DCN 1541

4.11.95

To: Commissioner Benjamin Montoya

From: Deirdre Nurre, Interagency Team Environmental Analyst

Through: Ben Borden, Director of Review and Analysis

RE: DRAFT Costs of Compliance and Costs of Cleanup for Air Force Logistic Centers (ALCs)

You requested me to provide data on costs of compliance and costs of cleanup for Air Logistic Centers. The following draft response presents such information budgeted for the Air Force Bases hosting ALCs for Fiscal Year 1995.

My analysis of compliance costs derives from the comprehensive base questionnaires which were answered at the base level. The questionnaires permitted individual bases some flexibility in categorizing environmental compliance costs. Thus, comparing costs from one base to another cannot be done with much specificity. Environmental cleanup costs for ALC bases were submitted to the Commission by the Base Closure Executive Group.

ENVIRONMENTAL COMPLIANCE BUDGET AT ALC BASES FOR FY95

ALCs	Haz Waste Disposal	Natural Resources	Permits	General - Est.
Hill	$ 1,300,000.00	$ 784,000.00	$ 175,000.00	$ 1,863,000.00
Robins	1,500,000.00	176,000.00	496,000.00	7,730,700.00
Tinker	5,653,000.00	630,000.00	105,000.00	15,876,000.00
Kelly	2,384,000.00	0-	0-	1,232,000.00
McClellan	1,321,000.00	112,000.00	158,000.00	4,416,000.00

ENVIRONMENTAL CLEANUP BUDGET AT ALC BASES

ALCs	Year Complete	Costs to FY94-Actual	Costs FY95 to Complete-Est.
Hill	2050	$ 110,000,000.00	$ 235,858,000.00
Robins	2011	1,512,000.00	71,938,000.00
Tinker	2023	36,600,000.00	249,007,000.00
Kelly	2023	95,000,000.00	181,949,000.00
McClellan	2034	130,661,000.00	705,446,000.00

I. Environmental Compliance Costs:

Hazardous Waste Disposal/Remediation: This figure includes costs of storing, treating, and disposing of hazardous and toxic wastes, as well as immediate spill response activities. This figure could vary from one year to the next according to the kinds of waste-producing industrial activities and status of storage compliance efforts which increase or decrease from year to year.

Natural Resources: This figure funds the base's natural resources management plan, wetlands inventory, forest survey, and timber management including the planting of new trees as needed. The figure varies from one base to another depending upon natural factors such as existence of wetlands and endangered species, and could vary over time depending upon scheduled requirements to complete surveys and inventories.

Permits: Funds identified in this category pay for permits including National Pollution Discharge Elimination System (NPDES) Permits for wastewater, permits for stormwater runoff, and operating permits established under Title V of the Clean Air Act. Note that the amounts identified purchase the permits and do not pay for cost of compliance with permits. The cost of one permit at one base was estimated; all other permits costs reported are reflected in the base questionnaire.

General: This category groups a number of cost categories together for purposes of this brief analysis, because the Air Force environmental offices which submitted data identified their compliance costs in categories which were not comparable. Among the activities grouped under this category may include, but are not limited to:

- Underground Storage Tank (UST) survey and remedial work
- Resource Conservation and Recovery Act (RCRA) costs for spill control plans, spill control supplies, and compliance training
- National Environmental Policy Act (NEPA) costs for completion of Environmental Impact Statements
- Compliance with air, NPDES, and stormwater permits
- Capital purchases for pollution control equipment such as air scrubbers, etc.

II. Cleanup Costs:

Costs to complete cleanup are estimates which could change depending upon several factors. Additional contamination discovered as investigation and cleanup proceeds, contaminated areas which prove not to be as extensive as initially estimated, and changing costs of developing technologies for investigation and cleanup could increase or decrease estimated costs. In general, the earlier a base is in the Remedial Investigation/Feasibility Study (RI/FS) process, the more uncertain is the knowledge of contamination, and the less accurate is cost to completion.

DBCRC MTG 11 April 95

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BEN BORDEN	~~BRAC~~ BRAC	

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AIR FORCE COBRA ASSUMPTIONS

Factor	Depot Downsize	Depot Closure
Time to Close	3 years	6 years
Positions eliminated before workload move	15% efficiency factor in a reduction of 1,844 Civilians	~~None~~ 6 %
Timing of position eliminated	All in 1988	All in 2001
Civilian personnel leave cost	Recognized as a BRAC cost	All recognized as s BRAC cost
Personnel shop to hire at receiving base	$4000/new employee	Same
Personnel retraining cost	$14,000/new employee	~~Same~~
Cost to realign personnel	N/A	$30,000 per employee
Production transition costs	Productivity losses 5% per impacted employee	COBRA calculated plus cost to run parallel lines
Amount of equipment moved	All associated with workload move	All moved or excessed and repurchased
Equipment transportation cost	Est. 4% of equipment acquisition	Same
Equipment excess cost	Recognize excess as BRAC cost	Same
Supply transportation cost	None	Est. 1% inventory value
Procurement of new equipment	No equipment repurchased	5% of losing base's equipment repurchased
MilCon Administrative	Unknown	New & rehab space
MilCon cost avoidance	$15 million recognized ??	None recognized
Base conversion agency cost	COBRA calculation	COBRA + $30 million

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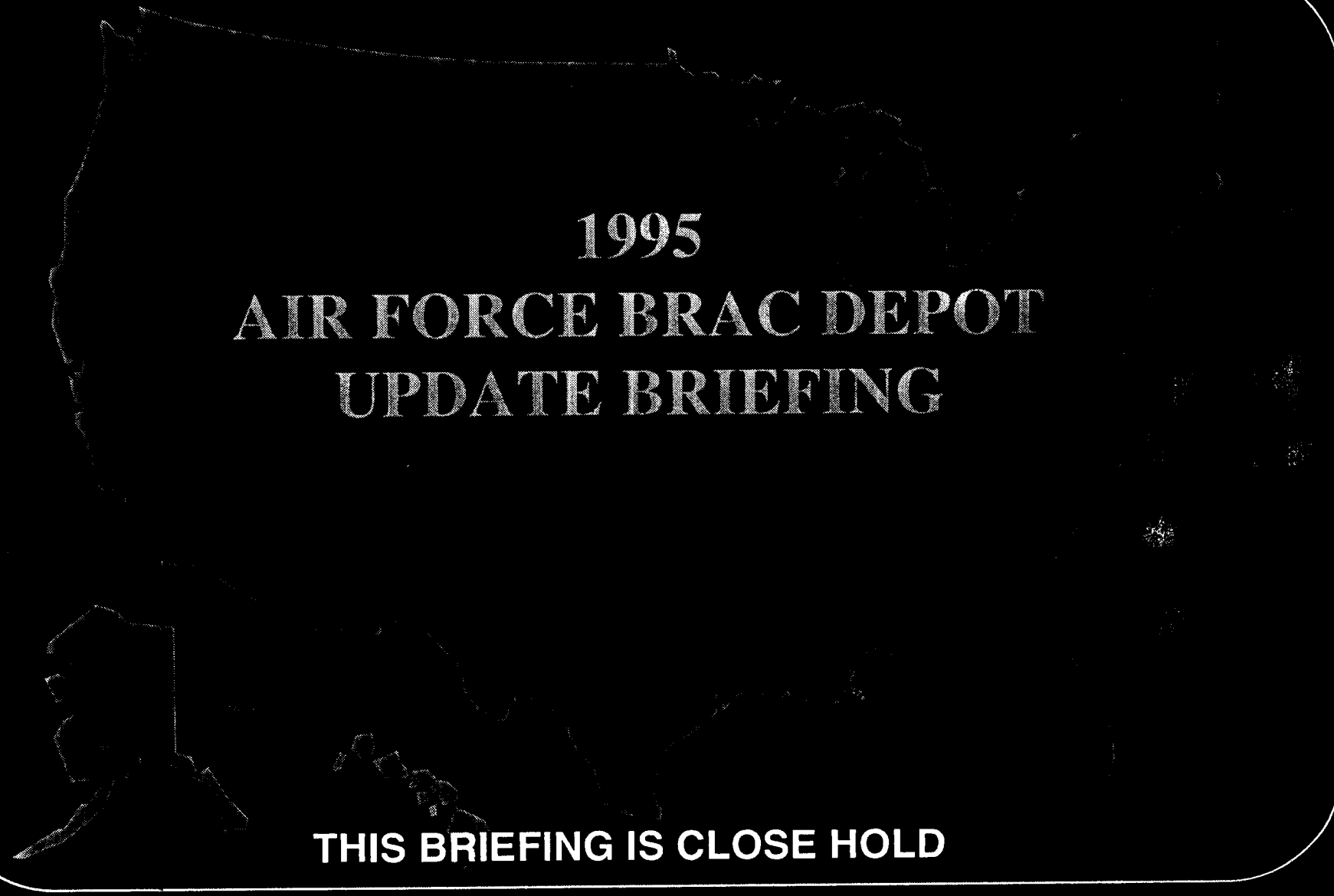


1995
AIR FORCE BRAC DEPOT
UPDATE BRIEFING

THIS BRIEFING IS CLOSE HOLD

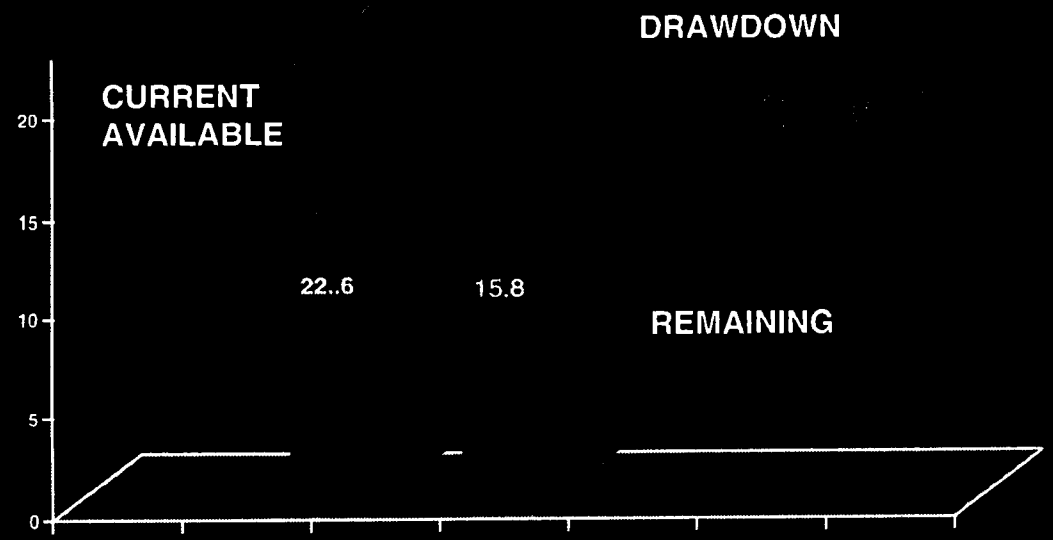
1995 AF BRAC DEPOT UPDATE BRIEFING

DEPOT CATEGORY UPDATE

- AIR FORCE DEPOT DOWNSIZE FINALIZED 8 FEB 95
  - AFMC TECHNOLOGY REPAIR CENTER (TRC) CONSOLIDATIONS STUDIES NOT COMPLETED
- DATA REFLECTED BEST JUDGMENT BASED ON AVAILABLE DATA

1995 AF BRAC DEPOT UPDATE BRIEFING

Potential Infrastructure Drawdown (Millions of Square Feet)

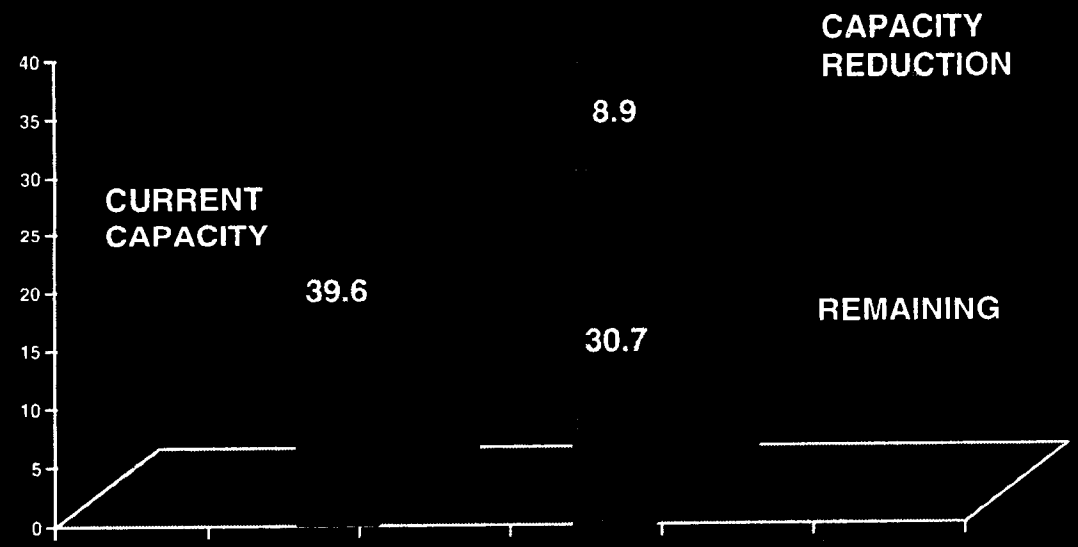


PROVIDE OVER 1.9 MILLION SQ FT TO DLA
POTENTIAL DOWNSIZING OF 1.5 DEPOT EQUIVALENTS INFRASTRUCTURE

1995 AF BRAC DEPOT UPDATE BRIEFING

Potential Capacity Downsize

(Millions of Direct Labor Hours)



POTENTIAL DOWNSIZING OF OVER 1 DEPOT EQUIVALENT

1995 AF BRAC DEPOT UPDATE BRIEFING

Commodity And Process Consolidations
Personnel Impacts

Commodity	OC	OO	SA	SM	WR
Composites/Plastics	-37	-49	-46	+225	-163
Engine Related	-125		-100		
Hyd	-2	-7	-3	-38	-2
ATE Software	-108	+81	-75	-172	+81
Sheetmetal Repair	-218	+208	-52	-63	-64
Instrument Repair	-169	-82		+272	-149
Abn Electronics	-4	-37		-92	-119
Metal Mfg	-320	+163	-118	-31	-32
Paint/Depaint	-29	-8	-19	-16	-20
Misc	-46	-32	-20	-71	+2
Total	-1058	+237	-433	+14	-466

1995 AF BRAC DEPOT UPDATE BRIEFING

COBRA Costs for Downsizing Initiatives

	1-TIME COST ($M)	20 YR NPV ($M)	STEADY STATE ($M)	ROI (YRS)	PERS SAVINGS[1]
Consolidations	184	(992)	89	2	1911
F-111 Phase out[2]	13	(688)	54	---	1127
Other Reductions[2]	22	(1185)	93	---	1950
Total Downsizing	219	(2867)	235	---	4988

[1] Includes reduction in the BOS tail
[2] Reflects costs/savings associated with personnel reductions only

1995 AF BRAC DEPOT UPDATE BRIEFING

DEPOT CATEGORY CURRENT STATUS

- TRC CONSOLIDATION STUDIES COMPLETE
- SITE SURVEYS CONDUCTED
- AFMC CORPORATE REVIEW PROCESS COMPLETE
- BCEG REVIEW
- REVISED ESTIMATES OF COST AND SAVINGS
  - IMPROVED DETAIL
  - IMPROVED BACKUP
- POTENTIAL OF IMPROVED BRAC REALIGNMENTS

1995 AF BRAC DEPOT UPDATE BRIEFING

WHERE DO WE GO FROM HERE

- OSD
  - UPDATE RECOMMENDATION
  - UPDATE JCSG-DM DATA BASE
- BRAC COMMISSION AND STAFF

COBRA ANALYSIS

1995 AF BRAC DEPOT UPDATE BRIEFING

COBRA Costs for TRC Consolidation Scenarios

	1-TIME COST ($M)	20 YR NPV ($M)	STEADY STATE ($M)	ROI (YRS)	PERS SAVINGS[6]
BRAC TRC Baseline[1]	183	(952)	86	2	1844
Revised Baseline[2,3]	234	(975)	92	3	1987
Revised Baseline[2,4]	217	(975)	91	3	1987
Revised Baseline[3,5]	127	(1055)	91	2	1987

[1] TRC portion of service recommendation
[2] Reflects costs/savings for all infrastructure reductions
[3] Facilities not reused by DLA
[4] Facilities reused by DLA
[5] Reflects costs/savings for TRC rearrangement/demolition only
[6] Includes an 8% reduction in the BOS tail

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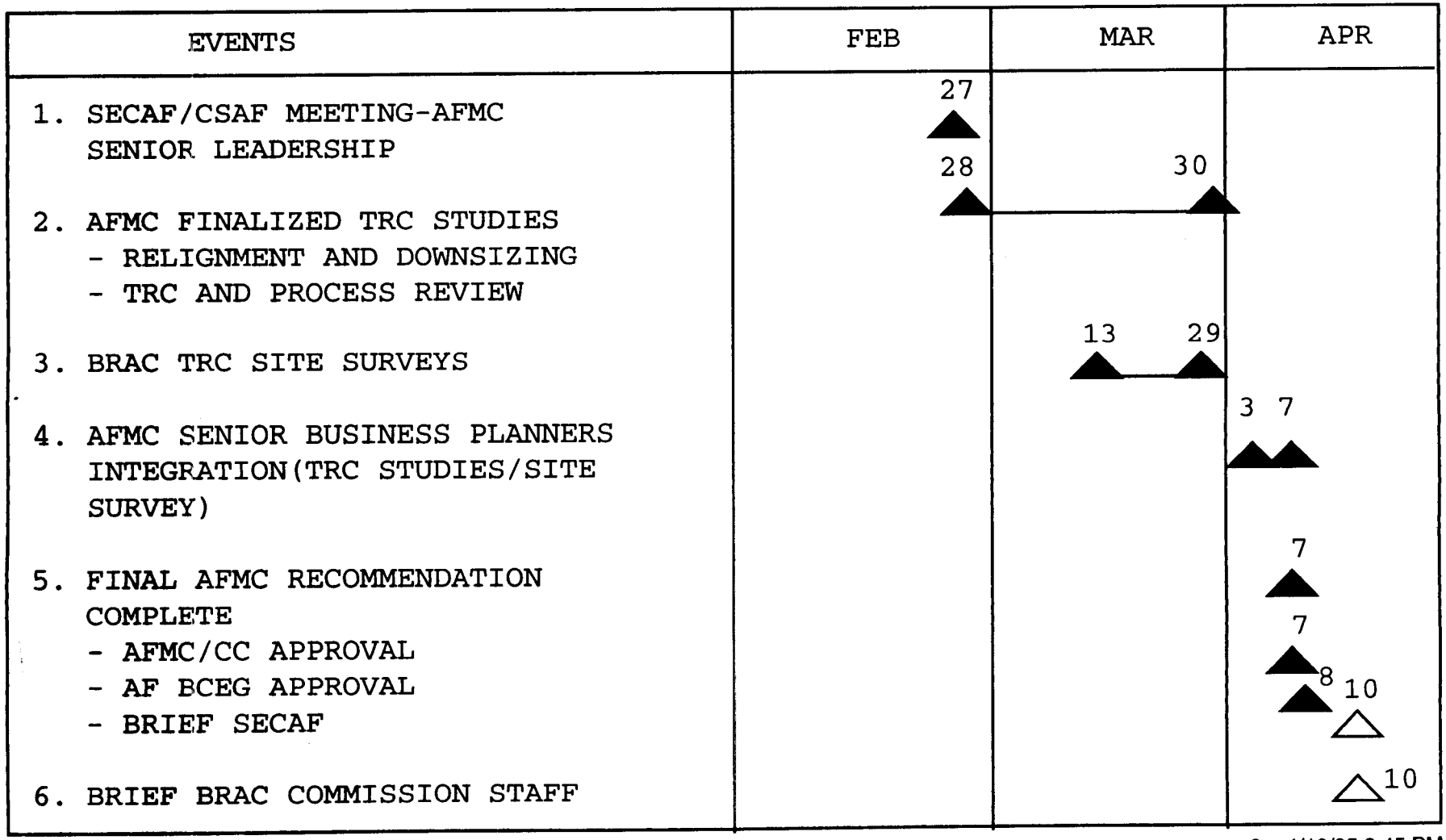
BRAC Implementation (Depot)

TRC Commodity And Process Consolidation Refinement Process Overview

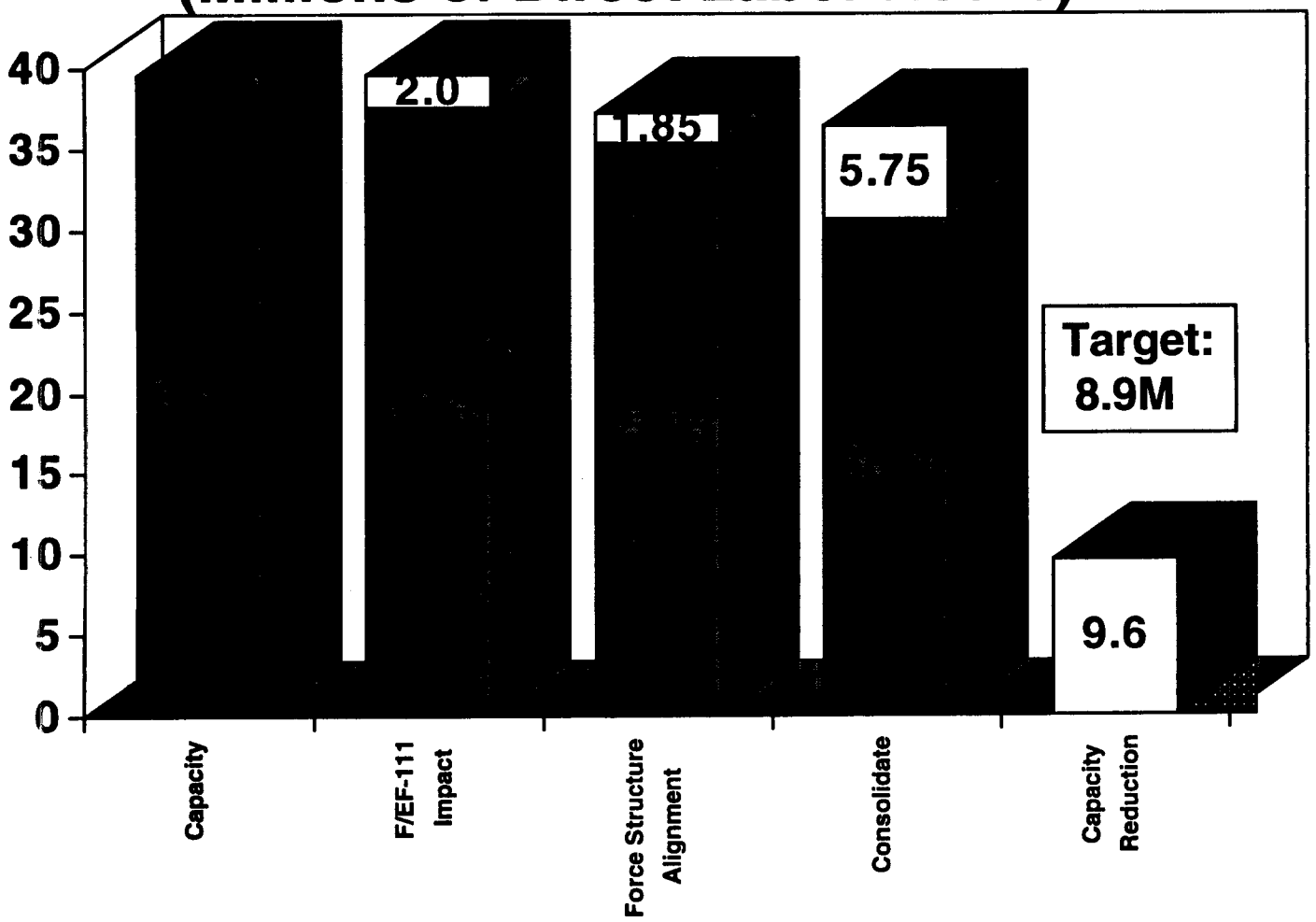


Tasking

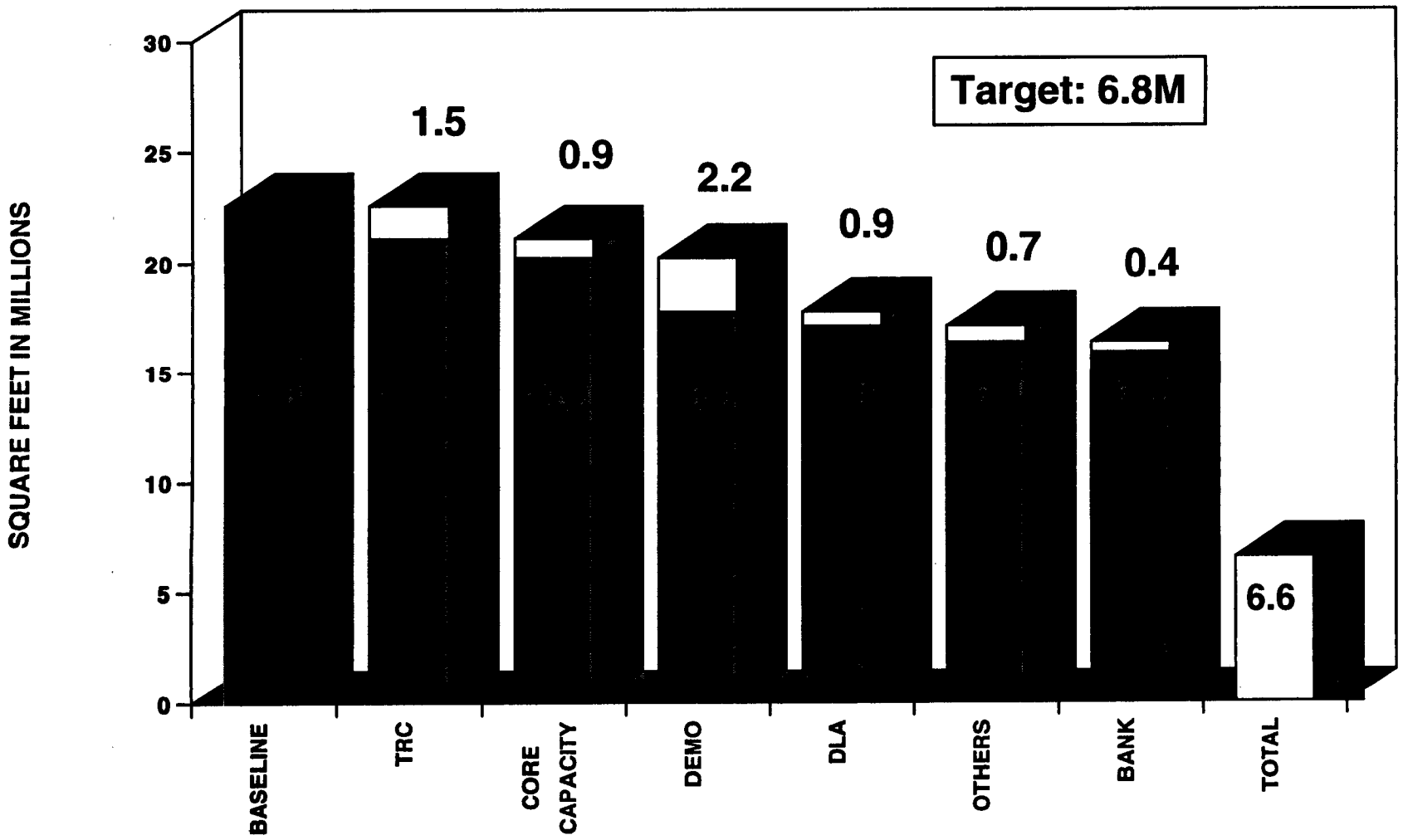
- Identify how AFMC will achieve BRAC recommendations
  - Reduce capacity by 8.9M DPAH
  - Reduce depot infrastructure by 6.8M sq ft
    - Identify 1.9M sq ft space for DLA
  - Eliminate 1706 DMBA manpower authorizations

Implementation (Capacity)

(Millions of Direct Labor Hours)



Implementation
(Square Footage)



Personnel Savings - BRAC Implementation (1713)

	OC	OO	SA	SM	WR	
Composite/Plastic	-26	-26	-12	+135	-106	
Hyd/Pneu	-3	-10	-4	-59	-3	
Tubing (Metal Mfg)	-5	-4	-1	-2	+1	
ATE Software (Avionics)	-88	-26	-46	-21	+73	
Sheetmetal Repair / Mfg	-170	+353	-38	-40	-192	
Machine Mfg (Metal Mfg)	+16	-63	-31	-50	+77	
Foundry		-2	+7	-7	-2	
Instrument/Display	-184	-101		+242	-43	
Abn Electronics	-39	-42		-108	-15	
Electronic Mfg (PWB)		-29		-23	+38	
Electro/Mech Support Equip				-11	-3	
Injection Molding		-3		+2		
IPE Software (Engines)	-34		+6			
Plating	-7	+15	-21	-28	-6	
Engine Related	*-50*		*-112*			
Realignment Totals	-590	+62	-252	+30	-181	
Downsizing Totals	-185	-127	-183	-148	-139	
						Grand Totals
BRAC Implementation Totals	-775	-65	-435	-118	-320	-1713
Initial BRAC Planning Totals	-1058	+237	-433	+14	-466	-1706

Improved Realignments

- Printed Wire Boards (OO-ALC vs WR-ALC)
- Sheet Metal Repair/Manufacturing (Leave with A/C vs OO-ALC)
- Instruments (OC-ALC and WR-ALC vs SM-ALC)
- Plating (Consolidate 11 processes at single sites / Downsize 15 in place vs SM-ALC to OO-ALC)

Printed Wire Boards

- **BRAC: Consolidate at WR-ALC**
  - **Collocation with avionics**

- **Change: Consolidate at OO-ALC**
  - **Collocation with avionics not necessary**
  - **OO most mature multi-layer capability**
  - **Achieve additional 56% capacity reduction**

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
BRAC	25,000	132,124	14
Change	[redacted]	[redacted]	[redacted]
Improvement	26 300 1300	207 644 74,020	21 7

Sheet Metal Repair/Manufacturing

- **BRAC: Consolidate at OO-ALC**
  - **Efficiencies**
  - **Synergy**
  - **Minimal residual**

- **Change: Downsize**
  - **Integral to commodity production**
  - **Eliminates need to duplicate one of a kind fixtures**

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
BRAC	87,800	143,809	87
Change	[redacted]	[redacted]	[redacted]
Improvement	124,800 37,000	170,462 26,653	157 70

Instruments

- **BRAC: Consolidate at SM-ALC (except gyros/compasses)**
  - **Utilized TRC for instruments**
  - **Utilizes instrument facility**

- **Change: Consolidate OO at OC and SM at WR**
  - **Lowest cost option from TRC study**

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
BRAC	[redacted] 127,000	[redacted] 265,160	86
Change	94,600	202,940	[redacted] 129
Improvement	(32,400)	(62,220)	43

Plating

- **BRAC: Downsize; move SM-ALC to OO-ALC**
  - **Eliminates one full plating shop**
  - **Minimizes transportation expenses (if transferring) by placing SM workload at nearest ALC**
- **Change: Consolidate 11 and downsize 15 processes**
  - **BRAC recommendation incompatible with other BRAC recommendations**
    - **Composites/plastics require plating process support (chemical milling)**
    - **Hydraulics requires plating process support**
  - **Reduces requirement to route high volume assets**

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
	46,000		47
BRAC	[redacted]	41,400	[redacted]
Change	26,050	[redacted]	46
		57,870	
Improvement	(19,950)	16,470	(1)

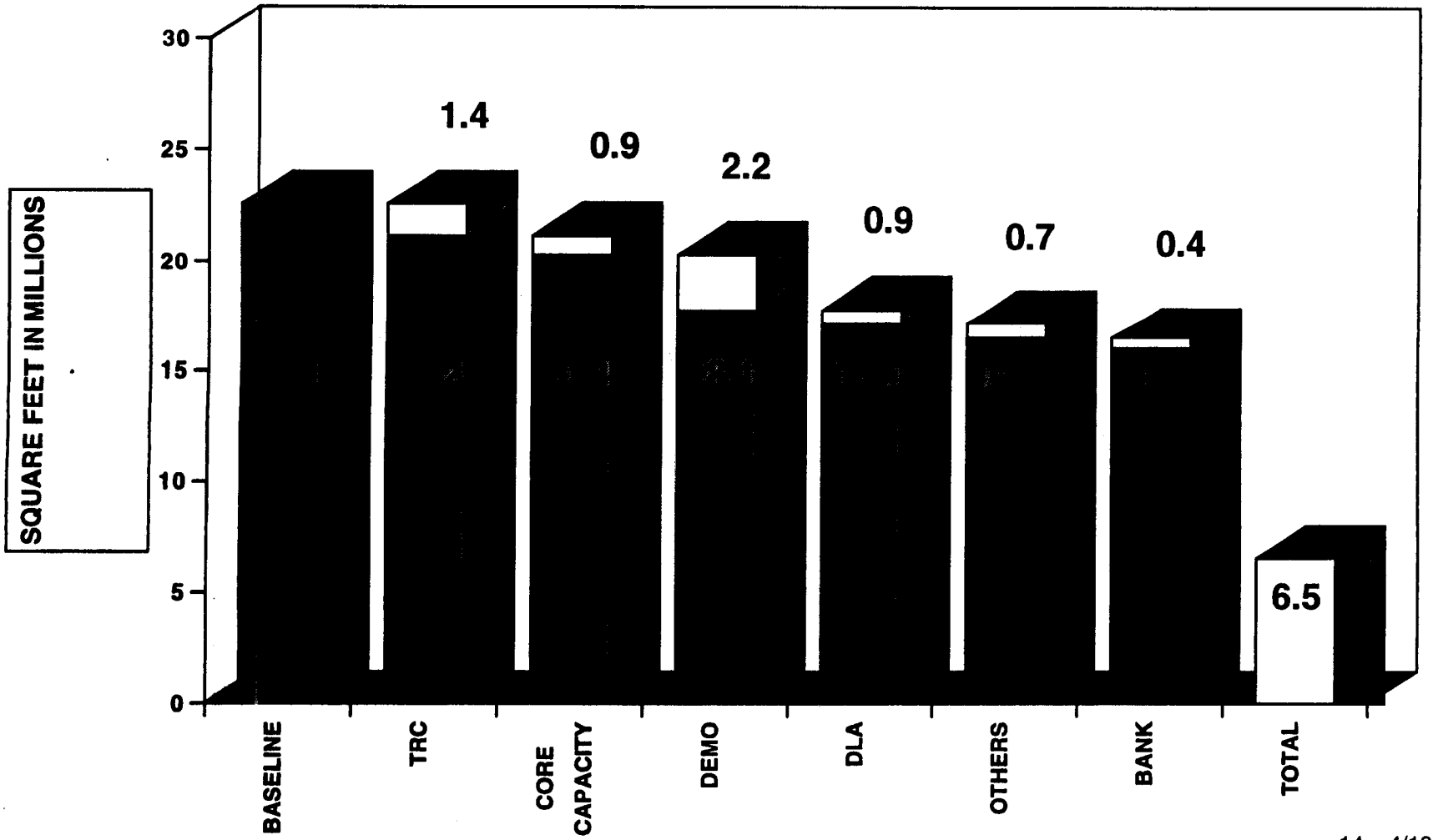
Recap

	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
Printed Wire Boards	1300	74,020	7
Sheet Metal (Rpr/Mfg)	37,000	26,653	70
Instruments	(32,400)	(62,220)	43
Plating	(19950)	16,470	(1)
Net	(14,050)	54,923	119

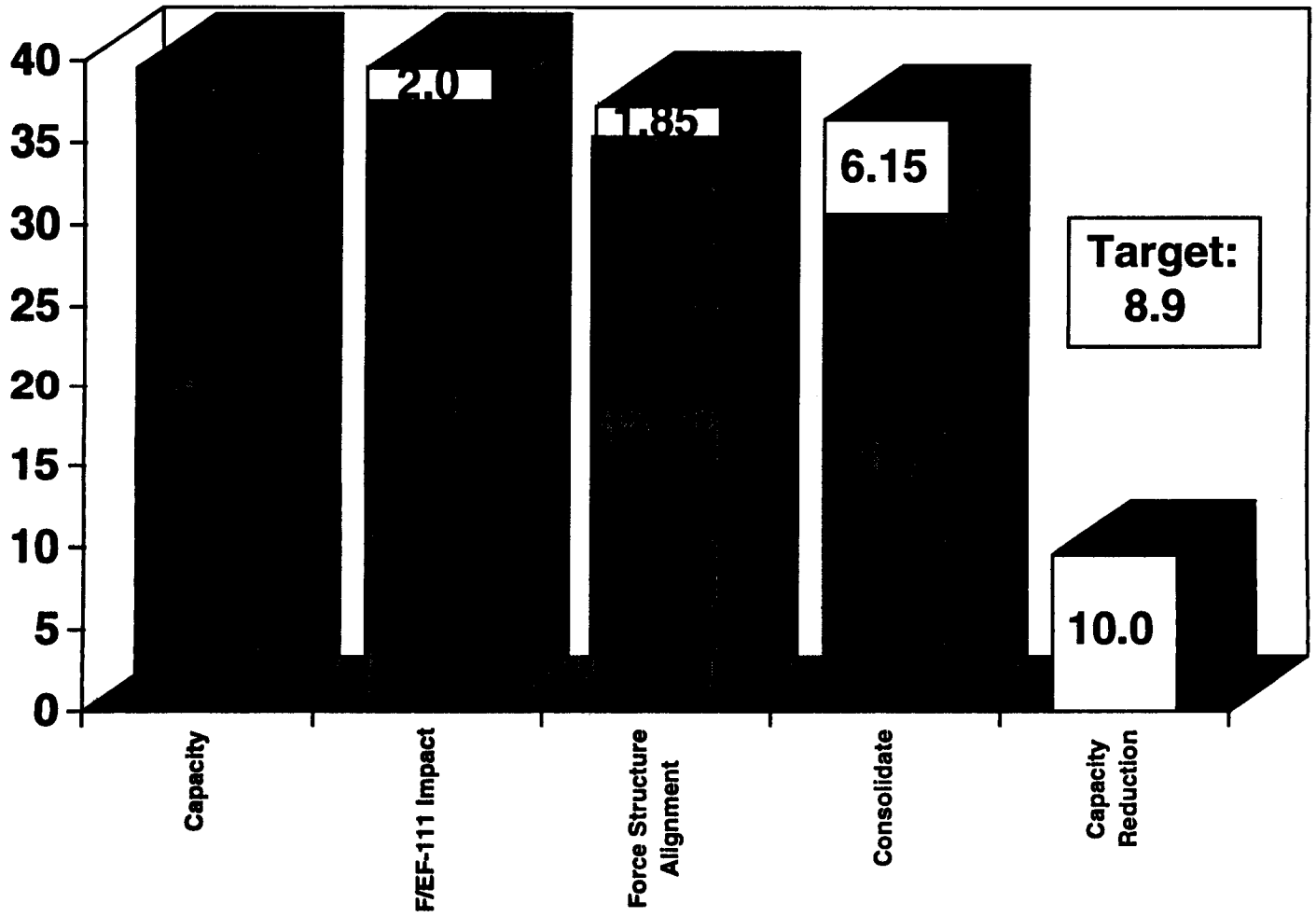
Personnel Savings - BRAC Implementation (1832)

	OC	OO	SA	SM	WR	
Composites/Plastics	-26	-26	-12	+135	-106	
Hyd/Pneu	-3	-10	-4	-59	-3	
Tubing (Metal Mfg)	-5	-4	-1	-2	+1	
ATE Software (Avionics)	-88	-26	-46	-21	+73	
Machine (Metal Mfg)	+16	-63	-31	-50	+77	
Foundry		-2	+7	-7	-2	
Instrument/Display	**+64**	**-101**		**-221**	**+129**	
Abn Electronics	-39	-42		-108	-15	
Electronic Mfg (PWB)		**+29**		**-9**	**-41**	
Electro/Mech SE				-11	-3	
Injection Molding		-3		+2		
IPE Software (Engines)	-34		+6			
Plating	**-5**	**-10**	**-20**	**-5**	**-6**	
Engine Related	***-50***		***-112***			
Realignment Subtotals	**-170**	**-258**	**-213**	**-356**	**+104**	
Sheetmetal Repair / Mfg	**-43**	**-10**	**-16**	**-17**	**-71**	
Downsizing Subtotals	**-185**	**-127**	**-183**	**-148**	**-139**	
						Grand Totals
Revised Totals	**-398**	**-395**	**-412**	**-521**	**-106**	**-1832**
BRAC Implementation Totals	**-775**	**-65**	**-435**	**-118**	**-320**	**-1713**

Infrastructure Change (SQ Footage)



Capacity Change
(Millions of Direct Labor Hours)

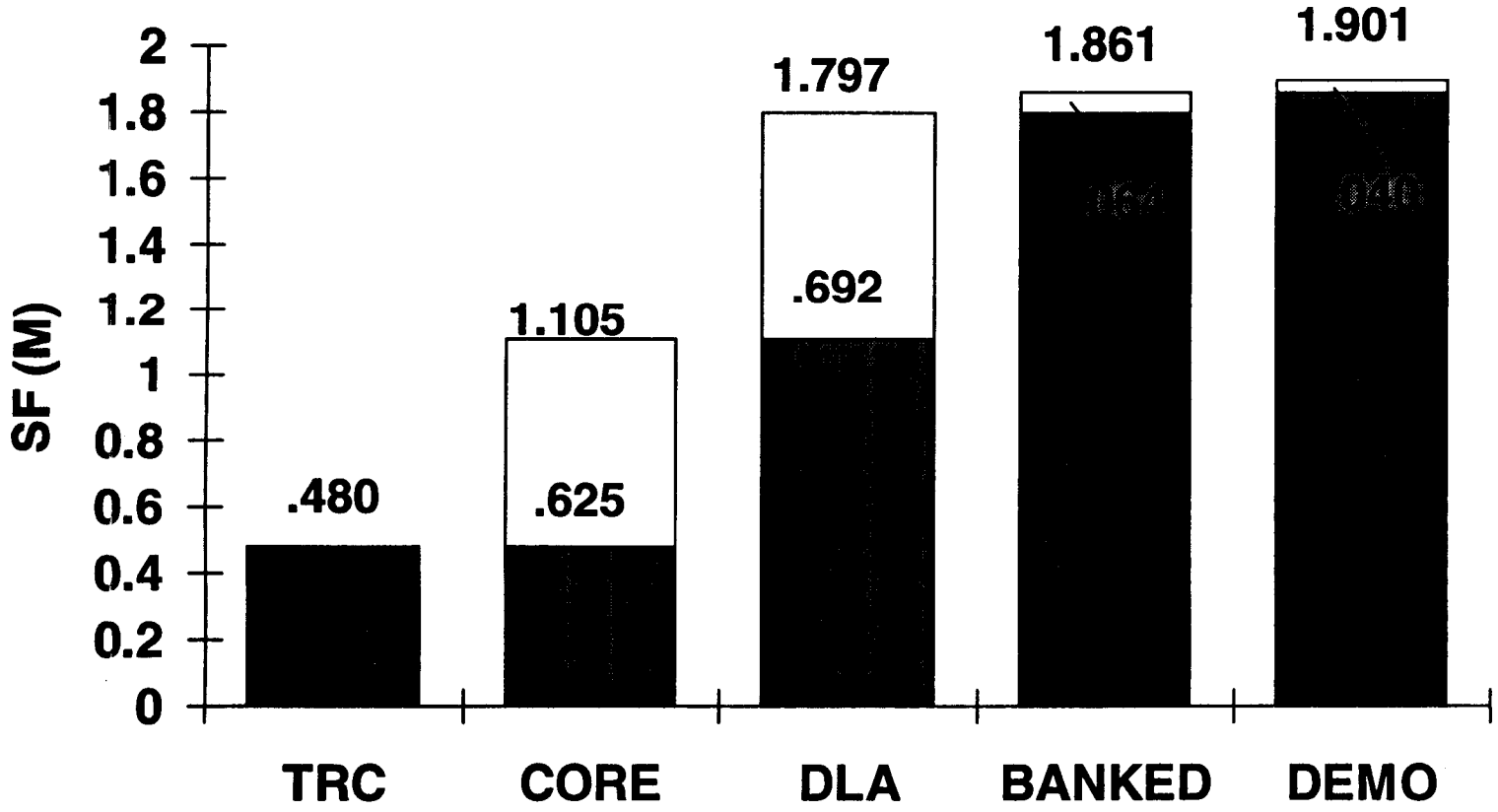


Summary

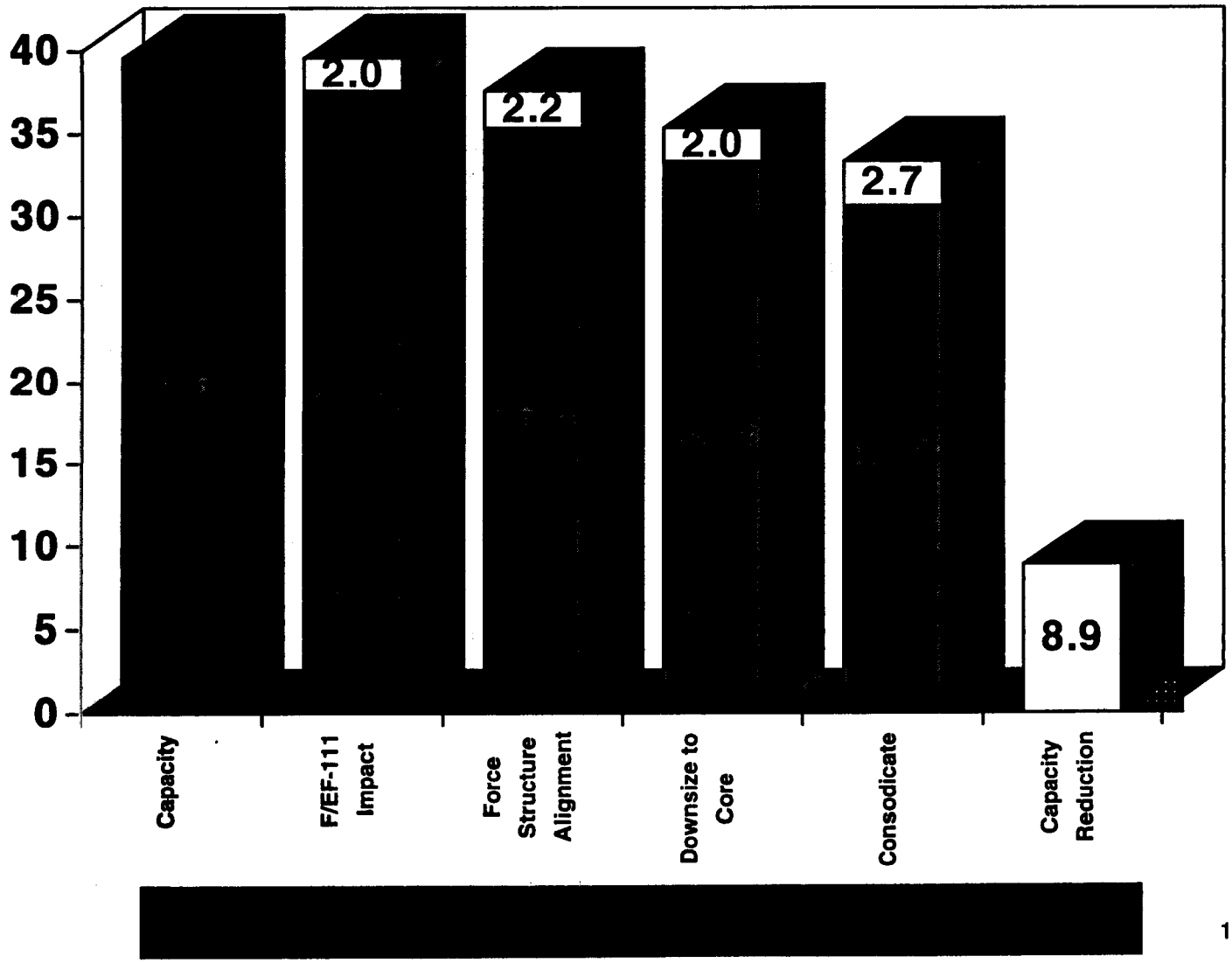
	Personnel	Sq Ft	Capacity
Tasking	1706	6.8M	8.9M
BRAC	1713	6.6M	9.6M
Revised	1832	6.5M	10.0M

BACKUP BRIEFING CHARTS

DLA SPACE
(REQ: 1.9M SQ FT)

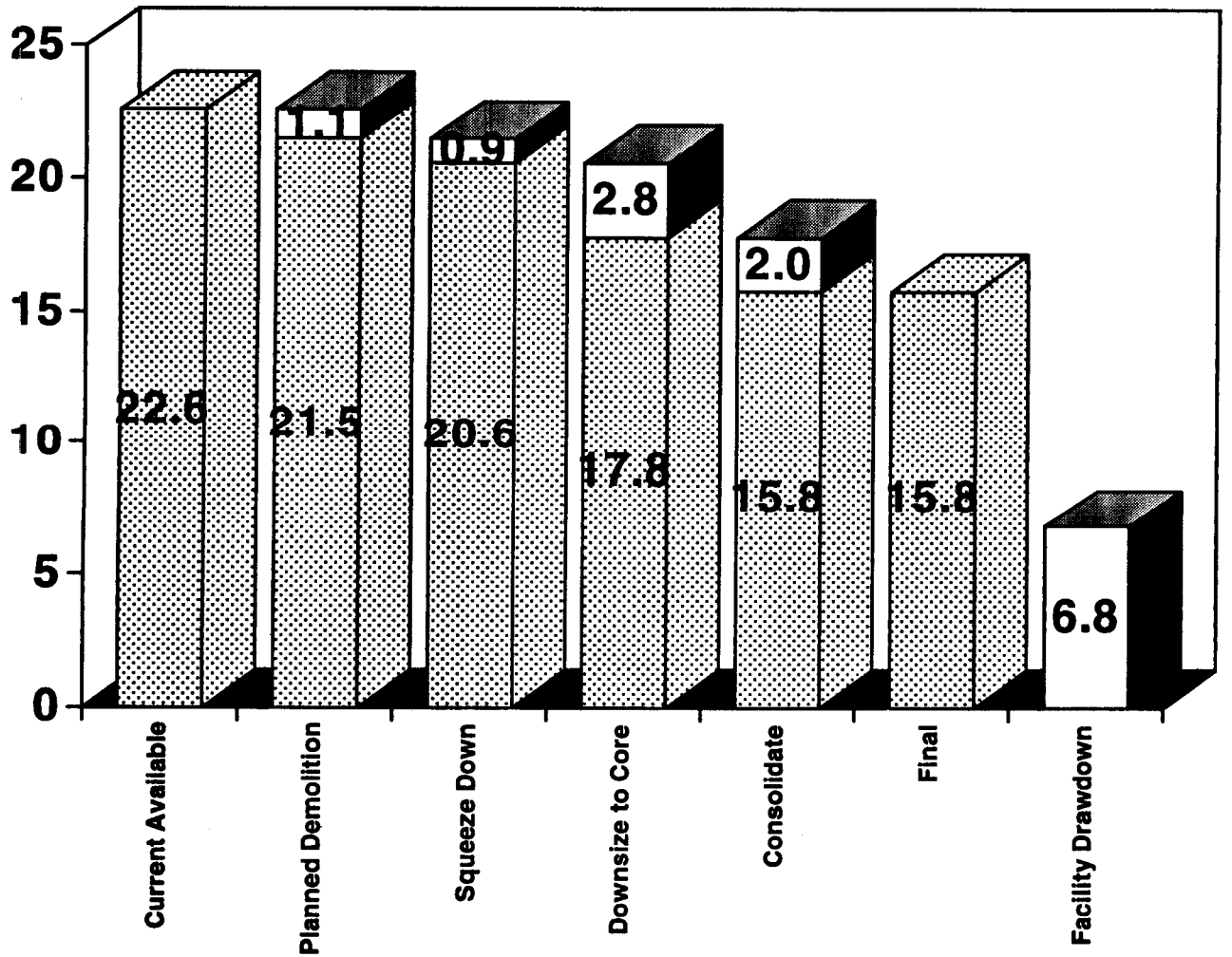


Directed Capacity Downsize
(Millions of Direct Labor Hours)



Directed Infrastructure Drawdown

(Millions of Square Feet)



[redacted]

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Personnel Savings - BRAC Implementation (1713)
Downsizing

	OC	OO	SA	SM	WR
Cleaning	-8	0	-10	0	0
Machine Repair	-46	-26	-80	-12	-7
Inspection	-28	-10	-50	-15	-20
Software OFP	-39	-65	-4	-80	-56
Paint/Depaint	-40	-13	-17	-22	-27
PSL	-11	-10	-20	-16	-12
Elect Mfg (Harness)	-13	-3	-2	-3	-17
Total	-185	-127	-183	-148	-139

GRAND TOTAL -782

ANALYSIS
PRINTED WIRE BOARD MANUFACTURING

- BRAC OPTION: WR-ALC / with PCS
  - Compares OO-ALC & WR-ALC
  - Assumed Command quantity 4374 units

	OO-ALC	WR-ALC	OO-ALC Advantage
• Cost Per Hr	$51.91	$93.70	$41.79
• Hours Req'd	24,925	34,099	9174
• Cost to Mfg	$1.29M/yr	$3.20M/yr	$1.9
• 20 yr total	$38.0	$64.0M	$26M
• Equip Pur	-0-	$113K	$113K
• ROI	2 yrs	1 yr	(1 yr)
• NPV	$-6991K	$-7679K	$688K
• One X Cost	$1723K	$1146K	($577K)
• Capacity sq ft	17,487	19,295	1808

Instruments - Analysis

	Cost	PEs	ROI	NPV
SM	$20M	-71	7	($25M)
WR/OC	$18M	-117	4	($57M)

Instruments to OC & SM

- BRAC Recommendation: Consolidate at SM-ALC
- Option: Consolidate instruments at OC-ALC and SM-ALC (gyros and compass excepted)

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
BRAC	127,000	265,160	86
Option	43,900	252,845	92
Improvement	(83,100)	(12,315)	6

Instruments at OC-ALC

- **BRAC Recommendation: Consolidate at SM-ALC**
- **Option: Consolidate all instruments at OC-ALC**

Comparison of BRAC Recommendation and Option			
	Infrastructure Reductions (Sq Ft)	Capacity Reductions (DLH)	PE Reductions
BRAC	127,000	265,160	86
Option	39,600	400,470	55
Improvement	(87,400)	135,310	(31)

Engine Related

- **BRAC: Not Specified**

- **Change: Consolidate three of the six component subgroups**
  - **Consolidates three additional product lines to single site**
  - **Realigns where appropriate**
  - **Continues to effectively support overhaul and repair**

Comparison of BRAC Recommendation and Option	
	Personnel Reductions
BRAC	44
Change	46
Improvement	2

Engine Related

- Commodity subgroup consolidations:

Subgroup	OC	SA
Gear Boxes	[O]	X
Pneudraulics	O	O
Electronics	O	O
Blades & Vanes	X	[O]
Bearings	X	[O]
Fuel Controls	O	O

Capacity

	OC	OO	SA	SM	WR	TOT
Current Capacity	7,849,171	7,614,503	8,782,041	7,068,314	8,186,758	39,500,787
Core Capacity	7,876,788	5,759,308	5,250,222	4,998,320	8,165,379	32,050,017
Difference	27,617	-1,855,195	-3,531,819	-2,069,994	-21,379	-7,405,770
Current Capacity	7,849,171	7,614,503	8,782,041	7,068,314	8,186,758	39,500,787
Workload	7,277,347	5,256,392	5,523,965	6,839,096	7,652,203	32,549,003
Difference	571,824	5,256,392	3,258,076	229,218	534,555	6,951,784

Document Separator

AF ALC Overview R. Orr 17 MAR 95

- ALC comprise only part of the host bases.
- Depot maint. only a part of each ALC

See ex WRAB. AFB, GA

Q: Do each of the ALCs have operational missions? what is the breakdown? W-R = < 50%

Q: If ALCs are operating @ ≤ 50%, why is secondary work on F-15 + C-135 being done @ Sacramento + C-130 @ [redacted] OKC?

↳ Also, A-10 and/or F-111: phase out?

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dual 1107 {
- 8 yr. ROI SAV 76M
- Kelly $521M to close whole base
- McClellan $542M to close " "
- 7 yr ROI 86M SAV

What about just ALC

What is F-15 capacity @ W-R
What is C-135 capacity @ OKC?

- Downsizing first looked at in 1st wk. of Feb 95!
- We don't have all the COBRAS now of the most cur.

DEP MAINT. ONLY: OG [redacted] W-R [redacted] SAC OKC SA

Ralph
What is this document
all about? Is it helpful or
instructive in any way?

M A good overview,
from a private source, on ACCs.
Interesting that they rank
Kelly + McClellan @ the bottom
just like we thought See TAS

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950424-3

FROM: FLOOD, WILLIAM G.	TO: DAVIS, J. B.
TITLE: VICE-PRESIDENT	TITLE: COMMISSIONER
ORGANIZATION: SDS INTERNATIONAL	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: AIR LOGISTIC CENTERS	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT
CHAIRMAN DIXON			
STAFF DIRECTOR	✓		
EXECUTIVE DIRECTOR			
GENERAL COUNSEL	✓		
MILITARY EXECUTIVE			
DIR./CONGRESSIONAL LIAISON		✓	
DIR./COMMUNICATIONS			
EXECUTIVE SECRETARIAT			
DIRECTOR OF ADMINISTRATION			
CHIEF FINANCIAL OFFICER			
DIRECTOR OF TRAVEL			
DIR./INFORMATION SERVICES			

COMMISSION MEMBERS	FYI	ACTION	INIT
COMMISSIONER CORNELLA			
COMMISSIONER COX			
COMMISSIONER DAVIS	✓		
COMMISSIONER KLING			
COMMISSIONER MONTOYA			
COMMISSIONER ROBLES			
COMMISSIONER STEELE			
REVIEW AND ANALYSIS			
DIRECTOR OF R & A	✓		
ARMY TEAM LEADER			
NAVY TEAM LEADER			
AIR FORCE TEAM LEADER	✓		
INTERAGENCY TEAM LEADER			
CROSS SERVICE TEAM LEADER		X	

TYPE OF ACTION REQUIRED

	Prepare Reply for Chairman's Signature	✓	Prepare Reply for Commissioner's Signature
	Prepare Reply for Staff Director's Signature		Prepare Direct Response
X	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

FORWARDING COPY OF 1995 DEPOT HANDBOOK, "A GUIDE TO USAF AIR LOGISTICS CENTERS"

Due Date: 950501	Routing Date: 950424	Date Originated: 950417	Mail Date:

SDS
International

April 17, 1995

Gen James B. Davis
Defense Base Realignment Commission
1700 N. Moore Street
Arlington, VA 22202

Please refer to this number when responding 950424-3

Dear Gen Davis,

Thought you might be interested in this piece of work from my company. We have had many requests for the document since it seems to be one-of-a-kind. If you need (or want) anything related to the subject, we will try to get it for you.

As you can see, I am right down the street from you in Crystal City. If I can be of assistance please call (703) 553-7526.

Sincerely,

William G. Flood
Senior Vice President

SDS International
One Crystal Park • 2011 Crystal Drive • Suite 100 • Arlington, Virginia 22202-3709 • (703) 553-7525 • Fax (703) 979-7447

SDS International

1995 Depot Handbook

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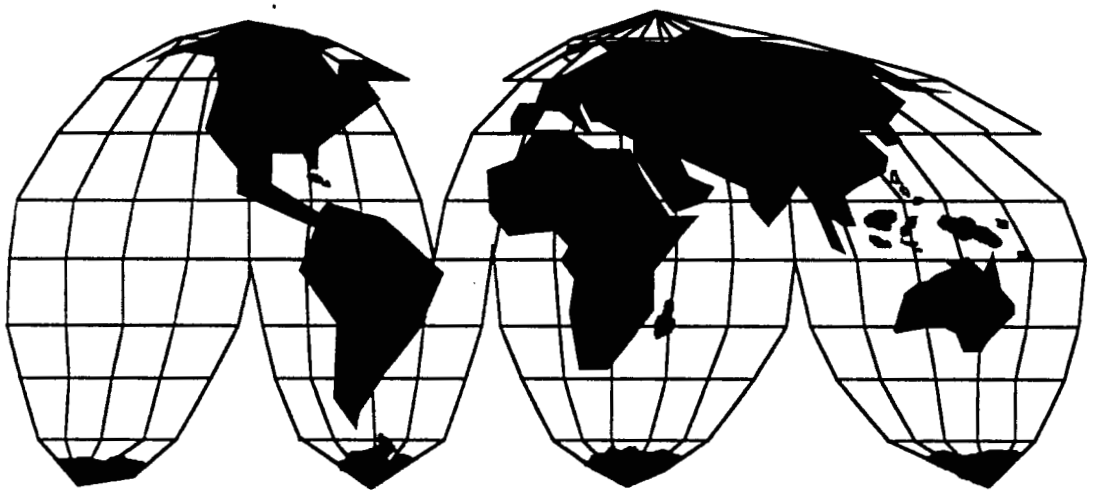
A Guide To USAF Air Logistics Centers

3 April 1995



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Introduction

The Department of Defense's network of supply and maintenance depots remains excessive for the military force structure that exists today. Attempts by senior DoD officials to encourage the Services to pare down surplus depot infrastructure voluntarily -- by promoting workload consolidation, greater interservicing, and the privatization of most "non-Core" depot maintenance functions -- have had only moderate success. Aided by Congressmen representing depot-dominated constituencies, Service logisticians have compiled impressive records of resisting turf encroachment, both from the private sector and other Services.

It is in the best interests of national aerospace development for commercial firms to obtain more military depot workload. Since the Services are unlikely to surrender it willingly, a comprehensive, well-thought-out marketing campaign will be necessary. The first step in mounting such a campaign is to study the competition. This **Depot Handbook** meets that need by providing essential relevant information on the capabilities, capacities, and operating environment of private aerospace industry's major competitors: the Air Force's five Air Logistic Centers. On a closely related issue, the **Depot Handbook** provides a status update on the current 1995 base realignment and closure process.

This document was prepared using unclassified, open-source material. It draws on insights provided during interviews with senior Department of Defense (DoD) personnel, military staff officers, and Congressional staff members. Questions or comments should be directed to SDS International which alone remains responsible for report contents.

Brian E. Wages
Project Analyst

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1995 Depot Handbook
-
A Guide To USAF Air Logistics Centers (ALC)

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1.0 Overview

Title 10 of the United States Code requires DoD activities to "maintain a logistics capability (including personnel, equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, . . . contingency, . . . or other emergency requirement."[1] Within the Air Force that task falls primarily under Air Force Materiel Command (AFMC), which is charged with managing the integrated research, development, test, acquisition, and sustainment of Air Force weapon systems. To accomplish these tasks, AFMC operates a number of laboratories, test centers, and logistics depots.

This Handbook provides a summary of information on AFMC's five logistics depots, known as Air Logistics Centers (ALC). The five are: Sacramento ALC (SM-ALC) at McClellan Air Force Base (AFB), California; Ogden ALC (OO-ALC) at Hill AFB, Utah; Oklahoma City ALC (OC-ALC) at Tinker AFB, Oklahoma; San Antonio ALC (SA-ALC) at Kelly AFB, Texas; and Warner Robins ALC (WR-ALC) at Robins AFB, Georgia. Each is discussed in the context of: the base on which it is located; its surrounding community; the depot functions it performs; the facilities, equipment, and special competencies that the individual ALC managers consider make their depot unique; and workload. Much of the information was extracted from ALC inputs to the DoD Joint Cross-Service Group charged with reviewing all military depots in developing DoD's 1995 base closure and realignment recommendations. Manpower, mission, and workload changes associated with DoD's BRAC 95 closure/realignment recommendations are not reflected herein except as specifically noted. Information and data are current as of February 1995, and are presented in the following format:

Field and Facilities. Provides an indication of an air base's suitability to support additional aircraft and missions, and to conduct test and training activities.

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[1]Title 10, United States Code, Chapter 146, Section 2464.

Major Tenants. Lists other key military activities operating at the base.

Relationship to Local Community. Shows an ALC base's economic impact in its immediate area.

Specialization. Identifies each ALC's areas of expertise by listing the commodity groups for which it has been designated a *Service Center of Excellence* (Technical Repair Center) and its *Technology Application Program Management* (*TAPM*) assignments.[2]

Unique Facilities/Equipment. Identifies ALC facilities, equipment, and capabilities considered unique or one-of-a-kind.[3] Lists may not be all-inclusive.

Workload. Data tables showing each ALC's potential maximum workload capacity, its existing workload capacity, its actual programmed workload, and that amount of the programmed workload identified as "Core" for fiscal years (FY) 1996 and 1999. Workload figures are shown as thousands of Direct Labor Hours (kDLH) and are aggregated according to the DoD commodity group reference system shown on the following page. (Workload Tables are explained in detail at **Attachment 7**.)

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[2]Military depots assigned primary responsibility for the maintenance and repair of specific weapon systems, system components, or categories of components are known as *Centers of Excellence* for those systems, components, or categories of components. *Technology Application Program Management* (*TAPM*) responsibility pertains to advanced technologies and equates to being designated the organization of primary responsibility within DoD for developing a particular technology, disseminating information on it to appropriate companies and agencies, and encouraging both its employment in new military products and -- where possible -- its insertion into older ones.

[3]This Handbook reports on those facilities, equipment, and capabilities that have been identified by the depots themselves as being unique or of particular importance. It was not within the scope of this study to verify ALC claims as to the uniqueness of such assets or competencies, or to attempt to determine their *utility* (through clarifying the amount of workload they process, frequency of use, future requirement for use in light of the projected retirement of the assets or systems they service, or whether or not the facility, equipment, or capability could be modified to service other systems or components). In many cases, it was not possible to determine from the source material whether it was a particular item of maintenance equipment or the facility containing it that was unique, as in the cases of buildings with special TEMPEST shielding, shock mounts, and special insulation. Likewise, in many cases it was not possible to determine whether some facility or capability was independent and separate or was embedded in a larger facility/competency as a sub-component or specialty. In some cases, the capabilities highlighted were not directly associated with depot maintenance activity, as with laboratories collocated with a depot maintenance operation but not actually performing maintenance work. It also was often not possible to determine whether special equipment could be relocated to another depot, or whether a comparable maintenance capability existed in private industry.

Workload and areas of specialization are categorized in accordance with the DoD-established commodity groups reference system shown below:

DoD Commodity Groups List

1. Aircraft Airframes:
   - a. Rotary
   - b. VSTOL
   - c. Fixed Wing
     - (1) Transport / Tanker / Bomber
     - (2) Command and Control
     - (3) Light Combat
     - (4) Admin / Training
   - d. Other

2. Aircraft Components
   - a. Dynamic Components
   - b. Aircraft Structures
   - c. Hydraulic/Pneudraulic
   - d. Instruments
   - e. Landing Gear
   - f. Aviation Ordnance
   - g. Avionics/Electronics
   - h. APUs
   - i. Other
   - j. Manufacture and Fabrication

3. Engines (Gas Turbine) (GTE)
   - a. Aircraft
   - b. Tank
   - c. Blades / Vanes (Type 2)

4. Missiles and Missile Components
   - a. Strategic
   - b. Tactical / MLRS

5. Amphibians
   - a. Vehicles
   - b. Components (less GTE)

6. Ground Combat Vehicles
   - a. Self-propelled
   - b. Tanks
   - c. Towed Combat Vehicles
   - d. Components (less GTE)

7. Ground and Shipboard Communications and Electronic Equipment
   - a. Radar
   - b. Radio Communications
   - c. Wire Communications
   - d. Electronic Warfare
   - e. Navigation Aids
   - f. Electro-Optics / Night Vision Equipment
   - g. Satellite Control / Space Sensors

8. Automotive / Construction Equipment

9. Tactical Vehicles
   - a. Tactical Automotive Vehicles
   - b. Components

10. Ground General Purpose Items
    - a. Ground Support Equipment (except aircraft)
    - b. Small Arms / Personal Weapons
    - c. Munitions / Ordnance
    - d. Ground Generators
    - e. Other

11. Sea Systems
    - a. Ships
    - b. Weapon Systems

12. Software
    - a. Tactical Systems
    - b. Support Equipment

13. Special Interest Items
    - a. Bearings Refurbishment
    - b. Calibration (Type I)
    - c. Test, Measurement, and Diagnostic Equipment (TMDE)

14. Other

Table 1-1: Commodity Groups List

Note: Shading denotes commodity groups in which the ALCs do not have significant workload.

2.0 Sacramento ALC (SM-ALC)

Sacramento ALC is the Air Force's F-111 and A-10 depot. It provides logistical support (supply and maintenance) for these and other assigned aircraft, for multiple aircraft electrical and pneudraulic systems, and for ground-based communications and electronic equipment. Commensurate with its advanced capabilities in composites, electro-optics, and microelectronics, it also has responsibility within DoD for the development and fielding of advanced composites, fiber optics and fiber optic connectors, and very high speed integrated circuits (VHSIC).

2.1 McClellan AFB, California

McClellan AFB is an AFMC-operated installation located approximately nine miles north of downtown Sacramento, California. Sacramento is Northern California's major interior transportation hub. It is located on the main railroad line running into the San Francisco Bay area from the East Coast, and sits at the junction of Interstate 5, the West Coast's primary north-south artery (extending from San Diego to Vancouver, British Columbia), and Interstate 80, a principal east-west roadway crossing the American Midwest (running from New York to San Francisco). The nearest deep-water ocean port is at Oakland approximately 70 miles away. Oakland can be accessed overland or via the Sacramento River (through the Sacramento Port Facility).

2.1.1 Field and Facilities

McClellan AFB has one 10,600-foot concrete runway with appropriate aircraft arresting gear and 471,550 square yards (approximately 97 acres) of usable aircraft parking apron. Permanently assigned aircraft require over 50 percent of the apron space. Four C-141-equivalent aircraft can be loaded or unloaded at one time for mobility/contingency operations.[4] Four C-141-equivalent aircraft can be refueled at one time. The base does not have an operational fuel hydrant system.

[4]The limiting factor is material handling equipment (MHE).

The base does not control or manage any ranges. The nearest suitable special-use airspace[5] is as shown below:

Warning/Restricted/Military Operating Area (MOA)	W-260	134 NM
Low-altitude MOA:	W-260	134 NM
Supersonic MOA:	W-283	170 NM
Scorable gunnery range complex:	Fallon B-19	130 NM
Electronic Combat range:	Fallon TACTS	188 NM
Air combat maneuvering instrumentation range:	Fallon TACTS	188 NM

Travis and Beale AFBs and Mather Field (formerly Mather AFB) all lie within a 50-mile radius of the base. The nearest ground force installation where joint training can be accomplished is Army Fort Hunter Liggett, 160 NM from McClellan. The nearest Navy installation where joint training can be accomplished is Naval Air Station (NAS) Fallon, 130 NM from McClellan

2.1.2 Major Tenants

Major associate units on McClellan AFB include: Headquarters 4th Air Force, Air Force Reserve (AFRES); 940th Air Refueling Group (ARG), AFRES; Defense Distribution Depot, McClellan (DDMC), Defense Logistics Agency (DLA); and the Defense Megacenter, Sacramento, (DMCS), Defense Information Services Agency (DISA).

Headquarters, 4th Air Force. 4th Air Force is one of the three Numbered Air Forces (NAF) comprising the AFRES. It commands five airlift wings (AW) operating C-130, C-141, and C-5 transports; one special operations wing (SOW) operating MC- and AC-130 aircraft; one airmobility wing (AMW) operating C-130 transports and KC-10 and KC-135 tankers; and one aeromedical airlift group (AAG) operating C-9 aeromedical airlift transports. The Commander, 4th Air Force, his headquarters element, and one ARG are stationed at McClellan. The headquarters employs approximately 400 personnel.

940th ARG. The 940th ARG (AFRES) operates 10 KC-130E tanker aircraft and provides aerial refueling support for both active-duty and gained forces. Approximately 900 personnel are in the unit. (Note: the 940th was slated to relocate from McClellan to nearby Beale AFB in late 1994. As of 3 April 1995, that moves has yet to be undertaken.)

Defense Distribution Depot, McClellan (DDMC). Operated by DLA, DDMC stocks, stores, and issues defense goods. Categorized as a Collocated Depot, the DLA operation interfaces closely with the SM-ALC depot maintenance activity by providing repairable carcasses to the ALC which, in turn, returns the items to serviceable status and

[5]Military Operating Area (MOA) with a minimum size of 2100 square nautical miles (NM) and an altitude block of at least 20,000 feet within 200 NM. Low-altitude MOA with a minimum size of 2100 square NM and a floor no higher than 2000 feet above ground level (AGL) within 600 NM. Supersonic MOA with a minimum size of 4200 square NM within 300 NM. Scorable gunnery range capable of or having tactical or conventional targets and strafe within 800 NM.

re-enters them into the DLA distribution system. It employs approximately 600 personnel.

Defense Megacenter, Sacramento (DMCS). Identified in BRAC 93 as the site for one of 16 DoD data processing and telecommunication "megacenters" to be operated under the umbrella of DISA, DMCS is responsible for data processing workloads for the Navy, Air Force, and Air National Guard in a region encompassing Northern California, Oregon, and Washington. DMCS has approximately 150 employees working out of a recently constructed 76,000-square-foot facility that serves regional data processing requirements and houses the only DISA Continental US (CONUS) AUTODIN switching center west of Oklahoma.[6]

2.1.3 Relationship to Local Community

McClellan AFB is located in the Sacramento Metropolitan Statistical Area (MSA). Total population (FY 92) is 1,148,000. Total employment (FY 93) is 764,000. Average annual job growth is 14,000 and average annual per capita income is $20,400.

Work force population at McClellan:

Active duty military	3,000
Reserve military	1,200
Civilian	10,600
Total	14,800

McClellan AFB is the largest industrial employer in Northern California. The work force annual payroll (military and civilian) is $516 million. This produces a local area economic impact of approximately $2.2 billion. The total value of McClellan's land (3,786 acres), buildings (549 non-residence and 693 residence), and infrastructure is estimated at $2.2 billion.[7]

The estimated impact of base closure would be the loss of 31,000 jobs (13,000 direct, 18,000 indirect), 4.1% of the Sacramento MSA employment total. Combined with other Sacramento MSA job losses from prior BRAC decisions (1,600 jobs), the cumulative impact of McClellan's

[6]During BRAC 93, the Commissioners identified 43 DISA information processing centers for closure with their workloads to be consolidated at 16 megacenters.

[7]This is the value figure reflected in documents released recently by the base Public Affairs Office. While no detailed explanation was offered as to how this estimate was reached, it most probably is a more accurate reflection of *market value* than the figures presenting *replacement value* shown in the chart at Attachment 1, *Air Force Depot Capacity/Plant Comparisons*, which were provided in response to the Joint Cross-Service Group data call.

closure in BRAC 95 (if closure was directed) would be to increase the total employment loss to 4.3% of the Sacramento MSA's total.

It is estimated that the one-time closure costs associated with shuttering McClellan AFB would amount to $514 million. Return on investment would be achieved in 5 years.

2.2 Sacramento ALC Depot

While the F-111 and A-10 are Sacramento ALC's primary assigned aircraft, the depot also provides a second source of repair for the F-15 and KC-135, and has been designated to assume responsibility for the F-22 when that aircraft begins entering service at the turn of the century. The F-117 and F-22 Program Managers are located at the depot. Additionally, Sacramento ALC manages a broad variety of: aircraft-related electronic accessories, hydraulic/pneudraulic components, and flight control instruments; battle tank and man-portable weapon system electronic components and electro-optics (night vision devices); and over 200 ground communications systems, including ground control equipment used to track and control space vehicles. It operates the McClellan Nuclear Radiation Center (MNRC), which has the only industrial nuclear reactor in DoD, and a fighter-sized non-destructive inspection (NDI) facility that reportedly is one of the most comprehensive in the US.

DoD's submission to the 1995 Base Realignment and Closure (BRAC 95) Commission proposed realigning workloads among the Air Force depots to consolidate selected specialties at each. The specialty areas recommended for consolidation at Sacramento ALC are: composites and plastics, hydraulics, instruments/displays (with some unique work retained at other ALCs), electrical/mechanical support equipment, and injection molding.

2.2.1 Specialization

Sacramento ALC is designated a *Service Center of Excellence* for the following systems:

Aircraft Airframes: F-111, A-10, T-39, F-22 (planned); Aircraft Battle Damage Repair.

Aircraft Components (Hydraulic/Pneudraulic): actuators, servo actuators, accumulators, valves, servo valves, cylinders, motors, manifolds, pumps, control boxes, servo dampers, dash pots, reservoirs, gearboxes, brake assemblies, snubber assemblies, filter assemblies, compensators, fan assemblies, mode selector assemblies, and pitch control ratio assemblies.

