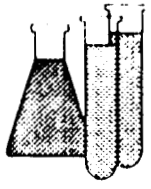
COMMODITY



OPERATIONAL BLUEPRINT

- CONSOLIDATE SINGLE PURPOSE INSTALLATIONS
- RETAIN INSTALLATIONS WHICH SUPPORT INTEGRATED LIFE-CYCLE MANAGEMENT
- RETAIN UNIQUE AND SPECIALIZED MEDICAL RESEARCH FACILITIES (FT DETRICK)

INSTALLATION ASSESSMENT

1. (7.1) REDSTONE
2. (6.4) PICATINNY*
3. (5.0) DETROIT
4. (4.7) ROCK ISLAND
5. (4.6) FT MONMOUTH
6. (3.6) ADELPHI
7. (3.5) FT DETRICK
8. (2.7) *COLD REGION*
9. (2.7) NATICK RDEC

MILITARY VALUE ASSESSMENT

REDSTONE
DETROIT
ROCK ISLAND
FT MONMOUTH
ADELPHI
FT DETRICK

PICATINNY*
COLD REGION
NATICK RDEC

STUDY CANDIDATES

COMMODITY THIRD RUN W/ CORRECTIONS

	WEIGHT		ADELPHI	Detroit Arsenal	Fort Detrick	Fort Monmouth
AVAILABLE WORKFORCE	50		2,434,076+	1,964,134	2,434,076+	453,659
OPS/ADMIN FACILITIES	200		220,000--	896,000	232,927--	1,263,509+
R&D FACILITIES	200		685,000	533,000	468,308-	729,000
MISSION REQUIREMENTS	---	450	3.6	4.7	2.9	5.7
FACILITIES AVG AGE	75		19+	19+	28	44-
INFRASTRUCTURE	50		4	7	2	3
% PERMANENANT FAC	75		98%	97%	80%-	90%
ENVIRONMENTAL CAP	25		8	9	9	8
LAND AND FACILITIES	---	225	7.7	8.6	3.7	3.6
BUILDABLE ACRES	90		223	204	300	281
IMA	35		775	905	1,600	1,425
FUTURE REQUIREMENTS	---	125	0.9	1.2	3.3	2.8
COL INDEX	50		135	117	135	120
MCA Cost Factor	50		1.03	1.22	0.83	1.19
BASOPS/MSN POP	100		25,032-	10,345	9,199+	8,800+
COST AND MANPOWER	---	200	1.2	4.1	4.8	4.4
		===				
SCORE		1000	3.7	5.0	3.5	4.6
RANK			6	3	7	5

COMMODITY THIRD RUN W/ CORRECTIONS

	WEIGHT		Natick RDEC	Picatinny Arsenal	Redstone Arsenal	Rock Island
AVAILABLE WORKFORCE	50		2,839,612+	918,456	151,956	172,891
OPS/ADMIN FACILITIES	200		140,000--	1,225,000+	1,719,000++	1,693,000++
R&D FACILITIES	200		517,000-	1,338,000++	1,367,000++	26,000--
MISSION REQUIREMENTS	---	450	3.0	7.8	8.9	4.4
FACILITIES AVG AGE	75		36	48-	36	50-
INFRASTRUCTURE	50		2	1	9+	4
% PERMANENANT FAC	75		98%	99%	87%-	100%+
ENVIRONMENTAL CAP	25		9	7	6	9
LAND AND FACILITIES	---	225	5.8	3.8	4.8	5.2
BUILDABLE ACRES	90		35-	4,034++	3,300+	418
IMA	35		600	1,565	845	1,405
FUTURE REQUIREMENTS	---	125	0.0	9.9	6.6	3.0
COL INDEX	50		135	119	99	98
MCA Cost Factor	50		1.27	1.29	0.78	1.11
BASOPS/MSN POP	100		28,294-	9,901	6,266+	3,619+
COST AND MANPOWER	---	200	0.1	4.0	6.1	6.0
		===				
SCORE		1000	2.7	6.4	7.1	4.7
RANK			8	2	1	4

COMMODITY THIRD RUN W/ CORRECTIONS

	WEIGHT		COLD REGION R&E LAB
AVAILABLE WORKFORCE	50		38,736-
OPS/ADMIN FACILITIES	200		59,000--
R&D FACILITIES	200		307,000-
MISSION REQUIREMENTS	---	450	0.9
FACILITIES AVG AGE	75		16+
INFRASTRUCTURE	50		5
% PERMANENANT FAC	75		100%+
ENVIRONMENTAL CAP	25		9
LAND AND FACILITIES	---	225	8.8
BUILDABLE ACRES	90		9-
IMA	35		1,015
FUTURE REQUIREMENTS	---	125	1.2
COI INDEX	50		114
MCA Cost Factor	50		1.06
BASOPS/MSN POP	100		28,478-
COST AND MANPOWER	---	200	0.8
		===	
SCORE		1000	2.7
RANK			8

COMMODITY SUB-MODEL THIRD RUN W/ CORRECTIONS

	WEIGHT		ADELPHI	DETROIT	DETRICK	MONMOUTH
ARCH/HIST BLDGS	10		0	0	0	0-
ENDGRD FAUNA/FLORA	15		1	0	0	0
WETLANDS	15		1--	0+	0	0
AIR QUALITY	15		1+	10	10	10
WATER QUALITY	15		0+	0+	0+	0+
NOISE QUAL-ZONE II	10		0	0	0	0
NOISE QUAL-ZONE III	15		0	0	0	0
CONTAMINATED SITES	5		39	1	2	0
ENV CAR CAPACITY	---	100	7.9	8.8	8.9	7.8
CAPACITY WATER	25		4	11++	1-	5
CAPACITY SEWAGE	25		5	8+	1-	0--
CAPACITY ELECT	25		30	0	254	125
LANDFILL COST	25		$46	$19+	$54	$69
INFRASTRUCTURE	---	100	3.9	6.6	2.2	2.8
		===				
SCORE		200	5.9	7.7	5.6	5.3
RANK			5	1	6	8

COMMODITY SUB-MODEL THIRD RUN W/ CORRECTIONS

	WEIGHT		NATICK	PICATINNY	REDSTONE	ROCK ISLAND
ARCH/HIST BLDGS	10		0	0	0	0-
ENDGRD FAUNA/FLORA	15		0	0	3--	0
WETLANDS	15		0	0	0-	0
AIR QUALITY	15		10	10	1+	1+
WATER QUALITY	15		0+	2--	2--	0+
NOISE QUAL-ZONE II	10		0	0	0	0
NOISE QUAL-ZONE III	15		0	0	0	0
CONTAMINATED SITES	5		13	157	289-	31
ENV CAR CAPACITY	---	100	8.7	7.0	5.8	8.9
CAPACITY WATER	25		0-	1-	9++	3
CAPACITY SEWAGE	25		0-	2-	6+	4
CAPACITY ELECT	25		70	9375	120145++	0
LANDFILL COST	25		$19+	$188--	$1+	$49
INFRASTRUCTURE	---	100	2.3	0.8	8.6	3.6
		===				
SCORE		200	5.5	3.9	7.2	6.2
RANK			7	9	2	4

