THE PROCURING COMMANDS. THESE ACTIONS WILL ENSURE PROPER EMPHASIS AND SURVEILLANCE IS GIVEN TO CRITICAL CONTRACTS. IT WILL ALSO ENSURE ITEMS REQUIRED TO SUPPORT THE TROOPS WILL BE PROVIDED IN A TIMELY MANNER, OR, IN THE EVENT OF A DELAY, WILL ENSURE THAT THE COGNIZANT PROCURING ACTIVITY IS NOTIFIED OF POTENTIAL OR ACTUAL DELAYS.

9. (U) COMMENTS: SEVERAL LESSONS LEARNED ABOUT IDENTIFYING CONTRACTS WITH A CONTINGENCY OR PROJECT CODE WERE SUBMITTED. HOWEVER, THIS ACTION MIGHT RESULT IN THE WRONG ITEMS BEING EXPEDITED. JCS PROJECT CODES AFFECT THE PRIORITY ONLY WITHIN A PRIORITY. FOR EXAMPLE, A REQUISITION PRIORITY 05 WITH A JCS PROJECT CODE OF 9BU WOULD STILL NOT BE HIGHER PRIORITY THAN A

REQUISITION PRIORITY 02 WITHOUT A PROJECT CODE. HOWEVER, IF THE INDIVIDUAL WORKING THE ITEM FOCUSES ON THE PROJECT CODE, IT MIGHT INCORRECTLY BE EXPEDITED OVER OTHER HIGHER PRIORITIES. IN FACT, THIS WAS SOMETIMES A PROBLEM DURING DESERT STORM. IN PARTICULAR, IN AN EFFORT TO SHOW FULL SUPPORT FOR THE WAR, SOME CONTRACTORS ATTEMPTED TO EXPEDITE DESERT STORM REQUIREMENTS, AND CONSEQUENTLY DELAYED DELIVERY ON OTHER ITEMS -- EVEN WHEN THE DESERT STORM REQUIREMENT WASN'T CRITICAL.

ANOTHER CONSIDERATION IS THE FACT THAT BY THE TIME A CONTRACT HAS BEEN LET, THE PRIORITY AND THE PROJECT CODE HAVE ALREADY BEEN INCORPORATED INTO THE DELIVERY SCHEDULE. EMPHASIS AND SURVEILLANCE SHOULD BE APPLIED BASED ON PRIORITY AND DELIVERY SCHEDULES.

THE ISSUE OF TRACKING ITEMS FOR SURVEILLANCE CATEGORY 1 IS BEING WORKED UNDER DLA JULLS #11338-25005 (00003).

STATUS: CLOSED (DLA-P, DLA-A)

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12642-48399 (00036), submitted by MAJ CRAIG, DLA-PR, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: INDUSTRIAL BASE, PRODUCTION BASE, CRITICAL ITEMS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: INDUSTRIAL BASE MAINTENANCE FOR CRITICAL STOCK FUND ITEMS.

5. (U) OBSERVATION: MANY TROOP SUPPORT ITEMS THAT ARE CRITICAL TO SUSTAINING A WAR FIGHT REQUIRE PRODUCTION CAPABILITY UNIQUE TO MILITARY REQUIREMENTS AND HAVE NO COMMERCIAL UTILITY. MAINTENANCE OF THE BASE IS DEPENDENT UPON RELATIVELY SMALL PEACETIME PROCUREMENTS.

6. (U) DISCUSSION: DLA MANAGES ITEMS SUCH AS COMPONENTS FOR THE CHEMICAL PROTECTIVE ENSEMBLE (SUITS, GLOVES, FOOTWEAR COVERS AND HELMET COVERS), AUTOINJECTORS, OPERATIONAL RATIONS, BARBED TAPE CONCERTINA WIRE, AND VARIOUS VACCINES. THESE ITEMS ALL HAVE A LOW PEACETIME DEMAND AND VERY HIGH MOBILIZATION RATES. LIMITED STOCK FUNDS, AND FUTURE FORCE REDUCTIONS, WILL RESULT IN A DECLINING INDUSTRIAL BASE. DURING DESERT SHIELD/DESERT STORM THE CURRENT INDUSTRIAL BASE WAS STRAINED TO MEET REQUIREMENTS -- EVEN THOUGH THESE REQUIREMENTS WERE FOR A REGIONAL CONFLICT RATHER THAN FULL MOBILIZATION.

7. (U) LESSON LEARNED: EFFECTIVE TROOP DEPLOYMENT AND SUSTAINMENT REQUIRES DELIBERATE MAINTENANCE OF AN ADEQUATE INDUSTRIAL BASE CAPABLE OF MEETING MILITARY MATERIEL REQUIREMENTS.

8. (U) RECOMMENDED ACTION: THE SERVICES SHOULD ASSIST IN MAINTAINING A VIABLE, PEACETIME PRODUCTION BASE FOR SELECTED CRITICAL ITEMS BY PROVIDING SUFFICIENT REQUIREMENTS AND ADEQUATE FUNDING NECESSARY TO MEET AND SUSTAIN SERVICE DEMANDS.

9. (U) COMMENTS: NOTED ITEM. SINCE THE ORIGINAL SUBMISSION OF THIS LESSON LEARNED, DLA HAS TAKEN SUBSTANTIAL ACTION TOWARD INDUSTRIAL BASE SUPPORT. STUDIES HAVE BEEN UNDERTAKEN TO PROJECT PEACETIME DEMAND, ANTICIPATED WARTIME DEMAND IN VIEW OF FORCE RESTRUCTURING, AND INDUSTRY'S MINIMUM SUSTAINING RATES OF PRODUCTION. THESE STUDIES PROVIDED INFORMATION NEEDED TO STRETCH OUT EXISTING CONTRACTS TO KEEP THE CONTRACTORS IN BUSINESS FOR AS LONG AS POSSIBLE UNTIL LONG TERM SOLUTIONS COULD BE FORMULATED AND IMPLEMENTED. THE MINIMUM FUNDING LEVEL NEEDED TO SUPPORT THE BASE'S CURRENT MAXIMUM CAPACITY WAS DETERMINED AND INCLUDED IN A SEPARATE BUDGET LINE ITEM IN THE FY93 PRESIDENT'S BUDGET. ALTERNATE ACQUISITION STRATEGIES WERE DEVELOPED TO SUPPORT THE INDUSTRIAL BASE AND ARE BEING REVIEWED.

ONCE FUNDS ARE AVAILABLE, AN APPROPRIATE ACQUISITION STRATEGY CAN BE IMPLEMENTED IN FY93 FOR INDUSTRIAL BASE SUPPORT. DLA-P CONTINUES TO WORK THESE INITIATIVES SEPARATE FROM LESSONS LEARNED.

STATUS: CLOSED.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/08/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11535-83492 (00017), submitted by MAJ CRAIG, DLA-P, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DPAS, CONTRACTS, CONTRACTING, PROCUREMENT, DX RATING, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: DEFENSE PRIORITIES AND ALLOCATION SYSTEM (DPAS).

5. (U) OBSERVATION: MANY CASES EXISTED WHERE CONTRACTING OFFICERS AND CONTRACT ADMINISTRATORS AT THE DEFENSE SUPPLY CENTERS AND DEFENSE CONTRACT MANAGEMENT COMMAND DISTRICTS DID NOT PROPERLY ADMINISTER THE DPAS SYSTEM BECAUSE OF MISUNDERSTANDING OF THE SYSTEM AND LACK OF TRAINING AND/OR EXPERIENCE WITH DPAS.

6. (U) DISCUSSION: CONTRACTORS AND GOVERNMENT PEOPLE BOTH ASSUMED THAT PRECEDENCE FOR CONTRACT DELIVERABLES WOULD BE AUTOMATIC IF THE ITEM PURCHASED WAS IDENTIFIED IN SOME WAY TO BE IN SUPPORT OF ODS. UNDER THE DPAS REGULATIONS EXISTING THROUGHOUT ODS, A RATED ORDER WILL TAKE PRECEDENCE OVER ANY NON-RATED ORDER. IF THERE WAS A CONFLICT IN DELIVERIES BETWEEN COMPETING RATED ORDERS WHICH COULD NOT BE SOLVED AT A LOWER LEVEL; THEN, THE ACTION WOULD HAVE TO BE REFERRED THROUGH THE DLA DPAS OFFICER TO DOD FOR A DECISION IN ACCORDANCE WITH ESTABLISHED PROCEDURES. THESE PROCEDURES HAVE ALWAYS BEEN IN EXISTENCE UNDER THE DPAS REGULATION. THE CHANGE FOR ODS WAS A POLICY CHANGE ALLOWING ODS CONTRACT DELIVERIES TO TAKE PRECEDENCE OVER OTHER DO RATED ORDERS WHEN NECESSARY. HOWEVER, THIS PRECEDENCE WAS NOT AUTOMATIC AND WAS INTENDED TO BE APPLIED IF A CONFLICT EXISTED AND HAD TO BE REFERRED FOR RESOLUTION. EXAMPLES OF THE TYPE OF PROBLEM DESCRIBED ABOVE WERE:

A. THE RECOMMENDATION THAT ITEMS BE DX VERSUS DO RATED INSTEAD OF APPLYING A SPECIAL PRIORITIES ASSISTANCE REQUEST (ITA999). DX RATINGS ARE SPECIFIED BY PRESIDENTIAL ORDER AND LIMITED TO A SMALL NUMBER OF SYSTEMS (AND ASSOCIATED SUPPORT EQUIPMENT) TO MAINTAIN THE IMPORTANCE OF THE DX RATING.

B. PRIORITIZATION OF CONTRACTS BY CONTRACTORS THROUGH THEIR OWN VOLITION OR OTHER DIRECTION WITHOUT A DOD DECISION BECAUSE THE CONTRACT WAS BELIEVED TO BE IN SUPPORT OF OPERATION DESERT SHIELD/STORM (ODS) REGARDLESS OF THE TRUE PRIORITY FOR THE ACQUISITION. EVEN WITHOUT A DOD DECISION, IT WAS COMMONLY BELIEVED A CONTRACTOR WOULD BE EXCUSED FROM LATE DELIVERY IF THE DELAY WAS CAUSED BY HIS ACCELERATING ANOTHER CONTRACT OR SUBCONTRACT FOR ODS. THE SAME PROBLEM OCCURRED AT LOWER TIERS WHEN PRIME CONTRACTORS WOULD USE ODS AS A MEANS TO ACCELERATE

SUBCONTRACT DELIVERIES WITHOUT A FORMAL DECISION BY THE GOVERNMENT TO ACCELERATE THE PRIME CONTRACT.

C. CONFUSION ON THE POLICY TO APPLY IN VIEW OF THE TIME GAP BETWEEN THE EXPIRATION OF THE DEFENSE PRODUCTION ACT (DPA), ISSUANCE OF FORMAL POLICY BY OSD, AND COVERAGE UNDER THE SELECTIVE SERVICE ACT. DLA ISSUED POLICY AS SOON AS IT WAS RECEIVED FROM OSD AND CAREFULLY WATCHED CONGRESSIONAL ACTION ON THE DPA TO BE IN THE POSITION TO ISSUE POLICY AS QUICKLY AS POSSIBLE.

7. (U) LESSON LEARNED: FIELD ACTIVITIES NEED TRAINING ON HOW TO APPLY THE DPAS REGULATION TO ENSURE THE PROPER PRIORITY IS PLACED ON CONTRACT DELIVERIES DURING PEACETIME TO HELP ENSURE ITS PROPER USE FOR FUTURE EMERGENCY SITUATIONS.

8. (U) RECOMMENDED ACTION: DLA ACTIVITIES PROVIDE ADDITIONAL TRAINING TO THE PEOPLE INVOLVED IN ADMINISTERING CONTRACTS RATED UNDER DPAS. DLA REVIEW THE DPAS TRAINING IN FORMAL TRAINING COURSES AND PROVIDE RECOMMENDED IMPROVEMENTS FOR OSD CONSIDERATION.

9. (U) COMMENTS: OPR: DLA-P

CLOSURE CRITERIA: DLA HQ DPAS AWARENESS BRIEFINGS OR TRAINING PACKAGES PROVIDED TO PLFA'S.

STATUS: CLOSED. ALL DEFENSE SUPPLY CENTERS AND DCMC DISTRICT HQS HAVE RECEIVED BRIEFINGS. AN ARMY PREPARED VIDEO TAPE ON DPAS IS AVAILABLE AND WILL BE DISTRIBUTED AS NEEDED.

THIS LESSON LEARNED COMBINES THE FOLLOWING LESSONS LEARNED.

A. ODS-01-01-01 FOAM, LIQUID, FIRE EXTINGUISHING
B. ODS-03-02-03 CONTRACTING PRIORITIZATION OF ORDERS
C. ODS-03-04-03 DOD HAS INADEQUATE SYSTEM OF PRIORITIZATION FOR CONTRACTORS
D. ODS-03-06-03 DEFENSE PRIORITIES AND ALLOCATION SYSTEM (DPAS)
E. ODS-03-19-01 DISBANDMENT OF JOINT AERONAUTICAL MATERIALS ACTIVITY (JMAC)
F. ODS-03-19-02 DEFENSE PRIORITIES AND ALLOCATION SYSTEM (DPAS) IMPLEMENTATION
G. ODS-03-19-06 CLARIFICATION OF DELIVERY SCHEDULE ACCELARATION RESPONSIBILITIES (KTR)
H. ODS 02-20-01 PROCUREMENT OF VENDOR MATERIALS
I. ODS-03-20-03 CONTRACTING/CONTRACT MANAGEMENT
J. ODS-03-21-01 STATEMENT OF POLICY

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12638-52095 (00032), submitted by MR. DICK MEYER, DLA-A, 284-7731, (703)274-7731.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: COMMUNICATION, COORDINATION, BUYING OFFICE, CONTRACT ADMINISTRATION, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: COMMUNICATION/COORDINATION BETWEEN BUYING OFFICE, CONTRACT ADMINISTRATION.

5. (U) OBSERVATION: THERE WERE VARIOUS INSTANCES OF INEFFECTIVE COMMUNICATION AND COORDINATION BETWEEN THE BUYING ACTIVITY AND THE CONTRACT ADMINISTRATION OFFICE (CAO). THEY RANGE IN SCOPE FROM RELATIVELY SIMPLE ISSUES OF CONTRACT LINE ITEM NUMBERING AND LOCATION OF INSPECTION/ACCEPTANCE POINTS TO MORE SERIOUS PROBLEMS SUCH AS ADDING PROGRESS PAYMENTS AND BYPASSING THE CAO IN EXPEDITING DELIVERIES, DIRECTING ACCELERATION OF CONTRACTS OR CHANGING SHIPPING INSTRUCTIONS. EARLY IN THE OPERATION, CAO PERSONNEL AND CONTRACTORS FREQUENTLY RECEIVED DUPLICATE INQUIRIES FOR EXPEDITES/ACCELERATION FROM MORE THAN ONE OFFICE IN THE BUYING ACTIVITY.

6. (U) DISCUSSION: THE BUYING ACTIVITY EXPEDITE, ACCELERATION, SHIPPING CHANGE OR PRODUCTION STATUS REQUESTS DURING NORMAL AND SPECIAL CIRCUMSTANCES SHOULD BE PROCESSED THROUGH THE COGNIZANT CAO, NOT DIRECTLY TO THE CONTRACTOR. COORDINATION OF SUCH REQUESTS WITH THE CAO ENSURES ADEQUATE SURVEILLANCE AND EARLY NOTIFICATION TO THE BUYING ACTIVITY OF POTENTIAL OR ACTUAL DELAYS, VERIFICATIONS OF PRIORITIES, AND NEGOTIATION OF APPROPRIATE CONTRACTURAL CHANGES.

7. (U) LESSON LEARNED: CLOSER COORDINATION BETWEEN BUYING ACTIVITIES AND CONTRACT ADMINISTRATION OFFICES WILL ELIMINATE MANY PROBLEMS.

8. (U) RECOMMENDED ACTION: THE BASIC EMERGENCY PLAN SHOULD BE REVISED TO REQUIRE UPON DECLARATION OF AN EMERGENCY OR INCREASED DEFCON LEVEL THAT DCMC DISTRICTS COMMUNICATE WITH THEIR MAJOR BUYING ACTIVITIES ABOUT TWO POINTS: 1. THE NEED FOR CONTINUED DIRECT AND ACCURATE COMMUNICATION WITH REPONSIBLE PERSONNEL IN THE CAOS ON MATTERS CONCERNING ACCELERATION, PRIORITIES, SHIPPING INSTRUCTIONS AND DELIVERY STATUS; 2. THE NAMES, TELEPHONE AND FACSIMILE NUMBERS OF DISTRICT COMMAND AND CONTROL CENTER AND CAO PRODUCTION READINESS OFFICERS TO BE USED WHEN HIGHER LEVEL OF RESPONSE OR COMMAND ATTENTION IS DESIRED OR THE COGNIZANT CAO PERSONNEL ARE NOT READILY KNOWN.

9. (U) COMMENTS: OPR: DCMC-EP. THE FOLLOWING INFORMATION HAS BEEN INCLUDED IN THE PROPOSED UPDATE TO THE BASIC EMERGENCY PLAN (BEP). "PRIOR TO FULL MOBILIZATION, DISTRICT COMMANDERS WILL:

PROVIDE BUYING ACTIVITIES WITH TELEPONE AND FACSIMILE NUMBERS FOR KEY ACTIVITIES AND PERSONNEL. THIS LIST WILL INCLUDE, THE DISTRICT COMMAND AND CONTROL CENTER, ARMED SERVICES PRODUCTION PLANNING OFFICERS (ASPPO), AND DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM (DPAS) FOCAL POINTS. THEY WILL ALSO EMPHASIZE TO BUYING ACTIVITIES (1) THE IMPORTANCE OF DIRECT COMMUNICATION AND COORDINATION WITH CAO PERSONNEL WHEN EXPEDITE ACTIONS; CONTRACT ACCELERATION; DELIVERY STATUS REPORTING; OR INSPECTION, ACCEPTANCE AND DESTINATION POINT CHANGES AND (2) THE NEED TO IDENTIFY (WHEN POSSIBLE) THE CONTINGENCY, EMERGENCY, OR OPERATION ("DESERT STORM", "HURRICANE HUGO", ETC.) WHEN AN EXPEDITE ACTION IS NECESSARY." THIS INFORMATION WILL ALSO BE INCLUDED IN THE BEP CHECKLIST.

STATUS: CLOSED AS A SEPARATE ACTION. HOWEVER, IT WILL BE TRACKED UNDER JULLS #11343-88497, BASIC EMERGENCY PLAN UPDATE UNTIL PUBLICATION OF BEP REVISION.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

--- (U)

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 11338-25005 (00003), submitted by EARL WHITE, DCMDC, 930-6297, (312)825-6297.

2. (U) Operation DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: PRODUCTION SURVEILLANCE, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: NEED TO MAKE ODS CONTRACTS PRODUCTION SURVEILLANCE CAT 1.

5. (U) OBSERVATION: THE REQUIREMENT TO MAKE ALL DESERT SHIELD/DESERT STORM CONTRACTS PRODUCTION SURVEILLANCE CATEGORY 1 WAS UNNECESSARY.

6. (U) DISCUSSION: THIS INCREASED THE INDUSTRIAL SPECIALIST'S WORK LOAD UNNECESSARILY, AS THE SURVEILLANCE COULD IN MOST CASES HAVE BEEN ACCOMPLISHED BY LEAVING THE SURVEILLANCE AT CATEGORY 2 AND HAVING THE INDUSTRIAL SPECIALIST FOLLOW UP ON THOSE CONTRACTS WHERE THE CONTRACTOR IS HAVING DIFFICULTY MEETING THE DELIVERY DATE. ANOTHER OPTION IS TO MAKE CERTAIN CLASSES OF MATERIAL, SUCH AS SUBSISTENCE, AMMUNITION, OR ANY OTHER TYPE OF MATERIAL THAT DIRECTLY AFFECTS THE "MAN IN THE FIELD" AN AUTOMATIC UPGRADE TO CATEGORY 1 WHEN A SITUATION LIKE DESERT SHIELD OCCURS.

7. (U) LESSON LEARNED: BLANKET POLICY TO APPLY SURVEILLANCE CATEGORY 1 TO ALL DESERT SHIELD REQUIREMENTS WAS AN UNNECESSARY BURDEN.

8. (U) RECOMMENDED ACTION: ADOPT A LISTING OF MATERIAL WHICH IN CASE OF NATIONAL EMERGENCY WOULD AUTOMATICALLY NECESSITATE THOSE CONTRACTS TO BE UPGRADED TO SURVEILLANCE CATEGORY 1 AND DISSEMINATE THAT LIST TO ALL CAOS.

9. (U) COMMENTS: OPR: DCMC-EI
RATHER THAN ADOPTING A STANDARD LISTING OF MATERIAL, THE FOLLOWING POLICY IS IN COORDINATION. "PRODUCTION SURVEILLANCE WILL BE PERFORMED WHEN REQUESTED BY THE BUYING ACTIVITY. BUYING ACTIVITIES WILL PROVIDE THE CONTRACT ADMINISTRATION OFFICE (CAO) WITH A CUSTOMER PRIORITY LIST OF CONTRACTS AND CONTRACT LINE ITEMS THAT REQUIRE PRODUCTION SURVEILLANCE. THIS LIST, AS A MINIMUM, WILL BE UPDATED QUARTERLY. UPON DECLARATION OF AN EMERGENCY OR INCREASED DEFCON LEVEL, BUYING ACTIVITIES WILL PROVIDE THE CAO WITH REVISED SURVEILLANCE PRIORITIES."
STATUS: CLOSED. THE ABOVE POLICY IS IN COORDINATION. IT IS BEING TRACKED UNDER JULLS #11339-29842.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: DOCTRINE

INDEX OF JOINT UNIVERSAL LESSONS LEARNED SUBMITTED TO JCS

* Significant Lessons Learned Briefed to PLFA Commanders

NI - NOTED ITEM
PI - PROCEDURAL ITEM
RAP - REMEDIAL ACTION PROJECT
RRAP - RECOMMENDED REMEDIAL ACTION PROJECT

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83048-09556 (00022), submitted by DLA-PRS, MAJ C. GORDON, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USA (US ARMY), DESERT, COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), ADMINISTRATION, FINANCE/BUDGET, OPERATIONS, NBC (NUC, BIO, CHEM), MOBILIZATION, INDUSTRIAL, DEPLOYMENT, LOGISTICS, SUPPLY, COMMUNICATIONS, TRANSMISSION SYSTEMS, WIRE, INTEROPERABILITY, MATERIEL, EXERCISE DESIGN, FUNDING, CAPABILITY, SUSTAINABILITY.

4. (U) TITLE: MAINTAIN A VIABLE, RESPONSIVE PRODUCTION BASE FOR CRITICAL STOCK FUND ITEMS

5. (U) OBSERVATION: Many troop support items that are critical to sustaining a war fight require production capability unique to military requirements and have no commercial utility. Maintenance of the base is dependent upon relatively small peacetime procurements.

6. (U) DISCUSSION: DLA, as an example, manages items such as components for the Chemical Protective Ensemble (suits, gloves, footwear covers and helmet covers), autoinjectors, operational rations, barbed tape concertina wire, and various vaccines. These items all have a low peacetime demand and very high mobilization rates. Recent experiences with the limit on stock funds, combined with expected future force reductions, has demonstrated that all these factors taken together result in a declining industrial base.

7. (U) LESSON LEARNED: Effective troop deployment and sustainment requires deliberate maintenance of an adequate industrial base capable of meeting military materiel requirements.