Aircraft Components (Instruments): accelerometers, altimeters, transducers, central air data computers, flight data recorders, attitude indicators, horizontal situation indicators, stall warning, position transmitter indicators, cockpit voice recorders, standard flight data recorders, and crash survivable flight data recorders.

Aircraft Components (Avionics/Electronics): airborne generators, generator control units, control panels, voltage regulators, inverters, frequency converters, power supplies, battery chargers, motors, aircraft linear/rotary actuators, aircraft screw jacks, winches, gear boxes, miscellaneous electro-mechanical devices, and accessories.

Ground Communications and Electronic Equipment (Radar, Radio, Wire): peculiar C3I test equipment; various radio, television, communications, and navigation systems; indicator group; computer group; search radar equipment; electronic countermeasures equipment; meteorological instruments and apparatus; radar training devices; automated data processing equipment; and computer central processing units.

Ground Communications and Electronic Equipment (Electro-optics/Night Vision Equipment): common power control units, electronics units, M-1 power control unit, laser rangefinders, driver viewers, M-1 thermal imaging system, tank thermal sight, integrated sight unit, man-portable common thermal night sights, ground laser target designators, ground vehicular laser locator/designators, individual and crew-served weapons night sights, night vision goggles, and aviator night vision imaging systems.

Ground General Purpose Items (Ground Power Generators): 5-to-200 kilowatt gasoline, diesel, and turbine powered stationary and mobile generator units for ground communications, bare base operations, forward air control use, disaster relief requirements, and any other need for routine or emergency AC electrical power.

Ground General Purpose Items (Other): Rigid wall shelters.

Sacramento ALC has the following *Technology Application Program Management* assignments:

Fiber optics and fiber optic connectors
Micro-electronics [Very high speed integrated circuits (VHSIC)]
Advanced composites

2.2.2 Unique Facilities/Equipment/Capabilities

SM-ALC officials have identified the following facilities, equipment, and/or capabilities as unique to the depot:

F-111 Cold Proof Facility. This is the only certified F-111 structural test facility in existence. It is an 8500 square foot (SF) enclosed environmental chamber used for testing F-111 aircraft in a flight simulation environment. Aircraft airframes are stressed on a wing fixture at sweep angles of 26 and 54 degrees, from -3G to +7G, at temperatures down to -40° (produced by a complex system for vaporizing liquid nitrogen), to detect

catastrophic structural failures. The chamber also has an advanced acoustic system capable of detecting secondary failures, such as popped rivets, broken bolts, and cracked panels.

McClellan Nuclear Radiation Center (MNRC). The MNRC is the only reactor facility in the Air Force and is the only DoD licensed source for providing Neutron Transmutation Doping for silicon use in the semiconductor industry. It is a 4500 SF facility with heavy radiation shielding for the one megawatt research-type reactor. It is used to perform neutron radiography of aircraft structures for non-destructive inspection (NDI) purposes, to assess the survivability of electro-optic components in nuclear and space environments, and for related general testing purposes.

NDI Facility. In conjunction with the MNRC, this reportedly is the most comprehensive fighter-sized NDI facility in the defense industry. It has 8000 SF of heavily shielded production space with state-of-the-art equipment for NDI using x-ray, ultrasound, mag particle, dye penetrant, and eddy current techniques. It includes robotic and conventional applications and can be used to inspect an entire aircraft as well as components.

Near-Field Test Range with 1000-meter Tower, Near Field Probe, and Munson Test Track. This complex of related facilities is used for testing the Army's TPQ-36/37 *Fire Finder* phased array radar. Transferred from the Sacramento Army Depot, it includes a 3900 SF close-tolerance anechoic chamber with precision alignment rails for positioning the radar in the chamber to calibrate near range beam pattern. The tower provides provides target simulation. The test track is a military-specification (mil-spec) designed bumpy road simulating rough terrain which is used to stress the *Fire Finder* system between burn-in and final calibration. While this complex is the only DoD test facility, Hughes is the system prime contractor and reportedly has duplicate or comparable capability.

Hydraulics/Pneudraulics Component Repair Complex. Claimed to be the most advanced facility of its kind in the world, this complex provides the largest aircraft-related hydraulic and pneudraulic overhaul and repair capability in DoD. It consists of 3 modern buildings with 186,000 SF of production space designed to provide unique power, fluid, and air systems. It has five separate hard-plumbed hydraulic manifold systems with 4000 psi working pressure proofed to 6000 psi, thousands of feet of stainless steel piping, and 70 hydraulic test stands. The facility has controlled temperature/humidity and sustains a 300,000 class air particle clean room environment, and includes a 100,000 class metrology lab and 100,000 class laminar flow stations. It has a computer operated mechanized material handling system, precision lapping equipment, and precision measuring equipment. Its high tolerance **Flow Grind** capability with specialized grinding equipment is believed to be world-class.

Air Force Ground Communications Electronics Overhaul and Repair Complex. The complex consists of 14 separate buildings with some 473,000 SF of production space used to manufacture, overhaul, repair, modify, integrate, and test systems ranging from hand-held radios to computer integrated radar systems. Two of the larger facilities in the complex, with 75,000 SF each, are special reinforced steel structures with filtered power, special security, and TEMPEST shielding. These are used for the insertion of advanced microelectronic technologies into fielded systems. Special skills and equipment are used to perform depot maintenance on several broad categories of systems. **Ground Communication**s systems include LF/HF/VHF/UHF radios, troposcatter systems, microwave systems, and ground-based jammers. **Air Traffic Control and Navigation** systems include ILS, PAR, TACAN, and VOR equipment. **Radar** systems

include phased array and feedhorn types, fixed site and mobile equipment, height-finder, search, three-dimensional, and over-the-horizon backscatter sets. **Meteorology** systems include storm-tracking radars, satellite tracking systems, and weather forecasting equipment. **Miscellaneous** systems include microwave, electronic imagery, sensors, copy exploitation, and electronic warfare training devices. The complex also deals with **IFF** equipment, along with **Telephone and Teletype** systems. Under these broad categories, the complex works on components ranging from computers and television monitors to antennae and control systems for launching unmanned orbiters.

Aircraft Instrument and Electronic Component Facility. This 90,000 SF facility provides for the test and repair of the full range of pressure, temperature, humidity, time measurement, flight control and navigational instruments, and flight data recorders. Special competencies exist for reverse engineering (logistics retrofit engineering, or LRE), repair of unsupportable electronic equipment, large wire harness test automation, specialized test equipment manufacture, test system overhaul process development, and military-standard technical manual development.

Ground Power Generator and Engine Test Facility. This facility has a dynamometer test capability of up to 500 kilowatts to support work on ground power generators for all Air Force aircraft and ground support systems.

Laser Test Bed and Outdoor Laser Range. This complex houses the only test and calibration equipment of its kind and provides the capability to align hand-held and tank laser systems and laser-designating equipment. The equipment is readily relocatable.

AN/FPS-117/-118 Integrated Logistics Support Facility (ISF). This 3700 SF facility houses a reconfigurable phased array 592-class radar system that is used to test multiple separate production versions of the item.

Sacramento Injection Molding Facility. This reportedly is the largest facility of its kind in DoD and provides a test and development arena for the resolution of problems relating to composites and plastics. It manufactures parts using up to 20 pounds of material on dies up to 4 feet square. (A similar facility at Ogden ALC is limited to 16 ounces of material on dies no more than 16 inches square.)

Additional unique facilities/capabilities include:

F-111 Radome Test
ISF for Modular Control Equipment (MCE) (TYQ-23)
ISF for Communications Nodal Control Element (CNCE) (TSQ-111)
Electronic Warfare ISF (806L System)
ISF for Ground Wave Emergency Network (GWEN and COMSEC)
A-10/F-111 Avionics Integrated Support Facility
Electro-Optics and Night Vision (image intensification, thermal imagery, and lasers)
Optical Measurement System (laser mapping of parts)

2.2.3 Workload

The following table presents a breakout of the Sacramento ALC workload -- by DoD commodity group -- for FY 96 and FY 99. An explanation of the workload table is provided at Attachment 7.

Sacramento ALC Workload Chart
(In Thousands of Direct Labor Hours -- kDLH)

Relevant Commodity Groups	Potential Maximum Capacity		Existing Capacity		Programmed Total Workload		Programmed Core Workload	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
1. Aircraft Airframes								
c. Fixed Wing								
(1) Tanker / Transport / Bomber	945	983	809	819	636	570	441	441
(2) Command and Control								
(3) Light Combat	1,456	1,520	1,442	1,460	1,181	1,056	835	907
(4) Admin / Training								
d. Other	162	164	--	--	--	--	--	--
2. Aircraft Components								
b. Aircraft Structures	668	525	226	229	175	157	175	157
c. Hydraulic / Pneumatic	737	815	483	492	400	358	357	357
d. Instruments	524	542	278	281	215	193	215	193
e. Landing Gear								
f. Aviation Ordnance								
g. Avionics / Electronics	781	870	449	457	373	334	344	334
h. APUs								
I. Other								
j. Manufacture and Fabrication	853	720	590	513	460	354	460	354
3. Engines (Gas Turbine) (GTE)								
a. Aircraft								
c. Blades / Vanes								
4. Missiles and Missile Components								
a. Strategic								
b. Tactical / MLRS								
7. Ground Comm-Electronic Equip								
a. Radar	1,226	1,235	715	702	481	430	383	430
b. Radio Communications	679	734	336	340	231	207	177	177
c. Wire Communications	230	233	202	214	144	129	80	118
d. Electronic Warfare	10	7	--	--	--	--	--	--
e. Navigation Aids	482	501	276	279	190	170	165	165
f. Electro-optics/Night Vision Equip	167	215	157	180	127	109	127	109
g. Satellite Control/Space Sensors	184	186	171	173	117	105	32	32
10. Ground General Purpose Items								
c. Munitions / Ordnance								
d. Ground Generators	111	113	100	101	94	84	62	62
e. Other	66	61	66	61	66	59	--	--
12. Software								
a. Tactical Systems	455	452	397	401	323	289	211	211
b. Support Equipment	453	358	325	328	264	237	184	184
13. Special Interest Items								
a. Bearings Refurbishment								
c. TMDE								
14. Other	37	37	37	37	32	29	--	--
Total	10,227	10,271	7,058	7,068	5,509	4,871	4,249	4,231

Table 2-1: Sacramento ALC Workload Chart

3.0 Ogden ALC (OO-ALC)

Ogden ALC is DoD's primary depot for the repair and overhaul of aircraft landing gear, brakes, struts, and wheel assemblies, performing some 70 percent of the total DoD workload in this area. It is the Air Force's F-16 and C-130 depot, and provides the sole current source of repair for *Minuteman* and *Peacekeeper* silo-based intercontinental ballistic missiles (SBICBM). The center also conducts overhaul, modification, testing, and support functions for a wide range of other components, including rocket motors, small missiles, air munitions and guided bombs, photonics imaging and reconnaissance equipment, and simulators and training devices. Additionally, Ogden ALC has responsibility within DoD for developing and fielding new photonics, software, and reliability and maintainability (R&M) practices and standards.

3.1 Hill AFB, Utah

Hill AFB is an AFMC-operated installation located approximately eight miles south of Ogden, Utah, on the northern outskirts of Salt Lake City, the state's capital and major metropolitan center. It has ready access to the main railroad line running into San Francisco from the East Coast, and sits near the junction of Interstate 15, one of the primary north-south arteries in the Rocky Mountain region (extending from Calgary, Alberta, to San Diego), Interstate 84, a principal roadway linking Salth Lake City with Portland, Oregon, and Interstate 80, extending to the San Francisco Bay area. Portland and Oakland are the nearest deep-water ocean ports. Both are approximately 750 miles away and accessible by rail and highways. Hill AFB is within 750 air miles of any point along the US Western coastline.

3.1.1 Field and Facilities

Hill AFB has one 13,500-foot concrete runway with appropriate aircraft arresting gear and over 472,000 square yards (approximately 97 acres) of usable aircraft parking apron. Permanently assigned aircraft require over 87 percent of the apron space. Seven C-141- equivalent aircraft can be loaded or unloaded at one time for mobility/contingency operations.[8] Twenty C-141-equivalent aircraft can be refueled at one time. The base has an operational fuel hydrant system.

[8]The limiting factor is material handling equipment (MHE).

The base currently controls the Utah Test and Training Range (UTTR), which includes both Restricted and MOA airspace.[9] The range begins approximately 40 NM west of the base and encompasses over 17,000 square miles of airspace, the largest overland block of controlled airspace in DoD. With 2675 square miles of surface area, it provides full-scale weapons delivery capability for most air-to-surface and surface-to-surface weapons, and some air-to-air weapons. In conjunction with the Army's adjacent Dugway Proving Grounds, it offers almost 4000 square miles of impact area, a four-season climate, and terrain that varies from the 4300 foot desert floor to 12,000 foot mountains, making it ideal for the testing of cruise missiles. The range can accomodate most special weapons and has electronic warfare capability.

The nearest suitable special-use airspace[10] is as shown below:

Warning/Restricted/MOA:	UTTR	90 NM
Low Altitude MOA:	UTTR	90 NM
Supersonic MOA:	Austin/Gabbs CN	246 NM
Scorable gunnery range complex:	Eagle/UTTR	50 NM
Electronic Combat range:	Kittycat/UTTR	71 NM
Air combat maneuvering instrumentation range:	UTTR	97 NM

Hill AFB is the sole AFB within the state of Utah. Mountain Home AFB, Idaho, is the next closest one at 205 miles away. The nearest ground force installation where joint training can be accomplished is Army Camp W. G. Williams, 42 NM from Hill. The nearest Navy installation where joint training can be conducted is NAS Fallon, 325 NM from Hill.

3.1.2 Major Tenants

Major associate units on Hill AFB include: 545th Test Group, AFMC; 388th Fighter Wing (FW), Air Combat Command (ACC); 419th Fighter Wing FW, AFRES; and Defense Distribution Depot, Ogden (DDHU), DLA.

545th Test Group. Manages operation of the UTTR. This responsibility includes the scheduling of training and test sorties for all military services along with the testing of munitions and rocket propellants.

[9] Under DoD's recommendations for BRAC 95, AFMC would transfer management responsibility for operating the UTTR to Air Combat Command (ACC). While range availability could be reduced somewhat, the transfer would have little overall impact on Ogden ALC activities.

[10] MOA with a minimum size of 2100 square nautical miles (NM) and an altitude block of at least 20,000 feet within 200 NM. Low-altitude MOA with a minimum size of 2100 square NM and a floor no higher than 2000 feet above ground level (AGL) within 600 NM. Supersonic MOA with a minimum size of 4200 square NM within 300 NM. Scorable gunnery range capable of or having tactical or conventional targets and strafe within 800 NM.

388th FW. The 388th FW is part of the 12th Air Force, one of the four NAFs included in ACC. The 388th commands three operational squadrons of Block 50 F-16 fighter aircraft and is one of the Air Force's premier combat deployment units.

419th FW. The 419th FW is part of the 10th Air Force, which is one of three NAFs comprising the AFRES. The Wing includes the 466th Fighter Squadron (FS) operating F-16 aircraft at Hill and the 944th Fighter Group (FG) operating F-16 aircraft at Luke AFB.

Defense Distribution Depot, Ogden (DDHU). Operated by the DLA, DOHU receives, stores, and transports defense goods. It works closely with the OO-ALC depot maintenance activity by providing indoor and outdoor storage, packaging, and transportation functions for all non-explosive *Minuteman* and *Peacekeeper* missile assets. Approximately $7 billion in goods are stored in over 3 million square feet of covered and open storage space. It employs approximately 1,100 personnel and is one of the 25 DLA depots remaining after 4 were earmarked for closure in BRAC 93. (**Note**: DDHU is one of four DLA depots DoD has recommended for closure in BRAC 95.[11])

3.1.3 Relationship to Local Community

Hill AFB is located in the Salt Lake City-Ogden MSA. Total population (FY 92) is 1,127,000. Total employment (FY 93) is 659,500. Average annual job growth is approximately 15,000, and average annual per capita income is $16,900.

Work force population at Hill:

Active duty military	4,700
Reserve military	1,250
Civilian	15,200
Total	21,150

Of this total, approximately 10,400 (1,900 military and 8,500 civilian) work in the OO-ALC depot.

Hill AFB is the single largest basic employer in Utah. The work force annual payroll (military and civilian) is $510 million. This produces an annual local area economic impact of

[11] DoD has recommended that DDHU be disestablished and all DLA activity there cease except for the operation of a 36,000 square foot cantonment for Army Reserve personnel. The decision is supported on the basis of declining storage requirments at the facility and the need to reduce infrastructure within the DLA. The other three Defense Distribution Depots recommended for closure in BRAC 95 include Memphis, Tennessee; Letterkenny, Pennsylvania; and Red River, Texas. DLA depots selected for disestablishment in BRAC 93 included: Charleston, South Carolina; Tooele, Utah; Oakland, California; and Pensacola, Florida. A DoD proposal to close the depot at Letterkenny, Pennsylvania, at that time was rejected by the BRAC Commission.

approximately $1.7 billion. The total value of Hill's land (6,698 acres), buildings (1,475 residence and non-residence), and infrastructure is estimated at $8 billion.[12]

The total estimated impact of base closure would be the loss of approximately 33,500 jobs (14,700 direct, 18,800 indirect), 5.1% of the Salt Lake City-Ogden MSA employment total. Considering other Salt Lake City-Ogden MSA job adjustments from prior BRAC decisions (1,500 jobs added as a result of consolidations in BRAC 93), the impact of Hill's closure in BRAC 95 (if closure was directed) would amount to 4.8% of the MSA total.

It is estimated that the one-time closure costs associated with shuttering Hill AFB would amount to $1.4 billion. Return on investment would be achieved in 30 years.

3.2 Ogden ALC Depot

In addition to Ogden ALC's responsibility for landing gear, wheels, and brakes, the depot provides worldwide engineering and logistics management for the F-16, involving over 3,000 aircraft flown by 21 countries. It also maintains the C-130 and F-4, and provides extensive support for the Navy/Marine F/A-18. The center conducts overhaul, modification, testing, and support functions for a wide range of other aircraft compenents, including ejection seats, 20MM guns, ram air turbines, electrical/mechanical instruments, and missile launchers. Its proximity to the UTTR facilitates the depot's execution of its responsibilities for the US SBICBM fleet. Several of OO-ALC's facilities are located at Oasis on the UTTR, permitting the test, maintenance, and disposal of ICBM rocket motors/components under isolated conditions.

DoD's submission to the BRAC 95 Commission proposed realigning workloads among the Air Force depots to consolidate selected specialties at each. The specialty areas recommended for consolidation at Ogden ALC are: airborne electronic automatic equipment software, sheet metal repair and manufacturing, foundry operations, unique work with instruments/displays, airborne electronics, and plating.

3.2.1 Specialization

Ogden ALC is designated a *Service Center of Excellence* for the following systems:

[12]See Attachment 1, *Air Force Depot Capacity/Plant Comparisons*, Note 9, on *market value* versus *replacement value*.

Aircraft Components (Hydraulic/Pneudraulic): ram air turbines, missile control hydraulic actuation systems, LGM-30 (*Minuteman*) shock isolator.

Aircraft Components (Instruments): electrical/mechanical instruments, multi-function displays, and pressure/temperature/humidity/navigational instruments.

Aircraft Components (Landing Gear): wheels, brakes, struts, and related components for approximately 70 percent of DoD's landing gear inventory in all aircraft categories, including transport/tanker/bomber, command and control, light combat, and admin/training.

Aircraft Components (Aviation Ordnance): ejection seats, egress systems, 20- and 30-millimeter guns, missile launch control systems, gun racks, external fuel tanks, bomb racks, adapters, and pylons.

Aircraft Components (Other): photographic/reconnaissance/imaging equipment and physiological trainers.

Missiles and Missile Components (Strategic): LGM-30 (*Minuteman*) and LGM-118 (*Peacekeeper*) launch and launch control facility electronic equipment and flight control units, ground transportation and handling equipment, ground support equipment, rocket motors, cables, and pyrotechnic switches.

Missiles and Missile Components (Tactical): *Maverick*, *Sidewinder*, Short-Range Attack Missile (*SRAM*), Air Launched Cruise Missile (*ALCM*), Advanced Cruise Missile, *Paveway I* and *II*, GBU-15 Laser Guided Bombs (LGB), missile guidance control units, electro-optical, infrared, laser, and TV seeker control sensors, signal processing units, and missile test sets.

Ogden ALC has the following *Technology Application Program Management* assignments:

Photonics
Software Support Technology
Reliability and Maintainability Engineering

3.2.2 Unique Facilities/Equipment/Capabilities

OO-ALC officials have spotlighted the following facilities, equipment, and/or capabilities as unique to the depot:

Strategic Missile Integration Complex. This 5-building, 3-silo, 58,000 SF complex is one-of-a-kind within DoD. It is the only DoD facility capable of simulating launch scenarios with 90' vertical below-ground silos constructed to meet *Minuteman* and *Peacekeeper* silo hardness and operational requirements. The test site is a replica of an operational site and includes capsule and control equipment and interfaces, buried antenna systems, power and air supplies, and high-stress approach roads. Construction meets TEMPEST classified data processing and physical security requirements. Sensitive ICBM guidance system instruments and equipment are isolated by a large concrete seismic mass.

Survivability and Vulnerability Integration Center. This is a 4-building, 81,000 SF complex dedicated to the simulation testing of nuclear hardness, survivability, reliability, and electromagnetic compatibility of defense systems. The facilities simulate six environments required to test weapon system specifications such as those required for *Minuteman* and *Peacekeeper*. The environments include: nuclear radiation, provided by flash x-ray machines and a linear accelerator; airblast, provided by a blast load generator capable of simulating nuclear overblast pressures in excess of 1000 psi on buried structures; shock and vibration, provided by an eight-shaker triaxial system capable of supporting a 5000 pound test article; in-flight shock and vibration profiles, provided by the vibration facility; electromagnetic pulse events, provided by a laser triggered pulser of various waveform and energy capabilities; and electromagnetic interference (EMI) and compatibility testing, provided by EMI generators and fiber-optic instrumentation equipment in a large anechoic chamber simulating free space.

Missile Motor Dissection and Propellant Analysis Facilities. These include various specialized structures, pits, test stands, and buildings at Hill AFB and at Oasis on the UTTR, and offer DoD's only solid propellant NDI capability for motors associated with both small tactical missiles and large ICBMs. The facilities meet stringent explosive safety clear zone quantity distance requirements, combine heavy explosive shielding with patterned frangibility, and contain remote propellant machining equipment for motor repair. The **Computed Tomography Facility** provides extensive radiation containment and has a power source capable of generating energy levels from 11 to 15 million electronvolts, an output that is 14 to 36 times greater than other DoD computed tomography systems. The **High Energy X-Ray** Facility reportedly is the only such facility sited for explosives and is rated for 1,000,000 pounds of 1.3 class and 100,000 pounds of 1.1 class. **Static Test Pads** accommodate vertical and horizontal static rocket motor firing in environmentally controlled facilities.

Thermal Treatment Unit. This encompasses a 21,000 SF facility on a 21,000 acre remote site and is the only environmentally licensed propellant disposal site capable of disposing of *Minuteman* and *Peacekeeper* solid rocket motor propellants.

Automated Landing Gear Repair Facility. This is a 377,000 SF structure specifically designed to facilitate maximum efficiency in the overhaul, repair, modification, and testing of all-Service landing gear and gear components ranging in size from the small T-38 nose gear to the massive main gear trucks of the C-5. It is fully automated and includes such features as 12 foot minimum clearance jib cranes, outsize dip and plating tanks, an overhead hoist system designed to load components from the largest gear systems onto machinery such as grinders, lathes, and hones, and walk-in continuous flow throughput ovens.

Photographic Image Quality Test and **Cartographic Camera Calibration Facilities**. These are multi-storey facilities for testing aerial photoreconnaissance and space-based sensors. All but the top floor are underground for enhanced vibration isolation and security. The **Quality Test** facility provides a single source of repair for sensitive imagery systems using multiple off-axis parabolic mirror collimators. The **Cartographic Camera Calibration** facility uses 121 collimators to calibrate cameras used for cartographic purposes.

Tactical Missile All-Up-Round Maintenance Facility. This explosive certified structure permits testing and repair of multiple fully loaded and fueled tactical missiles such as the *Maverick*.

Avionics Integrated Support Facility. With 144,000 SF, this facility is unique in both design and location. The entire facility is essentially a secure vault, radio frequency bonded, fenced, and requiring security code access. It houses a sensitive compartmented information facility (SCIF), radar anechoic chambers, software testing laboratories, storage libraries and workspace, and was designed to allow a full range of testing without transfer of electronic emanations into or out of the building. The facility has engineering laboratories for the development, test, and integration of software and hardware for the F-4, F-16, *Minuteman*, *Peacekeeper*, and the Air Force Mission Support System.

Additional unique facilities/capabilities include:

Peacekeeper and _Minuteman_ Missile Storage and Repair Facility
Missile Support Equipment Repair Facility
Compass Transmitter and Magnetic Azimuth Detector Test Facility
Underground 20MM Automatic Gun Test Firing Facility
F-16 Emergency Power Unit Test Facility
Ram Air Turbine Wind Tunnel
***Maverick/Sidewinder* Missile Guidance & Control Section Test/Repair Facilities**
Advanced Cruise Missile Imaging Radar System Test Facility
Hot Site Computer Recovery Facility
Cartridge Activated Device and Munitions Surveillance Testing Facilities
Cold/Heat Soak for _Minuteman_ Motors
Lithium Battery Storage/Disposal
Physiological Trainer (Altitude Chamber) Maintenance and Repair
Fighter-Size Aircraft Robotics Bead Blast Stripping
Fighter-Size Aircraft Laser Automated Decoating System
Robotic Canopy Polisher
Investment Casting
Airborne Reconnaissance Overhaul Capability (Photo and Electro-Optical Sensors)
Optical Refurbishment Overhaul Capability
Imaging System Overhaul Traveling Teams
Software Technology Support Center
Neural Engineering and Self-Organizing System

3.2.3 Workload

The following table presents a breakout of the Ogden ALC workload -- by DoD commodity group -- for FY 96 and FY 99. The only commodity groups displayed in the table are those for which one or more of the five ALCs has a workload commitment. An explanation of the workload table is provided at Attachment 6.

Ogden ALC Workload Chart

(In Thousands of Direct Labor Hours -- kDLH)

Relevant Commodity Groups	Potential Maximum Capacity		Actual Capacity Projection		Total Workload Projection		Total Core Workload Projection	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
1. Aircraft Airframes								
c. Fixed Wing								
(1) Tanker / Transport / Bomber	469	469	469	469	631	543	631	543
(2) Command and Control								
(3) Light Combat	1,870	1,870	1,381	1,381	849	691	809	691
(4) Admin / Training								
d. Other								
2. Aircraft Components								
b. Aircraft Structures	311	311	311	311	234	241	170	241
c. Hydraulic / Pneumatic	41	41	41	41	13	13	13	13
d. Instruments	192	192	192	192	105	124	105	124
e. Landing Gear	1,028	1,028	1,028	1,028	514	488	514	488
f. Aviation Ordnance	419	419	419	419	138	104	138	104
g. Avionics / Electronics	812	812	511	511	389	430	389	430
h. APUs	89	89	89	89	27	29	27	29
I. Other	1,103	1,103	492	492	238	256	162	180
j. Manufacture and Fabrication	63	63	74	74	76	76	76	76
3. Engines (Gas Turbine) (GTE)								
a. Aircraft	101	101	101	101	122	146	9	102
c. Blades / Vanes								
4. Missiles and Missile Components								
a. Strategic	746	746	746	746	715	674	715	674
b. Tactical / MLRS	569	569	569	569	170	181	136	181
7. Ground Comm-Electronic Equip								
a. Radar								
b. Radio Communications								
c. Wire Communications								
e. Navigation Aids								
f. Electro-optics/Night Vision Equip								
g. Satellite Control/Space Sensors								
10. Ground General Purpose Items								
c. Munitions / Ordnance								
d. Ground Generators								
e. Other	103	103	103	103	110	120	110	120
12. Software								
a. Tactical Systems	755	755	755	755	664	653	664	653
b. Support Equipment	313	313	313	313	221	214	221	241
13. Special Interest Items								
a. Bearings Refurbishment	20	20	20	20	5	5	5	5
c. TMDE								
14. Other								
Total	9,005	9,005	7,614	7,614	5,221	4,988	4,895	4,895

Table 3-1: Ogden ALC Workload Chart

4.0 Oklahoma ALC (OC-ALC)

Oklahoma City ALC is the Air Force's primary center for the repair and maintenance of tanker and bomber aircraft, including the KC-135 and B-52. The depot also administers an inventory of over 17,000 aircraft and missile jet engines, ranging from the Korean War vintage J33 engine used with T-33 trainer aircraft to the advanced F118 used in the B-2 and the F107 and F112 used in cruise missiles. Matching its advanced capabilities in engine commodities and structural components, OC-ALC holds responsibility within DoD for fostering development in the areas of mechanical systems and nuclear hardness and survivability.

4.1 Tinker AFB, Oklahoma

Tinker AFB is an AFMC-operated installation located on the southeast edge of Oklahoma City, Oklahoma. As well as the state's metropolitan center and regional transportation hub, Oklahoma City is the both state's largest city and seat of government. Tinker AFB is accessible to one of the major rail systems crossing the southern US, and it sits at the intersection of two key interstate highways. Entrances to the base are on Interstate 40, the transcontinental artery extending from Wilmington, North Carolina to the Los Angeles metropolitan area. Nearby is Interstate 35, a central north-south freeway linking Duluth, Minnesota, with Laredo, Texas, a primary North American Free Trade Agreement (NAFTA) gateway into Mexico. The base is approximately 460 miles from deep-water ports on the Gulf of Mexico. Strategically located 200 miles south of the geographic center of the US, Tinker is within 1200 miles of 134 DoD and 56 Air Force installations. This location is about a day and a half by truck from most US cities.

4.1.1 Field and Facilities

Tinker AFB has two active runways. The primary is 11,100 feet long and is composed of both asphault and concrete while the secondary is approximately 7,800 feet long. There are 705,652 square yards (approximately 146 acres) of usable aircraft parking apron, and permanently assigned aircraft require nearly 64 percent of the apron space. Six C-141- equivalent aircraft can be loaded or unloaded at one time for mobility/contingency operations.[13] Ten C-141-equivalent aircraft can be refueled at one time. The base has an operational fuel hydrant system.

[13]The limiting factor is material handling equipment (MHE).

The base does not control or manage any ranges. The nearest suitable special-use airspace[14] is as shown below:

Warning/Restricted/MOA:	None	
Low-altitude MOA:	O'Neill	394 NM
Supersonic MOA:	None	
Scorable gunnery range complex:	Falcon	79 NM
Electronic Combat range:	Razorback	162 NM
Air combat maneuvering instrumentation range:	Gulfport MDS	566 NM

The nearest Active Duty Air Force units are Vance AFB and Altus AFB, both Air Education and Training Command (AETC) bases located approximately 100 NM from Tinker. The closest ground force installation where joint training can be accomplished is Army Fort Sill, 68 NM from the base. The nearest Naval Unit where joint operational training could be accomplished is NAS Dallas, approximately 200 miles south. At Tinker itself, however, the Navy bases key components of its TACAMO (Take Charge and Move Out) command and control operation, including Fleet Air Reconnaissance Squadrons Three and Four of the Navy's Strategic Communications (STRATCOMM) Wing One.

4.1.2 Major Tenants

Major associate units on Tinker AFB include: 552nd Air Control Wing (ACW), ACC; 507th ARG, AFRES; Navy STRATCOMM Wing One; Defense Distribution Depot Oklahoma City (DDOO), DLA; and Oklahoma City Megacenter (DMCO), DISA.

552nd Air Control Wing. The 552nd ACW is part of 12th Air Force, one of the four NAFs under ACC. As part of the ACC's mobile strike force, the 552nd flies E-3 AWACS (Airborne Warning and Control System) aircraft with radar and other sensors to provide deep-look surveillance, warning, interception control, and airborne battle management. Tinker AFB contains the operator, source of repair for engine and airframe components, and support manager for the Wing. All USAF AWACS training also is conducted at Tinker.

507th ARG. As Oklahoma's only AFRES flying unit, the 507th commands the 465th Air Refueling Squadron (ARS) operating KC-135 aircraft at Tinker. (The unit formerly operated F-16s.) It is part of the 4th Air Force, one of the three NAFs comprising the AFRES. Oklahoma City ALC is the Wing's primary source of depot mainenance.

[14]MOA with a minimum size of 2100 square nautical miles (NM) and an altitude block of at least 20,000 feet within 200 NM. Low-altitude MOA with a minimum size of 2100 square NM and a floor no higher than 2000 feet above ground level (AGL) within 600 NM. Supersonic MOA with a minimum size of 4200 square NM within 300 NM. Scorable gunnery range capable of or having tactical or conventional targets and strafe within 800 NM.

Navy STRATCOMM Wing One. This one-of-a-kind-unit in the Navy operates out of Tinker because of its central location. Fleet Air Reconnaissanec Squadrons Three and Four fly E-6 TACAMO aircraft to provide a secure communications link from the National Command Authorities and Joint Chiefs of Staff to the Navy's Ballistic Missile Submarine fleet. Air Force airframe artisans perform depot maintenance on the E-6 airplanes in Navy hangars while sailors perform field level work. Almost 1200 military and civilian personnel are assigned to the organization.

Defense Distribution Depot, Oklahoma City (DDOO). Operated by the DLA, DDOO receives, stores, issues, inspects, and ships defense goods, with the exception of munitions, for Tinker AFB. This activity includes material quality control, preservation and packaging, inventory, and transportation functions. It employs approximately 1100 personnel, nearly all civilian.

Defense Megacenter, Oklahoma City (DMOC). Identified in BRAC 93 as the site for one of 16 DoD data processing and telecommunication "megacenters" to be operated under the umbrella of the DISA, DMOC operates computer systems for Tinker and manages data processing workloads of 110 additional bases in 46 states. It employs 245 personnel, all civilian.

4.1.3 Relationship to Local Community

Tinker AFB is located in the Oklahoma City, Oklahoma MSA. Total population (FY 92) is 981,000. Total employment (FY 93) is approximately 583,000. Average annual job *loss* is 1,265, and average annual per capita income is $17,649.

Work force population at Tinker:

Active duty military	7,400
Reserve military	235
Civilian	14,400
Total	22,035

Tinker AFB is Oklahoma's largest single-site employer. The work force annual payroll (military and civilian) is $752 million. This produces a local area economic impact of approximately $2 billion. No reliable estimate has been provided on the realistic market value of Tinker's land (5,031 acres), buildings (763 residence and non-residence), and infrastructure.[15]

The estimated impact of base closure would be the loss of 48,000 jobs (22,000 direct, 26,000 indirect), 8.2% of the Oklahoma City MSA employment total. If closure was directed as a result of BRAC 95, this would be the first BRAC decision to cause job losses in the MSA.

[15]See Attachment 1, *Air Force Depot Capacity/Plant Comparisons,* Note 9, on *market value* versus *replacement value.*

It is estimated that the one-time closure costs associated with shuttering Tinker AFB would amount to $1.3 billion. Return on investment would be achieved in 42 years.

4.2 Oklahoma City ALC Depot

While the B-1, B-2, B-52, C-135, and E-3 are Oklahoma City ALC's primary assigned aircraft, the depot also repairs the VC-25, VC-136, and 25 other Contractor Logistics Support Aircraft. The Commodities Directorate tracks nearly 45,000 exchangeable and commodity items used on defense weapon systems. These multiple parts include radomes, fuel accessories, control valves, turbines, blades, altitude indicators, and oxygen regulators. In terms of software development, Oklahoma ALC is the first DoD organization to be certified by the Software Engineering Institute for Software Process Maturity Level Two.

DoD's submission to the BRAC 95 Commission proposed realigning workloads among the five ALCs to concentrate selected specialties at each. The specific areas recommended for consolidation at Oklahoma ALC are: airborne electronic automatic equipment software, machining manufacturing, airborne electronics, and plating.

4.2.1 Specialization

Oklahoma City ALC is designated a *Service Center of Excellence* for the following systems:

Aircraft Airframes: B-1B, B-2, B-52, C/KC/VC/EC/RC/OC/WC-135, and E-3.

Aircraft Components: aircraft related exchangeables (radomes, cowls/fairings, structural components), engine instruments and automatic flight controls, oxygen and other gas generating equipment, constant speed drives/integrated drive generators, air driven accessories, and air valve systems.

Engines (Gas Turbine) (Aircraft): J57, TF30, TF33, F101, F-107, F108, F110, F112 and F118; engine related exchangeables, including fuel accessories, control valves, filters, starters, turbines, compressors, and blades and vanes.

Software (Support Equipment): avionic automatic test equipment and industrial plant equipment software.

Oklahoma City has the following *Technology Application Program Management* assignments:

Mechanical Systems
Nuclear Hardness and Survivability

4.2.2 Unique Facilities/Equipment/Capabilities

OC-ALC officials have identified the following facilities, equipment, and/or capabilities as unique to the depot:

Air Accessories Overhaul/Test Facility. This 114,00 SF facility provides single source repair, overhaul, calibration, and testing of any air driven item in the Air Force inventory. It has 22 test cells designed to contain high-speed rotating components (such as air turbine motors) in the event of failure. The building houses equipment required to generate, control, and condition compressed air from ambient temperature to 300 PSIG and 800° F at flow rates of up to 8 pounds per second to simulate inflight operational conditions. One "super cell" is capable of boosting test capability to 800 PSIG, 1400° F, and 3-9 pounds per second. The facility produces over 16,000 items per year and will be able to support C-17 and F-22 components when these weapon systems come fully on line.

Cruise Missile Engine Facility. This 104,000 SF facility is reported to be the only DoD self-contained single source maintenance repair/test center specializing in cradle-to-grave overhaul and production testing of air launched cruise missile engines (F107 and F112).

Oxygen and Associated Equipment Overhaul Facility. Over 22 different types of life support equipment are overhauled annually in this 14,000 SF facility, with over 8000 items being repaired tested, and calibrated.. The building is isolated to preserve a clean, dry, oil-free environment, and contains specialized chemical cleaning systems, overhaul and calibration equipment, and oxygen purging/filling systems. The facility is the only single source oxygen overhaul facility in the Air Force.

Avionics Integrated Support Facility. This is a 98,000 SF purpose designed facility constructed of specially designed brick and mortar with reinforced concrete floors, walls, and ceiling. It is the only B-1B/E-3/B-52/ALCM and Rotary Launcher complete avionics test facility in DoD, and provides single source software maintenance and integration of computer programs for these systems. The facility enables ground integration and test of avionics system software through the combined use of weapon system specific avionics components and one-of-a-kind hardware/software.

Jet Engine Test Facilities. The 61,000 SF of work space in these two special buildings contain a number of medium test cells and 4 single source test cells that are the only ones in DoD rated in the 100,000 pound thrust class. These high-performance cells are capable of handling up to 4000 pounds of air per second, up to 150,000 pounds per hour of fuel, and, for afterburner cooling, up to 5500 gallons per minute of water. An eleven foot centerline allows for the testing of engines with up to an 11 foot diameter inlet. A monorail system is used to transport engines from the buildup floor into the cell, providing a five-minute engine installation time. All cells are multi-engine capable. Each utilizes the Pacer Comet III Automated/Computerized Engine Test and Data Acquisition testing system. An Automatic Vibration Diagnostic system provides engine signature analysis and trim balance data. The facilities can be used for standard runs, endurance testing, and accelerated mission testing.

B-1B Compact Range Facility. This 9800 SF facility encloses an anechoic chamber mounted on an adjustable 19 x 37 foot isolated pad for protection against seismic vibration in the testing of the B-1B APQ-164 multi-functional radar antenna. It permits the antenna to be tested in both phased array and low observable antenna configurations.

Fuel Control and Accessories Consolidated Test Facility (CTF). The CTF is a 63,500 SF, $13.6 million state-of-the-art facility designed to provide environmentally friendly, National Fire Protection Association rated safety controls to meet fuel wetted testing needs for engine controls and accessories. Completed in 1994, it houses an Automated Fuel Accessory Test System and has special charcoal filters and recycling distillation units to preclude the leakage of ozone depleting chemicals. It supports the performance of maintenance and repair on the multiple variants and configurations of F101, F108, F-110, F-118, TF30, and TF-33 engines, and has growth capability to accommodate others.

Materials Test Facility. This is a 27,000 SF laboratory configured to conduct crack growth rate and fatigue life testing on such aircraft compnents as wing skin and actuator rods. It also performs material properties determination in such areas as assessing adhesive strength. The facility uses five servo-hydraulic material test systems with programmable digital controllers to replicate in-flight cyclic loading of aircraft components.

Multiple Workload Industrial Complex. Shadowing almost 2.4 million SF (61 acres), this is the longest covered repair facility in DoD. It is used for special aircraft periodic depot maintenance (PDM), engine repair, aircraft/engine accessory overhaul, and depot repair for -135 airframe structure. It includes: a 500,000 SF highbay for handling aircraft ranging in size from -135s to A-7s, the entire area of which is supported by conveyers and overhead cranes; a 1,000,000 SF lowbay which has been reconfigured in many combinations (as dictated by workload and surge requirements) for maintenance of engines, aircraft structures, and aircraft and engine components; a 40,000 SF chemical cleaning facility (which also employs a unique **Carbon Dioxide Pellet Blasting System**); 50,000 SF of area for engine and component plating and plating preparation; a 42,000 SF heat treatment facility; 21,000 SF of automated-stacker vertical storage space; 12,000 SF of chemical and metallurgical labs; and almost 650,000 SF of administrative space.

B-2 Weapon System Support Center. This 124,000 SF facility will perform ground integration and test of B-2 systems software. A "B-2 Datalink" hub is located in the crypto vault of this facility providing classified electronic logistics management connectivity between Northrop Grumman, Tinker AFB, Wright-Patterson AFB, Whiteman AFB, Langley AFB, Edwards AFB, and the Pentagon.

Paint Hangar. Billed as "the premier aircraft paint facility in DoD," this is a 109,000 SF, two-bay hangar sized to perform corrosion control on any weapon system in the Air Force, including the C-5 and 747-size aircraft. Both docks are designed to allow complete stripping, washing, chemical treating, and painting. Each has an independent environmental control system. Multi-directional manlifts provide easy access to the upper portions of aircraft. The facility has centralized breathing air and chemical distribution systems for efficiency and ease of operation. The facility operates a prototype **Large Aircraft Robotic Paint Strip System** using high pressure water for paint removal on large, thin-skinned aircraft. Its **Paint Proportioning and Mix System** automatically measures, mixes, and delivers on demand only the amount of coating necessary.

Blade and Vanes Repair Center. OC-ALC is the only DoD center certified to repair F101 and F110 high pressure turbine blades. This 140,000 SF facility houses all of the processes for blade and vane inspection, repair, and recoating in a single location. It provides for automated cleaning, manual and automated inspection, welding (including microplasma welding, superalloy welding at elevated temperatures, and automated laser welding), machining, advanced electrophoretic coating, vibratory finishing, air and water flow testing, post-repair NDI, automated and high velocity plasma spray, shot peening, activated diffusion healing, and vane restrike.

E-3 Maintenance Hangar. Purpose designed, this facility is notable for facilitating maintenance and repair of the E-3 rotodome. "Texas Tower" platform maintenance workstands permit the servicing and repair of rotodomes in place, while overhead bridge crane systems can remove the 14,000 pound rotodome easily when required.

Additional unique facilities/capabilities include:

Engine/Automatic Flight Control Instruments Repair
Electrical Discharge Machining of Nozzles and Blades
Avionics Reliability Center for Inertial Navigation, Attitude Heading Reference, and Automatic Flight Control Systems
High Force Axial Torsion Test System
Centralized Aircraft Support System

4.2.3 Workload

The following table presents a breakout of the Oklahoma City ALC workload -- by DoD commodity group -- for FY 96 and FY 99. The only commodity groups displayed in the table are those for which one or more of the five ALCs has a workload commitment. An explanation of the workload table is provided at Attachment 6.

Oklahoma City ALC Workload Chart
(In Thousands of Direct Labor Hours -- kDLH)

Relevant Commodity Groups	Potential Maximum Capacity		Actual Capacity Projection		Total Workload Projection		Total Core Workload Projection	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
1. Aircraft Airframes								
c. Fixed Wing								
(1) Tanker / Transport / Bomber	2,839	2,609	2,202	2,279	2,211	2,176	2,155	2,023
(2) Command and Control	459	688	266	289	355	570	301	512
(3) Light Combat								
(4) Admin / Training								
d. Other								
2. Aircraft Components								
b. Aircraft Structures	434	434	430	404	418	334	417	334
c. Hydraulic / Pneumatic	885	885	279	278	188	181	188	181
d. Instruments	712	712	238	227	290	264	290	264
e. Landing Gear								
f. Aviation Ordnance	1	1	1	1	--	--	--	--
g. Avionics / Electronics	218	218	172	218	62	139	62	93
h. APUs								
I. Other	817	817	584	594	213	217	126	131
j. Manufacture and Fabrication	294	294	158	162	95	97	95	97
3. Engines (Gas Turbine) (GTE)								
a. Aircraft	4,912	4,912	2,559	2,497	2,410	2,347	2,370	2,308
c. Blabdes / Vanes	529	529	155	155	54	76	54	76
4. Missiles and Missile Components								
a. Strategic								
b. Tactical / MLRS								
7. Ground Comm-Electronic Equip								
a. Radar								
b. Radio Communications								
c. Wire Communications								
e. Navigation Aids								
f. Electro-optics/Night Vision Equip								
g. Satellite Control/Space Sensors								
10. Ground General Purpose Items								
c. Munitions / Ordnance								
d. Ground Generators								
e. Other								
12. Software								
a. Tactical Systems	250	240	248	238	336	364	325	325
b. Support Equipment	446	455	446	455	412	339	299	299
13. Special Interest Items								
a. Bearings Refurbishment	62	62	12	10	11	15	11	15
c. TMDE	4	4	4	3	2	2	--	--
14. Other								
Total	12,863	12,863	7,753	7,811	7,058	7,122	6,695	6,658

Table 4-1: Oklahoma City ALC Workload Chart

5.0 San Antonio ALC (SA-ALC)

San Antonio ALC is the Air Force C-5, C-17, and T-38 depot facility. It is also the Air Force's primary center for the repair and overhaul of selected families of aircraft jet engines, engine-related exchangeables, and gas turbine engines for secondary power systems. It has responsibility for all Air Force nuclear ordnance and for reentry vehicle components, and manages cryptological equipment. Consistent with SA-ALC's high level of experience in metallurgy and manufacturing, the depot has responsibility within DoD for fostering the development of advanced metals and ceramics, and for pursuing advanced robotics.

5.1 Kelly AFB, Texas

Kelly AFB is an AFMC-operated installation located approximately 5 miles southwest of downtown San Antonio, Texas. San Antonio is the major interior transportation hub for highways and rail lines in south-central Texas. Increased traffic and development from NAFTA has supported the city's continually growing importance in this capacity. Kelly is adjacent to one of the major railroads crossing the southern US and other lines extending south into Mexico. It sits at the junctures of two major highways, including Interstate 10, the nation's southernmost transcontinental artery linking Jacksonville, Florida, with Los Angeles, and Interstate 35, a centralized north-south route extending from Duluth, Minnesota, through many major cities in the midwest and Texas down to Monterrey in the Nuevo Leon province of Mexico. The nearest deep-water port is on the Gulf of Mexico approximately 175 miles east. It can be accessed overland via Interstate 37, which junctures with Interstate 10 east of the base. Kelly's location is strategically valuable for operations in Central and South America, and the Carribbean.

5.1.1 Field and Facilities

Kelly AFB has one 11,550 foot concrete runway with appropriate aircraft arresting gear and 778,042 square yards (approximately 161 acres) of usable aircraft parking apron. Permanently assigned aircraft require nearly 42 percent of the apron space. Three C-141- equivalent aircraft can be loaded or unloaded at one time for mobility/contingency operations.[16] Twenty C-141-equivalent aircraft can be refueled at one time. The base has an operational fuel hydrant system.

[16]The limiting factor in this case is trained load crews.

The base controls and manages Yankee Range, a 2,600-acre unscored tactical air-to-surface gunnery range located 68 NM miles south of the base. Although the Range lacks full-scale weapons delivery capability, it can be certified for laser use and has a limited capacity for ground threat simulation. The nearest suitable special-use airspace[17] is as shown below:

Warning/Restricted/MOA:	W-228D	187 NM
Low-altitude MOA:	W-228D	187 NM
Supersonic MOA:	W-228A,B,C,D	190 NM
Scorable gunnery range complex:	McMullen	71 NM
Electronic Combat range:	Claiborne	316 NM
Air combat maneuvering instrumentation range:	Gulfport MDS	529 NM

Randolph AFB, located 18 miles northeast of Kelly, is the nearest Air Force installation with flying operations. Lackland AFB and Wilfred Hall Hospital are adjacent to Kelly, and Brooks Medical Center is approximately 10 miles away.[18] The nearest ground force installation where joint training can be conducted is Army Fort Sam Houston, 29 NM from Kelly. The closest Navy installation where joint training can be accomplished is NAS Dallas, 217 miles north of the base.

5.1.2 Major Tenants

Major associate units on Kelly AFB include: Headquarters, Air Intelligence Agency (AIA); 433rd AW, AFRES; 149th Fighter Group (FG), Air National Guard (ANG); Defense Distribution Depot, San Antonio (DDST), DLA; and Defense Megacenter, San Antonio (DMSA), DISA.

Headquarters, Air Intelligence Agency. The AIA provides direct intelligence, security, electronic combat, foreign technology, and treaty-monitoring support to national decision-makers and field air component commanders. It furnishes combat commanders with data enabling them to decide when to exploit, jam, decieve, or destroy hostile military communications. It also presents tailored intelligence assessments in support of Air Force planning and policy formation. The AIA works in conjunction with the SA-ALC cryptologic depot maintenance program.

[17]MOA with a minimum size of 2100 square nautical miles (NM) and an altitude block of at least 20,000 feet within 200 NM. Low-altitude MOA with a minimum size of 2100 square NM and a floor no higher than 2000 feet above ground level (AGL) within 600 NM. Supersonic MOA with a minimum size of 4200 square NM within 300 NM. Scorable gunnery range capable of or having tactical or conventional targets and strafe within 800 NM.

[18]Primarily a medical research facility, Brooks has been fingered for closure by the Air Force as part of DoD's BRAC 95 hit list.

433rd AW. The 433rd AW is part of the 4th Air Force, one the of three NAFs comprising the AFRES. It commands the 68th Airlift Squadron (AS) which operates C-5 cargo aircraft in support of worldwide DoD military operations.

149th FG. The 149th FG is an ANG unit assigned under the major command of the ACC. It operates F-16 aircraft in both air-to-ground and air-to-air roles.

Defense Distribution Depot, San Antonio (DDST). Operated by the DLA, the depot stocks, stores, issues, and ships defense goods and materials used at Kelly, additional Air Force installations, and units of the other services in the San Antonio region. It works closely with SA-ALC by packaging and shipping repairable items to the depot, which, in turn, returns the goods to serviceable status and re-enters them into the DLA distribution system. It employs approximately 900 personnel, all civilian.

Defense Megacenter, San Antonio (DMSA). Identified in BRAC 93 as the site for one of 16 DoD data processing and telecommunication "megacenters" to be operated under the umbrella of the DISA, DMSA provides information processing services and products supporting the needs of the San Antonio region. Its functions are divided into four categories: application support, operational support, technical support, and business management support. The Center runs 61 application systems that support the depot maintenance activities of SA-ALC.

5.1.3 Relationship to Local Community

Kelly AFB is located in the San Antonio, Texas, MSA. Total population (FY 92) is 1,377,000. Total employment (FY 93) is 731,000. Average annual job growth is 13,750, and average annual per capita income is $17,284. For the past five years, San Antonio consistently has been one of the top ten cities in the US in total annual net job creation (jobs added minus jobs lost).

Work force population at Kelly:

Active duty military	4,800
Reserve military	3,950
Civilian	14,100
Total	22,850

Kelly AFB is one of the largest single-site, high technology employers in southern Texas, and over 13,000 of Kelly's workers are affiliated with the ALC. The total work force annual payroll (military and civilian) is $692 million. This produces a local area economic impact of approximately $2 billion. No reliable estimate has been provided on the realistic market value of Kelly's land (3,996 acres), buildings, and infrastructure.[19]

[19]See Attachment 1, *Air Force Depot Capacity/Plant Comparisons*, Note 9, on *market value* versus *replacement value*.

The estimated impact of base closure would be the loss of 43,200 jobs (18,100 direct, 25,100 indirect), 5.9% of the San Antonio MSA employment total. Combined with other San Antonio MSA job losses from prior BRAC decisions (59 jobs), the cumulative impact of Kelly's closure in BRAC 95 (if closure was directed) would cause the total employment loss to remain at 5.9% of the MSA's total.

It is estimated that the one-time closure costs associated with closing Kelly AFB would amount to $653 million. Return on investment would be achieved in 10 years.

5.2 San Antonio ALC Depot

While the center is well-known for managing and repairing engine modules and nuclear ordnance, and for manufacturing parts for engines and fuel systems, it conducts several additional operations of significant note. Along with supporting the Air Force's newest transport, the C-17, and the aging C-5 and T-38 fleets, the depot services C-131, A-37, OV-10A, and T-37 aircraft. In all, San Antonio ALC supports 33 types of aircraft, over 19,000 aircraft engines, and more than 50,000 auxillary engines, which comprise three-quarters of the Air Force engine inventory. It manages all Air Force nuclear ordnance, all liquid missile propellants used by the Air Force and NASA (National Aeronautics and Space Administration), and the Air Force's fleet of boats and ships. The depot maintains some of the physically largest hangars and maintenance facilities in the US to accommodate the outsize transport fleet it supports.

DoD's submission to the BRAC 95 Commission recommended realigning workloads among the fiveAir Force depots to consolidate selected specialties at each. The specialty areas proposed for consolidation at San Antonio ALC are: foundry operations, industrial plant equipment software, and plating.

5.2.1 Specialization

San Antonio ALC is designated a *Service Center of Excellence* for the following systems:

Aircraft Airframes: C-5, C-17; paint and corrosion control for large-bodied aircraft.

Aircraft Components: fuel accessories, automatic test equipment, engine controls and instruments, automatic gearboxes, F-15 and F-16 secondary power systems, F-16 engine start system, conventional starters, and organic manufacturing.

Engines (Gas Turbine): J69, J85, TF34, TF39, F100, J60, F117, and T56; engine components and component fabrication; GTCPs 180-5, 180-7, 397, 85-56, 85-70A, 85-71, 85-72A, 85-106A, 85-180L, 85-180(C), 165-1, 36-50, and *Patriot*.

Missiles and Missile Components (Strategic): components and equipment involved in nuclear weapon handling, test, delivery, launch, firing, and weapon control, including trailers, launchers, racks, and ICBM reentry vehicle (RV) microcircuits.

Software (Support Equipment): automatic test equipment software.

San Antonio has the following *Technology Application Program Management* assignments:

Advanced Metals and Ceramics
Robotics and Automation

5.2.2 Unique Facilities/Equipment/Capabilities

SA-ALC officials have identified the following facilities, equipment, and/or capabilities as unique to the depot:

Engine Test Facility. This 65,000 SF facility provides for testing all versions of the Pratt and Whitney F100 engine used in the F-15 and F-16, the TF-39 used in the C-5, the T56, and the TF39 Engine Build-Up Unit. The facility is capable of testing any turbofan, turboshaft, or turbojet engine in the DoD inventory. The current test cell configuration includes four universal turbofan and turbojet multi-engine capable test cells, two T56 turboshaft propeller test cells, and two T56 dynamometer test cells. All utilize the Pacer Comet III Automated/Computerized Engine Test and Data Acquisition test system, employ quick engine connect test adapters, a mechanized material handling system, inlet air turning vanes, an Automatic Vibration Diagnostic system, and a noise abatement treatment system. The facility also employs a Gas Path Analysis system for determining engine/module performance from thermo-mathematical relationships.

Advanced Fuel Accessories Repair and Test. This is a 50,000 SF facility specially designed to accommodate the configuration of the Advanced Fuel Accessories Test System for testing fuel wetted components. Test stations are fully automated and can evaluate a broad variety of different engine and airframe fuel accessories such as pumps, valves, fuel controls, and atomizers. The system is environmentally friendly and minimizes the explosion/fire hazard previously associated with fuel component repair.

Cryogenic Spin Test Facility. This is a 9500 SF building with special systems and shielding to permit cryogenic spin testing to be performed on engine disks in order to identify potential critical flaws. Disks are mounted on a special test assembly, balanced, lowered into an insulated and heavily shielded spin pit which is momentarily flooded with liquid nitrogen to cool the assembly (down to approximately -320° F), spun in the pit at 15,000 rpm for one minute, and then allowed to free spin to a stop some 20 minutes later. The facility contains five spin pits and special associated plumbing for the liquid nitrogen and pit vacuuming.

Gas Turbine Engine Repair and Test. This is a 137,000 SF facility that collocates multiple formerly-separate test systems and assembly shops. Approximately one-third of the production space is a near-clean-room environment with a 300,000 classification.

Unified Fuel Control Test Facility. This is a unique, "explosion-proof" 95,000 SF facility dedicated to the inspection, repair, and testing of F-100 engine unified fuel controls. It also possesses the capability to overhaul and test fuel nozzles for the F-100, T56, and TF39, fuel controls for the TF39 and T56, and fuel atomizers for smaller GTE. The building is equipped with special ventilation, fire detection and suppression, and blast-proofing systems. It encompasses 89 test stands that are predominantly computer controlled electro- and hydromechanical systems designed to simulate the conditions and inputs test items will face in use.

Aircraft NDI X-Ray Facility. Construction on this 60,000 SF facility began in mid-1994 and is scheduled for completion in mid-1995. It will enable SA-ALC to perform NDI and substrate evaluation for C-17, C-5, and smaller aircraft.

Large-Aircraft Depot Maintenance Hangar. With over one million SF of floorspace, this is the largest permanent bridge construction hangar in DoD and one of the largest in the world. Designed to support work on the C-5, it is capable of completely housing six of the massive aircraft simultaneously. Extra-high hangar doors, three track-mounted bridge cranes, and a 10,000 pound capacity remote controlled hoist for removal of the aircraft's horizontal stabilizer are among the hangar's purpose-designed features. High roofing pockets permit four C-5s to remain jacked at the same time.

Aircraft Corrosion Control/Depaint. This 88,000 SF facility is the only one of its size in DoD which uses non-carcinogenic Plastic Media Blasting to remove coatings from airframes. It is the only one with the capability for stripping C-5 aircraft and can also handle smaller weapon systems. Overhead "stacker cranes" provide hands-on three dimensional accessibility to the entire aircraft

Nuclear Weapon Components Repair and Test. SA-ALC possesses a unique set of facilities for conducting environmental stress screening which permits the repair and testing of ICBM RV components, nuclear related aircraft components, and nuclear munitions handling equipment. It is the only DoD installation with this composite capability. The underground **Multi-Use Centrifuge** can attain an acceleration rate of 200 Gs with an onset rate of 50 Gs per second. With a capacity of 50,000 G-pounds, it can accommodate a payload of up to 1000 pounds. It is used to simulate G forces and timing intervals required to arm fuses. The **High Impulse Transducer Test System** is a high performance piezoelectric accelerometer that produces a haversine mechanical shock event of up to 100 kgs to test the impact transducers found on RVs. The **Altitude Temperature Test Chamber** produces a thermal cycle/altitude test environment that can simulate altitudes of up to 200,000 feet with temperature ranges of from -10° up to +350° F with indefinite holding time throughout the range. The **Shielded Cable Tester** assesses a component's ability to perform to mil-spec with an acceptable amount of degradation. The three above-ground **Accelerator Rotary Centrifuges** can accelerate a 150 pound payload to 150 Gs at a radius of 63 inches. The unit has a capacity of 22,500 G-pounds and can accomplish acceleration/deceleration from 1 G to 150 Gs to 1 G in 15 seconds. A **Shock Machine Test System** can subject components weighing up to 500 pounds to various levels and types of shock and stress with max acceleration of 600 Gs or 30,000 Gs (with dual mass shock amplifier) and a min/max pulse duration of 2 microseconds min/80 microseconds max. An **Isothermal Storage Room** holds components in a dust-free and temperature/humidity controlled environment. The **Thermotron Temperature Chamber** stresses components with a programmable

temperature variance capability of from -100° F up to 300° F at a rate of up to 9° F per minute. The **Shielded Microwave Anechoic Test Facility** is equipped with unique, frequency-specific absorbent material and is used to evaluate the performance of *Minuteman* MK-12 RVs.

Additional unique facilities/capabilities include:

Textile Laboratory
Integrated Support Software Engineering Facility
Rubber Products Manufacturing
Production of X-Ray Quality Aluminum Castings
Stereolithography Pattern/Part Development
C-5 Engine Pylon Repair
Halon Recovery, Recycling, and Recharging Facility
Bicarbonate of Soda Blast Stripping of Jet Engine Components
Robotic Shot Peening System
Non-Contact Dimensional Inspection
Auto-Prompting Inspection System

5.2.3 Workload

The following table presents a breakout of the San Antonio ALC workload -- by DoD commodity group -- for FY 96 and FY 99. The only commodity groups displayed in the table are those for which one or more of the five ALCs has a workload commitment. An explanation of the workload table is provided at Attachment 6.

San Antonio ALC Workload Chart
(In Thousands of Direct Labor Hours -- kDLH)

Relevant Commodity Groups	Potential Maximum Capacity		Actual Capacity Projection		Total Workload Projection		Total Core Workload Projection	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
1. Aircraft Airframes								
c. Fixed Wing								
(1) Tanker / Transport / Bomber	3,251	3,251	1,542	1,573	1,006	821	833	821
(2) Command and Control								
(3) Light Combat								
(4) Admin / Training	795	795	388	2	341	--	--	--
d. Other								
2. Aircraft Components								
b. Aircraft Structures	162	162	93	90	56	57	17	19
c. Hydraulic / Pneumatic	4	4	3	4	3	3	2	3
d. Instruments	24	24	14	12	8	7	6	5
e. Landing Gear	15	15	6	8	4	5	4	4
f. Aviation Ordnance								
g. Avionics / Electronics	142	142	119	97	96	79	33	31
h. APUs	559	559	292	288	159	148	112	102
I. Other	443	443	235	288	302	340	91	93
j. Manufacture and Fabrication	1,058	1,058	298	417	123	152	120	120
3. Engines (Gas Turbine) (GTE)								
a. Aircraft	7,318	7,318	4,948	5,001	3,665	3,396	2,615	2,626
c. Blabdes / Vanes								
4. Missiles and Missile Components								
a. Strategic	200	200	107	109	99	100	58	57
b. Tactical / MLRS								
7. Ground Comm-Electronic Equip								
a. Radar								
b. Radio Communications								
c. Wire Communications								
e. Navigation Aids								
f. Electro-optics/Night Vision Equip								
g. Satellite Control/Space Sensors								
10. Ground General Purpose Items								
c. Munitions / Ordnance	6	6	2	3	2	3	1	2
d. Ground Generators								
e. Other								
12. Software								
a. Tactical Systems	26	26	19	20	19	16	18	14
b. Support Equipment	241	241	180	207	165	177	153	155
13. Special Interest Items								
a. Bearings Refurbishment								
c. TMDE	978	978	651	685	448	478	400	410
14. Other								
Total	15,220	15,220	8,897	8,804	6,496	5,782	4,463	4,463

Table 3-1: San Antonio ALC Workload Chart

6.0 Warner Robins ALC (WR-ALC)

Warner Robins ALC is the Air Force's F-15, C-130, and C-141 depot, providing cradle-to-grave logistics support and depot-level maintenance for these. Additionally, Warner Robins is a primary maintainer of sophisticated aircraft avionics systems and weapons, including the Low-Altitude Navigation and Targeting Infrared for Night (LANTIRN) system, and the AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM). WR-ALC's proficiencies in airframe and avionics support have resulted in the center being assigned responsibility within DoD for promoting technology advancement in a number of related fields, including corrosion control and electronics systems architecture.

6.1 Robins AFB, Georgia

Robins AFB is an AFMC-operated installation located approximately 15 miles south-southeast of Macon, Georgia. In the center of the state, Robins is about two hours' travel time from the major transportation hub of Atlanta. It has access to the national railway system and sits within minutes of both Interstate 16 and Interstate 75. Interstate 16 links nearby Macon with Interstate 95, the main highway extending down the entire East Coast with access to the major waterports of Savannah, Georgia; Charleston, South Carolina; and Jackonsville, Florida. Interstate 75 is one of the principal north-south arteries east of the Mississippi River extending from Sault Saint Marie, Ontario to the Fort Myers metropolitan area of Florida. Savannah is the nearest deep-water ocean port at 136 NM away, and it can be reached directly overland via Interstate 16. Robins is the only East Coast Air Force facility with depot maintenance activity to support military requirements in peace and war..

6.1.1 Field and Facilities

Robins AFB has one 12,000-foot asphault runway with appropriate aircraft arresting gear and 653,344 square yards (approximately 135 acres) of usuable aircraft parking apron. Currently, permanently assigned aircraft require only 10 percent of the apron space. However, Robins is scheduled to become the US main operating base for the E-8 Joint Surveillance and Target Attack Radar System (Joint STARS), and beddown of those aircraft assets will reduce surplus ramp space appropriately. Six C-141- equivalent aircraft can be loaded or unloaded at one time

for mobility/contingency operations.[20] Eleven C-141-equivalent aircraft can be refueled at one time. The base has an operational fuel hydrant system.

The base does not control or manage any ranges. The nearest special-use airspace[21] is as shown below:

Warning/Restricted/MOA:	None	
Low-Altitude MOA:	W-157A	200 NM
Supersonic MOA:	W-157A	200 NM
Scorable gunnery range complex:	Grand Bay	103 NM
Electronic Combat range:	Townsend	123 NM
Air combat maneuvering instrumentation range:	Tyndall ACMI	195 NM

The nearest Active Duty Air Force unit where active training can be accomplished is Dobbins AFB, 85 miles from Robins. The closest ground force installation where joint training can be accomplished is Army Fort Benning, 73 NM from the base. Beaufort Marine Corps Air Station (MCAS), 142 miles from Robins, is the nearest Naval/Marine unit where joint training can be accomplished.

6.1.2 Major Tenants

Major associate units currently on Robins AFB include: Headquarters, AFRES; 19th Air Refueling Wing (ARW), Air Mobility Command (AMC); 9th Space Warning Squadron (SWS), Air Force Space Command (AFSPC); 5th Combat Communications Group (CCG), ACC; Defense Distribution Depot, Warner Robins (DDWG), DLA; and Defense Megacenter, Warner Robins (DMWR), DISA. (Note: the 116th FW, ANG, currently based at Dobbins AFB, GA, and equipped with F-15s, is scheduled to relocate to Robins AFB at the beginning of 1996 and convert to the B-1B.)

Headquarters, AFRES. The Air Force Reserve supports the Active force by performing missions that encompass fighter, bomber, airlift, aerial re-fueling, rescue, and weather reconnaissance operations. It provides disaster relief in the US and supports national counterdrug efforts. The Reserve commands three numbered NAFs with nearly 78,000 reservists operating 400 aircraft ranging from F-16 fighters and B-52 bombers to C-5 transports and KC-135 tankers.

[20]The limiting factor is load crews.

[21]MOA with a minimum size of 2100 square nautical miles (NM) and an altitude block of at least 20,000 feet within 200 NM. Low-altitude MOA with a minimum size of 2100 square NM and a floor no higher than 2000 feet above ground level (AGL) within 600 NM. Supersonic MOA with a minimum size of 4200 square NM within 300 NM. Scorable gunnery range capable of or having tactical or conventional targets and strafe within 800 NM.

19th ARW. Under AMC, the 19th ARW flies KC-135 aerial refuelers to provide global refueling for bomber, airlift, fighter, air defense, and special mission aircraft.

9th SWS. Under AFSPC, the 9th SWS operates and maintains a solid-state phased array PAVE PAWS detection radar. As part of the worldwide space and missile warning network, the radar provides missile early-warning data to US Space Command; North American Aerospace Defense Command; Chairman, Joint Chiefs of Staff, and the National Command Authorities.

5th CCG. Comprised of the 51st, 52nd, 53rd, and 54th Combat Communications Squadrons, the 5th CCG provides mobile and transportable command and control communications along air traffic control systems worldwide. Under the ACC, the Group's squadrons deploy in support of joint task force, combatant command, and Air Force flying wing operations and exercises.

Defense Distribution Depot, Warner Robins (DDWG). Operated by DLA, the Depot stocks, stores, packages, and transports defense goods for depot-level maintenance activities along with the active and reserve units on the base. DDWG also provides parts and equipment to armed forces located worldwide and foreign military customers. Most items maintained at Warner Robins support maintenance of F-15, C-130, and C-141 aircraft, along with navigation and airborne electronic warfare systems. WR-ALC works closely with DDWG by providing lab analysis of fuels and by repairing/testing electronic and structural components before they are re-entered into the DLA distribution system.

Defense Megacenter, Warner Robins (DMWR). Designated in BRAC 93 as the site for one of 16 data processing and telecommunication "megacenters" to be operated under the umbrella of the DISA, DMWR operates systems linking battle space applications to the battlefield via DoD and commercial satellites. The center houses mainframes and midtier computers running 24 hours a day, 7 days a week, to support over 170 data processing services for WR-ALC, AMC, AFRES, and ANG units.

6.1.3 Relationship to Local Community

Robins AFB is located in the Macon, Georgia, MSA. Total population (FY 92) is 296,000. Total employment (FY 93) is 157,800. Average annual job growth is 1,850, and average annual per capita income is $17,542.

Work force population at Robins:

Active duty military	3,750
Reserve military	750
Civilian	13,380
Total	17,880

Robins AFB is Georgia's largest industrial complex. The work force annual payroll (military and civilian) is $686 million. This produces a local area economic impact of approximately $2 billion. No reliable estimate has been provided on the realistic market value of Robins' land (8,790 acres), buildings, and infrastructure.[22]

The estimated impact of base closure would be the loss of 31,100 jobs (15,600 direct, 15,500 indirect), 19.7% of the Macon, Georgia, MSA employment total. Combined with other Macon MSA job losses from prior BRAC decisions (9 jobs), the cumulative impact of Robins' closure in BRAC 95 (if closure was directed) would cause the total employment loss to remain at 19.7%.

It is estimated that the one-time closure costs associated with closing Robins AFB would amount to $1 billion. Return on investment would be achieved in 18 years.

6.2 Warner Robins ALC Depot

While the F-15, C-130, and C-141 are Warner Robins ALC's primary airframe responsibilities, the center manages over 200,000 items representing the full range of avionic functions and technology. These items fall into the categories of aerospace communications, navigation equipment, airborne bomb and gun-directing systems, target acquisition systems, and most airborne electronic warfare equipment. The depot supports the LANTIRN navigation and targeting system, the Joint Tactical Information Distribution System (JTIDS), and the Worlwide Military Command and Control System (WWMCCS). It holds responsibility for procurement, supply, and maintenance functions for most Air Force bases along the East Coast, as well as for the Atlantic Missile Test Range, Newfoundland, Labrador, Greenland, Iceland, Bermuda, the Azores, and all Air Force and Security Assistance Program activities in Europe, Africa, and the Middle East.

DoD's submission to the BRAC 95 Commission recommended realigning the workloads among the Air Force depots to focus selected specialties at each. The specialty areas proposed for consolidation at Warner Robins ALC are: tubing manufacturing, airborne electronic automatic equipment software, sheet metal repair and manufacturing, machining manufacturing, airborne electronics, electronic manufacturing (printed wire boards), and plating.

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[22]See Attachment 1, *Air Force Depot Capacity/Plant Comparisons*, Note 9, on *market value* versus *replacement value*.

6.2.1 Specialization

Warner Robins ALC is designated a *Service Center of Excellence* for the following systems:

Aircraft Airframes: F-15, C-130 transport, C-130 Special Operations Forces (SOF)/ Special Mission aircraft, and C-141.

Aircraft Components: flight data recorders, gyroscopes, fasteners, miniature precision instrument bearings, aging aircraft structures, airborne electronics technology repair, life support, radio frequency analysis measurement, C-130 propellers, electronic warfare systems, flexible computer integrated manufacturing, and special fuels testing.

Other: shelf-life extension data (Air Force Executive Agent), Joint Logistics Systems Center, physical sciences, and Depot Maintenance Management Information System.

Warner Robins has the following *Technology Application Program Management* assignments:

Power Systems
Environment Stress Screening
Advanced Electronics Systems Architecture
Force Management
Corrosion
Environmental Technology Needs
Product Data
Software Engineering
Electronic Manufacturing and Repair
Obsolete Micro-Electronics
Aircraft Manufacturing and Repair
Aircraft Structures Technology Needs

6.2.2 Unique Facilities/Equipment/Capabilities

WR-ALC officials have identified the following facilities, equipment, and/or capabilities as unique to the depot:

Avionics Complex. This avionics complex is the single largest electronics repair activity in DoD housing over 535,000 SF of environmentally controlled avionics design, test, repair, and manufacturing capacity. Its specialized capabilities provide for the full spectrum of workloads, from the latest surface mount technologies found in the LANTIRN and Joint STARS programs to 1930s' vacuum tube technologies found in the ARN-6 radio compass. **Antenna Microwave Radiation Pattern and Boresight** evaluation capabilities are supported by eight indoor antenna ranges with shielded anechoic chambers to prevent radio frequency noise from infiltrating into the surrounding production facility. Removable exterior walls facilitate the introduction/removal of antennae and test equipment. The F-111 range has a seismic isolation pad. The facility has an extensive capability for **Printed Wiring Board Manufacturing** in a 17,000 SF

section dedicated to the design and manufacture of double sided and multi-layered printed wiring boards. Design-to-purpose construction feaures in this area are typical of most parts of the facility and include an extensive industrial waste system, recessed flooring for wet processing areas, special exhaust systems, deionized water, explosion-proof rooms for chemical mixing and distribution, and floor-to-roof sealed walls to prevent chemical leakage that could contaminate other facility operations. The **Hybrid Microelectronics Manufacturing** section of the facility consists of 2600 SF of class 10,000 clean room with additional special utilities, including liquid/gaseous nitrogen dispensing and a static dissipative raised floor system to preclude electrostatic discharge. The **LANTIRN** technology repair center features a 2,000 SF class 10,000 clean room, a 400 SF laser light tight room, and other systems essential for overhaul, repair, and test of the system. The Avionics Complex also features 2 **Optic Repair** stations with isolated seismic foundations, 16 laser safe firing rooms with interlocked door seals, and a total of over 12,000 SF of **Clean Rooms** ranging from class 10,000 up to class 300,000. The facility has special security and access control, a unique software production facility, and multiple tooling and manufacturing shops to support its needs. Systems supported by the facility include Joint STARS, E-3, F-15, F-111, C/AC/MC-130, MH-53, MH-60, B-52, the Global Positioning System (GPS), Miniature Receive Transmit (MRT), and LANTIRN.

Avionics Integrated Support Facility (AISF). This is a 215,000 SF complex containing modular multi-system engineering facilities developed to support specific avionics subsystems. Its general capabilities include real time system integration testing, operational flight program (OFP) software development, testing/reconfiguration, compilation, configuration control, off-line subsystem analysis, data reduction, comprehensive self-diagnostics, and maintenance of software documents for a variety of operational and support systems. AISF facilities provide data communication and software data transmission to operational user units. AISFs resident to WR-ALC include LANTIRN, Joint Tactical Information and Distribution System Centralized Software Support Activity (JTIDS CSSA), SOF Extendible Integrated Support Environment (EISE), and PAVE TACK. The Electronic Warfare AISF (EWAISF) has a 10,000 SF sensitive compartmented information facility (SCIF), four electromagnetic screen rooms, two microwave anechoic chambers, and emergency power generation. The overall complex supports most major weapon systems, including Joint STARS, E-3, F/EF-111, F-15, C/AC/MC-130, MH-53, MH-60, B-52, C-141, F-16, GPS, MRT, OA-10, B-1B, C-5, and C-17.

Security Assistance Electronic Warfare Support Facility. This is a 21,000 SF facility constructed with Foreign Military Sales (FMS) funds to be used exclusively for FMS purposes. The facility includes labs within security vaults and has many of the same features found in the AISF complex. Included in the systems it supports are FMS versions of the ALR-46/69 electronic countermeasures (ECM) pod, the Royal Saudi Air Force F-15 Tactical Electronic Warning System (TEWS), and the Advanced Radar Warning Receiver/Countermeasures Dispenser (ARWR/CMD).