COMMODITY SUB-MODEL THIRD RUN W/ CORRECTIONS

	WEIGHT		COLD REGION
ARCH/HIST BLDGS	10		0
ENDGRD FAUNA/FLORA	15		0
WETLANDS	15		0+
AIR QUALITY	15		15-
WATER QUALITY	15		0+
NOISE QUAL-ZONE II	10		0
NOISE QUAL ZONE III	15		0
CONTAMINATED SITES	5		1
ENV CAR CAPACITY	---	100	8.5
CAPACITY WATER	25		2-
CAPACITY SEWAGE	25		10++
CAPACITY ELECT	25		18
LANDFILL COST	25		$54
INFRASTRUCTURE	---	100	4.7
		===	
SCORE		200	6.6
RANK			3

HQDA PROVIDED ATTRIBUTES

	A	B	C	D	E	F	G	H	I	J
40									$0.00	
41	COMMODITY INSTALLATIONS:	VHA	COL INDE	LOCALITY P	MCA COST	ENCROACHMENT	WORK FORCE	AIRSPACE	BASOPS FACTOR	
42	ARMY RESEARCH LABORATORY		135.1		1.03	1098.547	2434076		$25,031.61	
43	COLD REGION RESEARCH LAB		113.82(1)		1.06	44.002	38736		$28,477.91	
44	DETROIT ARSENAL		116.6		1.22	962.184	1964134		$10,344.76	
45	FORT DETRICK		135.1		0.83	1098.547	2434076		$9,199.11	
46	FORT MONMOUTH		120.12(1)		1.19	913.011	453659		$9,672.52	
47	NATICK LAB		135.3		1.27	2321.114	2839612		$28,293.73	
48	PICATINNY ARSENAL		119.3(1)		1.29	1563.507	918456		$9,900.82	
49	REDSTONE ARSENAL		98.5		0.78	381.453	151956		$6,266.33	
50	ROCK ISLAND ARSENAL		98.3		1.11	207.284	172891		$3,618.96	
51									$0.00	
52	DEPOTS:								$0.00	
53	ANNISTON DEPOT	VHA	COL INDE	LOCALITY P	MCA COST	ENCROACHMENT	WORK FORCE	AIRSPACE	$0.00	
54	LETTERKENNY DEPOT				0.77	190.044	48264		$0.00	
55	RED RIVER DEPOT				1.02	161.125	59407		$0.00	
56	TOBYHANNA DEPOT				0.94	80.306	52006		$0.00	
57					1.2	173.390	51934		$0.00	
58	MEDICAL CENTERS:								$0.00	
59	FITSIMONS AMC	VHA	COL INDE	LOCALITY P	MCA COST	ENCROACHMENT	WORK FORCE	AIRSPACE	$0.00	
60	TRIPLER AMC		105.9		1.08	455.912			$0.00	
61	WALTER REED AMC	1974.36	136.86(1)		1.66	1439.701			$0.00	
62			135.1		1.03	1098.547			$0.00	
63	INDUSTRIAL FACILITIES:								$0.00	
64	LIMA TANK PLANT	VHA	COL INDE	LOCALITY P	MCA COST	ENCROACHMENT	WORK FORCE	AIRSPACE	$0.00	
65	STRATFORD ENG PLNT		92.54(1)		0.91	193.425	69331		BASOPS FACTOR	
66	WATERVLIET ARSENAL		126.31(1)		1.24	1319.147	834778		$0.00	
67			108.7		1.1	269.323	432158		$0.00	
68	MAJOR TRAINING AREAS:								$7,531.55	
69	FORT A.P. HILL	VHA	COL INDE	LOCALITY P	MCA COST	ENCROACHMENT	WORK FORCE	AIRSPACE	$0.00	
70	FORT CHAFFEE		102.5(1)	1.0309	0.8	37.479		68.4	BASOPS FACTOR	
71	FORT DIX		91.2	1.0309	0.92	100.701		459.35	$24,533.33	
72	FORT GREELY		111.27(1)	1.0496	1.19	1413.213		48.2	$75,267.32	
73	FORT HUNTER- LIGGETT		120.46(1)	1.08	2.17	0.219		8608.32	$9,010.50	
74	FORT INDIANTOWN GAP		117.83(1)	1.0309	1.44	110.424		707.31	$20,113.55	
75	FORT IRWIN		101.47(1)	1.0309	1.05	301.758		111.1	$10,017.36	
76	FORT McCOY		99.88(1)	1.0309	1.3	104.712		15169.86	$26,739.92	
77	FORT PICKETT		92.46(1)	1.0309	1.33	42.188		173.67	$9,301.99	
78	FORT POLK		107.5	1.0309	0.92	28.355		1030.4	$25,443.55	
			92.42(2)	1.0309	0.96	49.328		13628.26	$32,851.16	
									$7,152.17	

COMMODITY INSTALLATIONS

INSTALLATION = ARMY RESEARCH LABORATORY

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	220K SQ FT
RESEARCH AND DEVELOPMENT FAC	685K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	98 %
AVERAGE AGE OF FACILITIES	19 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	3.83 MGD
SEWAGE TREATMENT CAPACITY	4.61 MGD
ELECTRICAL CAPACITY	30
SOLID WASTE LANDFILL COSTS	$46.00/TON
ENVIRONMENTAL CAPACITY	
ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	0
ENDANGERED SPECIES	1
WETLANDS FACTOR	.5511
AIR QUALITY	1
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	39
CONTAMINATED SITE NPL	0

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	223 ACRES
INFORMATION MISSION AREA	775 PTS
TELEPHONE SWITCHING	0 PTS
OUTSIDE CABLE PLANT	160 PTS
COMMON USER SUPPORT	375 PTS
DSN/DDN NODE	75 PTS
POST WIDE WAN/LAN	45 PTS
TCC	75 PTS
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$1359.56
MCA COST FACTOR	1.03
BASOPS/MISSION POPULATION	
PAYROLL AND NON PAYROLL *	$34844000.
MISSION POPULATION	DA WILL PROVIDE

* ARL CANNOT IDENTIFY FY93 BASOPS COSTS BY PAYROLL AND NON PAYROLL

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY MEDICAL COMMAND (PROV)
2050 WORTH ROAD
FORT SAM HOUSTON, TEXAS 78234-6000

REPLY TO
ATTENTION OF

MCHO-OP-MR (5-10c)

22 JUN 1994

MEMORANDUM FOR HQDA (DACS-TABS), WASH DC 20310-0220

SUBJECT: Base Realignments and Closures (BRAC) 1995 Installation Assessment Program--BRAC Data Call #1

1. References:

a. Memorandum, Chief of Staff, U.S. Army, 26 April 1994, subject: BRAC 95 Installation Assessment (IA) Program--BRAC 95 Data Call #1.

b. Memorandum, Chief of Staff, U.S. Army, 26 April 1994, subject: Change 1 to HQDA BRAC Installation Assessment (IA) Data Call #1.

2. The enclosure contains data for Walter Reed Army Medical Center, Fitzsimons Army Medical Center, and Fort Detrick as referenced above.

3. The information contained in this report is accurate and complete to the best of my knowledge and belief. To ensure data accuracy, the U.S. Army Medical Command staff worked individually with their counterparts at Walter Reed Army Medical Center, Fitzsimons Army Medical Center, and Fort Detrick.

4. Fort Detrick was evaluated for the first time by U.S. Army Medical Command. Tripler Army Medical Center was assessed by U.S. Army Pacific Command.