8. (U) RECOMMENDED ACTION: The Services should assist in maintaining a viable, peacetime production base for selected critical items by providing sufficient requirements and adequate funding necessary to meet and sustain Service demands.

9. (U) COMMENT: If Operation DESERT SHIELD had commenced six months later, the capability of the industrial base to support critical troop items would have been greatly diminished from its present capability.

NOTED ITEM (NI).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83045-33682 (00015), submitted by DLA-O, Lt Howland, 284-5386, (703)274-5386.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), DESERT, JCS (JOINT CHIEFS OF STF), C2 (COMMAND AND CONTROL), ORDERS/GUIDANCE, REPORTING, OPERATIONS, LAND WARFARE, LOGISTICS, SUPPLY, TRANSPORTATION, EXERCISE DESIGN, MSEL (MASTER SCENARIO EV), SCENARIO, JRAP (JT REAR AREA PROT).

4. (U) TITLE: UPDATING REQUISITION PROCEDURES IN SUPPORT OF CONTINGENCY OPERATIONS

5. (U) OBSERVATION: The delayed establishment/dissemination of a project code for Operation DESERT SHIELD initiated a sequence of events that resulted in the abuse of Priority Designators, the increase in off-line requisitions, and the lack of priority allocations of critical items of supply. Bottom line support for end users can be upgraded by developing a support system to immediately address the most critical requirements.

6. (U) DISCUSSION: The Joint Staff should develop predesignated project codes that are implemented immediately upon designation of an operation. These codes can be developed to specifically address the issue of priority allocation of resources within an operation or within operations. This project code would require all Services to comply immediately in order to alleviate the problem of duplicate/upgrading/off-line requisitions. Delaying the establishment of project codes burdens the supply system due to the duplicate effort of processing and upgrading requisitions, in addition to, the initial confusion factor of priority support. This in turn results in the abuse of the Service priority designator system by both automatic and off-line methods which, results in overwhelming the transportation system's ability to move the most critical material.

7. (U) LESSON LEARNED: 1) Non-establishment of project codes leads to Service abuse of the support system by units requisitioning above their Force Activity Designator (FAD) level. 2) Off-line requisitioning generally, does not decrease but increase processing time due to manual errors and, ties up valuable manpower resources. 3) Joint Staff must promulgate a policy that will inhibit the misuse of established requisitioning procedures.

8. (U) RECOMMENDED ACTION: 1) Establish predesignated project codes to be implemented immediately upon designation of an operation. 2) Establish a high level Action Team to designate units for FAD upgrade and priority allocation of

critical items of supply within a specific operation or within operations. A corporate view is required.

9. (U) COMMENT: Validated as a Procedural Item (PI) based on documents indicating that existing procedures were adequate but not followed. A Joint Staff project code had been established rapidly (Joint Staff 072316Z August 90). Abuses of UMMIPS Priority Designators still occurred and were promptly identified (Joint Staff 250524Z August 90) to the CINCs, Services and DLA.

PROCEDURAL ITEM (PI).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83046-85951 (00016), submitted by DLA-O, Lt Howland, 284-6383, (703)274-6383.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USA (US ARMY), DESERT, JCS (JOINT CHIEFS OF STF), COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), C2 (COMMAND AND CONTROL), ORDERS/GUIDANCE, REPORTING, OPERATIONS, LAND WARFARE, LOGISTICS, SUPPLY, INTEROPERABILITY, MATERIEL, DTTP (DOC, TAC, TECH, PR), JRAP (JT REAR AREA PROT), AVAILABILITY, PRIORITY, JOINT.

4. (U) TITLE: PRIORITY ALLOCATION OF CRITICAL ITEMS OF SUPPLY

5. (U) OBSERVATION: Procedures for intraservice/interservice allocations of critical items of supply within the same theater appear to be lacking.

6. (U) DISCUSSION: The Joint Materiel Priorities and Allocation Board (JMPAB) adjudicates the allocation of critical wholesale items of supply between theaters. There appears, however, to be no formalized mechanism which performs a similar adjudication function when both intraservice and interservice competition exists in the same theater.

7. (U) LESSON LEARNED: There is a need to establish procedures for intraservice/interservice allocations within the same theater.

8. (U) RECOMMENDED ACTION: The Joint Staff, in conjunction with the CINCs, should develop procedures or guidance for intraservice/interservice allocation of critical supplies within the same theater.

9. (U) COMMENT: REMEDIAL ACTION PROJECT (RAP).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: JTTP
--- (U) Lesson distributed by: JCLL.

(U) FINAL DISPOSITION: PROCEDURAL ITEM

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83050-62889 (00017), submitted by DLA-PRS, MAJ C. GORDON, 284-6451, (703)274-6451.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USA (US ARMY), DESERT, JCS (JOINT CHIEFS OF STF), COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), C2 (COMMAND AND CONTROL), REPORTING, STAFF FUNCTIONS, OPERATIONS, LAND WARFARE, NBC (NUC, BIO, CHEM), LOGISTICS, MEDICAL, ORDNANCE, SUPPLY, JRAP (JT REAR AREA PROT), COORDINATION, PRIORITY, JOINT.

4. (U) TITLE: ADD TROOP SUPPORT ITEMS TO THE CINCs' CRITICAL ITEMS LISTS

5. (U) OBSERVATION: In support of Operation DESERT SHIELD the Joint Staff has developed a list of Intensively Managed Items separated into explicit categories (Munitions and Troop Support). Only the Troop Support items are being surged in response to near-term demands needed to support Operation DESERT SHIELD.

6. (U) DISCUSSION: Historically, the CINC CIL has primarily focused on weapons systems and combat support items. In the future the CINCs need to consider essential Troop Support items such as combat rations, clothing and equipage, and medical supplies. Currently, the only end item in this group on the CINC CIL is the Chemical Protective Ensemble.

7. (U) LESSON LEARNED: Troop support items are essential to maintain balanced force structure and to sustain deployed troops.

8. (U) RECOMMENDED ACTION: CJCS consider adding the following broad classifications of items to the CINC CIL in order that these items may be identified as critical and receive priority:

- Medical Supplies and Equipment
- Chemical Protective Ensemble & Antidotes
- Combat Essential Clothing and Equipment
- Field Fortification

Since the beginning of Operation DESERT SHIELD, all of the items have been receiving priority action.

9. (U) COMMENT: If necessary, DLA will coordinate with the Services to determine which items are to be included on their respective CILs.

(U) FINAL DISPOSITION: NOTED ITEM

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83053-40850 (00018), submitted by DFSC-O, COL J.J.JOHNSON, 284-7408, (703)274-7408.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), DESERT, UNIFIED COMMAND, USCENTCOM, SPECIFIED COMMAND, MAC (MILITARY ARLFT CMD), DEPLOYMENT, STRATEGIC AIRLIFT, LOGISTICS, HNS (HOST NATION SUPPORT), POL (PET, OILS, AND LUB), SUPPLY, TRANSPORTATION, AIRLIFT, SEALIFT, COORDINATION, TPFDD (TIME PHSD FRC DEP), BAHRAIN.

4. (U) TITLE: EXCELLENT DEFENSE FUEL REGION OPERATIONAL SUPPORT

5. (U) OBSERVATION: The Defense Fuel Region Middle East (DFR-ME) has been the backbone of the entire petroleum supply support in the AOR. The four CONUS DFRs have been directly involved in meeting the stringent fuel demands placed on the major points of embarkation.

6. (U) DISCUSSION: The DFR-ME staff demonstrated their expertise and working knowledge of all petroleum suppliers and refineries located throughout the Middle East by supporting US aircraft deployed early in the TPFDD flow. When these aircraft landed, fuel was virtually the first resource on hand for their support. The DFR-ME continues to coordinate into-plane contracts and host nation support with the CINC to get the fuel where it is required, when it is required. In CONUS, the short notice, heavy deployment has consumed vast quantities of petroleum throughout CONUS requiring quick, responsive DFR action to ensure fuel supplies for aircraft and equipment. The Military Airlift Command would not have been able to meet their mission requirements without the responsive support of the CONUS Defense Fuel Regions.

7. (U) LESSON LEARNED: Defense Fuel Regional offices established in strategic CONUS locations and overseas AORs are critically essential for ensuring fuel support at ports of embarkation and forward operating areas in support of military operations.

8. (U) RECOMMENDED ACTION: None

9. (U) COMMENT: NOTED ITEM (NI).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83054-24397 (00019), submitted by DFSC-O, COL J.J. JOHNSON, 284-7408, (703)274-7408.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), DESERT, OTHER FEDERAL AGENCIES, DEPLOYMENT, STRATEGIC AIRLIFT, LOGISTICS, POL (PET, OILS, AND LUB), SUPPLY, TRANSPORTATION, AIRLIFT, AVAILABILITY, PERFORMANCE, DFSC (DEF FUEL SUP CTR).

4. (U) TITLE: SIGNIFICANT FUEL CONTRACT SUPPORT

5. (U) OBSERVATION: A significant factor in the deployment success of DESERT SHIELD airlift and AOR beddown operations is the availability of into-plane contracts for fuel support. These contracts are arranged by the Defense Fuel Supply Center at civil airports worldwide where US military aircraft periodically transit. These are in-place arrangements so the air crews do not have to make cash payments or conduct contract negotiations. The into-plane contracts have been a significant part of the fuel support for forces deployed under Operation DESERT SHIELD.

6. (U) DISCUSSION: DFSC has into-plane contracts in Saudi operations. They were the only contracts in place to support the initial build-up for both jet and ground fuels. We have been using them for into-bladder requirements at remote locations as well as at established airports. In one instance, we used over 100 trucks to move fuel from into-plane sites to remote locations. Since the start of DESERT SHIELD, usage on some of the contracts has exceeded what we expected to use for an entire year.

7. (U) LESSON LEARNED: Existing in-place contracts have been invaluable in providing quick/on-site support.

8. (U) RECOMMENDED ACTION: None required.

9. (U) COMMENT: NOTED ITEM (NI).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83057-58256 (00020), submitted by DFSC-O, COL J.J.JOHNSON, 284-7408, (703)274-7408.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USAF (US AIR FORCE), DESERT, OTHER FEDERAL AGENCIES, COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), DEPLOYMENT, LOGISTICS, POL (PET, OILS, AND LUB), SUPPLY, AUTHORITY, DFSC (DEF FUEL SUP CTR), UNITED STATES.

4. (U) TITLE: IMPACT OF RAPID INVENTORY REDUCTIONS AND RAPID FORCE DEPLOYMENT

5. (U) OBSERVATION: The short deadline given to reduce the DLA wholesale petroleum inventory from 93 million barrels to 82.6 million barrels forced DFSC to reduce jet fuel inventories on the east and west coasts of the United States by far greater levels than normal. This was necessary because those stocks were readily available and closest to high consumption. The reduction of CONUS jet fuel stocks on the east coast has seriously jeopardized the ability of DFSC to provide adequate amounts of fuel to support the continued air deployment of forces to support operation DESERT SHIELD.

6. (U) DISCUSSION: In May, OASD directed a fuel draw down in order to generate approximately $200 million for Air Force O&M requirements. DLA was given approximately three months to reduce the wholesale petroleum inventory by 8.4 million barrels. DFSC reached the revised mandated ceiling of 82.6 million barrels two weeks ahead of schedule. This action was accomplished by reducing orders from existing contracts. As a result, inventories were at an undesirable level to support the heavy demands of DESERT SHIELD. Even though contract ordering authority was restored, the quantities were not sufficient to meet the heavy demands of DESERT SHIELD. Therefore, supplemental procurement (at higher costs to the government) was required to cover the shortfall.

7. (U) LESSON LEARNED: DFSC was able to meet the requirement but our ability to provide adequate support to the continued deployment of forces to support DESERT SHIELD has been jeopardized.

8. (U) RECOMMENDED ACTION: None Required.

9. (U) COMMENT: NOTED ITEM (NI).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 91246-90400 (00032), submitted by DLA-O, LT Howland, 284-6171, (703)274-6171.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USMC (US MARINE CORPS), DOD (DEPARTMENT OF DEF), JCS (JOINT CHIEFS OF STF), UNIFIED COMMAND, USCENTCOM, COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), ORDERS/GUIDANCE, REPORTING, STAFF FUNCTIONS, OPERATIONS, READINESS, LOGISTICS, SUPPLY, COMMUNICATIONS, TRANSMISSION SYSTEMS, INTEROPERABILITY, MATERIEL, PLANNING, AUTHORITY, JOINT, USEUCOM, PRE-POSITIONED WAR RESERVE (PWRS).

4. (U) TITLE: ISSUE OF SERVICE-OWNED PREPOSITIONED WAR RESERVE STOCKS (PWRS)

5. (U) OBSERVATION: During the first four weeks of Operation DESERT SHIELD, the DLA Emergency Supply Operation Centers (ESOCs), depleted some DLA stocks by issuing to customers as requisitions were received. The Military Services, on the other hand, maintained their own stocks in DLA depots and in Prepositioned War Reserve Stocks.

6. (U) DISCUSSION: During the first few days of Operation DESERT SHIELD, the DLA Emergency Supply Operations Centers (ESOCs) were overwhelmed by a barrage of both message and telephone traffic from units all over the world requesting immediate support. In just a few days, DLA stocks were drawn down to zero balance thereby, causing DLA to absorb back orders and initiate emergency buys. DoD policy defines Prepositioned War Reserves as "That portion of the war reserve materiel requirement which approved Secretary of Defense Guidance dictates be reserved and positioned at or near the point of planned use or issue to the user prior to hostilities, to reduce reaction time and to assure timely support of a specific force and/or a specific project until replenishment can be effected." In many cases however, military Service owned PWRS is commingled with DLA stock in CONUS storage locations. We believe it would be prudent to draw down those Service owned PWRS which are being held in a CONUS storage location to fill critical shortfalls in a theater other than the theater for which they were originally intended.

7. (U) LESSON LEARNED: Deploying forces will place demands on the wholesale supply system immediately with required delivery dates much sooner than D+60 on which our planning is based. PWRS, including those being held in a CONUS storage location, relate to a Theater of Operation and not to an operation. Thus, PWRS intended for use in the CINCEUR AOR will not necessarily be provided in support of a conflict in the CINCCENT AOR.

8. (U) RECOMMENDED ACTION: OASD (P&L) should consider revisions to DoD War Reserve Policy to address the use of Service owned PWRS, held in a CONUS storage location, to meet critical requirements in emergency situations, such as DESERT SHIELD. Wholesale level management of the entire CONUS War Reserve Program should be given some serious consideration with allocation decisions for those assets being made at the Joint Staff level.

9. (U) COMMENT (USMC): HQMC Code LPO-1 nonconcurs with that portion of RECOMMENDED ACTION which states "... Wholesale level management of the entire CONUS War Reserve Program should be given some serious consideration with allocation decisions for those assets being made at the Joint Staff level."

The HQMC position is that consolidated wholesale level management of PWRS would not serve the best interests of the individual Services.

a. LPO-1 believes the Joint Staff could not manage all material allocation, given current staff and ADP constraints.

b. Service-owned stocks commingled with DLA stocks in DLA facilities are still Service-owned stocks. DESERT SHIELD has shown that Services should use these stocks more effectively, not that the Services should lose control of these stocks.

REMEDIAL ACTION PROJECT (RAP).

--- (U) SUBJECT: LOGISTICS
--- (U) INTEROPERABILITY: PLANNING
--- (U) Lesson distributed by: JCLL.

(U) FINAL DISPOSITION: NOTED ITEM

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 91247-66200 (00033), submitted by DLA-O, LT Howland, 284-5386, (703)274-5386.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), USN (US NAVY), COMBAT SUPPORT AGENCY, DLA (DEF LOGISTICS AGNCY), MOBILIZATION, DEPLOYMENT, LOGISTICS, MEDICAL, SUPPLY, AVAILABILITY, PERFORMANCE, TIMELINESS, REQUISITIONS.

4. (U) TITLE: RAPID PROCESSING OF REQUISITIONS FOR THE USNS MERCY

5. (FOUO) OBSERVATION: The Oakland Distribution Site of Defense Depot Region West (DDRW) was notified on a Thursday that the USNS Mercy would require additional medical supplies that were not available at the Oakland Supply Center. In order to comply with proper procedures, Naval Supply Center, Oakland, had to place the requisitions through Defense Personnel Supply Center and finally arriving at DDRW, Tracy Site on Saturday afternoon.

6. (FOUO) DISCUSSION: The loadout of the USNS Mercy required the submission of 400 requisitions. Most of these items were available at DDRW, Tracy Site. Currently Navy and DLA systems have inherent bottlenecks which cause delays in getting requisitions to the depots. Although this delay apparently was not crucial for deployment, a more expeditious procedure would streamline the system. An alternative would be the pre-loading of USNS Mercy with its basic load of medical supplies. Currently, these supplies are maintained at various land-based sites. If the supplies were maintained onboard ship, and rotated in accordance with the medical specifications (as they are from land storage sites) in order to ensure proper shelf-life requirements, the deployment of the USNS Mercy could be expedited.

7. (FOUO) LESSON LEARNED: Systems and procedures could be modified in order to make the USNS Mercy, and others, more rapidly deployable ships.

8. (FOUO) RECOMMENDED ACTION: An automated method be developed to expedite requisition processing time and, an automated load list, updated by the Navy and maintained by the ICP, be created. Upon receipt of the mobilization order, the ICP would only have to download the requisitions to the appropriate depot(s). Such an automated method would speed up requisition processing and provide material in minimum time. If this recommendation is not possible, consideration should be given to pre-loading the USNS Mercy in order to expedite its deployment.

9. (U) COMMENT: REMEDIAL ACTION PROJECT (RAP).

(U) FINAL DISPOSITION: NOTED ITEM

12/21/90

JULLS LONG REPORT

1. (U) JULLS NUMBER: 83051-99966 (00113), submitted by DLA-G, L.Hansen, 284-6311, (703)274-6311.

2. (U) Operation DESERT SHIELD conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: DESERT SHIELD, RWO (REAL WORLD OPS), CONGRESS, DOD (DEPARTMENT OF DEF), OTHER FEDERAL AGENCIES, GSA (GENERAL SERVICE ADM), JCS (JOINT CHIEFS OF STF), UNIFIED COMMAND, USCENTCOM, DLA (DEF LOGISTICS AGNCY), C2 (COMMAND AND CONTROL), ORDERS/GUIDANCE, REPORTING, ADMINISTRATION, PUBLIC AFFAIRS, OPERATIONS, LOGISTICS, SUPPLY, COMMUNICATIONS, AUTHORITY, TIMELINESS, DONATIONS.

4. (U) TITLE: SYSTEM TO RESPOND TO DONATIONS CONDITIONED FOR DEFENSE PURPOSES

5. (U) OBSERVATION: A considerable number of citizens, apparently motivated by the desire to vent their patriotic feelings, contacted the Department of Defense (DOD) wanting to make voluntary donations to support Operation DESERT SHIELD. DOD does not have the statutory authority to directly accept donations conditioned on their use for a specific defense purpose. The authority to accept or reject donations of personal and real property for specific defense purposes, on behalf of the United States, and to either convert it to money or transfer it to another Federal agency, resides with the Administrator of the General Services Administration (GSA) pursuant to Title 50, United States Code, Sections 1151-1155. The authority to accept or reject donations of money lies with the Secretary of the Treasury (50 USC 1151-1155). Until recently, there was no guidance for responding to donation inquiries. As a result, inquiries were received at all levels and locations throughout the Military Services, Defense Agencies and DOD. Confusion was generated as procurement, legal, public affairs and other personnel in various organizations attempted to determine how to appropriately respond to offers.

6. (U) DISCUSSION: During future efforts like Operation DESERT SHIELD, DOD should anticipate receiving donation inquiries. In the absence of policy and legal guidance on accepting donations, a focal point for responding to inquires, and designation of elements or organizations within DOD to serve as Executive Agent(s) for acceptance and appropriate disposition of donations, there will continue to be unnecessary confusion and the waste of valuable time and resources.

7. (U) LESSON LEARNED: In response to the many inquiries offering donations of personal property, authority was obtained from GSA for DOD to receive donations directly.

Further, a system was established for responding to offers to make donations. The Assistant Secretary of Defense (Production and Logistics) designated the Defense Logistics Agency (DLA) as the Executive Agent to respond to offers to donate items DLA manages. DLA established a consolidation point for receipt and further shipment, and tasking guidance for the points of contact to react to offers to donate material. A donation telephone number was published in the media. Offers are recorded on data sheets and referred first to DLA supply centers to fulfill existing requirements or backorders. If rejected by the supply center, donations are referred to CENTCOM for consideration. If rejected by CENTCOM, donations are referred to the military Services, rest and recreation sites and USO to see if they can be utilized. If anyone can utilize the donation, the donor is told to ship it to the consolidation point. If the donation cannot be utilized, a rejection letter is sent. Letters of acceptance are sent after the donation is received.

8. (U) RECOMMENDED ACTION: A system should be established that can be quickly implemented to respond to inquires from the public about making donations. Rather than obtain authorization from GSA and the Treasury, it would be more expeditious if DOD had the authority to accept and reject donations. Therefore, it is recommended that legislative relief be sought so that DOD can accept and reject donations directly. Alternatively, guidance and points of contact should be established within DOD and GSA for obtaining the necessary delegations of authority for DoD to accept donations of personal property, and within Treasury to ensure donations are quickly transferred to DOD. The system for accepting donations should include specific guidance concerning DoD's policy, to include the legal authority for accepting donations, a focal point for responding to public inquires, and designation of organizations to serve as Executive Agents for acceptance and disposition of donations.

9. (U) COMMENT: On 1 Oct 90, Congress repealed 50 USC 1151-1155 and passed new legislation (P.L. 101-403) giving DOD the authority to accept and reject donations of money, real and personal property from persons, foreign governments and international organizations. DOD's new authority is in 10 USC 2608. The new law requires DOD to publish regulations implementing this authority. The new law will drive the establishment of a system for receipt and disposition of donations, but it has yet to be established.

REMEDIAL ACTION PROJECT (RAP). OSD RAP # 635

--- (U) SUBJECT: PLANS AND POLICY
--- (U) INTEROPERABILITY: MATERIEL
--- (U) Lesson distributed by: JCLL.

04/09/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 12541-55492 (00040), submitted by CAPT FLOWERS, HQ DLA, 284-7804, (703)274-7804.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: ODS, DESERT SHIELD/STORM.

4. (U) TITLE: REPOL FORMAT AND PROCEDURES.

5. (U) OBSERVATION: CURRENT REPOL REPORTING PROCEDURES AND FORMAT WERE NOT COMPLETELY FOLLOWED.

6. (U) DISCUSSION: SEVERAL DIFFERENT FORMATS WERE USED BY DEPLOYED UNITS DESPITE ATTEMPTS TO FOLLOW A SINGLE PUBLISHED FORMAT. UNITS SUBMITTED THE REPOL AT DIFFERENT TIMES AND RECIPIENTS WERE CONFUSED IN TRYING TO EXTRACT DATA. CONSUMPTION DATA IS NOT REQUIRED IN THE STANDARD REPORTING FORMAT.

7. (U) LESSON LEARNED: THE INCLUSION OF CONSUMPTION DATA WILL INCREASE THE VALUE OF THE REPOL.

8. (U) RECOMMENDED ACTION: JCS REVISE REPOL REPORTING PROCEDURES AND FORMAT TO INCLUDE INDENTIFYING CONSUMPTION DATA.