Gyro Repair Facility. This is a 69,000 SF facility purpose designed to support organic overhaul and testing of gyroscopes, accelerometers, and indicators. The entire facility is a certified clean room (75 percent to 300,000 class and 25 percent to 100,000 class), temperature/humidity-controlled, with extensive seismological stable piering. The facility houses 12 general purpose automatic test stations, 31 manual test stations, 9 mass spectrometer leak detector systems, 14 dynamic balancers, 2 random drift automated test stations, and a number of other specialized equipments.

Additional unique facilities/capabilities include:

Aerospace Fastener Testing/Manufacturing
Miniature Precision Bearing Testing
Electronic Failure Analysis
Automated (Paperless) Depots
Corrosion Prevention/Control
Bicarbonate of Soda Paint Stripping
Computer Integrated Manufacturing
Metal Finishing Facility
F-111 Crew Escape Module Parachute Packing
F-15 Robotic Painting
Fluid Cell Press
Special Maintenance Hangars/Complexes for F-15, C-141, C/AC/MC-130 Aircraft and Component Refurbishment
Electron Beam Welder
Automated Aircraft Rework System
Metallograph Image Analysis System
Rheometrics Spectometric Materials Analysis

6.2.3 Workload

The following table presents a breakout of the Warner-Robins ALC workload -- by DoD commodity group -- for FY 96 and FY 99. The only commodity groups displayed in the table are those for which one or more of the five ALCs has a workload commitment. An explanation of the workload table is provided at Attachment 6.

Warner Robins ALC Workload Chart

(In Thousands of Direct Labor Hours -- kDLH)

Relevant Commodity Groups	Potential Maximum Capacity		Actual Capacity Projection		Total Workload Projection		Total Core Workload Projection	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
1. Aircraft Airframes								
c. Fixed Wing								
(1) Tanker / Transport / Bomber	2,104	2,104	2,104	2,104	2,544	1,349	2,376	1,349
(2) Command and Control								
(3) Light Combat	1,084	1,084	1,084	1,084	918	1,267	652	1,267
(4) Admin / Training								
d. Other								
2. Aircraft Components								
b. Aircraft Structures	801	801	656	656	472	477	472	477
c. Hydraulic / Pneumatic								
d. Instruments	503	503	412	412	296	299	296	299
e. Landing Gear	2	2	1	1	1	1	1	1
f. Aviation Ordnance	1	1	1	1	1	1	1	1
g. Avionics / Electronics	2,153	2,153	1,763	1,763	1,267	1,280	1,267	1,280
h. APUs								
I. Other	463	463	388	388	277	280	277	280
j. Manufacture and Fabrication	514	514	432	432	312	315	312	315
3. Engines (Gas Turbine) (GTE)								
a. Aircraft								
c. Blabdes / Vanes								
4. Missiles and Missile Components								
a. Strategic								
b. Tactical / MLRS	22	22	18	18	13	13	13	13
7. Ground Comm-Electronic Equip								
a. Radar	2	2	2	2	1	1	1	1
b. Radio Communications								
c. Wire Communications								
e. Navigation Aids								
f. Electro-optics/Night Vision Equip								
g. Satellite Control/Space Sensors								
10. Ground General Purpose Items								
c. Munitions / Ordnance								
d. Ground Generators								
e. Other								
12. Software								
a. Tactical Systems	1,358	1,358	795	795	764	888	764	888
b. Support Equipment	906	906	530	530	509	592	509	592
13. Special Interest Items								
a. Bearings Refurbishment								
c. TMDE								
14. Other								
Total	9,913	9,913	8,187	8,187	7,376	6,763	6,941	6,763

Table 6-1: Warner Robins ALC Workload Chart

7.0 1995 Base Realignment and Closure Process (BRAC 95)

7.1 Background

BRAC 95 is the last of three rounds of closure activity mandated under current legislation.[23] As late as mid-December 1994, defense analysts were anticipating that the list of military installations recommended for closure or realignment under BRAC 95 would be nearly as large as the lists from the three previous closure rounds combined.[24] This expectation had been supported repeatedly by DoD officials who were quick to point out during most of the year that, while military manpower and equipment had been cut by a third since the end of the Cold War, basing infrastructure had been reduced only by some 18 percent. In January 1995, initiating preparations for developing the Pentagon's BRAC 95 closure/realignment proposal, Deputy Secretary of Defense (DEPSECDEF) John Deutch established an "overall 15 percent reduction in plant replacement value" as "a minimum DoD-wide goal."[25] It was believed widely that military research facilities, laboratories, and depots would be particularly vulnerable, and that the Air Force, after avoiding heavy hits in these areas previously, stood to lose perhaps two of its five remaining depots.

Shortly before the end of 1994, however, Secretary of Defense (SECDEF) William J. Perry told surprised reporters that he expected the 1995 list to be about the same size as the list from BRAC 93. The rationale for this 'expectation undershoot' was given by DEPSECDEF Deutch in an interview shortly before the list was made public: "We need time," Deutch said, "to balance the base-closing costs and the base-closing savings, and complete the transfer of facilities to productive community use."[26] With defense funding at its lowest level in nearly half a century, and the recoupment of closure/realignment outlays requiring, on average, approximately seven years -- only after which can closure savings begin to be realized -- the Administration apparently was unwilling to squeeze Pentagon operational and procurement accounts any further.

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[23]The BRAC process and enabling legislation are explained at Attachment 2. For a detailed discussion of prior BRAC actions, see the SDS study *Promoting/Protecting Contractor-Provided Depot Maintenance*, 30 December 1994.

[24]A summary of major base closures from prior BRAC rounds is at Attachment 3.

[25]Deputy Secretary of Defense Memorandum, Subject: *1995 Base Realignments and Closures (BRAC 95)*, 7 January 1994.

[26]Reported by Eric Schmitt, "Pentagon To Seek Scaled-Back List Of Base Closings," *New York Times*, 25 February 1995, p. 1.

The list of bases recommended by DoD for closure and realignment was released officially on 28 February 1995. True to Perry's promise, what originally was supposed to have been the "mother of all BRACs" turned out affecting only 146 military facilities in the US.[27] Of those, only 35 *major* installations were identified for closure or significant downsizing -- and it seemed a stretch to call some of them major. The manpower adjustments associated with these proposals amounted to a net *increase* of 4,400 military positions (the result of personnel returning home after the closure of US bases overseas) and a net loss of roughly 34,000 civilian positions.[28] Interestingly, none of the Air Force's ALCs were on the closure list although all five were identified for realignment action.

Rather than close any ALCs, the Air Force consolidated some workloads and accepted relatively modest manpower cuts at three of the depots. "The net effect of [Air Force] depot realignments," according to the DoD *Base Closure and Realignment Report*, will be "to transfer approximately 3.5 million direct labor hours and to eliminate 37 product lines across the five depots."[29] The formal report continued:

> Programmed work reductions, downsizing through contracting or transfer to other Service depots, and the consolidation of workloads . . . result in the reduction of real property infrastructure equal to 1.5 depots, and a reduction in manhour capacity equivalent to about two depots. The proposed moves also make available over 25 million cubic feet of space to the Defense Logistics Agency for storage and other purposes, plus space to accept part of the Defense Nuclear Agency and other displaced Air Force missions.[30]

As reported in a recent article in *Aviation Week & Space Technology*, the Air Force presented "a powerful argument that more money could be saved by reducing the size of all five aircraft maintenance depots than by closing one or two of them."[31] SECDEF Perry is quoted as having found the arithmetic "compelling."[32]

7.2 Depots -- A Special Interest Item

Military depots and depot capacity were to have received particularly close scrutiny by DoD in preparing its BRAC 95 closure/realignment list. The 1993 BRAC Commission had identified

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[27]The list of major facilities in the US and its territories identified for closure/realignment is at Attachment 4.
[28]A list of net gains/losses by state is at Attachment 5.
[29]DoD *Base Closure and Realignment Report*, p. 5-126.
[30]*Ibid.*
[31]John D. Morocco, "Air Force To Trim, Not Close, Depots," *Aviation Week & Space Technology*, 6 March 1995, p. 22.
[32]*Ibid.*

the need to pare down "the clearly excess capacity within the DoD depot system" as one of several *Issues for Further Consideration* in BRAC 95, and had pointed to two areas as offering opportunities to help do this: greater consolidation and interservicing of common workloads within the military depot structure, and more extensive exploitation of private-sector depot maintenance capability.[33]

Noting in its final report that the Pentagon "has been attempting for approximately 20 years without significant success to interservice depot maintenance workload," the 1993 Commission attempted to promote broader interservicing in four specific commodity areas -- wheeled vehicles, rotary-wing aircraft, tactical missiles, and ground communications -- with its closure/realignment recommendations.[34] While some progress was made, the Commission still felt there were both the need and opportunity for more, and urged its successors to focus on the issue: "The efficiencies to be realized from interservicing dictate DoD conduct an exhaustive review and present its recommendations/actions during the 1995 [base closure] round."[35]

Regarding privatization, the 1993 Commission came to the belief during its deliberations that the domestic sector could provide a potentially cost-effective option to DoD's in-house capability for repairing and maintaining its equipment. Further, they felt that moving work to the private sector could also have "a positive impact on maintaining the nation's industrial base."[36] Accordingly, the Commission "strongly" recommended that SECDEF "address the private-sector capability, within the context of an integrated national industrial philosophy, in his recommendations for the 1995 round of base closures."[37]

The Administration's DoD leadership appeared to be paying heed to the advice . . . initially. In preparing for BRAC 95, DEPSECDEF Deutch directed the establishment of five Joint Cross-Service Groups to pinpoint common support functions in designated functional areas, and to "oversee DoD Component cross-service analyses of these common support functions" in identifying candidate bases for closure under BRAC 95.[38] (A sixth Joint Cross-Service Group was established to develop guidelines for measuring the economic impact of closure/realignment

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[33]*1993 Report to the President*, Defense Base Closure and Realignment Commission, 1 July 1993, p. 2-1. For a detailed examination of the depot issue, interservicing, and private sector capabilities, see the SDS study *Privatizing Depot Maintenance*, 1 November 1994.
[34]*1993 Report to the President*, p. 2-1.
[35]*Ibid.*
[36]*Ibid*, p. 2-2.
[37]*Ibid.*
[38]Deutch Memorandum, *1995 Base Realignments and Closures.*

recommendations.) The five functional areas were: depot maintenance, test and evaluation, laboratories, military treatment facilities, and undergraduate pilot training.

During the same time period in which the Joint Cross-Service Groups were beginning their activity, the privatization issue was being studied extensively by a Defense Science Board Task Force on Depot Maintenance. It its April 1994 report, this Board concluded that commercial firms did in fact offer a cost-effective alternative to publicly accomplished depot maintenance and recommended measures designed to bolster industry's opportunities to acquire depot workload.[39] Most of these recommendations were accepted by DoD and codified in a May 1994 memorandum on *Depot Maintenance Operations Policy* by Deutch.[40]

The good intentions for promoting reductions in depot infrastructure through greater interservicing and privatization, however, began to unravel just after mid-year, well before the Services began to get serious about identifying base closure candidates. The push for greater privatization of depot activities was the first thread to be pulled loose. Concerned with the potential adverse impact on their constituents of reduced government workload, Congressmen representing depot-dominated districts responded to the *Depot Maintenance Operations Policy* memorandum with a strong display of bi-partisan protectionism by inserting "hooks" into the FY 95 Defense Authorization and Appropriation Bills that effectively prohibited DoD from implementing the Deutch-directed efficiency measures.

The decisive Democratic election upset in November to some degree constituted another thread working free. While it launched a supposedly new breed of populist, reform-minded Republicans toward Washington, ostensibly mandated to carve bloat out of the federal bureaucracy -- in fact, the very sort of allies that Defense base closure advocates had long been seeking[41] -- the strong pro-military orientation of the new master-designates of the Capitol led the Administration into digging itself into a $25 billion budgetary hole that subsequently left little room for significant base closure outlays.

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[39]*Depot Maintenance Management*. Report of the Defense Science Board Task Force, published by the Office of the Under Secretary of Defense for Acquisition & Technology, April 1994.

[40]Deputy Secretary of Defense Memorandum, Subject: *Depot Maintenance Operations Policy*, 4 May 1994.

[41]Republican vows to do away with big government presented the Administration a unique win-win opportunity for proposing major reductions in the defense infrastructure. If a large BRAC list survived the all-or-none Congressional consideration process, the Administration could claim its share of the credit for fiscally responsible action on behalf of long-standing military desires to downsize basing. If the list were rejected by a Republican-dominated Congress, the Administration could accuse the opposing party of self-serving hypocrisy. From a cynical point of view, stacking the list with bases from low-vote, Republican-controlled districts (including, for example, Ogden ALC, Utah, and Oklahoma City ALC, Oklahoma, two Republican strongholds) would have presented the Administration with an opportunity to exact highly focused revenge in the bargain.

Even before they started preparing to swear in their new freshmen and claim committee gavels, Republican incumbents on the Hill intensified their attacks on the Administration's record of military funding. Asserting that the Democrats had managed to slash the defense budget drastically and still create a shortfall of between $40 and $150 billion over the Future Years Defense Program, they vowed to set things straight in the coming session.[42] The Administration, smarting at Republican charges that military readiness had eroded under its stewardship as a result of the diversion of Operations and Maintenance (O&M) funding to pay for peace-keeping operations ("feel-good foreign policy"), and stung by accusations that the hefty reductions in Defense procurement accounts amounted to forcing the military to eat its seed corn (with implied dire consequence for future military capability), on 1 December 1994 announced a six-year, $25 billion Presidential Defense Funding Initiative. This was derided by the Republicans as mere political smoke and mirrors (and, at any rate, insufficient), but it had the practical consequences of limiting the Administration's ability to cope with a large base closure pricetag. The $3.8 billion required up front to finance DoD's relatively modest BRAC 95 proposal for BRAC 95 was a tough enough pill to swallow. With the 1996 presidential elections already much on everyone's mind in Washington, budget concerns, plus the potential angry reaction of voters hurt by base closures, appear to have figured prominently in holding the Administration's closure list down.

Yet another wayward thread was the inability of the five functional Joint Cross-Service Groups to reach agreement on appropriate interservicing and consolidation in all but a few instances. The full extent of this incapacity became apparent only with the publication of the *Base Closure and Realignment Report* in March 1995. Discussing the outcome of the Joint Cross-Service Group on Test and Evaluation, which was representative of the outcome in most of the groups, the report observed wryly:

> Cross-servicing and downsizing . . . proved to be a considerable challenge. In general, the Military Departments concluded that preservation of core test facilities, which have irreplaceable land, air, and water ranges, precluded closures of major facilities and that cross-servicing of T&E functions would not be cost effective.[43]

Referring to the Depot Maintenance Group, the report noted that, while its recommendations had been directly responsible for only limited cross-servicing, the recommendations had been

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[42] The $40 billion figure was the Congressional Budget Office's estimate; $150 billion, that of the General Accounting Office.

[43] *Base Closure and Realignment Report*, p. 4-3.

used by the Services to develop "what they believe to be more cost effective in-house solutions."[44]

If deciding to keep work "in-house" was one of two themes common to Joint Cross-Servicing Group outcomes, the other was putting a positive, upbeat face on feverish unproductivity. This was done primarily by asserting that, even if the groups did not actually maximize cross-servicing, their deliberations "laid the foundation for further cross-servicing downstream, outside the BRAC process."[45] And in similar fashion, not unlike a politician requesting he be given just one more term in office to finish tasks not yet complete, SECDEF Perry already has suggested that one or two more closure rounds will be necessary in the future.

7.3 Courses of Action

It is reasonable to assume that, if the Administration requests enabling legislation for another round or two of base realignments, the Congress that pushed the line-item veto will grant the request. This presupposes that the current closure round proceeds essentially as laid out by DoD. Action on the do-it-again front, however, is unlikely until the current process has been brought to a successful conclusion.

That is not necessarily an assured thing. Of the eight members appointed to the BRAC 95 Commission (four by Republicans and four by Democrats), three have been highlighted so far for potential conflicts of interest (Al Cornella, Wendi Steele, and retired AF General J. B. Davis).[46] Cornella and Davis have recused themselves from deliberations in which the conflicts could surface. Steele, a close associate of Senator Don Nickles (R-OK), has declined to do so on the grounds that her principles and objectivity put her above such concerns. The proof will be in the process.

That process is now underway but with few solid indications where it is headed. Historically, BRAC commissions have largely accepted DoD-proposed closure lists, tinkering with them primarily at the margins. Whether the same pattern will be repeated this year remains in question. Commission Chairman Alan J. Dixon already has gone on record as stating that DoD's list of bases for closure is too small. "Even more installations will be added to the list of those marked for closing," Dixon has said, footnoting: "We've already made a determination

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[44] *Ibid.*
[45] *Ibid.*
[46] BRAC 95 Commission member biographies are included at Attachment 6.

that we will add some."[47] It is too early to judge to what extent the reality will catch up with the rhetoric.

8.0 Conclusions

√ **Depots Avoid Comparison With Private Sector**. ALCs perform many legitimate "Core" depot maintenance functions but appear also to be engaged extensively in research and maintenance/repair activity that is not inherently or exclusively military in nature. The extent to which these activities could be accomplished equally well in the private sector at comparable cost -- or more cheaply -- has not been examined thoroughly and systematically. Data provided by the ALCs does not encourage such an examination.

√ **Depots Are Insular and Insulated**. Information presented on -- and assessments made of -- depot uniqueness by individual ALCs indicates, to some degree, a lack of awareness on the part of depot managers of the facilities, equipment, and capabilities that exist today in private industry. In spite of sporadic sniping at each other, the individual ALCs do not even appear to be fully aware of the facilities, equipment, and capabilities resident at other ALCs.

√ **Depots Duplicate Competencies/Workload**. Clearly, there is extensive duplication of facilities, equipment, and workload among the ALCs. However, there is no information presented justifying that duplication in terms of total end items and weapon systems supported or other objective, quantifiable qualities. It is likely that a review of Navy/Marine and Army depots would reveal similarly repeated capabilities.

√ **Depot Self-Valuation Emphasizes the Subjective**. One-of-a-kind facilities, equipment, and capabilities are a source of much justifiable pride at each ALC. Unfortunately, this prevents the actual value ("cost benefit" or "cost utility") of these facilities, equipment, and capabilities from being measured objectively. Many facilities and equipment appear to exist solely or primarily to support small numbers of weapon systems that are in limited use with and/or being retired from the US military. In some cases, the only current user is a foreign military service. In no case is an *income capitalization* or similarly objective appraisal technique employed to justify the retention of capability or duplication of capacity. The application of such techniques could provide an objective basis for identifying uneconomic functions for transfer to the private sector.

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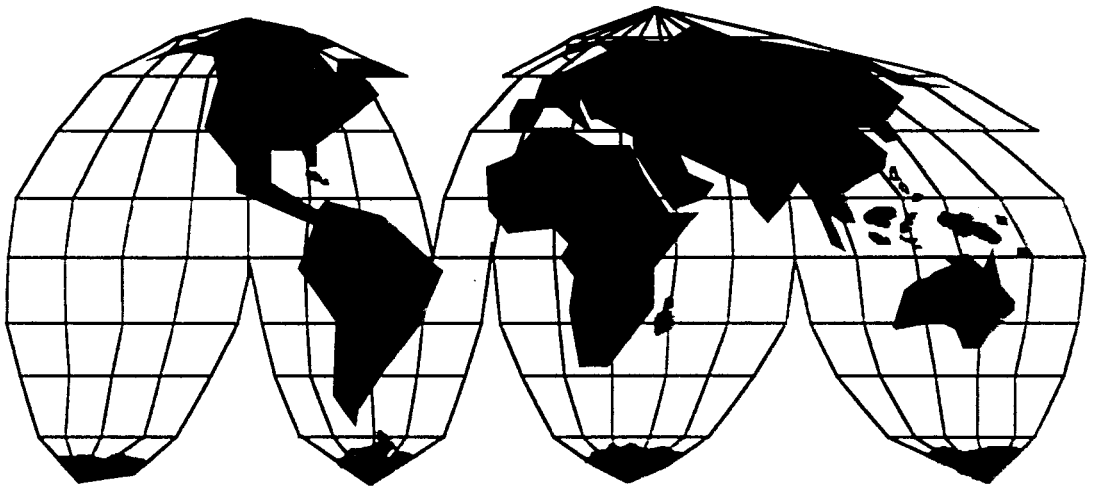
[47]Richard A. Serrano, "Panel Questions Decision to Close Long Beach Yard," *Los Angeles Times*, 7 March 1995, p. 1.

SDS International

Attachments

1. Air Force Depot Capacity/Plant Comparisons
2. Base Realignment and Closure Process
3. Prior BRAC Actions -- Major Base Closure Summary
4. BRAC 95 -- Proposed Major Base Closures/Realignments
5. DoD BRAC 95 Proposal -- Job Changes By State
6. Biographies of BRAC 95 Commissioners
7. Explanation of Workload Tables
8. Table of Acronyms



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SDS INTERNATIONAL

Air Force Depot Capacity/Plant Comparisons

Capacity, Workload, Facilities & Land[1]	Sacramento [SM-ALC] McClellan AFB, CA		Ogden [OO-ALC] Hill AFB, UT		Oklahoma City [OC-ALC] Tinker AFB, OK		San Antonio [SA-ALC] Kelly AFB, TX		Warner Robins [WR-ALC] Robins AFB, GA	
	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99	FY96	FY99
Baseline (kDLH)										
Capacity Index (CI)[2]	7,058	7,068	7,614	7,614	7,753	7,811	8,897	8,804	8,187	8,187
Programmed Workload[3]	5,509	4,871	5,221	4,988	7,058	7,122	6,496	5,782	7,376	6,763
Utility Index (UI)[4]	78%	69%	69%	66%	91%	91%	73%	66%	90%	83%
Core (kDLH)										
Required Core Capability[5]	4,831	4,824	4,895	4,895	6,695	6,695	4,429+	4,429+	6,941	6,941
Req Core/CI	68%	68%	64%	64%	86%	86%	50%+	50%+	85%	85%
Programmed Core[6]	4,249	4,231	4,895	4,895	6,695	6,658	4,463	4,463	6,941	6,763
Prgm Core/CI	60%	60%	64%	64%	86%	85%	50%	51%	85%	83%
Prgm Core/Req Core	88%	88%	100%	100%	100%	99%	100%+	100%+	100%	97%%
Prgm Core/Prgm Workload	77%	87%	94%	98%	95%	94%	69%	78%	94%	100%
Potential (kDLH)										
Max Capacity[7]	10,227	10,271	9,005	9,005	12,863	12,863	15,220	15,220	9,913	9,913
CI/Max	69%	69%	85%	85%	60%	61%	58%	58%	83%	83%
Prgm Workload/Max	54%	47%	58%	55%	55%	55%	43%	38%	74%	68%
Req Core/Max	47%	47%	54%	54%	52%	52%	29%+	29%+	70%	70%
Values (m$)										
Workload[8]	$482	$456	$374	$399	$881	$1,000	$993	$979	$628	$583
Plant Replacement Value[9]	$3,100	$3,619	$2,701	$2,944	$2,405	$3,415	$1,436	$1,554	$1,975	$2,442
Workload/Plant Value	16%	13%	14%	14%	37%	29%	69%	63%	32%	24%
Facilities (kSF)										
Total (Substandard)[10]	3,432 (88)		4,981 (1,866)		5,447 (290)		4,750 (1,146)		3,938 (992)	
Expansion Space[11]	1,168 (1,015)		1,318 (525)		1,844 (675)		489 (70)		775 (56)	
Real Estate (acres)										
Owned[12]	3,786		962,021		5,020		4,661		8,720	
Developed	3,350		4,710		2,071		3,016		4,085	
Available to develop[13]	436		9,406		266		962		502	

[Notes on following pages]

Notes for Table "Air Force Depot Capacity/Plant Comparisons"

[Source: Air Force Data Call Supplements submitted to Joint Cross Service Group on Depot Maintenance, February 1995]

1. **Capacity** in thousands of Direct Labor Hours (kDLH); **Workload** in kDLH or $ millions (m$); **Facilities** in thousands of square feet (kSF); **Land** in acres.

2. "Capacity Index" (CI) is defined as overall depot maintenance production capacity assuming existing facilities and equipment (plus funded, in-process facility and equipment improvements for FY99) and a single-shift, 40-hour work week.

3. Workload currently programmed for FYs shown.

4. "Utility Index" (UI) is "Programmed Workload" as a percentage of "Capacity Index" (Prgm Workload/CI).

5. Capability to be maintained by the ALC to perform depot maintenance work designated as "Core" (including both own-Service and other-Service requirements) in accordance with OUSD(L) Memorandum dated 15 November 1993, subject: Policy for Maintaining Core Depot Maintenance Capability. While the OUSD(L) policy memorandum provides broad guidance, the implementation of that guidance resulting in the designation of "Core" requirements is a Service function and is not wholly standardized between the Military Departments. "Required Core Capability" may include surge requirements as well as peacetime needs.

6. Programmed workload for the FYs shown that is assigned against "Core" maintenance functions.

7. "Maximum Potential Capacity" assuming current projected workload remains as assigned, sufficient production demand to justify maximum hiring with no significant new investment in capital equipment, no MILCON beyond that already approved and funded, and a single-shift, 40-hour work week.

8. Current workload projections for FYs shown expressed in millions of dollars.

9. Estimated replacement value (in FY95 dollars) of equipment and facilities (including buildings, pavements, and utilities) associated directly with depot maintenance activity. Note that this does not equate to "market value" as used in the commercial appraisal of real estate (which generally is determined through applying a combination of *cost*, *sales comparison*, and *income capitalization* techniques, and which must account for *demand* within a more universal market framework) and can be used only for "rough order of magnitude" comparisons between military installations so-valued. This artificiality is reflected in the detailed tabular data breakouts for each installation which reflect a steady appreciation in "value" of both facilities and equipment, irrespective of their *diminished utility* resulting from accrued depreciation (a function of *physical deterioration*, *functional obsolescence*, and *external obsolescence*).

10. Total area (in thousands of square feet) of buildings and special pads used to perform depot maintenance functions. Does not include general purpose space used by multiple organizations on a base, uncovered storage space, or ramp space. That part of the total that is contained in buildings rated "substandard" or "inadequate" is shown in parentheses.

11. Total additional space that could be obtained for depot maintenance functions (not administrative space) by reconfiguring and/or rehabilitating existing underutilized facilities to accept new or increased requirements. That part of the total that is contained in buildings rated "substandard" or "inadequate" is shown in parentheses.

12. Installation land owned by the government in the proximity of the depot maintenance area.

13. That owned land with no outstanding environmental constraints or operational restrictions. (Note that because some Ogden ALC facilities are sited on the Utah Test and Training Range (UTTR), the amount of land feasibly available for depot expansion there may be overstated.)

Base Realignment and Closure (BRAC) Process

After hundreds of military installations were shuttered in the 1970s following the end of the Vietnam War, members of Congress enacted Section 2687 of Title 10, United States Code (USC), in order to impede the base closure process and thereby protect their constituencies from the adverse economic consequences of such actions. This required the Department of Defense (DoD) to notify Congress if an installation became a closure or realignment candidate, and imposed expensive and time-consuming environmental evaluations on all prospective closure actions. The law effectively halted base closures.

By the mid-1980s, however, Congress began to recognize that base-structure bloat constituted an increasingly unacceptable burden on the military departments and was forcing DoD to direct an ever-greater percentage of diminished operating funds to the maintenance of unneeded facilities. Thus, Congress cooperated closely with the Secretary of Defense (SECDEF) in 1988 to develop a mechanism that would permit base structure to be reduced commensurately with force structure reductions while *insulating individual legislators from the political consequences.* The result was Public Law 100-526, enacted in October 1988, which created a BRAC Commission under SECDEF to independently study domestic base needs and recommend facilities for closure or realignment. The Commission subsequently recommended that 86 facilities be closed and 59 others be realigned.

In January 1990, the SECDEF attempted to implement additional base closures without prior coordination with Congress or the benefit of advice from an independent group (the 1988 BRAC Commission's charter had by then expired). In the face of Congressional protests that base selection had been politically influenced, agreement was reached between the executive and legislative branches to reestablish an objective (and, ostensibly, *politically neutral*) closure/ realignment mechanism. The result this time was Public Law 101-510, signed in November of 1990, which established a BRAC process significantly different from that employed in 1988 and provided for BRAC recommendations to be made in 1991, 1993, and 1995. One of the two main changes between the new process and the one employed in 1988 was that, under the new system, proceedings were to be more open and involve actively soliciting input from the communities affected. The other was that, unlike 1988 when the BRAC Commission worked under SECDEF and itself identified and recommended facilities for closure, the new system cast the BRAC Commission in the role of independently reviewing and analyzing facility changes recommended by the SECDEF, and then reporting its conclusions directly to the President.

In 1991 the BRAC Commission recommended 34 base closures and 48 realignments. In 1993, the Commission added 73 installations for further consideration as potential closure/realignment candidates to the 165 facilities originally recommended by the SECDEF, and subsequently recommended 130 closures and 45 realignments. For 1995, the last year that existing legislation provides for BRAC activities, it had been predicted that more facilities would be recommended for closure/realignment than the total of all facilities affected during the previous three BRAC rounds.

Main Provisions of Public Law 101-510

Commission Membership. The BRAC Commission consists of eight members appointed by the President *with the advice and consent of the Senate.* Nominations must be submitted by the President to the Senate by not later than 3 January 1995 or the BRAC process for 1995 is terminated. In identifying nominees, the President should consult with the Speaker of the House of Representatives on two, the Senate majority leader on two, and the minority leaders in both houses on one each. For 1995, the only member nominated to and confirmed by the Senate so far is the Commission's chairman-designate, former Senator Alan Dixon (D-IL).

Base Selection Criteria. Bases are to be nominated, evaluated, and selected for closure or realignment on the basis of (a) six-year force-structure plans submitted by DoD as part of the FY96 Defense Budget process, and (b) specific selection criteria identified and published by the SECDEF by not later than 15 February 1995 (and not disapproved by a joint resolution of Congress before 15 March 1995). The prioritized criteria shown below were used in BRAC deliberations in both 1991 and 1993.

Military

1. Mission requirements and operational readiness impacts.
2. Land, facility, and airspace availability.
3. Ability to accommodate contingency and mobilization requirements.
4. Cost and manpower implications.

Investment

5. Extent/timing of potential costs and savings.

Impacts

6. Economic impact on communities (including, for BRAC 95, cumulative.impact in light of prior BRAC actions)
7. Ability of receiving communities' infrastructure to support change.
8. Environmental impact.

Sequence of Events. All BRAC Commission members must be nominated to the Senate by not later than 3 January 1995. (While not covered by the law, it is reported that SECDEF has given all of the Services until 3 January to submit to him their recommendations for base closure and realignment.) The SECDEF must promulgate the list of military installations within the US being recommended for closure or realignment by not later than 15 March 1995. After holding public hearings and conducting deliberations, but by not later than 1 July, the BRAC Commission transmits its findings and conclusion to the President. The Commission can change any of the SECDEF's recommendations if it determines he deviated substantially from the force-structure plan and/or selection criteria. By 15 July the President must approve or disapprove the Commission's recommendations. If he approves, he transmits his certification to Congress which then has 45 legislative days to enact a joint resolution *disapproving* the recommendations. If it fails to do so, the indicated closures and realignments go into effect. If the President disapproves the Commission's recommendations, the Commission has until 15 August to submit to the President a revised list of recommendations. The President then has until 1 September to forward a certification of approval of the revised list to Congress, which again has 45 legislative days to enact a joint resolution of disapproval. If the President does not forward his certification of the revised list to Congress by 1 September, or if the Congress enacts a joint resolution of disapproval, the BRAC process for 1995 is terminated. The President and Congress must approve or disapprove the Commission's recommendations in their entirety. The process does not allow individual bases or facilities to be singled out.

Prior BRAC Actions -- Major Base Closure Summary[48] (US and Territories)

BRAC 88

16 Closures

Chanute AFB, IL
Mather AFB, CA
Pease AFB, NH
George AFB, CA
Norton AFB, CA
Naval Station Brooklyn, NY
Philadelphia Naval Hospital, PA
*Naval Station Galveston, TX
*Naval Station Lake Charles, LA
Presidio of San Francisco, CA
Fort Sheridan, IL
Jefferson Proving Ground, IN
Lexington Army Depot, KY
Army Material Tech Lab, MA
Fort Douglas, UT
Cameron Station, VA

* Denotes facilities that were never opened

BRAC 91

26 Closures

Fort Benjamin Harrison, IN
Fort Devens, MA
Fort Ord, CA
Sacramento Army Depot, CA
Hunters Point Annex, CA
Chase Field NAS, TX
Moffett NAS, CA
Naval Station Philadelphia, PA
Castle AFB, CA
Naval Station Long Beach, CA
Philadelphia Naval Shipyard, PA
Naval Station Puget Sound, WA
Tustin MCAS, CA
England AFB, LA
Bergstrom AFB, TX
Carswell AFB, TX
Eaker AFB, AK
Grissom AFB, IN
Loring AFB, ME
Lowry AFB, CO
Myrtle Beach AFB, SC
Richards-Gebaur ARS, MO
Rickenbacker ANGB, OH
Williams AFB, AZ
Wurtsmith AFB, MI
Naval Electric Systems Engineering Center, San Diego, CA

BRAC 93

28 Closures

Vint Hill Farms, VA
MCAS El Toro, CA
Naval Hospital Oakland, CA
NAS Cecil Field, FL
NAS Agana, Guam
Naval Station Charleston, SC
NAS Dallas, TX
Plattsburgh AFB, NY
K.I. Sawyer AFB, MI
Naval Station Mobile, AL
NAS Alameda, CA
Naval Station Treasure Island, CA
Naval Aviation Depot Pensacola, FL
NAS Barbers Point, HI
Naval Station Staten Island, NY
Homestead AFB, FL
Gentile AFS, OH (DESC)
Newark AFB, OH
Mare Island Naval Shipyard, Vallejo, CA
Naval Aviation Depot Alameda, CA
Naval Training Center San Diego, CA
Naval Training Center Orlando, FL
NAS Glenview, IL
Charleston Naval Shipyard, SC
O'Hare IAP ARS, IL
Naval Aviation Depot Norfolk, VA
Defense Personnel Support Center, Philadelphia, PA
Naval Electronic Systems Engineering Center, St. Inigoes, MD

Table A3-1: Major Bases Closed (Prior)

[48]List presents only facilities identified for **closure**, not those identified for **realignment**. Closures and realignments are considered "major" when they result in the loss of at least 300 military/civilian jobs.

Closure Summary By Service

Major Domestic Base Closures						
	Bases Start	BRAC 88	BRAC 91	BRAC 93	Bases Left	Reduction
Army	109	-7	-4	-1	97	11%
Navy Marine Corps	168	-4	-9	-20	135	20%
Air Force	206	-5	-13	-5	183	11%
Defense Agencies	12	0	0	-2	10	17%
Totals	495	-16	-26	-28	425	15%

Table A3-2: By-Service Base Closure Summary (Prior)

Closure Summary By State

States With More Than 1 Major Base Closure					
State	BRAC 88	BRAC 91	BRAC 93	Total	% of All
CA	4	8	7	19	27
TX	1	3	1	5	7
FL	-	-	4	4	6
IL	2	-	2	4	6
PA	1	2	1	4	6
IN	1	2	-	3	4
NY	1	-	2	3	4
OH	0	1	2	3	4
SC	-	1	2	3	4
VA	1	-	2	3	4
LA	1	1	-	2	3
MA	1	1	-	2	3
MI	-	1	1	2	3
All Others	3	6	4	13	19
Totals	16	26	28	70	100

Table A3-3: By-State Base Closure Summary (Prior)

1995 Department of Defense BRAC List of Major Facilities for Closure and Realignment[49] (US and Territories)

Closures

Army		Navy		Air Force		DLA	
Installation	*Δ Jobs[50]: Net Gain/(Loss)*	*Installation*	*Δ Jobs: Net Gain/(Loss)*	*Installation*	*Δ Jobs: Net Gain/(Loss)*	*Installation*	*Δ Jobs: Net Gain/(Loss)*
Fort McClellan, AL	(8,536)	Adak NAF, AK	(678)	North Highlands Air Guard Station, NY	0	Memphis Defense Depot, TN	(1,300)
Fort Chaffee, AR	(247)	Long Beach NSY, CA	(4,029)	Ontario IAP AGS, CA	0	Ogden Defense Depot, UT	(1,113)
Fitzsimons Amy Medical Center, CO	(2,903)	Guam SRF, GU	(663)	Rome Laboratory, NY	(1,067)	Red River Defense Depot, TX	(2,901)
Price Support Center, IL	(225)	Indianapolis NAWC-AD, IN	(2,841)	Roslyn AGS, NY	(44)	Letterkenny Defense Depot, PA	(378)
Savanna Army Depot Activity, IL	(450)	Louisville NSWC DET, KY	(1,464)	Springfield-Beckley MAP AGS, OH	0		
Fort Ritchie, MD	(2,344)	White Oak NSWC DET, MD	(202)	Greater Pittsburgh IAP ARS, PA	(387)		
Selfridge Army Garrison, MI	(609)	South Weymouth NAS, MA	(936)	Bergstrom Air Reserve Base, TX	(585)		
Bayonne Military Ocean Terminal, NJ	(1,367)	Meridian NAS, MS	(2,581)	Brooks AFB, TX	(3,759)		
Seneca Army Depot, NY	(325)	Lakehurst NAWC-AD, NJ	(1,763)	Reese AFB, TX	(2,083)		
Fort Indiantown Gap, PA	(521)	Warminster NAWC-AD, PA	(348)				
Red River Army Depot, TX	(2,901)						
Fort Pickett, VA	(254)						

Table A4-1: BRAC 95 -- Major Base Closures

[49]Data extracted from News Release No. 095-95, "Secretary Perry Recommends Closing, Realigning 146 Bases," released by the Office of the Assistant Secretary of Defense (Public Affairs), 28 February 1995, and from the formal *Department of Defense Base Closure and Realignment Report* published by DoD in March 1995. Closures and realignments supposedly are considered "major" only when they result in the adjustment of at least 300 military/civilian jobs. A review of information included in the two sources cited, however, fails to clarify why bases such as the Air Force's North Highlands Air Guard Station, NY, are reflected as "Major Closures." Similarly, there is no explanation for the omission from the list of DLA's Defense Distribution Depots at Letterkenny, PA, and Red River, TX. They have been included here by the author.

[50] Jobs include active, reserve, and student military personnel along with civilian and on-base contractor positions.

Realignments

Army		Navy		Air Force	
Installation	*Δ Jobs[51]: Net Gain/(Loss)*	*Installation*	*Δ Jobs: Net Gain/(Loss)*	*Installation*	*Δ Jobs: Net Gain/(Loss)*
Fort Greely, AK	(724)	Key West NAS, FL	(20)	McClellan AFB, CA	379
Fort Hunter Liggett, CA	(478)	Guam Naval Activities, GU	(2,421)	Onizuka AS, CA	(1,875)
Sierra Army Depot, CA	(592)	Corpus Christi NAS, TX	(142)	Eglin AFB, FL	719
Fort Meade (Hospital), MD	(129)	Keyport NUWC, WA	64	Robins AFB, GA	(534)
Detroit Arsenal, MI	186			Malmstrom AFB, MT	(779)
Fort Dix, NJ	(739)			Kirtland AFB, NM	(6,850)
Fort Hamilton, NY	(49)			Grand Forks AFB, ND	(1,625)
Charles E. Kelly Support Center, PA	(121)			Tinker AFB, OK	(704)
Letterkenny Army Depot, PA	(2,090)			Kelly AFB, TX	221
Fort Buchanan, PR	(182)			Hill AFB, UT	147
Dugway Proving Ground, UT	(1,096)				
Fort Lee (Hospital), VA	(205)				

Table A4-2: BRAC 95 -- Major Base Realignments

[51] Jobs include active, reserve, and student military personnel along with civilian and on-base contractor positions.

Department of Defense Recommended BRAC 95 Job Changes by State[52]

STATE	Δ JOBS: GAINS/(LOSSES)	
	Military[53]	*Civilian*[54]
Alabama	(5,877)	931
Alaska	(773)	(368)
Arizona	147	184
Arkansas	(40)	(207)
California	602	(3,988)
Colorado	(841)	(1,320)
Connecticut	13	(609)
Delaware	0	0
District of Columbia	225	0
Florida	3,754	679
Georgia	791	(613)
Guam	(2,104)	(2,665)
Hawaii	995	773
Idaho	123	3
Illinois	(72)	(588)
Indiana	(23)	(1,027)
Iowa	0	0
Kansas	(10)	(4)
Kentucky	1,401	(1,395)
Louisiana	(39)	(60)
Maine	215	5
Maryland	(481)	(1,211)
Massachusetts	(628)	453
Michigan	0	(280)
Minnesota	0	0
Mississippi	(1,519)	(710)
Missouri	1,164	(4,102)
Montana	(719)	(60)
Nebraska	0	0
Nevada	87	85
New Hampshire	0	0
New Jersey	(758)	(1,866)
New Mexico	(3,188)	(1,950)
New York	(41)	(1,415)
North Carolina	703	0
North Dakota	(1,506)	(119)
Ohio	1,313	512
Oklahoma	1,870	(379)
Oregon	0	0
Pennsylvania	(221)	(3,379)
Puerto Rico	(59)	(123)
Rhode Island	522	572
South Carolina	4,569	31
South Dakota	0	0
Tennessee	222	(996)
Texas	(375)	(6,606)
Utah	(173)	(1,889)
Vermont	0	0
Virginia	4,354	(511)
Washington	780	0
West Virginia	0	(7)
Wisconsin	(6)	0
Wyoming	0	0
NET JOB ADJUSTMENTS	4,397	(34,219)

Table A5-1: BRAC 95 -- By-State Job Losses

[52] Includes Guam, Puerto Rico, and the District of Columbia.
[53] Includes all active, reserve, and student personnel.
[54] Includes all civilian and on-base contractor positions.

1995 Base Realignment and Closure Commission

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Member Biographies

ALAN J. DIXON, Chairman

Alan J. Dixon was confirmed by the US Senate October 7, 1994, as chairman of the Defense Base Closure and Realignment Commission.

Dixon, 67, is a senior partner in the corporate and business department of the St. Louis-based law firm of Bryan Cave, which he joined in 1993 after representing Illinois in the US Senate for 12 years. Until his defeat in the Democratic primary election in 1992, Dixon had enjoyed an unbroken string of 29 election victories dating from 1949 when, while attending law school, he was elected police magistrate in his hometown of Belleville, Illinois.

In 1988 and again in 1990, Democratic Senators elected him unanimously to serve as chief deputy whip, their number three leadership post.

During his Senate career, Dixon held important positions on the committees on Armed Services, Small Business, and Banking, Housing and Urban Affairs.

On the Armed Services Committee, he chaired the Subcommittee on Readiness, Preparedness and Sustainability, which oversees 38 percent of the US defense budget. The subcommittee was one of those responsible for making sure US manpower and weapons systems employed in the Persian Gulf War were adequate for the task. In 1990, he co-authored the legislation that created the commission he now chairs and the process under which the federal government operates to close realign military bases in the United States.

Dixon began a 20-year career in the Illinois General Assembly with election to the House of Representatives in 1950. As a legislator, he wrote or co-sponsored legislation that produced or nurtured the state's modern criminal code, the modern judicial article to the Illinois Constitution, the state's community college system, and its open meetings law.

He served as Illinois Treasurer from 1971-77, during which tine his policies earned hundreds of millions of dollars for Illinois taxpayers and he established investment incentives for Illinois banks to encourage them to invest locally.

He was elected Illinois Secretary of State a margin of 1.3 million votes in 1976. In 1978, he was re-elected by 1.5 million votes, becoming the first candidate in Illinois history to carry all 102 counties in the state, including all 30 townships in suburban Cook County and all 50 wards in the City of Chicago.

He was the first Democratic statewide candidate to disclose the sources and amounts of all campaign contributions, and since 1970, his personal financial assets and liabilities were a matter of public record.

Dixon is a graduate of the University of Illinois and holds a law degree from Washington University in St. Louis. He and his wife, Jody, have three children and seven grandchildren.

AL CORNELLA

Al Cornella is the President of Cornella Refrigeration Inc., a Rapid City, South Dakota, firm specializing in commercial and industrial refrigeration. He is a US Navy Veteran with service in Vietnam and has been active in military issues for over a decade.

Cornella has also served on a number of boards and commissions in South Dakota, including the Rapid City Chamber of Commerce. During his tenure with the Chamber, he served as Chairman of the Board of Directors from 1991-1992 and as Chairman of the Military Affairs Committee.

In 1992, Mr. Cornella was appointed by former South Dakota Governor George Mickelson to serve on the State Commission on Hazardous Waste Disposal.

Mr. Cornella currently serves on the boards of the South Dakota Air and Space Foundation and the Rapid City Economic Development Loan Fund.

REBECCA G. COX

Rebecca G. Cox is currently a Vice President of Continental Airlines, Inc. She joined Continental in January, 1989. In 1993, she served as a Member of the Defense Base Closure & Realignment Commission.

Before joining Continental, Cox served as Assistant to the President and Director of the Office of Public Liaison, President Reagan's primary outreach effort to the private sector. She was also appointed by the President to serve as Chairman of the Interagency Committee for Women's Business Enterprise.

Prior to her 1987 White House appointment, Cox had served as Assistant Secretary for Governmental Affairs at the Department of Transportation. As Assistant Secretary, she we responsible for coordinating legislative strategies and non-legislative relationships between the Department and Congress, as well as ensuring a continuing Departmental program for effective communication and policy development with other Federal agencies, state and local governments, and national organizations

Ms. Cox had previously served at the Department of Transportation as Counselor to Secretary Elizabeth Dole and as Deputy Assistant Secretary for Government Affairs.

Before coming to the Department of Transportation, Cox worked in the US Senate first as staff assistant, then legislative assistant and, finally, as Chief of Staff to US Senator Ted Stevens. As Chief of Staff, she was responsible for managing the Senator's Alaska staff, the leadership duties of the Office of the Assistant Majority Leader and the oversight of his Subcommittee assignments including those involving the Commence, Appropriations, and Governmental Affairs Committees.

In 1976, she received a B.A. degree from Depauw University in Greencastle, Indiana and a Juris Doctorate degree from the Columbus School of Law, Catholic University, Washington, D.C. in 1981.

Ms. Cox resides in Newport Beach, California with her husband Chris and their two children.

Document Separator

AIR FORCE DEPOT

FINANCIAL CONSIDERATIONS

95 COMMISSION

JOHN BEACH
PRIN DEP ASST SEC AF (FM)
APRIL 17, 1995 (Revised April 24, 1995)

COMPARISON OF CLOSURE COBRA DATA FROM EACH MILITARY DEPARTMENT
(Costs in $M)

	Air Force Kelly AFB	Navy Long Beach	Army Red River	Army Letterkenny
ROI year	9	0	0	0
NPV	283	1,949	1,497	952
One-time Costs	582	75	60	50
One-time Savings	7	0	0	0
Steady State Savings	76	131	123	78
Positions				
Population	19,104	3891	2,971	3,017
Eliminated	1,245	1697	1,861	1,287
Realigned	16,415	472	1,040	803
% Eliminated	7%	44%	63%	43%
% Realigned	86%	12%	35%	27%

COMPARISON OF CLOSURE COBRA DATA FROM EACH MILITARY DEPARTMENT
(Costs in $M)

	Air Force Kelly AFB	Navy Long Beach	Army Red River	Army Letterkenny	DoD 10 Depots
ROI year	9	0	0	0	
NPV	283	1,949	1,497	952	
One-time Costs	582	75	60	50	
One-time Savings	7	0	0	0	
Steady State Savings	76	131	123	78	
Positions					
Population	19,104	3891	2,971	3,017	43,723
Eliminated	1,245	1697	1,861	1,287	12363
Realigned	16,415	472	1,040	803	
% Eliminated	7%	44%	63%	43%	28%
% Realigned	86%	12%	35%	27%	

COMPARISON OF DOD DEPOTS CLOSED

Activity	Positions Eliminated	Base Population	Percent Eliminated
Navy Shipyard Philadelphia	701	7236	0.10
Mare Island Naval Shipyard	1223	7541	0.16
Charleston Naval Shipyard	1088	5430	0.20
Naval Aviation Depot Alameda	764	3076	0.25
Naval Aviation Depot Pensacola	1000	3110	0.32
Naval Aviation Depot Norfolk	1464	3606	0.41
Toelle Army Depot	1268	3024	0.42
Letterkenny Army Depot	1287	3017	0.43
Naval Shipyard, Long Beach	1707	3891	0.44
Red River Army Depot	1861	2971	0.63
Total	12,363	42,902	0.29
Kelly AFB	1245	19104	0.07
McClellan AFB	1438	12588	0.11
Newark	1578	1771	0.89

Base Population does not include students at Mare Island, Pensacola, Alameda, and Norfolk

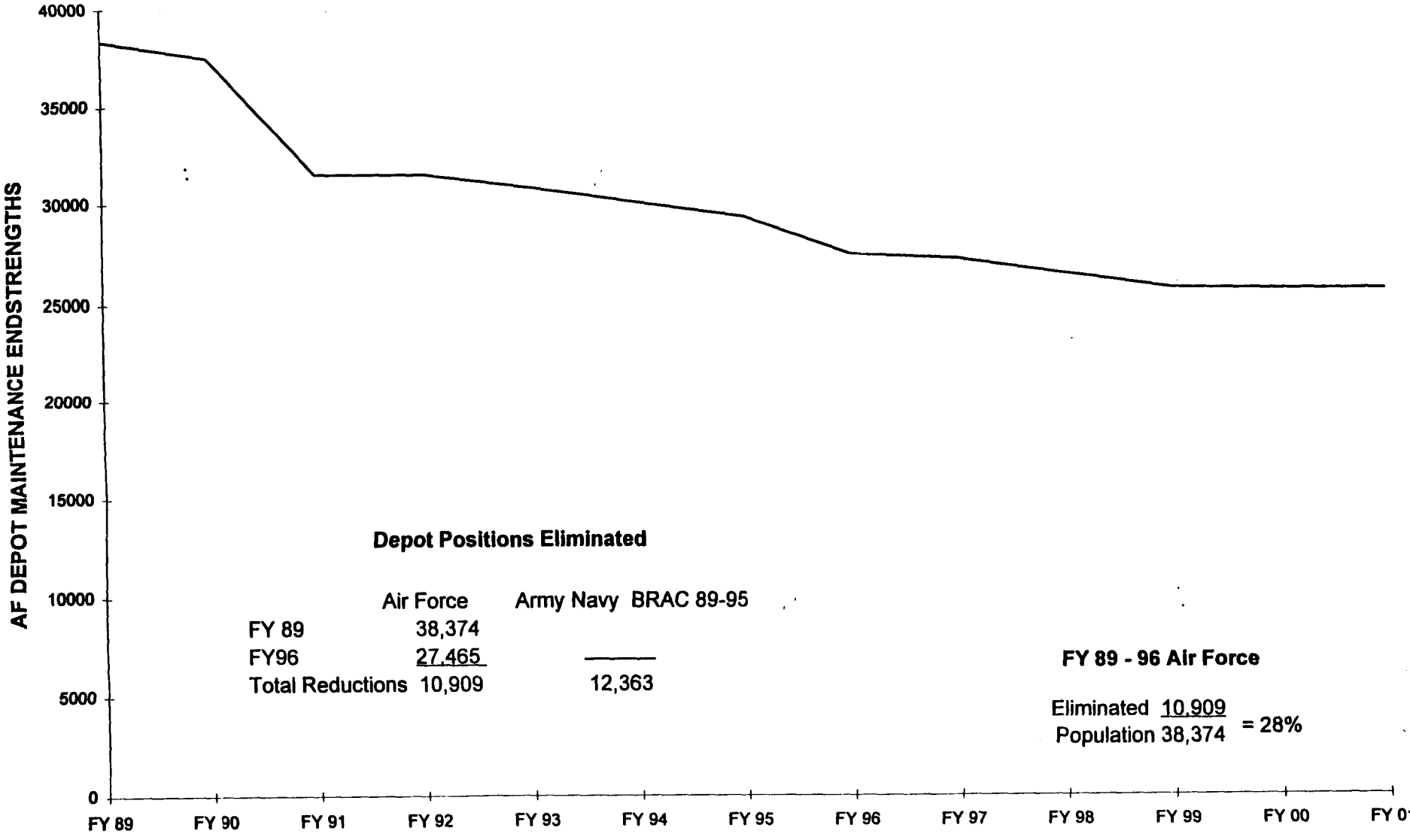
- If included percent eliminated would be lower

COMPARISON OF MILITARY DEPARTMENT
COBRA DEPOT ESTIMATES
ALL FOUR BRAC COMMISSIONS

	AVERAGE PER BASE			
	BASE POPULATION	1-TIME COST FY95 $M	POSITIONS ELIMINATED	ANNUAL STEADY STATE SAVINGS
ARMY [1]	3,355	62	1,472	85
NAVY [2]	4,808	181	1,135	72
AIR FORCE [3]	14,332	578	1,342	82
	6,032	217	1,254	77

1 Includes Red River, Letterkenny, Toelle
2 Includes Shipyards--Philadephia, Mare Island, Charleston, Long Beach; Aviation Depots--Alameda, Pensacola, Norfolk
3 Includes Kelly, McClellan (Kelly and McClellan were not recommendations to the Commission but are included here for purpose of comparison only)

COMPARISON OF AIR FORCE DEPOT MAINTENANCE REDUCTIONS WITH DOD



TRACK OF POSITIONS AT KELLY AFB

		TOTAL	ELIMINATED	REALIGNED
94/4 BASE POPULATION		19,104		
FORCE STRUCTURE CUTS		(1,444)	(1,444)	
97/4 BASE POPULATION		17,660	1,245	16,415
NON AF TENANTS		(2,206)		2,206
		15,454		
AF TENANTS		(5,358)		5,358
ALC POPULATION		10,096	1,245	8,851
	DIMBA		(0)	
	DEPOT O/H		(560)	
	BOS TAIL		(40)	
	INFRASTRUCTURE		(705)	

AF LGM POSITION	1,245 / 10,096 = 12.3%
IF TRC ADDED	1,245 + 446 /10,096 = 16.7%
TO REACH 28% ELIMINATION	10,096 * .28 = 2,827

95 BRAC

CURRENT DOLLARS, MILLIONS
EXCLUDES ENVIRONMENTAL

	COSTS FY 96 -01		SAVINGS FY 96-01		SAVINGS FY 96-15		PERCENT RETURN PER YEAR
BUDGET	1048	135 FY96	868		N/A		
NO BASE CLOSURE	0		0		0		
BRAC 95							
OSD SUBMIT	1105		1212		8616		10.81%
CLOSE 0 DEPOT	917		870		6461		10.25%
CLOSE 1 DEPOT	1545	628 (110)	944	74	8087	1626	4.87%
CLOSE 2 DEPOT	2209	664	1019	75	9897	1810	5.14%

SUMMARY OF CRITERIA IV & V

CONSTANT DOLLARS, MILLIONS

EXCLUDES ENVIRONMENTAL COSTS

	TOTAL 1-TIME	20 YEAR NPV	STEADY STATE		ROI	PERSONNEL SAVINGS
1) DEPOTS						
KELLY	582	-283	76		9	1245
McCLELLAN	574	-392	87		7	1438
DUAL CLOSURE	44	51	-1		---	2683
SUBTOTAL	1200	-624	162	(0.14)		
2) PRODUCT CTRS & LABS						
KIRTLAND	277	-464	62		3	1375
BROOKS	185	-142	27		7	391
ROME	53	-98	12		4	50
SUBTOTAL	515	-704	101	(0.20)		1816
3) LARGE AIRCRAFT						
GRAND FORKS	12	-447	35		Imed	837
MALMSTROM	17	-54	5		4	0
SUBTOTAL	29	-501	40	(1.38)		837
4) SPACE						
ONIZUKA	124	-172	30	(0.24)	8	398
5) AETC						
REESE	37	-257	21	(0.57)	2	217
6) ALL OTHERS	157	-1020	81	(0.52)		835
OSD SUBMIT	1047	-3646	363	(0.35)		6014

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BRAC 1988		FY1990		FY1991		FY1992		FY1993		FY1994		FY1995		FY1996		FY1997		FY1998		FY1999	
		TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)	TOTAL	(Environ.)
Budget Request		500.0		916.5		633.6		440.7		27.9		87.6									
Authorization		500.0		1,016.5		674.6		440.7		12.8		87.6									
Appropriation		500.0		998.1		658.6		415.7		12.8		87.6									
	Army	166.9	0.0	409.5	108.5	371.7	121.7	258.3	77.4	12.8	0.0	87.6	66.8								
	Navy	80.6	0.0	70.4	1.3	36.4	13.6	96.2	33.8	0.0	0.0	0.0	0.0								
	Air Force	221.5	0.0	518.2	198.1	250.5	167.5	61.2	40.8	0.0	0.0	0.0	0.0								
	Def Agencie	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
	Total	469.0		998.1		658.6		415.7		12.8		87.6									
BRAC 1991																					
Budget Request						100.0		1,743.6		1,800.5		398.7		964.8		127.5					
Authorization						297.0		1,743.6		1,526.3		398.7									
Appropriation						100.0		1,618.6		1,526.3		265.7									
	Army					59.3	35.7	360.8	50.0	393.9	58.7	190.6	43.7	373.4	124.9	0.0	57.3				
	Navy					67.8	41.1	352.0	96.3	658.6	150.8	322.8	95.5	422.7	85.8	104.4	68.8				
	Air Force					204.6	181.8	648.7	162.7	192.6	63.0	94.1	0.0	168.7	14.1	23.0	12.1				
	Def Agencies					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	Total					331.7		1,361.5		1,245.1		607.5		964.8		127.4					
BRAC 1993																					
Budget Request										1,200.0		2,189.0		2,148.5		808.8					
Authorization										1,144.0		2,199.0									
Appropriation										1,144.0		2,322.9									
	Army									36.4	0.0	113.8	0.0	123.4	0.0	26.6	0.0	23.3	0.0	0.0	0.0
	Navy									784.4	0.0	1,438.5	0.0	1,573.3	0.0	431.3	0.0	733.6	0.0	53.8	0.0
	Air Force									273.5	0.0	302.4	0.0	265.9	0.0	291.6	0.0	298.5	0.0	321.1	0.0
	Def Agencies									80.3	0.0	259.4	0.0	185.8	0.0	59.3	0.0	10.3	0.0	1.0	0.0
	Total									1,174.6		2,114.1		2,148.4		808.8		1,065.7		375.9	
BRAC 1995																					
Budget Request														784.6		824.2					
Authorization																					
Appropriation																					
	Army													182.0	0.0	298.0	0.0				
	Navy													509.1	0.0	391.0	0.0				
	Air Force													93.5	0.0	135.2	0.0				
	Def Agencies													0.0	0.0	0.0	0.0				
	Total													784.6		824.2					

** outyear & environmental costs unknown until completion of BRAC 1995

SOURCES OF FIGURES: Budget Request Figures from C-1
Authorization & Appropriation Figures from Conference Reports
Services/Defense Agencies' Figures from Budget Justification Books

AIR FORCE
DEPOT DISCUSSION

Mr. Ron Orr

21 Apr 95

CHART 6

Closure Sensitivity Analysis ($M) of Personnel Savings and Phasing

	One-Time Cost	Steady State Savings	Net Present Value
AF Baseline 7% personnel savings; close in year 6	582	76	283
15% personnel savings; close in year 6	572	154	1,102
15% personnel savings; close phased over 4 yrs	571	154	1,523
25% personnel savings; close phased over 4 years	561	244	2,764

REVIEW OF PERSONNEL SAVINGS FOR KELLY AFB BASED ON PERCENT OF POSITIONS ELIMINATED

Assumption: Number of personnel eliminations has a direct relationship to the installation population

Recommendation: A careful examination of the positions eliminated and the baseline installation population is necessary to ensure that reductions for all services are evaluated in a consistent manner

- The percent of positions eliminated at Kelly AFB as reported by the commission:

1245 eliminations / 19,104 authorizations = 7% (6.5% rounded up)

- The use of 19,104 as a population base should be adjusted to include 1444 reductions in the manpower baseline which occur prior to BRAC i.e., from the present to FY97/4:

1245 eliminations / (19,104 - 1444 authorizations) = 1245 / 17,660 = 7.1%

- The Kelly AFB analysis includes 7564 tenant authorizations and associated BOS (AFRES, ANG, Air Intelligence Agency, Regional SIGINT Operations Center, etc) and no personnel savings were taken (i.e. no savings result by moving AFRES C-5s to new site):

1245 eliminations / (17,660 - 7564 authorizations) = 1245 / 10,096 = 12.3%

- Based on these adjustments, the manpower baseline for the Air Logistics Center and associated BOS is 10,096 authorizations:

Beginning population - manpower adjustments - tenant organizations = 19,104 - 1444 - 7564 = 10,096

We believe this approach is more consistent with the methodologies used by the other services

REVIEW OF PERSONNEL SAVINGS FOR McCLELLAN AFB BASED ON PERCENT OF POSITIONS ELIMINATED

Assumption: Number of personnel eliminations has a direct relationship to the installation population

Recommendation: A careful examination of the positions eliminated and the baseline installation population is necessary to ensure that the reductions for all services are evaluated in a consistent manner

- The percent of positions eliminated at McClellan AFB using the commission's methodology:

1438 eliminations / 12,588 authorizations = 11% (11.4% rounded down)

- The use of 12,588 as a population base should be adjusted to include 1584 reductions in the manpower baseline which occur prior to BRAC i.e., from the present to FY97/4:

1438 eliminations / (12,588 - 1584 authorizations) = 1438 / 11,004 = 13.1%

- The McClellan AFB analysis includes 2442 tenant authorizations and associated BOS (AFRES, USCG, DLA, DFAS, etc.) and no personnel savings were taken (i.e. no savings result by moving the AFRES C-5s to another site, etc):

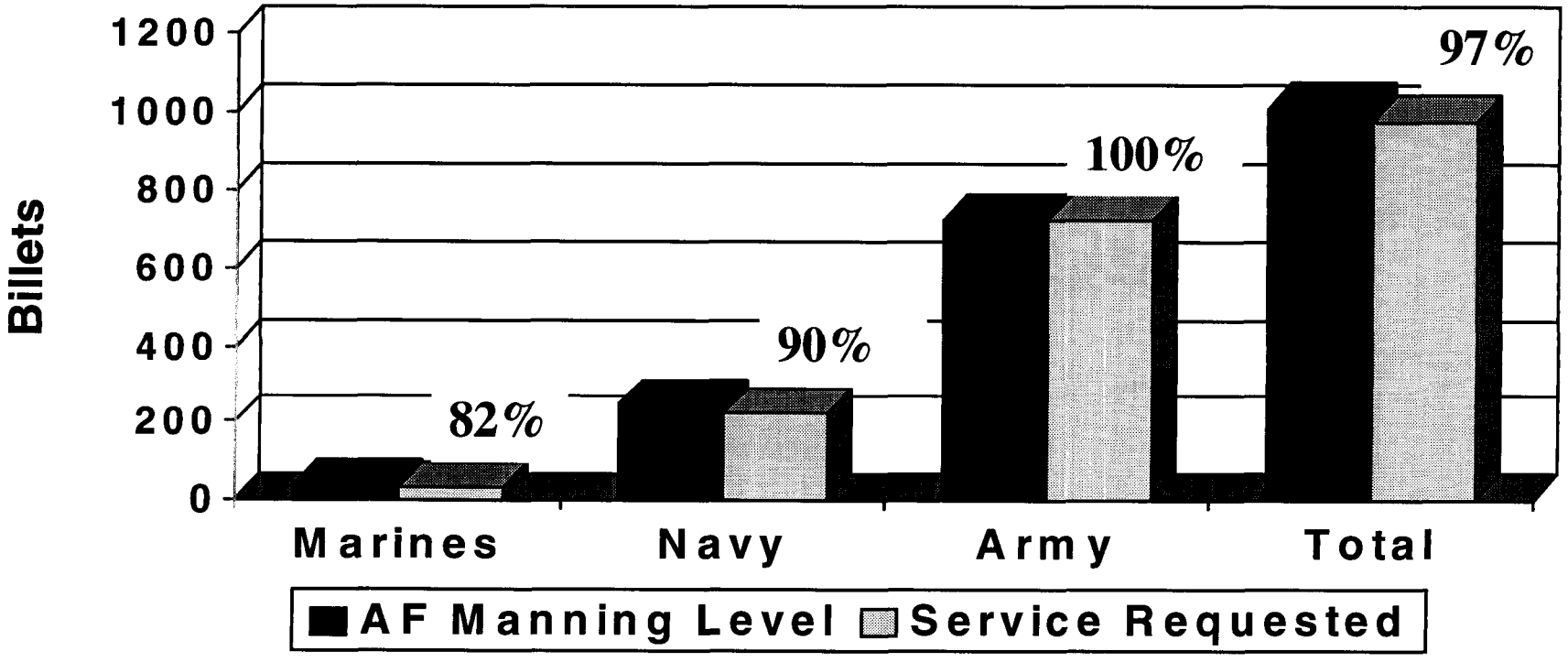
1438 eliminations / (11,004 - 2442 authorizations) = 1438 / 8562 = 16.8%

- Based on these adjustments, the manpower baseline for the Air Logistics Center and associated BOS is 8562 authorizations:

Beginning population - manpower adjustments - tenant organizations = 12,588 - 1584 - 2442 = 8562

We believe this approach is more consistent with the methodologies used by the other services

JCSG-DM Workload Transfers

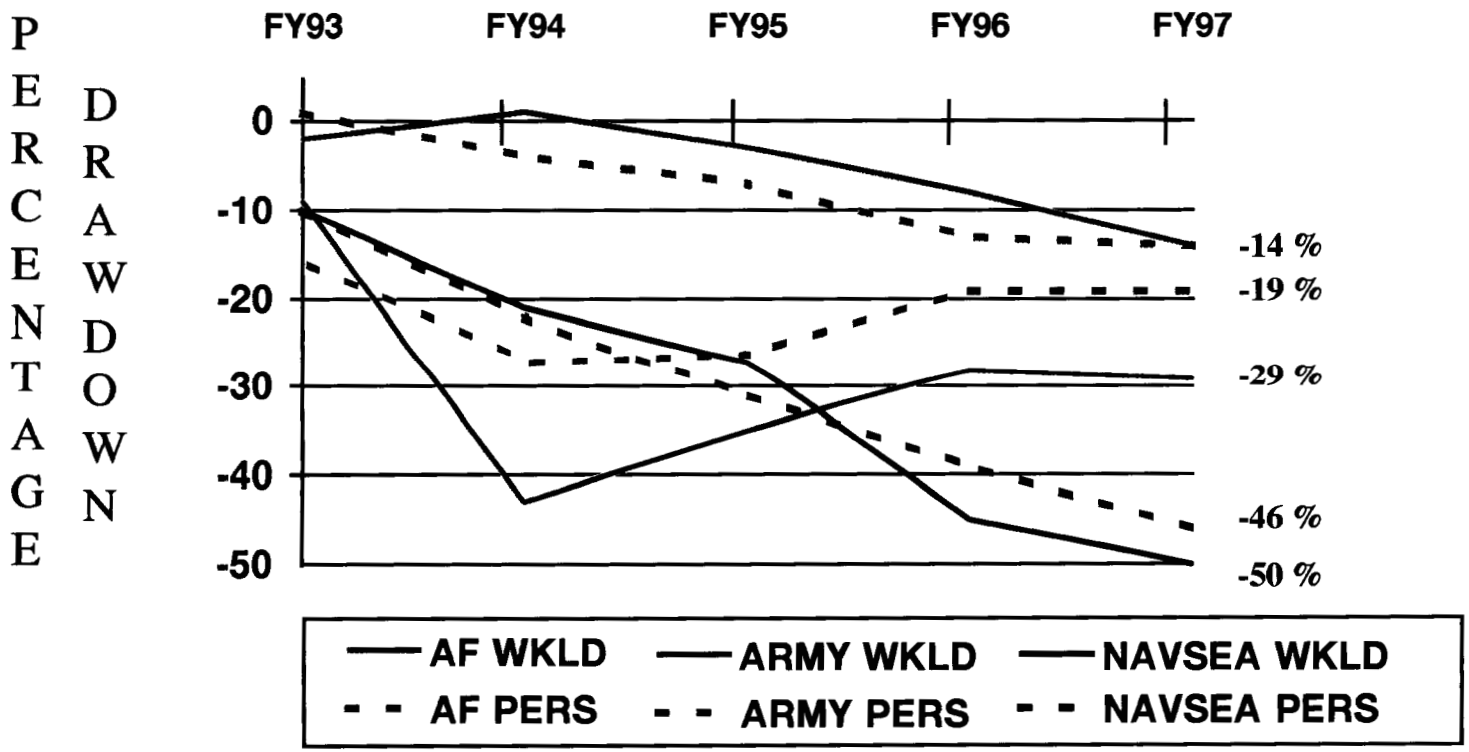


Volume Analyzed: 1.63 M DLHs / 1009 Billets

Other Services confirmed AF workload transfer assumptions

COMPARISON - WORKLOAD AND PERSONNEL DRAWDOWN

(BASELINE FY1992)



Sources:
1. FY 92-93 Workload - DDMC Corporate Business Plan (1992-1997);
   FY 94-97 Workload - DDMC Business Plan (1995-1999)
2. Personnel - DDMC Business Plan (1995-1999)

Document Separator

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3300 DEFENSE PENTAGON
WASHINGTON, DC 20301-3300

ECONOMIC SECURITY

27 APR 1995

Mr. Ben Borden
Defense Base Closure
and Realignment Commission
1700 North Moore Street, Suite 1425
Arlington, Virginia 22209

950501-12

Dear Mr. Borden:

I have enclosed two copies for the Commission's use of the Joint Cross-Service Group for Depot Maintenance Functional Analysis process Summary.

I hope you find these useful.

Sincerely,

Robert L. Meyer
Director
Base Closure

Enclosure

Copy to: House and Senate Reading Rooms

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

ACQUISITION AND TECHNOLOGY

28 MAR 1995

CLOSE HOLD

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS)

SUBJECT: Joint Cross-Service Group for Depot Maintenance Functional Analysis Process Summary

This memorandum forwards the Functional Analysis Process Summary of the Joint Cross-Service Group for Depot Maintenance.

James R. Klugh
Deputy Under Secretary of Defense (Logistics)

Attachment: As stated

CLOSE HOLD

BRAC 95 Joint Cross-Service Group for Depot Maintenance

Functional Analysis Process Summary

Section 1. Introduction/Background

In previous Base Realignment and Closures (BRAC) cycles, the analyses and development of recommendations for closures and realignments were conducted solely within the DoD Components. As a result, alternatives that involved "cross-service" actions were not developed.

To enhance opportunities for consideration of cross-service tradeoff and multi-service use of the remaining infrastructure, on January 7, 1994, the Deputy Secretary of Defense (DEPSECDEF) issued a memorandum creating six Joint Cross-Service Groups, including the Joint Cross-Service Group for Depot Maintenance (JCSG-DM). These joint groups were to work with the Military Departments and the Defense Agencies in areas with significant potential for cross-service impacts in BRAC 95.

In his memorandum, the DEPSECDEF pointed out that significant reductions in infrastructure could only be achieved after careful studies addressed not only structural changes to the base structure, but also operational and organizational changes, with a strong emphasis on cross-service utilization of common support assets. Throughout the BRAC 95 analysis process, the DoD Components were directed to look for cross-service or intra-service opportunities to share assets and for opportunities to rely on a single Military Service for support.

One of the six cross-service groups established by the DEPSECDEF was for depot maintenance. It was chaired by the Deputy Under Secretary of Defense (Logistics). Membership of the group consisted of:

- The Deputy Assistant Secretary of the Army for Logistics
- The Assistant Secretary of the Navy (RD&A)
- The Deputy Chief of Naval Operations (Logistics)
- The Air Force Deputy Chief of Staff Logistics
- The Marine Corps Deputy Chief of Staff for Installations and Logistics
- The Director, Defense Logistics Agency
- The Joint Staff Director of Logistics

To support the JCSG-DM a Technical and Support Group component was established. Its membership was initially comprised of the DASD (ER&BRAC); the DASD (Production Resources); the ADUSD for Maintenance Policy; and representatives from the Military Departments, Joint Staff, Defense Logistics Agency, Defense Nuclear Agency, Program Analysis and Evaluation, DoD Comptroller, and the DoD Inspector General.

The JCSG-DM directed its efforts toward supporting the overall DoD goals for selecting bases for realignment and closure. These goals were outlined in the DEPSECDEF memorandum of January 7, 1994:

> DoD Components must reduce their base structure capacity commensurate with approved roles and missions, planned force draw downs and programmed workload reductions over the FYDP. For BRAC 95, the goal is to further reduce the overall DoD domestic base structure by a minimum of 15 percent of DoD-wide plant replacement value. Preserving readiness through the elimination of unnecessary infrastructure is critical to our national security.
>
> It is DoD policy to make maximum use of common support assets. DoD Components should throughout the BRAC 95 analysis process, look for cross-service or intra-service opportunities to share assets and look for opportunities to rely on a single Military Department for support.

Consequently, the JCSG-DM translated the DoD goals into the following objective: to develop a methodology that could generate alternative realignment and closure actions for further reducing capacity or replacement value of DoD-wide maintenance depots without adversely affecting readiness. This objective was the foundation upon which the JCSG-DM shaped its analytical framework.

The JCSG-DM further established a goal that the Military Departments should size to core, i.e., retain only the minimum depot infrastructure needed to preserve the capabilities within organic depots to meet readiness and sustainability requirements of the weapon systems that support the Joint Chiefs of Staff (JCS) contingency scenarios.

Section 2. Joint Cross-Service Functional Analysis Process Summary

Analysis Assumptions

The JCSG-DM accepted only one basic assumption. It was assumed that the "people will follow the workload"; i.e., if a depot maintenance workload is transferred to another location, the JCSG-DM assumed that the number and types of qualified skilled labor needed to perform the workload will be either available in the new location or will relocate to the new location. This assumption was based upon the considerable experience in past BRAC efforts.

General Analytic Concept

For BRAC 95 analysis purposes the Military Departments will size to core, i.e., retain only the minimum depot infrastructure needed to preserve the capabilities within the DoD organic depots to meet the readiness and sustainability requirements of the weapon systems that support the JCS contingency scenarios. Most of each Military Department's core capability requirements would be retained by Service-controlled depots while the balance would be obtained from other Service depots through interservicing.

The JCSG-DM recognized that there might be special requirements that should be included in the core sizing considerations, such as last source of repair and efficiency and economy factors. However, final sizing decisions might be revised based on future policy decisions, and those issues should be handled on a case-by-case basis. Military Departments seeking an exception to the size-to-core concept should justify that exception to the JCSG-DM.

Analytical Baseline

The JCSG-DM established its analytical baseline with the following eight criteria:

- The initial focus would be on the depot maintenance activities at 24 remaining DoD organic depot maintenance facilities.
- The analysis would be structured and performed on a commodity basis.
- Standard working definitions would be developed and provided to the Military Departments.
- The quantification of core capabilities and capacities would be based upon the FYDP.

- Production shop capacities and utilization would be based upon the current year funded and outyear FYDP programmed workload mix.
- Capacity and utilization would be measured in accordance with the principles established by the Defense Depot Maintenance Council study on capacity measurement.
- All measures would be based on a one-shift, 40-hour workweek.

Data Call

Based upon the analytic assumptions, concepts, and baselines, the Technical and Support Group developed for approval by the JCSG-DM a standardized report and data call for use by the Military Departments. The report which was approved and forwarded to the Secretaries of the Military Departments on April 4, 1994, included the following:

- Section 1, Analytical Foundation. This section contained the underlying JCSG-DM analytical foundations including the objective, analysis baseline, assumptions, and general analytic concept.
- Section 2, Categories. The JCSG-DM identified 14 major categories or commodity groupings for consideration in BRAC 95. These categories were chosen because they represented the current major and projected commodity lines serviced by DoD depot maintenance activities. These 14 major groupings were further divided into 50 subgroupings.
- Section 3, Excess Capacity. This section provided the definition of excess capacity and the framework for the Military Departments to calculate total capacity and excess capacity. The concept of maximum potential capacity was identified and defined.
- Section 4, Measures of Merit/Common Data Elements. The JCSG-DM provided suggested measures of merit for the Military Departments use in evaluating alternatives developed by the JCSG-DM. The measures were cross-walked back to the applicable approved Military Value Criteria.
- Appendix A, DoD Memoranda: 1993 Base Realignments and Closures (BRAC 95). This appendix provided policy guidance issued by the Deputy Secretary of Defense and the Under Secretary of Defense (Acquisition and Technology).
- Appendix B, Working Definitions. The JCSG-DM developed a set of common working definitions in order to establish a common foundation for deliberations on BRAC 95. It was stated that while these definitions had a basis in DoD policy,

procedures, and operations, they were not considered "official" definitions but rather working definitions tailored to this specific task.