5. Our points of contact are Major Charles J. DeVries and Captain Corwin Harper, Operations Directorate, Missions and Realignments Division, DSN 471-8801/7042.

FOR THE COMMANDER:

Encl

HENRY O. TUELL III
Colonel, MS
Chief of Staff

CF (w/encl):
HQDA (DASG-RMP), 5109 Leesburg Pike, Falls Church, VA 22041-3258

CLOSE HOLD

ATTRIBUTES AND WEIGHTS FOR COMMODITY INSTALLATIONS

MISSION REQUIREMENTS AND OPERATIONAL READINESS

ATTRIBUTE	FT DETRICK
Available Workforce	~~4,717 persons~~ 2,934,076
Ops/Admin facilities	232,927 sq ft
Research and Development Fac	468,308 sq ft

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

ATTRIBUTE	
Buildable Acres	300 acres
Information Mission Area	1600

LAND AND FACILITIES

ATTRIBUTE	
Average Age of Facilities	28.15 yrs/sq ft
Infrastructure	
Water	1.4 MGD
Sewage	0.9 BGD
Electrical	254 million kwh
Landfill	$54.42/short ton
Percent Permanent Facilities	80%
Environmental Capacity	
Archeology/Historic Buildings	
A = (lime kiln, area B)	4+1
B =	1143
Endangered Species Factor	0
Wetlands Factor	A = 18
	B = 1143
Air Quality Factor (No attainment)	10
Water Quality Factor	0
Noise Quality Factor	0
Contaminated Sites Factor (CSF)	
A = 2 (Only two sites known to be contaminated.)	
B = 0	

CLOSE HOLD

FORT DETRICK
COST AND MANPOWER

ATTRIBUTE	
Cost of Living Index	~~106.8~~ 135.1 per C. Fletcher rpt
MCA Cost Factor	0.83
BASOPS/Mission Population	~~$37.1M~~ DA to provide 9199.1073

CLOSE HOLD

COMMODITY INSTALLATIONS

INSTALLATION = DETROIT ARSENAL

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	896K SQ FT
RESEARCH AND DEVELOPMENT FAC	533K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	97 %
AVERAGE AGE OF FACILITIES	19 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	10.86 MGD
SEWAGE TREATMENT CAPACITY	7.52 MGD
ELECTRICAL CAPACITY	0
SOLID WASTE LANDFILL COSTS	$19.04/TON
ENVIRONMENTAL CAPACITY	
ARCHAEOLOGY/HISTORIC BUILDINGS FACTOR	0.019
ENDANGERED SPECIES	0
WETLANDS FACTOR	0
AIR QUALITY	10
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	1
CONTAMINATED SITE NPL	0

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	204 ACRES
INFORMATION MISSION AREA	905 PTS
TELEPHONE SWITCHING	0 PTS
OUTSIDE CABLE PLANT	120 PTS
COMMON USER SUPPORT	495 PTS
DSN/DDN NODE	50 PTS
POST WIDE WAN/LAN	75 PTS
TCC	**100 PTS ****
VTC	45 PTS

CLOSE HOLD

COST AND MANPOWER

COST OF LIVING INDEX	$714.87
MCA COST FACTOR	1.22
BASOPS/MISSION POPULATION	
PAYROLL	$19360625
NON PAYROLL	$34887307
MISSION POPULATION	DA WILL PROVIDE

**** Changed TCC from 120 points to 100 points per AAA audited on 30 June. Changes made on 1 July 1994.**

CLOSE HOLD

COMMODITY INSTALLATIONS

INSTALLATION = DETROIT ARSENAL

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	896K SQ FT
RESEARCH AND DEVELOPMENT FAC	533K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	97 %
AVERAGE AGE OF FACILITIES	19 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	10.86 MGD
SEWAGE TREATMENT CAPACITY	7.52 MGD
ELECTRICAL CAPACITY	0
SOLID WASTE LANDFILL COSTS	$19.04/TON
ENVIRONMENTAL CAPACITY	
ARCHAEOLOGY/HISTORIC BUILDINGS FACTOR	0.019
ENDANGERED SPECIES	0
WETLANDS FACTOR	0
AIR QUALITY	10
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	1
CONTAMINATED SITE NPL	0

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	204 ACRES
INFORMATION MISSION AREA	905 PTS ✓
TELEPHONE SWITCHING	0 PTS
OUTSIDE CABLE PLANT	120 PTS
COMMON USER SUPPORT	495 PTS
DSN/DDN NODE	50 PTS
POST WIDE WAN/LAN	75 PTS
TCC	100 ~~120 PTS~~ Chg per AAA audit on 30 Jun 99.
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$714.87
MCA COST FACTOR	1.22
BASOPS/MISSION POPULATION	
PAYROLL	$19360625
NON PAYROLL	$34887307
MISSION POPULATION	DA WILL PROVIDE 5244

= 10,344,762

CLOSE HOLD

COMMODITY INSTALLATIONS

INSTALLATION = FORT MONMOUTH

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	**1264K SQ FT** ✓
RESEARCH AND DEVELOPMENT FAC	729K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	90 %
AVERAGE AGE OF FACILITIES	✓ **43.6 YRS** was 44 yrs.

INFRASTRUCTURE

WATER SUPPLY CAPACITY	✓ **5.40 MGD** was 4.17 MGD
SEWAGE TREATMENT CAPACITY	✓ **0.078 MGD** 5.40 MGD
ELECTRICAL CAPACITY	125
SOLID WASTE LANDFILL COSTS	**$68.70/TON** was $64.77/TON

Rounded to 3 (2.8) Total Infrastructure

ENVIRONMENTAL CAPACITY

ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	✓ **.072** was .065
ENDANGERED SPECIES	0
WETLANDS FACTOR	✓ **.073** was .070
AIR QUALITY	10
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	0
CONTAMINATED SITE NPL	0

Rounded to 8 (7.8) Total Environmental

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	281 ACRES
INFORMATION MISSION AREA	1425 PTS
TELEPHONE SWITCHING	450 PTS
OUTSIDE CABLE PLANT	260 PTS
COMMON USER SUPPORT	420 PTS
DSN/DDN NODE	75 PTS
POST WIDE WAN/LAN	75 PTS
TCC	100 PTS
VTC	45 PTS

Spoke w/LTC Powell 18 Jul 94/1500 ... he said to implement into D-PAD. This shouldn't chg the ranking.

CLOSE HOLD

Revd UPDATE (Ortox) 18 Jul 94/1420 for Revd

COST AND MANPOWER

COST OF LIVING INDEX	$1231.85
MCA COST FACTOR	1.19
BASOPS/MISSION POPULATION	
PAYROLL	$28637604
NON PAYROLL	$55494004
MISSION POPULATION	DA WILL PROVIDE

Note: Changes were highlighted in Italic and Bold types. Changes per AAA reviews by memo on 15 June and were incorporated into this document on 20 June 1994.

Commodity

DEPARTMENT OF THE ARMY
U S ARMY AUDIT AGENCY
NORTHEASTERN REGION
1027 ARCH STREET
PHILADELPHIA, PENNSYLVANIA 19107-2317

SAAG-NER (36-5e) 15 June 1994

MEMORANDUM FOR Commander, U.S. Communication-Electronics Command and Fort Monmouth, Fort Monmouth, New Jersey 07703-5000

SUBJECT: Review of the Army Basing Study - Phase I - Installation Assessment, Fort Monmouth--INFORMATION MEMORANDUM NR 94-708

1. **Introduction.** This is the report on our review of installation assessment that your command did for the 1995 Army Basing Study. The Director of Management requested the review. We will include data in this report in a summary report to higher levels of management.