9. (U) COMMENTS: OPR: DFSC
FAILURE TO FOLLOW GUIDELINES FOR ONE STANDARD FORMAT IS A PROCEDURAL ITEM (JCS PUB 1-03.18 BULK PETROLEUM CONTINGENCY REPORT, [REPOL]). THE ADDITION OF CONSUMPTION DATA HAS BEEN DISCUSSED WITH J-4 LRD, AND IS NOW BEING RECOMMENDED AS A JCS RAPP ITEM.
STATUS: OPEN. RECOMMENDED AS A JCS RAPP ITEM.

--- (U) SUBJECT: LOGISTICS

--- (U) INTEROPERABILITY: NONE

--- (U)

04/10/92

JULLS LONG REPORT

1. (U) JULLS NUMBER: 21849-09954 (00002), submitted by DDRW-C, CPT NELSON, 432-9292.

2. (U) CPX DESERT SHIELD/STORM conducted by USCINCCENT on 08/07/90.

3. (U) KEYWORDS: THREATCON, THREAT CONDITIONS, ODS, DESERT SHIELD/STORM.

4. (U) TITLE: COORDINATION OF CONUS TERRORIST THREAT CONDITION (THREATCON) DECLARATION.

5. (U) OBSERVATION: NEED TO PROVIDE CONUS DOD INSTALLATION COMMANDERS THE INFORMATION NECESSARY TO EVALUATE THE REQUIREMENT TO CHANGE THE THREATCON LEVEL IN ACCORDANCE WITH APPLICABLE DIRECTIVES AND KNOWN, PROBABLE, AND/OR POSSIBLE THREATS TO THEIR INSTALLATION.

6. (U) DISCUSSION: THROUGHOUT THE OPERATION, VARIOUS CONUS DOD INSTALLATIONS/COMMANDS AND AREAS (I.E., CALIFORNIA ARMY NATIONAL GUARD) DECLARED HEIGHTENED THREATCONS. THE COMMANDERS OF THE COMMANDS USED INFORMATION/INTELLIGENCE THAT WAS NOT ALWAYS AVAILABLE TO ALL COMMANDS. THE FACT THAT OTHER LOCAL INSTALLATIONS HAD HEIGHTENED THEIR THREATCON WAS NOT IMMEDIATELY DISSEMINATED. EVEN MAJOR LOCAL COMMANDS WERE NOT FULLY AWARE OF INSTALLATIONS WITHIN THEIR AREA THAT HAD ELEVATED OR, AFTER THE CONFLICT, LOWERED THEIR THREATCON. A GEOGRAPHICALLY CENTRALIZED ORGANIZATION WOULD BE ABLE TO COLLECT, DISSEMINATE, AND MONITOR CONUS INSTALLATION THREATCON STATUS. DODD 2000.12 ADDRESSES RESPONSIBILITIES OF UNIFIED AND SPECIFIEC COMMANDERS TO PROVIDE THIS INFORMATION. THIS IS CLEARLY DEFINED FOR OCONUS ORGANIZATIONS, BUT LEAVES A VOID FOR CONUS ORGANIZATIONS.

7. (U) LESSON LEARNED: THERE IS A NEED FOR A CENTRAL SYSTEM FOR DETERMINING THREATCONS.

8. (U) RECOMMENDED ACTION: DOD SHOULD PURSUE A COORDINATED, GEOGRAPHICALLY ORIENTED SYSTEM TO COLLECT, MAINTAIN, DISSEMINATE, AND MONITOR THREATCONS. THE SYSTEM SHOULD INCLUDE ALL CONUS DOD ACTIVITIES AND COMMANDS.

9. (U) COMMENTS: OPR: DLA-I
THIS JULLS HAS BEEN DISCUSSED WITH OASD/SOLIC AND FORSCOM, OFFICE OF INTELLIGENCE AND COUNTER-INTELLIGENCE. AS A RESULT OF THESE CONVERSATIONS, IT IS BEING REFERRED TO THE JCS REMEDIAL ACTION PROJECT PROGRAM (RAPP). HOWEVER, UNTIL RESOLUTION, DLA SECURITY OFFICERS SHOULD COORDINATE WITH THE LOCAL POLICE AND LOCAL FBI OFFICE FOR INTELLIGENCE INFORMATION WHICH THE COMMANDER SHOULD USE TO ESTABLISH LOCAL THREATCON. HQ DLA POC FOR THIS RAPP IS MAJOR COOPER, DLA-IP, (703)274-6263 OR AV 284-6263.
STATUS: OPEN. REFERRED TO JCS RAP.

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

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FAX ..... (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: Bangor Maine **POC:** Sharon Selwood
Phone: (207) 945-4144 **DOC #:** W12L2R-4159-0400
Comments: Wow! I was very pleased to receive this item so quickly! (It's a class A coat + one of my soldiers needs it for AT.) THANK YOU FOR YOUR PROMPT SERVICE!

Packed by: [signature] **Date:** 4/21
Organization: 195th Army Band

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

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If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: GREAT JOB – GREAT FOOD – GOOD CONDITION & TASK FORCE DIRIGO PC 94 (N) GUATEMALA

PACKED BY: [signature] DATE 10/23 CHUTE NO. _____

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

MAJOR HAGANS CASHOGUE

DDFC Form 3369
Nov 92

DEFENSE DISTRIBUTION DEPOT MEMPHIS
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FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: MY NAME IS SPC KUMMONS, I'm IN GERMANY ADDRESS 26th QMS CO 20117 APO AE 09165, YOUR PACKAGE WAS GOOD AND NEAT, KEEP OF THE GOOD WORK

PACKED BY: [illegible] DATE 5-93 CHUTE NO. _____

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US. I'm FROM MISSISSIPPI, HOLLY SPRING

DDRC Form 3369
Nov 92

HAVE A NICE DAY

Defense Distribution Depot Memphis
Customer Satisfaction Card

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Received at: USPS, STOCKTON, CA POC: _____
Phone: 209 983-6265 DOC #: 189JTX41550012
Comments: YOU PEOPLE SURE BEAT THE PANTS OFF OF GSA AND THEY EVEN HAVE A DISTRIBUTION POINT IN MY BACK YARD!!! I TELL EVERYONE EVEN GSA THAT YOURE BETTER.
Packed by: [signature] Date: 16 JUNE 94
Organization: U.S. POSTAL SERVICE MAINTENANCE DEPT STOCKTON, CA

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—557-362

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Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

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DEFENSE DISTRIBUTION DEPOT MEMPHIS

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Received at: CRESCENT CORP POOL **POC:** MR. GELTNER DS/GS MAINT
Phone: 766 544 2561 **DOC #:** W33RQN4090037
Comments: IT IS A PLEASURE TO DO BUSINESS WITH PERSONNEL WHO ARE INTERESTED IN CUSTOMER SATISFACTION, THIS IS A FIRST FOR ME IN OVER 16 YRS IN THIS BUSINESS (THANKS)
Packed by: N. Edwards **Date:** 4/99
Organization: CCC

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: 372ND ENG GRP DSM, IA **POC:** SSG Schultz
Phone: (515) 284-6026/6071/6191 **DOC #:** W54EVF 4075-0004
Comments: Everyone was happy to get this kit. It was complete and reached week.
Packed by: [illegible] R **Date:** 4 May 94
Organization:

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

Defense Distribution Depot Memphis
Customer Satisfaction Card

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DSN 683-4752
FAX ..... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: Port Richmond H/S STATEN ISLAND N.Y. **POC:** ISG Liles
Phone: (718) 816-1962 **DOC #:**
Comments: Many Thanks, These items were very much needed!!! Keep up the good work. By the way, I'm From

Packed by: 0282 EAST TENN. **Date:** 24 Jan 94
Organization:

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—557-362

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

SEYMOUR JOHNSON
MILITARY CLOTHING SALES STC
(919) 736-6649

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: SJAFB MCSS **POC:** Ernest Burnett
Phone: (919) 736-6649 **DOC #:**
Comments: Please convey to your personnel my heart felt thanks for a job well done and for making my job a pleasant task. Packing and distribution is outstanding!

Packed by: [redacted] **Date:** [redacted]
Organization:

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—557-362

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

Please take the time to inspect the contents of this shipment
In the event of a discrepancy of any kind, please contact us
at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: Thank you for expediting this shipment. All items were in excellent condition.

PACKED BY: [illegible] DATE 94157 CHUTE NO. REC-35

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

DDRC Form 3369
Nov 92

To: Camp Shelby, MS (25 PLTS.) UAD 449

[illegible]

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

Please take the time to inspect the contents of this shipment
In the event of a discrepancy of any kind, please contact us
at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: Thanks for the super Service!

PACKED BY: [illegible] DATE 4246 CHUTE NO. 449 - 3

IF WE DO GOOD, TELL ALL YOUR FRIENDS. IF WE DON'T, TELL US.

DDRC Form 3369
Nov 92

Defense Distribution Depot Memphis
Customer Satisfaction Card

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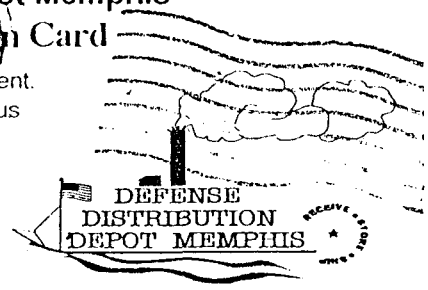
DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299



If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: PWC Jax - Bldg 902 **POC:** Tracy Smith
Phone: (904) 772-5140 x-8141 **DOC #:** N68931-4230-0908
Comments: Thanks for the quick service!
Packed by: [illegible] **Date:** 8/31/94
Organization:

If we do good, tell your friends. If we don't, tell us.

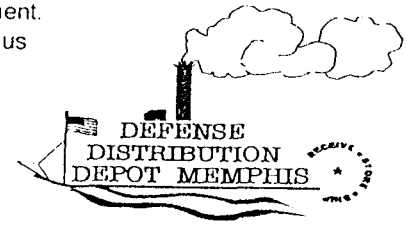
DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—558-170

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299



If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: Ft. Stewart DC# **POC:** Brad Osborne
Phone: 912 767-8512 **DOC #:**
Comments: Excellent Customer Service!
G.S. Hodges Col, DC.
Packed by: [illegible] **Date:** 12/94
Organization: DLA DCC

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

*U.S. Government Printing Office: 1994 — 558-594/00027

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: FT. Stewart, GA **POC:** Brad Osborne
Phone: 912-767-8512 **DOC #:**
Comments: Very Well Done — I'm really impressed by the System Works
G.S. Hodges Col, DC

Packed by: [illegible] **Date:** 12-94
Organization: [illegible]

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—558-170

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

Aug 3

Please take the time to inspect the contents of this shipment In the event of a discrepancy of any kind, please contact us at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: Received on the 10Aug 1993 in excelent condition, Federal Emergeny Management Agency Region VI Denton Tx 76210

PACKED BY: Dean Ewell DATE 8/9/93 CHUTE NO. 7726

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

DDRC Form 3369
Nov 92

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

Please take the time to inspect the contents of this shipment
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at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: HX2PX1 4040 8164 XXX MULITPACK BOX
EXCELLENT F.A.CZIFFER
KAB OKINAWA
TEL # 634 3555

PACKED BY: 049 DATE _____ CHUTE NO. _____

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

ENCLOSURE 1

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

Army

Please take the time to inspect the contents of this shipment
In the event of a discrepancy of any kind, please contact us
at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: We received this in good condition.
The packer needs a raise.

PACKED BY: Cooper DATE 0893 CHUTE NO. _____

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

DDRC Form 3369
Nov 92

Defense Distribution Depot Memphis
Customer Satisfaction Card

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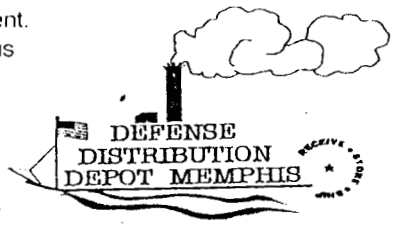
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299



If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: DCSC-VQA CMPUPS **POC:** DON LUSHBAUGH
Phone: AV 850-4752 **DOC #:** SCP 7044806009
Comments: MY GROUP WORKS COUNTERFEIT PRODUCT AND PRODUCT SUBSTITUTIONS. THANKS FOR THE SPEEDY DELIVERY OF THE PROPER PRODUCT. IT EXPEDITES OUR INVESTIGATIONS.

Packed by: L. MANUEL **Date:** _____
Organization: _____

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—557-362

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

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PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: KEEP UP THE GOOD WORK! RECEIVED PRODUCT IN GOOD OUTSTANDING CONDITION SEMPER FI!! SGT AREET CAMP FUJI JAPAN USMC

PACKED BY: _____ **DATE** _____ **CHUTE NO.** _____

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

ENCLOSURE 1

Defense Distribution Depot Memphis
Customer Satisfaction Card

Please take the time to inspect the contents of this shipment. In the event of a discrepancy of any kind, please contact us immediately at the following numbers:

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PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL .... (901) 775-4752
DSN 683-4752
FAX .... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: Sacopee HS. JROTC POC: MAJ Finch
Phone: (207) 625-7729 DOC #: W81YPU
Comments: In far off Maine, we appreciate your support & quality control. All received.
Packed by: M R[illegible] Date:
Organization: 53A

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—558-170

DEFENSE DISTRIBUTION DEPOT MEMPHIS
CUSTOMER SATISFACTION CARD

July

Please take the time to inspect the contents of this shipment
In the event of a discrepancy of any kind, please contact us at the following numbers immediately:

DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL- - -(901) 775-4747
DSN - - - - - - - - - - - - - 683-4747
FAX - - - - - - - - - - (901) 775-6299

DEFENSE DISTRIBUTION REGION CENTRAL

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Comments: Your Agency is Doing a Fine Job!!
[illegible] SSG
Supply Sgt.

2123D TRANSPORTATION CO (HET)
920 MORGANTOWN ROAD
BOWLING GREEN, KY 40101

PACKED BY: [illegible] DATE 7/93 CHUTE NO.

IF WE DO GOOD, TELL ALL YOUR FRIENDS, IF WE DON'T, TELL US.

DDRC Form 3369
Nov 92

Defense Distribution Depot Memphis
Customer Satisfaction Card

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PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL .... (901) 775-4752
DSN 683-4752
FAX .... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: C/P POC: Ron Grant
Phone: (304) 473-5245 DOC #: W80Y0F 4186 0373
Comments: YOU GOYS TO GREAT WORK
THANKS - Ron Grant

Packed by: Date:
Organization:

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

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Defense Distribution Depot Memphis
Customer Satisfaction Card

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COMMERCIAL .... (901) 775-4752
DSN 683-4752
FAX .... (901) 775-6299

DEFENSE DISTRIBUTION DEPOT MEMPHIS

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: NROTC Northwestern POC: AR ENS Lee
Phone: 708-491-3324 DOC #: N63215 4339 0411
Comments: Thank you for being so quick!

Packed by: E. Barron Date: 12-6-94
Organization: SBA

If we do good, tell your friends. If we don't, tell us.

DDMT Form 3369
Jan 94

•U.S. GOVERNMENT PRINTING OFFICE: 1994--559-340

Defense Distribution Depot Memphis
Customer Satisfaction Card

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DEFENSE DISTRIBUTION DEPOT MEMPHIS
PROCESS QUALITY ASSURANCE BRANCH
COMMERCIAL ..... (901) 775-4752
DSN 683-4752
FAX ..... (901) 775-6299

If you have any suggestions on how we may improve the quality of our shipments, please provide your comments below and drop this card in the nearest mail box.

Received at: NCTAMS MED DET ROTA **POC:** R GANAWAY
Phone: 011 34 56 82 3140 **DOC #:** N63182 4335 4014
Comments: GREAT work got here very FAST

Packed by: E Bynum **Date:** 12-6-94
Organization: SBA

If we do good, tell your friends. If we don't, tell us.

•U.S. GOVERNMENT PRINTING OFFICE: 1994--559-340

DDMT Form 3369
Jan 94

DDMT
STRATEGIC ANALYSIS OF
INTEGRATED LOGISTICS SYSTEMS (SAILS)

- INFRASTRUCTURE COST SUMMARY OVERSTATED BY $1.3M*

- REPLENISHMENT TRANSPORTATION COSTS/FIRST DESTINATION TRANSPORTATION OVERSTATED - SUPPLIERS ARE NOT REPRESENTATIVE OF DDMT SUPPLIERS**

- OUTBOUND TRANSPORTATION COSTS/SECOND DESTINATION TRANSPORTATION OVERSTATED - CUSTOMERS ARE NOT REPRESENTATIVE OF DDMT CUSTOMERS**

SOURCE: * FINANCIAL REPORTS
**DEFENSE MANPOWER DATA CENTER (SEE SLIDE 13 AND BACK-UP)

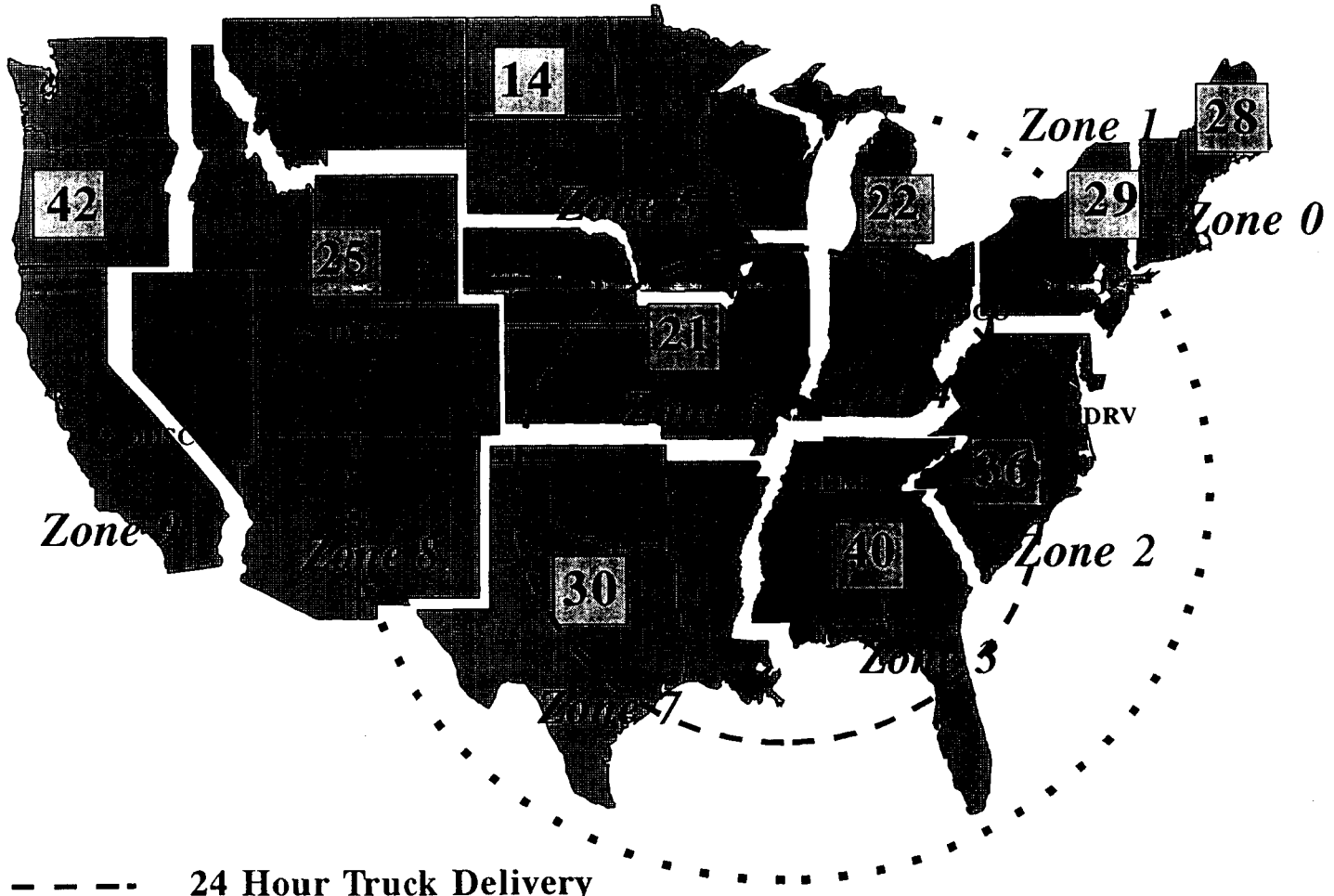
DDMT (JY)
INFRASTRUCTURE COST SUMMARY
STRATEGIC ANALYSIS OF INTEGRATED LOGISTICS SYSTEMS (SAILS)
(THOUSANDS OF DOLLARS)

$ 16,406	SAILS INFRASTRUCTURE COST
$ 15,095*	DDMT FY 94 INFRASTRUCTURE COST
$ 1,311	OVERSTATED

$ 10,877	INFRASTRUCTURE OBLIGATIONS (JY)
+ 1,247	RPM > $25K - (JQ)
+ 2,742	UTILITIES (D4)
+ 1,088	OTHER P900 - (D4)
+ 1,528	P960/970 - (D4)
- 2,387	P900 REIMBURSEMENTS
$ 15,095*	DDMT FY94 INFRASTRUCTURE COST

SOURCE: SAILS
DISTRIBUTIONS INFRASTRUCTURE COST ANALYSIS
OBLIGATIONS REPORT - RCS 48 (JY) 94
OBLIGATIONS REPORT - RCS 48 (D4) 94
BRACVI.XLS SPREADSHEET