- Appendix C. DoD Memoranda: Policy for Maintaining Core Depot Maintenance. This document defined core depot maintenance and provided the DoD-approved methodology to compute core depot maintenance requirements.
- Appendix D. Standard Data Call. The JCSG-DM designed a standard data call to facilitate the required cross-service analysis. The data call consisted of two sections, one for capacity measurement and the second for measuring measures of merit. Instructions and standard tables were provided to ease both preparation and evaluation. Preparers were instructed to contact their Military Department's BRAC 95 office for any required clarifications.

Section 3. Description of Functional Analysis Summary

Joint Cross-Service Analysis Tool

During the first week in June, members of the JCSG-DM were advised of a linear program, called the Joint Cross-Service Analysis Tool (JCSAT), developed by the Center for Naval Analysis for use in BRAC 95. It was suggested that this program, with some modifications, could be used as a standard tool by all Joint Cross-Service Groups. The Technical and Support Group was tasked to evaluate the model to determine how it could be employed and what specifications and assumptions would be needed for its operation.

The stated goals of the JCSAT were to eliminate excess DoD infrastructure, maintain a high quality infrastructure, and generate a product that could survive in the BRAC environment. The data elements required for operation of the JCSAT were as follows:

- Functional values. The merit of performing a cross-service function at a given site or activity.
- Functional capacities. The capacity of each site or activity to perform a given cross-service function.
- DoD cross-service functional requirements. The future DoD requirement to perform each cross-service function.
- Military Values. The Military Department assessment of the Military Value of each site or activity.

Through these data elements the JCSAT would attempt to find the best allocation of the future DoD cross-service functional requirements to the activities for use as a

baseline for further analysis. The best allocation was defined as consolidation of cross-service functional allocations into a small set of high value sites or activities that have the capacities required to perform the work. Given this set of sites or activities, allocations of core workload requirements would be based on functional value.

A single Tri-Department BRAC Group consisting of representatives from each Military Department was formed to assist all of the JCSGs. This group was established to execute runs of the JCSAT using certified data, objective functions, and policy imperatives established by the JCSGs.

The Technical and Support Group received briefings and documentation relating to the JCSAT. Notional data was developed and forwarded to the Tri-Department BRAC Group for a trial run. Additionally, model documentation was provided to Logistics Management Institute (LMI) for their analysis. The trial run was successfully accomplished in a timely fashion. LMI advised that the JCSAT was sensitive to Military Values and recommended that Military Values be provided on a broad range scale. LMI further suggested that the JCSAT be modified to reflect workload shifts from activity to activity. The findings of the Technical and Support Group were briefed to the JCSG-DM, and use of the JCSAT was approved on July 29, 1994.

Use of the JCSAT required the development of functional values. In order to develop functional values, measures of merit applicable to performance of workloads at specific locations were identified and maximum points were assigned to each category:

- Core workloads/core capabilities - 30 points
- Unique/peculiar core workload, capabilities, and capacity - 15 points
- Unique/peculiar core workload test facilities - 15 points
- Other workloads - 25 points
- Environmental issues - 10 points

From those broad categories specific questions were developed to assist in the application of each value to a commodity. It was envisioned that these weights would be applied to each commodity at each activity and an overall rating would be developed for each commodity at each activity. Decision Pad Analysis Software (DPADS), a simple spreadsheet software, was approved for use in assisting in the calculation of these functional values.

Costs

The JCSG-DM investigated if costs could be considered as part of the joint analysis process. The Defense Depot Maintenance Council had developed, apart from BRAC, a methodology designed to estimate the costs and savings associated with potential interservicing of depot maintenance workloads. There was a proposal to use this methodology as a tool to screen alternatives for feasibility prior to forwarding the alternatives to the Military Departments for complete evaluation. It was recognized that the Military Departments would use COBRA in their evaluations.

It was subsequently determined that the cost accounting practices of the Military Departments were too diverse to make meaningful comparisons at the commodity level without further leveling. It was believed by the JCSG-DM that there was not sufficient time to issue a revised data call and conduct the cost normalization that would be required to conduct equitable comparisons.

It was proposed and accepted that the JCSG-DM would utilize a modified or functional COBRA as a cost feasibility test for the JCSG-DM developed alternatives. This course of action would be consistent with the expressed plans of the other JCSGs. The JCSG-DM was advised that such a functional COBRA was under development by a separate joint group composed of representatives of each of the Services.

On July 29, 1994, the JCSG-DM formally approved:

- DPADS
- Optimization Model
- General functional value methodology
- Alternative development process
- Requested site Military Values be provided simultaneously with functional values in a standard broad range scale

On August 24, 1994, the JCSG-DM approved:

- Specific functional value weights
- Use of functional COBRA
- Site Military Values on a range from 0-100
- The over-all analytic methodology

On August 25, 1994, the BRAC Steering Group was briefed on the JCSG-DM planned analytic methodology.

The JCSG-DM was subsequently approved to receive data and to begin the analysis process on August 29, 1994.

Data Review

Military responses to the data call were requested to be delivered on September 6, 1995. At that time the Data Analysis Team began meeting full-time in spaces located in the Hoffman Building.

Initial submissions were incomplete. However, database input was prioritized and the LMI representative began construction of the database with the data available.

The development of the database enabled the Data Analysis Team to identify many data discrepancies. Those discrepancies were then provided to the representative from the owning Service for resolution. Purification of the database continued throughout September and October with the last revision being made on November 2, 1994. All changes to the data were certified in accordance with individual Military Department certification procedures. All entries in the database were provided to the representatives of the Military Departments for validation. In addition to auditing individual inputs to the database, the DoDIG completed a comprehensive database audit on November 2, 1994. No significant discrepancies were found.

Excess Capacity/Reduction Targets

The decision by the JCSG-DM to "size to core" made the establishment of excess capacity and reduction targets a straightforward procedure. A target range for excess capacity was established. The top of the range was defined as capacity minus core workload. The bottom was capacity minus total programmed workload. Excess capacity targets were then established from certified data DoD-wide, by Service, by commodity group, and by activity.

The establishment of excess capacity targets resulted in a large amount of the DoD excess capacity being classified in the "Other" commodity group. It was determined by the JCSG-DM that there were not sufficient categories of commodities to properly identify this workload. The Services were asked for any new recommended commodity groupings. Additional commodity groupings were approved at the October 11, 1994, meeting of the JCSG-DM. Revised excess capacity targets were updated based upon certified data to include the new commodity groupings.

Functional Values

It was required that functional value be established for every commodity at every location. This would result in a ranking by activity, by commodity, across Service lines.

There were three elements necessary for calculating functional value:

- Data required for numeric calculations (this comprised the largest portion of the functional value)
- Independent Service evaluation
- Data Analysis evaluation

In order to level the playing field, members of the Data Analysis Team reviewed each of the scores. Four scoring conventions were developed:

- Relative importance of workload is not dependent upon size.
- For purposes of calculating functional values, workloads less than one work year (1615 DLHs) were considered zero.
- If no unique and/or peculiar workload was reported in response to the data call, then no credit was given for unique and/or peculiar capacity or test facilities.
- When scoring for environmental issues, a compliance waiver constituted a problem by definition. The distinction between a "significant" and "minor" problem was a Service judgment.

The JCSG-DM approved worksheet was replicated for each commodity at each depot in the database. The database applied scores to be calculated from the data. The Data Analysis Team then reviewed the Service scoring and applied their scores in accordance with the conventions detailed above.

Site Military Values

The JCSG-DM had asked for the site Military Values on a standard broad range scale. It was decided by higher authority that site values would be provided on a one-to-three scale. These values were received by the JCSG-DM on November 16, 1994.

Optimization Runs

During the months of October and November, 1994, several requests were processed to the Tri-Department BRAC Group to obtain optimization runs. The results of each run presented the top three solutions for each of the optimized criteria.

The first request, dated October 14, 1994, contained certified data from the JCSG-DM database for capacity, core, and maximum potential core.

Request Number 2, dated October 17, requested runs that would (1) minimize the number of sites and (2) minimize excess capacity based on data provided by Request Number 1. The JCSG-DM decided that workloads in commodity groups 14, 15, and 16 should be excluded from optimization run calculations because they represented workloads that were peculiar to individual Services and/or individual depots. Core requirements were not to exceed current capacity.

Request Number 3, dated October 25, contained functional values and changes received in certified data and requested new runs as requested in Request Number 2 as well as additional runs to maximize functional value. Because runs from Request Number 2 did not sufficiently decrease excess capacity, this request asked that core could be allocated up to maximum potential capacity.

Request Number 4, dated October 28, contained some changes and corrections in certified data used in previous runs. The analysis of previous runs indicated that there were many depots that the optimization model could not select as potential closures because of core requirements for one or two commodity groups (termed "show stoppers"). In order to enable the optimization model to select any depot as a potential closure candidate, a notional depot was created that had sufficient maximum potential to create enough slack to absorb core for these "show stoppers." This request established the notional depot with selected maximum potential capacity amounts and asked for runs consistent with Request Number 3.

Request Number 5, dated November 1, contained some changes in certified data and to the maximum potential capacity attributed to the notional depot. This request specified that core should fill up capacity at real depots before shifting any core to the notional depot.

Request Number 6, dated November 2, contained some recalculations of functional values based on new information from depots and some minor corrections. This request asked that previously requested optimization calculations be accomplished using updated information.

Request Number 7, dated November 4, corrected maximum potential capacity for Oklahoma City ALC to zero and indicated other minor corrections. In a subsequent meeting with representatives from the Tri-Department BRAC Group, the Data Analysis Team was advised that the optimization model had difficulty in processing data when the input ranged from hundreds to millions. To overcome this, the data was rounded, thus giving the impression that there were data input errors. Dr. Nickel also expressed reservations on the

reliability of runs and the potential for Pentium chip problems.

Request Number 8, dated November 16, contained Military Value information and asked for only a set of runs to maximize Military Value combined with other constraints.

Request Number 9, dated November 17, contained minor adjustments in data for the notional depot and asked for a full set of runs.

Runs received from the Tri-Department BRAC Group were verified via an Optimization Model created and operated by LMI representatives to the Data Analysis Team utilizing a "486" computer, thus avoiding any questions concerning potential errors introduced by faulty Pentium computer chips.

Development of Alternatives

The Data Analysis Team met on numerous occasions to review optimization information. The first concern of the Data Analysis Team was to ensure that the optimization model contained the correct certified numbers. In this context, many discrepancies were determined after certified data were input into the JCSG-DM database. The correction of these discrepancies resulted in additional optimization requests being processed.

The next concern of the Data Analysis Team was whether the optimization runs could eliminate sufficient excess capacity. This was solved through use of the maximum potential capacity and use of a notional depot as previously described.

Finally, the Data Analysis Team was to make recommendations for closures and realignments. To accomplish this task, the Data Analysis Team reviewed each optimization run line-by-line. The Data Analysis Team was directed to challenge the Mildeps to consolidate workloads including increased interservicing.

The Data Analysis Team concentrated their efforts on optimization runs that produced significant numbers of potential closures. The computer spread of core was then analyzed to determine what further consolidations of workloads were feasible. The end results were recommendations to the full JCSG-DM of alternatives that included significant numbers of potential closures along with major reductions in the number of locations performing work in the same commodity.

Four of the six best model runs had identical closure recommendations. The best of the fifth run also presented a viable alternative. The best of the sixth provided only limited reductions in capacity and was not considered further.

Using the procedures outlined above, the Data Analysis Team analyzed the five best runs and developed two alternatives for consideration by the JCSG-DM.

On November 21, 1994, the JCSG-DM approved the two alternatives. On November 22, 1994, the alternatives were forwarded to the Military Departments.

ASSISTANT SECRETARY OF DEFENSE

3300 DEFENSE PENTAGON
WASHINGTON DC 20301-3300

ECONOMIC SECURITY

December 13, 1994

MEMORANDUM FOR BRAC 95 JOINT CROSS-SERVICE GROUP CHAIRPERSONS

SUBJECT: Joint Cross-Service Functional Analysis Process Summary

At our December 2nd meeting, we discussed the need for a summary describing each Joint Cross-Service Group's (JCSG) functional analysis process to help document the Department's BRAC 95 effort. Your summary will be valuable in supporting our process during the Commission's independent analyses and in preparation for Commission hearings.

Your summary should follow the general format shown at Attachment 1. Please forward a copy to the Office of the Deputy Assistant Secretary of Defense for Installations by January 27, 1995, to help us in drafting the DoD report to the Commission.

Additionally, your sub-group/study team should be maintaining records and files documenting your process as indicated at Attachment 2. We will give you more information on document reproduction and distribution requirements later.

If you have questions, contact Mr. Bob Meyer at 614-5356.

Joshua Gotbaum

Attachments

FORMAT FOR JCSG SUMMARY

BRAC 95 Joint Cross-Service Group on _____

Functional Analysis Process Summary

Executive Summary

Section 1. Introduction/Background

- JCSG's text is not limited to, but should include discussion of its vision for balancing functional requirements with capacity and readiness.

Section 2. Joint Cross-Service Functional Analysis Process Summary

- Concise/succinct, process-oriented description of the JCSG's overarching functional analysis process (e.g., should include organization and relationships of the JCSG and its subgroup(s); development of overall analytical framework, internal controls, and data gathering; functional capacity analysis; consideration of non-BRAC policy for developing functional closure or realignment alternatives; and the follow-on interactive process with the Military Departments).

Section 3. Description of Functional Analyses Summary

- Concise/succinct, analysis-oriented description of the JCSG's analyses and methodologies for developing functional closure or realignment alternatives (e.g., should include criteria/measures/factors, analytical methods and tools; analysis of capacity; functional value analyses; interaction with follow-on Military Departments' analyses, etc.).

Section 4. Joint Cross-Service Functional Alternatives

- The alternatives forwarded to the Military Departments

Appendices (if required)

JCSG RECORD KEEPING AND DOCUMENTATION REQUIREMENTS

1. *Joint Cross-Service Functional Analysis Process Summary

   - A short summary with concise, succinct descriptions of (1) the JCSG's process, (2) its analyses/methods, and (3) its alternatives

2. *Internal Control Plan

3. *JCSG Analytical framework

   - Criteria/Measures/Factors
   - Data Calls/Questionnaires

4. *Functional excess capacity analyses (plan and results)

5. *Analytical tool outputs/runs with supporting data/screens/ analyses produced to develop alternatives forwarded to the MILDEPs

6. *Alternatives transmitted to the Military Departments

7. *Meeting Minutes

* Consistent with the requirements of law and DoD policy, JCSGs will reproduce and provide copies to the Commission, the Congress, and GAO. JCSGs will maintain and make available upon request all other policy, data, information, and analyses considered by the JCSG in developing functional closure and realignment alternatives.

NOTE: See also BRAC 95 "Kickoff" Memorandum, January 7, 1994, and Joint Internal Control Plan, April 13, 1994, for documentation requirements.

Document Separator

Retransmitted
Tues May 09

Headquarters United States Air Force

FAX

Date	Monday, May 08, 1995
Time	3:13 PM 0745 AM

Number of pages: 6
(includes cover sheet)

TO:	Mr Frank Cirillo DBCRC
Phone	DSN 696-0504
Fax Phone	DSN 696-0550
Subj:	**Using Capacity and MPC Data in Evaluating Depot Options**

FROM:	Lt Col Barry W. Pitcher HQ USAF/LGMM 1030 Air Force Pentagon Washington D.C. 20330-1030
Phone	DSN 225-5257
Fax	DSN 225-9811

CC:

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Mr Cirillo:

I prepared and am forwarding the following paper at Mr Orr's request to address the DBCRC chart (see atch 1) indicating all-depot workloads from the two "tier III" depots could be supported within the Maximum Potential Capacity (MPC) of the other three 'tier I and II" depots. I prepared it in anticipation of a tasking that never came from your staff to address this chart. My paper defines and outlines the most appropriate use of both capacity terms, and clarifies the theoretical nature of MPC. It also describes differences between Service-certified JCSG-DM MPC information, illustrates why capacity data can not be meaningfully analyzed when combined above the commodity group level, and discusses the capacity implications of closing an Air Force depot.

I hope you and the rest of the DBCRC staff find it useful in your continuing analysis of DOD depots.

VR

Barry

Talking Paper
on
Applying Capacity and Maximum Potential Capacity Information in Depot Maintenance Planning

Purpose:

- This paper was developed to explain differences between current capacity and Maximum Potential Capacity (MPC) information. It defines and outlines the appropriate use of both capacity terms, and clarifies the theoretical nature of MPC. It also describes differences between Service-certified JCSG-DM MPC information, illustrates why capacity data can not be meaningfully analyzed when combined above the commodity group level, and discusses the capacity implications of closing an Air Force depot.

Background:

- The DBCRC staff developed a chart (atch 1) indicating that all AF workloads could be supported within the MPC of the three AF "tier I and II" depots (OC, OO and WR-ALCs) while closing the two "tier III" depots (SA and SM-ALCs).
- The JCSG-DM data base contains certified data reporting Current Capacity and MPC information by commodity group for all DOD depot maintenance activities.
- By consensus within the JCSG-DM, Current Capacity data was used for most JCSG-DM capacity deliberations because of the theoretical nature of MPC

[illegible]

Current Capacity

-- An objective measure of the full-time, [illegible] depot maintenance workload

-- Within the DOD the basic measure of capacity is available work station operating hours available on a single shift expressed in direct labor hours (DLH)

--- Measurement methodology prescribed by the DOD Capacity Measurement Handbook documenting the formal OSD capacity measurement methodology all Services are required to follow

- Maximum Potential Capacity (MPC):

-- A subjective estimate of the maximum amount of capacity that could be made available to support a commodity considering the depot operation's current workload mix and volume.

--- Measurement not prescribed by DOD regulation or policy.

-- Key concept is in the theoretical nature of "**potential**" capacity.

--- Actual workstation configurations and numbers do not exist now within the depots.

--- "Potential" capacity can not be eliminated during depot closure or downsizing.

--- "Potential" capacity can not be workloaded unless actual work positions are established.

Discussion:

- Although JCSG-DM MPC data was certified by the Services, differences in how this data was generated caused it to be largely discounted during JCSG-DM deliberations
- Services reported certified MPC data to the JCSG-DM based on different approaches and philosophies.
  - -- AF depots reported MPC data for each JCSG-DM commodity group based on an industrial estimate of the maximum number of hours which could be produced by reconfiguring / adding work stations to available facilities.
    - --- Supported by historic production information and industrial engineering data.
  - -- Navy stated they estimated Navy and Marine Corps MPC data for each commodity group based on the highest capacity level they believed could be engineered within their current industrial facilities.
    - --- Navy stipulated "gross inefficiencies and extraordinary management attention" would be required" to operate at the upper end of these maximum capacity levels.
  - -- Army also used an estimating technique when establishing MPC data for commodities at their depots.
- Capacity data is most meaningful when considering the specific commodity group it describes.
  - -- Capacity information is usually not viewed as relevant to other commodity groups.
    - --- Capacity data is calculated based on the facilities and equipment needed to provide depot maintenance support for a specific commodity group.
      - --- Equipment needed to support one commodity group is not usually applicable to other commodity groups unless they are very closely related.
      - --- Industrial facilities are more flexible and may be used to support a variety of commodity groups, but the "capacity" usually requires that the
- Capacity information tends to be meaningful if not consolidated above the commodity group level.
  - -- Because most capacity is unique to the commodity group it supports and not related to other commodities, capacity information can not usually be combined meaningfully between different commodities.
- Capacity data for several commodities is sometimes combined to indicate a "total" capacity for comparative purposes.
  - -- Analysis using any resulting "total" capacity information will only be beneficial when considering the mix of commodities from which the total was derived.
- The AF Technology Repair Center (TRC) concept implemented in the early 1970s specialized the capabilities of each of the ALCs.
  - -- Eliminated most duplication in ALC capacity and established a single repair line every specific item and for most commodities.
    - --- Single-siting requires unique equipment and overhaul processes for all items supported by any ALC to be moved or duplicated at another ALC in the event of a depot closure.
  - -- Single-sited depot maintenance and test activity examples at SA-ALC:
    - --- C-5 aircraft, structures and software, General Electric jet engines, Aircraft fuel components, Aircraft Power Units, Nuclear Weapon Components.

-- Single-sited maintenance and test activity examples at SM-ALC:

--- F-111 and A-10 aircraft, structures and software, Hydraulic components, General Flight Instrument components and Central Air Data Computers, Ground Communication and Electronics systems, and Ground generators

-- Unique capacities required to support workloads at any closing ALC would have to be established at a gaining ALC.

--- Some existing facilities may be able to be modified to provide adequate support.

---- Fighter aircraft overhaul facilities are generally available at the other ALCs.

--- Some unique facility requirements may only be met through new construction.

---- SA-ALC's C-5 airframe overhaul, strip and paint facilities, and their F100 engine compressor disk cryogenic spin test facility.

--- In some cases, the cost of depot operations may increase after workloads are transferred because efficiencies from state-of-the-art facilities currently available at a closing depot may not be achieved at a gaining depot due to limitations on new construction which will prevent facility replication.

---- SM-ALC's centralized hydraulic overhaul and test facility.

---- SA-ALC's centralized fuel component overhaul and test facility.

Examples:

-- Unrelated capacity (the most common situation):

--- Capacity (facilities and equipment) needed to support the depot repair and overhaul of aircraft avionics components can not be effectively applied to the overhaul of aircraft landing gear.

--- Capacity to overhaul of aircraft structural components cannot be effectively applied to the overhaul of jet engines.

--- Capacity to overhaul missiles cannot be effectively applied to the overhaul of communication electronics components.

-- Related capacity (the less common situation):

--- Capacity to overhaul large aircraft has good application to the overhaul of fighter-sized aircraft, but there is much less application of fighter aircraft capacity to large aircraft overhaul because of the substantial size differences between the facilities and equipment associated with depot maintenance on these two classes of aircraft.

-- Reusing Industrial Facilities:

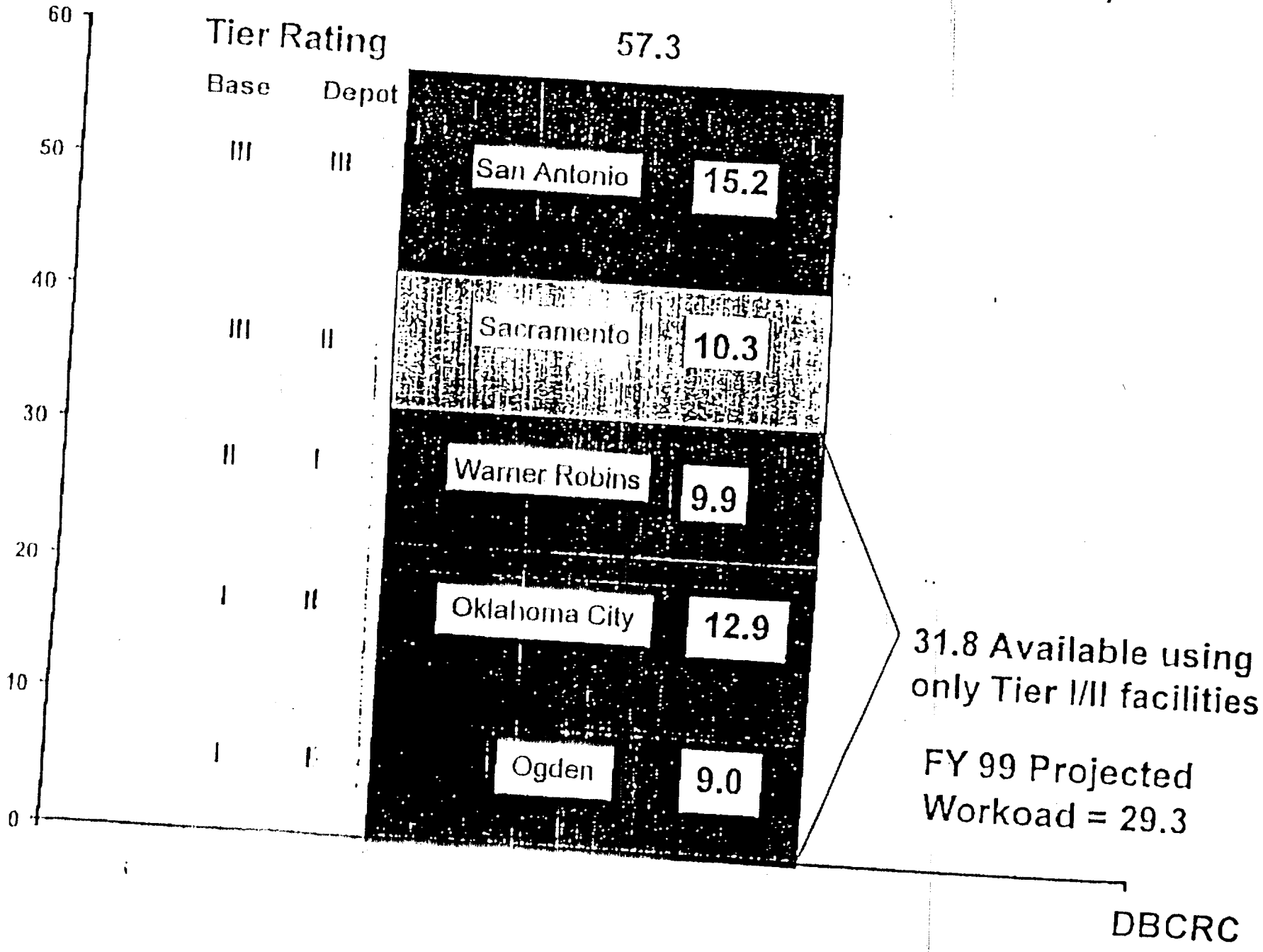
--- Facility requirements to overhaul aircraft instrument components are very similar to those required for the overhaul of tactical missile guidance and control components; therefore, the facilities supporting either commodity group can be reconfigured (with appropriate equipment) to support the other.

Conclusions:

- The DBCRC chart (atch 1) incorrectly infers that capacity required to support workloads at SA and SM-ALC is currently available at OC, OO and WR-ALCs.
  - -- Capacity to support most of the workloads at SA and SM-ALCs is unique, single-sited, and available only at those two depots.
    - --- Includes unique equipment and support facilities.
    - --- Such capacity would have to be moved or replicated befor a potential gaining depot could support these workloads.
      - ---- Some facilities may be available at the cited gaining ALCs that could be adapted for reuse in support of these workloads.
  - -- SA and SM-ALCs can be closed and capacity could be established at OC, OO and WR-ALCs to support the workloads from SA and SM-ALC, but only at a substantial cost and increased operational risk.
    - --- Estimated to cost approximately $1.2 B using COBRA cost model.
    - --- AF views this alternative as neither affordable, due to the very high one-time cost, nor acceptable, due to the higher risk to mission readiness.
- JCSG-DM MPC data has limited practical application.
  - -- MPC information reflects the potential capacity level that could be expected to be achieved within existing depot facilities, not actual capacity existing at that depot at this time.
  - -- JCSG-DM MPC data cannot reliably be compared between Services because of differences in Service techniques for developing this data.
- Capacity data is most meaningful when considering the individual commodity group for which it was collected.
  - -- Specific commodity group capacity information should not be considered relevant to other commodity groups.
- Industrial facilities can often be configured to support many commodities.

POC: LtCol B. Pitcher, AF/LGMM, 5-5257, 8 May 95.

Air Force Certified Maximum Potential Capacity (Single Shift) Reported to Joint Cross Service Group (Million Hrs)



Document Separator

John Beach AF

Mc + Kelly - COBRA - constant $ no enviro

Reasonable costs include enviro not COBRA

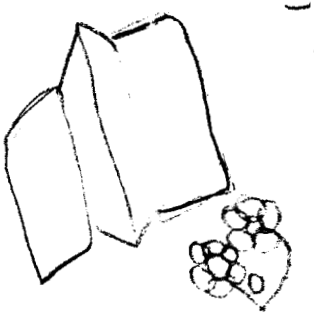
CITA Tests –

"If you push tenants off the base get large costs" –
Cited factor in not closing more was number
of tenants. Cited Eutaw as an example
of bases w/ lost of tenants. "Large installations many
tenants very difficult"

a lot of the depots has come down earlier – " people
dumped more. – C how many?

to plane ratio ?

– Depot



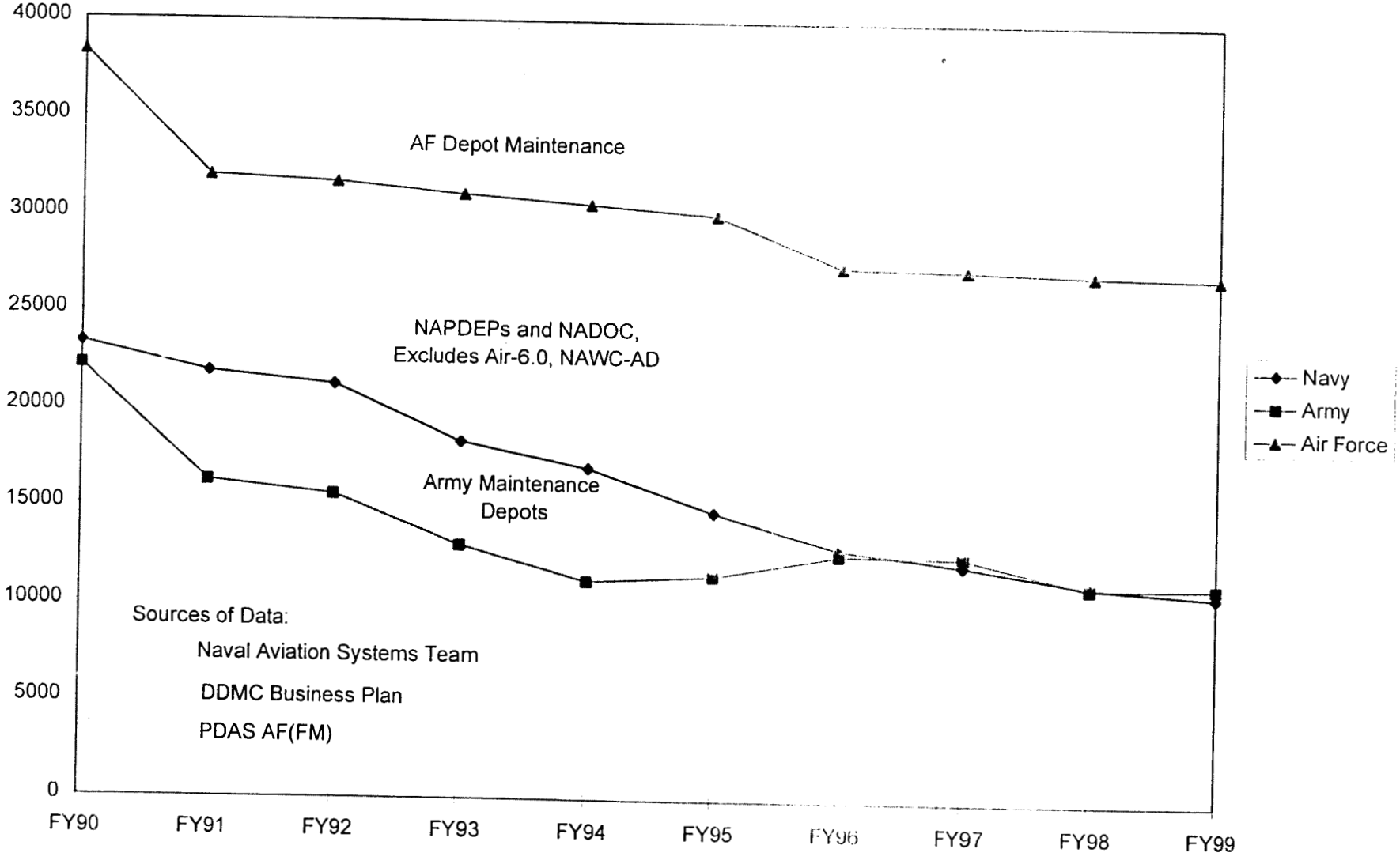
50
300

Comparison of Closure COBRA data from each Military Department (costs in $M)

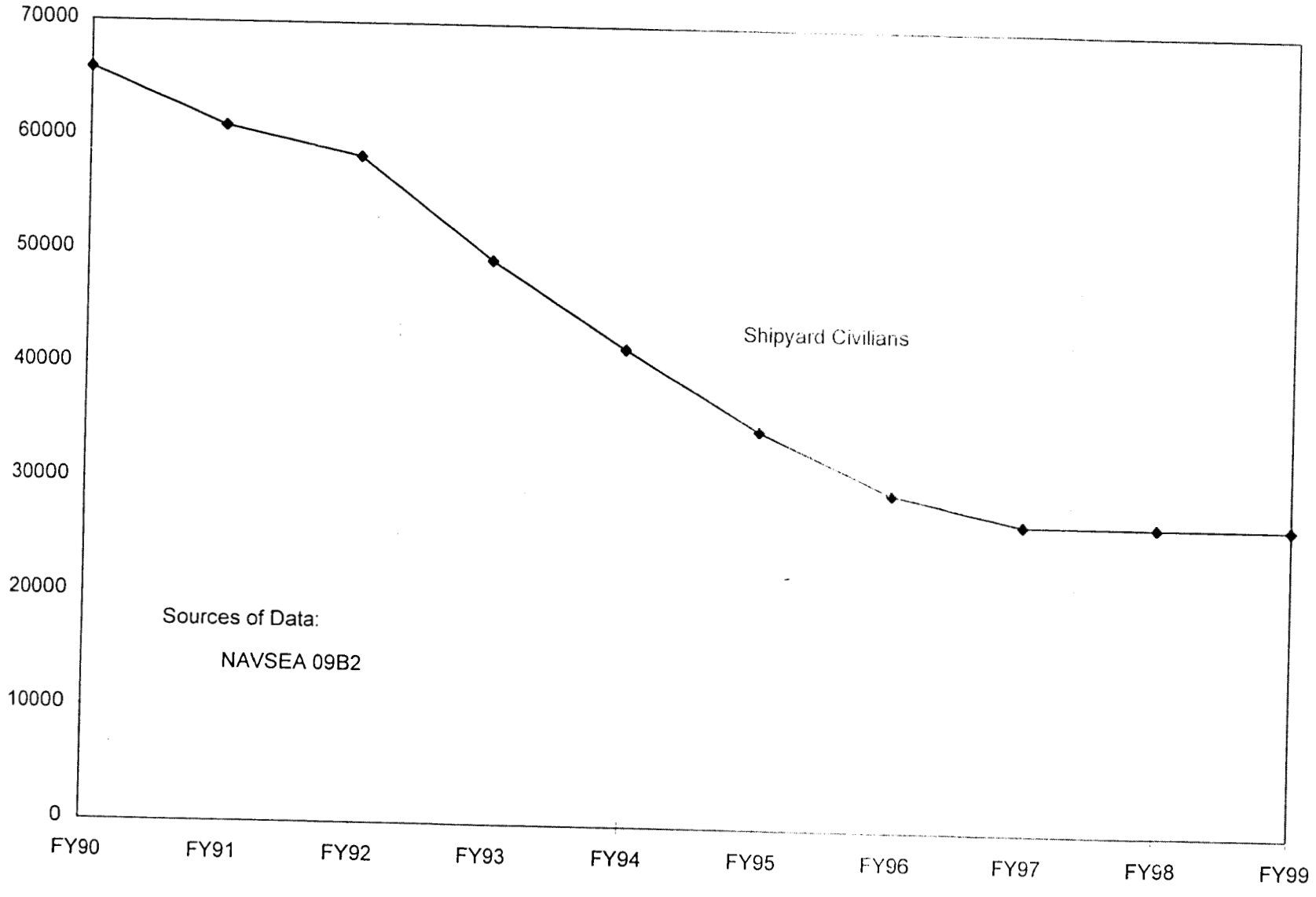
	Air Force Kelly AFB	Navy Long Beach	Army Letterkenny	Army Red River
ROI year	9	0	0	0
NPV	-283	-1,949	-1,497	-952
costs and savings:				
one time costs	582	75	60	50
one time savings	7	0	0	0
Steady state savings	-76	-131	-123	-78
positions:				
population	19,104	3,891	2,971	3,017
eliminated	1,245	1,697	1,861	1,287
realigned	16,415	472	1,040	803
% eliminated	7%	44%	63%	43%
% realigned	86%	12%	35%	27%

Bilt close →
Kelly →
→

Depot Maintenance Personnel



Naval Shipyard Maintenance Personnel



1ST STORY of Level 1 printed in FULL format.

May 15, 1995

SECTION: HEADLINE NEWS; Vol. 142, No. 20; Pg. 32

LENGTH: 477 words

HEADLINE: BASE CLOSURE PANEL TARGETS USAF DEPOTS

DATELINE: WASHINGTON

BODY:

Rejecting the Pentagon's recommendations, the Defense Base Closure and Realignment Commission has added all five U.S. Air Force aircraft maintenance depots to the list of military installations it is reviewing for possible closure.

The depots at Hill AFB, Utah; Kelly AFB, Tex.; McClellan AFB, Calif.; Robins AFB, Ga., and Tinker AFB, Okla., were among the 35 installations added to the original list of 146 recommended for closure or realignment by the Defense Dept. earlier this year. The Pentagon recommended major realignments at the depots, arguing that more money could be saved by reducing the size of the five facilities than by closing one or two of them (AW&ST Mar. 6, p. 22).

''We are going to peel each depot like an onion and find out what the real cost savings are,'' commission member Gen. J. B. Davis, USAF (Ret.), said.

The issue of depot maintenance consolidation has long been a source of controversy between the Air Force and private industry. Industry officials argue more maintenance work should be open to the private sector to sustain the defense industrial base during these lean budget times.

But Air Force Secretary Sheila E. Widnall told a House subcommittee last week that closing any one of the depots would require reduplicating its capability at a cost of about $ 500 million. Associated environmental cleanup costs would add another $ 500-700 million. She said that would equal the total amount the Air Force has set aside for this latest round of closures.

''We would have to take everything else off the table,'' USAF Chief of Staff Gen. Ronald Fogleman said. Although he initially thought at least one or two depots should be closed, Fogleman said an analysis of the costs involved changed his mind.

RETAINING THE DEPOTS also keeps open the option of privatizing them in the future. Fogleman said he could conceive of a contractor moving in to Kelly AFB to take over C-5 work there, for example. The facility and workforce would be retained, but under contractor rather than government management. This ''privatization in place'' scheme is expected to be recommended by the independent Commission on Roles and Missions.

Separately, the Pentagon has launched an effort to repeal the 40% cap on the level of depot maintenance work available to private industry. Language to that effect has been added to the proposed Fiscal 1996 defense authorization act.

Among the 11 Air Force installations the commission added to its list were Grand Forks AFB, N.D.; Laughlin AFB, Tex., and Columbus AFB, Miss. Also added were the Army's Space and Missile Defense Command, Huntsville, Ala., the Naval Air Station at Pt. Mugu, Calif., and the Naval Aviation Depot, Jacksonville, Fla. The panel will make its final recommendations to President Clinton in late June. Congress then must accept or reject the entire list.

LANGUAGE: ENGLISH

LOAD-DATE-MDC: May 18, 1995

Document Separator

Page 55

Korea, and in the Middle East, the threat that today is Iraq, but in the near future, could become Iran; that such a requirement, in fact, calls for a force as postulated in a bottom-up review.

And so when we looked at what force we need to be able to bed down, to be able to train, to be able to support, to be able to deploy to overseas theaters for conduct of operations, that is the kind of a strategy and force size that we considered and compared against the infrastructure that we need to do what needs to be done, Mr. Chairman.

CHAIRMAN DIXON: I guess, along those lines, I'd like to ask, are you satisfied that sufficient capacity has been retained to support the potential need for a more robust force structure in the future? Are you satisfied with that?

GENERAL SHALIKASHVILI: I am satisfied that the structure we have now is robust enough to handle the force that we have today and any changes that we now can possibly foresee.

And, secondly, that, as I testified already, the structure that we are retaining has sufficient additional capacity, either to do what you postulate, but, more likely, to be a candidate for further reductions.

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CHAIRMAN DIXON: And are you saying to me that you and the Joint war-fighting commanders-in chief are satisfied that the basing infrastructure that remains provides sufficient mobilization and deployment capacities to support a two major regional conflict scenario?

GENERAL SHALIKASHVILI: Absolutely, yes.

CHAIRMAN DIXON: Mr. Secretary, or, Secretary Deutch, whichever would care to answer this, was any consideration given to consolidating and realigning smaller bases or functions to those larger bases which were essentially exempt from closing because of their strategic locations?

MR. DEUTCH: Mr. Chairman, I think the answer to that question is yes, that particular piece of analysis is one which was done by the individual services, and I believe that detail on the question is best directed to the individual services, sir.

CHAIRMAN DIXON: General Shalikashvili, will the basing infrastructure that is being proposed today be sufficient to support any probable restationing of forward-deployed forces in terms of available land, usable facilities, and necessary training facilities and ranges?

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GENERAL SHALIKASHVILI: The answer is yes, in some -- probably in most cases. Certainly, it is sufficient to base any kind of realignment from overseas to the United States that we can possibly envision.

CHAIRMAN DIXON: Now, according to the '95 DOD base closure report, General, you have validated the airfield requirements for the two unified commands at MacDill and have determined that the Air Force should take responsibility for supporting those requirements.

During the '91 and '93 rounds, the Joint Staff was unable to validate those requirements.

Can you explain what has changed to permit validation now?

GENERAL SHALIKASHVILI: I cannot speak specifically for the judgment -- what the judgments were based on before. When I looked at the issue, it was my determination that the two commands in MacDill did require access to an airfield. Additionally, there is a joint communications element located at MacDill that requires the capacity to deploy on very short notice.

That those three issues drove me to conclude that there is, in fact, a valid requirement for the use of an

Page 58

airfield to support the two headquarters in this particular joint communications element. And I, in turn, then asked the Air Force to take a look at how best that could be accomplished.

The answer back to me from them was that it can be best accomplished, and in the overall scheme most economically accomplished, by, in fact, retaining that airfield, MacDill, that earlier had been put up for elimination.

CHAIRMAN DIXON: Mr. Secretary, you've proposed inactivating the 321st Missile Group at Grand Forks unless you determine prior to December '96 -- and I quote -- "that the need to retain ballistic missile options effectively precludes this action."

What has prevented an earlier decision on the need to retain these options that would have enabled the Commission to act on a more definitive type of recommendation?

MR. DEUTCH: Frankly, Mr. Chairman, the question about the treaty implication of closing that missile wing at Grand Forks is something that we focused on here rather late in the process, after we received February 3rd or 4th the

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recommendation from the Air Force.

In order to come to a proper judgment on it, it's not just a Department of Defense matter. We have to get interagency views from others about the treaty implications. That's going to take some period of time.

I believe that the material transmitted to the Commission includes a view from our General Counsel and our Undersecretary for Policy that we think that it's clean from the point of view of the treaty. But we do need to have interagency confirmation of that, and we will report back to you as soon as that's available and will try to do so on a prompt basis.

CHAIRMAN DIXON: Thank you, Mr. Secretary. Mr. Secretary, is it your opinion that that can be made available to us prior to our responsibility to act in late June?

SECRETARY PERRY: We're certainly going to make every effort to do so. I can't promise because this requires the performance of an interagency process, but we're certainly going to make every effort we can to clear this up for you as quickly as possible.

CHAIRMAN DIXON: I appreciate that. Did the Air Force or your staff exclude F.E. Warren Air Force Base from

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consideration because of peacekeeper missile-basing?

SECRETARY PERRY: Mr. Chairman, I cannot explain why the Air Force did or did not put a certain base on their list, but F.E. Warren, of course, was not one of the bases that came on their final recommendation to us.

I do have the impression that the Air Force examined all possible alternatives for the basing of the Minute Man system consistent with the bottom-up force structure that is, I think, between 450 and 500 in our plan. So all possible options, I'm sure, were looked at by the Air Force on missile-basing. I can't explain why they came up with this particular one. I'm sure they can.

CHAIRMAN DIXON: Can you, Mr. Chairman?

GENERAL SHALIKASHVILI: I can only tell you that the documentation that I reviewed indicated clearly that they considered all options. Certainly, they were driven by availability of silos into which Minute Man III missiles could be relocated, and where it made most economic and war-fighting sense to reduce those silos, and that drove them to the conclusion to go to Grand Forks.

But you will see when you examine the

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
1700 NORTH MOORE STREET SUITE 1425
ARLINGTON, VA 22209
703-696-0504

March 24, 1995

Please refer to this number when responding 950324-16

The Honorable John M. Deutch
Deputy Secretary of Defense
1010 Defense Pentagon
Washington, D.C. 20301-1010

Dear Secretary Deutch:

During your recent testimony before the Defense Base Closure and Realignment Commission on March 1, 1995, you indicated that interagency coordination would be required to determine whether the proposed inactivation of the missile field at Grand Forks Air Force Base would jeopardize future deployment options under the ABM Treaty.

As you know, the Commission must make its recommendations to the President on the Defense Department's base closure and realignment recommendations by July 1. I hope you will make every effort to complete the interagency review of the issues surrounding the proposed deactivation of the 321st Missile Group at Grand Forks Air Force Base by early June in order that the results of this review will be available to the Commission before we make our recommendation to the President on this proposal.

Thank you for your assistance in this important matter.

Sincerely,

Alan J. Dixon
Chairman

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PITTSBURGH

March 31, 1995

Mr. John H. McNeill, Esq.
Senior Deputy General Counsel
(International Affairs & Intelligence)
Office of the Secretary of Defense
The Pentagon, Room 3E963
Washington, D.C. 20301

Dear Mr. McNeill:

As we discussed, on behalf of the City of Grand Forks, North Dakota, we would like to express our concern with the treaty implications of the Department of Defense recommendation to the Defense Base Closure and Realignment Commission ("Commission") to realign Grand Forks Air Force Base. In part, the Department of Defense recommendation is sound as it recognizes that Grand Forks AFB must not be realigned if to do so would restrict United States ballistic missile defense options. For that very reason the Department of Defense recommendation must be withdrawn as it limits United States options to a single treaty-compliant ABM system deployment area -- Washington, D.C. -- which for various reasons has already been rejected.

In part, the Department of Defense recommendation is flawed, as it suggests that maintaining "[a] small number of silo launchers at Grand Forks" would preserve the right of the United States to deploy an ABM system at that location. We believe this suggestion is erroneous. In voting to advise and consent to the ratification of the ABM Treaty, the U.S. Senate understood that it was voting on an agreement that would permit each party, among other things, to deploy an ABM system at an area containing strategic offensive weapons. The Senate's understanding is now part of the treaty itself and cannot be changed through creative reinterpretation.

As well as requesting that you review our analysis of the ABM Treaty contained in this letter, I am enclosing for your review the prepared statements of Ambassador Edward L. Rowny (LTG., U.S.A., Ret.), before the Senate Armed Services Committee on January 24, 1995 (TAB 1), and before the Commission at its Regional Hearing on March 30, 1995 (TAB 2). For the

various reasons contained in his statements, Ambassador Rowny believes that inactivating the missile wing at Grand Forks AFB will severely limit the BMD options available to the United States under the terms of the ABM Treaty.

Introduction

The Department of Defense has recommended to the Commission the realignment of Grand Forks Air Force Base by inactivating its 321st Missile Group provided that, prior to December 1996, the Secretary of Defense does not determine "that the need to retain ballistic missile defense (BMD) options effectively precludes this action." The BMD options referred to by the Department of Defense, among other areas, are delineated in the ABM Treaty of 1972, which, with its subsequent modifications, limits the United States to one ABM site deployed either at Grand Forks AFB or within the Washington, D.C. area. It appears that the Department of Defense itself has not fully considered the effects that its recommendation might have on the ABM Treaty, and that its caveat regarding BMD options reflects the uncertainty underlying its recommendation. On March 1, 1995, Deputy Secretary of Defense John Deutch testified before the Commission as follows:

> Frankly, Mr. Chairman, the question about the treaty implication of closing that missile wing at Grand Forks is something that we focused on here rather late in the process, after we received February 3rd or 4th the recommendation from the Air Force. In order to come to a proper judgment on it, it's not just a Department of Defense matter. We have to get interagency views from others about the treaty implications. That's going to take some period of time.

Transcript of Open Meeting at 58-59.

Were the Commission to adopt the Department of Defense's recommendation, the United States, consistent with its treaty obligations, could deploy an ABM system only within its capital area, and would seriously compromise its BMD options.

Discussion

A. The ABM Treaty

The Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems ("ABM Treaty") was signed in

Moscow on May 26, 1972, and entered into force on October 3, 1972.[1] Under the treaty, the United States and the U.S.S.R. agree not to deploy an ABM system anywhere other than at two sites within each country. ABM Treaty, art. III. Article III(a) of the treaty permits each party to deploy one limited ABM system to protect its capital; Article III(b) permits an ABM system to protect an intercontinental ballistic missile ("ICBM") launch area. Id. The treaty states that this latter deployment area must "contain[ ] ICBM silo launchers." Id. The ABM Treaty is of unlimited duration. Id. at art. XV, ¶ 1.

Accompanying the ABM Treaty is a document entitled "Agreed Statements, Common Understandings, and Unilateral Statements Regarding the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missiles" (hereinafter referred to as "Accompanying Document"). Within the "Agreed Statements" section of the documents, the parties state their understanding that the two ABM system sites within each country must be separated by no less than 1,300 kilometers from center to center. Within the "Common Understandings" section of the Accompanying Document, the U.S. delegation "notes that its ABM system deployment area for defense of ICBM silo launchers, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area."

On July 3, 1974, the parties signed a protocol ("ABM Protocol") further restricting the deployment of ABM systems.[2] Although under the ABM Treaty the United States and the U.S.S.R. were each permitted to deploy an ABM system at two sites, the ABM Protocol limits each party to one site only. ABM Protocol, art. I. The effect of the ABM Protocol is to restrict the United States to maintain its choice of Grand Forks AFB as the ABM deployment area under Article III of the ABM Treaty. Similarly, the U.S.S.R. is bound by its selection of Moscow. The protocol provides a single exception to these restrictions. Each party is allowed to reverse its decision and deploy an ABM system at the Article III site not initially chosen. ABM Protocol, art. II, ¶ 1. Each party may do so only once and, before initiating construction at the

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[1] Ratification of the ABM Treaty was advised by the United States Senate on August 3, 1972. On September 30, 1972 and October 3, 1972, respectively, the President of the United States ratified and proclaimed the ABM Treaty. The United States and the U.S.S.R. exchanged Instruments of Ratification on October 3, 1972.

[2] The U.S. Senate recommended ratification of the ABM Protocol on November 10, 1975 and on March 19, 1976, the protocol was ratified by the President. The nations exchanged Instruments of Ratification on May 24, 1978. The ABM Protocol was entered into force on May 24, 1976 and subsequently proclaimed by the President on July 6, 1976.

new site, must notify the other country according to the procedure agreed to in the Standing Consultative Commission and during a year in which the ABM Treaty is scheduled for review. Id. Periodic review of the treaty, it should be noted, occurs at five-year intervals and the next review is scheduled for 1997. ABM Treaty, art. XIV, ¶ 2. As Article II, paragraph 2 of the ABM Protocol explains:

> [I]n the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III(b) of the Treaty.

The United States and the former Soviet Union have also negotiated agreements within the Standing Consultative Commission ("SCC"), established by Article XIII of the ABM Treaty. Four such agreements relating to the ABM Treaty were declassified shortly before January 1993. See United States Arms Control and Disarmament Agency, Fact Sheet: The United States and Russia Declassify Five Agreements from the Standing Consultative Commission (January 1993). One agreement in particular concerns procedures for the replacement or dismantling of ABM systems and is discussed below.

B. Inactivating the 321st Missile Group Would Limit the United States to the Washington, D.C. Area as Its Sole Possible ABM Deployment Area

By inactivating the 321st Missile Group at Grand Forks AFB, the United States would impose unacceptable limitations on the ballistic missile defense options to which it agreed in the ABM Treaty. Any suggestion that would allow the United States to inactivate the 321st missile group (or most of it) and still retain its ballistic missile defense options, is contrary to the text and spirit of the ABM Treaty and threaten its continued viability. This is no insignificant matter; the ABM Treaty continues to be held in the highest regard. As the Washington Post recently reported, "[t]he Clinton administration believes the ABM Treaty is the linchpin to its arms control strategy." Dana Priest & Thomas W. Lippman, ABM Treaty Under Attack as Relic of Cold War, Wash. Post, March 13, 1995, at A1, A4. See also David A. Koplow, Constitutional Bait and Switch: Executive Reinterpretation of Arms Control Treaties, 137 U. Pa. L. Rev. 1353, 1367 (1989) ("[T]he ABM Treaty has come to be recognized as one of the most successful and important arms control agreements."); United States Arms Control and Disarmament Agency, Fact Sheet: The Anti-Ballistic Missile Treaty at 3 (May 25, 1994)

("President Clinton has reaffirmed the U.S. commitment to the ABM Treaty. The Administration considers it indispensable to stability, to the START I and START II reductions, and to longer-term reductions in strategic offensive arms.").

A discussion of why two suggested alternatives to keeping the 321st Missile Group active should not be adopted follows.

1. Grand Forks AFB and Washington, D.C. Are the Only Two Permitted Deployment Sites: The United States Cannot Unilaterally Designate a Different ABM System Deployment Area Consistent with the ABM Treaty

The ABM Treaty does not permit the United States to unilaterally designate a different ICBM launch site as an ABM system deployment area. Article III(b) permits each party to deploy an ABM system "within one ABM system deployment area . . . containing ICBM silo launchers." It has been suggested that this provision should be read to allow each party to change its chosen deployment area at will so long as only one Article III(b) ABM system is deployed at any given time. For at least two reasons, this construction must be rejected.

First, there is no evidence whatsoever to suggest that either party ever considered such a construction before it was raised in this country as a purported way to finesse the inactivation of the 321st Missile Group under the Commission process without affecting BMD options. On the day the ABM Treaty was signed, in the document accompanying the treaty and with the understanding of the Soviet delegation, the United States designated Grand Forks AFB as its Article III(b) deployment area. That Grand Forks AFB would be the site was a common understanding of the parties to the ABM Treaty. See Accompanying Document, § 2(A).

It is true that the United States did not make its designation contingent on some Soviet representation that it would deploy an ABM system in some particular venue, but it is also irrelevant. Treaties are specialized agreements that do not require reciprocal or mutual obligations from each party to be binding. See Koplow, supra, at 1408-09. Indeed, mutuality of treaty obligations has been described as "wholly unnecessary as a matter of law." Id. The United States' representation to the U.S.S.R. may thus bind our country without imposing any obligations on the former Soviet Union.

Second, there is ample support for the proposition that the "one ABM system deployment area" permitted by Article III(b) means one and one alone; the ABM Treaty does not permit the United States to move its ABM system unilaterally from ICBM field to ICBM field.

Significantly, when the ABM question was raised by the 1993 Commission, the Deputy Assistant Secretary of the Air Force for Installations (Mr. Boatwright) testified before the Commission on June 17, 1993 as follows:

> "If [Grand Forks AFB] is closed and all silo launchers are eliminated, the U.S. would have the right to relocate the U.S. ABM system to the nation's capital, *not to another ICBM base or some other location.*"

Mr. Boatwright's statements should be given significant weight because it finds support in the text of the ABM Treaty, its subsequent history and protocols, has not received the attention it deserves, and cannot be understood without reference to the history of that important agreement. It is clear that the parties to the ABM Treaty considered this issue because they negotiated detailed procedures for dismantling an ABM system and deploying one elsewhere.

The 1974 ABM Protocol establishes Grand Forks AFB as this country's ABM deployment area but allows for a one-time reversal of this choice entailing deployment of an ABM system in the Washington, D.C. area. ABM Protocol, art. II, ¶ 1. Neither the ABM Treaty nor any of its protocols contains any other procedure through which the U.S. or the U.S.S.R. may change its choice of sites for the deployment of an ABM system.

Even more to the point is the agreement negotiated in the SCC entitled "Supplementary Protocol to the Protocol on Procedures Governing Replacement, Dismantling or Destruction, and Notification Thereof, for ABM Systems and their Components of July 3, 1974" ("Supplementary Protocol"). This agreement was signed in Geneva by representatives of the U.S. and U.S.S.R. on October 28, 1976. As its title suggests, the Supplementary Protocol establishes procedures governing the replacement, dismantling or destruction of ABM systems both within a deployment area and in the event either party decides to exchange deployment areas as permitted by the ABM Protocol. The Supplementary Protocol reads, in part, as follows:

> The Procedures shall apply to ABM systems or their components, when they are being replaced within a deployment area on the basis of Article VII of the Treaty on the Limitation of ABM Systems of May 26, 1972, hereinafter referred to as the Treaty, *as well as when a deployment area of an ABM system or its components is being exchanged on the basis of the Protocol to the Treaty of July 3, 1974.*
>
> Supplementary Protocol at I(1) (emphasis supplied).

The Supplementary Protocol provides clarion notice that neither party to the ABM Treaty intended Article III(b) to grant the U.S. and U.S.S.R. free license to select which ICBM field to protect and to change their selections as many times as desired provided only that, at any given time, no more than one ABM system is deployed. The Supplementary Protocol establishes procedures that would apply were the United States to exchange its designation of Grand Forks AFB for Washington, D.C. under the ABM Protocol, but says nothing about the redesignation of ICBM sites that has been suggested recently. If the United States inactivates the 321st Missile Group, it will have the option, consistent with the clear language of the ABM Treaty, of deploying an ABM system in the Washington, D.C. area and nowhere else. Further proof of this obvious construction is found later in the Supplementary Protocol at section IV, entitled "Procedures for Exchange of the Deployment Area of an ABM System or its Components," where it is stated:

> Each Party may, at its discretion, completely dismantle or destroy the ABM system and its components in the area being exchanged, and thereafter deploy an ABM system or its components *in the other area permitted in Article III of the Treaty and the Protocol thereto* . . . .

For the United States, "the other area" is Washington, D.C. The ABM Treaty provides no other alternatives. The ABM Protocol speaks only of a one-time reversal and deployment in the national capital area while the Supplementary Protocol establishes procedures for effecting this one-time reversal. The suggested regime permitting at-will, unilateral redesignation of our Article III(b) deployment area is clearly not part of the ABM Treaty, it is *ultra vires* and must be avoided.

Article III(b) of the ABM Treaty limits the deployment of ABM systems to a single area "containing ICBM silo launchers." The United States, having selected Grand Forks AFB as that area, and having done so in writing with the approval of the U.S.S.R., is not empowered under the ABM Treaty to select a new site other than Washington, D.C. The ABM Treaty does not provide for such equivocation and would not counsel a unilateral reinterpretation of the agreement twenty-three years after it was signed. Indeed, it is a fundamental principle that each party to a treaty must interpret it in good faith. Vienna Convention of the Law of Treaties, art. 31 (opened for signature May 23, 1969); Restatement (Third) of the Foreign Relations Law of the United States § 321 (1987). Were the United States to adopt a new and self-serving interpretation of an important treaty provision it would violate this principle at the expense of its credibility abroad.

2. Retaining a Small Number of Silo Launchers at Grand Forks AFB in Order to Retain the Option of Deploying an ABM System there Would Violate the Intent of the ABM Treaty

Included in the Department of Defense recommendation to realign Grand Forks AFB is the following: "A small number of silo launchers at Grand Forks may be retained if required." The statement refers to Article III(b) of the ABM Treaty, which provides for an ABM system deployment area within a locale "containing ICBM silo launchers." The idea is that, by retaining "[a] small number of silo launchers at Grand Forks," the option to deploy an ABM system there would also be retained. The notion cannot stand, however, because it relies upon an interpretation of the ABM Treaty that is contrary to its history and purpose.

The salient issue is what was meant by the parties in choosing the phrase "ICBM silo launchers" in Article III(b) of the ABM Treaty. Does it mean, as has been suggested, that the U.S. and U.S.S.R. delegations decided each country could deploy a 100-missile ABM system to defend some minimal number of silo launchers, containing no ICBM's and no logistic support and stripped of nearly every component necessary to maintain their operational status? Or does the phrase reflect the parties' determination to allow each country to deploy an ABM system for the protection (in some measure) of an operational missile field? Intuition dictates the correct answer, as does resort to the history of the ABM Treaty.

The most illuminating available history of the ABM Treaty are records of the Senate's consideration of the agreement. It has been argued that, as a matter of U.S. constitutional law, "[d]etermining whether the Senate formed a coherent view of a particular clause . . . is the essential inquiry" of treaty interpretation. Koplow, supra, at 1404. Professor Koplow explains:

> [O]nce [the Senate's] understanding [of a treaty] has been shown to exist, there is no conceptual difficulty in assessing its legal status. The Senate's understandings and conditions, however evidenced, are fully binding upon the President once the treaty is 'made.' The Senate's view of the treaty, whether explicit or implicit, is an integral part of the treaty, and the President cannot proceed to ratification on any other terms. . . . In effect, the Senate gives its advice and consent to a *particular* treaty regime, not a blank check for any *other* type of arrangements . . . .

Id. at 1404-05 (emphasis in original). See also David Hodgkinson, The Reinterpretation of the ABM Treaty: Policy Versus the Law?, 21 W. Australia L. Rev. 258, 274 (1991) ("The Senate's understanding of the treaty to which it consents is binding on the President. . . ." (quoting M. Bunn, Foundation for the Future 162-67 (1990) (ellipses in original))).

The Senate's understanding of the phrase "ICBM silo launchers" is subject to no doubt. The Senate understood the ABM Treaty to allow the deployment of ABM systems to protect (1) each nation's capital and (2) an area actually containing ICBM's, not simply launchers. The following statements made on the Senate floor illustrate this point in no uncertain terms:[3]

- Senator Byrd - "The ABM Treaty restrict the Soviet Union and the United States to two defensive networks each. One would shield a major offensive weapons site, and a second would be placed near each country's capital." (118 Cong. Rec. 26647 (Aug. 3, 1972));

- Senator Jackson - "Both we and they are permitted two ABM sites, one at our respective national capitals and one located so as to defend strategic offensive weapons." (118 Cong. Rec. 26693 (Aug. 3, 1972));

- Senator Buckley (one of two Senators to oppose the Senate resolution advising the ratification of the ABM Treaty) - "The immediate objectives of the treaty, of course, is to limit antiballistic missile systems to nominal levels, where each side agrees to defend its national capital and one strategic missile site . . . ." (118 Cong. Rec. 26703 (Aug. 3, 1972));

- Senator Kennedy - "The only exceptions [to the prohibitions on deploying ABM systems] are made for a National Capital site and for the protection of a single ICBM site." (118 Cong. Rec. 26763 (Aug. 3, 1972)); and

- Senator Fong - "[The ABM Treaty] [l]imits each side to one ABM site for the defense of its respective capital and one site each for the defense of an ICBM field." (118 Cong. Rec. 26707 (Aug. 3, 1972)).

The Secretary of State's contemporaneous analysis of the treaty likewise adopts the same interpretation of Article III(b). It reads, in relevant part, as follows:

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[3] The House of Representatives appears to have shared the Senate's interpretation. Representative Les Aspin, for example, noted that, under the treaty, "[e]ach [party] will limit ABM systems to two sites -- one in defense of its national capital, the other in defense of an ICBM field." (118 Cong. Rec. 26344 (Aug. 1, 1972)). Similarly, Representative Michael Harrington had reprinted in the Congressional Record an article from the Defense Monitor adopting the same interpretation. (118 Cong. Rec. 23873 (June 30, 1972)).

> The heart of the treaty is article III, which spells out the provisions under which each of the parties may deploy two limited ABM complexes, one in an ICBM deployment area, and one at its national capital. . . .
>
> The two ABM deployment complexes permitted each side will serve different purposes. The limited ABM coverage in the ICBM deployment area *will afford some protection for ICBM's in this area.* ABM coverage at the national capitals will permit protection for the National Command Authority against a light attack, or an accidental or unauthorized launch of a limited number of missiles, and thus decrease the chances that such an event would trigger a nuclear exchange.
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> S. Exec. Rep. No. 28, 92nd Cong., 2nd Sess. 3 (1972) (reprinting analysis) (emphasis supplied).

Similarly, it was assumed during Senate hearings on the ABM Treaty that Article III(b) allowed for the deployment of an ABM system to defend missiles. See generally Strategic Arms Limitation Agreements: Hearings on S.J. Res. 241 and S.J. Res. 242 Before the Comm. on Foreign Relations of the United States Senate, 92nd Cong., 2nd Sess. (1972). The committee report, for example, contains references to the Grand Forks ABM system as designed "for the protection of Minutem[e]n," Id. at 232 (Statement of Donald B. Brennan, senior fellow, professional staff, Hudson Institute), and to "defend ICBM's." Id. at 408 (Statement of Dr. Henry Kissenger).

In short, the suggested strategy of inactivating all components of the 321st Missile Group except for some minimal number of gutted silo launchers cannot be squared with the clear meaning of Article III(b), and thus must be rejected. The Article III(b) ABM system deployment area was meant to defend ICBM's, not empty silos.

Conclusion

The Department of Defense has recommended the realignment of Grand Forks AFB "unless prior to December 1996, the Secretary of Defense determines that the need to retain ballistic missile defense (BMD) options effectively precludes this action." If the 321st Missile

Group at Grand Forks AFB is inactivated, the United States will have imposed severe and unacceptable limitations on its ballistic missile defense options. As such, Grand Forks AFB should not be realigned.

Sincerely,

George R. Schlossberg

Enclosures: as stated.

cc. w/ enclosures: Ambassador Edward L. Rowny
Senator Kent Conrad
Senator Byron Dorgan
Rep. Earl Pomeroy
Mayor Mike Polovitz
Mr. John Marshall, Esq.

STATEMENT OF
AMBASSADOR EDWARD L. ROWNY
(LT. GEN., U.S.A., RET)
FORMER CHIEF U.S. START NEGOTIATOR
BEFORE THE
BASE CLOSURE AND REALIGNMENT COMMISSION
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Commissioner Davis, Commissioner Cox, Commissioner Kling,it is a pleasure to appear before you today to discuss the practical and legal affects of a decision to realign Grand Forks Air Force Base.

As the Chief START negotiator under President Reagan, Special Advisor to Secretary of State Shultz for Arms Control Matters under both Presidents Reagan and Bush, and the Joint Chiefs of Staff Representatives to the Strategic Arms Limitation Talks (SALT II) under the Carter Administration, I feel compelled to express my grave concern over the Department of Defense's recommendation to inactivate the 321st Missile Group at Grand Forks, North Dakota. By taking this course of action, the United States would unacceptable restrict its ballistic missile defence options and needlessly spend millions of dollars that could be saved if an alternative ICBM site were inactivated. Some have suggested that the United States could finesse the ABM Treaty implications by leaving some minimal number of ICBM launchers at Grand Forks. This solution is unsatisfactory because it could undermine the ABM Treaty regimen as well as jeopardize efforts to consummate the START II Treaty.

For nearly two decades I took part in, or was in charge of, negotiations with the USSR on nuclear strategic issues. In 1982 I was a member of the first five-year review

of the ABM Treaty and in 1987 was in charge of the second five-year review of the ABM Treaty. Based on my experience and continued contacts with officials of the Department of Defense, and members of the U.S. Congress, I am convinced that closure of the missile facilities at Grand Forks would be a serious mistake.

ABM TREATY IMPLICATIONS

One of my gravest concerns is that Grand Forks AFB might be realigned without serious consideration as to whether this action might limit our ballistic missile defense options under the ABM Treaty. This is not a matter to be taken lightly. As the Washington Post recently reported, "[t]he Clinton administration believes the ABM Treaty is the linchpin to its arms control strategy," I, too, am concerned about the damage that this contemplated action might inflict on the treaty.

As you are aware, the Treaty Between the United States of American and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems (hereinafter "ABM Treaty") was signed in Moscow on May 26, 1972, and entered into force on October 3, 1972. The ABM Treaty provides among other things, for the restriction of the numbers of Anti-Ballistic Missile (ABM) deployment areas maintained by the two nations. Article III(a) of the treaty permits each party to deploy one limited ABM system to protect its capital; Article III(b) permits an ABM system to protect an intercontinental ballistic missile ("ICBM") launch area. The treaty states that this latter

deployment area must "contain [ ] ICBM silo launchers."

On the day the ABM Treaty was signed, both parties issued a number of agreed statements and came to a common understanding on certain issues intricately related to the treaty. One common understanding reached by the parties concerned where the U.S. would deploy its Article III(b) ABM system. On this point, the U.S. Delegation stated, (and I quote), "that its ABM system deployment area for defense of ICBM silo launders, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area."

On July 3, 1974, the parties signed a protocol ("ABM Protocol") further restricting the deployment of ABM systems. Although under the ABM Treaty the United States and the U.S.S.R. were each permitted to deploy an ABM system at two sites, the ABM Protocol limits each party to one site only. The effect of the ABM Protocol is to restrict the United States to maintain its choice the Grand Forks AFB as the ABM deployment area under Article III of the ABM Treaty. Similarly, the U.S.S.R. is bound by its selection of Moscow.

The protocol provides a single exception to those restrictions. Each party is allowed to reverse its decision and deploy an ABM system at the Article III sit not initially chosen. Each party may do so only once and, before initiating construction at the new site, must notify the other country according to the procedure agreed to in the Standing

Consultative Commission and during a year in which the ABM Treaty is scheduled for review. Periodic review of the treaty, it should be noted, occurs at five-year intervals and the next review is scheduled for 1997. As Article II, paragraph 2 of the ABM Protocol explains:

> [I]n the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III)b) of the Treaty.

1. Preserving a Small Number of Silo Launchers at Grand Forks AFB In Order to Retain the Option of Deploying an ABM System there Would Violate the Intent of the ABM Treaty

I have heard the suggestion that preserving a small number of ICBM launchers at Grand Forks might satisfy the requirement of the ABM Treaty while allowing for the effective inactivation of the 321st Missile Group. I am dismayed that the Department of Defense would entertain this suggested disingenuity. Yet, included in the Department of

Defense recommendation to realign Grand Forks AFB is the following: "A small number of silo launchers at Grand Forks may be retained if required." The statement refers to Article III(b) of the ABM Treaty, which provides for an ABM system deployment area within a locale "containing ICBM silo launchers." The idea is that, by retaining "[a] small number of silo launchers at Grand Forks," the option to deploy an ABM system there would also be retained. The notion cannot stand, however, because it relies upon an interpretation of the ABM Treaty that is contrary to its history and purpose.

The salient issue is what was meant by the parties in choosing the phrase "ICBM silo launchers" in Article III(b) of the ABM Treaty. Does it mean, as has been suggested, that the U.S. and U.S.S.R. delegations decided each country could deploy a 100-missile ABM system to defend some minimal number of silo launchers, containing no ICBM's and no logistic support and stripped of nearly every component necessary to maintain their operational status? Or does the phrase reflect the parties' determination to allow each country to deploy an ABM system for the protection of an operational missile field? Common sense and the history of the ABM Treaty point to this second meaning as the correct answer.

Some of the most important and illuminating history of the ABM Treaty is contained in the records of the Senate's consideration of the agreement. The Senate understood the phrase "ICBM silo launchers" as used in Article III(b) of the treaty to refer to ICBM fields, not simply launchers. Statements made by a number of senators during

consideration of the ABM Treaty confirm this understanding, as do references in the Senate Foreign Relations Committee report. The Senate's understanding of the ABM Treaty became law when it voted for ratification.

The suggested strategy of inactivating all components of the 321st Missile Group except for some minimal number of silo launchers cannot be squared with the meaning of Article III(b) as ratified by the Senate that the ABM system deployment area was meant to defend an ICBM complex and not simply several ICBM launchers.

Accordingly, to the extent the United States desires to maintain the ability to field an ABM site and still remain in compliance with the ABM Treaty, the suggested destruction of all but several ICBM launchers should be rejected. Further, not withstanding the fact that the Grand Forks ABM system has been on inactive status since 1976, closure of Grand Forks AFB or reducing the number to only a few launchers would extinguish any reserved rights of the United States under Article III of the Treaty to activate a ABM system, if required in the future.

2. The Suggested "Solution" Would Jeopardize United States Credibility With Russia and the Other Former Soviet Republics

A related but independent problem concerns our credibility with the successors to the U.S.S.R. Russia, and the other Republics of the former Soviet Union have agreed

to abide by the terms of the ABM Treaty. Over the past two decades the Soviets, and now their successors, have expressed apprehension that the United States intends to walk away from its obligations under the ABM Treaty. The U.S.S.R. has considered the ABM Treaty to serve their interests, whereas the U.S. has come to believe that the ABM Treaty, especially as narrowly defined by the Soviets, has prevented the United States from developing defenses which would protect it from a crippling first-strike.

Since the collapse of the Soviet Union, military officials of Russia and the other nuclear state, Ukraine, Kazakhstan, and Belarus, have indicated that they would be amenable to amending the ABM Treaty so as to permit all parties to work jointly to develop defenses to protect against ballistic missile attacks. If the United States were to realign Grand Forks with the intention that it could retain its ballistic missile defense options and before it worked out details with the nuclear republics of the former Soviet Union, it might well spark a belief that the United States was attempting to unilaterally change the ABM Treaty rather that work jointly to amend it.

Realigning Grand Forks could alienate many of the members of the United States Senate and House of Representatives who have steadfastly supported the ABM Treaty. In the Missile Defense Act of 1992, the congress specified that the development of U.S. programs for strategic defenses must be "treaty compliant," that is, that the United States can plan to defend only one site. In the 1992 amendment to the Missile Defense Act, the Congress repeated its stipulation that planned strategic defenses be "treaty compliant,"

and further stated that the one permitted site by Grand Forks. Thus, any action to close Grand Forks AFB, as part of a base closure exercise without prior consultation with the Congress and resolution of the open ABM Treaty issues would be considered by them to be a serious breach of faith and could jeopardize the National consensus on Arms Control.

In summary, I am convinced that closing the missile facilities at Grand Forks, North Dakota under the aforementioned suggested pretenses threatens to undermine our credibility and should not be undertaken.

START II TREATY IMPLICATIONS:

In addition to ABM Treaty implications, no actions should be contemplated which jeopardize prospects for ratification of the START II treaty. The uncertainty surrounding this treaty requires the retention of the 321st Missile Group. President Bush and President Yeltsin signed the START II Treaty on January 3, 1994, in Moscow; on January 15, 1993, President Bush submitted the START II Treaty to the Senate for its advice and consent for Treaty reatification. It is unclear when the Treaty will be ratified by the Senate.

I agree with views of Admiral Henry G. Chiles, Jr. expressed recently before the Senate Armed Services Committee. Admiral Chiles counseled that, because of the

uncertainty surrounding the ratification of START II, "we should allow the ratification process to take place [before we] draw down Peacekeeper and Minuteman III" deployments. More significantly, Admiral Chiles noted that it will be difficult to implement START II unless we adhere to the ABM Treaty. On this point the Admiral stated: "I believe that without an ABM Treaty, we would not be able to move to a START II."

Similarly, I believe that until the START II Treaty situation is ratified and all strategic allocations are determined, prudent planning requires the retention of the 321st Missile Group, and good faith compliance with the letter and spirit of the ABM Treaty.

COST ISSUES:

A decision to inactivate the 321st Missile Group would unnecessarily cost millions of dollars; dollars that could be saved were a different ICBM field chosen for inactivation. The missile field at Grand Forks is this country's newest and most modern installation. It is also the one ICBM field inextricable linked to the ABM Treaty. If the United States adopts the suggestion to redesignate its Article III(b) deployment area, the ABM Treaty and its protocols would require us to dismantle to destroy any and all ABM components currently located in the Grand Forks area, including all ABM launchers and radars.

I am distressed that this cost item has not, to this point, been taken into account. A fully informed decision regarding Grand Forks cannot be made without considering

these important items. Moreover, the failures to account for such costs violates the spirit, if not the letter, of Section 2925 (a) of the National Defense Authorization Act for Fiscal year 1994, which expresses the sense of the Congress that the Secretary of Defense should consider all direct costs to Federal departments and agencies when deciding base closure issues.

INTERNATIONAL NEGOTIATING CONSULTANTS
2700 Calvert Street, NW
Washington, D.C. 20008
(202) 986-4752
FACSIMILE (202) 986-4752

February 2, 1995

Honorable Alan J. Dixon
Chairman BRAC 1995
1700 North Moore Street
Suite 1425
Arlington, VA 22209

Dear Mr. Dixon:

In my written testimony to the Senate Armed Services Committee submitted at its January 24, 1995 hearing on ballistic missile issues I stated that it is my considered judgment that closing the military facilities at Grand Forks, North Dakota, would be prejudicial to the national security interest of the United States. After having served as Chief START Negotiator under President Reagan, Special Advisor to Secretary of State Shultz for Arms Control Matters under both Presidents Reagan and Bush, and Joint Chiefs of Staff Representative to the Strategic Arms Limitation Talks (SALT II) under President Carter it is my recommendation that no consideration be given to closing the Grand Forks AFB missile field.