2. **Objectives and Scope.** The overall objective of our review was to evaluate the accuracy of data used for assessing installation values. Specific objectives were to evaluate the:

- Accuracy of reported data.
- Appropriateness of data sources and methods used to obtain data values.
- Completeness of records maintained.

We made the review during May and June 1994. In most material respects, we made the review in accordance with generally accepted government auditing standards. And, accordingly, we tested internal controls to the extent we considered necessary under the circumstances. We didn't follow certain aspects of the field work and reporting standards. In our opinion, however, not following those standards had no material effect on the results of our review.

Our review consisted of:

- Comparing the DA guidance for determining the value of installation assessment attributes with the guidance and method Fort Monmouth used.
- Reviewing the source data and documentation supporting the values Fort Monmouth reported.

- Performing limited tests on the accuracy of the data values reported.

- Verifying the mathematics used to determine the reported values.

3. **Background**

a. **Base Closure.** The Defense Base Closure and Realignment Act of 1990 provides a fair process that will result in the timely closure and realignment of military installations. The Army established the Basing Study Office to manage the study process. The office divided the study process into two phases. Under phase I the Army assesses the relative military value of its installations. Under phase II the Army identifies and evaluates alternatives for realignment and closure. This memorandum addresses only our review of your command's participation in the installation assessment process.

b. **Attributes.** Fort Monmouth reported data values for 11 of the 12 attributes that will be used to assess the relative value of commodity installations. The annex identifies these attributes. DA will provide the value of the 12th attribute--available workforce.

4. **Review Results**

a. **Accuracy of Reported Data.** Fort Monmouth didn't report accurate values for 4 of 11 attributes. Here are the attributes with inaccuracies:

- **Base Operations and Mission Population.** Fort Monmouth reported that it cost $8,702 a year to support each of its 9,668 mission employees. It should have reported a cost of $8,800. Fort Monmouth didn't include the cost of guard services that are reimbursed by customers.

- **Information Mission Area.** Fort Monmouth reported 1,440 points for this area. It should have reported 1,425 points. Fort Monmouth miscalculated the points for having a Teleconference Center.

- **Infrastructure.** Fort Monmouth reported that its infrastructure included an electrical capacity of 65,000 kilovolt-amperes. It should have reported a capacity of 78,000 kilovolt-amperes. It appears

that Fort Monmouth didn't include three transformers in its count.

- **Operational/Administrative Facilities.** Fort Monmouth reported that it had 1,394,635 square feet of this kind of space. It should have reported **1,263,509** square feet. The difference of about 131,000 square feet occurred because Fort Monmouth double-counted the space in two buildings.

The annex shows the data values that Fort Monmouth reported and we verified for all 11 attributes.

b. **Data Sources and Methods.** Fort Monmouth followed the DA installation assessment guidance for determining data values, except for:

- Using a local database (Desk Resource Real Property) in lieu of the DA-specified Headquarters Real Property Planning and Analysis System to determine most of the facility data values reported. The local database is the source for updating the Real Property System.

- Using its Budget Resource Information Management System to calculate the Base Operations and Mission Population value in lieu of the DA-specified Standard Financial System 218 Report. Command personnel said that Fort Monmouth doesn't produce a 218 report.

- Using a factor representing the Variable Housing Allowance that service members receive at Fort Monmouth. The U.S. Army Materiel Command told Fort Monmouth to use this factor instead of the Cost of Living Index because New Jersey wasn't included in the index's calculation.

c. **Completeness of Records Maintained.** Fort Monmouth had adequate documentation to support the reported data values. The documentation was kept by the directorates providing the information (for example, Facility Engineers and Resource Management).

5. **Discussion of Results.** We discussed the results of our review with Mr. John Gemelli (Acting Director) and Mr. Bruce Banasz of the Program Analysis and Evaluation Directorate (the office that coordinated command's reporting). Fort Monmouth agreed with our conclusions and said it would correct the inaccurate values and resubmit them to

SAAG-NER
SUBJECT: Review of the Army Basing Study - Phase I - Installation Assessment, Fort Monmouth--INFORMATION MEMORANDUM NR 94-708

Materiel Command. This report isn't subject to the official command-reply process.

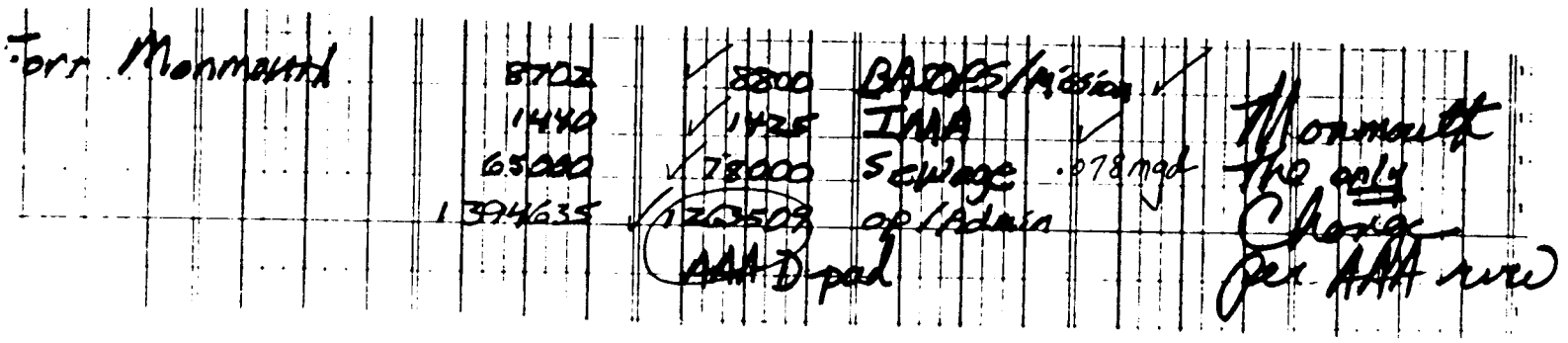
6. Thank you for the courtesies and cooperation extended to us during the review.

Robert S Mak
for HENRY P. CULLERTON
Regional Auditor General

Encl

CF:
Commander, Materiel Command
Basing Study Office

Change D-PAD as follows per AAA report findings:



DATA ATTRIBUTES REVIEWED

Data Attribute	Unit of Measure	Reported by Fort Monmouth	Verified by Army Audit Agency
Average Age of Facilities	Years	43.6	43.6
Base Operations and Mission Population	Dollars/Person a Year	$8,702	$8,800 1/
Buildable Acres	Acres	280.95	280.95
Cost of Living Index	Index Value	1,231.85	1,231.85 2/
Environmental Capacity			
Historic Sites	Number	0.72	0.72
Endangered Species	Number	0	0
Wetlands	Percent of Total Acres	.073	.073
Air Quality	10 = Not in Attainment	10	10
Water Quality	Violations	0	0
Noise Quality	Acres	0	0
Contaminated Sites	Number	0	0
Information Mission Area	Points	1,440	1,425 3/
Infrastructure			
Sewage Treatment	Gallons/Day (Millions)	65,000	78,000 4/
Water Supply	Gallons/Day (Millions)	5.40	5.40
Electrical	KVA/Day (Millions)	4.17	4.17
Solid Waste Landfill	Dollars a Ton	$68.70	$68.70
MCA Cost Factor	Index	1.19	1.19
Operational/Administrative Facilities	Square Feet	1,394,635	1,263,509 5/
Permanent Facilities	Percent	90.2	90.2
Research and Development Facilities	Square Feet	728,555	728,555

NOTES:

1/ Command didn't include $947,401 of costs for reimbursable guard service. By doing so, we increased the cost to support the mission population of 9,668 to $8,800 a person.