TOTAL CUSTOMERS BY ZONE



– – – – – – – 24 Hour Truck Delivery

. . . . . 48 hour Truck Delivery

Note: Total Customers = 287

APPENDIX 4 -- Customer Locations

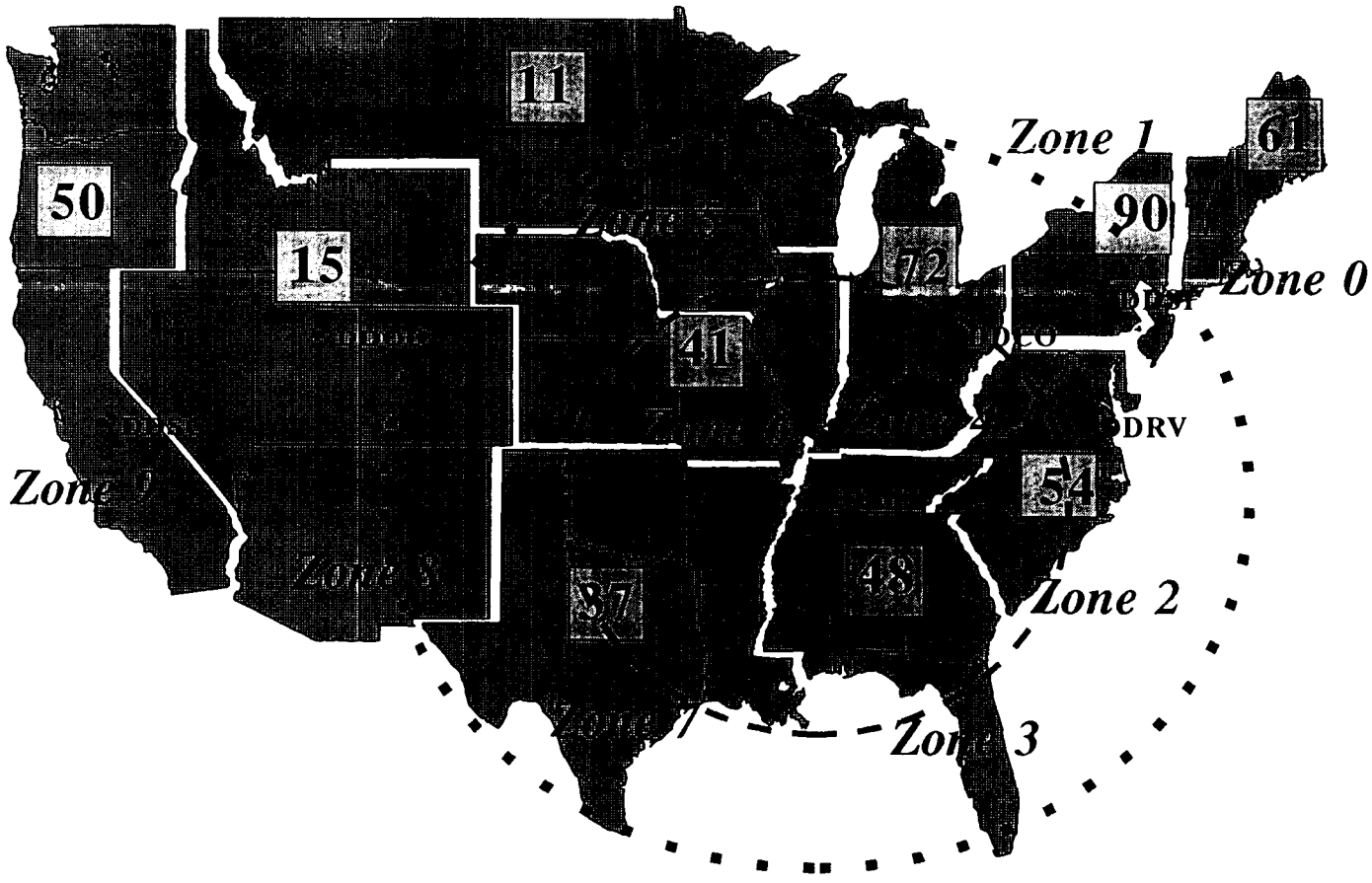
Customer Locations

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
JAYUYA	664	WEST HILLS	15231	ROLLING MEADOWS	30905
FORT BUCHANAN	934	EBENSBURG	15931	SOUTH BASE	31098
439TH WESTOVER A	1022	WINDSOR PARK	17055	WALDEN	31206
USPFO FORT DEVEN	1433	CHAMBERSBURG	17201	UNITED STATES PR	31314
EAST BOLTON	1510	TOBYHANNA SIGNAL	18466	LANE	31409
WEST NATICK	1760	913TH TAG FB6637	19090	STAFFORD	31547
MASSACHUSETTS IN	2139	58 & WOODLAND	19112	USPS ZIP AREA 31	31699
USPFO ARNG AVIAT	2542	WILMINGTON MANOR	19720	RAMSEY	31704
WILKINS FOUR COR	2762	POSTLES CORNER	19902	OCHILLEE	31905
NAVAL WAR COLLEG	2841	NATIONAL AIRPORT	20041	STARKE	32091
INDIA POINT	2906	STERLING	20164	NAVAL SUPPLY CEN	32212
GOSLING MEADOWS	3804	WOODYARD	20331	TYNDALL AIR FORC	32403
NAVAL AIR STATIO	4011	PATUXENT RIVER	20670	WARRINGTON NAVAL	32508
UNITED STATES PR	4333	PORTLAND	20755	NAVAL TRAINING S	32813
BANGOR	4401	USPS ZIP AREA 20	20886	PATRICK AIR FORC	32925
MORRIS CORNER	4751	CAPITOL VIEW PAR	20910	KEY WEST	33040
NOURSES CORNER	5446	USPS ZIP AREA 21	21077	VENETIAN ISLANDS	33139
WINDSOR LOCKS	6096	STONY BEACH	21226	MACDILL FIELD	33608
SUBMARINE BASE	6349	NAVAL ACADEMY	21402	WHO'D A THOUGHT	35201
PLANTSVILLE	6479	FREDERICK	21701	MARSHALL SPACE F	35812
PAMRAPO	7002	WOODLAWN VILLAGE	22060	CENTRE	35960
UNION SQUARE	7201	THE PLAINS	22171	UNITED STATES PR	36193
FORT MONMOUTH	7703	WAKEFIELD	22304	ANNISTON	36201
VICTORY GARDENS	7801	BOWLING GREEN	22427	MARS HILL	36362
WEST CAPE MAY	8204	WHITEOAK SWAMP	23150	FULTON ROAD	36605
VINELAND (S)	8360	DEFENSE GENERAL	23297	SELMA	36701
NEW JERSEY AIR N	8641	WEST MUNDEN	23324	UNITED STATES PR	37204
WOODMERE	8733	OCEANA GARDENS	23460	WILLIAM NORTHERN	37388
REPLACE 09X	11101	USPS ZIP AREA 23	23512	WINDY HILL	37620
3RD CGD GOVERNOR	10004	FORT EUSTIS	23604	HUNTSVILLE	37756
TODT HILL	10304	US NAVAL SHIPYAR	23709	WILLIAMS CHAPEL	38054
VAN CORTLANDTVIL	10566	MOUNT MINNIS	23801	LAMAR	38114
WEST POINT MILIT	10996	USPS ZIP AREA 27	27331	UNITED STATES PR	39208
USPS ZIP AREA 11	11001	SEYMOUR JOHNSON	27531	NAVAL JET AIRBAS	39309
NEW LOTS	11208	UNITED STATES PR	27607	WALLIS	39407
ROSEDALE	11422	WHITESTON	27919	GULFPORT	39501
SOUTH VALLEY STR	11581	WILKINSON BOULEV	28208	COLUMBUS	39701
NORTH BELLMORE	11710	WOMACK ARMY HOSP	28307	UNITED STATES PR	40121
WATERVLIET ARSEN	12189	YADKIN JUNCTION	28401	PARKWOOD	40214
WINONA LAKE	12550	NAVAL HOSPITAL	28542	RICHMOND	40475
PLATTSBURGH AIR	12903	WATEREE RIVER	29044	VETERANS ADMINIS	40511
HAWKINS CORNERS	13441	SHAW HEIGHTS	29152	FRANKFORT	40601
FORT DRUM	13602	FORT JACKSON	29207	FORT CAMPBELL	42223
VETERANS HEIGHTS	14304	SSCR CHARLESTON	29408	NEWARK	43055
YALE	14541	PARRIS ISLAND	29905	COLUMBUS	43216
UNITED STATES PR	14623	PLAZA	30050	RIVER EDGE	44135
UNITED STATES AR	15071	UNITED STATES PR	30316	REMINGTON	45242
STORAGE	15108	TRIPLETT	30660	WRIGHT-PATTERSON	45433

Customer Locations (continued)

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
SPRINGFIELD	45501	UNITED STATES PR	71360	HOLLOMAN AIR FOR	88330
UNITED STATES PR	46241	POLK ARMY AIR FI	71459	NELLIS AIR FORCE	89191
WAYNEDALE	46809	USPS ZIP AREA 71	71611	FALLON	89406
GRISSOM AIR FORC	46971	LITTLE ROCK AIR	72099	PEAVINE	89502
NAVAL WEAPONS SU	47522	UNITED STATES PR	72118	CARSON CITY	89701
UNITED STATES AR	48045	USPS ZIP AREA 72	72905	WESTCHESTER	90045
ROMULUS	48174	NORMAN	73069	MANUEL	90745
USPS ZIP AREA 48	48913	TINKER AIR FORCE	73145	VETERANS ADMINIS	90822
SUNRISE HEIGHTS	49015	RIDLEY	73503	SOUTH EL MONTE	91733
GRAYLING	49738	USPS ZIP AREA 73	73706	STUART	92055
RAILO SPUR	49843	TULSA INTERNATIO	74115	SSCR SAN DIEGO	92136
UNITED STATES PR	50131	MCALESTER	74501	MARINE CORPS BAS	92278
USPS ZIP AREA 50	50321	TEXAS AIR NATION	75211	MOJAVE	92311
WISCONSIN AIR NA	53207	USPS ZIP AREA 75	75505	NORTON AIR FORCE	92409
SUMMIT	53704	CARSWELL AIR FOR	76127	RIVERSIDE MUNICI	92518
SPARTA	54656	SHEPPARD AIRPORT	76311	MARINE CORPS AIR	92709
UNITED STATES AR	55111	WEST FORT HOOD	76544	NAVAL CONSTRUCTI	93043
PIKE LAKE	55811	GOODFELLOW AIR F	76908	WESTHAVEN STATIO	93245
LITTLE FALLS	56345	TEXAS AIR NATION	77034	USPS ZIP AREA 93	93403
SKYWAY	57706	RANDOLPH FIELD	78150	SILT	93523
GRAND FORKS AIR	58205	WILFORD HALL USA	78236	ORD	93941
DEVILS LAKE	58301	KINGSVILLE	78363	BRISBANE	94005
USPS ZIP AREA 58	58704	NAVAL AIR STATIO	78419	BAYVIEW	94124
MALMSTROM AIR FO	59402	WESTFIELD	78763	NAVAL STATION MA	94592
UNITED STATES PR	59624	USPS ZIP AREA 78	78843	WEST OAKLAND	94625
NAVAL TRAINING S	60088	REESE AIR FORCE	79489	STONY POINT	94928
928TH TACTICAL A	60666	DYESS AIR FORCE	79607	USPS ZIP AREA 95	95203
ROCK ISLAND ARSE	61299	USPS ZIP AREA 79	79916	YARMOUTH	95376
TUSCARORA	61607	FITZSIMONS ARMY	80045	WEST COAST AIR F	95652
WORCHESTER	62040	LOWRY AIR FORCE	80230	USPS ZIP AREA 95	95813
SCOTT AIR FORCE	62225	GOLDEN	80401	SUNSET	95903
USPS ZIP AREA 62	62702	UNITED STATES AI	80840	SIERRA ARMY DEPO	96113
WESTLAKE PARK	63044	UNITED STATES PR	80913	WAIPAHU	96797
USPS ZIP AREA 63	63103	WYOMING AIR NATI	82005	USPS ZIP AREA 96	96860
TRUMAN CORNERS	64030	MOUNTAIN HOME AI	83648	WILSON CORNER	97015
8TH MARINE CORPS	64106	BOISE	83707	USPS ZIP AREA 97	97218
WEST JOPLIN	64801	UTAH TEST AND TR	84056	USPS ZIP AREA 98	98001
USPS ZIP AREA 65	65109	UTAH AIR NATIONA	84116	UNITED STATES AR	98134
WHITEMAN AIR FOR	65305	DEFENSE DEPOT OG	84407	WHIDBEY ISLAND N	98278
UNITED STATES AR	65473	UNITED STATES PR	85008	TRIDENT REFIT FA	98314
OAK MILLS	66027	VELDA ROSE ESTAT	85205	WEGOE	98433
MARSHALL AIRFIEL	66442	LUKE AIR FORCE B	85309	REPLACE 987	98686
TOPEKA	66601	FORT HUACHUCA	85613	YAKIMA MUNICIPAL	98901
MCCONNELL AIR FO	67221	VANDENBURG VILLA	85707	WASHINGTON AIR N	99011
OFFUTT WEST	68113	USPS ZIP AREA 87	87117	WHITNEY	99506
USPS ZIP AREA 68	68508	USPS ZIP AREA 87	87502	USPS ZIP AREA 99	99619
SSCR NEW ORLEANS	70142	WHITE SANDS PROV	88002	LADD	99703
BARKSDALE AIR FO	71110	CLOVIS	88101		

TOTAL SUPPLIERS BY ZONE



– – – – – – – – 24 Hour Truck Delivery

. . . . . 48 Hour Truck Delivery

Note: Total Suppliers = 479

APPENDIX 3 -- Supplier Locations

Supplier Locations

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
LAJAS	667	WRIGHTSVILLE	8077	SYGAN	15017
SAN LORENZO	754	WILDWOOD GABLES	8260	SOMERSET	15501
PLAZA LAS AMERIC	918	VINELAND (S)	8360	BEDFORD	15522
WESTHAMPTON	1027	YORK ESTATES	8520	VALLEY BRICK	15668
WEST MANSFIELD	2048	USPS ZIP AREA 08	8543	STRANGFORD	15717
WEYBOSSET HILL	2903	TRENTON HIGHLAND	8619	EBENSBURG	15931
RIVERSIDE	2915	SLACKWOOD	8638	MILLERSTOWN	16662
GOSLING MEADOWS	3804	USPS ZIP AREA 08	8855	HYDE	16843
SOUTH SANFORD	4073	OSTRANDER	8863	LITTLE GERMANY	17024
WILLIMANTIC	4443	RAVEN ROCK	8869	WINDSOR PARK	17055
WARREN STATION	4864	USPS ZIP AREA 08	8875	RUDYTOWN	17070
SPRAGUES MILL	4928	SOMERVILLE	8876	NEW KINGSTOWN	17072
STEELES	6040	USPS ZIP AREA 08	8903	CHAMBERSBURG	17201
WYNDWOOD	6067	36TH STREET	10011	TEXAS	17307
ELMWOOD	6110	HUBERT STREET ST	10013	YORK HAVEN	17370
USPS ZIP AREA 06	6143	MURRAY HILL	10016	YORK	17405
ESSEX	6426	NEW YORK TRUCK C	10018	SUNBURY	17801
WOODBRIDGE	6525	37TH STREET	10036	USPS ZIP AREA 18	18103
WHISCONIER	6804	TREMONT	10457	ZEHNERS	18252
WINNEPAUK	6851	WASHINGTON HEIGH	10940	POCONO PINES	18350
WEST CALDWELL	7004	UPPER NYACK	10960	SWIFTWATER	18370
NORTH CALDWELL	7006	POMONA	10970	WHITES CROSSING	18407
UNDERCLIFF	7020	WEST POINT MILIT	10996	TOBYHANNA SIGNAL	18466
GARWOOD	7027	KENSINGTON	11022	WARSAW	18512
WOODCLIFF	7047	THE TERRACE	11050	MONTGOMERYVILLE	18936
TROY HILLS	7054	QUEENSBRIDGE	11101	WRIGHTSTOWN	18940
WALLINGTON	7057	PRATT	11205	YORK ROAD	18974
RUTHERFORD JUNCT	7070	METROPOLITAN	11206	WOODRIDGE FARMS	19006
SOUTH PLAINFIELD	7080	WILLIAMSBURG	11211	YELLOWWOOD	19007
UNIONBURY	7083	REGO PARK	11374	TORRESDALE MANOR	19020
WEST HOBOKEN	7087	NEWTOWN CREEK	11379	CROYDON	19021
WOODBRIDGE	7095	CENTRAL	11435	ZEBLEYS CORNER	19061
OAK ISLAND LANDB	7105	STEWART MANOR	11530	PENN VALLEY	19072
LYONS FARMS	7205	OCEANSIDE	11572	WILLOWBURN	19085
FRANKLIN LAKES	7417	VILLAGE OF THE B	11787	913TH TAG FB6637	19090
WAYNE TOWNSHIP	7470	HAUPPAUGE	11788	WYNCOTE HILLS	19095
SOUTH PATERSON	7503	PLAINVIEW	11803	USPS ZIP AREA 19	19101
EAST	7514	WEST SYRACUSE	13088	ROCKLEDGE	19111
ENGLEWOOD CLIFFS	7632	SOUTH OTSELIC	13155	58 & WOODLAND	19112
ROCKLEIGH	7647	STATION G	14213	TORRESDALE	19114
TENAFLY	7670	WEST AMHERST	14228	SOMERTON	19116
FORT MONMOUTH	7703	VETERANS HEIGHTS	14304	OLNEY	19120
WEST END	7740	CANANDAIGUA	14424	NORTH PHILADELPH	19132
MORGANVILLE	7751	WALLINGTON	14551	TRENTON AVENUE	19134
HANOVER NECK	7936	USPS ZIP AREA 14	14607	BRIDESBURG	19137
SEDGEFIELD	7950	USPS ZIP AREA 14	14650	WYOMING AVENUE	19140
WILLIAMSTOWN JUN	8009	WEST ELLICOTT	14701	YOUNGSBURG	19320
WALL ROPE WORKS	8075	STEAM VALLEY	14760	WASHINGTON PARK	19406

Supplier Locations (continued)

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
YERKES	19426	USPS ZIP AREA 28	28221	TREVECCA COLLEGE	37210
USPS ZIP AREA 19	19482	WOMACK ARMY HOSP	28307	WILLIAM NORTHERN	37388
WINDSOR CASTLE	19526	WARDS	28431	VOSE	37701
WEST LEESPORT	19533	JACKSONVILLE	28540	WHITE OAK	37766
NORTHMONT	19604	NAVAL HOSPITAL	28542	USPS ZIP AREA 37	37815
USPS ZIP AREA 19	19612	ZEPHYR	28621	VERDUN	37841
USPS ZIP AREA 19	19898	BRYSON CITY	28713	SEVIERVILLE	37862
WASHINGTON SECTI	20500	WAYNESVILLE	28786	NORTH YARD	38107
REDLAND	20855	ASHEVILLE	28802	PARKWAY VILLAGE	38118
PHILLIPS ARMY AI	21005	LEXINGTON	29072	CORINTH	38834
BELCAMP	21017	WHIPPER BARONY	29405	GOLDEN	38847
RASPEBURG	21206	SSCR CHARLESTON	29408	IUKA	38852
CUMBERLAND	21502	USPS ZIP AREA 29	29650	NOGAN	39204
FREDERICK	21701	PEACHTREE CORNER	30092	UNITED STATES PR	40121
TURNPIKE	22031	KENNESAW	30144	USPS ZIP AREA 40	40217
WAKEFIELD CHAPEL	22037	LAWRENCEVILLE	30245	WORTHINGTON HILL	40222
HEATHSVILLE	22473	THOMASVILLE	30315	VETERANS ADMINIS	40511
MONTROSS	22520	CUMBERLAND CENTE	30339	USPS ZIP AREA 40	40512
DOWNTOWN	22902	SOUTH BASE	31098	SUGARTIT	41042
SCOTCHTOWN	23005	WALDEN	31206	JOHNS HILL	41076
YELLOW TAVERN	23060	DARIEN	31305	WILLIAMSTOWN	41097
NORTHSIDE STATIO	23222	UNITED STATES PR	31314	USPS ZIP AREA 42	42102
SOUTHSIDE STATIO	23224	STAFFORD	31547	FORT CAMPBELL	42223
WILLOW LAWN	23230	RAMSEY	31704	YAMACRAW	42647
USPS ZIP AREA 23	23261	WHITESVILLE	31833	DUBLIN	43017
DEFENSE GENERAL	23297	OCHILLEE	31905	MUDSOCK	43026
WOODHURST	23452	PICKETTVILLE	32205	MARYSVILLE	43040
NORFOLK	23501	USPS ZIP AREA 32	32404	NEWARK	43055
VIRGINIA PLACE	23508	USPS ZIP AREA 32	32606	STATION F	43206
WILLOUGHBY SPIT	23511	EASTGATE	32792	STATION G	43207
USPS ZIP AREA 23	23512	USPS ZIP AREA 32	32859	HOMEDALE	43214
US NAVAL SHIPYAR	23709	PATRICK AIR FORC	32925	COLUMBUS	43216
LAWRENCEVILLE	23868	RINKER	33010	SHEPARD	43219
USPS ZIP AREA 24	24506	USPS ZIP AREA 33	33016	WESTLAND SHOPPIN	43228
USPS ZIP AREA 26	26102	USPS ZIP AREA 33	33126	EASTLAND	43232
ELIZABETH	26143	SOLEO	35072	MARION	43302
VALLEYVIEW	27106	WILLIAMS	35173	BELLEFONTAINE	43311
WADEVILLE	27306	WHO'D A THOUGHT	35201	LUGBILL ADDITION	43502
WHITES CHAPEL	27316	CENTRE	35960	WEST TOLEDO	43612
USPS ZIP AREA 27	27331	MONTGOMERY	36104	STEUBENVILLE	43952
SILK HOPE	27344	WEST SIDE	36108	ELYRIA	44035
STATION C	27603	USPS ZIP AREA 36	36124	TWINSBURG HEIGHT	44087
WELLONS VILLAGE	27703	ANNISTON	36201	WEST PARK	44111
USPS ZIP AREA 27	27835	WHITE CROSSROADS	36274	NELA PARK GENERA	44112
WILSON	27893	USPS ZIP AREA 36	36604	RIVER EDGE	44135
UNION	27910	SELMA	36701	WESTLAKE	44145
STONY POINT	28086	BRENTWOOD	37027	MEDINA	44256
WILKINSON BOULEV	28208	NORTHEAST	37207	RAVENNA	44266

Supplier Locations (continued)

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
USPS ZIP AREA 44	44316	ELK GROVE VILLAG	60007	DANVILLE	72833
WESTVIEW	44706	ROLLING MEADOWS	60008	TINKER AIR FORCE	73145
WACO	44707	WEST DEERFIELD T	60015	RIDLEY	73503
WEST POINT	44833	NORTHBROOK WEST	60062	USPS ZIP AREA 74	74119
CINCINNATI	45202	VETERANS ADMINIS	60064	MIAMI	74354
DAYTON	45401	WHEELERVILLE	60069	NORTHAVEN	75229
USPS ZIP AREA 45	45414	BUFFALO GROVE	60089	USPS ZIP AREA 75	75236
USPS ZIP AREA 45	45444	USPS ZIP AREA 60	60123	USPS ZIP AREA 75	75607
SPRINGFIELD	45501	WOODFIELD MALL	60173	USPS ZIP AREA 75	75703
NEW KNOXVILLE	45871	USPS ZIP AREA 60	60202	GREAT SOUTHWEST	76005
USPS ZIP AREA 46	46218	LINCOLNSHIRE	60417	USPS ZIP AREA 76	76092
NEW AUGUSTA	46268	USPS ZIP AREA 60	60433	USPS ZIP AREA 76	76109
BUFFINGTON	46406	UNIVERSITY PARK	60466	WESTWORTH VILLAG	76114
PACKMAN	46515	USPS ZIP AREA 60	60505	GLENCREST	76119
USPS ZIP AREA 46	46546	15TH AND PEORIA	60606	WEST FORT HOOD	76544
USPS ZIP AREA 46	46803	37TH STREET YARD	60609	MEDIO	77020
SPEED	47172	WESTERN AVENUE	60612	USPS ZIP AREA 77	77064
USPS ZIP AREA 47	47202	WEST PULLMAN	60628	USPS ZIP AREA 77	77077
VINCENNES	47591	FORTY SEVENTH ST	60632	USPS ZIP AREA 77	77210
USPS ZIP AREA 47	47733	NOTTINGHAM PARK	60638	ADDICKS BARKER	77218
UNITED STATES AR	48045	MARS	60639	USPS ZIP AREA 77	77252
PORT HURON	48060	PORTAGE PARK	60641	USPS ZIP AREA 77	77305
USPS ZIP AREA 48	48066	ROCK ISLAND ARSE	61299	PEARLAND IMPORT-	77581
SCIO	48130	PONTIAC	61764	KERRVILLE	78028
SHERWOOD GARDENS	48150	WORCHESTER	62040	USPS ZIP AREA 78	78044
HARPER	48213	USPS ZIP AREA 62	62222	GUILBEAU	78204
USPS ZIP AREA 48	48216	USPS ZIP AREA 63	63109	TEXAS AIR NATION	78241
ROYAL OAK TOWNSH	48220	WEBSTER PARK	63119	USPS ZIP AREA 78	78295
USPS ZIP AREA 48	48341	USPS ZIP AREA 63	63120	WHITE	79901
PHOENIX	48342	SOUTHWEST	63139	USPS ZIP AREA 79	79916
WOLVERINE LAKE	48390	USPS ZIP AREA 63	63164	TERMINAL ANNEX	80217
ROGERSVILLE	48458	WALDO	64108	UNITED STATES PR	80913
HOWELL	48843	NORIA	66025	ROCKRIMMON	80919
VALLEY FARMS	48906	JAYHAWK	66046	VINELAND	81001
USPS ZIP AREA 49	49001	OLATHE	66061	SUNSET	81005
HASTINGS	49058	ROSEDALE	66103	MORGAN	84050
GRAYLING	49738	ZARAH	66215	UTAH TEST AND TR	84056
WAUBEEK	52214	MARSHALL AIRFIEL	66442	TOOELE	84074
WAYNE	53010	WICHITA UNIVERSI	67201	USPS ZIP AREA 84	84104
VILLARD	53209	USPS ZIP AREA 68	68103	USPS ZIP AREA 84	84123
USPS ZIP AREA 53	53744	LEXINGTON	68850	WILLIAMS AIR FOR	85240
TWO RIVERS	54241	WASHINGTON PLACE	70123	YESO	85282
USPS ZIP AREA 54	54602	USPS ZIP AREA 70	70174	USPS ZIP AREA 85	85734
SPARTA	54656	USPS ZIP AREA 70	70181	WEST BELEN JUNCT	87002
OSHKOSH	54901	USPS ZIP AREA 70	70184	USPS ZIP AREA 89	89115
USPS ZIP AREA 54	54903	ENERGY	70598	WEST ADAMS	90016
MINNEAPOLIS	55440	WHITE HALL	71602	VERNONDALE	90058
SPROLE	59255	WYNNE	72396	REYES	90220