In my Senate testimony I outlined three main reasons for making this recommendation. First, the Grand Forks AFB missile field is directly linked to the ABM Treaty and officials of Russia and other republics of the former Soviet Union could consider closing Grand Forks a signal that the U.S. intends unilaterally to change the ABM Treaty. Second, it could seriously jeopardize programs for developing and employing theater and strategic anti-ballistic systems to defend the United States. And third, closure of Grand Forks could possibly violate the Missile Defense Act of 1991 as well as alienate many members of the United States Congress.

While I am not aware of any specific plans to close Grand Forks AFB, I am convinced that any such move would be a miscalculation in arms control policy. The ABM Treaty implications of such an action could prevent us from developing a sound defensive system to protect the United States. In short, it is not in the national security interest of the United States to close Grand Forks AFB.

I have enclosed a copy of my testimony for your review. If you have any questions, or if I may be of any assistance, please do not hesitate to call me at (202) 986-4752.

Respectfully,

Edward L. Rowny

Edward L. Rowny
Ambassador (Lt. Gen./ USA, Retired)

Enclosure: as stated.

TESTIMONY OF

AMBASSADOR EDWARD L. ROWNY
(LT. GEN., U.S.A. RET.),

BEFORE THE COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

JANUARY 24, 1995

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

TESTIMONY OF
AMBASSADOR EDWARD L. ROWNY
(LT. GEN., U.S.A. RET.),

BEFORE THE COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

JANUARY 24, 1995

CHAIRMAN THURMOND AND MEMBERS OF THE COMMITTEE:

IT IS A PLEASURE TO APPEAR BEFORE YOU TODAY TO DISCUSS BALLISTIC MISSILE DEFENSE ISSUES.

AS THE CHIEF START NEGOTIATOR UNDER PRESIDENT REAGAN, SPECIAL ADVISOR TO SECRETARY OF STATE SHULTZ FOR ARMS CONTROL MATTERS, UNDER BOTH PRESIDENTS REAGAN AND BUSH, AND IN MY CAPACITY AS THE JOINT CHIEFS OF STAFF REPRESENTATIVE TO THE STRATEGIC ARMS LIMITATION TALKS (SALT II) UNDER THE CARTER ADMINISTRATION, IT IS MY CONSIDERED JUDGMENT THAT THE ABM TREATY OF 1972 (AND THE PROTOCOL TO THE TREATY IN 1974) VITAL TO OUR NATIONAL SECURITY INTEREST, IS IN JEOPARDY OF BEING VIOLATED BY THE UNITED STATES.

ABM TREATY IMPLICATIONS

THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS (HEREINAFTER "ABM TREATY") WAS SIGNED IN MOSCOW ON MAY 26, 1972, AND ENTERED INTO FORCE ON OCTOBER 3, 1972. THE ABM TREATY PROVIDES, AMONG OTHER THINGS FOR RESTRICTION ON THE NUMBERS OF ANTI-BALLISTIC MISSILE (ABM) DEPLOYMENT AREAS MAINTAINED BY THE TWO NATIONS. SPECIFICALLY, THE TREATY ORIGINALLY PERMITTED EACH SIDE TO HAVE ONE LIMITED ABM SYSTEM TO PROTECT ITS CAPITAL ANDANOTHER TO PROTECT AN INTERCONTINENTAL BALLISTIC MISSILE (ICBM) LAUNCH AREA.

DURING THE NEGOTIATIONS OF THE AGREED STATEMENTS AND COMMON UNDERSTANDINGS TO ACCOMPANY THE TREATY, IT WAS DECIDED THAT THE UNITED STATES ABM SYSTEM DEPLOYMENT AREA FOR DEFENSE OF ICBM SILO LAUNCHERS "WILL BE CENTERED IN THE GRAND FORKS ICBM SILO LAUNCHER DEPLOYMENT AREA" AT GRAND FORKS AIR FORCE BASE (AFB), NORTH DAKOTA.

AT THE 1974 SUMMIT MEETING BETWEEN THE U.S. AND THE U.S.S.R., THE NATIONS SIGNED THE PROTOCOL TO THE ABM TREATY ("PROTOCOL"). THE

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

PROTOCOL'S EFFECT IS TO RESTRICT THE UNITED STATES TO ITS CHOICE OF GRAND FORKS AFB AS THE ABM DEPLOYMENT AREA UNDER ARTICLE III OF THE TREATY. IN RELEVANT PART, THE PROTOCOL PROVIDES:

1. Each party shall be limited at any one time to a single area out of the two provided in Article III of the Treaty for deployment of anti-ballistic missile (ABM) systems.

2. Accordingly, except as permitted by Article II of this Protocol: the United States of America shall not deploy an ABM system or its components in the area centered on its capital, as permitted by Article III of the Treaty.

Protocol, Article I.

TO ALLOW SOME FLEXIBILITY TO THE NATIONS, ARTICLE II OF THE PROTOCOL ALLOWS EACH SIDE TO REVERSE ITS ORIGINAL CHOICE OF AN ABM SITE. THUS, UNDER THE ABM TREATY, THE UNITED STATES IS ALLOWED ONLY TO DISMANTLE AND DESTROY ITS ABM SYSTEM AT GRAND FORKS AFB AND DEPLOY AN ABM SYSTEM IN THE WASHINGTON, D.C. AREA. THE PROTOCOL DOES NOT ALLOW THE NATIONS TO SELECT ABM DEPLOYMENT AREAS DIFFERENT FROM THOSE DESIGNATED IN THE COMMON AGREEMENTS TO THE TREATY, AND CLEARLY STATES THAT THE RIGHT TO ALTERNATE BETWEEN THE ORIGINAL ABM DEPLOYMENT AREA AND THE ALTERNATE SITE (WASHINGTON, D.C.) "MAY BE EXERCISED ONLY ONCE." (EMPHASIS ADDED.)

ACCORDINGLY, TO THE EXTENT THE UNITED STATES DESIRES TO MAINTAIN THE ABILITY TO FIELD AN ABM SITE AND STILL REMAIN IN COMPLIANCE WITH THE ABM TREATY, RELOCATION OF THE ABM DEPLOYMENT AREA FROM GRAND FORKS AFB TO AN AREA OTHER THAN THE NATIONAL CAPITAL AREA WOULD NOT BE ALLOWED.

RUSSIA, AND THE OTHER REPUBLICS OF THE FORMER SOVIET UNION, HAVE AGREED TO ABIDE BY THE TERMS OF THE ABM TREATY. OVER THE PAST TWO DECADES THE SOVIETS, AND NOW THEIR SUCCESSORS, HAVE EXPRESSED MISGIVINGS THAT THE UNITED STATES INTENDS TO WALK AWAY FROM ITS OBLIGATIONS UNDER THE ABM TREATY. THE FORMER STATES OF THE U.S.S.R. HAVE CONSIDERED THE ABM TREATY TO SERVE THEIR INTERESTS, WHEREAS THE U.S. HAS COME TO BELIEVE THAT THE ABM TREATY, ESPECIALLY AS NARROWLY DEFINED BY THE SOVIETS, HAS PREVENTED THE UNITED STATES FROM DEVELOPING DEFENSES TO PROTECT ITSELF.

SINCE THE COLLAPSE OF THE SOVIET UNION, MILITARY OFFICIALS OF

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

RUSSIA AND THE OTHER NUCLEAR STATES, UKRAINE, KAZAKHSTAN, AND BELARUS, HAVE INDICATED THAT THEY WOULD BE AMENABLE TO AMENDING THE ABM TREATY SO AS TO PERMIT ALL PARTIES TO WORK JOINTLY TO DEVELOP DEFENSES TO PROTECT AGAINST BALLISTIC MISSILE ATTACKS.

HOWEVER, THERE IS A NEW DEVELOPMENT WHICH THREATENS TO UNDERMINE THE ABM TREATY AND THE GOOD RELATIONS THE U.S. AND THE FORMER SOVIET REPUBLICS HAVE ESTABLISHED. AS YOU ARE AWARE, 1995 REPRESENTS A NEW ROUND OF BASE CLOSURES THROUGH THE DEFENSE BASE AND REALIGNMENT PROCESS. I AM CONCERNED THAT THE GRAND FORKS AFB MISSILE FIELD MAY APPEAR ON THE LIST OF POTENTIAL BASES TO BE CLOSED OR REALIGNED.

AT THE END OF 1994 I HAD THE OPPORTUNITY TO CONSIDER THE RAMIFICATIONS OF CLOSING GRAND FORKS AFB IN A LETTER TO GENERAL RONALD R. FOGLEMAN. AT THAT TIME I CONCLUDED THAT:

> "...closing the military facilities at Grand Forks, North Dakota, would be prejudicial to the national security interest of the United States."

MY CONCLUSION WAS BASED ON A BELIEF THAT ANY ACTIONS TO DISMANTLE THE GRAND FORKS BALLISTIC MISSILE FIELD COULD UNDERMINE THE ABM TREATY REGIMEN FOR THE FOLLOWING REASONS:

- First, Russia and other republics of the former Soviet Union could consider the closing of Grand Forks a signal that the United States intends unilaterally to change the ABM Treaty.

- Second, it could seriously jeopardize programs for developing and employing theater and strategic anti-ballistic systems to defend the United States, the direction in which we need to be focusing our security efforts.

- Third, closing Grand Forks may lead to a violation of the 1992 amendments to the Missile Defense Act of 1991, which provides that all strategic defenses must be treaty compliant and that the one permitted site must be Grand Forks.

THE MISSILE FIELD AT GRAND FORKS AFB IS INTRICATELY LINKED TO THE ABM TREATY. IF THE UNITED STATES WERE TO CLOSE GRAND FORKS BEFORE IT WORKED OUT DETAILS WITH THE NUCLEAR REPUBLICS OF THE FORMER SOVIET UNION, IT COULD GIVE THOSE REPUBLICS GROUNDS FOR BELIEVING

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

THAT THE UNITED STATES WAS ATTEMPTING TO CHANGE UNILATERALLY THE ABM TREATY RATHER THAN WORK JOINTLY TO AMEND IT.

MOREOVER, IN LIGHT OF THE RECENT EVENTS IN THE BREAKAWAY REPUBLIC OF CHECHNYA AND THE STRAIN IT HAS PLACED ON U.S.-RUSSIAN RELATIONS, A MOVE BY THE U.S. TO CLOSE GRAND FORKS WOULD NOT ONLY FURTHER FRUSTRATE OUR ATTEMPTS TO ACHIEVE GREATER HARMONY ON A BROAD RANGE OF DEFENSE/SECURITY ISSUES BUT ALSO COULD SERIOUSLY JEOPARDIZE THE STABILITY OF THE OTHER FORMER SOVIET REPUBLICS WITH NUCLEAR CAPABILITY.

ADDITIONALLY, CLOSING GRAND FORKS WILL INHIBIT, IF NOT ENTIRELY PROHIBIT, THE DEVELOPMENT OF FUTURE U.S. DEFENSIVE SYSTEMS WHICH ENCOMPASS THE DEPLOYMENT OF DEFENSES AT MORE THAN ONE SITE. MOVING TO ANOTHER SITE WOULD ENTAIL NEGOTIATING A TREATY CHANGE WITH THE RUSSIANS, AND POSSIBLY OTHER FORMER REPUBLICS OF THE SOVIET UNION. IN OTHER WORDS, IT COULD COMPLICATE LONG-RANGE PLANS TO BUILD A NEW SITE AND EVEN PLANS FOR EVENTUALLY ESTABLISHING A MULTIPLE SITE DEFENSE OF THE UNITED STATES.

FURTHER, NOTWITHSTANDING THE FACT THAT THE GRAND FORKS ABM SYSTEM HAS BEEN ON INACTIVE STATUS SINCE 1976, CLOSURE OF GRAND FORKS WOULD EXTINGUISH ANY RESERVED RIGHTS OF THE UNITED STATES UNDER ARTICLE III OF THE TREATY TO ACTIVATE AN ABM SYSTEM, IF REQUIRED IN THE FUTURE.

FINALLY, IN THE MISSILE DEFENSE ACT OF 1991, THE CONGRESS SPECIFIED THAT THE DEVELOPMENT OF U.S. PROGRAMS FOR STRATEGIC DEFENSES MUST BE "TREATY COMPLIANT", THAT IS, THE UNITED STATES CAN PLAN TO DEFEND ONLY ONE SITE. IN THE 1992 AMENDMENT TO THE MISSILE DEFENSE ACT, THE CONGRESS REPEATED ITS STIPULATION THAT PLANNED STRATEGIC DEFENSES BE "TREATY COMPLIANT", AND FURTHER STATED THAT THE ONE PERMITTED SITE BE GRAND FORKS. THUS, ANY ACTION TO CLOSE GRAND FORKS AFB, AS PART OF A BASE CLOSURE EXERCISE, WITHOUT RESOLUTION OF THE OPEN ABM TREATY ISSUES COULD PLACE THE U.S. IN THE POSITION OF VIOLATING NOT ONLY THE ABM TREATY BUT ALSO ITS OWN COMPLIANCE STANDARDS.

IN SUMMARY, I AM CONVINCED THAT CLOSING THE MILITARY FACILITIES AT GRAND FORKS, NORTH DAKOTA, WOULD BE A GRAVE MISTAKE. THE ABM TREATY IMPLICATIONS OF SUCH AN ACTION WOULD BE SERIOUS CAUSE FOR CONCERN BY OFFICIALS OF THE FORMER SOVIET UNION, PREVENT THE DEVELOPMENT OF A SOUND DEFENSIVE SYSTEM TO PROTECT THE UNITED

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

STATES AND PLACE THE UNITED STATES IN THE POSITION OF POTENTIALLY VIOLATING ITS OWN LAWS. IN SHORT, TO CLOSE GRAND FORKS AFB WOULD PUT THE UNITED STATES NATIONAL SECURITY AT RISK.

THE CENTER FOR SECURITY POLICY

D E C I S I O N B R I E F

DECISION BRIEF
For Immediate Release

No. 95-D 30
8 May 1995
(202) 466-0515

MISCHIEF IN MOSCOW, CRISIS IN WASHINGTON: WILL CLINTON DEFY CONGRESS ON MISSILE DEFENSE?

Of all the mistakes President Clinton appears poised to make in his summit with President Yeltsin -- including legitimating Yeltsin's Stalinesque genocide in Chechnya, his nuclear proliferation to Iran and his NATO-wrecking operation -- one is in a class by itself: Mr. Clinton's efforts to impede, if not preclude, effective anti-missile defenses threatens not only to jeopardize U.S. national security interests; it could also produce a constitutional crisis.

Summit Shenanigan

This singularly portentous problem arises from communique language the Clinton Administration has developed with the Russians. The plan is for the two presidents to pronounce the 1972 Anti-Ballistic Missile (ABM) Treaty the "cornerstone" of U.S.-Russian relations and strategic stability.

The Administration hopes with this statement to lock-in the United States' commitment to an agreement that effectively bans missile defenses for the American people, notwithstanding the facts that it was forged with a country (the Soviet Union) that no longer exists and it was drafted in a strategic environment that no longer pertains (namely, one in which essentially only the Soviets' nuclear weapons and ballistic missiles posed a threat to the U.S. and its troops and allies overseas). Despite these dramatic changes, the United States remains without deployed, effective anti-missile defenses. And, if the Clinton team has its way, this will remain the case indefinitely.

Worse yet, the summiteers are expected to embrace written commitments that would have the effect of dramatically *expanding* the ABM Treaty's scope. By agreeing not to deploy "regional defenses" against each other's ballistic missiles and to assure "non-circumvention" of the treaty, Mr. Clinton would give the Kremlin important rights. Three key leaders of the House of Representatives -- Appropriations Committee Chairman Robert Livingston, National Security Committee Chairman Floyd Spence and Appropriations Defense Subcommittee Chairman Bill Young -- wrote the President the attached letter last Thursday. It warns that:

> "[These limitations] suggest unacceptable geographical limitations on U.S. theater missile defenses (TMD) and could open the door for Russia to oppose *any* U.S. TMD deployments. In addition, the reported 'non-circumvention' language could cause Russia to challenge our international cooperative theater defense programs."

The legislators went on to note their continuing opposition to the Clinton Administration's efforts to negotiate the "multilateralization" of the ABM Treaty. That initiative would open the Treaty to additional signatories, a step calculated to make it more difficult to change its terms in the future. They also reiterated their opposition to the current U.S. negotiating position which would "place velocity limits on TMD interceptors...[and] hamstring our ability to provide the most capable missile defenses to our forward-deployed forces." Messrs. Livingston, Spence and Young concluded by observing:

- more -

"...President Yeltsin must be made to realize that we are ready to act cooperatively [with Russia] if we can, but unilaterally if we must when it comes to missile defenses. The importance of this issue to U.S. security is simply too great to extend Russia or any other nation a veto."

The Constitutional Question

Such a warning to the President of the United States from senior members of the House of Representatives who control the government's purse-strings cannot prudently be ignored. It would be more than foolish, however, for the Administration to ignore a letter, also attached, which was sent on May 2nd by fifty members of the U.S. Senate -- including Majority Leader Robert Dole and virtually every other member of the Republican leadership. This letter served formal notice on Mr. Clinton:

"We are deeply troubled by indications that you intend to proceed, in the face of clearly stated congressional opposition, to make commitments in Moscow that would impede U.S. efforts to provide American troops with effective protection against missile attack. We find particularly troubling press reports describing the draft communique language being developed for that meeting....We want you and the Russians to be fully aware of our determination to prevent the creation of new impediments to missile defenses."

The fifty signatories to this letter represent more than enough to defeat any new missile defense treaty or ABM amendment that President Clinton might submit for Senate advice and consent, as required by the U.S. Constitution. Therefore, the Administration seems to believe that it can do as it did with the notorious North Korean "agreed framework" -- namely, ignore altogether the Senate's role in treaty-making. Senator Dole and his colleagues must not allow an Administration bent on "dumbing-down," if not altogether precluding, U.S. missile defense capabilities to dumb-down the Constitution in the process.

The Bottom Line

It is noteworthy that in addition to Senator Dole, two other Senate Republicans -- Phil Gramm, Dick Lugar and Arlen Specter -- who share Mr. Dole's desire to bring an early end to the Clinton presidency, are among those who signed the May 2nd letter. **If Mr. Clinton will not be deterred from making a serious mistake on missile defenses at the summit by virtue of either the strategic dangers or the potential constitutional crisis it may precipitate, perhaps the political risks associated with leaving the United States exposed to missile attack will do the trick.**

After all, the President has been at pains in the wake of the Oklahoma City bombing to promise the populace that he would take every step to protect it. Does he really mean that he will do so *unless* the attacker uses a ballistic missile, in which case the public is on its own? **If so, Mr. Clinton will be roughly as vulnerable politically as he would leave the American people.**

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

4 May 1995

The Honorable William J. Clinton
President
The White House
Washington, D.C. 20500

Dear Mr. President:

As you prepare for your upcoming trip to Moscow, we wish to register our concern over the Administration's latest attempt to resolve the issue of theater missile defenses and the ABM Treaty and our strong opposition to any agreement that restricts the ability to defend our troops abroad from ballistic missile attack.

Reports of draft communique language describing the ABM Treaty as the "cornerstone" of the U.S.-Russian arms control relationship once again illustrate the difficulty the Administration is having in coming to terms with post-Cold War realities. An agreement to ban deployment of "regional defenses against the other's ballistic missiles" suggests unacceptable geographical limitations on U.S. TMD deployments and could open the door for Russia to oppose <u>any</u> U.S. TMD deployments. In addition, the reported "non-circumvention" language could cause Russia to challenge our international cooperative theater defense programs.

Moreover, the Administration's negotiating position continues to support the multilateralization of the Treaty, which would make future amendments more difficult. It also continues to place velocity limits on TMD interceptors, which would hamstring our ability to provide the most capable missile defenses to our forward deployed forces. We encourage you to inform President Yeltsin that the United States is opposed to such limits.

The focus of any negotiations with the Russians should be on finding ways to move forward cooperatively, not to limit U.S. capabilities. We encourage you to seek Russia's agreement to resume the discussions that began in 1992 on a "global protection system," including early warning data sharing, and related issues of mutual benefit. However, President Yeltsin must be made to realize that we are ready to act cooperatively if we can, but unilaterally if we must when it comes to missile defenses. The importance of this issue to U.S. security is simply too great to extend Russia or any other nation a veto.

Sincerely,

Floyd D. Spence
Chairman
Committee on National Security

Robert L. Livingston
Chairman
Committee on Appropriations

C. W. Bill Young
Chairman
Subcommittee on National Security
Committee on Appropriations

BOB DOLE
KANSAS

United States Senate

OFFICE OF THE REPUBLICAN LEADER
WASHINGTON, DC 20510-7010

May 2, 1995

The President
The White House
Washington

Dear Mr. President:

We are writing in advance of your summit meeting in Moscow to reiterate our strenuous objections to any action which would politically strengthen the 1972 Anti-Ballistic Missile (ABM) Treaty, expand its scope, increase the number of signatories, or otherwise add impediments to the development and deployment of effective U.S. theater missile defenses. On four separate occasions -- January 17, February 6, March 8, and April 6 -- Senate Republicans have written to you on this critical issue, indicating our opposition to such efforts and underscoring our position that any such treaty changes would be subject to the advice and consent of the Senate. Unfortunately, there are indications that your administration has not been dissuaded from pursuing a course which would place serious new constraints on our ability to pursue effective missile defenses.

The threat posed by the proliferation of ballistic missile technology and weapons of mass destruction grows daily. We had a close look at this threat during the Gulf War. The next time a conflict arises, our troops and our allies could face a greater threat, as terrorist regimes like Iran, bent on acquiring missile technology, nuclear weapons and other weapons of mass destruction move closer to that goal. The Russians' intent to follow through with a reactor deal that would add to Iran's nuclear know-how only makes the situation more urgent.

As such, we are deeply troubled by indications that you intend to proceed, in face of clearly stated Congressional opposition, to make commitments in Moscow that would impede U.S. efforts to provide American troops overseas and allies with effective protection against missile attack. We find particularly troubling press reports describing the draft communique language being developed for that meeting. Furthermore, we note that in January 1992, Russian President Boris Yeltsin proposed not only deeper offensive force reductions, but collaboration with the United States on a joint "Global Protection System" of anti-missile defenses. This would be a much more appropriate and constructive avenue for your discussions with President Yeltsin.

Failing to get Russia to back down on its nuclear reactor deal with Iran, while simultaneously acting to severely limit our ability to protect U.S. forces, allies, and American citizens would be inexcusable. Should this be the outcome, we want you and the Russians to be fully aware of our determination to prevent the creation of new impediments to missile defenses.

Sincerely,

Robert Dole	William S. Cohen	Rodney Grams	Richard Lugar	Richard Shelby
Spencer Abraham	Paul Coverdell	Charles Grassley	Connie Mack	Alan K. Simpson
John Ashcroft	Larry E. Craig	Judd Allan Gregg	John McCain	Robert Smith
Robert Foster Bennett	Alfonse D'Amato	Orrin Hatch	Mitch McConnell	Olympia J. Snowe
Christopher S. Bond	Mike DeWine	Jesse Helms	Frank Murkowski	Arlen Specter
Hank Brown	Pete V. Domenici	Kay Bailey Hutchison	Don Nickles	Ted Stevens
Conrad Burns	D. M. 'Lauch' Faircloth	James M. Inhofe	Bob Packwood	Craig Thomas
Ben Nighthorse Campbell	Bill Frist	Dirk Kempthorne	Larry Pressler	Fred Thompson
Daniel R. Coats	Slade Gorton	Jon L. Kyl	William W. Roth	Strom Thurmond
Thad Cochran	Phil Gramm	Trent Lott	Rick Santorum	John W. Warner

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United States Senate

WASHINGTON, DC 20510-2602

May 9, 1995

Mr. Charlie Smith
Staff Director
Defense Base and Realignment
Commission
1700 North Moore Street, #1425
Arlington, Virginia 22209

950509-21

Dear Charlie:

I appreciate your quick response and telephone call. I understand the Commissioners' concerns. Thanks for the update on their position.

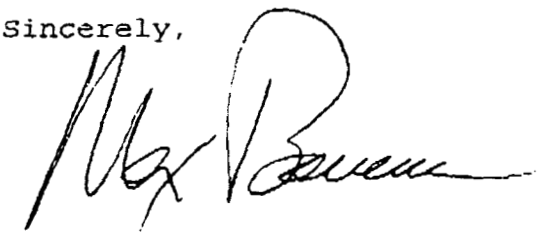
After we talked, I again read Secretary Deutch's letter to Chairman Dixon. Although I understand the Commissioners' concerns, I am puzzled by their conclusion that Secretary Deutch's position may not represent the Government's position. As you can see in the section that I have outlined on the attached copy of the Deputy Secretary's letter, he is forwarding to Chairman Dixon the results of the interagency review of the issue. The review included the Department of Defense, Department of State, the Arms Control and Disarmament Agency, and the National Security Council Staff. It appears to me that this was a comprehensive review and fairly represents the Government's position.

I hope that you will be able to bring this important information to the Commissioners' attention so that their concerns will be adequately addressed.

Again, thank you for your assistance in keeping the Commissioners informed.

With best personal regards, I am

Sincerely,



MSB/avg
Enclosure

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-1000

9 May 1995

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

Dear Chairman Dixon:

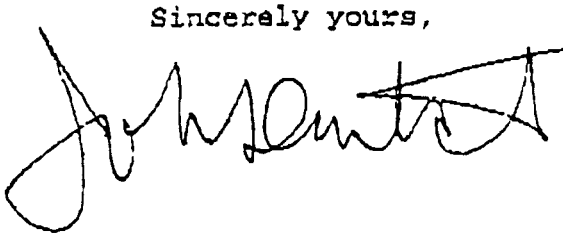
This letter follows up on my testimony before the Commission on March 1, and responds to your letter to me of March 24, concerning the proposed realignment of Grand Forks AFB through inactivation of the 321st Missile Group, and interagency review of associated treaty issues.

As you will recall, our recommendation concerning Grand Forks was made subject to a possible determination by the Secretary relating to Ballistic Missile Defense (BMD) options. Specifically, we recommended that Grand Forks AFB be realigned and the 321st Missile Group inactivated, "unless the Secretary of Defense determines that the need to retain [BMD] options effectively precludes this action." That, in turn, has been the focus of a legal review of treaty issues by representatives of the Department of Defense (including the Office of the Chairman, Joint Chiefs of Staff), the Department of State, the Arms Control and Disarmament Agency, and the National Security Council staff.

I am pleased to report that the interagency review has been completed and that the contingency has been favorably resolved. There will be no determination by the Secretary that would require retention of the missile group at Grand Forks. Realignment of Minot AFB and inactivation of the 91st Missile Group is no longer a necessary alternative. Consequently, our recommendation, as transmitted on February 28, remains that Grand Forks AFB be realigned and the 321st Missile Group inactivated.

I trust that this will enable the Commission to proceed with the formulation of its recommendation to the President.

Sincerely yours,



Frank J. Gaffney, Jr.

9 May 1995

Mr. Alan Dixon
Defense Base Closure and Realignment Commission
1700 North Moore Street
Suite 1425
Rosslyn, Virginia 22209

Dear Alan:

I am writing in connection with an issue that I understand may bear on the Defense Base Closure and Realignment Commission's deliberations about the future status of the missile group at Grand Forks, North Dakota. I gather that concerns have been raised with the Commission that realigning this facility as recommended by the Department of Defense may have adverse implications for the Nation's ability to protect itself against ballistic missile attack.

I presume to address this topic both by virtue of my present activities and my previous experience. Currently, I am -- among other incarnations -- the Coordinator of the Coalition to Defend America, a committee comprised of former Cabinet and sub-Cabinet officers, former members of the Joint Chiefs of Staff and other distinguished retired officers, Members of Congress and influential citizens who share the belief that the United States, its forces overseas and its allies *must* be defended against missile attacks.

In previous years, I had the privilege of working on missile defense and arms control matters on Senator Henry M. "Scoop" Jackson's staff, as a professional staff member of Senator John Tower's Armed Services Committee and as a senior official for four-and-a-half years in Caspar Weinberger's Defense Department during the Reagan Administration. In my capacity as the Deputy Assistant Secretary of Defense for Nuclear Forces and Arms Control Policy and subsequently as the acting Assistant Secretary of Defense for International Security Policy, I was directly involved in the U.S. government's decisions concerning strategic defense, treaty negotiations and compliance issues.

I am convinced that there is no higher defense priority than deploying an effective defense to protect the American people against ballistic missile attack. Unfortunately, the 1972 Anti-Ballistic Missile Treaty precludes the United States from deploying such a defense. Consequently, that Treaty is inconsistent with U.S. national security requirements.

The good news is that an increasing number of legislators are becoming aware of this fact. Indeed, I expect that the next few months will see steps taken to begin to move the United States away from the posture of "assured vulnerability" to which it is condemned by the ABM Treaty. Specifically, I expect Congress to authorize the expenditure of funds for a missile defense system that will allow the United States to provide modest protection for the American people as well as very effective protection of our forces and allies overseas.

3803 Yuma Street, N.W. Washington, D.C. 20016

In my professional judgment, **this will *not* be accomplished, though, by exercising our option to deploy up to 100 ground-based interceptors for the nominal purpose of defending intercontinental ballistic missiles at Grand Forks.** Instead, I believe it will be achieved by deploying anti-missile interceptors aboard **Navy AEGIS cruisers** deployed world-wide. The advantages of such a deployment are obvious:

- **The entire infrastructure for a sea-based missile defense is bought-and-paid-for -- and in operation throughout the globe.** It will require neither additional bases nor appreciable increases in manpower. As a result, the marginal additional cost to deploy 650 Navy "Upper Tier" interceptors aboard 22 AEGIS cruisers is estimated to be just $2-3 billion over the next five years.

  Contrast this option with the idea of completely refurbishing an anti-missile site abandoned nearly twenty years ago in North Dakota. The installation costs alone of such a deployment are estimated to run somewhere between $5 and $20 billion (depending on the technology utilized). Operational costs would be additional and very significant. A ground-based deployment would also take upwards of a year longer to deploy.

- **The Navy system can be flexibly deployed where needed** -- for theater *or* strategic missions. **By contrast, a ground-based defense in CONUS will be of *no value* in defending U.S. forces or allies overseas.** What is more, it probably will not be able to provide protection to Alaska and Hawaii.

- **There need be no environmental impact or other social interface procedures** that would accompany -- and inevitably complicate -- the deployment of a ground-based system *even at a previously operational ABM site*.

In short, the desirability of defending the United States against missile attack should not be a decisive factor in determining the future fate of the 321st Missile Group. To be honest, I would not personally recommend making decisions about the future size and composition of the U.S. strategic deterrent -- or about American compliance with arms control agreements -- solely on the basis of considerations within the BRAC's purview. I nonetheless believe that, given the aforementioned considerations and others relating to the condition of the missile silos at Grand Forks relative to other sites, particularly when taken together with the unanimous judgment of the relevant military commanders, the Commission can responsibly approve the Defense Department's recommendation to realign Grand Forks Air Force Base. I urge you to do so.

I would welcome an opportunity to discuss my conclusions and recommendations concerning this issue with you or your staff at your convenience.

Sincerely yours,

Frank J. Gaffney, Jr.

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-1000

9 May 1995

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

Please refer to this number when responding 95C324-16R1

Dear Chairman Dixon:

This letter follows up on my testimony before the Commission on March 1, and responds to your letter to me of March 24, concerning the proposed realignment of Grand Forks AFB through inactivation of the 321st Missile Group, and interagency review of associated treaty issues.

As you will recall, our recommendation concerning Grand Forks was made subject to a possible determination by the Secretary relating to Ballistic Missile Defense (BMD) options. Specifically, we recommended that Grand Forks AFB be realigned and the 321st Missile Group inactivated, "unless the Secretary of Defense determines that the need to retain [BMD] options effectively precludes this action." That, in turn, has been the focus of a legal review of treaty issues by representatives of the Department of Defense (including the Office of the Chairman, Joint Chiefs of Staff), the Department of State, the Arms Control and Disarmament Agency, and the National Security Council staff.

I am pleased to report that the interagency review has been completed and that the contingency has been favorably resolved. There will be no determination by the Secretary that would require retention of the missile group at Grand Forks. Realignment of Minot AFB and inactivation of the 91st Missile Group is no longer a necessary alternative. Consequently, our recommendation, as transmitted on February 28, remains that Grand Forks AFB be realigned and the 321st Missile Group inactivated.

I trust that this will enable the Commission to proceed with the formulation of its recommendation to the President.

Sincerely yours,

John Deutch

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(ECONOMIC SECURITY)

Base Closure and Utilization Directorate

FACSIMILE HEADER

To: Mr. Ben Borden **Date:** May 9, 1995

Office: Director, R&A
Defense Base Closure and
Realignment Commission

Phone: 696-0504

FAX: 696-0550 Classified FAX: No

MESSAGE CONSISTS OF 02 PAGE(S) INCLUDING HEADER.

Ben,

Attached is a copy of the letter from Deputy Secretary Deutch to Chairman Dixon regarding interagency review of treaty issues associated with the Department's recommendation to realign Grand Forks AFB.

Office of the General Counsel had lead on this, and we believe they are providing the Commission with the original.

Hope this is useful in your on-going effort.

Cheers!

"Roo" Thompson

Paul J. Thompson
Colonel, USAF
Asst Director for Base Closure

Phone (703) 697-8048

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-1000

9 May 1995

The Honorable Alan J. Dixon
Chairman, Defense Base Closure
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1700 North Moore Street, Suite 1425
Arlington, VA 22209

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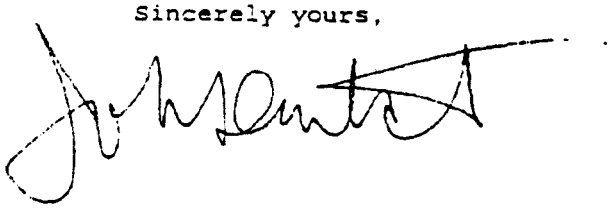

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-1000

9 May 1995

The Honorable Alan J. Dixon
Chairman, Defense Base Closure
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1700 North Moore Street, Suite 1425
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Sincerely yours,

THE ARMS CONTROL REPORTER

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A CHRONICLE OF TREATIES NEGOTIATIONS PROPOSALS WEAPONS & POLICY

1993

DEFENSE BASE CLOSURE & REALIGNMENT COMMISSION
1700 NORTH MOORE STREET, SUITE 1425
ARLINGTON, VIRGINIA 22209
(703) 696-0504

MEMORANDUM OF MEETING

DATE: April 14, 1995

TIME: 2:00 p.m.

MEETING WITH: Brigadier General Richard A. Black, USA

SUBJECT: 1972 ABM Treaty

PARTICIPANTS:

Name/Title/Phone Number:

BG Black, Program Executive Officer, Missile Defense, (703) 607-1881
Mike Trouse, Staff Member
Tom Burns, Staff Member

Commission Staff:

Frank Cantwell, Air Force Team
Frank Cirillo, Air Force Team Leader
Ralph Kaiser, Counsel
David Olson, Air Force Team

MEETING PURPOSE:

BG Black's perspective on the implications of closing Grand Forks AFB and corresponding ICBM missile range on the 1972 ABM Treaty.

DEFENSE BASE CLOSURE & REALIGNMENT COMMISSION
1700 NORTH MOORE STREET, SUITE 1425
ARLINGTON, VIRGINIA 22209
(703) 696-0504

MEMORANDUM OF MEETING

DATE: April 14, 1995

TIME: 10:00 A.M.

MEETING WITH: Grand Forks AFB, ND Representatives

SUBJECT: 1972 ABM Treaty

PARTICIPANTS:

Name/Title/Phone Number:

Ambassador Edward L. Rowny
George Schlossberg, Kutak Rock, (202) 828-2319
Jennifer Pepper Kutak Rock

Commission Staff:

Frank Cantwell, Air Force Team
Frank Cirillo, Air Force Team Leader
Ralph Kaiser, Counsel
David Olson, Air Force Team
Chip Walgren, City and State Liaison

MEETING PURPOSE:

Ambassador Rowny reiterated his concern that the proposed inactivation of the Grand Forks missile field will perturbate ongoing negotiations with former Soviet republics on ballistic missile defense and on START. He has written to SecState, SecDef, DACDA, and CJCS articulating these concerns and agreed to provide copies of the letters and respective responses. We assured the ambassador that efforts to hasten development of an interagency position on the Grand Forks recommendation are welcome.

ABM DISCUSSION
4/14 95

Name	Office	Tele
Frank Cirillo	Air Force Team DBCRC	703-696-0504 X161
Frank Cantwell	AF Team / DBCRC	" X165
Michael Trowse	PEO - Missile Defense NMD	205 895-3866
Bob Miller	Army Team	X172
Ralph A. Kaiser	Counsel [redacted], DBCRC	703/696 0504
David Olson	AF Team	696-0504
Tom Burns	Teledyne Brown Engineering	205-726-1868
BG Richard Black	PEO Missile Defense	(703) 607-1091 (205) 722-1015
LTC John Camp	PEO MD (Washington)	(703) 607-1850

DRAFT

BACKGROUND PAPER
ON
GRAND FORKS AFB - ABM ISSUE

BACKGROUND

- The DoD recommendation to realign Grand Forks AFB says that "the 321st Missile Group will inactivate unless prior to December 1996 the Secretary of Defense determines that the need to retain ballistic missile defense options effectively precludes this action."

- During the March 1, 1995 hearing, Secretary Perry indicated that he could not promise a recommendation by late June, because the ABM determination requires an interagency process.

- On March 7, 1995 the Commission voted to add Minot AFB for realignment and inactivation of the 91st Missile Group if ABM considerations preclude the proposed realignment of Grand Forks AFB.

ABM AGREEMENT

- ABM Treaty--Signed May 23, 1972, ratified October 3, 1972

  -- Restricts the number of ABM deployment areas by permitting each nation to have one limited ABM system to protect its capital and another to protect an ICBM launch area. (Treaty, Article III (a), (b))

- Agreed Statements, Common Understandings, Unilateral Statements--Signed May 26, 1972

  -- Stipulates that the US ABM deployment area for defense of ICBM silos "will be centered in the Grand Forks ICBM silo launcher deployment area." (Agreed Statement, Paragraph A)

  -- Permits second site to be located in Washington DC area.

- Protocol to the ABM Treaty--Signed July 3,1974, ratified March 19, 1976

  -- Further restricts ABM deployments by requiring that "each Party shall be limited at any one time to a single area out of the two provided in Article III of the Treaty for the deployment of ABM systems." (Protocol, Article I)

  -- Permits each side to reverse its original choice of an ABM site, and states that the right to change from the original deployment site to the alternate site may be exercised only once. (Protocol, Article II) Thus, the US could dismantle its ABM site near Grand Forks AFB and deploy an ABM system in the Washington DC area, but not elsewhere.

  -- Requires advance notice be given prior to changing from the original deployment site to the alternate site, and stipulates that this can only be done during a year in which the ABM Treaty is scheduled for review by the Standing Consultative Committee. (Protocol, Article II) Accordingly, this could be done during the next five year review in 1997.

DRAFT

AIR FORCE POSITION - 1993

- During June 17, 1993 hearing, the Deputy Assistant Secretary of the Air Force for Installations (Mr. Boatwright) was asked if the ABM site would "preclude closure of Grand Forks AFB or its attached ICBM missile field now or during the 1995 round of the base closure process. He provided the following insert for the record:

> "The ABM Treaty would not preclude closure of Grand Forks AFB. A major provision of the treaty limits deployment of ABM systems to one site located either around the nation's capital or centered within a group of ICBM silo launchers. If the base is closed and all silo launchers are eliminated, the US would have the right to relocate the US ABM system to the nation's capital, not to another ICBM base or some other location. If we eliminate all the ICBM silo launchers in the deployment area and choose not to relocate the ABM system, the Treaty is unclear whether the US may leave the ABM system in place without dismantling it or reactivate it someday. The existence of the ICBM launchers was a *sine qua non* for the initial deployment of the ABM system there pursuant to Article III. But a review of the negotiating record would be required to determine whether the US would still have a right to an ABM system there. In any case, the US could seek explicit agreement of the Treaty Parties to have an ABM system there." (Emphasis added.)

DOD POSITION - 1995

- During March 1, 1995 hearing, The Deputy Secretary of Defense (Mr. Deutch) was asked about ABM implications and responded as follows:

> "In order to come to a proper judgment on it, it's not just a Department of Defense matter. We have to get interagency views from others about the treaty implications. That's going to take some period of time. I believe the material transmitted to the Commission contains a view from our General Counsel and our Undersecretary for Policy that we think it's clean from the point of view of the Treaty. But we do need to have interagency confirmation of that ..." (No separate views have been received from the General Consul or Undersecretary for Policy, but their views may be implicit in the DoD recommendation.) (Emphasis added.)

GRAND FORKS COMMUNITY POSITION

- In a December 9, 1994 letter, Ambassador Edward L. Rowny argued that closing Grand Forks AFB "would be prejudicial to the national security interest of the United States."

> -- Closing the missile field at Grand Forks AFB without working out the details with the former Soviet Union could signal that the US is working unilaterally to change the ABM Treaty.
>
> -- Moving the ABM site from Grand Forks will require negotiations that could complicate plans for eventually establishing a multiple site strategic defense of the US.

David Olson/AF Team/Mar 20, 1995/12:00

DRAFT

These were intended to clarify specific provisions of the agreements or parts of the negotiating record. The three groups of items are reproduced here with the texts of the agreements.

Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

In the Treaty on the Limitation of Anti-Ballistic Missile Systems the United States and the Soviet Union agree that each may have only two ABM deployment areas,[1] so restricted and so located that they cannot provide a nationwide ABM defense or become the basis for developing one. Each country thus leaves unchallenged the penetration capability of the other's retaliatory missile forces.

The treaty permits each side to have one limited ABM system to protect its capital and another to protect an ICBM launch area. The two sites defended must be at least 1,300 kilometers apart, to prevent the creation of any effective regional defense zone or the beginnings of a nationwide system.

Precise quantitative and qualitative limits are imposed on the ABM systems that may be deployed. At each site there may be no more than 100 interceptor missiles and 100 launchers. Agreement on the number and characteristics of radars to be permitted had required extensive and complex technical negotiations, and the provisions governing these important components of ABM systems are spelled out in very specific detail in the treaty and further clarified in the "Agreed Statements" accompanying it.

Both parties agreed to limit qualitative improvement of their ABM technology, e.g., not to develop, test, or deploy ABM launchers capable of launching more than one interceptor missile at a time or modify existing launchers to give them this capability, and systems for rapid reload of launchers are similarly barred. These provisions, the Agreed Statements clarify, also ban interceptor missiles with more than one independently guided warhead.

There had been some concern over the possibility that surface-to-air missiles (SAMs) intended for defense against aircraft might be improved, along with their supporting radars, to the point where they could effectively be used against ICBMs and SLBMs, and the treaty

[1] Subsequently reduced to one area (see section on ABM Protocol).

prohibits this. While further deployment of radars intended to give early warning of strategic ballistic missile attack is not prohibited, they must be located along the territorial boundaries of each country and oriented outward, so that they do not contribute to an effective ABM defense of points in the interior.

Further, to decrease the pressures of technological change and its unsettling impact on the strategic balance, both sides agree to prohibit development, testing, or deployment of sea-based, air-based, or space-based ABM systems and their components, along with mobile land-based ABM systems. Should future technology bring forth new ABM systems "based on other physical principles" than those employed in current systems, it was agreed that limiting such systems would be discussed, in accordance with the treaty's provisions for consultation and amendment.

The treaty also provides for a U.S.-Soviet Standing Consultative Commission to promote its objectives and implementation. The commission was established during the first negotiating session of SALT II, by a Memorandum of Understanding dated December 21, 1972. Since then both the United States and the Soviet Union have raised a number of questions in the Commission relating to each side's compliance with the SALT I agreements. In each case raised by the United States, the Soviet activity in question has either ceased or additional information has allayed U.S. concern.

Article XIV of the treaty calls for review of the treaty 5 years after its entry into force, and at 5-year intervals thereafter. The first such review was conducted by the Standing Consultative Commission at its special session in the fall of 1977. At this session, the United States and the Soviet Union agreed that the treaty had operated effectively during its first 5 years, that it had continued to serve national security interests, and that it did not need to be amended at that time.

Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

Signed at Moscow May 26, 1972
Ratification advised by U.S. Senate August 3, 1972
Ratified by U.S. President September 30, 1972
Proclaimed by U.S. President October 3, 1972
Instruments of ratification exchanged October 3, 1972
Entered into force October 3, 1972

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Proceeding from the premise that nuclear war would have devastating consequences for all mankind,

Considering that effective measures to limit anti-ballistic missile systems would be a substantial factor in curbing the race in strategic offensive arms and would lead to a decrease in the risk of outbreak of war involving nuclear weapons,

Proceeding from the premise that the limitation of anti-ballistic missile systems, as well as certain agreed measures with respect to the limitation of strategic offensive arms, would contribute to the creation of more favorable conditions for further negotiations on limiting strategic arms,

Mindful of their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to take effective measures toward reductions in strategic arms, nuclear disarmament, and general and complete disarmament,

Desiring to contribute to the relaxation of international tension and the strengthening of trust between States,

Have agreed as follows:

Article I

1. Each party undertakes to limit anti-ballistic missile (ABM) systems and to adopt other measures in accordance with the provisions of this Treaty.

2. Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of this Treaty.

Article II

1. For the purpose of this Treaty an ABM system is a system to counter strategic ballistic missiles or their elements in flight trajectory, currently consisting of:

(a) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role, or of a type tested in an ABM mode;
(b) ABM launchers, which are launchers constructed and deployed for launching ABM interceptor missiles; and
(c) ABM radars, which are radars constructed and deployed for an ABM role, or of a type tested in an ABM mode.

2. The ABM system components listed in paragraph 1 of this Article include those which are:

(a) operational;
(b) under construction;
(c) undergoing testing;
(d) undergoing overhaul, repair or conversion; or
(e) mothballed.

Article III

Each Party undertakes not to deploy ABM systems or their components except that:

(a) within one ABM system deployment area having a radius of one hundred and fifty kilometers and centered on the Party's national capital, a Party may deploy: (1) no more than one hundred ABM launchers and no more than one hundred ABM interceptor missiles at launch sites, and (2) ABM radars within no more than six ABM radar complexes, the area of each complex being circular and having a diameter of no more than three kilometers; and
(b) within one ABM system deployment area having a radius of one hundred and fifty kilometers and containing ICBM silo launchers, a Party may deploy: (1) no more than one hundred ABM launchers and no more than one hundred ABM interceptor missiles at launch sites, (2) two large phased-array ABM radars comparable in potential to corresponding ABM radars operational or under construction on the date of signature of the Treaty in an ABM system deployment area containing ICBM silo launchers, and (3) no more than eighteen ABM radars each having a potential less than the potential of the smaller of the above-mentioned two large phased-array ABM radars.

Article IV

The limitations provided for in Article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges. Each Party may have no more than a total of fifteen ABM launchers at test ranges.

Article V

1. Each Party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.

2. Each Party undertakes not to develop, test, or deploy ABM launchers for launching more than one ABM interceptor missile at a time from each launcher, not to modify deployed launchers to provide them with such a capacity, not to develop, test, or deploy automatic or semi-automatic or other similar systems for rapid reload of ABM launchers.

Article VI

To enhance assurance of the effectiveness of the limitations on ABM systems and their components provided by the Treaty, each Party undertakes:

(a) not to give missiles, launchers, or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory, and not to test them in an ABM mode; and
(b) not to deploy in the future radars for early warning of strategic ballistic missile attack except at locations along the periphery of its national territory and oriented outward.

Article VII

Subject to the provisions of this Treaty, modernization and replacement of ABM systems or their components may be carried out.

Article VIII

ABM systems or their components in excess of the numbers or outside the areas specified in this Treaty, as well as ABM systems or their components prohibited by this Treaty, shall be destroyed or dismantled under agreed procedures within the shortest possible agreed period of time.

Article IX

To assure the viability and effectiveness of this Treaty, each Party undertakes not to transfer to other States, and not to deploy outside its national territory, ABM systems or their components limited by this Treaty.

Article X

Each Party undertakes not to assume any international obligations which would conflict with this Treaty.

Article XI

The Parties undertake to continue active negotiations for limitations on strategic offensive arms.

Article XII

1. For the purpose of providing assurance of compliance with the provisions of this Treaty, each Party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.
2. Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this Article.
3. Each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Treaty

This obligation shall not require changes in current construction, assembly, conversion, or overhaul practices.

Article XIII

1. To promote the objectives and implementation of the provisions of this Treaty, the Parties shall establish promptly a Standing Consultative Commission, within the framework of which they will:

(a) consider questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous;

(b) provide on a voluntary basis such information as either Party considers necessary to assure confidence in compliance with the obligations assumed;

(c) consider questions involving unintended interference with national technical means of verification;

(d) consider possible changes in the strategic situation which have a bearing on the provisions of this Treaty;

(e) agree upon procedures and dates for destruction or dismantling of ABM systems or their components in cases provided for by the provisions of this Treaty;

(f) consider, as appropriate, possible proposals for further increasing the viability of this Treaty, including proposals for amendments in accordance with the provisions of this Treaty;

(g) consider, as appropriate, proposals for further measures aimed at limiting strategic arms.

2. The Parties through consultation shall establish, and may amend as appropriate, Regulations for the Standing Consultative Commission governing procedures, composition and other relevant matters.

Article XIV

1. Each Party may propose amendments to this Treaty. Agreed amendments shall enter into force in accordance with the procedures governing the entry into force of this Treaty.

2. Five years after entry into force of this Treaty, and at five-year intervals thereafter, the Parties shall together conduct a review of this Treaty.

Article XV

1. This Treaty shall be of unlimited duration.

2. Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Treaty. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interests.

Article XVI

1. This Treaty shall be subject to ratification in accordance with the constitutional procedures of each Party. The Treaty shall enter into force on the day of the exchange of instruments of ratification.

2. This Treaty shall be registered pursuant to Article 102 of the Charter of the United Nations.

DONE at Moscow on May 26, 1972, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF AMERICA

RICHARD NIXON

President of the United States of America

FOR THE UNION OF SOVIET SOCIALIST REPUBLICS

L.I. BREZHNEV

General Secretary of the Central Committee of the CPSU

Agreed Statements, Common Understandings, and Unilateral Statements Regarding the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missiles

1. Agreed Statements

The document set forth below was agreed upon and initialed by the Heads of the Delegations on May 26, 1972 (letter designations added):

AGREED STATEMENTS REGARDING THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS

[A]

The Parties understand that, in addition to the ABM radars which may be deployed in accordance with subparagraph (a) of Article III of the Treaty, those non-phased-array ABM radars operational on the date of signature of the Treaty within the ABM system deployment area for defense of the national capital may be retained.

[B]

The Parties understand that the potential (the product of mean emitted power in watts and antenna area in square meters) of the smaller of the two large phased-array ABM radars referred to in subparagraph (b) of Article III of the Treaty is considered for purposes of the Treaty to be three million.

[C]

The Parties understand that the center of the ABM system deployment area centered on the national capital and the center of the ABM system deployment area containing ICBM silo launchers for each Party shall be separated by no less than thirteen hundred kilometers.

[D]

In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.

[E]

The Parties understand that Article V of the Treaty includes obligations not to develop, test or deploy ABM interceptor missiles for the delivery by each ABM interceptor missile of more than one independently guided warhead.

[F]

The Parties agree not to deploy phased-array radars having a potential (the product of mean emitted power in watts and antenna area in square meters) exceeding three million, except as provided for in Articles III, IV, and VI of the Treaty, or except for the purposes of tracking objects in outer space or for use as national technical means of verification.

[G]

The Parties understand that Article IX of the Treaty includes the obligation of the US and the USSR not to provide to other States technical descriptions or blue prints specially worked out for the construction of ABM systems and their components limited by the Treaty.

2. Common Understandings

Common understanding of the Parties on the following matters was reached during the negotiations:

A. Location of ICBM Defenses

The U.S. Delegation made the following statement on May 26, 1972:

Articles III of the ABM Treaty provides for each side one ABM system deployment area centered on its national capital and one ABM system deployment area containing ICBM silo launchers. The two sides have registered agreement on the following statement: "The Parties understand that the center of the ABM system deployment area centered on the national capital and the center of the ABM system deployment area containing ICBM silo launchers for each Party shall be separated by no less than thirteen hundred kilometers." In this connection, the U.S. side notes that its ABM system deployment area for defense of ICBM silo launchers, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area. (See Agreed Statement [C].)

B. ABM Test Ranges

The U.S. Delegation made the following statement on April 26, 1972:

Article IV of the ABM Treaty provides that "the limitations provided for in Article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges." We believe it would be useful to assure that there is no misunderstanding as to current ABM test ranges. It is our understanding that ABM test ranges encompass the area within which ABM components are located for test purposes. The current U.S. ABM test ranges are at White Sands, New Mexico, and at Kwajalein Atoll, and the current Soviet ABM test range is near Sary Shagan in Kazakhstan. We consider that non-phased array radars of types used for range safety or instrumentation purposes may be located outside of ABM test

ranges. We interpret the reference in Article IV to "additionally agreed test ranges" to mean that ABM components will not be located at any other test ranges without prior agreement between our Government that there will be such additional ABM test ranges.

On May 5, 1972, the Soviet Delegation stated that there was a common understanding on what ABM test ranges were, that the use of the types of non-ABM radars for range safety or instrumentation was not limited under the Treaty, that the reference in Article IV to "additionally agreed" test ranges was sufficiently clear, and that national means permitted identifying current test ranges.

C. Mobile ABM Systems

On January 29, 1972, the U.S. Delegation made the following statement:

Article V(1) of the Joint Draft Text of the ABM Treaty includes an undertaking not to develop, test, or deploy mobile land-based ABM systems and their components. On May 5, 1971, the U.S. side indicated that, in its view, a prohibition on deployment of mobile ABM systems and components would rule out the deployment of ABM launchers and radars which were not permanent fixed types. At that time, we asked for the Soviet view of this interpretation. Does the Soviet side agree with the U.S. side's interpretation put forward on May 5, 1971?

On April 13, 1972, the Soviet Delegation said there is a general common understanding on this matter.

D. Standing Consultative Commission

Ambassador Smith made the following statement on May 22, 1972:

The United States proposes that the sides agree that, with regard to initial implementation of the ABM Treaty's Article XIII on the Standing Consultative Commission (SCC) and of the consultation Articles to the Interim Agreement on offensive arms and the Accidents Agreement,[1] agreement establishing the SCC will be worked out early in the follow-on SALT negotiations; until that is completed, the following arrangements will prevail: when SALT is in session, any consultation desired by either side under these Articles can be carried out by the two SALT Delegations; when SALT is not in session, *ad hoc* arrangements for any desired consultations under these Articles may be made through diplomatic channels.

Minister Semenov replied that, on an *ad referendum* basis, he could agree that the U.S. statement corresponded to the Soviet understanding.

E. Standstill

On May 6, 1972, Minister Semenov made the following statement:

In an effort to accommodate the wishes of the U.S. side, the Soviet Delegation is prepared to proceed on the basis that the two sides will in fact observe the obligations of both the Interim Agreement and the ABM Treaty beginning from the date of signature of these two documents.

[1] See Article 7 of Agreement to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics, signed Sept. 30, 1971.

In reply, the U.S. Delegation made the following statement on May 20, 1972:

The U.S. agrees in principle with the Soviet statement made on May 6 concerning observance of obligations beginning from date of signature but we would like to make clear our understanding that this means that, pending ratification and acceptance, neither side would take any action prohibited by the agreements after they had entered into force. This understanding would continue to apply in the absence of notification by either signatory of its intention not to proceed with ratification or approval.

The Soviet Delegation indicated agreement with the U.S. statement.

3. Unilateral Statements

The following noteworthy unilateral statements were made during the negotiations by the United States Delegation:

A. Withdrawal from the ABM Treaty

On May 9, 1972, Ambassador Smith made the following statement:

The U.S. Delegation has stressed the importance the U.S. Government attaches to achieving agreement on more complete limitations on strategic offensive arms, following agreement on an ABM Treaty and on an Interim Agreement on certain measures with respect to the limitation of strategic offensive arms. The U.S. Delegation believes that an objective of the follow-on negotiations should be to constrain and reduce on a long-term basis threats to the survivability of our respective strategic retaliatory forces. The USSR Delegation has also indicated that the objectives of SALT would remain unfulfilled without the achievement of an agreement providing for more complete limitations on strategic offensive arms. Both sides recognize that the initial agreements would be steps toward the achievement of more complete limitations on strategic arms. If an agreement providing for more complete strategic offensive arms limitations were not achieved within five years, U.S. supreme interests could be jeopardized. Should that occur, it would constitute a basis for withdrawal from the ABM Treaty. The U.S. does not wish to see such a situation occur, nor do we believe that the USSR does. It is because we wish to prevent such a situation that we emphasize the importance the U.S. Government attaches to achievement of more complete limitations on strategic offensive arms. The U.S. Executive will inform the Congress, in connection with Congressional consideration of the ABM Treaty and the Interim Agreement, of this statement of the U.S. position.

B. Tested in ABM Mode

On April 7, 1972, the U.S. Delegation made the following statement:

Article II of the Joint Text Draft uses the term "tested in an ABM mode," in defining ABM components, and Article VI includes certain obligations concerning such testing. We believe that the sides should have a common understanding of this phrase. First, we would note that the testing provisions of the ABM Treaty are intended to apply to testing which occurs after the date of signature of the Treaty, and not to any testing which may have occurred in the past. Next, we would amplify the remarks we have made on this subject during the previous Helsinki phase by setting forth the objectives which govern the U.S. view on the subject, namely, while prohibiting testing of non-ABM components for ABM purposes; not to prevent testing of ABM components, and not to prevent testing of non-ABM components for non-ABM

Article III

The Parties undertake to develop their relations with each other and with other countries in a way consistent with the purposes of this Agreement.

Article IV

If at any time relations between the Parties or between either Party and other countries appear to involve the risk of a nuclear conflict, or if relations between countries not parties to this Agreement appear to involve the risk of nuclear war between the United States of America and the Union of Soviet Socialist Republics or between either Party and other countries, the United States and the Soviet Union, acting in accordance with the provisions of this Agreement, shall immediately enter into urgent consultations with each other and make every effort to avert this risk.

Article V

Each Party shall be free to inform the Security Council of the United Nations, the Secretary General of the United Nations and the Governments of allied or other countries of the progress and outcome of consultations initiated in accordance with Article IV of this Agreement.

Article VI

Nothing in this Agreement shall affect or impair:

(a) the inherent right of individual or collective self-defense as envisaged by Article 51 of the Charter of the United Nations,*

(b) the provisions of the Charter of the United Nations, including those relating to the maintenance or restoration of international peace and security, and

(c) the obligations undertaken by either Party towards its allies or other countries in treaties, agreements, and other appropriate documents.

Article VII

This Agreement shall be of unlimited duration.

Article VIII

This Agreement shall enter into force upon signature.

DONE at Washington on June 22, 1973, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF AMERICA:	**FOR THE UNION OF SOVIET SOCIALIST REPUBLICS:**
RICHARD NIXON	**L.I. BREZHNEV**
President of the United States of America	*General Secretary of the Central Committee, CPSU*

* TS 993; 59 Stat. 1044.

Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

At the 1974 Summit meeting, the United States and the Soviet Union signed a protocol that further restrained deployment of strategic defensive armaments. The 1972 ABM Treaty had permitted each side two ABM deployment areas, one to defend its national capital and another to defend an ICBM field. The 1974 ABM Protocol limits each side to one site only.

The Soviet Union had chosen to maintain its ABM defense of Moscow, and the United States chose to maintain defense of its ICBM emplacements near Grand Forks, North Dakota. To allow some flexibility, the protocol allows each side to reverse its original choice of an ABM site. That is, the United States may dismantle or destroy its ABM system at Grand Forks and deploy an ABM defense of Washington. The Soviet Union, similarly, can decide to shift to an ABM defense of a missile field rather than of Moscow. Each side can make such a change only once. Advance notice must be given, and this may be done only during a year in which a review of the ABM Treaty is scheduled. The treaty prescribes reviews every 5 years; the first year for such a review began October 3, 1977.

Upon entry into force, the protocol became an integral part of the 1972 ABM Treaty, of which the verification and other provisions continue to apply. Thus the deployments permitted are governed by the treaty limitations on numbers and characteristics of interceptor missiles, launchers, and supporting radars. The system the United States chose to deploy (Grand Forks) has actually been on an inactive status since 1976.

Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

Signed at Moscow July 3, 1974
Ratification advised by U.S. Senate November 10, 1975
Ratified by U.S. President March 19, 1976
Instruments of ratification exchanged May 24, 1976
Proclaimed by U.S. President July 6, 1976
Entered into force May 24, 1976

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Proceeding from the Basic Principles of Relations between the United States of America and the Union of Soviet Socialist Republics signed on May 29, 1972,

Desiring to further the objectives of the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti Ballistic Missile Systems signed on May 26, 1972, hereinafter referred to as the Treaty,

Reaffirming their conviction that the adoption of further measures for the limitation of strategic arms would contribute to strengthening international peace and security,

Proceeding from the premise that further limitation of anti-ballistic missile systems will create more favorable conditions for the completion of work on a permanent agreement on more complete measures for the limitation of strategic offensive arms,

Have agreed as follows:

Article I

1. Each Party shall be limited at any one time to a single area out of the two provided in Article III of the Treaty for deployment of anti-ballistic missile (ABM) systems or their components and accordingly shall not exercise its right to deploy an ABM system or its components in the second of the two ABM system deployment areas permitted by Article III of the Treaty, except as an exchange of one permitted area for the other in accordance with Article II of this Protocol.

2. Accordingly, except as permitted by Article II of this Protocol: the United States of America shall not deploy an ABM system or its components in the area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union shall not deploy an ABM system or its components in the deployment area of intercontinental ballistic missile (ICBM) silo launchers as permitted by Article III(b) of the Treaty.

Article II

1. Each Party shall have the right to dismantle or destroy its ABM system and the components thereof in the area where they are presently deployed and to deploy an ABM system or its components in the alternative area permitted by Article III of the

Treaty, provided that prior to initiation of construction, notification is given in accord with the procedure agreed to in the Standing Consultative Commission, during the year beginning October 3, 1977 and ending October 2, 1978, or during any year which commences at five year intervals thereafter, those being the years of periodic review of the Treaty, as provided in Article XIV of the Treaty. This right may be exercised only once.

2. Accordingly, in the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III(b) of the Treaty.

3. Dismantling or destruction and deployment of ABM systems or their components and the notification thereof shall be carried out in accordance with Article VIII of the ABM Treaty and procedures agreed to in the Standing Consultative Commission.

Article III

The rights and obligations established by the Treaty remain in force and shall be complied with by the Parties except to the extent modified by this Protocol. In particular, the deployment of an ABM system or its components within the area selected shall remain limited by the levels and other requirements established by the Treaty.

Article IV

This Protocol shall be subject to ratification in accordance with the constitutional procedures of each Party. It shall enter into force on the day of the exchange of instruments of ratification and shall thereafter be considered an integral part of the Treaty.

DONE at Moscow on July 3, 1974, in duplicate, in the English and Russian languages, both texts being equally authentic.

For the United States of America:

RICHARD NIXON

President of the United States of America

For the Union of Soviet Socialist Republics:

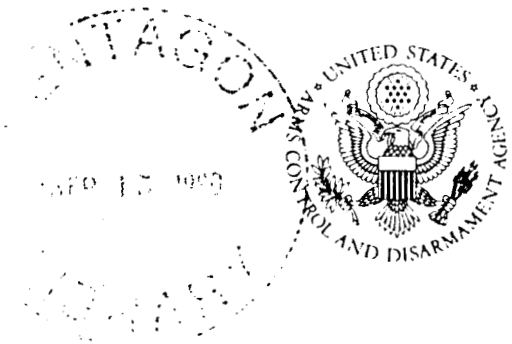
L.I. BREZHNEV

General Secretary of the Central Committee of the CPSU

1990 EDITION

ARMS CONTROL AND DISARMAMENT AGREEMENTS

TEXTS AND HISTORIES OF THE NEGOTIATIONS



Strategic Arms Limitation Talks (SALT I)

SALT I, the first series of Strategic Arms Limitation Talks, extended from November 1969 to May 1972. During that period the United States and the Soviet Union negotiated the first agreements to place limits and restraints on some of their central and most important armaments. In a "Treaty . . . on the Limitation of Anti-Ballistic Missile Systems," they moved to end an emerging competition in defensive systems that threatened to spur offensive competition to still greater heights. In an "Interim Agreement . . . on Certain Measures With Respect to the Limitation of Strategic Offensive Arms," the two nations took the first steps to check the rivalry in their most powerful land- and submarine-based offensive nuclear weapons.

The earliest efforts to halt the growth in strategic arms had met with no success. Strategic weapons had been included in the U.S. and Soviet proposals for general and complete disarmament. But the failure to these comprehensive schemes left strategic arms unrestrained. The United States was the first to suggest dissociating them from comprehensive disarmament plans—proposing, at the Geneva-based Eighteen-Nation Disarmament Committee in January 1964, that the two sides should "explore a verified freeze of the number and characteristics of their strategic nuclear offensive and defensive vehicles."

The competition in offensive and defensive armaments continued. By 1966 the Soviet Union had begun to deploy an antiballistic missile defense around Moscow, and that year the People's Republic of China successfully tested a nuclear missile. In the United States, research and development were leading to U.S. deployment of its own ABM system.

In March 1967, after an exchange of communication with Soviet leaders, President Johnson announced that Premier Kosygin had indicated a willingness to begin discussions. Attempts to get talks underway, however, were not successful.

On September 18, 1967, the United States announced that it would begin deployment of a "thin" antiballistic missile (ABM) system. The Administration emphasized that the deployment was intended to meet a possible limited Chinese ICBM threat, to underscore U.S. security assurances to its allies by reinforcing the U.S. deterrent, and to add protection against "the improbable but possible accidental launch of

an intercontinental missile by one of the nuclear powers." This program for limited ABM defense brought sharply divided views in public and congressional debate regarding the efficacy and desirability of an ABM system and its possible effects on the arms race.

In announcing the U.S. decision, Secretary of Defense McNamara said,

> Let me emphasize—and I cannot do so too strongly—that our decision to go ahead with a limited ABM deployment in no way indicates that we feel an agreement with the Soviet Union on the limitation of strategic nuclear offensive and defensive forces is in any way less urgent or desirable.

Through diplomatic channels in Washington and Moscow, discussions with Soviet representatives in the ENDC, and exchanges at the highest levels of the two governments, the United States continued to press for a Soviet commitment to discuss strategic arms limitation. But it was not until the following year that evidence of a Soviet reassessment of its position emerged. On July 1, 1968, President Johnson announced, at the signing of the Non-Proliferation Treaty, that agreement had been reached with the Soviet Union to begin discussions on limiting and reducing both strategic nuclear weapons delivery systems and defense against ballistic missiles. The date and place for the talks had not yet been announced, when, on August 20, the Soviet Union began its invasion of Czechoslovakia, and the talks were indefinitely postponed.

On January 20, 1969, the day that President Nixon assumed office, a statement by the Soviet Foreign Ministry expressed willingness to discuss strategic arms limitations. The new President promptly voiced his support for talks, and initiated, under the aegis of the National Security Council, an extensive and detailed review of the strategic, political, and verification aspects of the problem.

In October, the White House and the Kremlin announced that the Strategic Arms Limitation Talks would begin in Helsinki on November 17, 1969, "for preliminary discussion of the questions involved." The Director of ACDA, Gerard Smith, was named to head the U.S. delegation and led it throughout the 2½-year series of SALT I negotiations.

In the first session of the talks, from November 17 to December 22, each side gained a better understanding of the other's views and of the range of questions to be considered. It was agreed that the talks would be private, to encourage a free and frank exchange, and the stage was set for the main negotiations, which opened in Vienna in April 1970. Sessions thereafter alternated between Helsinki and Vienna until the first accords were reached in May 1972. (When SALT II began, in November 1972, to reduce the administrative burdens

involved in shifting sites it was agreed to hold them henceforth in one place—Geneva.)

Soviet and American weapons systems were far from symmetrical. The Soviet Union had continued its development and deployment of heavy ballistic missiles and had overtaken the U.S. lead in land-based ICBMs. During the SALT I years alone its ICBMs rose from around 1,000 to around 1,500, and they were being deployed at the rate of some 200 annually. Soviet submarine-based launchers had quadrupled. The huge payload capacity of some Soviet missiles ("throw-weight") was seen as a possible threat to U.S. land-based strategic missiles even in heavily protected ("hardened") launch-sites.

The United States had not increased its deployment of strategic missiles since 1967, when its ICBMs numbered 1,054 and its SLBMs, 656, but it was conducting a vigorous program of substituting missiles with "Multiple Independently-targeted Re-entry Vehicles" (MIRV). These MIRVs permit an individual missile to carry a number of warheads directed at separate targets. MIRVs gave the United States a lead in numbers of warheads, and the United States retained a lead in long-range bombers. The Soviet Union had a limited ABM system around Moscow; the United States had shifted from its earlier plan for a "thin" ABM defense of certain American cities and had begun to deploy ABMs at two land-based (ICBM) missile sites to protect its retaliatory forces. (The full program envisaged 12 ABM complexes.)

Besides these asymmetries in their strategic forces, the defense needs and commitments of the two parties differed materially. The United States had obligations for the defense of allies overseas, such as Western Europe and Japan, while the Soviet Union's allies were its near neighbors. All these circumstances made for difficulties in equating specific weapons, or categories of weapons, and in defining overall strategic equivalence.

Two initial disagreements presented obstacles. The Soviet representatives sought to define as "strategic"—i.e., negotiable in SALT—any U.S. or Soviet weapons system capable of reaching the territory of the other side. This would have included U.S. "forward-based systems," chiefly short-range or medium-range bombers on aircraft carriers or based in Europe, but it would have excluded, for example, Soviet intermediate-range missiles aimed at Western Europe. The United States held that weapons to be negotiated in SALT comprised intercontinental systems. Its forward-based forces served to counter Soviet medium-range missiles and aircraft aimed at U.S. allies. To accept the Soviet approach would have prejudiced alliance commitments.

After initial attempts to reach a comprehensive agreement failed, the Soviets sought to restrict negotiations to antiballistic missile

systems, maintaining that limitation on offensive systems should be deferred. The U.S. position was that to limit ABM systems but allow the unrestricted growth of offensive weapons would be incompatible with the basic objectives of SALT and that it was essential to make at least a beginning at limiting offensive systems as well. A long deadlock on the question was finally broken by exchanges at the highest levels of both governments. On May 20, 1971, Washington and Moscow announced that an understanding had been reached to concentrate on a permanent treaty to limit ABM systems, but at the same time to work out certain limitations on offensive systems, and to continue negotiations for a more comprehensive and long-term agreement on the latter.

In a summit meeting in Moscow, after 2½ years of negotiation, the first round of SALT was brought to a conclusion on May 26, 1972, when President Nixon and General Secretary Brezhnev signed the ABM Treaty and the Interim Agreement on strategic offensive arms.

Intensive research had gone into finding ways of verifying possible agreements without requiring access to the territory of the other side. Both the ABM Treaty and the Interim Agreement stipulate that compliance is to be assured by "national technical means of verification." Moreover, the agreements include provisions that are important steps to strengthen assurance against violations: both sides undertake not to interfere with national technical means of verification. In addition, both countries agree not to use deliberate concealment measures to impede verification.

The basic provisions of each SALT I agreement are briefly reviewed in sections that follow. The two accords differ in their duration and inclusiveness. The ABM Treaty "shall be of unlimited duration," but each party has the right to withdraw on 6 months' notice if it decides that its supreme interests are jeopardized by "extraordinary events related to the subject matter of this Treaty." The Interim Agreement was for a 5-year span, and covered only certain major aspects of strategic weaponry. The agreements are linked not only in their strategic effects, but in their relationship to future negotiations for limitations on strategic offensive arms. A formal statement by the United States stressed the critical importance it attaches to achieving more complete limitations on strategic offensive arms.

The two agreements were accompanied by a number of "Agreed Statements" that were agreed upon and initialed by the Heads of the Delegations. When the two agreements were submitted to the U.S. Congress, they were also accompanied by common understandings reached and unilateral statements made during the negotiations.

purposes. To clarify our interpretation of "tested in an ABM mode," we note that we would consider a launcher, missile or radar to be "tested in an ABM mode" if, for example, any of the following events occur: (1) a launcher is used to launch an ABM interceptor missile, (2) an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristics of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested to an altitude inconsistent with interception of targets against which air defenses are deployed, (3) a radar makes measurements on a cooperative target vehicle of the kind referred to in item (2) above during the reentry portion of its trajectory or makes measurements in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range. Radars used for purposes such as range safety or instrumentation would be exempt from application of these criteria.

C. No-Transfer Article of ABM Treaty

On April 18, 1972, the U.S. Delegation made the following statement:

In regard to this Article [IX], I have a brief and I believe self-explanatory statement to make. The U.S. side wishes to make clear that the provisions of this Article do not set a precedent for whatever provision may be considered for a Treaty on Limiting Strategic Offensive Arms. The question of transfer of strategic offensive arms is a far more complex issue, which may require a different solution.

D. No Increase in Defense of Early Warning Radars

On July 28, 1970, the U.S. Delegation made the following statement:

Since Hen House radars [Soviet ballistic missile early warning radars] can detect and track ballistic missile warheads at great distances, they have a significant ABM potential. Accordingly, the U.S. would regard any increase in the defenses of such radars by surface-to-air missiles as inconsistent with an agreement.

Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms

As its title suggests, the "Interim Agreement Between the United States and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Offensive Arms" was limited in duration and scope. It was intended to remain in force for 5 years (See preceding section on SALT.) Both countries undertook to continue negotiations for a more comprehensive agreement as soon as possible, and the scope and terms of any new agreement were not to be prejudiced by the provisions of the 1972 accord.

Thus the Interim Agreement was set essentially as a holding action, designed to complement the ABM Treaty by limiting competition in offensive strategic arms and to provide time for further negotiations. The agreement essentially freezes at existing levels the number of strategic ballistic missile launchers, operational or under construction, on each side, and permits an increase in SLBM launchers up to an agreed level for each party only with the dismantling or destruction of a corresponding number of older ICBM or SLBM launchers.

In view of the many asymmetries in the two countries' forces, imposing equivalent limitations required rather complex and precise provisions. At the date of signing, the United States had 1,054 operational land-based ICBMs, and none under construction; the Soviet Union had an estimated 1,618 operational and under construction. Launchers under construction could be completed. Neither side would start construction of additional fixed land-based ICBM launchers during the period of the agreement—this, in effect, also bars relocation of existing launchers. Launchers for light or older ICBMs cannot be converted into launchers for modern heavy ICBMs. This prevents the U.S.S.R. from replacing older missiles with missiles such as the SS-9, which in 1972 was the largest and most powerful missile in the Soviet inventory and a source of particular concern to the United States.

Within these limitations, modernization and replacement are permitted, but in the process of modernizing, the dimensions of silo launchers cannot be significantly increased.

Mobile ICBMs are not covered. The Soviet Union held that since neither side had such systems, a freeze should not apply to them; it also opposed banning them in a future comprehensive agreement. The United States held they should be banned because of the verification difficulties they presented. In a formal statement, the U.S. delegation declared that the United States would consider deployment of land-mobile ICBMs during the period of the agreement as inconsistent with its objectives.

Article III and the protocol limit launchers for submarine-launched ballistic missiles (SLBMs) and modern ballistic missile submarines. The United States is permitted to reach a ceiling of 710 SLBM launchers on 44 submarines, from its base level of 656 SLBM launchers on 41 ballistic missile submarines, by replacing 54 older ICBM launchers. The Soviet Union, beyond the level of 740 SLBM launchers on modern nuclear-powered submarines, may increase to 950. But these additional launchers are permitted only as replacements for older ICBM or SLBM launchers, which must be dismantled or destroyed under agreed procedures.

In a unilateral statement, the Soviet Union asserted that if U.S. NATO allies increased the number of their modern submarines, the Soviet Union would have a right to increase the number of its submarines correspondingly. The United States declared that it did not accept this claim.

Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms

Signed at Moscow May 26, 1972
Approval authorized by U.S. Congress September 30, 1972
Approved by U.S. President September 30, 1972
Notices of acceptance exchanged October 3, 1972
Entered into force October 3, 1972

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Convinced that the Treaty on the Limitation of Anti-Ballistic Missile Systems and this Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms will contribute to the creation of more favorable conditions for active negotiations on limiting strategic arms as well as to the relaxation of international tension and the strengthening of trust between States,

Taking into account the relationship between strategic offensive and defensive arms,

Mindful of their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,

Have agreed as follows:

Article I

The Parties undertake not to start construction of additional fixed land-based intercontinental ballistic missile (ICBM) launchers after July 1, 1972.

Article II

The Parties undertake not to convert land-based launchers for light ICBMs, or for ICBMs of older types deployed prior to 1964, into land-based launchers for heavy ICBMs of types deployed after that time.