2/ This is a factor representing the Variable Housing Allowance service members receive at Fort Monmouth. The U.S. Army Materiel Command told command to use this factor instead of the Cost of Living Index because New Jersey wasn't included in index's calculation.

3/ Fort Monmouth overstated the points for having a Teleconference Center by 15 because of an arithmetic mistake (the factor was multiplied by 20 instead of 15).

4/ Total kilovolt-amperes (KVA) is 78,000, not 65,000. Evidently, Fort Monmouth didn't count three transformers at two substations.

5/ Fort Monmouth counted two buildings twice. One building with 46,248 square feet was counted twice. Another with 84,878 square feet was counted once as existing administrative space and again as a conversion to administrative space in the planned construction category.

COMMODITY INSTALLATIONS

INSTALLATION = NATICK RESEARCH ENGR CENTER

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	140K SQ FT
RESEARCH AND DEVELOPMENT FAC	517K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	98 %
AVERAGE AGE OF FACILITIES	36 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	0.37 MGD
SEWAGE TREATMENT CAPACITY	0.40 MGD
ELECTRICAL CAPACITY	70
SOLID WASTE LANDFILL COSTS	$19.25/TON
ENVIRONMENTAL CAPACITY	
ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	.006
ENDANGERED SPECIES	0
WETLANDS FACTOR	.1
AIR QUALITY	10
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	13
CONTAMINATED SITE NPL	0

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	35 ACRES
INFORMATION MISSION AREA	600 PTS
TELEPHONE SWITCHING	0 PTS
OUTSIDE CABLE PLANT	0 PTS
COMMON USER SUPPORT	375 PTS
DSN/DDN NODE	50 PTS
POST WIDE WAN/LAN	75 PTS
TCC	55 PTS
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$1431.64
MCA COST FACTOR	1.27
BASOPS/MISSION POPULATION	
PAYROLL	$11488495
NON PAYROLL	$21445412
MISSSION POPULATION	DA WILL PROVIDE 1164

32933907
÷ 1164
28,293,734

COMMODITY INSTALLATIONS

INSTALLATION = PICATINNY ARSENAL

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	1225K SQ FT
RESEARCH AND DEVELOPMENT FAC	1338K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	99 %
AVERAGE AGE OF FACILITIES	48 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	1.00 MGD
SEWAGE TREATMENT CAPACITY	2.00 MGD
ELECTRICAL CAPACITY	9375
SOLID WASTE LANDFILL COSTS	$188.43/TON
ENVIRONMENTAL CAPACITY	
ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	.000462
ENDANGERED SPECIES	0
WETLANDS FACTOR	.0923
AIR QUALITY	10
WATER QUALITY	2
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	157
CONTAMINATED SITE NPL	0

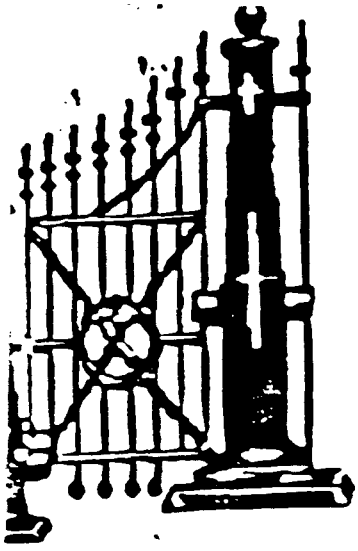
CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

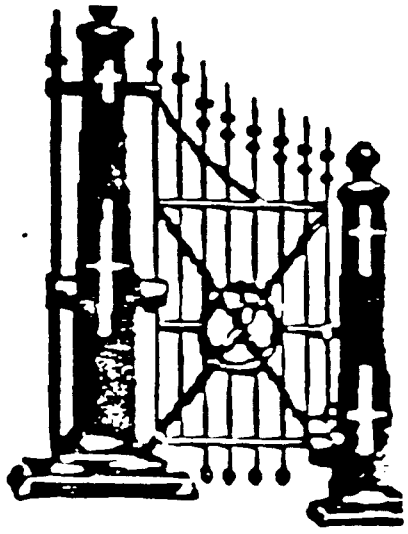
BUILDABLE ACRES	4034 ACRES
INFORMATION MISSION AREA	1565 PTS
TELEPHONE SWITCHING	500 PTS
OUTSIDE CABLE PLANT	300 PTS
COMMON USER SUPPORT	495 PTS
DSN/DDN NODE	75 PTS
POST WIDE WAN/LAN	75 PTS
TCC	75 PTS
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$1194.02
MCA COST FACTOR	1.29
BASOPS/MISSION POPULATION	
PAYROLL	$48964000
NON PAYROLL	$33490000 = 82454000
MISSION POPULATION	DA WILL PROVIDE 8328

= 9,900.8165





US Army Armament Research, Development and Engineering Center

Picatinny Arsenal, NJ

MANAGEMENT AND ANALYSIS DIVISION

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NO OF PAGES: H+ 6

REMARKS: Forwarded are ammendments to Picatinny Arsenal's Installation Assessment Program for the following data attributes: Research and Development - assest figure not changed, added a commentary which has been included in our BRAC 95 Laboratories Joint Cross-Service Group Package submission; BASOPS/MISSION POPULATION - ammended current population supported to reflect data submitted in a recent feeder data call for the ASIP Station Report; INFRASTRUCTURE - commentary added to reflect additional information submitted on the Joint Cross-Service submission and the Installation Environmental Baseline Survey.submission.

CLOSE HOLD

RESEARCH AND DEVELOPMENT FACILITIES

1. DEFINITION: Laboratory activities, environmental control chamber facilities, Research and Development Facilities. R & D facilities must have suitably equipped facilities to operate efficiently.

2. PURPOSE: To measure laboratories and other research facilities used in support of material development.

3. METHODOLOGY: Assets are determined by summing the permanent square footage from the EEA 300 and 700 series files. This sum is only for Planned the FY 95-96 FCC construction that projects are measured counted as existing projects in square feet HQRPLANS.

4. REFERENCES: March April 1994 HQRPLANS.

5. UNIT OF MEASURE: Thousands of gross square feet.

6. EQUATION: Summation.

7. ATTRIBUTE SCORING: Higher number is a better score.

RESEARCH AND DEVELOPMENT FACILITIES - 1337.6 thousands of gross square feet

We conduct a considerable amount of on-site, developmental evaluations of componentry at live-fire test sites, although modeling and simulation have reduced this requirement somewhat. Further, we are about to dedicate a new, $16.8 M laboratory for weapons development and fully-instrumented, small and medium caliber (up to 40 mm), live-fire testing. In addition, two important technology facilities, the Advanced Warhead Development Facility and the Explosives Development Facility will be awarded for construction by 30 Sep 94.