Supplier Locations (continued)

Location Name	Zip Code	Location Name	Zip Code	Location Name	Zip Code
USPS ZIP AREA 90	90224	VICTORIA	92346	SHARPE ARMY FIEL	95331
VINVALE	90241	MESA CENTER	92627	WEST COAST AIR F	95652
USPS ZIP AREA 90	90248	XALISCO	92647	PLACERVILLE	95667
WORKMAN	90280	LEMON HEIGHTS	92705	USPS ZIP AREA 95	95813
USPS ZIP AREA 90	90509	VENTA	92714	RED BLUFF	96080
VETERANS ADMINIS	90822	SUNKIST	92806	USPS ZIP AREA 96	96860
SYLMAR	91342	WHITE HILLS JUNC	93436	USPS ZIP AREA 96	96863
VALENCIA	91355	USPS ZIP AREA 94	94120	WILSON	97208
CLAREMONT	91711	SNOBOY	94538	USPS ZIP AREA 97	97282
SAVOY	91722	CHABOT COLLEGE	94545	WILDCAT LAKE	98310
USPS ZIP AREA 91	91790	NAPA	94558	TRIDENT REFIT FA	98314
STUART	92055	USPS ZIP AREA 94	94606	WEGOE	98433
USPS ZIP AREA 92	92132	STATION B	94607	VANCOUVER JUNCTI	98660
SSCR SAN DIEGO	92136	WEST OAKLAND	94625	YAKIMA VALLEY CO	98902
USPS ZIP AREA 92	92173	USPS ZIP AREA 94	94710	TRENTWOOD	99215
MOJAVE	92311	USPS ZIP AREA 94	94949		

DEFENSE DEPOT
MEMPHIS, TENNESSEE
REGIONAL HEARING TESTIMONY
"FIRST IN WAR/FIRST IN PEACE"
April 4, 1995

INDEX

HAROLD E. FORD
9TH DISTRICT, TENNESSEE

COMMITTEES:
WAYS AND MEANS
SUBCOMMITTEE ON HUMAN RESOURCES

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Congress of the United States

House Of Representatives

Washington, DC 20515-4209

March 29, 1995

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

Dear Mr. Chairman:

We are jointly writing to ask that you consider several issues as you review the Pentagon's recommendation to close the Defense Distribution Depot Memphis (DDMT).

On March 24, Commissioner S. Lee Kling visited the Defense Distribution Depot Memphis. At that time, the Memphis community thoroughly briefed Commissioner Kling and key staff on DDMT's vital logistics mission and the flaws in the Defense Logistics Agency's closure justification. We believe the issues raised by the community strongly demonstrate the necessity to remove DDMT from the Department of Defense list of recommended closures.

The key issues which we believe justify keeping DDMT open are based upon the value the Department of Defense receives from DDMT and the depot's vital contribution in supplying our fighting forces in times of war and peace. The military value factors that should be considered are the depot's diverse missions, the exceptional transportation infrastructure assets available in Memphis, critical joint service operations and the depot's superior thruput and surge capacity.

DDMT supported the soldier in the following diverse military operations: Just Cause, Restore Democracy, Restore Hope, Southern Watch, and Desert Shield/Desert Storm. Most recently, DDMT was designated as the primary consolidation depot for Operation Bright Star in Southwest Asia. DDMT also provided humanitarian support during major natural disasters in the United States.

Commissioner Kling was given a tour of the extensive transportation assets available to DDMT. They include north/south and east/west national defense interstates, 200 truck lines, six class I railroads, 96 daily freight trains, the world's largest cargo airport and a major water port with ocean going capability. The rail and port assets available to DDMT are unmatched. They include 26 miles of operational capable rail, rail lines that run directly to loading ramps, intermodal rail capability, containerization capability at DDMT and the Port of Memphis, and finally, the ability to service ocean going vessels 88% of the year.

There are several uniquely suited operations performed at DDMT. They include the only B-ration consolidation and shipment program which provided the majority of subsistence for the soldiers in Operation Desert Shield/Desert Storm. DDMT participated in this and other contingency missions with the 164th Military Airlift Wing of the Tennessee Air National Guard. This along with other key joint operations contributes significantly to the military value of DDMT. The DLA has also implemented test programs at DDMT that are unique to DLA. DDMT's material mechanized handling system provides automated packing of less-than-truckload shipments. In addition, DDMT's automated transportation system, bulk receiving and DLA Premium Service through Federal Express are all unique resources in the DLA system.

DDMT's thruput and surge capacity was demonstrated during Operation Desert Shield/Desert Storm when it operated three continuous eight hour shifts during the operations. Moreover, we believe DDMT's actual surge capacity was severely underestimated by the DLA in its BRAC analysis.

We ask the Commission to closely examine the DLA's BRAC analysis with specific attention to three key issues. First, we believe that the DLA should have considered DDMT as a Primary Distribution Site (PDS) in the DLA system. Substantial capital investment in mechanization, consolidation and containerization and storage thruput capacity - all key characteristics of a PDS - have been made at the depot in recent years. In fact, DDMT was designated as a PDS in 1992 but was subsequently stripped of such designation by the DLA.

Second, we ask the Commission to investigate the DLA's use of the COBRA model to determine if it accurately estimated the cost to move the DDMT. Third, with respect to the DLA's Installation Military Value analysis, we ask the Commission to carefully scrutinize their interpretation of military value with particular attention focused on the mission scope portion of the installation analysis. Had this questionable factor of mission scope been excluded from the Installation Military Value analysis, DDMT would have placed second in the overall installation ranking - not sixth. This methodology of scoring portable tenant missions severly skewed the military value analysis and is of questionable merit when evaluating the benefit the military receives from DDMT.

Mr. Chairman, we understand the difficult job the Commission faces in the days ahead, and we stand ready to provide any information with respect to the key military value and community issues at hand. We believe the issues stated in this letter clearly demonstrate the need to revise the Department of Defense recommendation to close DDMT and would respectfully ask that you give our arguments your most serious consideration.

Sincerely,

U.S. Representative Harold Ford

U.S. Senator Fred Thompson

U.S. Representative John Tanner

U. S. Representative Ed Bryant

U. S. Representative Blanche Lincoln

U.S. Representative Roger Wicker

CITY OF MEMPHIS
AND
SHELBY COUNTY, TENNESSEE

DR. W. W. HERENTON
City of Memphis Mayor

JIM ROUT
Shelby County Mayor

March 31, 1995

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

Dear Chairman Dixon and Commission Members:

We are pleased to submit the attached documentation in support of retaining the Defense Depot-Memphis, Tennessee (DDMT) with its current mission. We are convinced that the Defense Logistics Agency (DLA) analysis and the resulting closure decision are flawed: they seriously understate the military value of DDMT for both operational contingencies and humanitarian operations.

The three primary factors we feel demonstrate the strategic value of DDMT relative to the Department of Defense national distribution network are summarized below:

DDMT'S TRANSPORTATION INFRASTRUCTURE IS "SECOND TO NONE"

Memphis is recognized as "America's Distribution Center" by numerous major corporations and related trade publications. This is due to the unmatched transportation infrastructure including the largest volume cargo airport in the world, the second largest inland river port in the country, six major railroads, and the cross roads of north-south and east-west interstate highways.

DDMT'S CAPABILITIES ARE "SECOND TO NONE"

DDMT has a state of the art physical plant that is not duplicated in any other DLA facility. It is a totally integrated and mechanized facility, capable of handling a broad range of material. Because of its diverse capabilities, DDMT has also been the test bed for "cutting edge" prototype missions including Unitized B-Rations, Unitized Group Rations, and DLA Premium Service.

DDMT HAS A LINCHPIN ROLE

The material storage and handling capacity of DDMT is vital to the national defense distribution network. Having a Primary Distribution Site in Memphis offers unparalleled support to military operations, whether directly to military units or as an augmentation to an east of west coast embarkation

point. The routine daily "Thruput" is nearly 18,000 lines, and the "Surge Capacity" is 46,000 line items. The Memphis area has the experienced workers that has given DDMT the capability for three shifts, at eight hours a day, five days a week.

CONCLUSION

DDMT has demonstrated its motto "First in War/First in Peace." DLA's own reports attest to DDMT's outstanding performance in its most recent large scale challenge -- Desert Shield and Desert Storm. Upon review of the evidence, we believe the Commission will join us in concluding that DDMT is a vital link in the Defense Department's distribution system and should not be closed.

Respectfully,

W. W. Herenton

Dr. W. W. Herenton
Mayor, City of Memphis

Jim Rout

Jim Rout
Mayor, Shelby County

Enclosures:

MEMPHIS, TENNESSEE

COMMUNITY PRESENTATION

TO THE

1995 BASE REALIGNMENT AND CLOSURE

COMMISSION

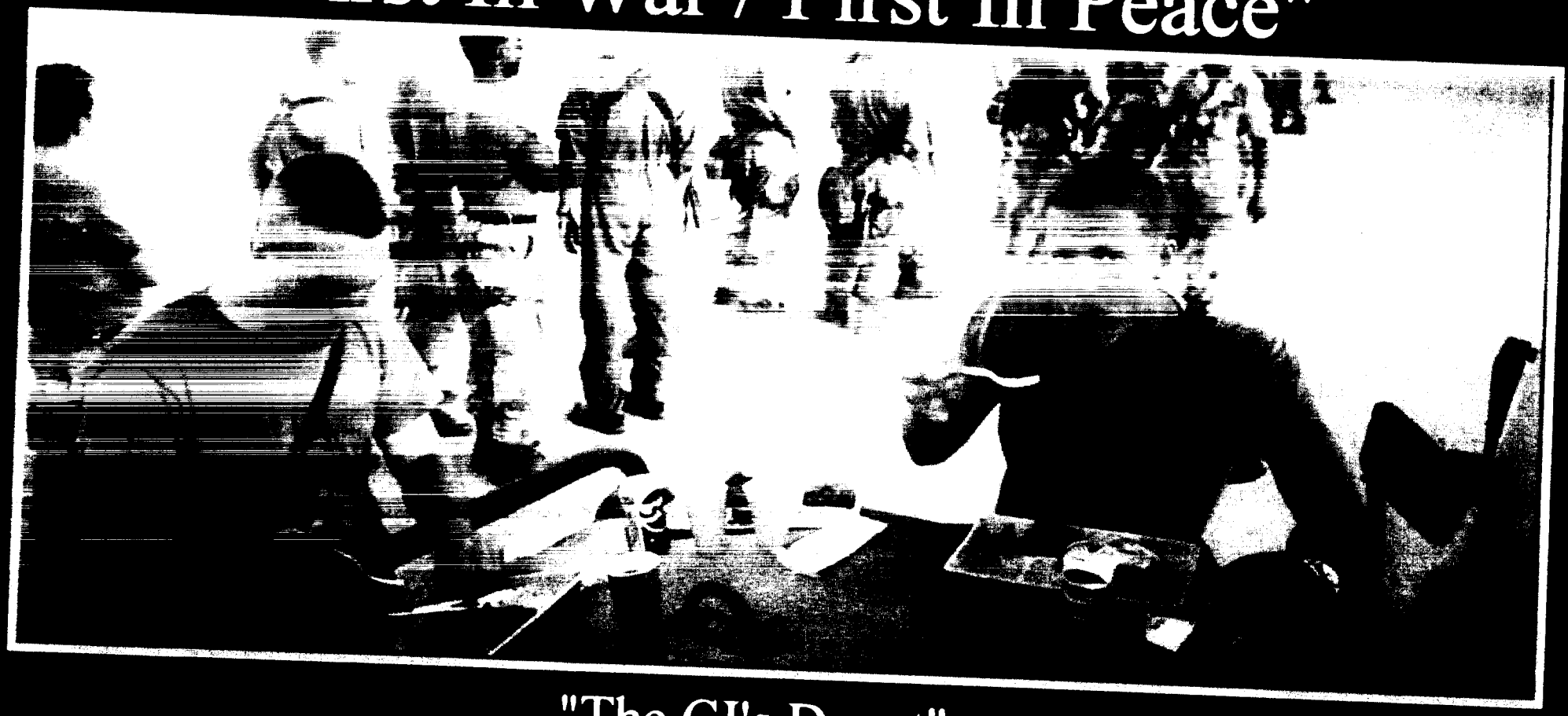
Birmingham, Alabama
April 4, 1995

Slide # 1


MEMPHIS
America's Distribution Center

Defense Depot - Memphis, Tennessee (DDMT)

"First In War / First In Peace"



"The GI's Depot"

Memphis City Aerial

DDMT- COMMUNITY PRESENTATION
BRIEFING OUTLINE

- Military Value Factors
  - Diverse Missions
  - Transportation Infrastructure
  - Uniqueness of DDMT
  - Joint Service Operations
  - Thruput/Surge Capacity
- COBRA Related Issues
- Issues Relating to DLA Analysis
- Conclusion

MEMPHIS TRANSPORTATION INFRASTRUCTURE

- Truck
  - North-South & East-West Interstates
  - 200 Truck Lines
- Rail
  - Six Class I Railroads
  - 96 Freight Trains Daily
  - Micro-Bridge & Mini-Bridge Service
- Airport
  - World's Largest Cargo Airport (3.6 Million Metric Tons)
- Outport (Port of Memphis)
  - 3,140,000 Short Tons Shipped in 1993

AVERAGE DAILY RAIL & TRUCK TRAFFIC CAPACITY PEACETIME AND MOBILIZATION

(By Rail Car)

	Memphis (DDMT)	Mechanicsburg (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)
Peacetime	**1.6**	1.0	0.9	0.9	0.1	0.0
Mobilization	**4.1**	2.6	2.2	4.3	0.3	0.0

(By Truckload)

Peacetime	**459**	196	185	122	142	92
Mobilization	**1,129**	491	461	306	358	232

DDMT Use of Truck and Rail During Operations Desert Shield/Desert Storm

	Memphis (DDMT)	Mechanicsburg (DDMP)	Richmond (DDRV)	Ogden (DDOU)	Tracy (DDTC)	Columbus (DDCO)
Avg Daily Truckload: In	**420**	160	108	120	90	60
Avg Daily Truckload: Out	**148**	88	126	35	90	58
Avg Daily Truckload: In/Out	**568**	248	234	155	180	118
Avg Monthly Rail Cars: In	**103**	5	70	45	78	0
Avg Monthly Rail Cars: Out	**25**	0	0	23	0	0
30 Day Avg Rail Cars: In/Out	**126**	6	69	66	75	0

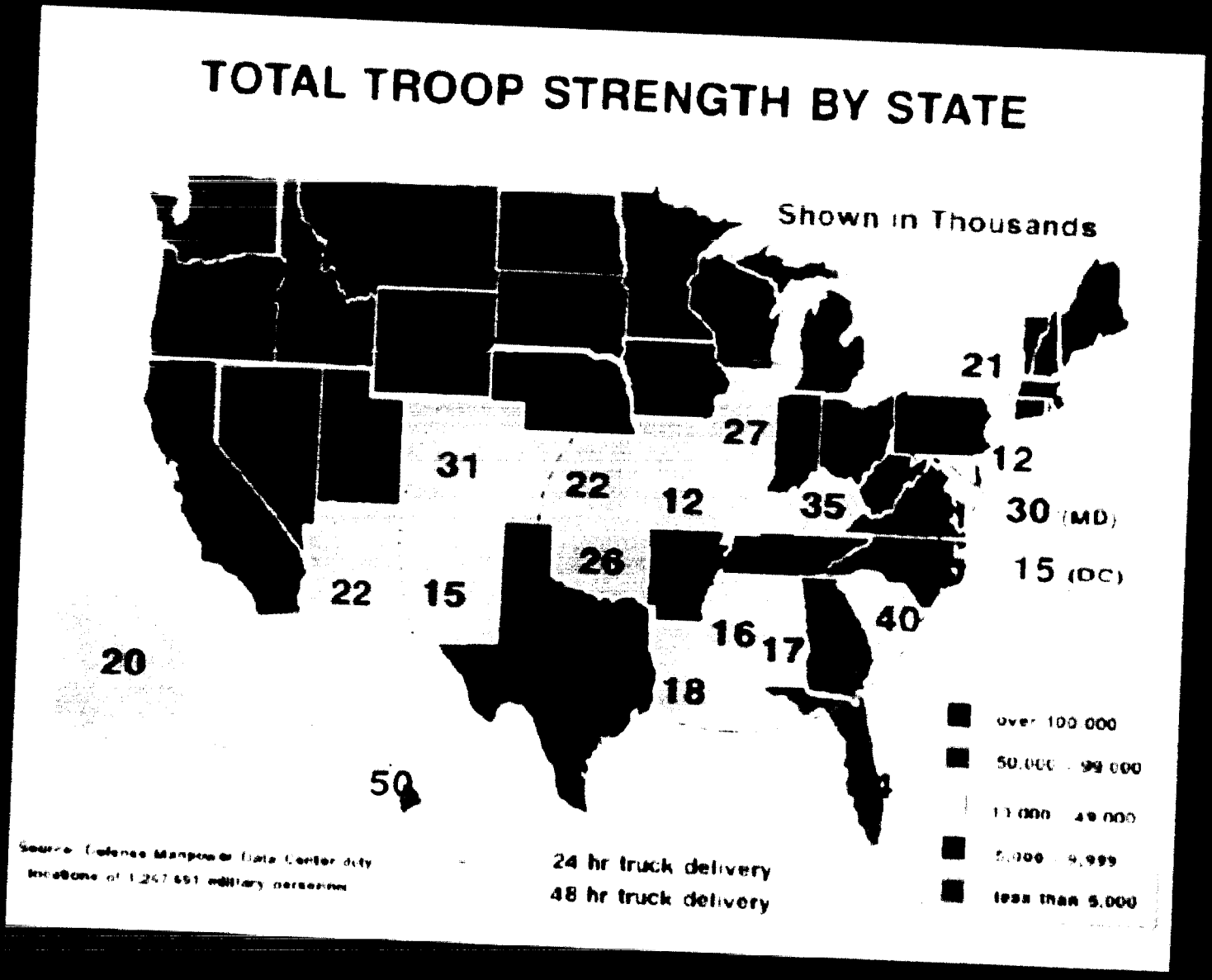
DDMT Rail/Port Assets & Capabilities

- 26 Miles of Operational Rail On DDMT
- Rail Lines Run Directly To Loading Ramps
- Rail System Ties Into Intermodal Rail Capability at Port of Memphis
- Containerization Capability at DDMT and Port of Memphis
- Ability to service ocean-going vessels 88% of the year

MEMPHIS INTERNATIONAL AIRPORT
CARGO OPERATIONS

- 99.2% of flights at Memphis are cargo-related.
- 261,810 aircraft movements in/out of Memphis are cargo-related.
- 3.6 million metric tons shipped annually through Memphis.
- Ranked #1 cargo airport in the world by Airports International magazine, Geneva 1994.
- FedEx provides CRAF support with ability to move 15.3 million pounds of cargo utilizing the following 50 aircraft:
  - Thirteen MD 11's
  - Two 747's
  - Thirty-five DC-10's

24/48 Hour Processing



DLA Analysis of DDMT Transportation Assets

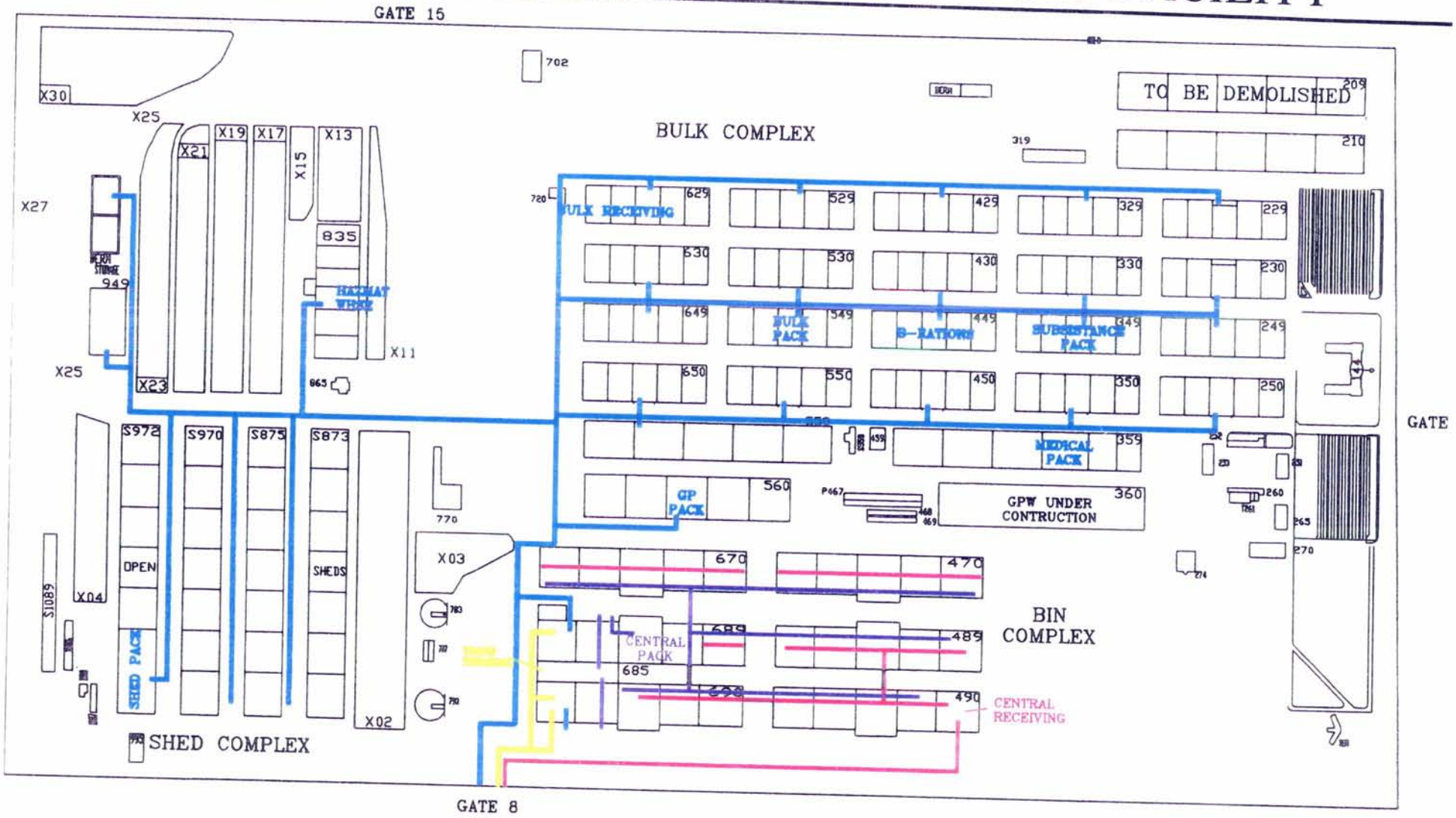
Mission Suitability Factor Weighting

Rail	0
Surface	0
Air	10
Water	10

DDMT
"UNIQUELY SUITED FOR THE MISSION"