Article III

The Parties undertake to limit submarine-launched ballistic missile (SLBM) launchers and modern ballistic missile submarines to the numbers operational and under construction on the date of signature of this Interim Agreement, and in addition to launchers and submarines constructed under procedures established by the Parties as replacements for an equal number of ICBM launchers of older types deployed prior to 1964 or for launchers on older submarines.

Article IV

Subject to the provisions of this Interim Agreement, modernization and replacement of strategic offensive ballistic missiles and launchers covered by this Interim Agreement may be undertaken.

Article V

1. For the purpose of providing assurance of compliance with the provisions of this Interim Agreement, each Party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this Article.

3. Each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Interim Agreement. This obligation shall not require changes in current construction, assembly, conversion, or overhaul practices.

Article VI

To promote the objectives and implementation of the provisions of this Interim Agreement, the Parties shall use the Standing Consultative Commission established under Article XIII of the Treaty on the Limitation of Anti-Ballistic Missile Systems in accordance with the provisions of that Article.

Article VII

The Parties undertake to continue active negotiations for limitations on strategic offensive arms. The obligations provided for in this Interim Agreement shall not prejudice the scope or terms of the limitations on strategic offensive arms which may be worked out in the course of further negotiations.

Article VIII

1. This Interim Agreement shall enter into force upon exchange of written notices of acceptance by each Party, which exchange shall take place simultaneously with the exchange of instruments of ratification of the Treaty on the Limitation of Anti-Ballistic Missile Systems.

2. This Interim Agreement shall remain in force for a period of five years unless replaced earlier by an agreement on more complete measures limiting strategic offensive arms. It is the objective of the Parties to conduct active follow-on negotiations with the aim of concluding such an agreement as soon as possible.

3. Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Interim Agreement if it decides that extraordinary events related to the subject matter of this Interim Agreement have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from this Interim Agreement. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interests.

DONE at Moscow on May 26, 1972, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF AMERICA

RICHARD NIXON

President of the United States of America

FOR THE UNION OF SOVIET SOCIALIST REPUBLICS

L.I. BREZHNEV

General Secretary of the Central Committee of the CPSU

Protocol to the Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Having agreed on certain limitations relating to submarine-launched ballistic missile launchers and modern ballistic missile submarines, and to replacement procedures, in the Interim Agreement,

Have agreed as follows:

The Parties understand that, under Article III of the Interim Agreement, for the period during which that Agreement remains in force:

The U.S. may have no more than 710 ballistic missile launchers on submarines (SLBMs) and no more than 44 modern ballistic missile submarines. The Soviet Union may have no more than 950 ballistic missile launchers on submarines and no more than 62 modern ballistic missile submarines.

Additional ballistic missile launchers on submarines up to the above-mentioned levels, in the U.S.—over 656 ballistic missile launchers on nuclear-powered submarines, and in the U.S.S.R.—over 740 ballistic missile launchers on nuclear-powered submarines, operational and under construction, may become operational as replacements for equal numbers of ballistic missile launchers of older types deployed prior to 1964 or of ballistic missile launchers on older submarines.

The deployment of modern SLBMs on any submarine, regardless of type, will be counted against the total level of SLBMs permitted for the U.S. and the U.S.S.R.

This Protocol shall be considered an integral part of the Interim Agreement.

DONE at Moscow this 26th day of May, 1972

FOR THE UNITED STATES OF AMERICA

RICHARD NIXON

President of the United States of America

FOR THE UNION OF SOVIET SOCIALIST REPUBLICS

L.I. BREZHNEV

General Secretary of the Central Committee of the CPSU

Agreed Statements, Common Understandings, and Unilateral Statements Regarding the Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms

1. Agreed Statements

The document set forth below was agreed upon and initiated by the Heads of the Delegations on May 26, 1972 (letter designations added):

AGREED STATEMENTS REGARDING THE INTERIM AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON CERTAIN MEASURES WITH RESPECT TO THE LIMITATION OF STRATEGIC OFFENSIVE ARMS

[A]

The Parties understand that land-based ICBM launchers referred to in the Interim Agreement are understood to be launchers for strategic ballistic missiles capable of ranges in excess of the shortest distance between the northeastern border of the continental U.S. and the northwestern border of the continental USSR.

[B]

The Parties understand that fixed land-based ICBM launchers under active construction as of the date of signature of the Interim Agreement may be completed.

[C]

The Parties understand that in the process of modernization and replacement the dimensions of land-based ICBM silo launchers will not be significantly increased.

[D]

The Parties understand that during the period of the Interim Agreement there shall be no significant increase in the number of ICBM or SLBM test and training launchers, or in the number of such launchers for modern land-based heavy ICBMs. The Parties further understand that construction or conversion of ICBM launchers at test ranges shall be undertaken only for purposes of testing and training.

[E]

The Parties understand that dismantling or destruction of ICBM launchers of older types deployed prior to 1964 and ballistic missile launchers on older submarines being replaced by new SLBM launchers on modern submarines will be initiated at the time of the beginning of sea trials of a replacement submarine, and will be completed in the shortest possible agreed period of time. Such dismantling or destruction, and timely notification thereof, will be accomplished under procedures to be agreed upon in the Standing Consultative Commission.

2. Common Understandings

Common understandings of the Parties on the following matters was reached during the negotiations:

A. Increase in ICBM Silo Dimensions

Ambassador Smith made the following statement on May 26, 1972:

The Parties agree that the term "significantly increased" means that an increase will not be greater than 10–15 percent of the present dimensions of land-based ICBM silo launchers.

Minister Semenov replied that this statement corresponded to the Soviet understanding.

B. Standing Consultative Commission

Ambassador Smith made the following statement on May 22, 1972:

The United States proposes that the sides agree that, with regard to initial implementation of the ABM Treaty's Article XIII on the Standing Consultative Commission (SCC) and of the consultation Articles to the Interim Agreement on offensive arms and the Accidents Agreement,[1] agreement establishing the SCC will be worked out early in the follow-on SALT negotiations; until that is completed, the following arrangements will prevail: when SALT is in session, any consultation desired by either side under these Articles can be carried out by the two SALT Delegations; when SALT is not in session, *ad hoc* arrangements for any desired consultations under these Articles may be made through diplomatic channels.

Minister Semenov replied that, on an *ad referendum* basis, he could agree that the U.S. statement corresponded to the Soviet understanding.

C. Standstill

On May 6, 1972, Minister Semenov made the following statement:

In an effort to accommodate the wishes of the U.S. side, the Soviet Delegation is prepared to proceed on the basis that the two sides will in fact observe the obligations of both the Interim Agreement and the ABM Treaty beginning from the date of signature of these two documents.

[1] See Article 7 of Agreement to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics, signed Sept. 30, 1971.

In reply, the U.S. Delegation made the following statement on May 20, 1972:

The U.S. agrees in principle with the Soviet statement made on May 6 concerning observance of obligations beginning from date of signature but we would like to make clear our understanding that this means that, pending ratification and acceptance, neither side would take any action prohibited by the agreements after they had entered into force. This understanding would continue to apply in the absence of notification by either signatory of its intention not to proceed with ratification or approval.

The Soviet Delegation indicated agreement with the U.S. statement.

3. Unilateral Statements

(a) The following noteworthy unilateral statements were made during the negotiations by the United States Delegation.

A. Withdrawal from the ABM Treaty

On May 9, 1972, Ambassador Smith made the following statement:

The U.S. Delegation has stressed the importance the U.S. Government attaches to achieving agreement on more complete limitations on strategic offensive arms, following agreement on an ABM Treaty and on an Interim Agreement on certain measures with respect to the limitation of strategic offensive arms. The U.S. Delegation believes that an objective of the follow-on negotiations should be to constrain and reduce on a long-term basis threats to the survivability of our respective strategic retaliatory forces. The USSR Delegation has also indicated that the objectives of SALT would remain unfulfilled without the achievement of an agreement providing for more complete limitations on strategic offensive arms. Both sides recognize that the initial agreements would be steps toward the achievement of more complete limitations on strategic arms. If an agreement providing for more complete strategic offensive arms limitations were not achieved within five years, U.S. supreme interests could be jeopardized. Should that occur, it would constitute a basis for withdrawal from the ABM Treaty. The U.S. does not wish to see such a situation occur, nor do we believe that the USSR does. It is because we wish to prevent such a situation that we emphasize the importance the U.S. Government attaches to achievement of more complete limitations on strategic offensive arms. The U.S. Executive will inform the Congress, in connection with Congressional consideration of the ABM Treaty and the Interim Agreement, of this statement of the U.S. position.

B. Land-Mobile ICBM Launchers

The U.S. Delegation made the following statement on May 20, 1972:

I wish to emphasize the importance that the United States attaches to the provisions of Article V, including in particular their application to fitting out or berthing submarines.

C. Covered Facilities

The U.S. Delegation made the following statement on May 20, 1972:

I wish to emphasize the importance that the United States attaches to the provisions of Article V, including in particular their application to fitting out or berthing submarines.

D. "Heavy" ICBM's

The U.S. Delegation made the following statement on May 26, 1972:

The U.S. Delegation regrets that the Soviet Delegation has not been willing to agree on a common definition of a heavy missile. Under these circumstances, the U.S. Delegation believes it necessary to state the following: The United States would consider any ICBM having a volume significantly greater than that of the largest light ICBM now operational on either side to be a heavy ICBM. The U.S. proceeds on the premise that the Soviet side will give due account to this consideration.

(b) The following noteworthy unilateral statement was made by the Delegation of the U.S.S.R. and is shown here with the U.S. reply:

Taking into account that modern ballistic missile submarines are presently in the possession of not only the U.S., but also of its NATO allies, the Soviet Union agrees that for the period of effectiveness of the Interim 'Freeze' Agreement the U.S. and its NATO allies have up to 50 such submarines with a total of up to 800 ballistic missile launchers thereon (including 41 U.S. submarines with 656 ballistic missile launchers). However, if during the period of effectiveness of the Agreement U.S. allies in NATO should increase the number of their modern submarines to exceed the numbers of submarines they would have operational or under construction on the date of signature of the Agreement, the Soviet Union will have the right to a corresponding increase in the number of its submarines. In the opinion of the Soviet side, the solution of the question of modern ballistic missile submarines provided for in the Interim Agreement only partially compensates for the strategic imbalance in the deployment of the nuclear-powered missile submarines of the USSR and the U.S. Therefore, the Soviet side believes that this whole question, and above all the question of liquidating the American missile submarine bases outside the U.S., will be appropriately resolved in the course of follow-on negotiations.

On May 24, Ambassador Smith made the following reply to Minister Semenov:

The United States side has studied the "statement made by the Soviet side" of May 17 concerning compensation for submarine basing and SLBM submarines belonging to third countries. The United States does not accept the validity of the considerations in that statement.

On May 26 Minister Semenov repeated the unilateral statement made on May 17. Ambassador Smith also repeated the U.S. rejection on May 26.

Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War

From the onset of the SALT negotiations between the United States and the Soviet Union, the two countries began the process of reshaping their relations on the basis of peaceful cooperation. One of the primary goals in this relationship was the prevention of war, especially nuclear war. During the last session of the Moscow summit meeting in May 1972, the countries exchanged some general ideas on how to accomplish this objective. These discussions were continued throughout the next year and were concluded in a formal agreement during General Secretary Brezhnev's visit to the United States on June 18-25, 1973.

In the Agreement on the Prevention of Nuclear War, signed in Washington on June 22, 1973, the United States and the Soviet Union agreed to make the removal of the danger of nuclear war and the use of nuclear weapons an "objective of their policies," to practice restraint in their relations toward each other and toward all countries, and to pursue a policy dedicated toward stability and peace. It was viewed as a preliminary step toward preventing the outbreak of nuclear war or military conflict by adopting an attitude of international cooperation.

The agreement basically covers two main areas:

1. It outlines the general conduct of both countries toward each other and toward third countries regarding the avoidance of nuclear war. In this respect it is a bilateral agreement with multilateral implications.

2. The parties agreed that in a situation in which the two great nuclear countries find themselves in a nuclear confrontation or in which, either as a result of their policies toward each other or as the result of developments elsewhere in the world, there is a danger of a nuclear confrontation between them or any other country, they are committed to consult with each other in order to avoid this risk.

DRAFT

BACKGROUND PAPER

ON

NORTHERN TIER MISSILE BASES

	MINUTEMAN	PEACEKEEPER	KC-135R	B-52H
GRAND FORKS	150	0	48	0
MINOT	150	0	0	26
MALMSTROM	200	0	12	0
FE WARREN	150	50	0	0

DoD proposal closes the missile group at Grand Forks AFB or Minot AFB and moves 120 of the missiles to Malmstrom AFB to complete the Minuteman II to Minuteman III conversion program. In addition, the proposal terminates fixed-wing flying operations at Malmstrom AFB and relocates 12 KC-135R aircraft to MacDill AFB.

- Substitutes Minot AFB for Grand Forks AFB missile field only if the need to retain ABM Treaty options precludes closure of the Grand Forks missile field.

- Responds to Nuclear Posture Review requirement to eliminate one missile group/wing and addresses tanker shortfall in Southeastern US.

- Excludes the missile field at FE Warren AFB from consideration because it is the only Peacekeeper missile base, and early inactivation of Peacekeeper missiles could adversely affect START.

- Avoids moving KC-135s from Grand Forks AFB because it is one of three core tanker bases (Others are Fairchild AFB and McConnell AFB).

DoD ranked Grand Forks AFB Tier III and Minot AFB and Malmstrom AFB Tier II based on analysis of the military effectivenes of their respective missile fields and their ability to support large aircraft flying operations. FE Warren was excluded from tiering.

- JCS annual analysis shows no difference in survivability or alert rates for any of the four missile groups/wings, and no shortfall in target coverage.

- The Nuclear Posture Review recommends an ICBM force structure consisting of "three wings of Minuteman III missiles carrying single warheads (500-450)."

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-- DoD analysis does not use the number of missiles (500 or 450) as a measure of missile military effectiveness. USSTRATCOM believes 500 ICBMs provide more military value.

- Ground water intrusion requires some additional maintenance at Grand Forks AFB, but is managed effectively at no discernible additional cost. Surface water problems at all missile units have been eliminated by topside grading.

COBRA Level Play analysis (below) shows that complete closure of Grand Forks AFB, Minot AFB, or Malmstrom AFB would produce substantially greater savings than the DoD proposed realignments. Data on FE Warren AFB was not included in the DoD proposal but has been requested.

1	COST TO CLOSE	ANNUAL RECURRING SAVINGS	NET PRESENT VALUE (2015)	ECONOMIC IMPACT
DOD GRAND FORKS-MALM PROPOSAL	29.3M	40.3M	501.3M	4.7% Grand Forks 2.3% Great Falls
DOD MINOT-MALM PROPOSAL	29.4M	41.1M	512.9M	6.1% Minot 2.3% Great Falls
MINOT CLOSE	59.3M	71.1M	783.5M	18.4% Minot
GRAND FORKS CLOSE	130.0M	58.4M	704.6M	15.4% Grand Forks
MALMSTROM CLOSE	32.7M	56.8M	762.9M	15.2% Great Falls
FE WARREN REALIGN	REQUESTED	REQUESTED	REQUESTED	REQUESTED

Potential options include:

- Close Minot AFB. Inactivate 150 Minuteman III missiles; Relocate 26 B-52H aircraft to Beale AFB , Fairchild AFB, or Barksdale AFB.

-- Satisfies the requirement to eliminate a missile group/wing.

-- Does not respond to the Southeastern US tanker shortfall, but this could be addressed by the separate realignment of tankers from Malmstrom AFB.

-- Counters Air Force decision to leave B-52s at Minot.

- Close Grand Forks AFB. Inactivate 150 Minuteman III missiles; Relocate 48 KC-135R tankers to Malmstrom AFB (24) and MacDill AFB (24).

-- Inactivation of missile field is uncertain due to ABM issue.

-- Breaks up one of three core tanker bases.

- Close Malmstrom AFB. Inactivate 200 Minuteman II/III missiles: Relocate 12 KC-135R tankers to Mac Dill AFB.

-- Avoids Minuteman II to Minuteman III conversion.

-- Reduces ICBM force to 450 missiles.

--Satisfies missile reduction and tanker relocation objectives.

- Realign FE Warren AFB. Inactivate 150 Minuteman III missiles to facilitate a non-BRAC closure when Peacekeeper missiles are deactivated in 2003.

-- Uncosted but likely to produce significant annual savings.

-- Does not respond to the Southeastern US tanker shortfall, but this could be addressed separately by the realignment of tankers from Malmstrom AFB.

-- Overturns Air Force decision to exclude FE Warren AFB, but avoids early inactivation of Peacekeeper missiles.

Olson/AF Team/10 April 1995/1100

BACKGROUND PAPER

ON

NORTHERN TIER MISSILE BASES

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- Excludes the missile field at FE Warren AFB from consideration because it is the only Peacekeeper missile base, and early inactivation of Peacekeeper missiles could adversely affect START. How?

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June 16, 1995

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

Dear Chairman Dixon,

This letter addresses the determination by the Department of Defense that the ICBM missile field at Grand Forks, North Dakota should be closed. As the Commission knows, and as will be set forth below, this recommendation is fraught with issues relating to the 1972 Anti-Ballistic Missile Treaty, its interpretation and implementation, and the expectations of the parties to that treaty. There should be little disagreement that arms control policy should not be fashioned, and arms control agreements should not be unilaterally modified or reinterpreted, through the base closure process. Retaining the Grand Forks ICBM missile field is the only option that maintains the status quo as established under the ABM Treaty, and therefore entails no doubt that the Treaty has been held inviolate.

DISCUSSION

In its February 28, 1995 base closure and realignment recommendations, the Department of Defense made a conditional recommendation for realignment of Grand Forks AFB or, alternatively, for realignment of Minot AFB if the Secretary of Defense were to determine that ballistic missile defense concerns would preclude realignment of Grand Forks.

The recommendation noted that "reduction in ICBM force structure requires the inactivation of one missile group within the Air Force." In essence, the recommendation left to the Secretary of Defense the choice between two North Dakota missile facilities, the 321st Missile Group at Grand Forks or the 91st Missile Group at Minot. The Secretary would

have until December 1996 to deliberate upon these two options before rendering a final recommendation.[1]

On March 1, 1995 Deputy Secretary of Defense John Deutch testified before the Commission about the treaty issues surrounding closure of the Grand Forks missile wing and the need for interagency review over a period of time "to come to a proper judgment on it:"

> Frankly, Mr. Chairman, the question about the treaty implication of closing that missile wing at Grand Forks is something that we focused on here rather late in the process, after we received February 3rd or 4th the recommendation from the Air Force. In order to come to a proper judgment on it, it's not just a Department of Defense matter. We have to get interagency views from others about the treaty implications. That's going to take some period of time.

Transcript of Open Meeting at 58-59.

Barely nine weeks after those words were uttered, the Deputy Secretary announced, via a one-page letter to Chairman Dixon, that the review had been completed, that "there will be no determination by the Secretary that would require retention of the missile group at Grand Forks," and that "[r]ealignment of Minot AFB and inactivation of the 91st Missile Group is no longer a necessary alternative." The letter is devoid of any explanation or rationale.

On May 30, 1995, Chairman Dixon forwarded four ABM-related questions from the Commission to Assistant Secretary of Defense Joshua Gotbaum. On June 8, the Assistant Secretary forwarded the Department's responses. The responses to the four questions total 17 lines of text composed of simple declarations without significant rationale or explanation.

The Defense Department's failure to present any comprehensive and persuasive treatment of the ABM and arms control policy issues that accompany its recommendation perhaps only underscores the need for the Commission to undertake its own analysis and

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[1] The key elements of the February 28, 1995 conditional recommendation are set forth as follows: "Recommendation: Realign Grand Forks AFB. The 321st Missile Group will inactivate, unless prior to December 1996, the Secretary of Defense determines that the need to retain ballistic missile defense (BMD) options effectively precludes this action. If the Secretary of Defense makes such a determination, Minot AFB, North Dakota, will be realigned and the 91st Missile Group will inactivate."

review before formulating its recommendation to the President, for it is plain that the proposed Grand Forks realignment -- impacting the only American ABM site, which was constituted pursuant to a pivotal arms limitation treaty -- is replete with missile defense, treaty and foreign policy ramifications.

"The 1972 Anti-Ballistic Missile (ABM) Treaty is a fundamental element of U.S. arms control policy. * * * President Clinton has reaffirmed the U.S. commitment to the ABM Treaty. The Administration considers it indispensable to stability, to the START I and START II reductions, and to longer-term reductions in strategic offensive arms."[2] U.S. Arms Control and Disarmament Agency, Fact Sheet: The Anti-Ballistic Missile Treaty (May 25, 1994) at 1,3. The President's February 1995 policy paper, A National Security Strategy of Engagement and Enlargement at 15, cites U.S. initiatives to clarify and update the ABM Treaty as exemplifying "the Administration's commitment to maintaining the integrity and effectiveness of crucial arms control agreements." And just this month, Presidents Clinton and Yeltsin issued a Joint Statement from Moscow (May 10, 1995) declaring that "The United States and Russia are each committed to the ABM Treaty, a cornerstone of strategic stability."

Ambassador Edward L. Rowny in testimony before the Commission (March 30, 1995), as well as the Senate Armed Services Committee (January 24, 1995),[3] concludes, on the basis of almost twenty years' experience in arms control policy, that realignment of Grand Forks AFB would be a serious mistake because of the treaty implications, the missile defense consequences and the foreign policy ramifications. Among the critical points highlighted by Ambassador Rowny are that 1) since Grand Forks is the only ABM site designated under the Treaty, realignment would perforce constitute a limitation of U.S ballistic missile defense options, 2) realignment of Grand Forks would be viewed as inconsistent with the Treaty and would undermine the Treaty expectations of Russia and the other affected states, Ukraine, Kazakhstan and Belarus, 3) any action perceived as inconsistent with the letter and spirit of the ABM Treaty would jeopardize other critical arms

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[2] See Dana Priest & Thomas Lippman, ABM Treaty Under Attack as Relic of Cold War, Wash. Post, March 13, 1995, at A1, A4 ("The Clinton administration believes the ABM treaty is the linchpin to its arms control strategy."); David A. Koplow, Constitutional Bait and Switch: The Executive Reinterpretation of Arms Control Treaties, 137 U. Pa. L. Rev. 1353, 1367 (1989) ("the ABM treaty has come to be recognized as one of the most successful and important arms control agreements").

[3] Copies of Ambassador Rowny's statements are attached.

control agreements, including the START II treaty, and 4) realignment of Grand Forks would leave Washington, D.C. as the only allowable U.S. ABM site (a changeover that is only permitted during a Treaty review year, the next such year being 1997) and would necessitate, under the Treaty and its protocols, the dismantling and destruction of any and all ABM components now at Grand Forks, including all ABM launchers and radars, all at enormous -- and unnecessary -- cost.

Given the extraordinary gravity of the issues that overlay the realignment decision flowing from Grand Forks' unique status as the only designated ABM site under the treaty, the Commission's final recommendation to the President must be based on an encompassing analysis of the kinds of concerns voiced by Ambassador Rowny, reflecting as they do, his intimate familiarity with arms control practice and policy. For the Commission's further consideration of Treaty-related issues that arise from the Grand Forks realignment proposal, following is a more detailed discussion of specific provisions of the Treaty and the impact of the Grand Forks realignment.

A. The ABM Treaty

The Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems was signed in Moscow on May 26, 1972, and entered into force on October 3, 1972.[4] Under the treaty, the United States and the U.S.S.R. agree not to deploy an ABM system anywhere other than at two sites within each country. ABM Treaty, art. III. Article III(a) of the treaty permits each party to deploy one limited ABM system to protect its capital; Article III(b) permits an ABM system to protect an intercontinental ballistic missile ("ICBM") launch area. Id. The treaty states that this latter deployment area must "contain[ ] ICBM silo launchers." Id. The ABM Treaty is of unlimited duration. Id. at art. XV, ¶ 1.

Accompanying the ABM Treaty is a document entitled "Agreed Statements, Common Understandings, and Unilateral Statements Regarding the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missiles" (hereinafter referred to as "Accompanying Document"). Within the "Agreed Statements" section of the documents, the parties state their understanding that the two ABM

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[4] Ratification of the ABM Treaty was advised by the United States Senate on August 3, 1972. On September 30, 1972 and October 3, 1972, respectively, the President of the United States ratified and proclaimed the ABM Treaty. The United States and the U.S.S.R. exchanged Instruments of Ratification on October 3, 1972.

system sites within each country must be separated by no less than 1,300 kilometers from center to center. Within the "Common Understandings" section of the Accompanying Document, the U.S. delegation "notes that its ABM system deployment area for defense of ICBM silo launchers, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area."

On July 3, 1974, the parties signed a protocol ("ABM Protocol") further restricting the deployment of ABM systems.[5] Although under the ABM Treaty the United States and the U.S.S.R. were each permitted to deploy an ABM system at two sites, the ABM Protocol limits each party to one site only. ABM Protocol, art. I. The effect of the ABM Protocol is to restrict the United States to maintain its choice of Grand Forks AFB as the ABM deployment area under Article III of the ABM Treaty. Similarly, the U.S.S.R. is bound by its selection of Moscow. The protocol provides a single exception to these restrictions. Each party is allowed to reverse its decision and deploy an ABM system at the Article III site not initially chosen. ABM Protocol, art. II, ¶ 1. Each party may do so only once and, before initiating construction at the new site, must notify the other country according to the procedure agreed to in the Standing Consultative Commission and during a year in which the ABM Treaty is scheduled for review. Id. Periodic review of the treaty, it should be noted, occurs at five-year intervals and the next review is scheduled for 1997. ABM Treaty, art. XIV, ¶ 2. As Article II, paragraph 2 of the ABM Protocol explains:

> [I]n the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III(b) of the Treaty.

The United States and the former Soviet Union have also negotiated agreements within the Standing Consultative Commission ("SCC"), established by Article XIII of the ABM Treaty. Four such agreements relating to the ABM Treaty were declassified shortly

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[5] The U.S. Senate recommended ratification of the ABM Protocol on November 10, 1975 and on March 19, 1976, the protocol was ratified by the President. The nations exchanged Instruments of Ratification on May 24, 1978. The ABM Protocol was entered into force on May 24, 1976 and subsequently proclaimed by the President on July 6, 1976.

before January 1993. See United States Arms Control and Disarmament Agency, Fact Sheet: The United States and Russia Declassify Five Agreements from the Standing Consultative Commission (January 1993). One agreement in particular concerns procedures for the replacement or dismantling of ABM systems and is discussed below.

B. Inactivating the 321st Missile Group Would Leave the United States Without a Legally Constituted ABM Site and Would Limit the United States to the Washington, D.C. Area as Its Sole Possible ABM Deployment Area in the Future

By inactivating the 321st Missile Group at Grand Forks AFB, the United States would impose unacceptable limitations on the ballistic missile defense options to which it agreed in the ABM Treaty. Any suggestion that would allow the United States to inactivate the 321st missile group (or most of it) and still retain its ballistic missile defense options, is contrary to the text and spirit of the ABM Treaty and threatens its continued viability.

A discussion of why some suggested alternatives to keeping the 321st Missile Group active should not be adopted follows.

1. Grand Forks AFB and Washington, D.C. Are the Only Two Permitted Deployment Sites: The United States Cannot Unilaterally Designate a Different ABM System Deployment Area Consistent with the ABM Treaty

The ABM Treaty does not permit the United States to unilaterally designate a different ICBM launch site as an ABM system deployment area. Article III(b) permits each party to deploy an ABM system "within one ABM system deployment area * * * containing ICBM silo launchers." It has been suggested that this provision should be read to allow each party to change its chosen deployment area at will so long as only one Article III(b) ABM system is deployed at any given time. For at least two reasons, this construction must be rejected.

First, there is no evidence whatsoever to suggest that either party ever considered such a construction before it was raised in this country as a purported way to finesse the inactivation of the 321st Missile Group under the Commission process without affecting BMD options. On the day the ABM Treaty was signed, in the document accompanying the treaty and with the understanding of the Soviet delegation, the United States designated Grand Forks AFB as its Article III(b) deployment area. That Grand Forks AFB would be

the site was specifically stated as a Common Understanding of the parties to the ABM Treaty.[6] See Accompanying Document, § 2(A).

Second, there is ample support for the proposition that the "one ABM system deployment area" permitted by Article III(b) means one and one alone; the ABM Treaty does not permit the United States to move its ABM system unilaterally from ICBM field to ICBM field.

Significantly, when the ABM question was raised by the 1993 Commission, the Deputy Assistant Secretary of the Air Force for Installations (Mr. Boatwright) testified before the Commission on June 17, 1993 as follows:

> "If [Grand Forks AFB] is closed and all silo launchers are eliminated, the U.S. would have the right to relocate the U.S. ABM system to the nation's capital, *not to another ICBM base or some other location.*"

Mr. Boatwright's statement accurately summarizes the effect of the Treaty and its protocols.

The 1974 ABM Protocol establishes Grand Forks AFB as this country's ABM deployment area but allows for a one-time reversal of this choice entailing deployment of an ABM system in the Washington, D.C. area. ABM Protocol, art. II, ¶ 1. Neither the ABM Treaty nor any of its protocols contains any other procedure through which the U.S. or the U.S.S.R. may change its choice of sites for the deployment of an ABM system.

Further to the point is the agreement negotiated in the SCC entitled "Supplementary Protocol to the Protocol on Procedures Governing Replacement, Dismantling or Destruction, and Notification Thereof, for ABM Systems and their Components of July 3, 1974" ("Supplementary Protocol"). This agreement was signed in Geneva by representatives of the U.S. and U.S.S.R. on October 28, 1976. The Supplementary Protocol establishes

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[6] It is true that the United States did not make its designation contingent on some Soviet representation that it would deploy an ABM system in some particular venue, but it is also irrelevant. Treaties are specialized agreements that do not require reciprocal or mutual obligations from each party to be binding. See Koplow, supra, at 1408-09. Indeed, mutuality of treaty obligations has been described as "wholly unnecessary as a matter of law." Id. What is relevant is the mutuality of the understandings. The Grand Forks designation was explicitly stated to be a common understanding of the parties.

procedures governing the replacement, dismantling or destruction of ABM systems both within a deployment area and in the event either party decides to exchange deployment areas as permitted by the ABM Protocol. The Supplementary Protocol reads, in part, as follows:

> The Procedures shall apply to ABM systems or their components, when they are being replaced within a deployment area on the basis of Article VII of the Treaty on the Limitation of ABM Systems of May 26, 1972, hereinafter referred to as the Treaty, *as well as when a deployment area of an ABM system or its components is being exchanged on the basis of the Protocol to the Treaty of July 3, 1974.*

Supplementary Protocol at I(1) (emphasis supplied).

Neither party to the ABM Treaty intended Article III(b) to grant the U.S. and U.S.S.R. free license to select which ICBM field to protect and to change their selections as many times as desired provided only that, at any given time, no more than one ABM system is deployed. If the United States inactivates the 321st Missile Group, it will have the sole option, consistent with the clear language of the ABM Treaty, of deploying an ABM system in the Washington, D.C. area and nowhere else. Moreover, as Ambassador Rowny has pointed out, the United States would be required to dismantle and destroy all ABM components now at Grand Forks, including all ABM launchers and radars. These consequences are also apparent from the Supplementary Protocol at section IV, entitled "Procedures for Exchange of the Deployment Area of an ABM System or its Components," where it is stated:

> Each Party may, at its discretion, completely dismantle or destroy the ABM system and its components in the area being exchanged, and thereafter deploy an ABM system or its components *in the other area permitted in Article III of the Treaty and the Protocol thereto* * * * .

For the United States, "the other area" is Washington, D.C. The ABM Treaty provides no other alternatives. The ABM Protocol speaks only of a one-time reversal and deployment in the national capital area while the Supplementary Protocol establishes procedures for effecting this one-time reversal. The suggested regime permitting at-will, unilateral redesignation of our Article III(b) deployment area is clearly not part of the ABM Treaty, it is *ultra vires* and must be avoided.

Article III(b) of the ABM Treaty limits the deployment of ABM systems to a single area "containing ICBM silo launchers." The United States, having selected Grand Forks AFB as that area, and having done so in writing with the approval of the U.S.S.R., is not empowered under the ABM Treaty to select a new site other than Washington, D.C. The ABM Treaty does not provide for such equivocation and would not counsel a unilateral reinterpretation of the agreement twenty-three years after it was signed. Indeed, it is a fundamental principle that each party to a treaty must interpret it in good faith. Vienna Convention of the Law of Treaties, art. 31 (opened for signature May 23, 1969); Restatement (Third) of the Foreign Relations Law of the United States § 321 (1987). Were the United States to adopt a new and self-serving interpretation of an important treaty provision it would violate this principle at the expense of its credibility abroad.

2. Retaining a Small Number of Silo Launchers at Grand Forks AFB in Order to Retain the Option of Deploying an ABM System there Would Violate the Intent of the ABM Treaty

Included in the Department of Defense recommendation to realign Grand Forks AFB is the following: "A small number of silo launchers at Grand Forks may be retained if required." The statement refers to Article III(b) of the ABM Treaty, which provides for an ABM system deployment area within a locale "containing ICBM silo launchers." The idea is that, by retaining "[a] small number of silo launchers at Grand Forks," the option to deploy an ABM system there would also be retained. The June 8, 1995 Department of Defense response to questions posed by the Commission states further

> "All ICBMs will be removed from the silos. As for the silos themselves, as stated in our recommendation, a small number may be retained if required. The Department has not yet determined whether retention of a small number of silos will be required. Further resolution of this issue will not likely be necessary until the time comes to eliminate the silos."

In this latest exposition of its position, the Department suggests that with no ICBMs and with few silos, or even none, Grand Forks would still continue to constitute an ABM site as recognized under the Treaty. A Treaty analysis that could support this position is not provided. In truth, the position cannot stand because it requires an interpretation of the ABM Treaty that is plainly contrary to its history and purpose.

The salient issue is what was meant by the parties in choosing the phrase "ICBM silo launchers" in Article III(b) of the ABM Treaty. Does it mean, as has been suggested, that

the U.S. and U.S.S.R. delegations decided each country could deploy a 100-missile ABM system to defend some tiny number of silo launchers, containing no ICBM's and no logistic support and stripped of nearly every component necessary to maintain their operational status? Or does the phrase reflect the parties' determination to allow each country to deploy an ABM system for the protection of an operational missile field? Intuition dictates the correct answer, as does resort to the text and history of the ABM Treaty.

Article II allows that a treaty-compliant ABM site could be one at which some or all ABM components are "mothballed." But there is no similar provision regarding the ICBM missile field which, under Article III(b), is to be associated with, and protected by, the ABM components. The obvious presumption is that the associated ICBM facility would be operational.[7] Thus, the Common Understandings note that Grand Forks will be the "ABM system deployment area for defense of ICBM silo launchers." It would be utterly paradoxical to contemplate "defense" of an ICBM missile field that has been effectively abandoned.

The most illuminating available history of the ABM Treaty are records of the Senate's consideration of the agreement. As a matter of U.S. constitutional law, "[d]etermining whether the Senate formed a coherent view of a particular clause * * * is the essential inquiry" of treaty interpretation:

> [O]nce [the Senate's] understanding [of a treaty] has been shown to exist, there is no conceptual difficulty in assessing its legal status. The Senate's understandings and conditions, however evidenced, are fully binding upon the President once the treaty is 'made.' The Senate's view of the treaty, whether explicit or implicit, is an integral part of the treaty, and the President cannot proceed to ratification on any other terms. * * * In effect, the Senate gives its advice and consent to a *particular* treaty regime, not a blank check for any *other* type of arrangements * * * .

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[7] Nevertheless, the June 8 letter of the Assistant Secretary responds to the query of the Commission as follows: "Question 2. If the 321st Missile Group is inactivated and all ICBMs are removed from Grand Forks Air Force Base, does Grand Forks Air Force Base remain an ABM site under the terms of the ABM Treaty? Response. We have determined that inactivation of the 321st Missile Group and removal of the ICBMs would not affect our right to retain an ABM system deployment area at Grand Forks." This conclusion is set forth without any explanation or Treaty analysis to support it.

Koplow, supra, at 1404-05 (emphasis in original). See also David Hodgkinson, The Reinterpretation of the ABM Treaty: Policy Versus the Law?, 21 W. Australia L. Rev. 258, 274 (1991) ("The Senate's understanding of the treaty to which it consents is binding on the President. . . ." (quoting M. Bunn, Foundation for the Future 162-67 (1990) (ellipses in original))).

The Senate's understanding of the phrase "ICBM silo launchers" is subject to no doubt. The Senate understood the ABM Treaty to allow the deployment of ABM systems to protect (1) each nation's capital and (2) an area actually containing an operational ICBM field. The following statements made on the Senate floor illustrate this point in no uncertain terms:[8]

- Senator Byrd - "The ABM Treaty restricts the Soviet Union and the United States to two defensive networks each. One would shield a major offensive weapons site, and a second would be placed near each country's capital." (118 Cong. Rec. 26647 (Aug. 3, 1972));

- Senator Jackson - "Both we and they are permitted two ABM sites, one at our respective national capitals and one located so as to defend strategic offensive weapons." (118 Cong. Rec. 26693 (Aug. 3, 1972));

- Senator Buckley (one of two Senators to oppose the Senate resolution advising the ratification of the ABM Treaty) - "The immediate objectives of the treaty, of course, is to limit antiballistic missile systems to nominal levels, where each side agrees to defend its national capital and one strategic missile site * * * ." (118 Cong. Rec. 26703 (Aug. 3, 1972));

- Senator Kennedy - "The only exceptions [to the prohibitions on deploying ABM systems] are made for a National Capital site and for the protection of a single ICBM site." (118 Cong. Rec. 26763 (Aug. 3, 1972)); and

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[8] The House of Representatives appears to have shared the Senate's interpretation. Representative Les Aspin, for example, noted that, under the treaty, "[e]ach [party] will limit ABM systems to two sites -- one in defense of its national capital, the other in defense of an ICBM field." (118 Cong. Rec. 26344 (Aug. 1, 1972)). Similarly, Representative Michael Harrington had reprinted in the Congressional Record an article from the Defense Monitor adopting the same interpretation. (118 Cong. Rec. 23873 (June 30, 1972)).

- Senator Fong - "[The ABM Treaty] [l]imits each side to one ABM site for the defense of its respective capital and one site each for the defense of an ICBM field." (118 Cong. Rec. 26707 (Aug. 3, 1972)).

The Secretary of State's contemporaneous analysis of the treaty likewise adopts the same interpretation of Article III(b):

> The heart of the treaty is article III, which spells out the provisions under which each of the parties may deploy two limited ABM complexes, one in an ICBM deployment area, and one at its national capital. * * *
>
> The two ABM deployment complexes permitted each side will serve different purposes. The limited ABM coverage in the ICBM deployment area will afford some protection for ICBM's in this area. ABM coverage at the national capitals will permit protection for the National Command Authority against a light attack, or an accidental or unauthorized launch of a limited number of missiles, and thus decrease the chances that such an event would trigger a nuclear exchange.

S. Exec. Rep. No. 28, 92nd Cong., 2nd Sess. 3 (1972) (emphasis supplied).

Similarly, it was assumed during Senate hearings on the ABM Treaty that Article III(b) allowed for the deployment of an ABM system to defend missiles. See generally Strategic Arms Limitation Agreements: Hearings on S.J. Res. 241 and S.J. Res. 242 Before the Comm. on Foreign Relations of the United States Senate, 92nd Cong., 2nd Sess. (1972). The committee report, for example, contains references to the Grand Forks ABM system as designed "for the protection of Minutem[e]n," Id. at 232 (Statement of Donald B. Brennan, senior fellow, professional staff, Hudson Institute), and to "defend ICBM's." Id. at 408 (Statement of Dr. Henry Kissinger).

In short, the suggested strategy of inactivating all components of the 321st Missile Group except for some minimal number of gutted silo launchers cannot be squared with the clear meaning of Article III(b), and thus must be rejected. The Article III(b) ABM system deployment area was meant to defend ICBM's, not empty silos.

3. Only the ABM Components at Grand Forks Together With the Grand Forks ICBM Missile Field Properly Constitute an ABM Site

It may be asked whether the ABM components at Grand Forks, considered together with another active ICBM missile field might constitute an allowable ABM site under the treaty. Article III(b) and the Common Understandings compel a negative answer. Article III(b) permits an ABM system for the defense of ICBMs and requires that the protected ICBM missile field and all the ABM components be within a radius of 150 kilometers:

> within one ABM system deployment area having a radius of one hundred and fifty kilometers and containing ICBM silo launchers, a Party may deploy: (1) no more than one hundred ABM launchers and no more than one hundred ABM interceptor missiles at launch sites, (2) two large phased-array ABM radars comparable in potential to corresponding ABM radars operational or under construction on the date of signature of the Treaty in an ABM system deployment area containing ICBM silo launchers, and (3) no more than eighteen ABM radars each having a potential less than the potential of the smaller of the above-mentioned two large phased-array ABM radars.

(Emphasis added.)

Simultaneous with the signing of the ABM Treaty on May 26, 1972, the U.S. designated the location of its Article III(b) ABM site and this designation was incorporated into the Common Understandings that accompanied the Treaty. It was thus the mutual understanding of the parties that the U.S. site would be "centered in" the Grand Forks ICBM missile field:[9]

> 2. Common Understandings
>
> Common understanding of the Parties on the following matters was reached during the negotiations:
>
> A. Location of ICBM Defenses
>
> The U.S. Delegation made the following statement on May 26, 1972:

[9] And in fact, all U.S. ABM system components were and are located within the Grand Forks Missile Complex.

> Article III of the ABM Treaty provides for each side one ABM system deployment area centered on its national capital and one ABM system deployment area containing ICBM silo launchers. * * * In this connection, the U.S. side notes that its ABM system deployment area for defense of ICBM silo launchers * * * will be centered in the Grand Forks ICBM silo launchers deployment area.

There is simply no reading of these provisions, consistent with common sense, that could lead to any conclusions other than that it was the mutual understanding of the Parties 1) that the center of the U.S. ABM system deployment area[10] would be physically located within the Grand Forks ICBM missile field and 2) that the ICBM facility the ABM system was meant to defend was in fact the Grand Forks missile field in which it was specifically centered.

The cluster of ABM components at Grand Forks is centered in the northern quadrant of the Grand Forks AFB Missile Complex.

A suggestion that another missile field could be substituted for the Grand Forks missile field without doing violence to the ABM accords is completely untenable. First, it contradicts the obviously mutual understanding that the U.S. ABM system centered in the Grand Forks ICBM missile field was for the defense of that missile field, not some other. Second, it violates the geographical requirements of Article III(b): no other missile field meets the geographic requirements of the treaty. Third, the Common Understandings state that the ABM system "will be centered in the ICBM deployment area"; it is not enough that the ABM system be centered in what used to be the ICBM deployment area [i.e., Grand Forks]; and it cannot possibly be "centered" in another missile field since it is not within another missile field deployment area at all.

Because the shared intentions of the Parties preclude it, and because the geographical relationships established under the ABM Treaty prohibit it, the ABM components at Grand Forks together with another ICBM missile field cannot in combination comprise a properly constituted ABM site. Thus, deactivating the Grand Forks missile field and simply declaring another missile field to be the ABM associated missile field is not a viable treaty option.

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[10] An "ABM system," under Article II of the Treaty, includes all of any ABM missiles, ABM launchers and ABM radars to be deployed.

CONCLUSION

The proposed Grand Forks realignment has grave and unique ramifications, for U.S. defense options, for viability of the ABM treaty, for foreign policy and the future of arms limitation generally and for the costs of dismantling an ABM site in compliance with treaty obligations. There has been no suggested interpretation or alternative that adequately resolves these issues. For all of these reasons, Grand Forks AFB should not be realigned.

Sincerely,

George R. Schlossberg

Enclosures: as stated.

TESTIMONY OF

AMBASSADOR EDWARD L. ROWNY
(LT. GEN., U.S.A. RET.),

BEFORE THE COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

JANUARY 24, 1995

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

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CHAIRMAN THURMOND AND MEMBERS OF THE COMMITTEE:

IT IS A PLEASURE TO APPEAR BEFORE YOU TODAY TO DISCUSS BALLISTIC MISSILE DEFENSE ISSUES.

AS THE CHIEF START NEGOTIATOR UNDER PRESIDENT REAGAN, SPECIAL ADVISOR TO SECRETARY OF STATE SHULTZ FOR ARMS CONTROL MATTERS, UNDER BOTH PRESIDENTS REAGAN AND BUSH, AND IN MY CAPACITY AS THE JOINT CHIEFS OF STAFF REPRESENTATIVE TO THE STRATEGIC ARMS LIMITATION TALKS (SALT II) UNDER THE CARTER ADMINISTRATION, IT IS MY CONSIDERED JUDGMENT THAT THE ABM TREATY OF 1972 (AND THE PROTOCOL TO THE TREATY IN 1974) VITAL TO OUR NATIONAL SECURITY INTEREST, IS IN JEOPARDY OF BEING VIOLATED BY THE UNITED STATES.

ABM TREATY IMPLICATIONS

THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS (HEREINAFTER "ABM TREATY") WAS SIGNED IN MOSCOW ON MAY 26, 1972, AND ENTERED INTO FORCE ON OCTOBER 3, 1972. THE ABM TREATY PROVIDES, AMONG OTHER THINGS FOR RESTRICTION ON THE NUMBERS OF ANTI-BALLISTIC MISSILE (ABM) DEPLOYMENT AREAS MAINTAINED BY THE TWO NATIONS. SPECIFICALLY, THE TREATY ORIGINALLY PERMITTED EACH SIDE TO HAVE ONE LIMITED ABM SYSTEM TO PROTECT ITS CAPITAL ANDANOTHER TO PROTECT AN INTERCONTINENTAL BALLISTIC MISSILE (ICBM) LAUNCH AREA.

DURING THE NEGOTIATIONS OF THE AGREED STATEMENTS AND COMMON UNDERSTANDINGS TO ACCOMPANY THE TREATY, IT WAS DECIDED THAT THE UNITED STATES ABM SYSTEM DEPLOYMENT AREA FOR DEFENSE OF ICBM SILO LAUNCHERS "WILL BE CENTERED IN THE GRAND FORKS ICBM SILO LAUNCHER DEPLOYMENT AREA" AT GRAND FORKS AIR FORCE BASE (AFB), NORTH DAKOTA.

AT THE 1974 SUMMIT MEETING BETWEEN THE U.S. AND THE U.S.S.R., THE NATIONS SIGNED THE PROTOCOL TO THE ABM TREATY ("PROTOCOL"). THE

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

PROTOCOL'S EFFECT IS TO RESTRICT THE UNITED STATES TO ITS CHOICE OF GRAND FORKS AFB AS THE ABM DEPLOYMENT AREA UNDER ARTICLE III OF THE TREATY. IN RELEVANT PART, THE PROTOCOL PROVIDES:

1. Each party shall be limited at any one time to a single area out of the two provided in Article III of the Treaty for deployment of anti-ballistic missile (ABM) systems.

2. Accordingly, except as permitted by Article II of this Protocol: the United States of America shall not deploy an ABM system or its components in the area centered on its capital, as permitted by Article III of the Treaty.

Protocol, Article I.

TO ALLOW SOME FLEXIBILITY TO THE NATIONS, ARTICLE II OF THE PROTOCOL ALLOWS EACH SIDE TO REVERSE ITS ORIGINAL CHOICE OF AN ABM SITE. THUS, UNDER THE ABM TREATY, THE UNITED STATES IS ALLOWED ONLY TO DISMANTLE AND DESTROY ITS ABM SYSTEM AT GRAND FORKS AFB AND DEPLOY AN ABM SYSTEM IN THE WASHINGTON, D.C. AREA. THE PROTOCOL DOES NOT ALLOW THE NATIONS TO SELECT ABM DEPLOYMENT AREAS DIFFERENT FROM THOSE DESIGNATED IN THE COMMON AGREEMENTS TO THE TREATY, AND CLEARLY STATES THAT THE RIGHT TO ALTERNATE BETWEEN THE ORIGINAL ABM DEPLOYMENT AREA AND THE ALTERNATE SITE (WASHINGTON, D.C.) "MAY BE EXERCISED ONLY ONCE." (EMPHASIS ADDED.)

ACCORDINGLY, TO THE EXTENT THE UNITED STATES DESIRES TO MAINTAIN THE ABILITY TO FIELD AN ABM SITE AND STILL REMAIN IN COMPLIANCE WITH THE ABM TREATY, RELOCATION OF THE ABM DEPLOYMENT AREA FROM GRAND FORKS AFB TO AN AREA OTHER THAN THE NATIONAL CAPITAL AREA WOULD NOT BE ALLOWED.

RUSSIA, AND THE OTHER REPUBLICS OF THE FORMER SOVIET UNION, HAVE AGREED TO ABIDE BY THE TERMS OF THE ABM TREATY. OVER THE PAST TWO DECADES THE SOVIETS, AND NOW THEIR SUCCESSORS, HAVE EXPRESSED MISGIVINGS THAT THE UNITED STATES INTENDS TO WALK AWAY FROM ITS OBLIGATIONS UNDER THE ABM TREATY. THE FORMER STATES OF THE U.S.S.R. HAVE CONSIDERED THE ABM TREATY TO SERVE THEIR INTERESTS, WHEREAS THE U.S. HAS COME TO BELIEVE THAT THE ABM TREATY, ESPECIALLY AS NARROWLY DEFINED BY THE SOVIETS, HAS PREVENTED THE UNITED STATES FROM DEVELOPING DEFENSES TO PROTECT ITSELF.

SINCE THE COLLAPSE OF THE SOVIET UNION, MILITARY OFFICIALS OF

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

RUSSIA AND THE OTHER NUCLEAR STATES, UKRAINE, KAZAKHSTAN, AND BELARUS, HAVE INDICATED THAT THEY WOULD BE AMENABLE TO AMENDING THE ABM TREATY SO AS TO PERMIT ALL PARTIES TO WORK JOINTLY TO DEVELOP DEFENSES TO PROTECT AGAINST BALLISTIC MISSILE ATTACKS.

HOWEVER, THERE IS A NEW DEVELOPMENT WHICH THREATENS TO UNDERMINE THE ABM TREATY AND THE GOOD RELATIONS THE U.S. AND THE FORMER SOVIET REPUBLICS HAVE ESTABLISHED. AS YOU ARE AWARE, 1995 REPRESENTS A NEW ROUND OF BASE CLOSURES THROUGH THE DEFENSE BASE AND REALIGNMENT PROCESS. I AM CONCERNED THAT THE GRAND FORKS AFB MISSILE FIELD MAY APPEAR ON THE LIST OF POTENTIAL BASES TO BE CLOSED OR REALIGNED.

AT THE END OF 1994 I HAD THE OPPORTUNITY TO CONSIDER THE RAMIFICATIONS OF CLOSING GRAND FORKS AFB IN A LETTER TO GENERAL RONALD R. FOGLEMAN. AT THAT TIME I CONCLUDED THAT:

> "...closing the military facilities at Grand Forks, North Dakota, would be prejudicial to the national security interest of the United States."

MY CONCLUSION WAS BASED ON A BELIEF THAT ANY ACTIONS TO DISMANTLE THE GRAND FORKS BALLISTIC MISSILE FIELD COULD UNDERMINE THE ABM TREATY REGIMEN FOR THE FOLLOWING REASONS:

- First, Russia and other republics of the former Soviet Union could consider the closing of Grand Forks a signal that the United States intends unilaterally to change the ABM Treaty.

- Second, it could seriously jeopardize programs for developing and employing theater and strategic anti-ballistic systems to defend the United States, the direction in which we need to be focusing our security efforts.

- Third, closing Grand Forks may lead to a violation of the 1992 amendments to the Missile Defense Act of 1991, which provides that all strategic defenses must be treaty compliant and that the one permitted site must be Grand Forks.

THE MISSILE FIELD AT GRAND FORKS AFB IS INTRICATELY LINKED TO THE ABM TREATY. IF THE UNITED STATES WERE TO CLOSE GRAND FORKS BEFORE IT WORKED OUT DETAILS WITH THE NUCLEAR REPUBLICS OF THE FORMER SOVIET UNION, IT COULD GIVE THOSE REPUBLICS GROUNDS FOR BELIEVING

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

THAT THE UNITED STATES WAS ATTEMPTING TO CHANGE UNILATERALLY THE ABM TREATY RATHER THAN WORK JOINTLY TO AMEND IT.

MOREOVER, IN LIGHT OF THE RECENT EVENTS IN THE BREAKAWAY REPUBLIC OF CHECHNYA AND THE STRAIN IT HAS PLACED ON U.S.-RUSSIAN RELATIONS, A MOVE BY THE U.S. TO CLOSE GRAND FORKS WOULD NOT ONLY FURTHER FRUSTRATE OUR ATTEMPTS TO ACHIEVE GREATER HARMONY ON A BROAD RANGE OF DEFENSE/SECURITY ISSUES BUT ALSO COULD SERIOUSLY JEOPARDIZE THE STABILITY OF THE OTHER FORMER SOVIET REPUBLICS WITH NUCLEAR CAPABILITY.

ADDITIONALLY, CLOSING GRAND FORKS WILL INHIBIT, IF NOT ENTIRELY PROHIBIT, THE DEVELOPMENT OF FUTURE U.S. DEFENSIVE SYSTEMS WHICH ENCOMPASS THE DEPLOYMENT OF DEFENSES AT MORE THAN ONE SITE. MOVING TO ANOTHER SITE WOULD ENTAIL NEGOTIATING A TREATY CHANGE WITH THE RUSSIANS, AND POSSIBLY OTHER FORMER REPUBLICS OF THE SOVIET UNION. IN OTHER WORDS, IT COULD COMPLICATE LONG-RANGE PLANS TO BUILD A NEW SITE AND EVEN PLANS FOR EVENTUALLY ESTABLISHING A MULTIPLE SITE DEFENSE OF THE UNITED STATES.

FURTHER, NOTWITHSTANDING THE FACT THAT THE GRAND FORKS ABM SYSTEM HAS BEEN ON INACTIVE STATUS SINCE 1976, CLOSURE OF GRAND FORKS WOULD EXTINGUISH ANY RESERVED RIGHTS OF THE UNITED STATES UNDER ARTICLE III OF THE TREATY TO ACTIVATE AN ABM SYSTEM, IF REQUIRED IN THE FUTURE.

FINALLY, IN THE MISSILE DEFENSE ACT OF 1991, THE CONGRESS SPECIFIED THAT THE DEVELOPMENT OF U.S. PROGRAMS FOR STRATEGIC DEFENSES MUST BE "TREATY COMPLIANT", THAT IS, THE UNITED STATES CAN PLAN TO DEFEND ONLY ONE SITE. IN THE 1992 AMENDMENT TO THE MISSILE DEFENSE ACT, THE CONGRESS REPEATED ITS STIPULATION THAT PLANNED STRATEGIC DEFENSES BE "TREATY COMPLIANT", AND FURTHER STATED THAT THE ONE PERMITTED SITE BE GRAND FORKS. THUS, ANY ACTION TO CLOSE GRAND FORKS AFB, AS PART OF A BASE CLOSURE EXERCISE, WITHOUT RESOLUTION OF THE OPEN ABM TREATY ISSUES COULD PLACE THE U.S. IN THE POSITION OF VIOLATING NOT ONLY THE ABM TREATY BUT ALSO ITS OWN COMPLIANCE STANDARDS.

IN SUMMARY, I AM CONVINCED THAT CLOSING THE MILITARY FACILITIES AT GRAND FORKS, NORTH DAKOTA, WOULD BE A GRAVE MISTAKE. THE ABM TREATY IMPLICATIONS OF SUCH AN ACTION WOULD BE SERIOUS CAUSE FOR CONCERN BY OFFICIALS OF THE FORMER SOVIET UNION, PREVENT THE DEVELOPMENT OF A SOUND DEFENSIVE SYSTEM TO PROTECT THE UNITED

AMBASSADOR EDWARD L. ROWNY (LT. GEN., U.S.A., RET.)

STATES AND PLACE THE UNITED STATES IN THE POSITION OF POTENTIALLY VIOLATING ITS OWN LAWS. IN SHORT, TO CLOSE GRAND FORKS AFB WOULD PUT THE UNITED STATES NATIONAL SECURITY AT RISK.

STATEMENT OF
AMBASSADOR EDWARD L. ROWNY
(LT. GEN., U.S.A., RET)
FORMER CHIEF U.S. START NEGOTIATOR
BEFORE THE
BASE CLOSURE AND REALIGNMENT COMMISSION
GRAND FORKS, NORTH DAKOTA
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Commissioner Davis, Commissioner Cox, Commissioner Kling,it is a pleasure to appear before you today to discuss the practical and legal affects of a decision to realign Grand Forks Air Force Base.

As the Chief START negotiator under President Reagan, Special Advisor to Secretary of State Shultz for Arms Control Matters under both Presidents Reagan and Bush, and the Joint Chiefs of Staff Representatives to the Strategic Arms Limitation Talks (SALT II) under the Carter Administration, I feel compelled to express my grave concern over the Department of Defense's recommendation to inactivate the 321st Missile Group at Grand Forks, North Dakota. By taking this course of action, the United States would unacceptable restrict its ballistic missile defence options and needlessly spend millions of dollars that could be saved if an alternative ICBM site were inactivated. Some have suggested that the United States could finesse the ABM Treaty implications by leaving some minimal number of ICBM launchers at Grand Forks. This solution is unsatisfactory because it could undermine the ABM Treaty regimen as well as jeopardize efforts to consummate the START II Treaty.

For nearly two decades I took part in, or was in charge of, negotiations with the USSR on nuclear strategic issues. In 1982 I was a member of the first five-year review

of the ABM Treaty and in 1987 was in charge of the second five-year review of the ABM Treaty. Based on my experience and continued contacts with officials of the Department of Defense, and members of the U.S. Congress, I am convinced that closure of the missile facilities at Grand Forks would be a serious mistake.

ABM TREATY IMPLICATIONS

One of my gravest concerns is that Grand Forks AFB might be realigned without serious consideration as to whether this action might limit our ballistic missile defense options under the ABM Treaty. This is not a matter to be taken lightly. As the Washington Post recently reported, "[t]he Clinton administration believes the ABM Treaty is the linchpin to its arms control strategy," I, too, am concerned about the damage that this contemplated action might inflict on the treaty.

As you are aware, the Treaty Between the United States of American and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems (hereinafter "ABM Treaty") was signed in Moscow on May 26, 1972, and entered into force on October 3, 1972. The ABM Treaty provides among other things, for the restriction of the numbers of Anti-Ballistic Missile (ABM) deployment areas maintained by the two nations. Article III(a) of the treaty permits each party to deploy one limited ABM system to protect its capital; Article III(b) permits an ABM system to protect an intercontinental ballistic missile ("ICBM") launch area. The treaty states that this latter

deployment area must "contain [ ] ICBM silo launchers."

On the day the ABM Treaty was signed, both parties issued a number of agreed statements and came to a common understanding on certain issues intricately related to the treaty. One common understanding reached by the parties concerned where the U.S. would deploy its Article III(b) ABM system. On this point, the U.S. Delegation stated, (and I quote), "that its ABM system deployment area for defense of ICBM silo launders, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area."

On July 3, 1974, the parties signed a protocol ("ABM Protocol") further restricting the deployment of ABM systems. Although under the ABM Treaty the United States and the U.S.S.R. were each permitted to deploy an ABM system at two sites, the ABM Protocol limits each party to one site only. The effect of the ABM Protocol is to restrict the United States to maintain its choice the Grand Forks AFB as the ABM deployment area under Article III of the ABM Treaty. Similarly, the U.S.S.R. is bound by its selection of Moscow.

The protocol provides a single exception to those restrictions. Each party is allowed to reverse its decision and deploy an ABM system at the Article III sit not initially chosen. Each party may do so only once and, before initiating construction at the new site, must notify the other country according to the procedure agreed to in the Standing

Consultative Commission and during a year in which the ABM Treaty is scheduled for review. Periodic review of the treaty, it should be noted, occurs at five-year intervals and the next review is scheduled for 1997. As Article II, paragraph 2 of the ABM Protocol explains:

> [I]n the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III)b) of the Treaty.

1. Preserving a Small Number of Silo Launchers at Grand Forks AFB In Order to Retain the Option of Deploying an ABM System there Would Violate the Intent of the ABM Treaty

I have heard the suggestion that preserving a small number of ICBM launchers at Grand Forks might satisfy the requirement of the ABM Treaty while allowing for the effective inactivation of the 321st Missile Group. I am dismayed that the Department of Defense would entertain this suggested disingenuity. Yet, included in the Department of

Defense recommendation to realign Grand Forks AFB is the following: "A small number of silo launchers at Grand Forks may be retained if required." The statement refers to Article III(b) of the ABM Treaty, which provides for an ABM system deployment area within a locale "containing ICBM silo launchers." The idea is that, by retaining "[a] small number of silo launchers at Grand Forks," the option to deploy an ABM system there would also be retained. The notion cannot stand, however, because it relies upon an interpretation of the ABM Treaty that is contrary to its history and purpose.

The salient issue is what was meant by the parties in choosing the phrase "ICBM silo launchers" in Article III(b) of the ABM Treaty. Does it mean, as has been suggested, that the U.S. and U.S.S.R. delegations decided each country could deploy a 100-missile ABM system to defend some minimal number of silo launchers, containing no ICBM's and no logistic support and stripped of nearly every component necessary to maintain their operational status? Or does the phrase reflect the parties' determination to allow each country to deploy an ABM system for the protection of an operational missile field? Common sense and the history of the ABM Treaty point to this second meaning as the correct answer.

Some of the most important and illuminating history of the ABM Treaty is contained in the records of the Senate's consideration of the agreement. The Senate understood the phrase "ICBM silo launchers" as used in Article III(b) of the treaty to refer to ICBM fields, not simply launchers. Statements made by a number of senators during

consideration of the ABM Treaty confirm this understanding, as do references in the Senate Foreign Relations Committee report. The Senate's understanding of the ABM Treaty became law when it voted for ratification.

The suggested strategy of inactivating all components of the 321st Missile Group except for some minimal number of silo launchers cannot be squared with the meaning of Article III(b) as ratified by the Senate that the ABM system deployment area was meant to defend an ICBM complex and not simply several ICBM launchers.

Accordingly, to the extent the United States desires to maintain the ability to field an ABM site and still remain in compliance with the ABM Treaty, the suggested destruction of all but several ICBM launchers should be rejected. Further, not withstanding the fact that the Grand Forks ABM system has been on inactive status since 1976, closure of Grand Forks AFB or reducing the number to only a few launchers would extinguish any reserved rights of the United States under Article III of the Treaty to activate a ABM system, if required in the future.

2. The Suggested "Solution" Would Jeopardize United States Credibility With Russia and the Other Former Soviet Republics

A related but independent problem concerns our credibility with the successors to the U.S.S.R. Russia, and the other Republics of the former Soviet Union have agreed

to abide by the terms of the ABM Treaty. Over the past two decades the Soviets, and now their successors, have expressed apprehension that the United States intends to walk away from its obligations under the ABM Treaty. The U.S.S.R. has considered the ABM Treaty to serve their interests, whereas the U.S. has come to believe that the ABM Treaty, especially as narrowly defined by the Soviets, has prevented the United States from developing defenses which would protect it from a crippling first-strike.

Since the collapse of the Soviet Union, military officials of Russia and the other nuclear state, Ukraine, Kazakhstan, and Belarus, have indicated that they would be amenable to amending the ABM Treaty so as to permit all parties to work jointly to develop defenses to protect against ballistic missile attacks. If the United States were to realign Grand Forks with the intention that it could retain its ballistic missile defense options and before it worked out details with the nuclear republics of the former Soviet Union, it might well spark a belief that the United States was attempting to unilaterally change the ABM Treaty rather that work jointly to amend it.

Realigning Grand Forks could alienate many of the members of the United States Senate and House of Representatives who have steadfastly supported the ABM Treaty. In the Missile Defense Act of 1992, the congress specified that the development of U.S. programs for strategic defenses must be "treaty compliant," that is, that the United States can plan to defend only one site. In the 1992 amendment to the Missile Defense Act, the Congress repeated its stipulation that planned strategic defenses be "treaty compliant,"

and further stated that the one permitted site by Grand Forks. Thus, any action to close Grand Forks AFB, as part of a base closure exercise without prior consultation with the Congress and resolution of the open ABM Treaty issues would be considered by them to be a serious breach of faith and could jeopardize the National consensus on Arms Control.

In summary, I am convinced that closing the missile facilities at Grand Forks, North Dakota under the aforementioned suggested pretenses threatens to undermine our credibility and should not be undertaken.

START II TREATY IMPLICATIONS:

In addition to ABM Treaty implications, no actions should be contemplated which jeopardize prospects for ratification of the START II treaty. The uncertainty surrounding this treaty requires the retention of the 321st Missile Group. President Bush and President Yeltsin signed the START II Treaty on January 3, 1994, in Moscow; on January 15, 1993, President Bush submitted the START II Treaty to the Senate for its advice and consent for Treaty reatification. It is unclear when the Treaty will be ratified by the Senate.

I agree with views of Admiral Henry G. Chiles, Jr. expressed recently before the Senate Armed Services Committee. Admiral Chiles counseled that, because of the

uncertainty surrounding the ratification of START II, "we should allow the ratification process to take place [before we] draw down Peacekeeper and Minuteman III" deployments. More significantly, Admiral Chiles noted that it will be difficult to implement START II unless we adhere to the ABM Treaty. On this point the Admiral stated: "I believe that without an ABM Treaty, we would not be able to move to a START II."

Similarly, I believe that until the START II Treaty situation is ratified and all strategic allocations are determined, prudent planning requires the retention of the 321st Missile Group, and good faith compliance with the letter and spirit of the ABM Treaty.

COST ISSUES:

A decision to inactivate the 321st Missile Group would unnecessarily cost millions of dollars; dollars that could be saved were a different ICBM field chosen for inactivation. The missile field at Grand Forks is this country's newest and most modern installation. It is also the one ICBM field inextricable linked to the ABM Treaty. If the United States adopts the suggestion to redesignate its Article III(b) deployment area, the ABM Treaty and its protocols would require us to dismantle to destroy any and all ABM components currently located in the Grand Forks area, including all ABM launchers and radars.

I am distressed that this cost item has not, to this point, been taken into account. A fully informed decision regarding Grand Forks cannot be made without considering

these important items. Moreover, the failures to account for such costs violates the spirit, if not the letter, of Section 2925 (a) of the National Defense Authorization Act for Fiscal year 1994, which expresses the sense of the Congress that the Secretary of Defense should consider all direct costs to Federal departments and agencies when deciding base closure issues.

WASHINGTON TIMES April 10, 1995 Pg. 1

U.S. may drop its concessions in ABM treaty talks

Top aides consider four options

By Bill Gertz
THE WASHINGTON TIMES

Top Clinton administration defense officials today will consider abandoning current U.S. concessions in talks with Russia aimed at clarifying the Anti-Ballistic Missile treaty.

A new option to be explored at the closed meeting is to drop proposed speed limits on interceptor missiles, which were offered as a way to distinguish between regional systems allowed under the treaty and strategic systems that are prohibited.

Instead, the administration will discuss limiting the speed and range of targets used in tests of regional anti-missile interceptors to determine permitted systems, a secret White House memorandum proposes.

The April 4 options paper was written by Robert Bell, National Security Council staff military affairs specialist.

The administration would like to push through an agreement in time for a May summit in Moscow.

Mr. Bell says in the memorandum stamped "SECRET/PROSE," prepared for the meeting today, that officials should be prepared to discuss "whether to adjust the U.S. negotiating position in the ABM/TMD demarcation negotiations."

The interagency group of top Pentagon, State Department, CIA and Energy Department officials also will hear reports on Defense Secretary William Perry's talks in Moscow last week on missile defenses.

They will also discuss the Pentagon's recent decision to declare the Navy's Upper Tier wide-area missile defense system legal under the 1972 ABM treaty.

A White House spokesman said Mr. Bell had no comment on the meeting because all information about it is classified. The contents of the memorandum were made available to The Washington Times and verified by administration officials.

The talks in Geneva on clarifying the ABM treaty are deadlocked over Russian insistence on restricting U.S. regional anti-missile systems.

Military officials in particular want to roll back the current U.S. position, which proposes speed limits on anti-missile interceptors and calls for concluding a second agreement on advanced TMD systems.

House and Senate Republican leaders have sharply criticized the administration over the U.S. negotiating position. They said in several letters to President Clinton that the current position, if codified in an agreement, would severely restrict development of effective theater missile defense systems.

On Thursday, Senate Majority Leader Bob Dole and nine other Republican senators wrote to Mr. Clinton, describing the current negotiating position as "unacceptable and impossible to fix with cosmetic modification."

The Bell memorandum is a draft decision paper for Mr. Clinton that should "move rapidly next week" through NSC review groups "in order to present the president with options prior to any expert-level discussions to be held before the summit."

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San Diego.

A decision to select one contractor to manufacture the Tier Two Plus will be made early next month, Beverly Baker, ARPA spokeswoman, said April 5.

Either of the long-range UAVs will be fielded by 2000, Entzminger said.

In spite of all the programs to produce a long-range drone, it is unlikely more than one system will be purchased, defense analysts said March 5.

"Congress is likely to scrub the duplication" of two long-range drones and fund only one of the programs, said Ted Cormaney, president of Cormaney Associates, a Washington-based lobbying firm. "This is not a tactical UAV. These [long range UAVs] are going to be used as a replacement for the SR-71" supersonic spy plane, Cormaney said.

DEFENSE NEWS April 10, 1995 Pg. 24

Pentagon Eyes ICBMs for Defense

Proposal Responds to Republican Push for Missile Shield

By BARBARA OPALL
Defense News Staff Writer

WASHINGTON — Defense Department officials are offering to refurbish Minuteman intercontinental ballistic missiles (ICBM) as a relatively quick and low-cost answer to congressional Republican calls for speedy deployment of a national missile defense system.

The ICBM retrofit program would cost about $5 billion and could be ready for deployment within four years to defend against accidental or terrorist ballistic missile attacks on the United States, according to Lt. Gen. Malcolm O'Neill, director of the Pentagon's Ballistic Missile Defense Organization (BMDO).

In April 4 testimony before the House National Security Committee, O'Neill told lawmakers the national missile defense system would require up to $800 million in additional funding per year for the next four years.

He cautioned that a system designed to defend the United States against ballistic missile attack probably could not be rushed any more than the crash effort offered in response to Republican calls for early deployment of a national missile defense.

The fast-track Pentagon program would develop about 20 kinetic kill warheads for launch from LGM-30G Minuteman III intercontinental ballistic missiles deployed at Grand Forks Air Force Base, N.D.

The base already is equipped with command, control and communications systems as well as early warning radars.

A kinetic kill warhead destroys a target by ramming it.

Pentagon planners say the Minuteman retrofit would require upgrades to existing infrastructure at Grand Forks, but at modest costs compared with development and deployment of entirely new ground-based missiles and associated equipment.

Pentagon plans call for nearly $400 million per year over the next three years to develop technology required for a national missile defense system.

Once the technology readiness program is complete, Pentagon officials could move to deploy the system within three years at a cost of several billion dollars, O'Neill said.

Republican lawmakers are seeking to add $800 million to $1 billion to the 1997 national defense spending bill for missile defense.

Republican calls for speedy deployment of a national missile defense system were reiterated April 4 when the House Republican Policy Committee unanimously adopted a statement on missile defense.

"To remedy this intolerable threat to America's national interest, House Republicans believe it is imperative that the United States, at the earliest practical date, deploy an antiballistic missile system capable of providing a highly effective defense of the United States against ballistic missile attack," the policy paper stated.

A March 23 Congressional Budget Office estimate prepared for Sen. James Exon, D-Neb., ranking minority member of the Senate Budget Committee, pegs the cost to complete a Republican-proposed national missile defense system at $29 billion.

Over the next five years, the national missile defense system proposed in the Republican-sponsored National Security Revitalization Act would cost $17 billion, or $12 billion more than the Pentagon's current plan, according to June O'Neill, Congressional Budget Office director.

Pentagon officials say they are preparing themselves to implement whatever plan is directed by Congress.

Nevertheless, many Pentagon officials say they are content with the current plan, which places primary emphasis on deploying a core program of defenses against tactical, rather than strategic ballistic missiles.

"With everyone looking at ways to cut the defense budget, we [at BMDO] are in the bizarre position of being asked how we would spend buckets full of extra cash," a BMDO source said April 4.

8 DOES ANY ONE TALK?

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officials are supposed to present their views for a final version of the paper during today's session.

According to the memorandum, the Russians believe preserving the ABM treaty "is more important" than developing anti-missile systems to knock out short-range missiles, "systems Russia can ill afford."

The memorandum says that if an agreement under the current position is sent to the Senate for approval, "the Senate would reject it."

"More broadly, many Republicans are questioning the continued relevance of the ABM treaty (explicitly rejecting the administration's contention that an agreement on demarcation is required to preserve the viability and integrity of the ABM treaty)," the memorandum says.

To counter strong Republican opposition, the White House "has been working with congressional Democrats" to back the administration position, it says.

At today's session, officials also will discuss the Pentagon's ongoing review of whether to share early warning data and missile defense technology with Moscow.

Absent any change in Russian perceptions, we should expect that any change in the U.S. negotiating position that 'walked back' previous U.S. concessions would, in isolation, not be well received," Mr. Bell said.

Public airing of the U.S. missile defense problems in recent weeks may have convinced Moscow that reaching a theater missile defense pact is essential to preserving the ABM treaty and that failure to do so could endanger the pact, Mr. Bell says.

"If true, Russian officials might be more inclined to make a deal along the lines of the current U.S. proposal or even a revised proposal walking back previous U.S. concessions," he says.

In Congress, Republicans, but not Democrats, would welcome revising the current position to "the original U.S. negotiating position" limiting the speed and range of targets used to test anti-missile systems.

"Some Republicans have also indicated that they would ensure than any 'deal' to buy Russian agreement to our current negotiating position through BMD cooperation would not be funded by the Congress," the memo says.

The four options to be discussed today are:

- Adhere to the current U.S. position.
- Adjust the U.S. negotiating position to allow for testing and deployment of a limited Navy Upper Tier system.
- Drop interceptor velocity as a demarcation but define theater systems as those tested against targets moving no faster than 5 kilometers per second and traveling at a range 2,170 miles.
- Conclude an agreement on land-based TMD systems under the current proposal and defer negotiations on sea- and air-based systems to a later agreement.

Among the officials scheduled to attend are Undersecretary of State Lynn Davis; Assistant Defense Secretary Ashton Carter; Army Lt. Gen. Wes Clark, director of the Joint Staff; and John Holum, director of the Arms Control and Disarmament Agency.

WASHINGTON POST April 11, 1995 Pg. 15

White House Orders Guatemala Probe

With Broad Mandate, Independent Advisory Panel to Report to Clinton

By R. Jeffrey Smith
Washington Post Staff Writer

In response to allegations of CIA wrongdoing in Guatemala, the White House has given an independent advisory group a broad mandate to probe whether U.S. intelligence agencies paid adequate attention to human rights abuses in Guatemala and reported all they knew about the deaths of U.S. citizens there over the past decade.

National security adviser Anthony Lake, in a memorandum sent over the weekend to the chairman of the president's Intelligence Oversight Board, said the board should conduct a "government-wide inquiry" to determine whether "any intelligence regulations, procedures, or directives were violated" by the extensive covert U.S. intelligence operations in Guatemala.

The board's inquiry was provoked by specific allegations that a paid CIA informant in Guatemala was involved in the slayings of U.S. innkeeper Michael DeVine and Guatemalan guerrilla fighter Efrain Bamaca Velasquez, who was the husband of U.S. lawyer Jennifer Harbury. The allegations were first made March 22 by Rep. Robert G. Torricelli (D-N.J.) and later confirmed by U.S. officials.

But Lake's memorandum, dated April 7, makes clear that the probe should cover not only these cases but also examine "any intelligence that may bear on the facts surrounding the torture, disappearance, or death of any U.S. citizens in Guatemala since 1984," according to a copy of the memo obtained yesterday.

Lake asked the board in particular to review whatever the CIA and other federal agencies knew about the torture of Sister Diana Ortiz, a U.S. social worker, in 1989, and the deaths in 1985 of U.S. journalists Nicholas Blake and Griffith Davis.

In the memo, Lake ordered the board to refer "possible violations of law" to the Justice Department but also to "make clear where allegations regarding these events are unfounded."

The memorandum's release represents the first time that the mandate for any investigation by the board has been divulged. Consisting of four citizens appointed by the president, the board was established as a secret channel of advice to the White House about possible intelligence community wrongdoing.

The board's chairman, local attorney Anthony S. Harrington, said in an interview yesterday that preliminary conclusions in the Guatemala probe would probably be supplied in confidence to President Clinton within 90 days. The study will complement probes already underway within the CIA and the departments of Justice and Defense.

"These are serious allegations . . . [and] we take them seriously," Harrington said. "There are conflicts in what people say" about the deaths that the board will have to reconcile, he added without elaboration.