JUN 0 7 1994

Updated Submission

CLOSE HOLD
PICATINNY ARSENAL, NJ
BASOPS/MISSION POPULATION

1. DEFINITION: Measure of the base operations (BASOPS) cost required to support the mission population.

2. PURPOSE: To measure the relative cost of operating an installation in support of the mission requirements. This provides a relative cost factor used to assess the relative cost of operations of an installation.

3. METHODOLOGY: Used Total Base Support cost data (RPMA, Base Communication Costs, BASOPS Payroll/Non-payroll) for each installation. These data elements are derived by capturing the expenditures in FY 93 by installation:

Base support (O&MA, RDT&E):

a. BASPOS(-), Account (xxxx96)
   - A. Real Estate Leases
   - B. Suply Operations
   - C. Maintenance of Material
   - D. Transportation Services
   - E. Laundry and Dry Cleaning
   - F. Army Food Services
   - G. Personnel Support
   - H. Unaccompanied Pers Housing Ops
   - J. Utilities
   - M. Other Engineering Support
   - N. Administration
   - P. Automation Activities
   - Q. Reserve Component Support
   - S. Community & Morale Support
   - T. Preservation of Order
   - U. Dir of Resource Management
   - W. Dir of Contracting
   - X. Security and Counterintel Ops
   - Y. Records Management, Pubs

b. Real Property Maintenance, Accounts (xxxx76 & xxxx78)
   - K. Maint & Repair of Real Property
   - L. Minor Construction

c. Environmental Programs, Account (xxxx56)

d. Audio-Visual, Account (xxxx90)

e. Base Commo, Account (xxxx95)

PICATINNY ARSENAL, NJ

2. Family Programs, Accounts (878708,878719,878720)

In cases where a single fiscal station provides data for more than one installation, a breakout will be provided. Data provided should include all known costs paid for operation and support including reimbursable and RDTE. Additionally, any government workspace provided to contractors will be included. This not include contractors providing base support functions. *The mission population supported will be provided by HQDA.*

4. REFERENCES: Installation STANFINS 218 report data validated by MACOMS for Total Base Support costs.

5. UNIT OF MEASURE: Dollars per person per year.

6. EQUATION: Total Base Support Costs/Total Mission Population.

7. CRITERION SCORING: The lower value results in a better ranking.

The FY 93 Total Base Support Costs was $82,454,000 (of which $7,052,000 was the Environmental Programs, Account (xxxx56)). Picatinny Arsenal received an enormous reduction in Base Support funding between FY 93 and FY 94 (FY 94 Base Support funding is $60,353,000 (of which $7,733,000 is the Environmental Programs). It would be illogical and unfair to compute the dollars per person per year using the FY 93 expenditures divided by the FY 94 personnel figures. It should also be noted that the base operations personnel assigned to perform this function has been reduced from 949 (BRAC 93) to the present assigned strength of 568.

Our records indicte that the current population supported is 25,172. Reference ASIP Station Report dated 23 May 1994, following is a breakout of the population supported:

TDA Units/Tenants	5,319
Military, Active	196
Family Members, Active (Note 1)	424
Reserve Components	782
Family Members, Reserve	1,149
Retiree (Note 2)	7,005
Family Members of Retirees	10,297
Total	25,172

Note 1 - Figure obtained from Post Housing Records

Note 2 - Figures for Retirees and their family members were obtained from the 1993 DOD Statistical Report on Military Retirement System, and using a factor of 1.47 to determine family members.

JUN 0 7 1994

INFRASTRUCTURE

1. DEFINITION: Capacity of water, sewage treatment, electrical distribution and cost of land fill.

2. PURPOSE: To measure the infrastructure capacity of the installation.

3. METHODOLOGY: Four aspects are considered:

a. Water: Capacity in terms of million gallons per day.
b. Sewage treatment: Capacity in terms of million gallons per day.
c. Electrical distribution: Capacity in terms of million kilowatt hours.
d. Land fill: Cost of land fill used by the installation in dollars per short ton (on or off post), determined based upon historical records.

Measures a,b,c should incorporate any new infrastructure capacity resulting from projects included in the FY 91 - FY 95 military construction program.

4. REFERENCES: Installation and MACOM engineer analysis based on the installation master plan (utilities analysis report). Lacking the installation master plan, the DEH utilities division will provide the information.

5. UNIT OF MEASURE: As described in methodology above.

7. ATTRIBUTE SCORING:

For submodel: Water, Sewage treatment, electrical distribution - A larger number is a better score. Land fill--A smaller cost is a better score.

For main model: A higher value results in a higher ranking.

See attached

CLOSE HOLD

PICATINNY ARSENAL, NJ

INFRASTRUCTURE

1. Water - 1 million gallons per day (MGD) capacity

Picatinny Arsenal can expand existing water service by .272 MGD or 37% of the 1993 water consumption without UMMCA or MCA capital investment. The 1 million gallon per day capacity figure is based upon the limiting factor of the new Water Treatment Plant (completed 1990) design water treatment capacity of 1 million gallons per day (MGD). Picatinny Arsenal is located over two water aquifers from which we pump our own water. Aquifer capacity is practically limitless. We pump from three wells with a pump capacity of 1.76 MGD. An additional well licensed only for emergencies has a combined pump capacity of .75 MGD. Picatinny Arsenal's 1993 average water consumption was .728 MGD. Therefore, excess water capacity equals 1 MGD water treatment capacity minus .728 MGD average consumption which equals .272 MGD, a 37% capability to expand.

2. Sewage Treatment - 2 million gallons per day line capacity

Picatinny Arsenal pretreats wastewater prior to pumping off post to the Rockaway Valley Regional Sewage Authority (RVRSA).

The installation wastewater pretreatment plant has a design capacity of 0.50 MGD.

The remaining life expectancy of the wastewater pretreatment plant is a minimum of 30 years (approximately 2024). At the present time no pretreatment plant upgrades are anticipated. The plant was built in the 1920's. It is a simple system of settling tanks, stationary trickling filter and clarifier with no mechanical parts except for a small sludge pump and a gear driven on the clarifier. The sewage collection system is in the process of a total upgrade. Approximately half of the sewer mains have been replaced. The rest of the system is scheduled for replacement and is in the design phase. The completion date for upgrade of all of the mains and lift stations is 1999.

The pretreated effluent is pumped to RVRSA. The design maximum capacity of the pumping station and intercepter line is 2 MGD. The permit capacity of the pumping station and interceptor line is 0.50 MGD. Average daily usage is 0.37 MGD. There are no known or potential permit restrictions that would prevent increase in discharge amounts. Also, there are no known or potential constraints to maintaining or expanding wastewater treatment or discharge.

CLOSE HOLD

CLOSE HOLD

PICATINNY ARSENAL, NJ

INFRASTRUCTURE

3. Electrical Distribution - 268 million kilowatt hours capacity

Picatinny Arsenal can expand existing electrical service by 205 million kilowatt hours per year or 325% of the FY 1993 electric consumption without UMMCA or MCA capital investment. In accordance with TM 5-765, "Electrical Power Transmission and Distribution", capacity of a major distribution system is designed to meet average electrical consumption with a safety factor to handle peak demand load. Picatinny Arsenal's electric consumption in FY 1993 was 63 million kilowatts. Therefore, excess electrical capacity equals 268 million kilowatt hours per year minus 63 million kilowatt hours consumed in FY 1993 or 205 million kilowatt hours per year, a 325% capability to expand.