- DLA Prototype / Test Bed Missions at DDMT
- B-Ration Program
- Desert Shield / Desert Storm
- HAZMAT Capacity For Current and Future Needs

DDMT - AN INTEGRATED OPERATING FACILITY



BIN RECEIPTS/STOW

BIN PACK/CENTRAL PACK

BULK RECEIPTS/STOW/PACK/OUTLOAD

TRANSPORTATION OUT

RECEIVING FULL TRUCK LOADS ALL BULK/SHED WHSES

TRANSPORTATION TERMINAL DEPOT WIDE

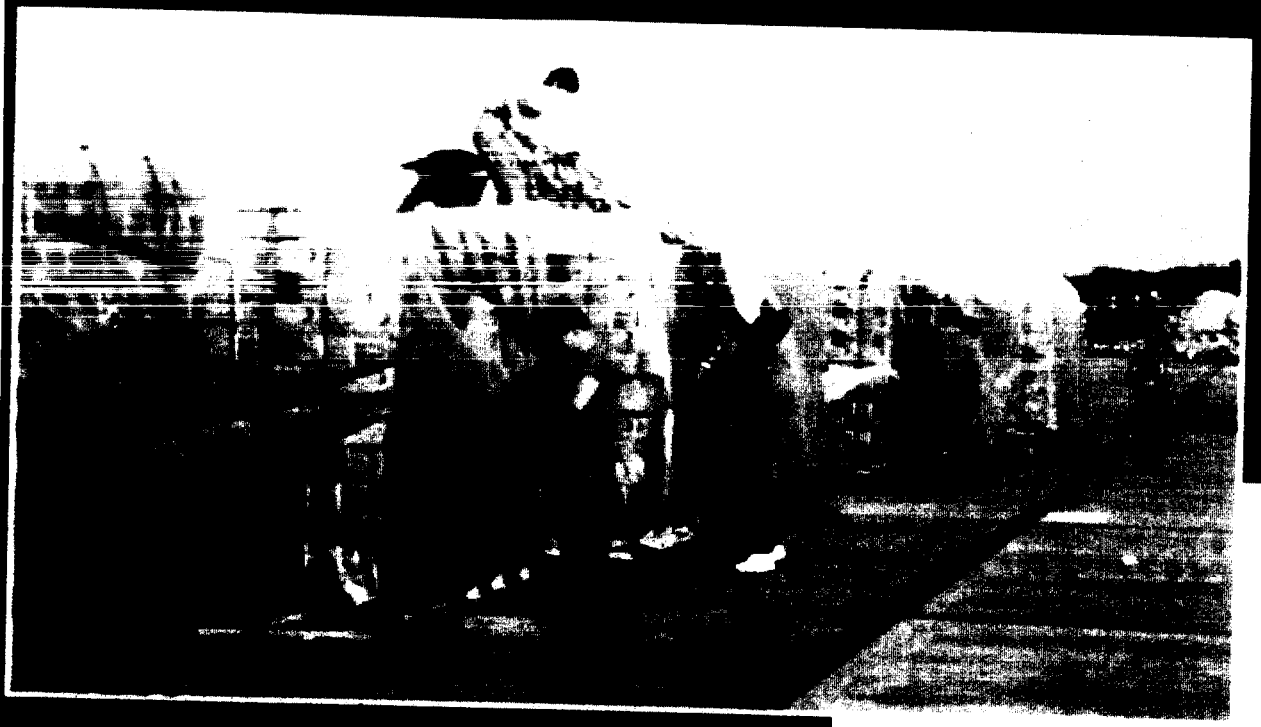
INTRA-DEPOT TRANSPORTER TRUCK SERVICE

-N-

DDMT / On-Site Reserve Training

- USAR 658th General Support Company
- USNR 109th Supply Services Unit
  - Unit Training Assemblies/Annual Training
  - Fully Integrated Into Depot Operations
  - Validation of Readiness Posture

DDMT - "Jointness in Action"



DDMT - THRUPUT/SURGE CAPACITY

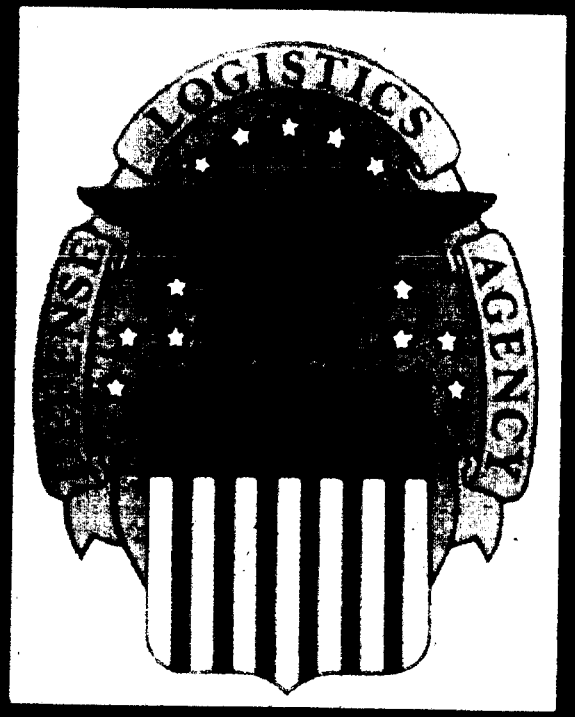
Thruput

- Average daily lines in and out peaked at 17,819 in September 1990.

Surge Capacity

- Actual surge capability is 46,000 line items vs DLA assumption of 23,000.
- Desert Shield / Desert Storm performance.
- Capability for three shifts, eight hours, five days (3,8,5) during surge.

"DDMT - Part Of The Team"



DDMT

DLA Primary Distribution Site (PDS) Requirements

- PDS Characteristics
  - Substantial Capital Investment
    - -- Mechanization
    - -- Consolidation/Containerization
    - -- Storage/Thruput Capacity

- DDMT designated as a PDS in 1990. DLA unilaterally redesignated DDMT as a stand-alone depot, despite increasing capability.

COBRA Analysis

- Not germane because 50% mission goes to Base X.
- Real world problems are not encountered with fictitious Base X.
- Cost calculation does not include replacement facilities for DDMT's HAZMAT facilities.

ISSUES RELATING TO DLA ANALYSIS

- Installation Military Value Analysis
  - Mission scope calculation is not relevant
  - Missions are portable and could be returned to DDMT
  - Portability of tenant missions (mission scope) skews analysis

- Since 1993, the following portable missions were moved by DLA from DDMT:
  - Defense Industrial Plant Equipment Center
  - Defense Distribution Region Central
  - Defense Systems Automation Center

- Mission scope constituted 30% of DLA's Installation Military Value ranking and significantly skewed the outcome.

ISSUES RELATING TO DLA ANALYSIS (Cont.)

Installation Military Value Ranking

With Mission Scope			Without Mission Scope		
Columbus, OH	-	1	Ogden, UT	-	1
New Cumberland, PA	-	2	Memphis, TN	-	2
Richmond, VA	-	3	Richmond, VA	-	2
Tracy/Sharpe, CA	-	4	New Cumberland, PA	-	4
Ogden, UT	-	5	Columbus, OH	-	4
Memphis, TN	-	6	Tracy/Sharpe, CA	-	6

ISSUES RELATING TO DLA ANALYSIS (Cont.)

- Factors Not Properly Considered

  - Thruput
  - "Just in Time"
  - Containerized Cargo
  - HAZMAT
  - Weather
  - Rail
  - Surface
  - Jointness

- Failure to Consider 3rd PDS is inconsistent with National Military Strategy

  - Surge/cost implications
  - Contingency & Humanitarian Requirements
  - DLA Desert Storm "Lessons Learned" report in 1992 recommended another major consolidation point due to costs and inefficiencies of east/west coast cargo transit

ISSUES RELATING TO DLA ANALYSIS (Cont.)

- DLA BRACEG Minutes Indicate Pre-Determined Outcome
  - East Coast/West Coast (March 18, 1994)
  - DLA Concept of Operations and Strategy developed concurrently with BRAC recommendations (March 18, 1994)
  - Concept of operations changed to remove any appearance of a predecision (July 6, 1994)
- Subjectivity
  - Military Judgement
  - ". . . you can almost make the analysis say what you want it to say." (DLA testimony at 1995 BRAC hearing [March, 1995])

Defense Depot - Memphis, Tennessee (DDMT)

"First In War / First In Peace"

"The GI's Depot"

CONCLUSIONS

- Installation Military Value analysis misapplied; when correctly applied DDMT is #2.
  - Mission scope calculation is not relevant
  - Missions are portable and could be returned to DDMT
  - Portability of tenant missions (mission scope) skews analysis

- Transportation Infrastructure
  - Memphis is "America's Distribution Center"
  - Largest Air Cargo Transport Center in the world

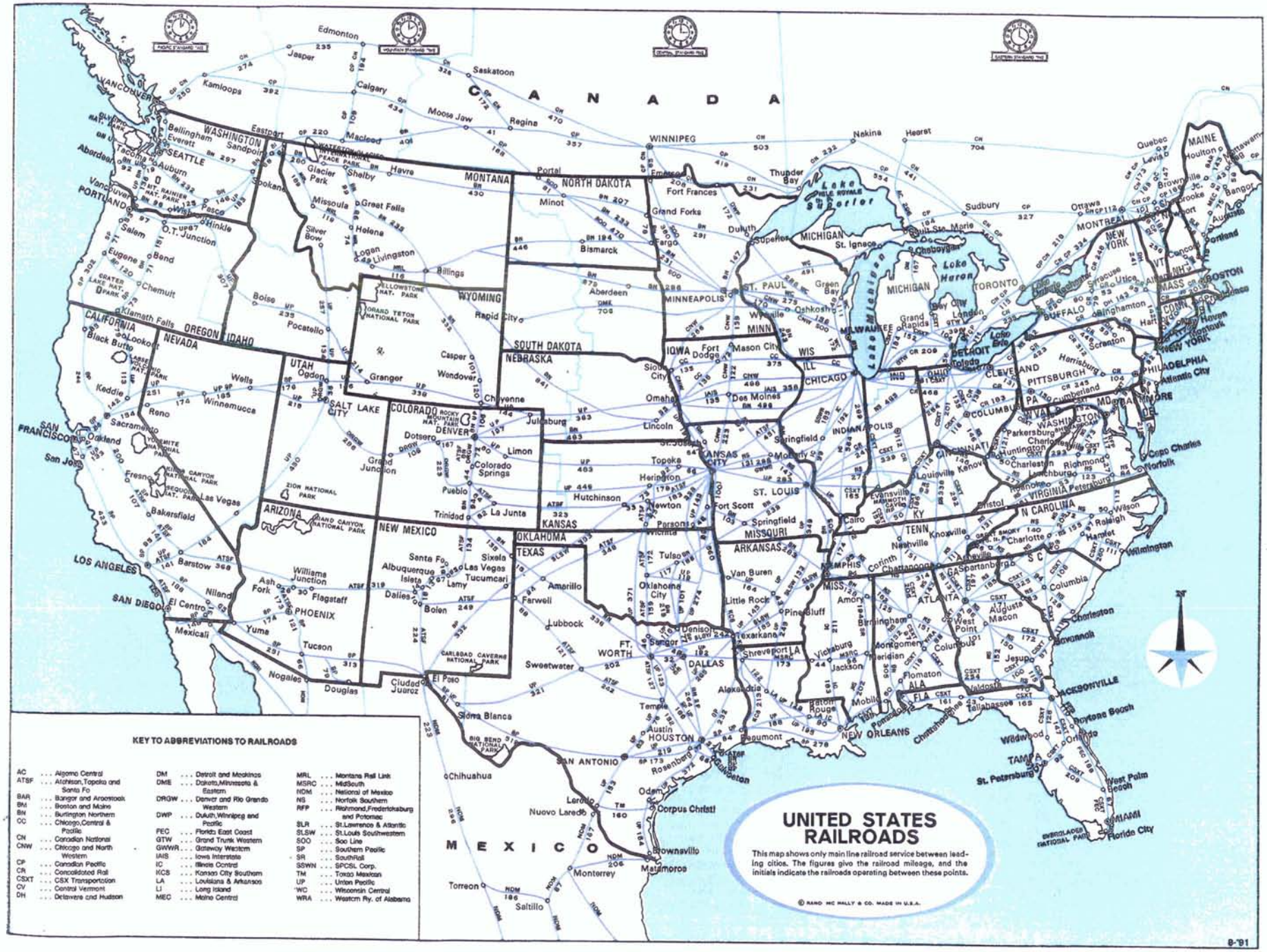
- DLA did not apply Desert Storm lessons learned -- highlighted requirements for additional CCP.

SLIDE SOURCE PAGE

SLIDE #8:	AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)
SLIDE #9:	AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)
SLIDE #10:	• "ABILITY TO SERVICE OCEAN-GOING VESSELS 88% OF THE YEAR." -- PORT OF MEMPHIS (1995)
SLIDE #11:	MEMPHIS INTERNATIONAL AIRPORT AUTHORITY ACTIVITY REPORT (1994)
SLIDE #12:	BRIEFING - "MILITARY VALUE STAND ALONE" - T.DORRIS, 22 SEP 94
SLIDE #21:	F-9 FEEDER DATA HISTORICAL FILES BRAC DATA CALL #V.48 AN ASSESSMENT OF RAIL AND CONTAINER HANDLING CAPABILITIES AT DLA DEPOTS - STUDY (30 JAN 1991)
SLIDE #22:	DLA's NEW ERA OF DISTRIBUTION (29 MAR 94) CONCEPT PLAN FOR THE CONSOLIDATION OF DISTRIBUTION FUNCTIONS AT SUPPLY DEPOTS, 5 OCT 1990
SLIDE #28:	DLA SUPPORT OF OPERATIONS DESERT SHIELD/STORM, AUG 1990-MAR 1991

CLASS I RAILROADS
THAT DIRECTLY SERVE MEMPHIS

- **CSX Railroad**
- **Illinois Central Railroad**
- **Union Pacific Railroad**
- **Burlington Northern Railroad**
- **Norfolk Southern Railroad**
- **Southern Pacific Railroad**


CANADA
MEXICO
UNITED STATES
RAILROADS
This map shows only main line railroad service between leading cities. The figures give the railroad mileage, and the initials indicate the railroads operating between these points.
© RAND MC NALLY & CO. MADE IN U.S.A.
8-91
KEY TO ABBREVIATIONS TO RAILROADS
AC ... Algoma Central
ATSF ... Atchison, Topeka and Santa Fe
BAR ... Bangor and Aroostook
BM ... Boston and Maine
BN ... Burlington Northern
CC ... Chicago, Central & Pacific
CN ... Canadian National
CNW ... Chicago and North Western
CP ... Canadian Pacific
CR ... Consolidated Rail
CSXT ... CSX Transportation
CV ... Central Vermont
DH ... Delaware and Hudson
DM ... Detroit and Mackinac
DME ... Dakota, Minnesota & Eastern
DRGW ... Denver and Rio Grande Western
DWP ... Duluth, Winnipeg and Pacific
FEC ... Florida East Coast
GTW ... Grand Trunk Western
GWWR ... Gateway Western
IAIS ... Iowa Interstate
IC ... Illinois Central
KCS ... Kansas City Southern
LA ... Louisiana & Arkansas
LI ... Long Island
MEC ... Maine Central
MRL ... Montana Rail Link
MSRC ... MidSouth
NDM ... National of Mexico
NS ... Norfolk Southern
RFP ... Richmond, Fredericksburg and Potomac
SLR ... St.Lawrence & Atlantic
STLSW ... St.Louis Southwestern
SOO ... Soo Line
SP ... Southern Pacific
SR ... SouthRail
SSWN ... SPCSL Corp.
TM ... Texas Mexican
UP ... Union Pacific
WC ... Wisconsin Central
WRA ... Western Ry. of Alabama

MEMPHIS AND SHELBY COUNTY PORT COMMISSION

P. O. Box 13142 • Memphis, Tennessee 38113-0142 • (901) 948-4422 • Fax (901) 775-9818

PORT OF MEMPHIS

I. LOCATION

The port facilities in the Memphis metropolitan area are located in the southwest corner of the state of Tennessee at approximately 35 degrees latitude and 90 degrees 20 minutes longitude. The port facility is located on the "lock free" lower Mississippi River between miles 725 and 740. The average high temperature is 71.6 degrees while the average low temperature is 51.9 degrees. The port facilities in the Memphis area are operational year round. Memphis port facilities are approximately 400 river miles from St. Louis, Missouri, 200 river miles from Cairo, Illinois and 600 river miles from New Orleans, Louisiana.

II. FACILITIES

The port Facility consists of five public terminal with 11 berths. Cargo handling services include intermodal interchange capability, bulk loading facilities, chemical tank storage, LASH services, product specific warehousing and five grain elevators. Several terminals have large cranes available in the 100 to 300 ton class.

III. TRANSPORTATION SERVICES

The Memphis & Shelby County Port facilities are served by 6 class one railroad carriers, 2 barge fleeting services and a multitude of barge & truck transport services. The port facility has immediate access to interstate 40 and 55 and is located less than 15 minutes from the Memphis International Airport.

IV. PRIMARY CARGOS

Farm, food and kindred products, metallic ores and primary metallic products, forest products, petroleum and affiliated by-products, fertilizer, industrial chemicals and non-metallic minerals.

MEMPHIS AND SHELBY COUNTY PORT COMMISSION

P. O. Box 13142 • Memphis, Tennessee 38113-0142 • (901) 948-4422 • Fax (901) 775-9818

PORT OF MEMPHIS, TENNESSEE

The City of Memphis, TN is situated on the left bank (Mile 715-740 AHP) of the Mississippi River in the southwest corner of the state, approximately 640 miles north of New Orleans and approximately 270 miles below the confluence of the Mississippi and Ohio Rivers at Cairo, Illinois.

The Port of Memphis consists of two separate harbors: McKellar Lake and Wolf River located in the southern and northern portions of the city respectively. The Memphis and Shelby County Port Commission maintains jurisdiction over the McKellar Lake Harbor. The Port of West Memphis, Arkansas is on the right bank (Mile 727 AHP) across from Memphis.

The Port of Memphis, historically the second largest tonnage-wise on the shallow draft portion of the Mississippi River, is open to year-round, open-water navigation. This port location, near the center of the nation's vast inland waterway system, is in one of the fastest growing regions of the country. Combined with the air, road and rail avalibility, the port facilities have made Memphis the transportation and distribution center of the mid-south.

During the last decade, the Port of Memphis has averaged 11 to 13 million tons of products moved on an annual basis. The products moved are varied, but petroleum products, crude oil, coal, grain, steel products, cement, sand and stone represent approximately 85% of the cargo handled at the port.

The Port of Memphis is included in the Mississippi River and Tributaries Project. The project encompasses the Mississippi River alluvial valley from the Head of Passes to Cape Girardeau, Missouri. The project provides protection from floods by means of levees, flood walls, floodways, reservoirs (in Yazoo and St. Francis Basins), bank stabilization, and channel improvements. The project also provides for a 12 by 300 foot navigation channel between Baton Rouge, Louisiana and Cairo, Illinois; for slainity-control structures; and for channel realignment and improvement including bank stabilization and dikes to reduce flood heights, river meandering, and levee destruction by caving banks.

MEMPHIS HARBOR, (McKELLAR LAKE)

The Flood Control Act of 15 May 1928, (H.D. 90/70/1) as amended by subsequent acts, as modified and expanded by S.D. 51/80/1, approved 24 July 1946 provides for an off-river harbor with provisions for adequate terminal and industrial sites having both flood protection and direct access to water transportation. The principal features include:

A. Closure dam at the head of tennessee Chute with revetment, bank paving and sodding as required, and access approach to east abutment.

B. A 1,050 acre, above flood stage, industrial fill on Presidents Island, a dreded harbor with minimum dimensions 12 by 500 feet, contiguous to the fill, and corrective dredging in the main river; spoil to be placed on Presidents Island to create an industrial fill.

C. A dredged channel, 12 by 300 feet, in lower Tennessee Chute from the Mississippi River to Nonconnah Creek.

D. A levee along the left bank of the Chute and river about 11 miles long, extending from the hills south of Cypress Creek to high ground in the vicinity of North Horn Lake, with drainage structures and pumping plant to provide flood protection for 6800 acres of lowland and for realignment of Nonconnah Creek as required.

E. Extensions of existing sanitary sewer from its outfall near Nonconnah Creek to the Mississippi River at the lower end of Tennessee Chute.

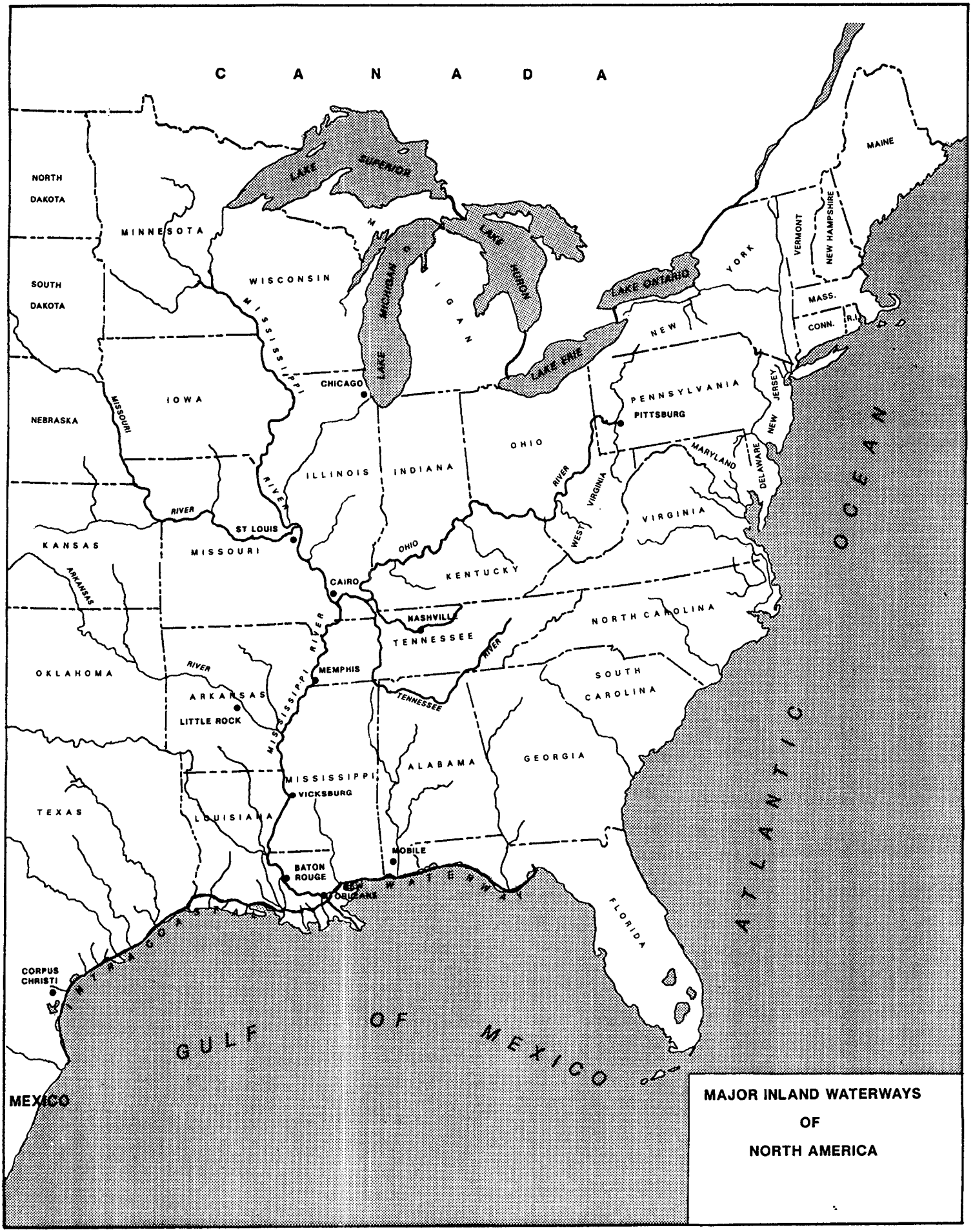
Stage variation of the Mississippi River at the Memphis, Tennessee Beale Street gage from low water reference plane to bankfull and to protect flow line is 336 feet and 55 feet respectively. Dredged channels are maintained to a depth of 12 feet below low water at mile 725.5 AHP.