Harrington is a former general counsel to the Democratic National Committee and the Clinton-Gore campaign, as well as a founding director of the Center for Democracy, a government-funded group that has been active in promoting democracy in Latin America.

The other board members include former National Security Agency deputy director Ann Z. Caracristi and Philadelphia investment banker Harold W. Pote. Former Air Force chief of staff Gen. Lew Allen Jr. was appointed to fill a board vacancy for the purpose of the study. Harrington identified Allen as a Republican and said his presence confirmed the group's bipartisan approach to the inquiry.

WASHINGTON POST April 11, 1995 Pg. 15

Vote in Haiti Is Postponed For 3 Weeks

Associated Press

PORT-AU-PRINCE, Haiti, April 10—Election officials responded today to critics and preelection violence by delaying balloting for three weeks and extending deadlines for registration of candidates and voters.

Opposition politicians welcomed the news but threatened to boycott the elections if President Jean-Bertrand Aristide's government shuts them out of the electoral process.

The electoral council delayed the voting, set for June 4, until June 25, with runoff elections set for July 16 instead of June 25. Elections were supposed to be held last December but were delayed by the tumult of Aristide's return from exile.

The U.S. Embassy discounted accusations that the government was stacking the elections apparatus with its partisans. The United States is footing most of the $13.5 million election bill. The vote will be the first since a U.S.-led force restored Aristide to power Oct. 15 after three years of military dictatorship, during which up to 4,000 people were killed.

The elections are a crucial test of Aristide's ability to consolidate democracy. Haiti has lacked a Parliament since February, when most legislative terms expired before new elections could be organized.

The electoral council announced the postponement without immediate comment. It had promised action after Aristide invited 20 political leaders to air their grievances at a meeting Thursday.

The revised timetable allows candidates an additional two weeks to declare themselves and gives 3.6 million eligible voters until the end of April to register.

MILWAUKEE JOURNAL & SENTINEL
April 7, 1995
Pg. 4

Pentagon wants Reimer as Army chief

Washington — The Pentagon has suggested that President Clinton nominate Gen. Dennis Reimer, the general in charge of Army troops based in the United States, as the service's top officer, officials said Thursday.

Reimer, 56, would succeed Army Chief of Staff Gen. Gordon Sullivan, who is scheduled to retire in June.

WASHINGTON TIMES March 29, 1995 Pg. 14

Navy confident ABM allows missile shield

By Bill Gertz
THE WASHINGTON TIMES

The Navy's wide-area regional missile defense system known as Upper Tier is legal under the 1972 Anti-Ballistic Missile (ABM) treaty, military officials told a Senate subcommittee yesterday.

"We believe that it is treaty compliant," Rear Adm. John T. Hood, program officer for regional, or "theater," air defenses resources, told the Senate Armed Services subcommittee on strategic forces.

He said the Pentagon's Compliance Review Group, which checks the legality of defense systems with treaty obligations, has not completed its review of the Upper Tier system, which when built will be able to hit missiles at altitudes of between 50 and 250 miles.

But he said, "We're optimistic the review will show that [it is legal]."

The Washington Times reported last week that the review group has drafted a compliance judgment concluding that Upper Tier is legal under the ABM treaty but that some administration officials are trying to block the decision because they fear it will undermine the treaty, which limits strategic defenses.

Meanwhile, a second test of the Upper Tier projectile used to intercept incoming missiles failed yesterday because the interceptor engine malfunctioned during a test 150 miles off the North Carolina coast, military officials said.

The test was the second failure of the Upper Tier system, which defense officials say is one of the more promising systems under development to protect U.S. or allied forces from short-range missile attack. An earlier test failed because of a computer software error that has since been corrected.

Vice Adm. T.J. Lopez, deputy chief of naval operations for resources, warfare requirements and assessments, told the same subcommittee hearing that "everything flew perfectly" for yesterday's test and the projectile's on-board radar locked on to its target missile.

But the interceptor engine "failed to ignite," he said.

Adm. Lopez said that the first test was 95 percent successful, and that despite the failures, "we think we're there; in a sense we've gotten a great deal for our money."

He called the tests a "bold step toward where we need to be on theater ballistic missile defense," but acknowledged "we haven't solved all the problems yet."

Adm. Hood said the Navy is still analyzing data from yesterday's test to determine the cause of the failure.

"We did not achieve an intercept," he said. "I can't tell you exactly why."

Army Lt. Gen. Jay M. Garner, commander of the Army's Space and Strategic Defense Command, testified during the same hearing that the Navy Upper Tier would provide defense against "a wide area" and could hit missiles fired from North Korea toward Japan or South Korea, or Iranian missiles fired toward Saudi Arabia.

"The proliferation of nuclear, biological, chemical and ballistic missile technologies to hostile Third World countries with the willingness to use them makes missile defense more important now than ever," Gen. Garner said.

He said Iraqi President Saddam Hussein and Libyan leader Moammar Gadhafi have threatened to hit New York with missiles.

The general also said he opposes the Clinton administration's decision to limit the speed of anti-missile interceptors in talks with Moscow to clarify what regional missile defense systems are permitted under the ABM treaty.

The Clinton administration has offered to limit land-based interceptors to speeds of 3 kilometers per second for land-based systems.

Russian has not accepted the offer, and the Pentagon now would like to renegotiate the limits, U.S. officials have said.

The military officials also said the United States could field a limited nationwide defense against incoming missiles between 1996 and 1999 for about $5 billion. The system would have 20 interceptors at Grand Forks, N.D., but could provide only limited protection for Alaska and none for Hawaii.

WASHINGTON POST

March 29, 1995 Pg. 26

Kurdish Refugees in Iraq Seek Help From U.N.

ZAKHU, Iraq—Displaced Turkish Kurds, fearful of Turkey's military sweep into Iraq, pushed their way into a U.N. aid compound yesterday demanding to be taken to safety.

The 177 men, women and children parked a minibus and 10 trucks, one of them full of sheep, and set up camp on a sports field, after officials said the United Nations would escort them to safety by Thursday along with other refugees.

It will be the second U.N. evacuation of refugees since Turkey sent 35,000 troops into Iraq on March 20 hunting for Kurdish rebels fighting for a homeland in southeast Turkey.

A Turkish military spokesman said 62 Kurdistan Workers' Party guerrillas died in a single clash today near Iraq's border with Iran.

WASHINGTON POST

March 29, 1995 Pg. 26

Evidence Sought on CIA Link

■ GUATEMALA CITY—Washington has not responded to requests for evidence to back up a U.S. congressman's claim that a Guatemalan colonel paid by the CIA had an American and another man killed, the Foreign Ministry said.

After seven hours of questioning Monday by prosecutors, Col. Julio Roberto Alpirez proclaimed his innocence in the killings of innkeeper Michael DeVine and guerrilla leader Efrain Bamaca, who was married to Washington-based lawyer Jennifer Harbury. Alpirez, who now is second-in-command of the largest military base in Guatemala City, also denied that he had worked for the CIA or "any U.S. agency."

Rep. Robert G. Torricelli (D-N.J.) last week accused Alpirez of the killings, and said the CIA covered up details of Bamaca's death in 1990.

Guatemalan authorities insist Bamaca died in combat, but others say he was tortured and murdered after being captured. DeVine's body was found in 1992 in a jungle near a military school headed by Alpirez.

President Ramiro de Leon Carpio said late Monday he knew of nothing linking Alpirez to the murders. "There is nothing clear in the case," he said.

LOS ANGELES TIMES (Wash. Ed.)

March 28, 1995 Pg. C-1

Perry Russia-Bound

Defense Secretary William J. Perry arrives in Moscow Saturday for meetings with senior government and military officials on topics ranging from defense conversion to nuclear-arms dismantlement.

The secretary, making his second trip to the region, will also visit the former Soviet republics of Ukraine, Kazakhstan and Uzbekistan.

In Moscow, Perry will meet with Russian Defense Minister Pavel S. Grachev. With the Cold War behind them, the United States and Russia are exploring opportunities for joint military exercises.

SECRETS...from Pg. 9

tens of thousands of intellectuals, peasants, trade unionists, journalists, human rights activists, and opposition politicians. The killing did not stop when the military turned the government over to civilians in 1986 to improve its international image.

In recent eyars, El Salvador and Honduras have gone through wrenching exercises in truth-telling about government complicity in the gross violations of human rights, in the hope that official examination and acknowledgment of the horrors committed will prevent them from recurring. Guatemala and Haiti are now struggling with this difficult task through the establishment of truth commissions. Their efforts ought to provoke shame in the United States, where CIA sponsorship of murder remains a deeply buried secret.

Congress must certainly hold hearings on the revelations in the Devine and Harbury cases and press the CIA to release the information it has on these slayings and other human rights violations in Guatemala. The CIA has been groping to redefine its role since the collapse of communism. Congress should insist that funding murderers and covering up their crimes have no place in the agency's future.

Anne Manuel is deputy director of the Human Rights Watch

① Debrief D. Lyles on "noon suspense" re: answer from USAF re: Marine helos @ March.

[USAF has no formal opinion but are vehemently opposed to it]

– F. questions → Davis instruction.

I. DoD Rec.

II. The ABM Treaty

III. Leg. Analysis of the DoD Rec.

A. Can close – can't keep 3 sites or rename defense w/o going back in ~~TECM~~

B. Triggers other events [CLOSE ABM SITE @ G.F.

C. Natl. Sec. Pol. (?)

Where to put this in paper?

Closing G.F.

↳ risks destab.

this just. is beyond scope of leg. opinion

Mtg. w/

BG Black

14 Apr 95

PEO Natl. Miss. Def. for Army under ASA RD+A also gets $ from BMDO

Want to use G.F. - only approved missile site

5 options for NMD

ACDA

★ ① G.F. AFB proper

② ③ ④ Stanley R. Mickelsen site (Nekoma ND) 20 Hobos

⑤ Minot

[131 miles]

→ 1 or 2 fall w/in 150 km

D-U Review

PRIORITY

① Theater (Patriot, etc.)

② Natl. - system focused "treaty compliant" (G.F., etc.)

all planning by BG Black does been for G. Forks first (use of facils.)

need G.F. for this KOV

< 242+00 Pgm >

FROM G. SCHLOSSBERG:

- Memo to Jack McNeill @ DOD GC doing ASM stuff, etc.
- G.F., AL bases, SD Co, Hampton Roads

Block from BMDO? from Frank Gaffney

NO, ASA RD+~~A~~
get # from BMDO + Army

ABM mtg. w/ G.F. 14 APR 95

OPTIONS

- 3 holes in ground
-

EXPRESS

Cgrs. in Hse + Senate: Abandon (Conserv.) / Do anything but cgress BMD (Lab.)

Norway - important; tied in w/ Str. def. reductions;
Bush/Clinton = Key
Theater BMD system work/test @ G.F.
where else?
State wants to absorb Arms Control Agency
Gore says no.

LETTER TO STATE → find out status of Deutch request first → Eagles call (ASD over Deutch's head)

MINOT AFB

30 MAR 93

Ed. 30-1 MAK / HONORS (NO)
21-1 Accel. Ed.

Physicians
Base Housing
Prop. Crime
Commute / Freez. Precip.

Regional Hearing

ABM TREATY (Kerry)

✓ pg. 6 LTG Becker SAC
pg. 7

GOFF
pg. 3 pg. 9
pg. 5

GF	MINOT
Best city	Schools
Transp.	Elect. Costs ↓
Arts	Charities + Comm. Wk.
Rec./Sports	Farmers Love it
Schools	Sens.
Hosp.	↓
Pot.	

MALMSTROM / G.F. REG. HEARING — 31 MAR 95

Geological Chart

→ Water table

✓ Rivet Adel plugs

Langan: $16M, 20 mos. in existence

~~How~~ was the #5M "move to McDill" ~~#~~ justified.

SEN. BAUCUS / SEN. BURNS / REP. WILLIAMS

Locals

UTILS. - good leverage
CASCADE CTY. - AF community
G.F. HOSP.
RET. AF - great place for us
MCDILL - bad ops.
" - weather lightning hurricanes
CLOSE FOR. BASES
NW BANK / AF - qual. of life
NON FUN SVCS. - comm. supp. to AFB
REFIN. CO - oil/gas @ base
SENIOR CIT. - YIKES!
PEACENIK
DAIRY CO. - econ. impact

Malmstrom ABB MT

8 May 95

MALMSTROM Position on ABM

↳ last place for ABM field is G.F. per FRANK GAFFNEY

However, Romney NOT irrelevant

Proper + good pt. he made = Pro-Clinton re-offer in treaty

If it's obsolete then let Clinton say so NOT BSAC

He says can move to alt-site

(NO)

Can't move to other than DC

MINOT Opinion > disagree

ABM Clicks wants 500?

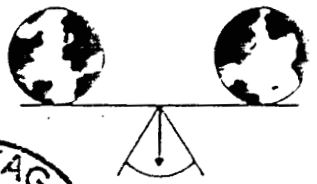
M.C. — how to get over/or but

Is Cornella recused from missile Base

THE ARMS CONTROL REPORTER

A CHRONICLE OF TREATIES NEGOTIATIONS PROPOSALS WEAPONS & POLICY

1994



TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS

(with agreed statements, common understandings, and unilateral statements)

Negotiated 1970-1972
Signed 20 May 1972
Entered into force 3 October 1972.

PROTOCOL entered into force 24 May 1976.

STANDING CONSULTATIVE COMMISSION established 21 December 1972.

Introduction and reference. After three years of negotiation, the United States and the Soviet Union in 1972 reached agreement on an Anti-Ballistic Missile Treaty and an interim limitation on strategic arms, now known as SALT I [see section 840-607]. The two sides also agreed on the formation of the Standing Consultative Commission (SCC) to promote the objectives and implementation of the ABM treaty (under Article XIII), the SALT I Agreement (under Article VI), and the Accident Measures Agreement (Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War of 1971 - under Article 7). **[See below for description of the SCC.]**

The ABM Treaty permitted each side only two ABM deployment areas, one protecting the capital and one protecting an ICBM launch area, with the aim of leaving unchallenged the penetration capability of each side's retaliatory missile forces.

To prevent the deployment of a nationwide battle management system, the treaty requires all early warning radars (usually LPARs, large phased-array radars) to be sited on the periphery of the country, oriented outward.

The protocol, signed in 1974, limited each side to only one system: the Soviet one around Moscow, and the US one around the Grand Forks, North Dakota, ICBM complex. The Soviet (now Russian) system is operational and has been upgraded [see 1993 subsection 575.E-0: part B]; the US system became operational in 1975 but was dismantled in 1976. Each side may change the system location once.

Following the breakup of the Soviet Union, Russia, Ukraine, and Belarus have met with the US in the SCC and the treaty continues in force.

Current issues.

Treaty 'clarification'. Russia and the United States have entered negotiations in the SCC to make clear the distinction between ABM and ATBM systems {6-16.12.93}.

Joint early warning. In 1992 the US and Russia, following up US-USSR discussions, began negotiations on the sharing of early warning data and possibly visits to early warning facilities {section 575 21-22.9.92}. Nothing further on these talks was reported in 1993.

Former Soviet radars. Russia and the other former Soviet republics must decide whether to continue the network of early warning radars permitted under the treaty [see 1993 subsection 575.E-0: part E], many of which sit outside Russia {5.10.92, 9.10.92, box 31.12.93}.

Successors to the USSR. Russia and the other former Soviet republics, as well as the US, must decide who succeeds to the USSR's role in the treaty. They will probably decide to accept as partners any former republics of the Soviet Union (but not the Baltics) who wish to join {26.11.93, 6-16.12.93}. Only Belarus, Ukraine, and Russia have attended SCC sessions so far, though Kazakhstan has said it plans to attend {6-16.12.93}

Treaty compliance questions on US proposed systems (in addition to ATBMs):

- Do the Brilliant Eyes space-based sensors {1993 section 575.E-0: F.4} or the Brilliant Pebbles space-based interceptors {1993 section 575.E-0: H} violate the bar on space-based systems?

- Does the US attempt to expand coverage of the interceptors to the middle third of the US and perhaps to the entire US {1993 section 575.E 13.5.93} violate the ban on territorial ABM systems?

- Does the conferring of tracking ability to launch-detection satellites, or the upgrading of early warning radars {section 575.B 29.7.93}, violate the restriction of ABM radars to the single site?

Title. Official title above. The Reporter employs 'the ABM Treaty'.

Weapons. The treaty not only covers the traditional interceptor missiles, launchers, and radars, but also systems based on other principles such as lasers. By its terms, the treaty defines ABM systems as those which 'counter strategic ballistic missiles or their elements in flight trajectory.' {Article II}

The treaty also limits early warning radars (usually LPARs, large phased array radars) to the periphery of the country, oriented outward. {Article VI (b)}

Weapon summary. Russia has an existing, permitted ABM system around Moscow with the maximum permitted 100 interceptors [see subsection 575.E-0: B-3]. Its LPAR ballistic missile early warning system has fallen into disarray with probably only four completed, though its Hen House non-LPAR system remains. Possible floating LPAR {19.8.88}.

Permitted CIS test ranges: Sary Shagan, Kazakhstan (ABM testing only); Kamchatka, Russia. {*Soviet Military Power 1987* pages 46-50; John Rhinelander and Sherri Wasserman Goodman in *Defending Deterrence* page 47}

The United States proposes to research and prepare, but not to deploy, a permitted ABM system at Grand Forks, North Dakota, with the permitted 100 launchers {section 575.E-0: F and section 575.E

1.9.93}. The US has six LPARs for ballistic missile early warning, as well as the Cobra Dane Radar {25.4.90}, located at Shemya Island AFB in the Aleutian Islands to detect Soviet missile tests.

Permitted US test ranges. Kwajalein (Marshall Islands), White Sands (New Mexico).

Procedure. The treaty has an unlimited duration, with a review called for every five years. In addition, amendments and other questions for the treaty may be brought up at any time in the Standing Consultative Commission {Article XIII}.

Schedule of treaty reviews {Article XIV}:
1st: 4-21 November 1977 (in special session of SCC)
2nd: 9 November-15 December 1982 (in special session of SCC)
3rd: 24-31 August 1988 (not SCC)
4th: 27 September-1 October 1993 (not SCC)

Political coverage. This section covers efforts to clarify or modify the treaty, as well as potential treaty violations, whether in space or elsewhere. Section 576 on ballistic missile defense covers the same points, with ample use of cross-references, but concentrates on negotiations for cooperative ballistic missile defense.

Weapon coverage. Upgrades of existing equipment are permitted under the ABM Treaty and are covered here, as well as in section 576.E-2. Development of US and Russian space-based and ground-based systems against missiles and bombers which would require abrogation of the ABM Treaty, as well as ATBM developments, are covered only in section 576.E.

TREATY VIOLATIONS

Past American accusations of Soviet/Russian violations. The US publicly accused the USSR of a number of probable violations, most of which were dropped or resolved, though the USSR did admit that the Krasnoyarsk radar was a violation [see status subsection 1993].

In 1993 the US decided that handing over data from the LPARs to the Pushkino 'Pillbox' battle management radar did not violate the treaty {19.1.93}.

Past Soviet accusations of American violations.
The USSR argued that the US was violating the treaty, especially with LPARs outside the country and with SDI development [see status subsection 1993].

TREATY INTERPRETATION

Very restrictive interpretation: research ('creation') on space-based systems banned. {22.3.85; Sherr, supra 1986, page 3; 29.10.86; section 575 7.4.85}

Restrictive (narrow) interpretation: development and testing of fixed, land-based systems based on new principles permitted. Development and testing of any space-based system or component prohibited. Research on

space-based system permitted. Line between research and development defined by field-testing on a prototype or breadboard model. {page 603.C.2-3 1983}

Broad interpretation: Agreed Statement D [see text below] indicates that ABM systems based on new physical principles are not subject to the prohibitions of Article V. At the least, the statement is ambiguous. Ambiguity to be resolved by looking at negotiating record {Goldman, supra}. During the negotiations, the USSR refused to consider limitations on new systems. {text subsection 22.10.85} [See details in Sofaer, infra in 'Additional Information' (summaries in chronology)]

Very broad interpretation: Agreed Statement D permits deployment, and requires only that the parties discuss possible limitations on equipment to be deployed. {16.10.85}

United States interpretation: the 'broad definition' controversy
In 1985 the Reagan administration put forward the broad definition as correct definition, to justify proceeding with development of the space-based systems of the SDI program. This caused immense controversy [see status subsection 1993].

The Clinton administration abandoned the Reagan-Bush endorsement of the broad interpretation and returned to the narrow one {13.7.93}.

ADDITIONAL INFORMATION

Alan Sherr, *A Legal Analysis of the "New Interpretation" of the Anti-Ballistic Missile Treaty,* Lawyers Alliance for Nuclear Arms Control, March 1986.

John Pike and Thomas Longstreth, 'The Impact of US and Soviet Ballistic Missile Defense Programs on the ABM Treaty,' *National Campaign to Save the ABM Treaty,* third edition, March 1985.

Andrew Goldman, 'The ABM-SDI Debate: White House Wins All Draws,' *The National Interest,* Spring 1986.

Abram Chayes and Antonia Handler Chayes, 'Testing and Development of "Exotic Systems" under the ABM Treaty: The Great Reinterpretation Caper,' *Harvard Law Review,* June 1986.

Abraham Sofaer, 'The ABM Treaty and the Strategic Defense Initiative,' *Harvard Law Review,* June 1986.

Abraham Sofaer, *The ABM Treaty,* Part I negotiating record, Part II ratification debate {13.5.87}, Part III subsequent practice {9.9.87}, State Department.

Raymond Garthoff, *Policy versus the Law: the Reinterpretation of the ABM Treaty,* 1987.

Antonia Chayes and Paul Doty, *Defending Deterrence: Managing the ABM Treaty into the 21st Century,* Pergamon-Brassey, 1989.

Matthew Bunn, *The ABM Treaty and International Security,* ACA, 1990.

SUMMARY OF TERMS OF THE TREATY

I.1 Limit of ABM systems.
I.2 No deployment of ABM systems except as in III.
II Definition of
(a) ABM missiles
(b) ABM launchers
(c) ABM radars
III (a) one system around the nations capital permitted;
(b) one system around ICBM "silo launchers".
- no more than 100 missiles, 100 launchers at either site.
IV Test systems permitted.
V.1 Prohibits development of sea-, air-, space-, or mobile land-based systems. 'Develop' means beyond laboratory stage to breadboard. [See page 603.C.3 1983]
V.2 Prohibits reloads.
VI (a) Prohibits ABM capability of any other systems.
(b) Early warning radars permitted only on the periphery of the country.
VII Modernization.
VIII Dismantling.
IX No circumvention.
X No conflicting treaties.
XI Further negotiations on strategic arms.
XII Verification.
XIII Standing Consultative Commission.
XIV Review 'at five year intervals'.
XV Treaty of unlimited duration.
XVI Six months notice to withdraw from treaty.

Agreed Statements [Contains more detailed definitions of treaty terms.]

D. 'In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launches, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.'
E. Not more than one independently guided warhead.
F. No large phased-array radars except as above 'or except for the purposes of tracking objects in outer space for use as national technical means of verification.'

Common Understandings reached during the negotiations
A. Location of ICBM defenses.
B. ABM test ranges.
C. Mobile ABM systems.
D. SCC during SALT negotiations.
E. Standstill prior to ratification.

Unilateral Statements
A. Withdrawal from the ABM Treaty if no SALT agreement. (US)
B. Tested in ABM Mode. (US)
C. No-transfer article IX. (US)
D. No increase in defense of early warning radars. (US)

Protocol (added 1974)
I Each side may have only one system at any one time.
II Each side may switch areas from the capital area to the ICBM area or vice versa, during a review year. This may be done only once.
III Other provisions remain.
IV Ratification.

Common Understandings, Protocols, Agreed Statements reached at the SCC 1974-1985

Protocol on Procedures Governing the Replacement, Dismantling, or Destruction, and Notification Thereof, For ABM Systems and Their Components (3 July 1974).

Supplementary Protocol to the Protocol on Procedures Governing the Replacement, Dismantling, or Destruction, and Notification Thereof, For ABM Systems and Their Components of 3 July 1974 (28 October 1976), (Including the Integral Agreed Statement Regarding Section III, Paragraph 5)

Agreed Statement Regarding Certain Provisions of Articles II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of 26 May 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of that Treaty (1 November 1978), (Including the Integral Commissioners' Identical Conformed Statements Read at the Signing of the Agreed Statement)

Common Understanding Related to Paragraph 2 of Section II of the Agreed Statement of 1 November 1978 Regarding Certain Provisions of Articles II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of 26 May 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of that Treaty (6 June 1985). This prohibited turning on air defense radars during testing at Sary Shagan {14.6.85} .

Common Understanding Related to Articles 2 and 5 of the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics of 30 September 1971 (14 June 1985). {texts available from ACDA and in ACT 3.93}

US definitions of 'tested in an ABM mode' and 'flight trajectory'.

An interceptor missile is considered to be tested in an ABM mode if it has attempted to intercept a strategic ballistic missile or its elements in flight trajectory. The term strategic ballistic missile or its elements in flight trajectory would include a ballistic target-missile with the flight trajectory characteristics of a strategic ballistic missile or its elements over that portion of the flight trajectory involved in the test.

In practice, neither the United States nor the Soviet Union considers flight trajectory to include an orbit in space or tested in an ABM mode to encompass tests against targets in space that do not follow a ballistic missile flight trajectory. {Paul Nitze, 'Permitted and Prohibited Activities under the ABM Treaty', *State Department Current Policy* #886 31.10.86}

STANDING CONSULTATIVE COMMISSION

Note: Citations in {} for 1982-1987 refer to section 802 of the Reporter. Former section 802 has been combined with section 603; after the US ceased to observe the SALT II limits, the SCC has handled only ABM matters.

Introduction and reference. One of the results of the SALT talks in 1972 was the formation of the Standing Consultative Commission (SCC) to promote the objectives and implementation of the ABM Treaty (under Article XIII) and the Accident Measures Agreement (Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War of 1971 - under Article 7). A Memorandum of Understanding of 21 December 1972 established the Standing Consultative Commission. The two parties agreed upon Regulations in the form of a Protocol dated 30 May 1973.

SALT I and SALT II agreements also employed the SCC [see status subsection 1993].

The SCC agreed in 1974 on two Protocols on Procedures for: (1) the replacement of certain older ICBM launchers, and launchers on older submarines, by ballistic missile launchers on modern submarines as permitted under SALT I; and (2) the dismantling or destruction of weapon systems and components in excess of those permitted by SALT

I and the ABM Treaty.

In 1976, the SCC produced a Supplementary Protocol to (2) above, which regulates the replacement of ABM systems and their components and the exchange of ABM deployment areas, as permitted by the ABM Treaty Protocol.

In 1976, a Protocol was signed concerning the use of immediate notifications which implemented the Accidents Measures Agreement.

In 1978, the parties agreed on an understanding regarding air defense radars at Sary Shagan.

In 1985, two understandings were reached: an interpretation of the ABM treaty covering use of radars around test ranges during missile flight tests and ABM tests, and a clarification of the Accident Measures agreement. {10.4-14.6.85}

All the ABM protocols, formerly secret, were made public in 1993 {1.1.93}. Apparently the SALT I protocols remain secret. The texts of the Memorandum and the Regulations may be found in the status subsection 1990.

At periodic sessions, each party's representatives in the Commission work at tasks and functions which are listed in detail in the ABM treaty and the Accident Measures agreement. This activity is not restricted to consideration of questions or complaints regarding compliance, despite the public impression of the SCC.

Location and Sessions. Geneva. At least twice a year.

Agenda. Decided by the parties within the framework.

Participants. The question of succession remains open [see 'Current issues' in ABM, above]. Ukraine, Belarus, and Russia attended the autumn 1993 ABM review conference and the SCC sessions, but the US insisted that occurrence set no precedent for succession.

1993 delegations (the US sends an additional 6-10 officers):

US acting Commissioner Stanley Rivelas (Robert Joseph to 1992)
Deputy Commissioners Benson Adams, Brooks Shelton
Russia Commissioner Major General Koltunov
Deputy Yevgeniy Zvedre {28.11.92}.
Belarus Andrey Samnikov
Ukraine Vladyslav Demianenko

Observer for Latvia: Ansis Reinhards

Procedure. The Commission may stay in session as long or as short as is appropriate. Under the regulations, commissioners have carried out work between sessions through diplomatic channels. The proceedings are private, and as a result the United States treats the information from them as secret, while the Soviet Union treated it as not for publication. Normally, only the dates of the start and finish of each session are officially released; sometimes general references to the work done and subjects addressed also will be released.

The US SCC Commission functions in accordance with instructions from the president provided by guidance and instructions from the NSC. The NSC interagency group, the Standing Consultative Commission Working Group, is chaired by ACDA with representatives of State, OSD, JCS, the intelligence community, and NSC staff. It drafts instructions for the commissioner and decides how to address compliance problems in that channel. Information on compliance is analyzed by the Verification and Compliance Analysis Working Group, chaired by ACDA. The JCIC functions under the same setup. {Reporter discussion with American official 14.1.94}

Day-to-day support and guidance during SCC sessions are provided by the SCC Working Group. {ACDA 1982 Annual Report}

Schedule. Twice a year since May 1973. [For dates of earlier sessions, see 1993 status subsection.]

SCC-XLIII	26-30 October 1992
SCC-XLIV	2-6 November 1992
SCC-XLV	29 November-3 December 1993
SCC-XLVI	6-16 December 1993 - recessed to 24 January 1994

ADDITIONAL INFORMATION

For a listing and brief background summary of the SCC's agreements, see Senate Committee on Foreign Relations, 'SALT II Treaty: Background Documents,' 96th Congress 1st session 1979, pages 79-80.

Sidney Graybeal and Michael Krepon, 'Making Better Use of the SCC,' *International Security,* Fall 1985.

Dan Caldwell, 'The Standing Consultative Commission: Past Performances and Future Possibilities,' in William Potter (editor), *Verification and Arms Control*, 1985.

Michael Krepon, 'How Reagan Is Killing A Quiet Forum For Arms Talks,' *WP,* 31 August 1986.

ACDA, 'More Effective Use of the SCC to Resolve Arms Control Compliance Questions,' study prepared at the direction of Congress, 13 January 1990.

TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS

(with agreed statements, common understandings, and unilateral statements)

Entered into force 3 October 1972.

PROTOCOL entered into force 24 May 1976.

STANDING CONSULTATIVE COMMISSION established 21 December 1972.

Introduction and reference. After three years of negotiation, the United States and the Soviet Union reached agreement on an Anti-Ballistic Missile Treaty and an interim limitation on strategic arms, now known as SALT I [see section 607]. The two sides also agreed on the formation of the Standing Consultative Commission (SCC) to promote the objectives and implementation of the ABM treaty (under Article XIII), the SALT I Agreement (under Article VI), and the Accident Measures Agreement (Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War of 1971 - under Article 7). **[See below for description of the SCC.]**

The ABM treaty permitted each side only two ABM deployment areas, one protecting the capital and one protecting an ICBM launch area, with the aim of leaving unchallenged the penetration capability of the other's retaliatory missile forces.

The protocol, signed in 1974, limited each side to only one system: the Soviet one around Moscow, and the American one around the Grand Forks North Dakota ICBM complex. The Soviet system is operational and has been upgraded [see weapon subsection 1990]; the American system became operational in 1975 but was dismantled in 1976. Each side may change the system location once.

Current issues.

- The administration and the US Congress have called for amending the treaty to permit deployment of GPALS, a move which up to autumn 1991 the USSR resisted. Russia has entered negotiations to permit deployment of ballistic missile defenses [see section 575].

- The US and the USSR were discussing the sharing of early warning data and possibly visits to early warning facilities. Again, Russia and the US began negotiations on this point in 1992 {section 575 21-22.9.92}.

- Russia and the other former Soviet republics must decide whether to continue the network of early warning radars permitted under the treaty, many of which sit outside Russia {5.10.92, 9.10.92}.

- Russia and the other former Soviet republics, as well as the US, must decide who succeeds to the USSR's role in the treaty {9.10.92; 20.11.92}.

Title. Official title above. The Reporter employs 'the ABM treaty'.

Weapons. The treaty not only covers the traditional interceptor missiles, launchers, and radars, but also systems based on other principles such as lasers. By its terms, the treaty defines ABM systems as those which 'counter strategic ballistic missiles or their elements in flight trajectory.' {Article II}

Procedure. The treaty has an unlimited duration, with a review called for every five years. In addition, amendments and other questions for the treaty may be brought up at any time in the Standing Consultative Commission {Article XIII}.

Schedule of treaty reviews {Article XIV}:
1st: 4-21 November 1977 (in special session of SCC)
2nd: 9 November-15 December 1982 (in special session of SCC) 3rd: 24-31 August 1988 (not SCC)
4th: Due 1993 or 1994

Coverage. This section covers potential treaty violations, whether in space or elsewhere; it also covers discussions on no-withdrawal agreements. Section 575 on defense and space also covers both points, with ample use of cross-references.

Weapon Coverage. Upgrades of existing equipment are permitted under the ABM treaty. Those upgrades that might violate the treaty are covered here [see weapon subsection 1990]. Development of American (Star Wars) and Soviet (Red Shield) space-based and ground-based systems against missiles and bombers which would require abrogation of the ABM treaty, formerly covered in this section, are now covered in section 575.

POSITIONS OF THE GOVERNMENTS ON MAJOR ISSUES

TREATY VIOLATIONS

American accusations of Soviet violations.

Krasnoyarsk. USSR admitted a violation {23.10.89; 1.7.91}; 50% dismantled 30.9.91}; nearly done {9.4.92}.

Mobility of ABM components. Ambiguous conclusion {9.4.92}.

Concurrent testing of ABM and air-defense components. Probably violation in the past {9.4.92}; two sides discussing how to halt {6.2.91}. Possible internetting {section 607.D.30 1986 Reporter}.

Possible use of LPARS as battle management {9.4.92}.

ABM capability of modern SAM systems. Evidence insufficient {6.2.91}; not mentioned 1992.

Rapid reload of ABM launchers. 'Ambiguous situation' in 1988 {box 1.12.88} but not mentioned 1990-1992.

Gomel & Moscow radars. Report from visit to Gomel and Moscow {20-22.12.87} never issued. 1990 Soviet compliance report said the visit showed the Pawn Shop van was still road-mobile, but the USSR had eliminated the

Pawn Shop and Flat Twin problems {23.2.90}.

ABM territorial defense. US decided that this prohibition 'can be violated only if one or more other provisions of the Treaty are being violated.' Elimination of Krasnoyarsk and ending of concurrent SAM and ABM activities reduced American concerns {9.4.92}.

Soviet response to American allegations:

Gomel. Problem eliminated {text subsection 23.2.90}.

Territorial defense. No grounds for accusation {box 24-31.8.88}.

Confidence-building measures. Proposed notice for construction of LPARs; signs to distinguish ABM radar from others; procedures for dismantling radars at ABM test ranges {box 24-31.8.88}.

Soviet accusations of American violations.
US LPARs. Thule {24.7.87, 25.11.88} (turned on 24.6.87), Fylingdales Moor {12.8.88}, and Shemya radars {11.2.86} violate the treaty. Requested US to halt construction at Fylingdales Moor {22-23.10.87}. **Denmark** says no violation {27.1.87, 5.3.87}. **UK** says no violation {12.8.88}. USSR proposed visits to Thule and Shemya Island {box 24-31.8.88}.

SDI. Will be territorial defense {29.12.85}, several tests will violate treaty restrictions {9.86}. Testing of system components (x-ray laser) outside test ranges. {29.12.85}

American response to Soviet allegations: Boost, surveillance, and tracking experiment did not violate treaty {6.10.86}. Thule and Fylingdales Moor grandfathered {17.2.87}. See history of LPARs {3.1.87}.

US and USSR agreed to visits by Soviet specialists to both radars {8-10.2.90}.

TREATY INTERPRETATION - definitions

Very restrictive interpretation: research ('creation') on space-based systems banned. {22.3.85; Sherr, supra 1986, page 3; 29.10.86; section 575 7.4.85}

Restrictive (narrow) interpretation: development and testing of fixed, land-based systems based on new principles permitted. Development and testing of any space-based system or component prohibited. Research on space-based system permitted. Line between research and development defined by field-testing on a prototype or breadboard model. {page 603.C.2-3 1983}

Broad interpretation: Agreed Statement D [see text below] indicates that ABM systems based on new physical principles are not subject to the prohibitions of Article V. At the least, the statement is ambiguous. Ambiguity to be resolved by looking at negotiating record {Goldman, supra}. During the negotiations, the USSR refused to consider limitations on new systems. {text subsection 22.10.85} [See details in Sofaer, supra in "Other Information" (summaries in chronology)]

Very broad interpretation: Agreed Statement D permits deployment, and requires only that the parties discuss possible limitations on equipment to be deployed. {16.10.85}

UNITED STATES ON TREATY INTERPRETATION

Nitze gave the following, a version of which was presented to the USSR {6-7.11.86}. The treaty permits four general classes of development and testing activity:

1. Development and testing of devices which are not components or substitute for components. [See section 575.C 16 November 1986.]

2. Testing "not in an ABM mode (e.g. against satellites) of devices that do not have an ABM capability". The term "tested in an ABM mode" was addressed in 1978 secret agreed statement. [See below.]

3. Development and testing of fixed, land-based ABM launchers, radars, and interceptors at agreed test ranges "of certain ABM systems and components based on physical principles used in 1972."

4. Systems based on physical principles other than those used in 1972 and components of such systems capable of substituting for the ABM component defined in Article II. 'Agreed Statement D to the ABM treaty, which has the same legal standing as the main text of the treaty, permits the "creation" - i.e. the development and testing - of, for example, space-based ABM systems that are based on "other physical principles and their components."

'As long as we continue to believe that our program objectives can be met, the United States will not restructure the originally planned program and, therefore, need not conduct its SDI activities according to this "broader interpretation" of the treaty in order to achieve the SDI research objectives.' {Nitze, "Permitted and Prohibited Activities under the ABM Treaty" *State Department Current Policy* #886 31.10.86}

The US has adopted the broad interpretation {mid.2.87} as the legally correct interpretation {28.10.88}. US tests will stay within narrow interpretation {21.4.87}; must do so {26.10.90; section 575 14.7.88}.

Biden resolution requiring adherence to understanding reached between executive branch and Senate for INF treaty agreed {26.5.88}; did not address ABM treaty.

The US labels devices being tested as subcomponents or adjuncts to avoid the strictures of the restrictive interpretation and yet remain within it. {14.10.85; Sherr, infra, Bulletin 12.86; 22.11.87} [See history of interpretation in NST Rounds 1-8, 15 June 1987.]

The US broad interpretation is incorrect, according to Senators Levin {1.12.86, see also Sherr, supra} and Nunn {11-13.3.87}.

SOVIET UNION ON TREATY INTERPRETATION.

Article V bans space-based systems regardless of whether based on existing or future technologies. If either side wants systems based on new physical principles at permitted test ranges, it must discuss the matter. {18.10.85}

ANTI-BALLISTIC MISSILE TREATY/SCC (Standing Consultative Committee)

Status

SUMMARY OF TERMS OF THE TREATY

I.1 Limit of ABM systems.
I.2 No deployment of ABM systems except as in III.
II Definition of
  (a) ABM missiles
  (b) ABM launchers
  (c) ABM radars
III (a) one system around the nations capital permitted;
  (b) one system around ICBM "silo launchers".
    - no more than 100 missiles, 100 launchers at either site.
IV Test systems permitted.
V.1 Prohibits development of sea-, air-, space-, or mobile land-based systems. 'Develop' means beyond laboratory stage to breadboard. [See page 603.C.3 1983]
V.2 Prohibits reloads.
VI (a) Prohibits ABM capability of any other systems.
  (b) Early warning radars permitted only on the periphery of the country.
VII Modernization.
VIII Dismantling.
IX No circumvention.
X No conflicting treaties.
XI Further negotiations on strategic arms.
XII Verification.
XIII Standing Consultative Commission.
XIV Review 'at five year intervals'.
XV Treaty of unlimited duration.
XVI Six months notice to withdraw from treaty.

Agreed Statements [Contains more detailed definitions of treaty terms.]

D. 'In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launches, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.'
E. Not more than one independently guided warhead.
F. No large phased-array radars except as above 'or except for the purposes of tracking objects in outer space for use as national technical means of verification.'

Common Understandings
A. Location of ICBM defenses.
B. ABM test ranges.
C. Mobile ABM systems.
D. SCC during SALT negotiations.
E. Standstill prior to ratification.

1985 Common Understanding on prohibition of turning on air defense radars during testing at Sary Shagan. {14.6.85}

Unilateral Statements
A. Withdrawal from the ABM Treaty if no SALT agreement. (US)
B. Tested in ABM Mode. (US)
C. No-transfer article IX. (US)
D. No increase in defense of early warning radars. (US)

Protocol (added 1974)
I Each side may have only one system at any one time.
II Each side may switch areas from the capital area to the ICBM area or vice versa, during a review year. This may be done only once.
III Other provisions remain.
IV Ratification.

US definitions of 'tested in an ABM mode' and 'flight trajectory'.

An interceptor missile is considered to be tested

in an ABM mode if it has attempted to intercept a strategic ballistic missile or its elements in flight trajectory. The term strategic ballistic missile or its elements in flight trajectory would include a ballistic target-missile with the flight trajectory characteristics of a strategic ballistic missile or its elements over that portion of the flight trajectory involved in the test.

'In practice, neither the United States nor the Soviet Union considers flight trajectory to include an orbit in space or tested in an ABM mode to encompass tests against targets in space that do not follow a ballistic missile flight trajectory.'

ADDITIONAL INFORMATION

Alan Sherr, *A Legal Analysis of the "New Interpretation" of the Anti-Ballistic Missile Treaty,* Lawyers Alliance for Nuclear Arms Control, March 1986.

John Pike and Thomas Longstreth, "The Impact of US and Soviet Ballistic Missile Defense Programs on the ABM Treaty," *National Campaign to Save the ABM Treaty,* third edition, March 1985.

Andrew Goldman, "The ABM-SDI Debate: White House Wins All Draws," *The National Interest,* Spring 1986.

Abram Chayes and Antonia Handler Chayes, "Testing and Development of 'Exotic Systems' under the ABM Treaty: The Great Reinterpretation Caper," *Harvard Law Review,* June 1986.

Abraham Sofaer, "The ABM Treaty and the Strategic Defense Initiative," *Harvard Law Review,* June 1986.

Abraham Sofaer, *The ABM Treaty,* Part I negotiating record, Part II ratification debate {13.5.87}, Part III subsequent practice {9.9.87}, State Department.

Raymond Garthoff, *Policy versus the Law: the Reinterpretation of the ABM Treaty,* 1987.

Antonia Chayes and Paul Doty, *Defending Deterrence: Managing the ABM Treaty into the 21st Century*, Pergamon-Brassey, 1989.

Matthew Bunn, *The ABM Treaty and International Security*, ACA, 1990.

STANDING CONSULTATIVE COMMISSION

Note: Citations in {} for 1982-1987 refer to section 802 of the Reporter. Former section 802 has been combined with section 603; after the US ceased to observe the SALT II limits, the SCC has handled only ABM matters.

Introduction and reference. One of the results of the SALT talks in 1972 was the formation of the Standing Consultative Commission (SCC) to promote the objectives and implementation of the ABM treaty (under Article XIII), the SALT I Agreement (under Article VI), and the Accident Measures Agreement (Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War of 1971 - under Article 7). A Memorandum of Understanding of 21 December 1972 established the Standing Consultative Commission. The two parties agreed upon Regulations in the form of a Protocol dated 30 May 1973.

Article XVII of the 1979 SALT II Treaty also employed the SCC.

The SCC agreed in 1974 on two Protocols on Procedures for: (1) the replacement of certain older ICBM launchers, and launchers on older submarines, by ballistic missile launchers on modern submarines as permitted under SALT I; and (2) the dismantling or destruction of weapon systems and components in excess of those permitted by SALT I and the ABM Treaty.

In 1976, the SCC produced a Supplementary Protocol to (2) above, which regulates the replacement of ABM systems and their components and the exchange of ABM deployment areas, as permitted by the ABM Treaty Protocol.

In 1976 a Protocol was signed concerning the use of immediate notifications which implemented the Accidents Measures Agreement.

In 1985, two understandings were reached: an interpretation of the ABM treaty covering use of radars around test ranges during missile flight tests and ABM tests, and a clarification of the Accident Measures agreement. {10.4-14.6.85}

In 1986, the US announced it would no longer abide by the SALT I and SALT II treaty limits, and consequently would no longer discuss compliance with the two agreements in the SCC. {30.7.86}

All the mentioned protocols are secret except the Memorandum and the Regulations [for texts see status subsection 1990], by arrangement between the two parties.

At periodic sessions, each party's representatives in the Commission work at tasks and functions which are listed in detail in the ABM treaty and the Accident Measures agreement. This activity is not restricted to consideration of questions or complaints regarding compliance, despite the public impression of the SCC.

Location and Sessions. Geneva. At least twice a year.

Agenda. Decided by the US and USSR within the framework.

Participants. The question of succession remains open [see ABM, above].

Ukraine attended the autumn 1992 SCC sessions, but the US insisted that occurrence set no precedent for future meetings.

1992 delegations (each side sends an additional 6-10 officers):

For the US: Commissioner Robert Joseph {4.4.90}
Deputy Commissioner Benson Adams

For Russia: Commissioner Major General Koltunov (V.Kuklev in 1992)
Deputy Yevgeniy Zvedre {28.11.92}.

Procedure. The Commission may stay in session as long or as short as is appropriate. Under the regulations, commissioners have carried out work between sessions through diplomatic channels. The proceedings are private, and as a result the United States treats the information from them as secret, while the Soviet Union treats it as not for publication. Normally, only the dates of the start and finish of each session are officially released; sometimes general references to the work done and subjects addressed also will be released.

The US SCC Commission functions in accordance with instructions from the president provided by guidance and instructions from the NSC. During 1983-1987, the NSC interagency group was the Standing Consultative Commission Working Group, chaired by ACDA with representatives of State, OSD, JCS, CIA, and NSC staff. It drafts instructions for the commissioner and decides how to address compliance problems in that channel. Information on compliance is analyzed by an Arms Control Verification Committee which has a policy group chaired jointly by the State Department and OSD, and an analysis group chaired jointly by ACDA and the CIA. {Reporter discussion with Michael Krepon 23.1.87}

Day-to-day support and guidance during SCC sessions are provided by the SCC Working Group. {ACDA 1982 Annual Report}

Schedule. Twice a year since May 1973.

SCC-XIX	25 March 1981 - postponed 27 May-8 July 1981
SCC-XX	14 October-19 November 1981
SCC-XXI	16 March-26 April 1982
SCC-XXII	14 September-15 December 1982 (recessed)
SCC-XXIII	9 November-15 December: Special, ABM review
SCC-XXIV	16 March-13 May 1983
SCC-XXV	22 September-19 December 1983
SCC-XXVI	21 March-18 May 1984
SCC-XXVII	2 October-12 December 1984
SCC-XXVIII	10 April-14 June 1985
SCC-XXIX	9 October-5 November 1985
SCC-XXX	4 March-23 April 1986
SCC-XXXI	22-30 July: Special round on SALT
SCC-XXXII	1 October-13 November 1986
SCC-XXXIII	18 March-27 April 1987
SCC-XXXIV	16 September-5 November 1987
SCC-XXXV	16 March-28 April 1988

ABM review	26-31 August 1988 (not an SCC session)
SCC-XXXVI	30 November-12 December 1988
SCC-XXXVII	14 June-26 July 1989
SCC-XXXVIII	1 November-13 December 1989
SCC-XXXIX	4 April-16 May 1990
SCC-XL	11 September-17 October 1990
SCC-XLI	29 January-6 March 1991
SCC-XLII	16 July-28 August 1991
SCC-XLIII	26-30 October 1992
SCC-XLIV	2-6 November 1992

ADDITIONAL INFORMATION

For a listing and brief background summary of the SCC's agreements, see Senate Committee on Foreign Relations, "SALT II Treaty: Background Documents," 96th Congress 1st session 1979, pages 79-80.

Sidney Graybeal and Michael Krepon, "Making Better Use of the SCC," *International Security,* Fall 1985.

Dan Caldwell, "The Standing Consultative Commission: Past Performances and Future Possibilities," in William Potter (editor), *Verification and Arms Control*, 1985.

Michael Krepon, "How Reagan Is Killing A Quiet Forum For Arms Talks," *WP,* 31 August 1986.

ACDA, "More Effective Use of the SCC to Resolve Arms Control Compliance Questions," study prepared at the direction of Congress, 13 January 1990.

Chronology 1993

January

1 January **THE US AND RUSSIA HAD AGREED TO DECLASSIFY AND RELEASE THE FIVE PROTOCOLS AND UNDERSTANDINGS** to the ABM treaty reached in the SCC [see status subsection SCC introduction and reference], an agreement reached during the autumn 1992 SCC sessions. These had the titles:

- Protocol on Procedures Governing the Replacement, Dismantling, or Destruction, and Notification Thereof, For ABM Systems and Their Components (3 July 1974).

- Supplementary Protocol to the Protocol on Procedures Governing the Replacement, Dismantling, or Destruction, and Notification Thereof, For ABM Systems and Their Components of 3 July 1974 (28 October 1976), (Including the Integral Agreed Statement Regarding Section III, Paragraph 5)

- Agreed Statement Regarding Certain Provisions of Articles II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of 26 May 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of that Treaty (1 November 1978), (Including the Integral Commissioners' Identical Conformed Statements Read at the Signing of the Agreed Statement)

- Common Understanding Related to Paragraph 2 of Section II of the Agreed Statement of 1 November 1978 Regarding Certain Provisions of Articles II, IV, and VI of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems of 26 May 1972, and the Utilization of Air Defense Radars at the Test Ranges Referred to in Article IV of that Treaty (6 June 1985).

- Common Understanding Related to Articles 2 and 5 of the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics of 30 September 1971 (14 June 1985). {texts available from ACDA and in ACT 3.93}

19 January **'ASIDE FROM POTENTIAL ISSUES RELATING TO STATE SUCCESSION, NO NEW ABM-RELATED COMPLIANCE ISSUES HAVE ARISEN** since the last report,' according to the annual Report on Adherence and the annual Report on Soviet Non-Compliance (ACDA merged the two reports). 'The United States has not made a decision on the issue of state succession to the ABM treaty [see 20 November 1992].'

The US did 'review the issue" of LPAR data handover as the only issue re-assessed from the March 1992 report [see 9 April 1992], and decide that the Soviet activity did not violate the ABM treaty. (The US had planned a similar handover for its ABM system in the early

1970s, and the Bush administration was considering modifying the US early warning radars to assist GPALS [see section 575 box 30 November 1992: GSTS]. {ACT 1-2.93})

The United States Government has reviewed the issue of (formerly Soviet) Pechora-class Large Phased-Array Radars (LPARs) support of the Moscow ABM system with handover data suitable for target acquisition by the Pill Box engagement radar. The United States Government reaffirms its judgment that it is probable that these LPARs do support the Moscow ABM system in this manner (as described in detail in the March 1992 Report to Congress on Soviet Noncompliance).

The USG also judged that the Soviet activity raises, potentially, a significant violation of fundamental treaty provisions. However, as noted in the March 1992 Report, the ABM Treaty is not explicit with regard to the activity described above. Through diplomatic channels and in the SCC, the United States presented its views to the Russian Federation on this activity. In light of the ambiguity of the Treaty language, and based on further review of the issue and on the probable Soviet practice -- which amounts to the use of precise target handover data in support of an effort to counter strategic ballistic missiles -- the USG now judges that the support of ABM systems by early warning radars providing precise handover data will not constitute use of the early warning radars as ABM radars in violation of the ABM Treaty.

Specifically, the USG will not consider as prohibited the handover of precise target state vectors by properly located and oriented early warning radars to ABM systems or ABM components. Such operational or test support to ABM systems or ABM components does not cause those early warning radars to be themselves considered ABM components or considered to have been given the capability to counter strategic ballistic missiles. While the handover of these data allows the ABM system or ABM component to initiate its ABM functions, the actual capability to counter strategic ballistic missiles remains exclusively with the ABM system or ABM components. Consequently, such handover by an early warning radar to an ABM system or ABM component would not constitute "testing in an ABM mode", nor giving of "capability to counter strategic ballistic missiles."

The US noted it did agree to conversion of the Krasnoyarsk facility [see 17 June 1992].

'Both the United States and Russia have agreed on the need to clarify the distinction between ABM and non-ABM systems, and have engaged in a dialogue to do so. There have been extensive discussions on this issue in a high-level group referred to as the Ross-Mamedov Group [see section 575 October 1992], the Ross-Mamedov Concept Working Group, and the Standing Consultative Commission.'

The report concluded: 'The United States has told Russia that if the dialogue to update the ABM treaty is not successful, the United States will have to once again turn its attention to compliance issues that it has previously addressed.' {report from ACDA}

February

15 February **DOD WAS EXAMINING WHETHER THEATER MISSILE DEFENSE PROGRAMS COMPLIED WITH THE ABM TREATY.** On 10 January, Dick Cheney argued that the THAAD missile would not violate the ABM treaty, in a memo to James Baker. He requested an interagency review of the ABM compliance standards and how they could be applied to ATBM efforts.

US officials wanted certification of THAAD compliance before making major decisions involving testing and future funding [see section 706 box 24 July 1992]. In FY94, about 40% of the $3.8 billion for SDIO would go toward continued THAAD development. On 18 February an SDIO official said: "There are grave concerns about whether or not THAAD is treaty-compliant...and we're not going to breath easy until we get that certification."

Other systems causing concern included the PAC 3 improvements to the Patriot missile and the EndoLEAP program [see section 575.E box 15 June 1992]. A DOD Compliance Review Group meeting would look at theater programs in September 1993.

Definition of theater versus strategic ballistic missile.
A former senior Pentagon official said certification for THAAD depended on how to use range and velocity of re-entry vehicles [see section 575 E-0: D.3 1990]. In the 1970s and 1980s, DOD employed guidelines developed by John Foster, former director of defense research and engineering. Any missile travelling below 25 miles altitude at less than 1.25 miles/second (2 kilometers a second) would not be considered an ABM missile. Sources said those guidelines expanded under the Bush administration in the late 1980s to include missiles with re-entry velocities of less than 4.3 miles/second (7 kilometers/second).

Sidney Graybeal, chief scientist at SAIC Corporation in Maclean, Virginia, and former SCC commissioner, said modern strategic ballistic missiles had velocities of more than 7 kilometers a second, while the best theater ballistic missiles reached about 5 kilometers a second. "There is a two-kilometer cushion that can be verified

through national technical means."

John Pike of FAS noted TMD systems were expected to be highly mobile and would defend large areas. "That begins to raise questions about whether they are permitted tactical or constrained strategic systems." Another question involved transfer of ABM technologies to third parties. The US had raised the question of Soviet transfer of air defense systems. "On the face of it, if we were worried about SA-5 or SA-12 [see weapon subsection 1992] in terms of whether these are treaty-compliable systems, they would be subject to the no-mobile, no-transfer constraints, it would seem to me that obviously questions of that sort are going to be raised by THAAD and possibly by Arrow."

Sensor updates

Graybeal said in a separate interview in mid-February at the AAAS seminar on arms control in Boston that verification of the ABM treaty relied on NTM. "This is particularly important when you start looking at the sensor problem." Sending information directly to the interceptor from a space-based sensor could be detected and thus verified. But NTM could not verify that sensor information went to a ground station and then to the interceptor along with information from allowed, ground-based radars.

"In my view there are no limits on sensors" so along as information was not sent directly to the interceptor from early-warning or space-based radars. "There are no direct limits on anti-tactical ballistic or theater missile defense. But there are indirect problems" such a sensor data.

Need for clarification of the treaty

Graybeal added: "[T]he ABM treaty is badly in need of being clarified, modified, and possibly amended to meet US security interests [see section 575 21-22 September 1992]. This treaty for the past twelve years has been an enigma to the Reagan/Bush administration....[The Russians] really want to retain the treaty [see section 575 15 October 1992]. They have leverage with this treaty on the US and they recognize that but they also recognize that the US is not going to let this treaty interfere with what they consider essential to US security interests and clearly TMD [theater missile defense] is high on that horizon.

"The bottom line is the ABM treaty should pose no barriers to achieving effective ballistic missile defense systems, which include THAAD, Ground-Based Radar, and Brilliant Eyes." A slew of ABM issues needed to be resolved and the new administration had to decide which issues needed to be resolved first to keep the program going. After reaching that decision, "an executive order is issued and some of the rules of the past will not be the rules of the future."

In a separate interview, Graybeal argued that ATBMs had to defend against missiles with longer ranges, including the CSS-2 [see subsection 706.E], than before. Therefore, a tactical ballistic missile

should be defined as having a re-entry velocity of 3.1 miles/second (5 kilometers/second) or less. ATBM testing against re-entry vehicles at 7 kilometers a second or more should be prohibited under the revised treaty. "With clarifications to the treaty, the THAAD program should not run into any compliance problems in its test program."

On 26 February SDIO spokesperson Major Mike Doble said a treaty compliance review group, headed by the undersecretary of defense for acquisition, was considering THAAD. "They're still studying it....We don't have any conclusions yet." {Barbara Opall in Defense News 1-7.3.93; SDI Monitor 26.2.93}

24-26 February **THE SECOND CIS JOINT CONSULTATIVE COMMISSION MET IN MINSK** [see section 403 16-17 December 1992]. Military experts from Commonwealth countries discussed practical implementation by CIS states of the treaty on anti-missile defense [see 9 October 1992]. While a US delegation attended to discuss INF issues [see section 403 24-26 February], it apparently did not bring up ABM issues. {Russian television 26.2.93 in FBIS-SU 27.2.93}

25 February **THE CLINTON ADMINISTRATION WOULD SEEK CHANGES IN THE ABM TREATY "IF OUR NATIONAL SECURITY WOULD BE ENHANCED"** [see section 575 25 February].

26 February **SOVIET FOREIGN MINISTRY OFFICIALS KNEW THAT THE KRASNOYARSK RADAR VIOLATED THE ABM TREATY** and had pointed that out to their defense counterparts, former Foreign Minister Aleksandr Bessmertnykh told a meeting of 1980s-era officials in Princeton, New Jersey. Their defense counterparts responded: "When the Americans start crying out, you'll find an answer."

March

9 March **THE ISSUE OF ABM AND AIR DEFENSE FACILITIES ON BALTIC SOIL NEEDED RESOLUTION** [see box 15 September 1992: 23 August], CIS press secretary Valeriy Manilov said at a Harvard seminar. {ACR coverage}

10 March **THE USAF WAS CONSIDERING A SPACE-BASED THEATER INTERCEPTOR CONCEPTUALLY ABM-COMPLIANT** [see section 706 box 28 February]

29 March **THE US CONTINUED TO WORK ON THE ABM SUCCESSION ISSUE**, according to an American official [see 20 November 1992]]. "We are closer to a point of talking with the other parties about an SCC meeting," the official said. The US might well suggest an arrangement similar to that proposed for the INF treaty: all CIS states (but not the Baltics) would become parties, but only those with facilities ("those who are players") would attend SCC meetings. {Reporter discussion 29.3.93}

April

4 April **JOINT WORK ON THE 'TRUST' PLASMA ABM SYSTEM WOULD NOT VIOLATE THE TREATY**, according to Leonid Fituni [see section 575 4 April]. "The treaty makes no mention of joint work on global protection against missile attack. Twenty years ago it could not have occurred to anyone that such a thing would be possible. In those days, it was not only unscientific, it was hostile science fiction." {Viktor Litovkin in Izvestiya 2.4.93 in FBIS-SU 7.4.93}

June

2 June **ANY SCC MEETING AWAITED ADMINISTRATION POLICY ON MISSILE DEFENSE**, according to an ACDA official. Missile defense policy, along with other defense issues, was enmeshed with the Bottom-Up review [see section 240 27 March] and would not become clear until completion of the review. {Reporter discussion 2.6.93}

2 June **THE QUESTION OF PARTICIPATION OF FORMER SOVIET REPUBLICS** in the ABM treaty [see 29 March] "has not yet been resolved," according to an official in the Belarussian Washington embassy. If any "feasible and tangible" progress had been made, he asserted, he would have heard about it. {Reporter discussion 3.6.93}

3 June **CLARIFICATION OF THE QUESTION OF THEATER MISSILE COMPLIANCE WITH THE ABM TREATY** was provided by Sidney Graybeal [see 15 February].

Foster guidelines. Foster asked that any defensive missile testing against targets more than 40 kilometers up, or targets with a re-entry velocity greater than two kilometers a second, must be referred to the Pentagon treaty compliance group to ensure it did not violate the ABM treaty [this account differs from 15 February account].

Foster used the 40 kilometer rule because that indicated the top of the sensible atmosphere - above that, planes could not fly, so any defensive missile would be aiming at another missile.

[The guidelines presumably stemmed from the US unilateral statement of 1972 on what 'tested in an ABM mode' meant. The statement said 'we note that we would consider a launcher, missile, or radar to be tested in an ABM mode if ... an interceptor missile is flight tested against a target vehicle which has a flight trajectory which has characteristics of a strategic ballistic missile flight trajectory...or is flight tested to an altitude inconsistent with interception of targets against which air defenses are deployed....' In 1978 the two sides agreed at the SCC - see 1 January - on a definition of tested in an ABM mode, which Nitze repeated in 1986 and is found in the status subsection as 'US definition'.]

SCC discussions. According to Graybeal, the SCC did not discuss the ATBM/ABM guideline during his tenure. However, in the past couple of years classified discussions took place on the point.

Review of THAAD. The Pentagon's treaty compliance group was still examining whether THAAD was permitted under the ABM treaty. The Patriot and the Arrow were treaty-compliant.

'Significant' ABM capability. Graybeal noted that any ATBM had some ABM capability - even a rock could in theory intercept a missile. The question of treaty compliance revolved around whether a missile had 'significant' ABM capability [the treaty does not use the term significant]. Graybeal recommended that the parties try not to quantify the term 'significant' for two reasons. First, any quantification would be hard to verify through national technical means; second, the lack of quantification would keep the term flexible, so that the US would have some flexibility in challenging Russia actions, and so that the US would have some flexibility in designing ATBMs. {Reporter discussion 3.6.93 - see Bunn book cited in status subsection}

UPDATE TO RUSSIAN AND AMERICAN ABM SYSTEMS AND RADARS - 4 June

[See box 15 September 1992. See map in section 611.E-0 for location of former Soviet radars.]

30 January **THE SUBSYSTEMS OF THE MUKACHEVO RADAR IN UKRAINE WERE TRANSFERRED TO VARIOUS CIVILIAN ENTERPRISES.** The local collective farm Nove Zhyttya (New Life) and the small enterprise Siyesta (Siesta) received an unloading platform together with railway lines. RayAhroPostach (Rayon Agricultural Supply) received a high-capacity oil installation with up-to-date filling stations. The radar's water intake installations would supply the nearby villages of Lalovo, Bodalovo, Berezyanka, and Pistryalovo, as well as a poultry farm in the village of Zaluzhye. The oblast enterprise ZakarpatElectroMerezha (Transcarpathian Electric Power Grid) would receive an electrical substation.

Finally, the authorities were considering attracting a entrepreneurial and commercial structures to the conversion. {Ivan Povnytskyy in Radio Ukraine 30.1.93 in FBIS-SU 1.2.93}

17 May **THE RUSSIAN ARMY WOULD REMAIN AT SKRUNDA FOR THE NEXT 10 YEARS** [see box 15 September 1992: 23 August], according to Sergei Zotov, leader of the Russian delegation to the talks negotiating the withdrawal of Russian forces from Latvia. Russian strategic facilities were not connected to the deadlines for general withdrawal of Russian troops. {Diyena 18.5.93 in FBIS-USR 16.6.93}

5 June **DETAILS OF THE 'HEN HOUSE' RADARS WERE RELEASED** by the Russian RIAN Radio-technical Institute [see box 3 January 1987]. The Institute had shown its VHF modular airspace management radar, believed to be Hen House, at a industry show in Birmingham, Britain.

The radar operated in the 140 megahertz range, with an azimuth arc of 120 degrees and an elevation arc of 2-90 degrees. Its maximum range was 2000 kilometers against ballistic missiles or satellites with a cross-

section of 1 square meter. The radar could be transported and ready to operate in 10 days with a maximum of 30 operators. {JDW 5.6.93}

29 July **NO WORK TO UPGRADE THE CLEAR, ALASKA BMEWS SITE HAD BEGUN**, according to John Pike of FAS. Efforts to obtain funding (proposed in at least the Report of the Secretary of Defense for FY90) had not even cleared the Pentagon budget process in the last few years, and no one could say whether the proponents of the upgrade would continue to seek it [see section E-0: E.1]. {Reporter discussion 29.7.93}

July

13 July **THE UNITED STATES WOULD ABIDE BY THE 'NARROW' INTERPRETATION OF THE ABM TREATY** [see status subsection]. Responding to a question from the Senate Foreign Relations Committee (SFRC), acting ACDA Director Thomas Graham wrote:

> It is the position of the Clinton Administration that the 'narrow' or 'traditional' interpretation of the ABM Treaty is the correct interpretation and therefore that the ABM Treaty prohibits the development, testing, and deployment of sea-based, air-based, space-based, and mobile land-based ABM systems and components without regard to the technology utilized. {text from ACDA press release 14.7.93}

US officials said the decision coincided with Pentagon plans to pursue ground-based systems designed to counter accidental or terrorist missile launches. US missile defense systems would comply with the narrow interpretation, or the Clinton administration would seek to renegotiate the treaty, officials said [see 15 February and section 575 25 February]. {Thomas Friedman in NYT 15.7.93}

Reactions

SFRC Chair Claiborne Pell (D, Rhode Island): "This wise decision closes, on a high note, a sad chapter in United States arms control treaty relations and in the relationship between the US Senate and the Executive Branch." {SFRC press release 14.7.93}

ACA's Jack Mendelsohn: "This brings to a close a situation that started in 1985 when the Reagan Administration found a new way to read a treaty that very few people outside the administration agreed with....The Reagan reinterpretation made us look like a third-rate country trying to welch on a contract." {Thomas L. Friedman in NYT 15.7.93}

29 July **NO DATES HAD BEEN SET FOR EITHER THE SCC OR THE TREATY REVIEW CONFERENCE**, according to a US official, despite the treaty requirement to hold the review by October [see 24-31 August 1988 and 2 June 1993]. Furthermore, no decision had been made whether to hold a separate treaty review meeting as in 1988, or as part of an SCC meeting as in 1977 and 1982 [see 15 December 1982]. Some low-level work had been conducted that would allow the meetings to convene after short notice, though the official said he would not characterize the activity as "active preparation."

Questions of succession [2 June] and transition [see 2 June] delayed

action. The Clinton administration had simply not devoted much attention to the question, assigning the issue a low priority during its transition to power.

The United States had still not developed its own policy toward who should be part of the treaty, much less discussed the issue with other states. In 1992, Ukraine joined Russia and the United States in the SCC meetings, while Belarus and Kazakhstan met with the US delegation head beforehand [see 2-6 November 1992]. The US official expressed doubt that the succession question would be resolved before the meetings were held, but would not predict which states would participate this year. {Reporter discussion 29.7.93}

August

16-22 August **"THEORETICALLY THERE IS NO TREATY ANY LONGER BECAUSE THERE IS NO SOVIET UNION...**I would not consider myself constrained by a [void] treaty when there are so many threats in the world," said Representative John Kyl (R, Arizona) in an interview. Kyl said the treaty had already interfered with US missile defense programs [see section 575.E box 10 July and section 706 box 15 September], and lamented the Clinton administration's decision to abide by the treaty's 'narrow' interpretation [see 13 July]. {Neil Munro and Vago Muradian in Defense News 16-22.8.93}

A former Reagan administration official concurred with Kyl: "Why should the United States maintain a treaty with a nation that no longer exists? Why would we want to adhere to its terms, particularly when important elements of that treaty are not in our national security interests?" {Martin Anderson in WT 13.8.93}

'The present political instability in Russia could make it very difficult to negotiate...modifications to the ABM Treaty for the foreseeable future,' said the Pentagon's Bottom-Up Review [see section 240.B-5 1 September]. The 1 September report said the Pentagon was waiting for a presidential review assessing the treaty compliance of US missile defense options [see section 706 box 15 September]. {Pentagon fact sheet, undated}

25 August **THE [THIRD?] SESSION OF THE CIS JOINT CONSULTATIVE COMMISSION MET IN MINSK** to discuss the treaty obligations inherited by the newly independent states from the Soviet Union [see 24-26 February]. {IT 22.12.92 in FBIS-SU 23.12.92; Mayak Radio 25.8.93 in FBIS-SU 26.8.93}

30 August **RUSSIA'S ABM SYSTEM WOULD "NOT ALLOW A SINGLE NUCLEAR EXPLOSION DANGEROUSLY CLOSE TO MOSCOW,"** said its general designer Anatoliy Basistov in an interview. "It has been designed to automatically detect warheads in flight without human involvement, distinguish them from clutter - decoys or combined ABM countermeasures - and destroy them unerringly in the air, preventing the charge from detonating." {Izvestiya 25.8.93 in FBIS-SU 30.8.93}

September

1 September **ASPIN RELEASED THE BOTTOM-UP REVIEW OUTLINING THE US GOALS FOR DEPLOYING MISSILE DEFENSES** [see section 706.B box 15 September] and freeing up the Clinton administration to look ahead to the next SCC meeting [see 2 June].

27 September-1 October **THE FOURTH ABM TREATY REVIEW CONFERENCE WAS HELD IN GENEVA** [see 24-31 August 1988 and 29 July 1993], attended by Belarus, Russia, Ukraine, and the United States. The parties issued a joint communique:

> The Fourth Review of the Treaty on the Limitation of Anti-Ballistic Missile Systems was conducted in Geneva, Switzerland, from September 27 to October 1, 1993. The delegations that were present at the Review, representing the Republic of Belarus, the Russian Federation, Ukraine, and the United States of America, exchanged views on the operation of the Treaty, on rights and obligations under the Treaty, and on the question of state succession. Commitment to the ABM Treaty was reaffirmed and it was agreed that maintaining the visibility of the Treaty in view of political and technological changes remains important. The delegationss at the Review advocated continued efforts to strengthen the ABM Treaty.

A US press statement added: 'The issue of which state or states will succeed the Soviet Union for purposes of the ABM Treaty has yet to be agreed, and in the view of the United States, attendance at the Review did not prejudice the eventual outcome of the issue of state succession.' {ACDA press release 1.10.93}

Acting ACDA Director Thomas Graham led the US delegation, Russia was led by Deputy Foreign Minister Grigori Berdennikov. {Barbara Opall in Defense News 4-10.10.93}

Treaty succession questions dominated the review's discussion, a US official said, but the participants made little progress, in part because it was such a high-level meeting. Working groups were better suited to ironing out difficult questions.

The United States, he suggested, was trying to narrow the number of treaty parties without ruffling the feathers of the former Soviet states who took on Russia's treaty obligations at the 1992 Bishkek summit [see 9 October 1992].

The participants also discussed scheduling the next SCC meeting, but Belarus and Ukraine could not commit to specific dates at the review. {Reporter discussion 19.10.93}

November

10 November **THE US CONGRESS REQUIRED AN ABM TREATY COMPLIANCE REVIEW OF PLANNED US MISSILE DEFENSES** in its defense authorization bill [see section 240.B-5 30 November and section 706.B box 15 September]. Under the bill, signed into law on 30 November, Congress would withhold 50% of missile defense funding until it received the report.

Congress also agreed to a finding providing more flexibility to the ABM Treaty:

The ABM Treaty was not intended to, and does not, apply to or limit research, development, testing, or deployment of missile defense systems, system upgrades, or system components that are designed to counter modern theater ballistic missiles, regardless of the capabilities of such missiles, unless those systems, system upgrades, or system components are tested against or have demonstrated capabilities to counter modern strategic ballistic missiles. It is a national security priority of the United States to develop and deploy highly effective theater missile defense systems capable of countering the existing and expanding threats posed by modern theater ballistic missiles as soon as possible. {CR H9199 10.11.93}

19 November **THE UNITED STATES STILL HAD NOT ESTABLISHED A POSITION ON TREATY SUCCESSION** [see 27 September-1 October]. "If you had asked me three weeks ago, I would have thought we had consensus" among US agencies, said one US official, but the internal debated had continued.

ACDA and the State Department supported multilateral succession to the ABM Treaty, described an observer to the debate, while the Pentagon was arguing for very few parties because changes to the treaty could be made more easily. {Reporter interviews 19.11.93}

26 November **THE US DECIDED RECENTLY TO SUPPORT MULTILATERAL SUCCESSION TO FORMER SOVIET TREATY OBLIGATIONS**, according to two American officials [see 19 November]. It wanted a decision enshrined in some sort of document, probably a piece of paper saying 'the undersigned are parties to the treaty.' Any CIS nation which wanted to join (except the Baltics) could do so. Asked about the Skrunda radar based in Latvia, one official said: "It's just your friendly neighborhood radar. Latvia will apparently permit Russia to continue to operate it," at least in the near term [see box 31 December: 6 December].

Even prior to the decision, the US had been sending notices to all CIS states of upcoming meetings. {Reporter discussions 11&18.1.94}

28 November **CLINTON RECENTLY APPROVED A NEW US POSITION ON THE LINE BETWEEN ABM AND NON-ABM INTERCEPTORS.** The US would suggest to the upcoming SCC meeting that the parties define an ABM interceptor as one which could destroy a ballistic missile whose reentry-vehicle (RV) velocity exceeded five kilometers per second, a change from the Foster guidelines [see 3 June], which said a non-ABM interceptor could not be tested against a target travelling faster than 2-4 kilometers per second and at an altitude higher than 40 kilometers.

In addition, the US would propose to classify an interceptor as ABM interceptor only if it *actually demonstrated* the capability to intercept a strategic warhead. That is, even if an interceptor had the theoretical capability to down a strategic missile, it would not be considered an ABM interceptor unless it had shown the capability in a successful test.

The administration agreed to its position only days before the SCC convened, after the general counsels of ACDA, the State Department, and the Pentagon agreed that, without the new clarification,

developing and deploying the THAAD interceptor would violate the ABM Treaty [see 15 February and section 706.B box 15 September]. That determination was reached because THAAD would have 'a *theoretical* ability to counter certain strategic missile types that will comprise a significant portion of Russia's strategic force under START I and START II,' such as shorter-range SLBMs, according to talking points delivered to congressional staffers shortly before the proposal was tabled. Such a capability was banned by the treaty in Article VI(a) which prohibited giving non-ABM systems 'capabilities to counter strategic ballistic missiles or their elements in flight trajectory.' The treaty had not defined 'strategic ballistic missile.'

As one observer explained, THAAD was designed to intercept missiles with ranges of up to 3000 kilometers, a distance which correlated to an RV velocity of five kilometers per second. In broad terms, ICBM RVs travelled at 6-7 kilometers per second, short-range SLBMs at 4-5 kilometers per second, and short-range ballistic missiles at less than four kilometers per second. The observer noted that allowing interceptors with the capability to hit short-range SLBMs could perturb not only Russia, but France and Britain as well.

The observer said the administration chose to establish a definition through negotiation, rather than a unilateral declaration, for two reasons. First, Russia would likely charge the United States with a treaty violation if the United States, without Russian agreement, gave itself the capability to shoot down some of Russia's strategic missiles with non-ABM interceptors. Second, the US Senate held that the definition currently in place was based on the explanation given to the Senate at the time of ratification, namely the Foster guidelines. Administration officials therefore worried that Congress would strongly protest an administration announcement that the definition had changed. {Inside the Pentagon 9.12.93; Jeffrey Smith in WP 4.12.93; Reporter interview and discussion with observer 19.11.93 & 19.1.94; Reporter discussion with US official 11.1.94; Michael Gordon in NYT 3.12.93}

29 November-3 December **THE UNITED STATES PROPOSED ITS TREATY 'CLARIFICATION' AT THE FIRST 1993 SCC SESSION** (SCC XLV) in Geneva [see 28 November], with the US (acting Commissioner Stanley Rivelas), Russia (Commissioner Koltunov), Belarus (Commissioner Andrey Sammikov), and Ukraine (Commissioner Vladyslov Demianenko) participating. Latvia sent an observer (Ansis Reinhards).

The administration sought to 'clarify' the treaty, rather than amend it, to avoid sending the changes to the US Senate for approval, said some officials [see 10 November]. But NSC officials said they wanted to avoid the amendment process because of the unpredictability of legislatures in former Soviet states such as Ukraine [see section 611.B box 20 November].

The US also withdrew the broad revisions to the treaty proposed by

the previous administration [see 13 December].

Russia responded to the proposal in a "constructive" manner, said a US official. [The two sides had already held classified discussions on the point [see 3 June].] "The discussions are the kind that characterize the search for common ground." Russia had acknowledged the desirability of establishing a demarcation between strategic and non-strategic ballistic missiles, according to one observer, and had offered to set up a working group to discuss the initiative, said another source.