4. Land Fill - Total costs with recyclables included is $188.43 per ton, which includes the cost of removal, cost to place refuse in land fill, and the cost to remove recyclables. During FY 93, Picatinny Arsenal removed 2191.75 tons of refuse at cost of $412,989.29.

CLOSE HOLD

Original Submission

CLOSE HOLD
PICATINNY ARSENAL, NJ
BASOPS/MISSION POPULATION

1. DEFINITION: Measure of the base operations (BASOPS) cost required to support the mission population.

2. PURPOSE: To measure the relative cost of operating an installation in support of the mission requirements. This provides a relative cost factor used to assess the relative cost of operations of an installation.

3. METHODOLOGY: Used Total Base Support cost data (RPMA, Base Communication Costs, BASOPS Payroll/Non-payroll) for each installation. These data elements are derived by capturing the expenditures in FY 93 by installation:

Base support (O&MA, RDT&E):

a. BASPOS(-), Account (xxxx96)
   - A. Real Estate Leases
   - B. Suply Operations
   - C. Maintenance of Material
   - D. Transportation Services
   - E. Laundry and Dry Cleaning
   - F. Army Food Services
   - G. Personnel Support
   - H. Unaccompanied Pers Housing Ops
   - J. Utilities
   - M. Other Engineering Support
   - N. Administration
   - P. Automation Activities
   - Q. Reserve Component Support
   - S. Community & Morale Support
   - T. Preservation of Order
   - U. Dir of Resource Management
   - W. Dir of Contracting
   - X. Security and Counterintel Ops
   - Y. Records Management, Pubs

b. Real Property Maintenance, Accounts (xxxx76 & xxxx78)
   - K. Maint & Repair of Real Property
   - L. Minor Construction

c. Environmental Programs, Account (xxxx56)

d. Audio-Visual, Account (xxxx90)

e. Base Commo, Account (xxxx95)

PICATINNY ARSENAL, NJ

f. Family Programs, Accounts (878708,878719,878720)

In cases where a single fiscal station provides data for more than one installation, a breakout will be provided. Data provided should include all known costs paid for operation and support including reimbursable and RDTE. Additionally, any government workspace provided to contractors will be included. This not include contractors providing base support functions. *The mission population supported will be provided by HQDA.*

4. REFERENCES: Installation STANFINS 218 report data validated by MACOMS for Total Base Support costs.

5. UNIT OF MEASURE: Dollars per person per year.

6. EQUATION: Total Base Support Costs/Total Mission Population.

7. CRITERION SCORING: The lower value results in a better ranking.

The FY 93 Total Base Support Costs was $82,454,000 (of which $7,052,000 was the Environmental Programs, Account (xxxx56)). Picatinny Arsenal received an enormous reduction in Base Support funding between FY 93 and FY 94 (FY 94 Base Support funding is $60,353,000 (of which $7,733,000 is the Environmental Programs). It would be illogical and unfair to compute the dollars per person per year using the FY 93 expenditures divided by the FY 94 personnel figures. It should also be noted that the base operations personnel assigned to perform this function has been reduced from 949 (BRAC 93) to the present assigned strength of 568.

Our records indicate that the current population supported is 6,085. Furthermore it should be noted that our average visitors to the Commissary is 6,018 per month and to the Post Exchange is 4,420 per month. Our Officers Club membership is 810.

COMMODITY INSTALLATIONS

INSTALLATION = REDSTONE ARSENAL

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	1719K SQ FT
RESEARCH AND DEVELOPMENT FAC	1367K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	87 %
AVERAGE AGE OF FACILITIES	36 YRS

INFRASTRUCTURE

WATER SUPPLY CAPACITY	9.00 MGD
SEWAGE TREATMENT CAPACITY	6.00 MGD
ELECTRICAL CAPACITY	120145
SOLID WASTE LANDFILL COSTS	$0.87/TON

ENVIRONMENTAL CAPACITY

ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	.0005
ENDANGERED SPECIES	3
WETLANDS FACTOR	.25
AIR QUALITY	1
WATER QUALITY	2
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	200
CONTAMINATED SITE NPL	89

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	3300 ACRES
INFORMATION MISSION AREA	845 PTS
TELEPHONE SWITCHING	0 PTS
OUTSIDE CABLE PLANT	0 PTS
COMMON USER SUPPORT	525 PTS
DSN/DDN NODE	100 PTS
POST WIDE WAN/LAN	75 PTS
TCC	100 PTS
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$152.36
MCA COST FACTOR	0.78
BASOPS/MISSION POPULATION	
PAYROLL	$47891000 = 143,380,000
NON PAYROLL	$95489000
MISSION POPULATION	DA WILL PROVIDE 2281

COMMODITY INSTALLATIONS

INSTALLATION = ROCK ISLAND ARSENAL

MISSION REQUIREMENTS AND OPERATIONAL READINESS

AVAILABLE WORKFORCE	DA WILL PROVIDE
OPS/ADMIN FACILITIES	1693K SQ FT
RESEARCH AND DEVELOPMENT FAC	26K SQ FT

LAND AND FACILITIES

PERCENT PERMANENT FACILITIES	100 %
AVERAGE AGE OF FACILITIES	50 YRS
INFRASTRUCTURE	
WATER SUPPLY CAPACITY	3.40 MGD
SEWAGE TREATMENT CAPACITY	4.00 MGD
ELECTRICAL CAPACITY	0
SOLID WASTE LANDFILL COSTS	$49.25/TON
ENVIRONMENTAL CAPACITY	
ARCHEOLOGY/HISTORIC BUILDINGS FACTOR	.07
ENDANGERED SPECIES	0
WETLANDS FACTOR	.0303
AIR QUALITY	1
WATER QUALITY	0
NOISE QUALITY	
AICUZ ZONE II OFF POST	0 ACRES
AICUZ ZONE III OFF POST	0 ACRES
CONTAMINATED SITE IRP	31
CONTAMINATED SITE NPL	0

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	418 ACRES
INFORMATION MISSION AREA	1405 PTS
TELEPHONE SWITCHING	450 PTS
OUTSIDE CABLE PLANT	260 PTS
COMMON USER SUPPORT	450 PTS
DSN/DDN NODE	25 PTS
POST WIDE WAN/LAN	75 PTS
TCC	100 PTS
VTC	45 PTS

COST AND MANPOWER

COST OF LIVING INDEX	$90.16
MCA COST FACTOR	1.11
BASOPS/MISSION POPULATION	
PAYROLL	$19905365
NON PAYROLL	$13805252 = 33,710,617
MISSION POPULATION	DA WILL PROVIDE 9315

BRAC.XLS

CLOSE HOLD

Cold Regions Research and Engineering Laboratory
Hanover, NH 03755

MISSION REQUIREMENT AND OPERATIONAL READINESS

DATA ELEMENT		VALUE	UNIT
AVAILABLE WORK FORCE		194.085	pop.
OPS/ADMIN FACILITIES		58.8	K gross SF
RESEARCH AND DEVELOPMENT FACILITIES		306.6	K gross SF
LAND AND FACILITIES		04	
AVERAGE AGE OF FACILITIES		16.22	Years/SF
INFRASTRUCTURE			
	Water	2	Mgal/day
	Sewer	10	Mgal/day
	Elec. Distr.	18	MKwh
	Landfill	$54	/Ton
PERCENT PERMANENT FACILITIES		100	%
ENVIRONMENTAL CARRYING CAPACITY		20	points

CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

BUILDABLE ACRES	9.46	Acres
INFORMATION MISSION AREA (IMA)	1015	points

COST AND MANPOWER

COST OF LIVING INDEX		DA Provided
MCA COST FACTOR		DA Provided
BASOPS/MISSION POPULATION	919.76	KS/person

CLOSE HOLD

CLOSE HOLD

DATA DOCUMENTATION

A. MISSION REQUIREMENT AND OPERATIONAL READINESS

1. Available Workforce

CRREL is located within Grafton County, but is approximately 10 miles north of the Sullivan County NH line. Windsor County, VT is accessible across the Connecticut River at Hanover, NH (two miles), and by Interstate Highway eight miles south of the laboratory. Orange County, VT is accessible across the Connecticut River via Hanover, NH, eight miles to the county line and by East Thetford, VT approximately nine miles north of the Laboratory. CRREL's current workforce originates from the above counties as follows:

County	% Workforce	County Population
Grafton (NH)	59%	74, 929
Sullivan (NH)	10%	38, 952
Windsor (VT)	19%	54, 055
Orange, (VT)	9%	26, 149
	Total	194, 085

(Data Source is: Workforce home town from personnel records. Population from 1990 Census Data.)

2. OPS/ADMIN Facilities

CRREL is not currently listed in the HQRPLANS data base. The following data is provided based on as-built drawing and current use within the Laboratory.

FCG 61050 General Purpose Admin 58.8 K gross SF

CLOSE HOLD

3. Research and Development Facilities

The following buildings are classified as EEA 300 Series:

(31090)	Main Laboratory	80, 830 SF
	Laboratory Addition	46, 720
	Ice Engineering Facility	73, 100
	Frost Effects Research Facility (FERF)	29, 415
	Remote Sensing Center	16, 440
	Technical Information Analysis Center (TIAC)	24, 000
	Geophysical Research Facility	4, 200
	Frost Effects Research Facility Annex (FERF Annex)*	23, 000
	Low Temp Material Evaluation Facility	8, 875
	Total	306, 580 SF

1997
*~~1996~~ MCA Program

B. LAND AND FACILITIES

1. Average Age of Facilities

CRREL is not currently listed in the HQR Plans data base. The following data is provided based on current drawing and historical records maintained by the Laboratory Facility Engineer:

FCG	Building	Size	Year Construction Completed	Age
	Main Laboratory	80, 830 SF	1961	33
	Laboratory Addition	46, 720	1977	17
	Ice Eng'g Facility	73, 100	1978	16
	FERF	29, 415	1985	9
	Remote Sensing Cntr	16, 440	1993	1
	TIAC	24, 000	1994	0
	Facility Engineer	14, 130	1968	26
	Warehouse	12, 880	1975	19
	Logistics Management	22, 100	1976	18
	Research Support	610	1978	16
	Child Development Cntr	8, 678	1990	4
	Vehicle Storage	7, 750	1984	5
	Low Temp Material	4, 395	1990	4
	" " "	4, 480	1992	2
	Geophysical Rsch Fac	4, 200	1993	1
	Groundwater Treatment Plant	3, 640	1994	0

6,036,267/376,368 = 16.04 average age/SF

CLOSE HOLD

2. Infrastructure:

Following data is provided by the utility records from the Laboratory Facilities Engineer:

Water	=	2,016,000 Gal/Day (As built cost data/historical records)
Sewer	=	10,000,000 " " (Estimated by Town of Hanover, NH)
Electrical Distribution	=	18,653,040 KWH (Based on max historical load w/transformers at 50% capacity)
Landfill Costs	=	$54/ton (Actual Cost)

3. Percent Permanent Facilities

All current structures at CRREL are permanent.

4. Environmental Carrying Capacity

Following assessment conducted by the Laboratory Environmental Engineer:

Archeology/Historic Building Factor = A/B where:
A= # Sites/Structures
B= Total Installation Acres
0/31 = 0
Endangered Species Factor = 0
Wetlands Factor = total wetlands acreage/total acres 0/31 = 0
Water Quality Factor = 0
Noise Quality Factor = 0
Contaminated Sites Factor = A & B A = IRP Sites B = NPL Sites
= 1 + 0 = 1
1 (15- Air Quality Factor) = 15
1 (5- Contaminated Sites Factor) = 5
20 Points

C. CONTINGENCY, MOBILIZATION AND FUTURE REQUIREMENTS

1. Building Acres

Installation Master Plan identifies 9.46 acres as potential buildable land.

2. Information Mission Area

The following assessment is provided by the Laboratory Information Systems Branch:

Telephone Switching

1. Is Main DCOs digital Switch?	Yes = 5
2. Percentage of Fill	<70% = 5
3. Lines (Equipped)	<2,500 = 1
4. Lines (Expandable to)	5,000-10,000 = 3

14 X 25 points = 350

CLOSE HOLD

Outside Cable Plant

1. OSCAR Implementation Phase	Phase 3 Complete	= 5
2. Cable Type	Fiber Backbone	= 5
3. Percentage of Fill	<50%	= 5

15 X 20 points = 300

Common Users Mainframe Support

1. Mainframe (equivalent)	IBM 3090	= 5
2. Total MIPS	>10 MIPS	= 5
3. ASEMX		= 0
4. E-Mail	Other	= 3
5. Front End Processor		= 0
6. Super Computer		= 0

13 x 15 points = 195

DSN/DDN Node

MILNEL	Yes	= 5

5 x 5 points = 25

Post Wide WAN/LAN

Fiber Optic	Yes	= 5

5 x 15 points = 75

TCC

1. GENSER	DINAH	= 5
2. DSSES		= 0
3. AMME ASC		= 0
4. Comm. Secure Processor (CSP)		= 0

5 x 5 points = 25

VTC

VTC Facility	Yes	3

3 x 15 points = 45

Total 1015 points

CLOSE HOLD

COSTS AND MANPOWER

1. Cost of Living Index - DA Provided

2. MCA Cost Factor - DA Provided

3. BASOPS/Mission Population

The following data is provided by the Laboratory Resource Management Officer:

FY93 RDTE Base Ops	=	$ 4528K
FY93 RDTE RPM-M&R	=	1318
FY93 RDTE RPM-MC	=	647
FY93 DoD RPM	=	598
		$ 7091K

FY93 Year End Strength

Military Authorized Spaces	280
Civil Works Authorized Spaces	79
civil funded slots.	359

$7091K/359 = $19.752/Man Year

Data source is RCXS CSCFA-218 and FY93 End Strength Documentation

NOTE:

APPROPRIATE COPIES OF DOCUMENTATION WILL BE RETAINED BY THE DEPUTY COMMANDER. DOCUMENTS NOT APPROPRIATE FOR RETENTION OF THE DEPUTY (I.E., AS BUILT DRAWINGS) WILL BE MAINTAINED BY THE PRIORITY OFFICE AND WILL BE AVAILABLE FOR AUDIT.