WOLF RIVER (MEMPHIS HARBOR), TENNESSEE

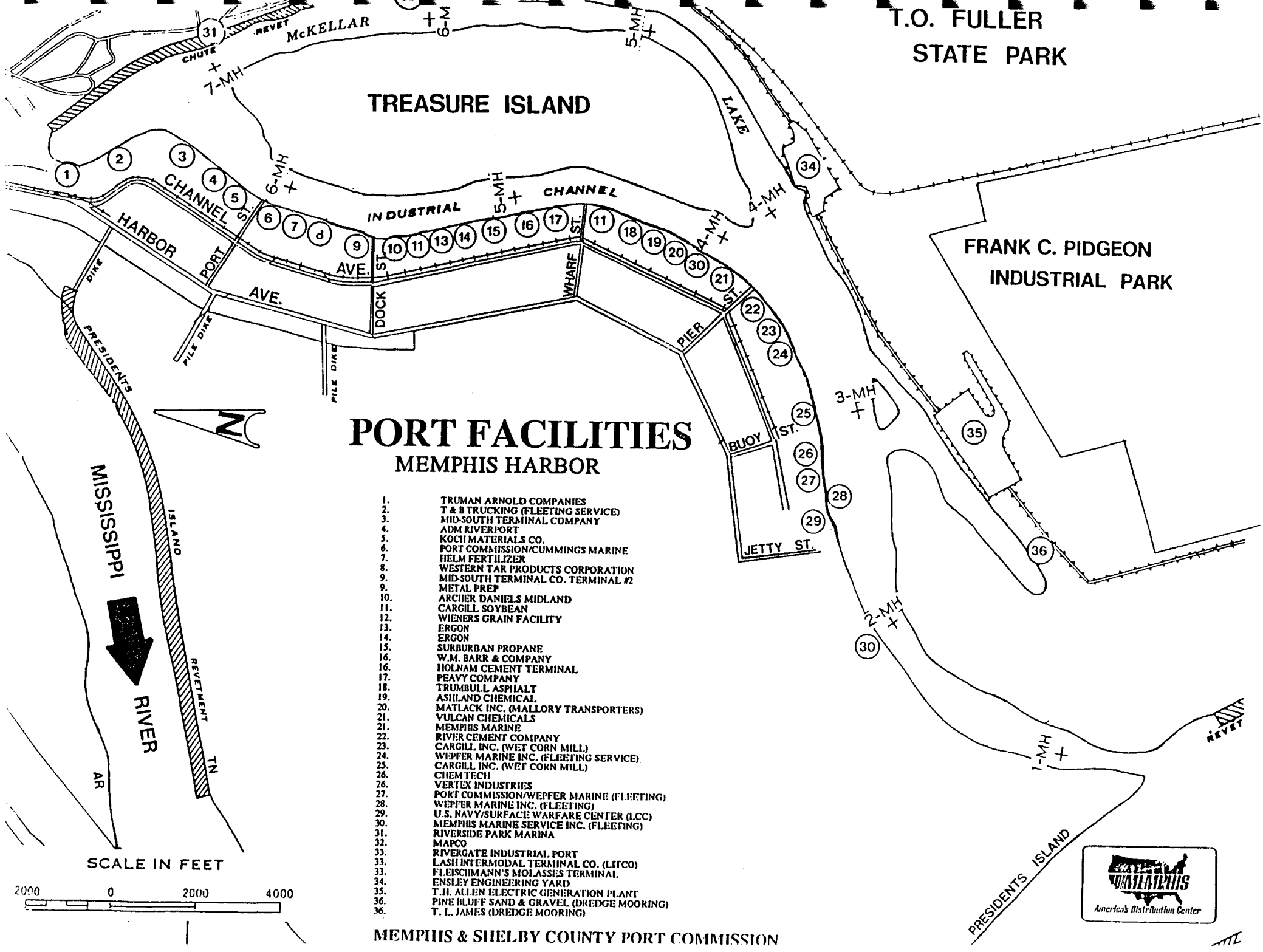
The Wolf River rises near the western edge of Tippah County, Mississippi, and flows generally northwesterly through Shelby County, TN. The Wolf River enters the Mississippi River above Memphis, TN (mile 738.7 AHP). The lower 3.5 miles of channel, parallel to the Mississippi River along the Memphis waterfront, became a slack-water harbor when the Wolf River was diverted through Mud Island to the Mississippi River by a flood control project, Wolf River and tributaries, under the Flood Control Act of 1958.

The project provides a channel 9 feet deep at low water from the mouth to mile 3, with bottom widths of 250 feet from the mouth to Keel Avenue (mile 1.75) and 200 feet from Keel avenue to mile 3.

From the U.S. Army Corps of Engineers Port Series No. 71, 1983.
Prepared by The Water Resources Support Center



MAJOR INLAND WATERWAYS OF NORTH AMERICA



PORT FACILITIES

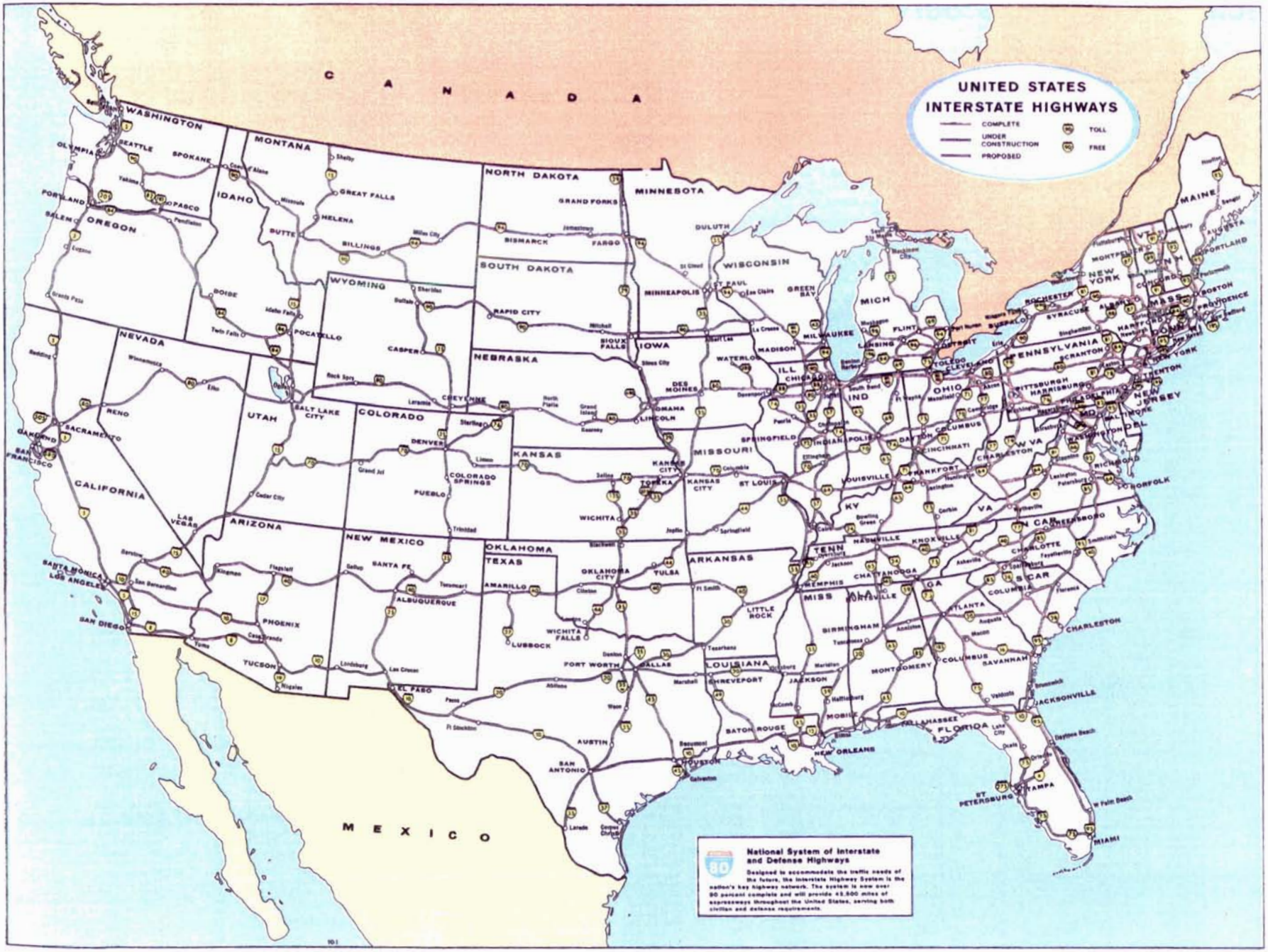
MEMPHIS HARBOR

1. TRUMAN ARNOLD COMPANIES
2. T & B TRUCKING (FLEETING SERVICE)
3. MID-SOUTH TERMINAL COMPANY
4. ADM RIVERPORT
5. KOCH MATERIALS CO.
6. PORT COMMISSION/CUMMINGS MARINE
7. HELM FERTILIZER
8. WESTERN TAR PRODUCTS CORPORATION
9. MID-SOUTH TERMINAL CO. TERMINAL #2
9. METAL PREP
10. ARCHER DANIELS MIDLAND
11. CARGILL SOYBEAN
12. WIENERS GRAIN FACILITY
13. ERGON
14. ERGON
15. SURBURBAN PROPANE
16. W.M. BARR & COMPANY
16. HOLNAM CEMENT TERMINAL
17. PEAVY COMPANY
18. TRUMBULL ASPHALT
19. ASHLAND CHEMICAL
20. MATLACK INC. (MALLORY TRANSPORTERS)
21. VULCAN CHEMICALS
21. MEMPHIS MARINE
22. RIVER CEMENT COMPANY
23. CARGILL INC. (WET CORN MILL)
24. WEPFER MARINE INC. (FLEETING SERVICE)
25. CARGILL INC. (WET CORN MILL)
26. CHEM TECH
26. VERTEX INDUSTRIES
27. PORT COMMISSION/WEPFER MARINE (FLEETING)
28. WEPFER MARINE INC. (FLEETING)
29. U.S. NAVY/SURFACE WARFARE CENTER (LCC)
30. MEMPHIS MARINE SERVICE INC. (FLEETING)
31. RIVERSIDE PARK MARINA
32. MAPCO
33. RIVERGATE INDUSTRIAL PORT
33. LASH INTERMODAL TERMINAL CO. (LITCO)
33. FLEISCHMANN'S MOLASSES TERMINAL
34. ENSLEY ENGINEERING YARD
35. T.H. ALLEN ELECTRIC GENERATION PLANT
36. PINE BLUFF SAND & GRAVEL (DREDGE MOORING)
36. T. L. JAMES (DREDGE MOORING)

MEMPHIS & SHELBY COUNTY PORT COMMISSION

INTERSTATE HIGHWAYS
THAT DIRECTLY SERVE MEMPHIS

- **Interstate 40**
- **Interstate 55**
- **Interstate 240 (Inner City Loop)**
- **Interstate 69 (Proposed)**


UNITED STATES
INTERSTATE HIGHWAYS
COMPLETE
UNDER CONSTRUCTION
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MEXICO
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
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BILLINGS
GREAT FALLS
HELENA
BUTTE
RENO
SACRAMENTO
SAN FRANCISCO
LOS ANGELES
SAN DIEGO
LAS VEGAS
PHOENIX
TUCSON
SALT LAKE CITY
DENVER
ALBUQUERQUE
SANTA FE
EL PASO
OKLAHOMA CITY
TULSA
DALLAS
FORT WORTH
HOUSTON
SAN ANTONIO
AUSTIN
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ST LOUIS
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ROCHESTER
SYRACUSE
PITTSBURGH
National System of Interstate and Defense Highways
Designed to accommodate the traffic needs of the future, the Interstate Highway System is the nation's key highway network. The system is now over 90 percent complete and will provide 42,500 miles of expressways throughout the United States, serving both civilian and defense requirements.

CONUS BASES WITH OVER 100 PERSONNEL
SERVED BY TRUCK
WITHIN 24 HOURS FROM DDMT

STATE	BASE	ENLISTED	OFFICER	CIVILIAN	TOTAL
ALABAMA	Anniston Army Depot	129	11	915	1,055
	Fort McClellan	2,757	402	839	3,998
	Redstone Arsenal	1,628	405	8,460	10,493
	Fort Rucker	2,943	2,249	1,995	7,187
	Birmingham Map Ags	-0-	-0-	119	119
	Maxwell AFB (Incl. Gunter)	2,905	1,815	2,102	6,822
ARKANSAS	Pine Bluff Arsenal	67	20	584	671
	Little Rock AFB	3,712	704	462	4,878
FLORIDA	HQ Stricom, Orlando	4	52	469	525
	Naval Training Cntr. Orlando	5,276	773	1,569	7,618
	Pensacola NAS	2,409	2,178	2,677	7,264
	Corry Station NTTC	2,075	81	146	2,302
	Jacksonville NAS	4,925	999	3,632	9,556
	Key West NAS	1,243	178	362	1,783
	Pensacola Nav Hospital	528	234	274	1,036
	Cecil Field NAS	2,896	269	318	3,483
	Mayport Navsta	3,250	452	477	4,179
	Whiting Field NAS	780	719	175	1,674

	Patrick AFB	2,071	596	1,120	3,787
	Eglin AFB	12,868	2,546	3,460	18,874
	Homestead AFB	3	-0-	248	251
	MacDill AFB	2,561	798	470	3,829
	Tyndall AFB	4,107	790	626	5,523
GEORGIA	Fort Benning	14,256	1,795	2,421	18,472
	Fort Gordon	7,365	1,416	2,163	10,944
	Fort Gillem	652	315	296	1,263
	Fort Stewart	17,754	2,120	1,531	21,405
	Fort McPherson	790	403	2,294	3,487
	Atlanta NAS	289	57	92	438
	Kings Bay Nav Sub Base	2,865	255	1,032	4,152
	Albany MCLB	938	122	1,544	2,604
	Moody AFB	3,273	343	330	3,946
	Robins AFB	3,168	672	6,131	9,971
	Savannah AFS	2	1	959	962
ILLINOIS	Rock Island Arsenal	125	58	3,976	4,159
	Fort Sheridan	215	56	32	303
	Savanna Army Depot Act	2	2	325	329
	Great Lakes NTC	19,361	317	1,209	20,887
	Naval Hospital, Great Lakes	1,080	293	430	1,803

	Glenview NAS	313	46	94	453
	Scott AFB	3,456	2,181	2,824	8,461
	Ohare Iap Ars	-0-	-0-	387	387
INDIANA	Fort Benjamin Harrison	1,194	291	546	2,031
	Crane Nav Weapon Sup Cntr	90	16	3,273	3,379
	Grissom AFB	5	3	407	415
	DFAS Indianapolis Center	95	30	8,843	8,968
KANSAS	Fort Leavenworth	1,589	2,124	1,361	5,074
	Fort Riley	12,818	1,689	1,321	15,828
	McConnell AFB	1,713	259	398	2,370
	Forbes Field Ags	-0-	-0-	106	106
KENTUCKY	Fort Campbell	20,110	2,884	1,812	24,806
	Fort Knox	9,639	1,216	2,731	13,586
	Louisville NWC	11	5	975	991
LOUISIANA	New Orleans Mil OC Terminal	201	45	223	469
	Fort Polk	10,950	1,175	1,484	13,609
	New Orleans NAS	200	39	374	613
	New Orlenas NSA	772	111	1,032	1,915
	Barksdale AFB	4,537	636	626	5,799

MISSISSIPPI	Pascagoula Naval Station	1,250	192	1,799	3,241
	Gulfport NCBC	780	70	337	1,187
	Meridian NAS	1,390	369	228	1,987
	Columbus AFB	684	531	261	1,476
	Keesler AFB	5,334	466	1,572	7,372
MISSOURI	Fort Leonard Wood	5,822	698	1,485	8,005
	Atcom St. Louis (AVSCOM)	71	12	3,846	3,929
	Whiteman AFB	3,042	319	361	3,722
	DFAS Kansas City Center	178	40	1,224	1,442
N. CAROLINA	Fort Bragg	37,736	5,784	3,979	47,499
	Sunnypoint Mil Ocean Term	7	6	150	163
	Camp Lejeune MCB	32,060	2,091	866	35,017
	Cherry Point MCAS	7,071	994	2,151	10,216
	New River MCAS (Helicopter)	3,795	595	95	4,485
	Charlotte/Douglas IAP AGS	-0-	-0-	107	107
	Pope AFB	3,952	536	281	4,769
	Seymour Johnson AFB	3,770	382	409	4,561
OHIO	Rickenbacker AGB	5	9	168	182
	Wright-Patterson AFB	3,224	3,917	11,782	18,923
	Newark AFS	44	14	819	877
	Columbus Defense Depot	198	58	4,662	4,918

	Electronics Center - Dayton	-0-	10	1,878	1,888
	DFAS Columbus Center	-0-	-0-	4,372	4,372
	DFAS Cleveland Center	-0-	-0-	4,963	4,963
OK.	McAlester Army Ammo Plant	9	4	271	284
	Fort Sill	13,083	1,395	1,801	16,279
	Altus AFB	2,355	227	375	2,957
	Tinker AFB	6,883	1,545	6,340	14,768
	Vance AFB	395	497	90	982
SC.	Fort Jackson	7,334	519	1,326	9,179
	Charleston Naval Station	3,141	347	1,730	5,218
	Naval Hospital, Charleston	86	18	14	118
	Beaufort MCAS	3,433	442	349	4,224
	Parris Island MCRD	5,787	239	246	6,272
	Charleston AFB	4,059	611	714	5,384
	Shaw AFB	4,713	581	400	5,694
TN.	Memphis NAS	6,495	267	569	7,331
	Arnold AFB	50	77	178	305
	Nashville Metro ARPI-AGS	-0-	-0-	136	136
	Memphis Defense Depot	-0-	-0-	5,804	5,804

TEXAS	Fort Bliss	11,283	1,710	2,160	15,153
	Fort Hood	37,732	4,930	2,778	45,440
	Fort Sam Houston	5,536	2,582	3,850	11,968
	Red River Depot	18	12	877	907
	Corpus Christi Army Depot	10	8	893	911
	Kingsville NAS	934	272	305	1,511
	Dallas NAS	696	110	279	1,085
	Corpus Christi NAS	979	850	657	2,486
	Bergstrom AFB	11	1	405	417
	Brooks AFB	782	426	1,026	2,234
	Carswell AFB	27	2	233	262
	Dyess AFB	3,771	639	297	4,707
	Goodfellow AFB	2,191	386	397	2,974
	Kelly AFB	3,444	853	7,404	11,701
	Lackland AFB	13,061	2,096	2,311	17,468
	Laughlin AFB	708	532	326	1,566
	Randolph AFB	3,252	1,916	2,512	7,680
	Reese AFB	608	540	265	1,413
	Sheppard AFB	6,048	789	1,232	8,069

CONUS BASES WITH OVER 100 PERSONNEL
SERVED BY TRUCK
WITHIN 48 HOURS FROM DDMT

STATE	BASE	ENLISTED	OFFICER	CIVILIAN	TOTAL
CO.	Fort Carson	15,954	2,002	1,794	19,750
	Fitzsimons Army Med Ctr	987	599	1,176	2,762
	Pueblo Army Depot Act	3	2	157	162
	Buckley AGB	-0-	-0-	275	275
	Peterson AFB	4,569	2,410	1,946	8,925
	Lowry AFB	86	25	567	678
	USAF Ac.DOD MERB/CGB	1,102	1,021	1,093	3,216
	DFAS Denver Center	124	19	5,380	5,523
DC.	Walter Reed Army Med Ctr	1,986	1,605	2,897	6,488
	Washington Navdist HQ	2,609	1,303	11,589	15,501
	Naval Air Fac. Wash, DC	335	49	69	453
	Bolling AFB	1,547	607	838	2,992
FLORIDA	HQ Stricom, Orlando	4	52	469	525
	Naval Training Cntr. Orlando	5,276	773	1,569	7,618
	Pensacola NAS	2,409	2,178	2,677	7,264
	Corry Station NTTC	2,075	81	146	2,302
	Jacksonville NAS	4,925	999	3,632	9,556
	Key West NAS	1,243	178	362	1,783

	Pensacola Nav Hospital	528	234	274	1,036
	Cecil Field NAS	2,896	269	318	3,483
	Mayport Navsta	3,250	452	477	4,179
	Whiting Field NAS	780	719	175	1,674
	Patrick AFB	2,071	596	1,120	3,787
	Eglin AFB	12,868	2,546	3,460	18,874
	Homestead AFB	3	-0-	248	251
	MacDill AFB	2,561	798	470	3,829
	Tyndall AFB	4,107	790	626	5,523
KANSAS	Fort Leavenworth	1,589	2,124	1,361	5,074
	Fort Riley	12,818	1,689	1,321	15,828
	McConnell AFB	1,713	259	398	2,370
	Forbes Field Ags	-0-	-0-	106	106
MD.	Aberdeen Proving Ground	2,806	406	5,335	8,607
	Fort Detrick	615	255	1,034	1,904
	Fort George Meade	6,890	1,499	4,725	13,120
	Fort Ritchie	876	62	700	1,638
	Annapolis NS (Incl. USNA)	674	652	3,213	4,539
	Havmedcom-Bethesda NMC	2,249	1,530	2,027	5,606
	Indian Head Nav Ord Sta	315	66	2,332	2,713
	Patuxent River NAS	2,283	429	3,532	6,244

	Andrews AFB	2,818	610	1,498	4,926
MICHIGAN	Naval Air Fac, Detroit	203	45	100	348
	K. I. Sawyer AFB	1,420	123	187	1,730
	Kurtsmith AFB	-0-	-0-	689	689
MN.	Minn/St. Paul IAP ARS	-0-	-0-	162	162
NEBRASKA	Offutt AFB	6,366	1,828	1,096	9,290
NJ.	Fort Dix	1,299	192	967	2,458
	Fort Monmouth	939	307	7,100	8,346
	Picatinny Arsenal	37	73	3,884	3,994
	Lakehurst Nav Air Engr Ctr	520	64	1,900	2,484
	McGuire AFB	3,554	533	844	4,931
PA.	New Cumberland Army Depot	265	44	1,984	2,293
	Carlisle Barracks	255	417	436	1,108
	Letterkenny Army Depot	26	23	1,646	1,695
	Scranton Army Ammo Plant	23	11	1,049	1,083
	Willow Grove NAS	367	71	615	1,053
	Naval Base, Philadelphia	779	103	3,944	4,826
	Nav Ships Parts Ctrl Cir ICP	43	87	4,214	4,344
	Personnel Ctr - Philadelphia	13	62	2,824	2,899
	Industrial Center, Philadelphia	-0-	-0-	1,886	1,886

R.I.	Newport Navedtracen	1,537	1,706	4,137	7,380
	Quonset State Airport AGS	-0-	-0-	102	102
TEXAS	Fort Bliss	11,283	1,710	2,160	15,153
	Fort Hood	37,732	4,930	2,778	45,440
	Fort Sam Houston	5,536	2,582	3,850	11,968
	Red River Depot	18	12	877	907
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	Brooks AFB	782	426	1,026	2,234
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	Kelly AFB	3,444	853	7,404	11,701
	Lackland AFB	13,061	2,096	2,311	17,468
	Laughlin AFB	708	532	326	1,566
	Randolph AFB	3,252	1,916	2,512	7,680
	Reese AFB	608	540	265	1,413
	Sheppard AFB	6,048	789	1,232	8,069

VA.	Pentagon - Army	1,352	2,253	3,063	6,668
	Arlington Hall Station	43	71	1,128	1,242
	Fort Belvoir	1,753	682	3,459	5,894
	Fort Eustis	4,807	637	1,819	7,263
	Fort Story	907	57	-0-	964
	Fort Lee	4,221	940	1,896	7,057
	Fort Monroe	305	522	1,417	2,244
	Fort Myer	1,741	394	2,077	4,212

POP-FACTS: FULL DATA REPORT
CENSUS ' 90, UPDATES & PROJECTIONS
BY EQUIFAX NATIONAL DECISION SYSTEMS 800-866-6510
PREPARED FOR
Memphis Chamber

COORD: 3509349 9000112

DESCRIPTION	2.0 MILE RADIUS
POPULATION	
1999 PROJECTION	54,074
1994 ESTIMATE	52,820
1990 CENSUS	52,640
1980 CENSUS	62,794
GROWTH 1980-1990	-16.17%
HOUSEHOLDS	
1999 PROJECTION	18,931
1994 ESTIMATE	18,546
1990 CENSUS	18,372
1980 CENSUS	20,444
GROWTH 1980-1990	-10.14%
1994 ESTIMATED POPULATION BY RACE	52,820
WHITE	6.07%
BLACK	93.73%
ASIAN & PACIFIC ISLANDER	0.09%
OTHER RACES	0.11%
1994 ESTIMATED POPULATION	52,820
HISPANIC ORIGIN	0.24%
OCCUPIED UNITS	18,372
OWNER OCCUPIED	56.82%
RENTER OCCUPIED	43.18%
1990 PERSONS PER HH	2.87
1994 EST. HH BY INCOME	18,546
$150,000 +	0.65%
$100,000 TO $149,999	2.43%
$ 75,000 TO $ 99,999	2.65%
$ 50,000 TO $ 74,999	9.73%
$ 35,000 TO $ 49,999	10.74%
$ 25,000 TO $ 34,999	13.05%
$ 15,000 TO $ 24,999	21.82%
$ 5,000 TO $ 14,999	24.59%
UNDER $ 5,000	14.33%
1994 EST. AVERAGE HH INCOME	$28,566
1994 EST. MEDIAN HH INCOME	$20,075
1994 EST. PER CAPITA INCOME	$10,103

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DESCRIPTION	2.0 MILE RADIUS
1994 ESTIMATED POPULATION BY SEX	52,820
MALE	44.96%
FEMALE	55.04%
MARITAL STATUS	39,672
SINGLE MALE	17.89%
SINGLE FEMALE	19.78%
MARRIED	31.64%
PREVIOUSLY MARRIED MALE	9.41%
PREVIOUSLY MARRIED FEMALE	21.28%
HOUSEHOLDS WITH CHILDREN	7,574
MARRIED COUPLE FAMILY	35.16%
OTHER FAMILY - MALE HEAD	6.56%
OTHER FAMILY - FEMALE HEAD	57.09%
NON FAMILY	1.19%
1994 ESTIMATED POPULATION BY AGE	52,820
UNDER 5 YEARS	8.57%
5 TO 9 YEARS	8.38%
10 TO 14 YEARS	7.93%
15 TO 17 YEARS	4.78%
18 TO 20 YEARS	4.33%
21 TO 24 YEARS	4.80%
25 TO 29 YEARS	6.80%
30 TO 34 YEARS	8.14%
35 TO 39 YEARS	8.10%
40 TO 49 YEARS	10.43%
50 TO 59 YEARS	9.84%
60 TO 64 YEARS	4.54%
65 TO 69 YEARS	3.97%
70 TO 74 YEARS	3.25%
75 + YEARS	6.13%
MEDIAN AGE	32.71
AVERAGE AGE	35.17

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DESCRIPTION	2.0 MILE RADIUS
1994 ESTIMATED FEMALE POP. BY AGE	29,070
UNDER 5 YEARS	7.43%
5 TO 9 YEARS	7.57%
10 TO 14 YEARS	7.09%
15 TO 17 YEARS	4.28%
18 TO 20 YEARS	4.09%
21 TO 24 YEARS	4.63%
25 TO 29 YEARS	6.95%
30 TO 34 YEARS	8.38%
35 TO 39 YEARS	8.27%
40 TO 49 YEARS	10.72%
50 TO 59 YEARS	10.81%
60 TO 64 YEARS	4.86%
65 TO 69 YEARS	4.32%
70 TO 74 YEARS	3.60%
75 + YEARS	7.00%
FEMALE MEDIAN AGE	34.75
FEMALE AVERAGE AGE	37.07
POPULATION BY HOUSEHOLD TYPE	52,640
FAMILY HOUSEHOLDS	87.36%
NON FAMILY HOUSEHOLDS	12.02%
GROUP QUARTERS	0.62%
HOUSEHOLDS BY TYPE	18,372
SINGLE MALE	10.90%
SINGLE FEMALE	14.54%
MARRIED COUPLE	31.18%
OTHER FAMILY - MALE HEAD	5.60%
OTHER FAMILY - FEMALE HEAD	34.02%
NON FAMILY - MALE HEAD	2.21%
NON FAMILY - FEMALE HEAD	1.55%
POPULATION BY URBAN VS RURAL	52,714
URBAN	100.00%
RURAL	0.00%

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DESCRIPTION	2.0 MILE RADIUS
FEMALES 16+ WITH CHILDREN 0-17	22,145
WORKING WITH CHILD 0-5	4.45%
NOT WORKING WITH CHILD 0-5	0.65%
NOT IN LABOR FORCE WITH CHILD 0-5	2.68%
WORKING WITH CHILD 6-17	11.52%
NOT WORKING WITH CHILD 6-17	1.26%
NOT IN LAB. FORCE WITH CHILD 6-17	3.57%
WORKING WITH CHILD 0-5 & 6-18	3.69%
NOT WORKING WITH CHILD 0-5 & 6-18	0.90%
NOT IN LAB. FORCE W/CHILD 0-5 & 6-	2.56%
WORKING WITH NO CHILDREN	28.85%
NOT WORKING WITH NO CHILDREN	3.85%
NOT IN LAB. FORCE WITH NO CHILD.	36.02%
HOUSEHOLDS: AGE BY POVERTY STATUS	18,437
ABOVE POVERTY UNDER AGE 65	51.03%
ABOVE POVERTY AGE 65 +	16.56%
BELOW POVERTY UNDER AGE 65	23.76%
BELOW POVERTY AGE 65 +	8.65%
POPULATION 16+ BY EMPLOYMENT STATUS	38,767
EMPLOYED IN ARMED FORCES	0.28%
EMPLOYED CIVILIANS	51.19%
UNEMPLOYED CIVILIANS	7.31%
NOT IN LABOR FORCE	41.22%
POPULATION 16+ BY OCCUPATION	19,845
EXECUTIVE AND MANAGERIAL	6.08%
PROFESSIONAL SPECIALTY	8.11%
TECHNICAL SUPPORT	2.86%
SALES	9.22%
ADMINISTRATIVE SUPPORT	17.23%
SERVICE: PRIVATE HOUSEHOLDS	2.17%
SERVICE: PROTECTIVE	2.92%
SERVICE: OTHER	20.34%
FARMING FORESTRY & FISHING	1.35%
PRECISION PRODUCTION & CRAFT	7.32%
MACHINE OPERATOR	7.92%
TRANS. AND MATERIAL MOVING	6.08%
LABORERS	8.41%

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DESCRIPTION	2.0 MILE RADIUS
FAMILY BY NUMBER OF WORKERS	13,166
NO WORKERS	18.06%
ONE WORKER	36.95%
TWO WORKERS	30.76%
THREE + WORKERS	14.23%
HISPANIC POPULATION BY TYPE	52,640
NOT OF HISPANIC ORIGIN	99.77%
MEXICAN	0.10%
PUERTO RICAN	0.02%
CUBAN	0.00%
OTHER HISPANIC	0.12%
1994 HISPANIC RACE BASE	128
WHITE	22.03%
BLACK	59.07%
ASIAN	6.24%
OTHER	12.66%
POPULATION BY TRANSPORTATION TO WORK	19,542
DRIVE ALONE	65.66%
CAR POOL	19.40%
PUBLIC TRANSPORTATION	10.14%
DRIVE MOTORCYCLE	0.04%
WALKED ONLY	2.52%
OTHER MEANS	1.55%
WORKED AT HOME	0.70%
POPULATION BY TRAVEL TIME TO WORK	19,542
UNDER 10 MINUTES / WORK AT HOME	8.40%
10 TO 29 MINUTES	66.45%
30 TO 59 MINUTES	21.35%
60 TO 89 MINUTES	2.66%
90+ MINUTES	1.14%
AVERAGE TRAVEL TIME IN MINUTES	21.08
HOUSEHOLDS BY NUMBER OF VEHICLES	18,477
NO VEHICLES	27.42%
1 VEHICLE	41.44%
2 VEHICLES	22.35%
3+ VEHICLES	8.78%
ESTIMATED TOTAL VEHICLES	21,110

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DESCRIPTION	2.0 MILE RADIUS
POPULATION 25+ BY EDUCATION LEVEL	31,593
ELEMENTARY (0-8)	17.76%
SOME HIGH SCHOOL (9-11)	26.21%
HIGH SCHOOL GRAD. (12)	27.35%
SOME COLLEGE (13-15)	16.48%
ASSOCIATES DEGREE ONLY	3.33%
BACHELORS DEGREE ONLY	5.59%
GRADUATE DEGREE	3.30%
POPULATION ENROLLED IN SCHOOL	14,237
PUBLIC PRE - PRIMARY	4.41%
PRIVATE PRE - PRIMARY	0.67%
PUBLIC ELEM/HIGH	73.74%
PRIVATE ELEM/HIGH	1.54%
ENROLLED IN COLLEGE	19.64%
HOUSING UNITS BY OCCUPANCY STATUS	20,025
OCCUPIED	91.75%
VACANT	8.25%
VACANT UNTS	1,653
FOR RENT	52.88%
FOR SALE ONLY	12.41%
SEASONAL	0.84%
OTHER	33.87%
OWNER OCCUPIED PROPERTY VALUES	9,113
UNDER $25,000	15.46%
$25,000 TO $49,999	58.85%
$50,000 TO $74,999	21.08%
$75,000 TO $99,999	3.50%
$100,000 TO $149,999	0.72%
$150,000 TO $199,999	0.19%
$200,000 TO $299,999	0.15%
$300,000 TO $399,999	0.01%
$400,000 TO $499,999	0.01%
$500,000+	0.02%
MEDIAN PROPERTY VALUE	$40,577
TOTAL RENTAL UNITS	7,297
MEDIAN RENT	$214

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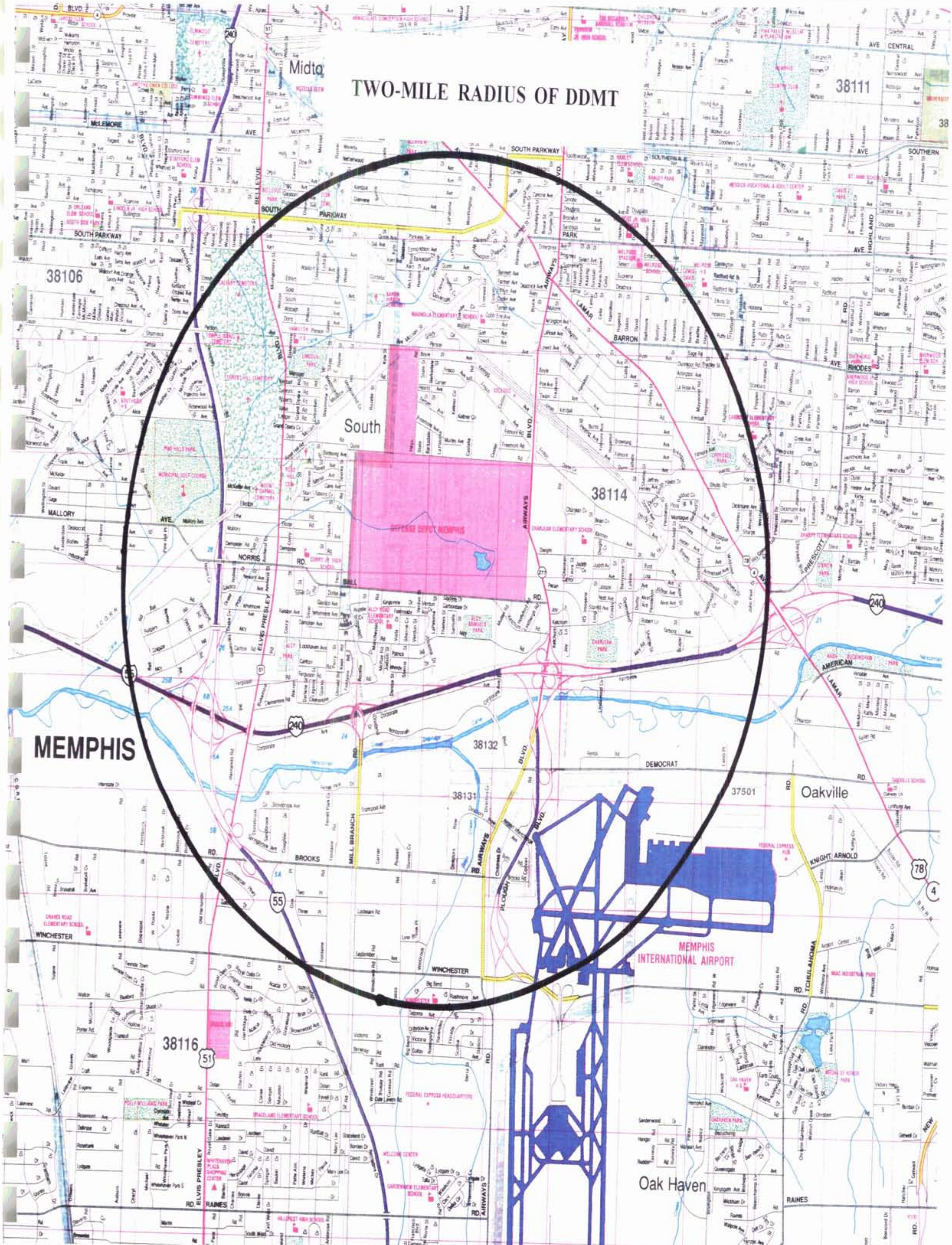
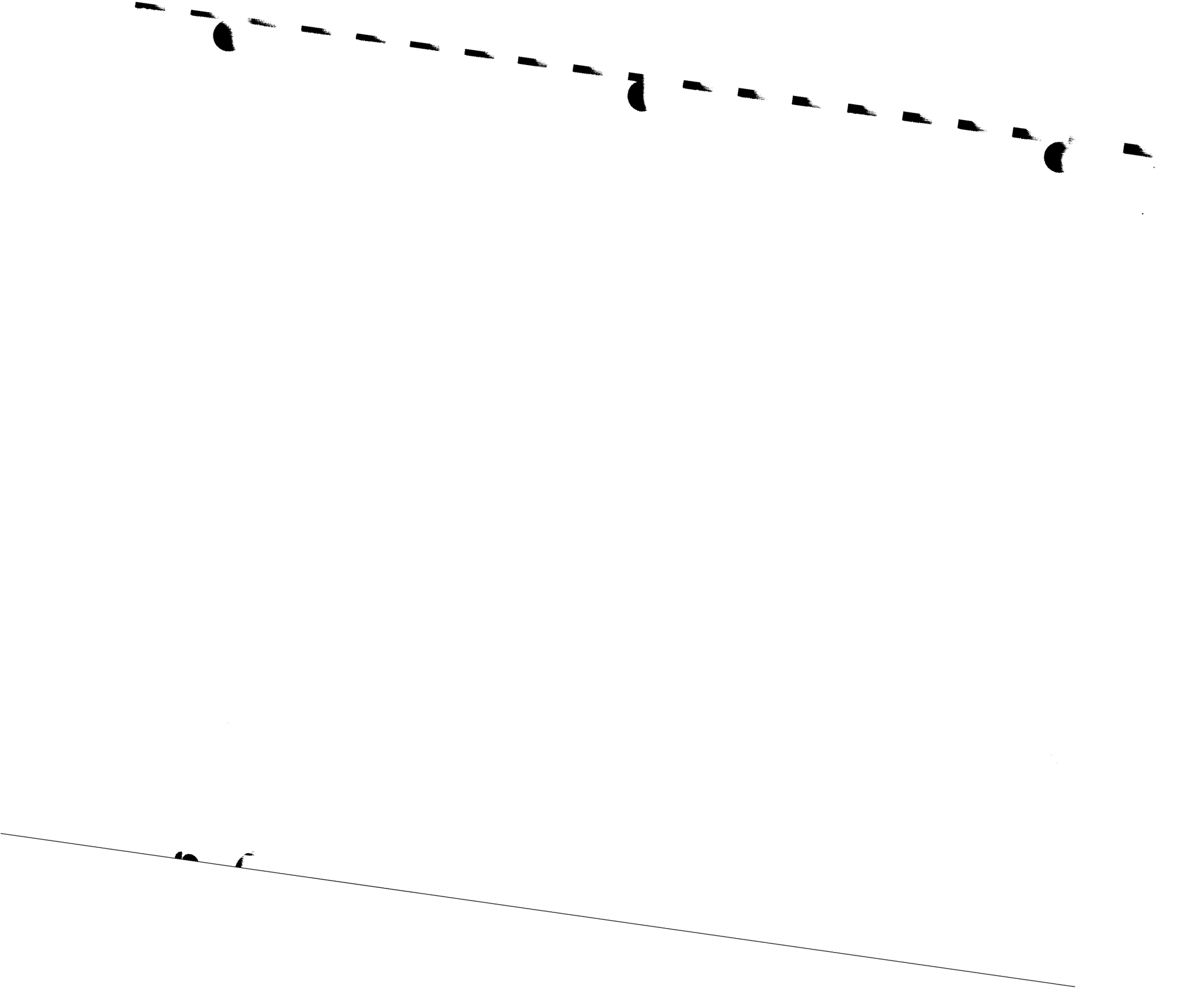
DESCRIPTION	2.0 MILE RADIUS
PERSONS IN UNIT	18,372
1 PERSON UNITS	25.45%
2 PERSON UNITS	26.51%
3 PERSON UNITS	18.40%
4 PERSON UNITS	13.41%
5 PERSON UNITS	7.88%
6 PERSON UNITS	4.19%
7 + UNITS	4.16%
YEAR ROUND UNITS IN STRUCTURE	20,025
SINGLE UNITS DETACHED	64.95%
SINGLE UNITS ATTACHED	4.96%
DOUBLE UNITS	8.26%
3 TO 9 UNITS	11.29%
10 TO 19 UNITS	4.61%
20 TO 49 UNITS	2.21%
50 + UNITS	0.65%
MOBILE HOME OR TRAILER	1.74%
ALL OTHER	1.34%
SINGLE/MULTIPLE UNIT RATIO	2.59
HOUSING UNITS BY YEAR BUILT	18,477
BUILT 1989 TO MARCH 1990	0.21%
BUILT 1985 TO 1988	0.44%
BUILT 1980 TO 1984	1.74%
BUILT 1970 TO 1979	8.17%
BUILT 1960 TO 1969	18.91%
BUILT 1950 TO 1959	33.17%
BUILT 1940 TO 1949	20.97%
BUILT 1939 OR EARLIER	16.40%


TWO-MILE RADIUS OF DDMT
Midtown
South
MEMPHIS
Oakville
Oak Haven
38106
38111
38114
38132
38131
37501
38116
DEFENSE DEPOT MEMPHIS
MEMPHIS INTERNATIONAL AIRPORT
SOUTH PARKWAY
McLEMORE
MALLORY
NORRIS RD.
BROOKS RD.
WINCHESTER
DEMOCRAT RD.
KNIGHT ARNOLD
AIRWAYS BLVD.
BELLEVUE BLVD.
ELVIS PRESLEY BLVD.
MILL BRANCH
LAMAR
BARRON
RHODES
PRESCOTT
AMERICAN
TCHULAHOMA RD.
PLOUGH BLVD.
RAINES
SOUTHERN
CENTRAL
HIGHLAND
240
55
51
78

FEDEX CRAF FLEET

- 13 MD 11's
- 2 747's
- 35 DC-10's



DDMT - AIRLIFT

Number of C-141 flights conducted in conjunction with DDMT.

1,480	-	1991
855	-	1992
1,078	-	1993
1,078	-	1994
227	-	1995 (to date)

MARKET RESEARCH AND CONSULTING

YOUNGER ASSOCIATES LLC

Memphis Defense Depot

Economic Impact Analysis

Direct Employment	1,600	(DDMT and Tenants)
Direct Payroll	$90,000,000	
Employment Multiplier[1]	2.1582	
Total Direct/Indirect Employment	3,453	
Indirect Employment	1,853	
Economic Impact Multiplier[2]	1.8681	
Total Impact on Household Earnings	**$168,129,000**	
Average Shelby County Work Force[3]	380,000	
Average Minority Work Force[4]	133,000	
Minority Job Loss Potential	1,881	1.41%
Direct 1600 x 77%[5]		
Indirect 1853 x 35%[6]		
Total Shelby County Minority Wages[7]	$4,470,529,000	
Potential Minority Wage Loss	$131,584,899	2.94%

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Notes:

1 RIMS II direct effect employment multipliers for warehousing/transportation.

2. RIMS II direct effect earnings multiplier for warehousing/transportation.

3. 1995 annual average employment projection based upon data supplied by Tennessee Department of Employment Security.

4. 1995 annual average minority employment projection based upon affirmative action data supplied by Tennessee Department of Employment Security.

5. Minority employment reported by DDMT

6. Minority employment Shelby County per affirmative action data.

7. Tennessee Department of Labor wage data with 20% benefits.