Russia argued in the meeting that the definition of ABM interceptors should not rest upon a single technical parameter, according to the observer, who noted that during the Bush administration, Russia had recommended defining a non-ABM interceptor as one not capable of shooting down an RV travelling faster than three kilometers per second and higher than 90 kilometers in altitude. Russia's SA-12 missile had been tested against ballistic missiles with reentry speeds of about 2.7 kilometers per second [see 'European missile shield,' section 706.B box 18 August].

In addition, Russia indicated that it did not accept the second part of the US proposal, requiring an ABM interceptor to demonstrate its capability.

US critics said the initiative would harm the treaty. "This does as much damage to the ABM Treaty from the ground as the 'Star Wars' program would have done from above," said John Rhinelander, former legal adviser to the SALT I delegation. John Pike of the Federation of American Scientists added, "if the Russians were to propose this to us, I would counsel the Clinton administration to reject it...It basically eviscerates the ABM Treaty." {Inside the Pentagon 9.12.93; Jeffrey Smith in WP 4.12.93; Reporter interview and discussion with observer 19.11.93 & 19.1.94; Reporter discussion with US official 11.1.94; Michael Gordon in NYT 3.12.93}

December

6-16 December **THE SECOND 1993 SCC SESSION (SCC XLVI) OPENED IN GENEVA** [see 2-6 November 1992]. Discussion of the US treaty clarification proposal could not be completed before the holiday break, so the participants agreed to recess until 24 January 1994, when the session would resume for two more weeks. Only once before, in 1982, had participants recessed a session, and that one, SCC XXII, never resumed. The first 1994 SCC session (SCC XLVII) was scheduled to begin in March and continue for four to six weeks.

Participants did not reach agreement on the succession question; they felt no hurry to act. From a legal standpoint, one US official said, the successors might need to be formalized before any treaty clarification could be implemented. From a political perspective, however, other officials said the United States did not want the successors to impede progress toward the clarification, so it would try to negotiate the modification with Russia first, then invite the other

former Soviet states to join the treaty on US and Russian terms. {Reporter discussions with US officials 11&18.1.94; Inside the Pentagon 9.12.93}

7 December **ASPIN CALLED THE ABM TREATY CLARIFICATION "AN ESSENTIAL ELEMENT** of our counterproliferation strategy" [see 29 November-3 December], in a speech to the National Academy of Sciences Committee on International Security and Arms Control [see section 250.B 7 December]. "It would allow us to develop and test a theater missile defense system to meet a real threat without undermining an important agreement." {text from DOD 7.12.93}

13 December **NEW ACDA DIRECTOR JOHN HOLUM DEFENDED THE US POSITION** [see 28 November] in a speech to ACA:

"First, President Clinton has affirmed our country's commitment to the ABM Treaty. Its preservation remains crucial to stability, to the START I and START II reductions, and to longer term strategic arms control opportunities.

"Second, in line with that, the Clinton administration has explicitly repudiated unilateral reinterpretations of the ABM Treaty that would have done it grave harm.

"Third, in the Treaty's implementing body - the Standing Consultative Commission - we have also withdrawn the broad revisions to the Treaty proposed by the previous Administration [see 13 July].

"Fourth, clarification of the Treaty is needed on the line of demarcation between strategic defenses, which are limited, and theater defenses, which are not. The spread of missile technology - and the reality of long lead times for designing and building any military systems - makes it prudent to resolve such issues sooner rather than later.

"Fifth, that clarification will be done by agreement, through the SCC, rather than by unilateral pronouncement. We are respecting the Treaty.

"Sixth, and finally, what any agreed clarification is called as a legal matter should properly await the outcome of the negotiations, and there will be consultations with the Senate on that matter. A conclusion that is an amendment would have significant implications for success, of course, because we have also accepted in the SCC the principle that other states of the former Soviet Union should be added as Treaty partners [see 28 November] - which can seriously complicate ratification, as we know from our experience on START." {text from ACDA 14.12.93}

UPDATE TO US AND FORMER SOVIET ABM SYSTEMS AND RADARS - 31 December

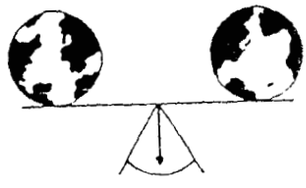
[See box 4 June.]

18 November **BELARUS AND RUSSIA BEGAN TWO DAYS OF TALKS ON THE INCOMPLETE BARANOVICHI EARLY WARNING RADAR** in Belarus [see 10 November 1986 and section 575.E-0: subpart E.2.b]. Veniamin Popov, leader of the Russian delegation, said the two sides would draft an agreement to complete the construction of the Pechora-class radar and determine the terms of maintenance and funding. Russia was prepared to finance and operate the station. {IT 18.11.93 in FBIS-JPRS-TND 29.12.93}

6 December **RUSSIAN AND LATVIAN NEGOTIATORS DEBATED THE DISPOSITION OF THE ABM RADAR AT SKRUNDA** [see box 4 June: 17 May] in ongoing troop withdrawal talks [see section 407.E-1 November-December]. Russia had offered to withdraw all its troops by 31 August 1994 if Latvia allowed Russia to maintain control over the radar for another six years. Latvia had countered the Russian proposal by offering a two-year term. {Radio Riga 6.12.93 in FBIS-SU 6.12.93; Interfax 2.1.94 in FBIS-SU 3.1.94}

25 December **KAZAKHSTAN AND RUSSIA HAD NOT AGREED ON HOW TO TRANSFER ABM FACILITIES.** Kazakhstani Chief of the Armed Forces General Staff Alibek Kasymov said Kazakhstan owned the ABM facilities [presumably Sary Shagan, see section 575.E-0: subpart E.2.b], but that it wanted to transfer them to Russia in return for a Russian "commitment to ensure the ABM defense of the territory of Kazakhstan." {Krasnaya Zvezda 25.12.93 in FBIS-SU 28.12.93}

End 1993



Chronology 1994

January

24 January-4 February **US AND FORMER SOVIET NEGOTIATORS IN GENEVA COMPLETED SCC XLVI**, which had started in late 1993 [see 6-16 December 1993]. One US official in Geneva said "there's been quite a lot of progress," but acknowledged that "we're in the midst of a negotiation" and many issues remained to be worked out.

Most importantly from the US perspective, the official said that **"the Russians are agreed that we will clarify the treaty."** The two sides agreed that there was a real and legitimate threat from the proliferation of ballistic missiles, that missile defenses were needed to protect against that threat, particularly against longer-range (3,000 kilometers) tactical systems, and that the treaty therefore needed clarification.

Ukraine and Belarus participated in the session at a lesser level than the Russian delegation. Ukraine sent technical experts and Belarus occasionally sent a member of its under-staffed Geneva mission. The US official said that developing a formal succession agreement for the former Soviet states was given an equal priority to the treaty clarification debate in the SCC session, but no agreement was on the horizon. {Reporter interview 24.3.94}

Russia presented a list of suggestions to help resolve the demarcation issue, including a proposal to limit the speed of an ATBM interceptor to three kilometers per second. This proposal would add a second parameter to the definition of ATBM systems [see 29 November-3 December 1993], expanding on the US proposal to define ATBM systems by the velocity of the targets the interceptors could hit [see 28 November 1993].

The US THAAD system was designed to have an interceptor speed of 2.8 kilometers per second, which would make it treaty-compliant under the Russian proposal. But other US systems would be precluded, including those designed to intercept targets at higher altitudes such as the LEAP system [see 706.B box 15 September 1993].

Russia also proposed several confidence-building measures, such as linking the number and location of deployed ATBM systems to the size and scope of the threat and restricting the power of radars used to cue ATBM computers. {Dunbar Lockwood in ACT 4.94}

March

10 March **CLINTON ADMINISTRATION OFFICIALS TESTIFIED BEFORE THE US SENATE FOREIGN RELATIONS COMMITTEE.** ACDA Director John Holum and BMDO Director Malcom O'Neill told the committee that the administration remained committed to a strong ABM Treaty, a position that required the United States to adapt to new circumstances. Holum said: "Given [the treaty's] unlimited duration, we must make sure that new

technologies and threats do not undermine its long-term viability. The need to make clear the distinction between ABM systems for countering strategic ballistic missiles (which are strictly limited by the treaty), and non-ABM systems (which are not limited), is made timely by the prospect of third-country missile proliferation and the demonstrated willingness of backlash states to target not just US expeditionary forces, but to hold civilian populations hostage by targeting cities. This clarification is unavoidable, given the acknowledged ambiguity of the treaty as stands."

Holum reiterated the six-point Clinton policy he announced in late 1993 [see 13 December 1993] and tried to reassure the Senate that **"the administration will not bypass or end-run Congress in this matter.** The president has directed the administration to consult closely with Congress before any decision is taken as to whether any SCC agreement on the boundary between ABM and TMD systems requires the approval of the Senate." {texts}

Several senators opposed changing the treaty and asserted the Senate's right to approve any agreements. Committee chair Claiborne Pell (D, Rhode Island) said the treaty clarification plan "seems like the tail wagging the dog....We're developing defenses that are outside the treaty, so we're attempting to adjust the treaty." Under questioning from Paul Simon (D, Illinois), Holum conceded that without modification, the US THAAD system would violate the treaty. "Isn't that the purpose of the treaty, to prevent deployment?" Simon asked. John Kerry (D, Massachusetts) said changing the treaty would provoke hostile nations to increase their missile arsenals so they could overwhelm new defenses. Richard Lugar (R, Indiana) said he was undecided as to the treaty modification, but said that Holum should "operate on the assumption that you will have to defend your actions, your negotiating position, and the resulting agreement before the Congress." {Thomas Lippman in WP 11.3.94}

16 March **HOLUM ADDRESSED SENATE CONCERNS** [see 10 March] in a speech to the American Defense Preparedness Association and the National Defense University Foundation in Washington. Holum categorized Senate concerns into four categories:

--The character of the threat. Was the threat of dangerous missile proliferation a real one or simply hypothetical?

--Preservation of traditional ABM goals. Some senators expressed concern that modifying the treaty would scrap the strategic benefits it had gained the United States and would make further nuclear reductions difficult to achieve.

--Avoidance of new arms races. Senators were concerned that modifying the treaty would propel third countries to improve their ballistic missiles to ensure their viability against modern defenses.

--The role of Congress. Senators wanted assurances that Congress would play in important role in approving any treaty modifications.

Character of the threat. Holum cited CIA Director James Woolsey's January testimony that 25 countries, many hostile to the United States, were developing WMD and "ballistic weapons are becoming the weapon of choice for delivering them" [see 706.B 25 January]. Of great importance, Holum added, was the fact that "some of the countries we're concerned about don't seem to be deterred by nuclear weapons."

Holum believed that arms control should be the "first and foremost" strategy to deal with proliferator threats, and he supported creating a global ban on intermediate-range missiles by inviting all nations to join the obligations of the INF Treaty [see 403.B 21 June]. But the United States needed to have military solutions prepared for the contingency that arms control might fail and "theater missile defenses are by far the most benign military option currently available."

Holum stressed that by developing military solutions, the Clinton administration was not abandoning arms control. "In today's security context, arms control generally has more to offer our national security than do weapons systems. But whatever the merits of that debate, this is one case where we don't have to choose between the two....[T]he administration's ABM Treaty policy does not divorce arms control from defensive systems--it marries the two" [emphasis in original text].

Traditional ABM goals. The administration valued the importance of the ABM Treaty and was not trying to clarify it by acting unilaterally or outside the treaty's rules. "We are proceeding from the intellectually honest starting point that the TMD's we need would create a question of compliance with the treaty."

A "ruling principle" of the administration's policy was that the United States would not undercut the arms control contributions the treaty had made and still offered.

Holum argued that ATBM systems were not "ABM systems in miniature." Explicitly avoiding an argument over the physics of whether ATBMs offered strategic defense capability [see 1 April], Holum pointed to "the simple and powerful fact that the Russians, the Ukrainians, and the Belarussians with whom we have been negotiating in the SCC in Geneva [see 24 January-4 February] are in broad agreement with us not just as to the reality and nature of the theater threats to be defended against and the need to clarify the treaty to permit us to meet them, but also as to the parameters of the target missiles to be defended against.

"The states of the former Soviet Union remain firmly committed to their self-preservation and to the saying, 'trust but verify.' I do not believe for a moment that our treaty partners would be helping the negotiations in Geneva move toward successful resolution if they thought this would allow us to sneak a real operational strategic missile defense capability in through the back door.

"Nor would we do the same with them."

Avoidance of new arms races. Some in Senate warned that developing and deploying theater defenses would lead new arms races. Holum argued that the absence of ATBMs in fact made it more attractive for rogue states to obtain ballistic missiles. In addition, the absence of defenses would force nations neighboring missile-armed rogue states to develop offensive missiles of their own, thus creating an arms race between the two.

Role of Congress. "We are determined not to harm the treaty by acting unilaterally as to the legislative branch--just as we have not acted unilaterally as to our treaty partners." {text from ACDA++}

21 March-21 April **THE FIRST 1994 SCC SESSION (SCC XLVII) WAS HELD IN GENEVA**, and Clinton instructed the US negotiating team to resist the Russian proposal to limit the speed of missile interceptors [see 24 January-4 February]. Experts said the 21 March presidential directive, drafted by National Security Adviser Anthony Lake, seemed to force the United States to risk losing a sure deal to allow THAAD's deployment in favor of seeking a solution that would allow the deployment of more advanced systems in the future.

The Russian proposal, while accepting THAAD, would not permit the United States to deploy more advanced systems which used high-speed, kinetic-energy interceptors, such as the Navy's Sea-Based Upper Tier system or the Air Force's boost-phase interceptor program. Pentagon sources said Russia's negotiating strategy was driven in part by the fact that Russia had not invested much research into high-speed interception, preferring to focus instead on developing powerful, long-range radars that allowed the use of slower interceptors. {Theresa Hitchens and Barbara Opall in DN 11-17.4.94; ACDA fact sheet 25.5.94}

April

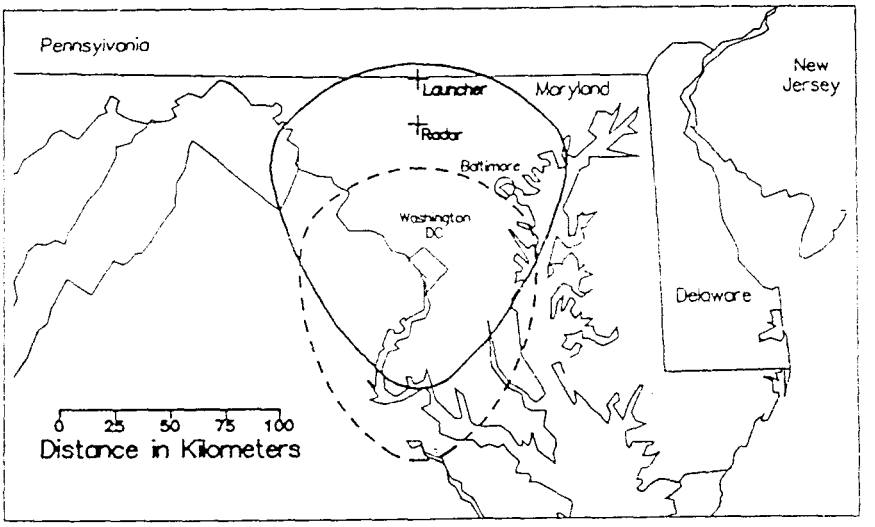
1 April **HIGHLY CAPABLE ATBMS WOULD ALMOST CERTAINLY HAVE SIGNIFICANT CAPABILITY AGAINST STRATEGIC WARHEADS**, according to computer modelling conducted by scientists at MIT and the Union of Concerned Scientists (UCS). George Lewis and Theodore Postel of MIT [see 'United States: Patriot 'Myth',' 706.B box 1 November 1993] and Lisbeth Gronlund and David Wright of UCS concluded that US proposals to clarify the ABM Treaty 'would, if implemented in isolation, significantly erode the ability of the ABM Treaty to control strategic defenses by allowing systems that could defend areas of tens of thousands of square kilometers.'

The scientists' conclusions were based on analyzing the area of land, or 'footprint,' that could be protected by a THAAD-like system defending against attacks from theater and strategic ballistic missiles. The size of an ATBM's footprint was derived from several factors, including the range at which targets could first be detected (which in turn depended on radar capabilities, the target's radar cross section,

and the target's velocity), and the speed and acceleration of the interceptor. The computer model did not try to assess the effectiveness of a THAAD-like system, but rather estimated its ability to intercept strategic warheads if the system were effective against targets travelling at five kilometers per second [see 28 November 1993].

The model concluded that a system with THAAD's known characteristics, notified of a missile attack by DSP satellites (as happened during the Gulf War), could defend a 150-kilometer-wide footprint against a single theater ballistic missile and a footprint 70% that size against a single strategic target with the same radar cross section.

Ballistic Missile Defense 'Footprints' Against Theater and Strategic Targets.



The above figure shows the defended footprints calculated for a THAAD-like anti-tactical ballistic missile (ATBM) against a 3,000-kilometer range theater missile (solid line) and a 10,000-kilometer range strategic missile (dashed line). The footprints in this model assume the ATBM radar has a power-aperture product of 500,000 watts-meter squared and that the attacking reentry vehicles (coming from the top of the figure) have a radar cross section of 0.05 square meters.

The scientists also modelled THAAD-like systems against low radar cross section targets and against targets while using enhanced detection and tracking radar capabilities. All the models indicated that the ATBM system would be capable of protecting a city and its suburbs from a strategic warhead. The four scientists cautioned that it was 'far from obvious that it will be possible to deploy highly capable ATBMs without seriously undermining the ABM Treaty.' {ACT 4.94}

Shown a draft of the scientists' article, **a US official in Geneva involved with the ABM negotiation criticized the analysis as "simplistic."** The official said studying the outcomes of one-on-one engagements would not indicate the outcomes of large-scale force-

on-force missile battles in which THAAD-like ATBMs would have to cope with multiple targets and nuclear war-fighting strategies. {Reporter interview 24.3.94}

May

2 May **CRS RELEASED A REPORT EXAMINING THE US TREATY MODIFICATION PLAN AND ITS IMPLICATIONS.** Written by Steven Hildreth, 'The ABM Treaty and Theater Missile Defense: Proposed Changes and Potential Implications' raised a variety of issues that required further study.

Analysis of the missile threat. While it was true that many nations had theater ballistic missiles, only 9-14% of those had ranges longer than 900 kilometers, a range that could be combatted by the PAC-3 Patriot missile currently under development [see 706.B box 1 November 1993]. A great proportion of those 900-plus kilometer range missiles were deployed by China and Saudi Arabia, leaving only 9-16% of such missiles in the hands of Israel, India, and North Korea. Almost all the longer-range theater missiles, therefore, were possessed by nations not hostile to the United States. The report noted that these proportions could change in the future, and the United States should conduct regular assessments to track this threat to the United States.

ATBM capability. In general, ATBMs could perform with declining capability against targets travelling faster than the ATBM was designed to intercept: 'Although there is not unanimity [among missile defense engineers interviewed] on how quickly this capability degrades to zero, what's important is to note that demonstrated missile defense capabilities do not degrade catastrophically beyond an upper test limit. Instead, those capabilities degrade gracefully. In other words, if, for example, TMD capability against five kilometers per second missiles is 95%, then capability does not fall to zero against 5.1 kilometers per second missiles. Therefore, such a TMD system would have some strategic capability even under the US treaty clarification proposal [see 28 November 1993].'

If the treaty parties accepted the US proposal that missile defenses be defined by their 'demonstrated capabilities,' then the issue of excess theoretical capability would be resolved. 'But what happens if a permitted US TMD system is deployed in a future crisis and engages targets faster than five kilometers per second? Would all such US TMD systems then be considered ABM systems and made illegal under the terms of the treaty? What happens, for example, if the United States exports to Japan, or if Russia exports to Libya, an advanced TMD system that is then tested by those countries against a target travelling faster than five kilometers per second? What becomes of such systems in the United States and Russia? Do the proposed ABM Treaty changes address these issues?'

Other nuclear powers. 'The ABM Treaty proposal introduces a new, unplanned variable into the nuclear security calculations of Britain,

France, China, and Israel. The affect on their decisions cannot now be predicted with any certainty. By permitting unrestricted missile defense capabilities against roughly 3,200 kilometer [range] missiles, TMD systems could be deployed so as to jeopardize the effectiveness of virtually all of the ballistic missile nuclear forces of Britain, France, China, and perhaps Israel, India, Pakistan, and North Korea.'

Those nations could react to that situation in several ways. They could decide to increase their number of nuclear-armed ballistic missiles to ensure confidence in their strike ability; they could pursue qualitative modernization, such as developing new warheads to deploy on MIRVed missiles and to carry penetration aids; and if they decided to develop new warheads, they might be reluctant to commit to a long-term comprehensive nuclear test ban.

Nuclear arms control implications. If nations perceived that they needed to retain modern nuclear forces to counter deployments of theater missile defenses, progress could be threatened in a number of arms control arenas: Nations could feel the need to develop new warheads and therefore the need to test them; NNWS could fight the NWS goal of extending the NPT indefinitely; implementation of the START treaty, particularly the transfer of nuclear weapons from Ukraine to Russia, could be endangered; and the chances for further reductions in strategic nuclear forces could be reduced. {text 2.5.94++}

3 May **THE SENATE HEARD TESTIMONY FROM FORMER US OFFICIALS INVOLVED WITH THE ABM TREATY** [see 10 March].

Sidney Graybeal, first US commissioner of the Standing Consultative Commission, supported the US proposal, calling it "right on track" [see 3 June 1993]. Graybeal said the threat from Third World ballistic missiles was real and could not be removed through US non-proliferation or counterproliferation efforts.

Graybeal believed that using "demonstrated capability" to assess the legality of an ATBM system was valid. Determining a system's capability by using computer or simulation projections could not be verified, so the United States could be at a disadvantage by fielding compliant systems when it could not know the projected capabilities of other parties' systems. The only verifiable means to determine a system's capability was by national technical means to observe actual testing. In any case, no party would deploy an untested ABM system because "no military commander will accept for operational use a system whose capabilities have not been demonstrated by actual flight testing."

Spurgeon Keeny, former assistant director at ACDA, strongly opposed the Clinton administration's proposed changes to the treaty: "The proposed criterion is so permissive that it would allow the unlimited deployment of defense systems defined as 'tactical' which actually possess substantial capabilities against strategic systems [see 1 April]. I am persuaded that a reinterpretation of the ABM Treaty based on such a permissive definition of 'tactical' would not only

undercut the fundamental objective of the agreement, but would seriously jeopardize broader long-term US security interests. The creation of a giant loophole in the ABM Treaty permitting ballistic missile defenses with potential strategic capabilities would have the effect of blocking further reductions in strategic nuclear warhead beyond START II levels and might complicate implementation of this as yet unratified agreement. This new impediment to further nuclear reductions would also seriously complicate US efforts to obtain agreement on the indefinite extension of the NPT."

John Rhinelander, legal adviser to the US SALT I delegation, said that developing, testing, deploying, and transferring abroad the THAAD system would violate at least four articles of the ABM Treaty if the treaty were not amended. Article I prohibited a nationwide ABM system and a base for such a system. Article III allowed an ABM system at a single site with no more than 100 fixed, ground-based launchers. Article V(1) prohibited the development, testing, and deployment of mobile ground-based, sea-based, air-based, and space-based ABM components. Article IX prohibited the transfer of ABM components to other states and the deployment of national systems outside national territories. {prepared texts from ACA}

SELECT MATERIALS

'Highly Capable Theater Missile Defenses and the ABM Treaty,' Lisbeth Gronlund, George Lewis, Theodore Postol, and David Wright, *Arms Control Today*, 4.94

'The ABM Treaty and Theater Missile Defense: Proposed Changes and Potential Implications,' Steven Hildreth, Congressional Research Service, 2.5.94.

prohibits this. While further deployment of radars intended to give early warning of strategic ballistic missile attack is not prohibited, they must be located along the territorial boundaries of each country and oriented outward, so that they do not contribute to an effective ABM defense of points in the interior.

Further, to decrease the pressures of technological change and its unsettling impact on the strategic balance, both sides agree to prohibit development, testing, or deployment of sea-based, air-based, or space-based ABM systems and their components, along with mobile land-based ABM systems. Should future technology bring forth new ABM systems "based on other physical principles" than those employed in current systems, it was agreed that limiting such systems would be discussed, in accordance with the treaty's provisions for consultation and amendment.

The treaty also provides for a U.S.-Soviet Standing Consultative Commission to promote its objectives and implementation. The commission was established during the first negotiating session of SALT II, by a Memorandum of Understanding dated December 21, 1972. Since then both the United States and the Soviet Union have raised a number of questions in the Commission relating to each side's compliance with the SALT I agreements. In each case raised by the United States, the Soviet activity in question has either ceased or additional information has allayed U.S. concern.

Article XIV of the treaty calls for review of the treaty 5 years after its entry into force, and at 5-year intervals thereafter. The first such review was conducted by the Standing Consultative Commission at its special session in the fall of 1977. At this session, the United States and the Soviet Union agreed that the treaty had operated effectively during its first 5 years, that it had continued to serve national security interests, and that it did not need to be amended at that time.

Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

Signed at Moscow May 26, 1972
Ratification advised by U.S. Senate August 3, 1972
Ratified by U.S. President September 30, 1972
Proclaimed by U.S. President October 3, 1972
Instruments of ratification exchanged October 3, 1972
Entered into force October 3, 1972

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Proceeding from the premise that nuclear war would have devastating consequences for all mankind,

Considering that effective measures to limit anti-ballistic missile systems would be a substantial factor in curbing the race in strategic offensive arms and would lead to a decrease in the risk of outbreak of war involving nuclear weapons,

Proceeding from the premise that the limitation of anti-ballistic missile systems, as well as certain agreed measures with respect to the limitation of strategic offensive arms, would contribute to the creation of more favorable conditions for further negotiations on limiting strategic arms,

Mindful of their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to take effective measures toward reductions in strategic arms, nuclear disarmament, and general and complete disarmament,

Desiring to contribute to the relaxation of international tension and the strengthening of trust between States,

Have agreed as follows:

Article I

1. Each party undertakes to limit anti-ballistic missile (ABM) systems and to adopt other measures in accordance with the provisions of this Treaty.

2. Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of this Treaty.

Article II

1. For the purpose of this Treaty an ABM system is a system to counter strategic ballistic missiles or their elements in flight trajectory, currently consisting of:

(a) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role, or of a type tested in an ABM mode;
(b) ABM launchers, which are launchers constructed and deployed for launching ABM interceptor missiles; and
(c) ABM radars, which are radars constructed and deployed for an ABM role, or of a type tested in an ABM mode.

2. The ABM system components listed in paragraph 1 of this Article include those which are:

(a) operational;
(b) under construction;
(c) undergoing testing;
(d) undergoing overhaul, repair or conversion; or
(e) mothballed.

Article III

Each Party undertakes not to deploy ABM systems or their components except that:

(a) within one ABM system deployment area having a radius of one hundred and fifty kilometers and centered on the Party's national capital, a Party may deploy: (1) no more than one hundred ABM launchers and no more than one hundred ABM interceptor missiles at launch sites, and (2) ABM radars within no more than six ABM radar complexes, the area of each complex being circular and having a diameter of no more than three kilometers; and
(b) within one ABM system deployment area having a radius of one hundred and fifty kilometers and containing ICBM silo launchers, a Party may deploy: (1) no more than one hundred ABM launchers and no more than one hundred ABM interceptor missiles at launch sites, (2) two large phased-array ABM radars comparable in potential to corresponding ABM radars operational or under construction on the date of signature of the Treaty in an ABM system deployment area containing ICBM silo launchers, and (3) no more than eighteen ABM radars each having a potential less than the potential of the smaller of the above-mentioned two large phased-array ABM radars.

Article IV

The limitations provided for in Article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges. Each Party may have no more than a total of fifteen ABM launchers at test ranges.

Article V

1. Each Party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.

2. Each Party undertakes not to develop, test, or deploy ABM launchers for launching more than one ABM interceptor missile at a time from each launcher, not to modify deployed launchers to provide them with such a capacity, not to develop, test, or deploy automatic or semi-automatic or other similar systems for rapid reload of ABM launchers.

Article VI

To enhance assurance of the effectiveness of the limitations on ABM systems and their components provided by the Treaty, each Party undertakes:

(a) not to give missiles, launchers, or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory, and not to test them in an ABM mode; and
(b) not to deploy in the future radars for early warning of strategic ballistic missile attack except at locations along the periphery of its national territory and oriented outward.

Article VII

Subject to the provisions of this Treaty, modernization and replacement of ABM systems or their components may be carried out.

Article VIII

ABM systems or their components in excess of the numbers or outside the areas specified in this Treaty, as well as ABM systems or their components prohibited by this Treaty, shall be destroyed or dismantled under agreed procedures within the shortest possible agreed period of time.

Article IX

To assure the viability and effectiveness of this Treaty, each Party undertakes not to transfer to other States, and not to deploy outside its national territory, ABM systems or their components limited by this Treaty.

Article X

Each Party undertakes not to assure any international obligations which would conflict with this Treaty.

Article XI

The Parties undertake to continue active negotiations for limitations on strategic offensive arms.

Article XII

1. For the purpose of providing assurance of compliance with the provisions of this Treaty, each Party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.
2. Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this Article.
3. Each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Treaty.

This obligation shall not require changes in current construction, assembly, conversion, or overhaul practices.

Article XIII

1. To promote the objectives and implementation of the provisions of this Treaty, the Parties shall establish promptly a Standing Consultative Commission, within the framework of which they will:

(a) consider questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous;

(b) provide on a voluntary basis such information as either Party considers necessary to assure confidence in compliance with the obligations assumed;

(c) consider questions involving unintended interference with national technical means of verification;

(d) consider possible changes in the strategic situation which have a bearing on the provisions of this Treaty;

(e) agree upon procedures and dates for destruction or dismantling of ABM systems or their components in cases provided for by the provisions of this Treaty;

(f) consider, as appropriate, possible proposals for further increasing the viability of this Treaty; including proposals for amendments in accordance with the provisions of this Treaty;

(g) consider, as appropriate, proposals for further measures aimed at limiting strategic arms.

2. The Parties through consultation shall establish, and may amend as appropriate, Regulations for the Standing Consultative Commission governing procedures, composition and other relevant matters.

Article XIV

1. Each Party may propose amendments to this Treaty. Agreed amendments shall enter into force in accordance with the procedures governing the entry into force of this Treaty.

2. Five years after entry into force of this Treaty, and at five-year intervals thereafter, the Parties shall together conduct a review of this Treaty.

Article XV

1. This Treaty shall be of unlimited duration.

2. Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Treaty. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interests.

Article XVI

1. This Treaty shall be subject to ratification in accordance with the constitutional procedures of each Party. The Treaty shall enter into force on the day of the exchange of instruments of ratification.

2. This Treaty shall be registered pursuant to Article 102 of the Charter of the United Nations.

DONE at Moscow on May 26, 1972, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF AMERICA	**FOR THE UNION OF SOVIET SOCIALIST REPUBLICS**
RICHARD NIXON	**L.I. BREZHNEV**
President of the United States of America	*General Secretary of the Central Committee of the CPSU*

Agreed Statements, Common Understandings, and Unilateral Statements Regarding the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missiles

1. Agreed Statements

The document set forth below was agreed upon and initialed by the Heads of the Delegations on May 26, 1972 (letter designations added):

AGREED STATEMENTS REGARDING THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON THE LIMITATION OF ANTI-BALLISTIC MISSILE SYSTEMS

[A]

The Parties understand that, in addition to the ABM radars which may be deployed in accordance with subparagraph (a) of Article III of the Treaty, those non-phased-array ABM radars operational on the date of signature of the Treaty within the ABM system deployment area for defense of the national capital may be retained.

[B]

The Parties understand that the potential (the product of mean emitted power in watts and antenna area in square meters) of the smaller of the two large phased-array ABM radars referred to in subparagraph (b) of Article III of the Treaty is considered for purposes of the Treaty to be three million.

[C]

The Parties understand that the center of the ABM system deployment area centered on the national capital and the center of the ABM system deployment area containing ICBM silo launchers for each Party shall be separated by no less than thirteen hundred kilometers.

[D]

In order to insure fulfillment of the obligation not to deploy ABM systems and their components except as provided in Article III of the Treaty, the Parties agree that in the event ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars are created in the future, specific limitations on such systems and their components would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty.

[E]

The Parties understand that Article V of the Treaty includes obligations not to develop, test or deploy ABM interceptor missiles for the delivery by each ABM interceptor missile of more than one independently guided warhead.

[F]

The Parties agree not to deploy phased-array radars having a potential (the product of mean emitted power in watts and antenna area in square meters) exceeding three million, except as provided for in Articles III, IV, and VI of the Treaty, or except for the purposes of tracking objects in outer space or for use as national technical means of verification.

[G]

The Parties understand that Article IX of the Treaty includes the obligation of the US and the USSR not to provide to other States technical descriptions or blue prints specially worked out for the construction of ABM systems and their components limited by the Treaty.

2. Common Understandings

Common understanding of the Parties on the following matters was reached during the negotiations:

A. Location of ICBM Defenses

The U.S. Delegation made the following statement on May 26, 1972:

Articles III of the ABM Treaty provides for each side one ABM system deployment area centered on its national capital and one ABM system deployment area containing ICBM silo launchers. The two sides have registered agreement on the following statement: "The Parties understand that the center of the ABM system deployment area centered on the national capital and the center of the ABM system deployment area containing ICBM silo launchers for each Party shall be separated by no less than thirteen hundred kilometers." In this connection, the U.S. side notes that its ABM system deployment area for defense of ICBM silo launchers, located west of the Mississippi River, will be centered in the Grand Forks ICBM silo launcher deployment area. (See Agreed Statement [C].)

B. ABM Test Ranges

The U.S. Delegation made the following statement on April 26, 1972:

Article IV of the ABM Treaty provides that "the limitations provided for in Article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges." We believe it would be useful to assure that there is no misunderstanding as to current ABM test ranges. It is our understanding that ABM test ranges encompass the area within which ABM components are located for test purposes. The current U.S. ABM test ranges are at White Sands, New Mexico, and at Kwajalein Atoll, and the current Soviet ABM test range is near Sary Shagan in Kazakhstan. We consider that non-phased array radars of types used for range safety or instrumentation purposes may be located outside of ABM test

ranges. We interpret the reference in Article IV to "additionally agreed test ranges" to mean that ABM components will not be located at any other test ranges without prior agreement between our Government that there will be such additional ABM test ranges.

On May 5, 1972, the Soviet Delegation stated that there was a common understanding on what ABM test ranges were, that the use of the types of non-ABM radars for range safety or instrumentation was not limited under the Treaty, that the reference in Article IV to "additionally agreed" test ranges was sufficiently clear, and that national means permitted identifying current test ranges.

C. Mobile ABM Systems

On January 29, 1972, the U.S. Delegation made the following statement:

Article V(1) of the Joint Draft Text of the ABM Treaty includes an undertaking not to develop, test, or deploy mobile land-based ABM systems and their components. On May 5, 1971, the U.S. side indicated that, in its view, a prohibition on deployment of mobile ABM systems and components would rule out the deployment of ABM launchers and radars which were not permanent fixed types. At that time, we asked for the Soviet view of this interpretation. Does the Soviet side agree with the U.S. side's interpretation put forward on May 5, 1971?

On April 13, 1972, the Soviet Delegation said there is a general common understanding on this matter.

D. Standing Consultative Commission

Ambassador Smith made the following statement on May 22, 1972:

The United States proposes that the sides agree that, with regard to initial implementation of the ABM Treaty's Article XIII on the Standing Consultative Commission (SCC) and of the consultation Articles to the Interim Agreement on offensive arms and the Accidents Agreement,[1] agreement establishing the SCC will be worked out early in the follow-on SALT negotiations; until that is completed, the following arrangements will prevail: when SALT is in session, any consultation desired by either side under these Articles can be carried out by the two SALT Delegations; when SALT is not in session, *ad hoc* arrangements for any desired consultations under these Articles may be made through diplomatic channels.

Minister Semenov replied that, on an *ad referendum* basis, he could agree that the U.S. statement corresponded to the Soviet understanding.

E. Standstill

On May 6, 1972, Minister Semenov made the following statement:

In an effort to accommodate the wishes of the U.S. side, the Soviet Delegation is prepared to proceed on the basis that the two sides will in fact observe the obligations of both the Interim Agreement and the ABM Treaty beginning from the date of signature of these two documents.

[1] See Article 7 of Agreement to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics, signed Sept. 30, 1971.

In reply, the U.S. Delegation made the following statement on May 20, 1972:

The U.S. agrees in principle with the Soviet statement made on May 6 concerning observance of obligations beginning from date of signature but we would like to make clear our understanding that this means that, pending ratification and acceptance, neither side would take any action prohibited by the agreements after they had entered into force. This understanding would continue to apply in the absence of notification by either signatory of its intention not to proceed with ratification or approval.

The Soviet Delegation indicated agreement with the U.S. statement.

3. Unilateral Statements

The following noteworthy unilateral statements were made during the negotiations by the United States Delegation:

A. Withdrawal from the ABM Treaty

On May 9, 1972, Ambassador Smith made the following statement:

The U.S. Delegation has stressed the importance the U.S. Government attaches to achieving agreement on more complete limitations on strategic offensive arms, following agreement on an ABM Treaty and on an Interim Agreement on certain measures with respect to the limitation of strategic offensive arms. The U.S. Delegation believes that an objective of the follow-on negotiations should be to constrain and reduce on a long-term basis threats to the survivability of our respective strategic retaliatory forces. The USSR Delegation has also indicated that the objectives of SALT would remain unfulfilled without the achievement of an agreement providing for more complete limitations on strategic offensive arms. Both sides recognize that the initial agreements would be steps toward the achievement of more complete limitations on strategic arms. If an agreement providing for more complete strategic offensive arms limitations were not achieved within five years, U.S. supreme interests could be jeopardized. Should that occur, it would constitute a basis for withdrawal from the ABM Treaty. The U.S. does not wish to see such a situation occur, nor do we believe that the USSR does. It is because we wish to prevent such a situation that we emphasize the importance the U.S. Government attaches to achievement of more complete limitations on strategic offensive arms. The U.S. Executive will inform the Congress, in connection with Congressional consideration of the ABM Treaty and the Interim Agreement, of this statement of the U.S. position.

B. Tested in ABM Mode

On April 7, 1972, the U.S. Delegation made the following statement:

Article II of the Joint Text Draft uses the term "tested in an ABM mode," in defining ABM components, and Article VI includes certain obligations concerning such testing. We believe that the sides should have a common understanding of this phrase. First, we would note that the testing provisions of the ABM Treaty are intended to apply to testing which occurs after the date of signature of the Treaty, and not to any testing which may have occurred in the past. Next, we would amplify the remarks we have made on this subject during the previous Helsinki phase by setting forth the objectives which govern the U.S. view on the subject, namely, while prohibiting testing of non-ABM components for ABM purposes; not to prevent testing of ABM components, and not to prevent testing of non-ABM components for non-ABM

purposes. To clarify our interpretation of "tested in an ABM mode," we note that we would consider a launcher, missile or radar to be "tested in an ABM mode" if, for example, any of the following events occur: (1) a launcher is used to launch an ABM interceptor missile, (2) an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristics of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested to an altitude inconsistent with interception of targets against which air defenses are deployed, (3) a radar makes measurements on a cooperative target vehicle of the kind referred to in item (2) above during the reentry portion of its trajectory or makes measurements in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range. Radars used for purposes such as range safety or instrumentation would be exempt from application of these criteria.

C. No-Transfer Article of ABM Treaty

On April 18, 1972, the U.S. Delegation made the following statement:

In regard to this Article [IX], I have a brief and I believe self-explanatory statement to make. The U.S. side wishes to make clear that the provisions of this Article do not set a precedent for whatever provision may be considered for a Treaty on Limiting Strategic Offensive Arms. The question of transfer of strategic offensive arms is a far more complex issue, which may require a different solution.

D. No Increase in Defense of Early Warning Radars

On July 28, 1970, the U.S. Delegation made the following statement:

Since Hen House radars [Soviet ballistic missile early warning radars] can detect and track ballistic missile warheads at great distances, they have a significant ABM potential. Accordingly, the U.S. would regard any increase in the defenses of such radars by surface-to-air missiles as inconsistent with an agreement.

Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms

As its title suggests, the "Interim Agreement Between the United States and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Offensive Arms" was limited in duration and scope. It was intended to remain in force for 5 years. (See preceding section on SALT.) Both countries undertook to continue negotiations for a more comprehensive agreement as soon as possible, and the scope and terms of any new agreement were not to be prejudiced by the provisions of the 1972 accord.

Thus the Interim Agreement was set essentially as a holding action, designed to complement the ABM Treaty by limiting competition in offensive strategic arms and to provide time for further negotiations. The agreement essentially freezes at existing levels the number of strategic ballistic missile launchers, operational or under construction, on each side, and permits an increase in SLBM launchers up to an agreed level for each party only with the dismantling or destruction of a corresponding number of older ICBM or SLBM launchers.

In view of the many asymmetries in the two countries' forces, imposing equivalent limitations required rather complex and precise provisions. At the date of signing, the United States had 1,054 operational land-based ICBMs, and none under construction; the Soviet Union had an estimated 1,618 operational and under construction. Launchers under construction could be completed. Neither side would start construction of additional fixed land-based ICBM launchers during the period of the agreement—this, in effect, also bars relocation of existing launchers. Launchers for light or older ICBMs cannot be converted into launchers for modern heavy ICBMs. This prevents the U.S.S.R. from replacing older missiles with missiles such as the SS–9, which in 1972 was the largest and most powerful missile in the Soviet inventory and a source of particular concern to the United States.

Article III

The Parties undertake to develop their relations with each other and with other countries in a way consistent with the purposes of this Agreement.

Article IV

If at any time relations between the Parties or between either Party and other countries appear to involve the risk of a nuclear conflict, or if relations between countries not parties to this Agreement appear to involve the risk of nuclear war between the United States of America and the Union of Soviet Socialist Republics or between either Party and other countries, the United States and the Soviet Union, acting in accordance with the provisions of this Agreement, shall immediately enter into urgent consultations with each other and make every effort to avert this risk.

Article V

Each Party shall be free to inform the Security Council of the United Nations, the Secretary General of the United Nations and the Governments of allied or other countries of the progress and outcome of consultations initiated in accordance with Article IV of this Agreement.

Article VI

Nothing in this Agreement shall affect or impair:

(a) the inherent right of individual or collective self-defense as envisaged by Article 51 of the Charter of the United Nations,*

(b) the provisions of the Charter of the United Nations, including those relating to the maintenance or restoration of international peace and security, and

(c) the obligations undertaken by either Party towards its allies or other countries in treaties, agreements, and other appropriate documents.

Article VII

This Agreement shall be of unlimited duration.

Article VIII

This Agreement shall enter into force upon signature.

DONE at Washington on June 22, 1973, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF AMERICA:

RICHARD NIXON

President of the United States of America

FOR THE UNION OF SOVIET SOCIALIST REPUBLICS:

L.I. BREZHNEV

General Secretary of the Central Committee, CPSU

* TS 993; 59 Stat. 1044.

Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

At the 1974 Summit meeting, the United States and the Soviet Union signed a protocol that further restrained deployment of strategic defensive armaments. The 1972 ABM Treaty had permitted each side two ABM deployment areas, one to defend its national capital and another to defend an ICBM field. The 1974 ABM Protocol limits each side to one site only.

The Soviet Union had chosen to maintain its ABM defense of Moscow, and the United States chose to maintain defense of its ICBM emplacements near Grand Forks, North Dakota. To allow some flexibility, the protocol allows each side to reverse its original choice of an ABM site. That is, the United States may dismantle or destroy its ABM system at Grand Forks and deploy an ABM defense of Washington. The Soviet Union, similarly, can decide to shift to an ABM defense of a missile field rather than of Moscow. Each side can make such a change only once. Advance notice must be given, and this may be done only during a year in which a review of the ABM Treaty is scheduled. The treaty prescribes reviews every 5 years; the first year for such a review began October 3, 1977.

Upon entry into force, the protocol became an integral part of the 1972 ABM Treaty, of which the verification and other provisions continue to apply. Thus the deployments permitted are governed by the treaty limitations on numbers and characteristics of interceptor missiles, launchers, and supporting radars. The system the United States chose to deploy (Grand Forks) has actually been on an inactive status since 1976.

Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

Signed at Moscow July 3, 1974
Ratification advised by U.S. Senate November 10, 1975
Ratified by U.S. President March 19, 1976
Instruments of ratification exchanged May 24, 1976
Proclaimed by U.S. President July 6, 1976
Entered into force May 24, 1976

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Proceeding from the Basic Principles of Relations between the United States of America and the Union of Soviet Socialist Republics signed on May 29, 1972,

Desiring to further the objectives of the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems signed on May 26, 1972, hereinafter referred to as the Treaty,

Reaffirming their conviction that the adoption of further measures for the limitation of strategic arms would contribute to strengthening international peace and security,

Proceeding from the premise that further limitation of anti-ballistic missile systems will create more favorable conditions for the completion of work on a permanent agreement on more complete measures for the limitation of strategic offensive arms,

Have agreed as follows:

Article I

1. Each Party shall be limited at any one time to a single area out of the two provided in Article III of the Treaty for deployment of anti-ballistic missile (ABM) systems or their components and accordingly shall not exercise its right to deploy an ABM system or its components in the second of the two ABM system deployment areas permitted by Article III of the Treaty, except as an exchange of one permitted area for the other in accordance with Article II of this Protocol.

2. Accordingly, except as permitted by Article II of this Protocol: the United States of America shall not deploy an ABM system or its components in the area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union shall not deploy an ABM system or its components in the deployment area of intercontinental ballistic missile (ICBM) silo launchers as permitted by Article III(b) of the Treaty.

Article II

1. Each Party shall have the right to dismantle or destroy its ABM system and the components thereof in the area where they are presently deployed and to deploy an ABM system or its components in the alternative area permitted by Article III of the

Treaty, provided that prior to initiation of construction, notification is given in accord with the procedure agreed to in the Standing Consultative Commission, during the year beginning October 3, 1977 and ending October 2, 1978, or during any year which commences at five year intervals thereafter, those being the years of periodic review of the Treaty, as provided in Article XIV of the Treaty. This right may be exercised only once.

2. Accordingly, in the event of such notice, the United States would have the right to dismantle or destroy the ABM system and its components in the deployment area of ICBM silo launchers and to deploy an ABM system or its components in an area centered on its capital, as permitted by Article III(a) of the Treaty, and the Soviet Union would have the right to dismantle or destroy the ABM system and its components in the area centered on its capital and to deploy an ABM system or its components in an area containing ICBM silo launchers, as permitted by Article III(b) of the Treaty.

3. Dismantling or destruction and deployment of ABM systems or their components and the notification thereof shall be carried out in accordance with Article VIII of the ABM Treaty and procedures agreed to in the Standing Consultative Commission.

Article III

The rights and obligations established by the Treaty remain in force and shall be complied with by the Parties except to the extent modified by this Protocol. In particular, the deployment of an ABM system or its components within the area selected shall remain limited by the levels and other requirements established by the Treaty.

Article IV

This Protocol shall be subject to ratification in accordance with the constitutional procedures of each Party. It shall enter into force on the day of the exchange of instruments of ratification and shall thereafter be considered an integral part of the Treaty.

DONE at Moscow on July 3, 1974, in duplicate, in the English and Russian languages, both texts being equally authentic.

For the United States of America:

RICHARD NIXON

President of the United States of America

For the Union of Soviet Socialist Republics:

L.I. BREZHNEV

General Secretary of the Central Committee of the CPSU

253-489 0 - 90 - 7 : QL 3

These were intended to clarify specific provisions of the agreements or parts of the negotiating record. The three groups of items are reproduced here with the texts of the agreements.

Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems

In the Treaty on the Limitation of Anti-Ballistic Missile Systems the United States and the Soviet Union agree that each may have only two ABM deployment areas,[1] so restricted and so located that they cannot provide a nationwide ABM defense or become the basis for developing one. Each country thus leaves unchallenged the penetration capability of the other's retaliatory missile forces.

The treaty permits each side to have one limited ABM system to protect its capital and another to protect an ICBM launch area. The two sites defended must be at least 1,300 kilometers apart, to prevent the creation of any effective regional defense zone or the beginnings of a nationwide system.

Precise quantitative and qualitative limits are imposed on the ABM systems that may be deployed. At each site there may be no more than 100 interceptor missiles and 100 launchers. Agreement on the number and characteristics of radars to be permitted had required extensive and complex technical negotiations, and the provisions governing these important components of ABM systems are spelled out in very specific detail in the treaty and further clarified in the "Agreed Statements" accompanying it.

Both parties agreed to limit qualitative improvement of their ABM technology, e.g., not to develop, test, or deploy ABM launchers capable of launching more than one interceptor missile at a time or modify existing launchers to give them this capability, and systems for rapid reload of launchers are similarly barred. These provisions, the Agreed Statements clarify, also ban interceptor missiles with more than one independently guided warhead.

There had been some concern over the possibility that surface-to-air missiles (SAMs) intended for defense against aircraft might be improved, along with their supporting radars, to the point where they could effectively be used against ICBMs and SLBMs, and the treaty

[1] Subsequently reduced to one area (see section on ABM Protocol).

Document Separator

Madelyn Creedon
(703) 696-0550

AMENDMENT NUMBERED 9

That the House recede from its disagreement to the amendment of the Senate numbered 9, and agree to the same with an amendment, as follows:

In lieu of the matter inserted by said amendment, insert:

Sec. 114. The Secretary of Defense shall not allocate a rescission to any military installation that the Secretary recommends for closure or realignment in 1995 under section 2903(c) of the Defense Base Closure and Realignment Act of 1990 (subtitle A of title XXIX of Public Law 101-510; 10 USC 2687 note) in an amount in excess of the proportionate share for each installation for the current fiscal year of the funds rescinded from "Environmental Restoration, Defense" by this Act.

Sec. 115. Funds in the amount of $76,900,000 received during fiscal years 1994 and 1995 by the Department of the Air Force pursuant to the "Memorandum of Agreement between the National Aeronautics and Space Administration and the United States Air Force on Titan IV/Centaur Launch Support for the Cassini Mission," signed September 8, 1994, and September 23, 1994, and Attachments A, B, and C to that Memorandum, shall be merged with appropriations available for research, development, test and evaluation and procurement for fiscal years 1994

Document Separator

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG

THE GOVERNOR

June 5, 1995

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

Dear Chairman Dixon:

As I am sure you are aware, the Department of Defense has recommended that Fort Indiantown Gap in Pennsylvania be closed and that an enclave be preserved for reserve component training.

Fort Indiantown Gap is unique among military bases in that the land supporting the base is owned by the Commonwealth of Pennsylvania and leased to the federal government at a minimal rate in exchange for certain commitments from the federal government. This lease arrangement has worked effectively for over 50 years, and I am disheartened to think that it could terminate.

However, because your Commission may decide to accept the Department's recommendation to end this mutually beneficial partnership, the Commonwealth must begin to consider its alternatives. As I begin that exercise, I have some initial concerns regarding the condition and quality of land that has been used heavily for military training for over 50 years. Artillery training, air bombing and tank firing are just some of the activities that have taken place at Fort Indiantown Gap over the years, and I believe that any future plans for the Gap must include careful consideration of the environmental impact of such activities. In fact, my General Counsel, Paul A. Tufano, recently wrote to Madelyne Creedon to make her aware of the various legal implications surrounding these important issues.

In view of my concerns, I have asked General James Mac Vay, acting Adjutant General, to evaluate alternative uses for the property at Fort Indiantown Gap. I have asked him to conduct a thorough evaluation that includes all possibilities, including the complete cessation of military training on the land. Following a careful consideration of these options. I shall then, and only then, decide upon an appropriate use for the land at Fort Indiantown Gap. Because the Commonwealth's options in this regard are likely to be far-ranging, it would be a mistake for you to assume that any facility presently located on the base will remain there following the return of the land to the Commonwealth of Pennsylvania.

Again, let me emphasize that the Commonwealth has enjoyed its partnership with the United States at Fort Indiantown Gap. It is a relationship that has served both the country and the Commonwealth well, and I have every hope that the present arrangement will be preserved. However, if a decision is made to end the relationship, the Commonwealth of Pennsylvania must be prepared to consider all options consistent with our rights under the law and the terms of our lease.

With best regards, I remain

Yours truly,

Tom Ridge

Thomas J. Ridge
Governor

cc: Honorable Paul A. Tufano
General James Mac Vay

Document Separator

717-782-2551
579-1018

LAND LEASE

BETWEEN

The COMMONWEALTH OF PENNSYLVANIA
and the
UNITED STATES OF AMERICA

1. THIS LEASE, made and entered this 12th day of MAY in the year one thousand nine hundred and 89 by and between the Commonwealth of Pennsylvania, acting through its Department of General Services on behalf of the Department of Military Affairs, whose address is Harrisburg, Pennsylvania and whose interest is described as that of owner, for itself, its heirs, executors, administrators, successors and assigns, hereinafter called the "Commonwealth," and the UNITED STATES OF AMERICA, hereinafter called the "Government."

WITNESSETH:

The parties for the consideration hereinafter mentioned covenant and agree as follows:

2. The Commonwealth hereby leases to the Government the following described premises, viz:

All those certain portions of Fort Indiantown Gap, situate in East Hanover Township, Dauphin County, and in Union, Cold Spring and

East Hanover Townships, Lebanon County, Pennsylvania, comprising a total of 17,797.22 acres of land, more or less, as delineated on Exhibit "A" hereto, together with buildings listed on Exhibit "C" hereto, excluding those portions of Fort Indiantown Gap that the Commonwealth reserves for its use and which are not subject to this lease, comprising 1,388.93 acres more or less, as delineated on Exhibit "A" together with buildings and utilities, listed on Exhibit "B" as State Owned and Used Buildings.

to be used for construction, operation and maintenance of a military post for training members of the active and reserve components and forces of the Armed Forces of the United States, including the Pennsylvania Army and Air National Guard.

3. TO HAVE AND TO HOLD the said premises for the term of sixty years beginning May 12, 1989, through May 11, 2049, subject to the right of the Government or the Commonwealth to sooner terminate this lease in accordance with paragraph 7 hereof, and subject to paragraph 23 hereof; provided that, the parties agree to meet within 90 days of the tenth anniversary of the execution of this lease and at 10 year intervals thereafter at which time the parties may by mutual consent agree to extend the termination date hereof of a period of ten (10) additional years to facilitate Government capital improvements on the leased premises, and provided further that this lease shall in no event extend beyond December 31, 2079.

4. The Government shall pay the Commonwealth rent at the rate of $1 for the entire term of this lease, the receipt and sufficiency of which are hereby acknowledged. The Commonwealth has agreed to lease these premises to the Government for this rental in consideration of the mutual benefits realized as a result of the operation of the Fort Indiantown Gap military installation.

5. It is understood and agreed that Lease Number DA-18-020-ENG-1865, dated 16 September 1964, and all subsequent supplemental agreements thereto,

Lease Numbers DACA-31-5-73-63, DACA-31-5-76-41, DACA-31-5-77-8, DACA-31-5-78-145, DACA-31-5-82-108 and supplemental agreements thereto, and DACA-31-5-85-202 are hereby cancelled effective as of the date of execution of this lease by the Government.

6. The Government shall have the right, during the existence of this lease, to attach fixtures and erect structures or signs in or upon the premises hereby leased, which fixtures and structures, or signs, so placed in, upon or attached to the said premises shall be and remain the property of the Government and may be removed or otherwise disposed of by the Government, provided that, when such fixtures and structures are removed the Government shall restore the premises on which they were located to their natural condition. The Government shall be solely responsible for the disposal of wastes, toxic or hazardous materials on the leased premises. The Commonwealth does not consent (and has not consented) to any disposal of materials other than as expressly authorized by state and federal law and disclaims all responsibility for the location, cleanup or maintenance of waste disposal site on the leased premises at Fort Indiantown Gap.

7. TERMINATION OF LEASE.

a. DEFAULT. The Government or the Commonwealth may terminate this lease at any time during its term upon 90 days written notice to the other party when the other party is in default of its obligations under the terms and conditions of this lease.

b. CONVENIENCE. The Government may terminate this lease at any time by giving no less than one (1) year's written notice to the other party, and no rental shall accrue after the effective date of termination.

c. END OF TERM. Either party may terminate this lease at the end of its term and any extension thereof by giving 30 days written notice to the other party, provided that it is agreed that the Commonwealth's right to terminate the

lease at the end of its term may be subject to modification if the Government installs certain capital improvements on the demised premises within specified periods before the end of the term of the lease.

d. RESTORATION OF PREMISES. It is agreed that the Government shall be responsible to restore the leased premises to a safe condition to the upon termination of the lease and shall comply with all applicable laws and regulations respecting any impact areas, landfills, spill or dump sites, waste disposal areas, hazardous and toxic wastes, explosive materials, etc.

8. Any notice under the terms of this lease shall be in writing signed by a duly authorized representative of the party giving such notice, and if given by the Government shall be addressed to the Commonwealth as follows:

Commonwealth of Pennsylvania
Department of General Services
North Office Building
Harrisburg, PA 17120

Commonwealth of Pennsylvania
Department of Military Affairs
Bldg. S-0-47
Fort Indiantown Gap
Annville, PA 17003-5002

and if given by the Commonwealth shall be addressed to the Government as follows:

The District Engineer
U.S. Army Engineer District Baltimore
ATTN: CENAB-RE-A
P.O. Box 1715
Baltimore, MD 21203-1715

9. The Commonwealth reserves the right to use Fort Indiantown Gap for the training of the Pennsylvania National Guard and other elements of the Pennsylvania military forces, the Pennsylvania State Police and other Commonwealth agencies, provided that the Government reserves the right to establish priorities for all military training, and it is understood that non-military use of the demised premises have a lower priority than military training.

10. The Government shall use the demised premises as a military post for training members of the active and reserve components and forces of the Armed Forces of the United States. The Government and the Commonwealth may permit organizations such as the Boy Scouts, Youth Groups, Youth Camps, FBI, police units, Civil Air Patrol and National Rifle Association to use the leased premises without securing the consent of the other party. Except as otherwise provided herein, neither party shall use the demised premises for nonmilitary purposes without the consent of the other.

11. The parties hereby license and permit each other to have the full and unrestricted right of ingress and egress from and across the premises of the other at Fort Indiantown Gap for their personnel, supplies, material, furnishers of service and their equipment, vehicles, machinery and other property to be used for Government or Commonwealth purposes.

12. It is understood and agreed that the Government has from time-to-time licensed certain buildings subject to this lease and its predecessor leases to the Commonwealth for National Guard and other purposes. These buildings are referred to as "federally-owned, state-used buildings" in Exhibits A and B hereto. It is understood and agreed that the licenses issued under the predecessor lease shall survive the execution of this lease and shall remain in full force and effect. It is understood and agreed that, in the event of mobilization or national emergency as declared by the President or other appropriate national command authorities, it may be necessary for certain "federally-owned, state-used buildings" to be vacated. The Post Commander, Fort Indiantown Gap, shall notify the Adjutant General of the identity of those properties that must be vacated in such contingencies, and the Adjutant General shall endeavor to vacate such premises as soon as practicable consistent with the mobilization mission of the units occupying the buildings but no sooner than the deployment date of the unit; provided, however, that it is understood and agreed that, with respect to buildings which are used for military purposes

by the National Guard in support of its federally-recognized reserve component mission, the best use of the buildings in the event of mobilization would be to continue to perform the same functions. Licensed premises the control of which is assumed by the Government in the event of mobilization shall be relicensed to the Commonwealth at the conclusion of the mobilization period. It is understood and agreed that the use of facilities at Fort Indiantown Gap in the event of national emergency or mobilization will be determined by the requirements of the situation and that nothing in this lease will be construed to provide to the contrary.

13. The Government will permit members of the reserve components (including the Pennsylvania National Guard) and their dependents to have access to morale, welfare and recreational facilities on Fort Indiantown Gap in accordance with applicable Army directives. It is understood and agreed that members of the Pennsylvania National Guard are required to meet certain physical fitness standards as part of the Total Force. Toward this end, the parties agree that they will, within six months of the execution of this lease, enter into a Memorandum of Understanding on uniform access to Post gymnasium and physical fitness facilities.

14. It is understood and agreed that the Government, through the Post Commander of Fort Indiantown Gap, shall enter into appropriate agreements with the Commonwealth and its agencies for the management and control of hunting, fishing, hiking and other recreational activities on the leased premises at Fort Indiantown Gap. It is understood and agreed that the Commonwealth excepts and reserves from this lease all timbering rights, oil and gas rights and mineral rights. Within one year of the execution of this lease, the parties may enter into an agreement for selective timbering at Fort Indiantown Gap and management of timber and forest resources, provided that any agreement for the harvesting of live timber on Commonwealth property, including the leased premises, shall be subject to approval by the Department of Environmental Resources. It is agreed that the parties will, within six months of the execution of this lease, enter into a Memoran-

dum of Understanding with respect to the disposition of dead fallen timber on Fort Indiantown Gap by means of wood-cutting permits.

15. The Government shall not assign this lease in any event and shall not sublet the demised premises or any part thereof, without the express written consent of the Commonwealth and will not permit the use of the said premises by anyone other than the Government, its agents and authorized representatives, without such written approval by the Commonwealth. In case of an approved sublease, the Government shall remain liable for all covenants and undertakings herein contained, except for such covenants or undertakings which are expressly released by the Commonwealth.

16. The Commonwealth warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Commonwealth for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this lease without liability or in its discretion to deduct from the lease price or consideration the full amount of such commission, percentage, brokerage or contingent fee.

17. No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this lease if made with a corporation for its general benefit.

18. (a) The Government may, by written notice to the Commonwealth, terminate the right of the Commonwealth to proceed under this lease if it is found, after notice and hearing by the Secretary of the Army or his duly authorized representative, that gratuities (in the form of entertainment, gifts or otherwise) were

offered by the Commonwealth, of any agent or representative of the Commonwealth, to any officer or employee of the Government with a view toward securing a lease or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing, of such lease; provided, that the existence of facts upon which the Secretary of the Army or his duly authorized representative makes such findings shall be in issue and may be reviewed by any competent court.

(b) In the event the lease is terminated as provided in paragraph (a) hereof, the Government shall be entitled (i) to pursue the same remedies against the Commonwealth as it could pursue in the event of a breach of the lease by the Commonwealth, and (ii) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in any amount (as determined by the Secretary of the Army or his duly authorized representative) which shall be not less than three nor more than ten times the costs incurred by the Commonwealth in providing any such gratuities to any such officer or employee.

(c) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this lease.

(d) Nothing in this paragraph shall be construed to restrict or limit participation by personnel assigned to the U.S. Army Garrison, Fort Indiantown Gap, other Army personnel and personnel who are members of the Pennsylvania National Guard from participating in social functions sponsored by representatives of either party.

19. The Commonwealth agrees that the Comptroller General of the United States or any duly authorized representatives shall, until the expiration of three (3) years after final payment of the agreed rental, have access to and the right to examine any directly pertinent books, documents, papers and records of the Commonwealth involving transactions related to this lease.

20. It is understood and agreed that the Government may, from time-to-time, undertake construction projects on the leased premises and that the Commonwealth may, from time-to-time, undertake construction on Commonwealth property at Fort Indiantown Gap. The parties agree to coordinate all such construction in advance with each other. The parties agree to cooperate with each other in development and implementation of an installation master plan.

21. DISPUTES. It is agreed that the parties shall endeavor in good faith to resolve any disputes concerning the interpretation or implementation of this lease at the lowest possible level. In the event any disputes arise between the Post Commander, Fort Indiantown Gap, and the Adjutant General of Pennsylvania concerning use of lands at Fort Indiantown Gap which cannot be resolved at the local level or by the mediation of the Corps of Engineers or First U.S. Army, they will be submitted to the Secretary of the Army for resolution, provided, however, that nothing in this clause shall be construed to abrogate or diminish the right of the Commonwealth to take appropriate action in the event of violation of the terms and conditions hereof.

22. It is agreed that the Government, through the U.S. Army Garrison, Fort Indiantown Gap, will provide electrical, water, sewer and refuse collection services to state owned and controlled facilities and federally-owned state-used facilities at Fort Indiantown Gap and that the Commonwealth or the Pennsylvania National Guard shall reimburse the Government for such services at such rates as are paid by the Government.

23. The Commonwealth has long-range plans for permanent construction of a Pennsylvania National Guard training facility in that portion of the leased premises known as Area 14, Fort Indiantown Gap. Notwithstanding the provisions of Paragraph 3 (relating to the term of the lease) and Paragraph 7 (relating to termination

of the lease), it is understood and agreed that the term of the lease with respect to the area known as Area 14 shall terminate when the following conditions are met:

a. Adequate funds are appropriated by the U.S. Government so that Post and health clinic operations presently conducted in Area 14 can relocate to suitable facilities at Fort Indiantown Gap.

b. The requirements of the U.S. Army Health Services Command, which has a mobilization mission to provide a hospital at Fort Indiantown Gap, are satisfied. These requirements may be met by leaving sufficient existing buildings intact for this purpose or by offering any new buildings constructed by the Commonwealth to the USAHSC for use for this purpose the event of mobilization.

After the foregoing conditions are satisfied and the lease of Area 14 terminated, the Commonwealth will permit the Government to use all or part of Area 14 until the Commonwealth needs to take possession and control for construction of the training facility. It is anticipated that development and construction of the training facility will take place over a period of years, and that the Government will maintain use of the those portions of the premises not required for development and construction of the training facility. It is understood and agreed that, in the event of mobilization, the Commonwealth shall surrender to the Government full use and control of all or such part of Area 14, including Commonwealth constructed National Guard facilities, as the Government shall certify that it needs to respond to mobilization requirements. The lands and buildings shall revert to Commonwealth control when the Government no longer needs them for mobilization purposes. In the development of its plans for a Pennsylvania National Guard training facility in Area 14, the Commonwealth agrees to consult with the Commander, USAG, FIG, the Installation Master Planning Board, the U.S. Army Health Services Command, and such other Army agencies as may have an interest in Area 14. Such consultation shall include the opportunity to review plans and provide comments, review and concurrence on all aspects of the proposed project.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals as of the date first written above:

ATTEST:

COMMONWEALTH OF PENNSYLVANIA

David L. Jannetta
Secretary
Department of General Services

The Adjutant General
Department of Military Affairs

Approved:

David L. Jannetta
for Governor Casey

THE UNITED STATES OF AMERICA

BY:

Approved as to legality and form:

Chief Counsel, DGS 4/20

Chief Counsel, DMA

Office of General Counsel

Office of Attorney General

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG

January 5, 1988

I, Robert P. Casey, hereby authorize David L. Jannetta, Acting Secretary of the Department of General Services, to execute on my behalf documents of the Department of General Services listed below:

Deeds	Demolition of Buildings
Leases	Printing Estimates
Licenses	Paper Contracts
Easements	Indentures
Rights-of-Way	Yearly Bid Contracts
Sales Agreements	Legislatively Mandated Conveyances

Robert Casey

Robert P. Casey

W-7028-QM-33

O.J. 26-17

LEASE

BETWEEN

The Commonwealth of Pennsylvania by the Department of Property and Supplies, as agent for the Department of Military Affairs.

AND

THE UNITED STATES OF AMERICA

1. THIS LEASE, made and entered into this 1st day of October in the year one thousand nine hundred and Forty-one (1941) by and between The Commonwealth of Pennsylvania by the Department of Property and Supplies, as Agent for the Department of Military Affairs, whose address is Harrisburg, Pennsylvania for its heirs, executors, administrators, successors and assigns, hereinafter called the Lessor, and THE UNITED STATES OF AMERICA, hereinafter called the Government:

WITNESSETH: The parties hereto for the considerations hereinafter mentioned covenant and agree as follows:

2. The Lessor hereby leases to the Government the following described premises, viz: Indiantown Gap Reservation, Indiantown Gap, Pennsylvania, consisting of approximately 14,638 acres of land in East Hanover Township, Dauphin County, Pennsylvania and Union and East Hanover Townships, Lebanon County, Pennsylvania, together with all the buildings and improvements thereon, except Warehouse Nos. 1082 and 1083 which are reserved for the use of the State of Pennsylvania; also residences Nos. 00, 01, 02, B, F, I, J, K, L, M, N, O, P, Q, S, T, U, V, W, AA, BB, YY, ZZ and XX, and the Carpenter Shop No. 1091, Garage No. 84 and the Church No. 1105.

In the event that the two above mentioned warehouses are not required for the use of the State of Pennsylvania, then the Federal Government shall have the right to use the same. Exception: The right to train the P.H.D.C. and the Pennsylvania Motor Police. This training subject to mutual agreement between the Federal Government and the Commonwealth of Pa. The right to erect and use an office building by the Comm. of Pa. on the Pa. Military Reservation. The exemption of all barns used to store State property on the Reservation. to be used exclusively for the following purposes (see instruction No. 3):

Training camp for United States troops.

3. TO HAVE AND TO HOLD the said premises with their appurtenances for the term beginning October 1st, 1941 and ending with June 30, 1942.

The supplies and services to be obtained by this instrument are authorized by and for the purposes set forth in, and are chargeable to Procurement Authority QM 3423 P11-11 A 0535-2 The available balance pertaining hereto to cover the cost of same is $

4. The Government shall not assign this lease in any event, and shall not sublet the demised premises except to a desirable tenant, and for a similar purpose, and will not permit the use of said premises by anyone other than the Government, such sublessee, and the agents and servants of the Government, or of such sublessee.

5. This lease may, at the option of the Government, be renewed from year to year at a rental of One Dollar ($1.00) per year,

and otherwise upon the terms and conditions herein specified, provided notice be given in writing to the Lessor at least 30 days before this lease or any renewal thereof would otherwise expire; Provided that no renewal thereof shall extend the period of occupancy of the premises beyond the 30th day of June, 1967.

6. The Lessor shall furnish to the Government, during the occupancy of said premises, under the terms of this lease, as part of the rental consideration, the following:

7. The Government shall pay the Lessor for the premises rent at the following rate:

$1.00 for the period beginning October 1, 1941 and ending June 30, 1942, and $1.00 per year for any renewal thereof.

Payment shall be made at the end of each Fiscal Year by Finance Officer, Philadelphia, Pennsylvania

8. The Government shall have the right, during the existence of this lease, to make alterations, attach fixtures, and erect additions, structures, or signs, in or upon the premises hereby leased (provided such alterations, additions, structures, or signs shall not be detrimental to or inconsistent with the rights granted to other tenants on the property or in the building in which said premises are located); which fixtures, additions, or structures so placed in or upon or attached to the said premises shall be and remain the property of the Government and may be removed therefrom by the Government prior to the termination of this lease, and the Government, if required by the Lessor, shall, before the expiration of this lease or renewal thereof, restore the premises to the same condition as that existing at the time of entering upon the same under this lease, reasonable and ordinary wear and tear and damages by the elements or by circumstances over which the Government has no control, excepted: Provided, however, that if the Lessor requires such restoration, the Lessor shall give written notice thereof to the Government 90 days before the termination of the lease.

This paragraph is also applicable to improvements heretofore constructed on the demised premises by the Government.

INSTRUCTIONS TO BE OBSERVED IN EXECUTING LEASE

1. This standard form of lease shall be used whenever the Government is the lessee of real property; except that when the total consideration does not exceed $100 and the term of the lease does not exceed 1 year the use of this form is optional. In all cases where the rental to be paid exceeds $2,000 per annum the annual rental shall not exceed 15 per centum of the fair market value of the rented premises at the date of lease. Alterations, improvements, and repairs of the rented premises by the Government shall not exceed 25 per centum of the amount of the rent for the first year of the rental term or for the rental term if less than 1 year.

2. The lease shall be dated and the full name and address of the lessor clearly written in paragraph 1.

3. The premises shall be fully described, and, in case of rooms, the floor and room number of each room given. The language inserted at the end of article 2 of the lease should specify only the general nature of the use; that is, "office quarters," "storage space," etc.

4. Whenever the lease is executed by an attorney, agent, or trustee on behalf of the lessor, two authenticated copies of his power of attorney, or other evidence to act on behalf of the lessor, shall accompany the lease.

5. When the lessor is a partnership, the names of the partners composing the firm shall be stated in the body of the lease. The lease shall be signed with the partnership name, followed by the name of the partner signing the same.

6. Where the lessor is a corporation, the lease shall be signed with the corporate name, followed by the signature and title of the officer or other person signing the lease on its behalf, duly attested, and, if requested by the Government, evidence of his authority so to act shall be furnished.

7. Under paragraph 6 of the lease insert necessary facilities to be furnished, such as heat, light, janitor service, etc.

8. There shall be no deviation from this form without prior authorization by the Director of Procurement, except—

(*a*) Paragraph 3 may be drafted to cover a monthly tenancy or other period less than a year.

(*b*) In paragraph 5, if a renewal for a specified period other than a year, or for a period optional with the Government is desired, the phrase "from year to year" shall be deleted and proper substitution made. If the right of renewal is not desired or cannot be secured paragraph 5 may be deleted.

(*c*) Paragraph 6 may be deleted if the owner is not to furnish additional facilities.

(*d*) If the premises are suitable without alterations, etc., paragraph 8 may be deleted.

(*e*) Paragraph 9 provides that the lessor shall, "*unless herein specified* to the contrary, maintain the said premises in good repair, etc." A modification or elimination of this requirement would not therefore be a deviation.

(*f*) In case the premises consist of unimproved land, paragraph 10 may be deleted.

(*g*) When executing leases covering premises in foreign countries, departure from the standard form is permissible to the extent necessary to conform to local laws, customs, or practices.

(*h*) Additional provisions, relating to the particular subject matter mutually agreed upon, may be inserted, if not in conflict with the standard provisions, including a mutual right to terminate the lease upon a stated number of days' notice, but to permit only the lessor so to terminate would be a deviation requiring approval as above provided.

9. When deletions or other alterations are permitted specific notation thereof shall be entered in the blank space following paragraph 11 before signing.

10. If the property leased is located in a State requiring the recording of leases in order to protect the tenant's rights, care should be taken to comply with all such statutory requirements.

U. S. GOVERNMENT PRINTING OFFICE 10—1500

9. The Lessor shall, unless herein specified to the contrary, maintain the said premises in good repair and tenantable condition during the continuance of this lease, except in case of damage arising from the act or the negligence of the Government's agents or employees. For the purpose of so maintaining the premises, the Lessor reserves the right at reasonable times to enter and inspect the premises and to make any necessary repairs thereto.

10. If the said premises be destroyed by fire or other casualty this lease shall immediately terminate. In case of partial destruction or damage, so as to render the premises untenantable, either party may terminate the lease by giving written notice to the other within fifteen days thereafter, and if so terminated no rent shall accrue to the Lessor after such partial destruction or damage.

11. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefit to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the lease be for the general benefit of such corporation or company.

12. The lessor hereby reserves the right to use the premises to train an organization that may be organized to take the place of the Pennsylvania National Guard; also, the Pennsylvania Motor Police. This training subject to mutual agreement between the Federal Government and the Commonwealth of Pennsylvania.

The lessor executes this lease in accordance with authority granted by Act of Legislature No. 171, Clause (n), approved the 21st day of July, A. D. 1941.

Last two lines of Paragraph 8 and Paragraph 12 added before execution.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names as of the date first above written.

COMMONWEALTH OF PENNSYLVANIA

In presence of:

Department of Property and Supplies

BY Walter S. Hatt

Secretary of the Department of Property and Supplies as agent for Department of Military Affairs.
Lessor.

(Address)

Approved 9/24, 1941.

UNITED STATES OF AMERICA,

Arthur H. James
Arthur H. James, Governor

By J. H. Burgheim
J. H. Burgheim, Lt. Colonel, Q.M.C.,
Zone Constructing Quartermaster.

Approved , 1941.

Acting Adjutant General of State
(Official title)

Approved as to form
Deputy Attorney General

(If Lessor is a corporation, the following certificate shall be executed by the secretary or assistant secretary.)

I, _____, certify that I am the _____

Secretary of the corporation named as Lessor in the attached lease; that _____

_____, who signed said lease on behalf of the Lessor, was then

_____ of said corporation; that said lease was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____ [CORPORATE SEAL]

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
U. S. ARMY ENGINEER DIVISION, NORTH ATLANTIC
U. S. ARMY ENGINEER DISTRICT, BALTIMORE

NO. DA-18-020-ENG-1865

LEASE
BETWEEN

COMMONWEALTH OF PENNSYLVANIA
by the DEPARTMENT OF PROPERTY AND SUPPLIES
as Agent for the DEPARTMENT OF MILITARY AFFAIRS

and

THE UNITED STATES OF AMERICA

1. This LEASE, made and entered into this 16th day of September in the year one thousand nine hundred and sixty-three (1963), by and between the COMMONWEALTH OF PENNSYLVANIA, by the Department of Property and Supplies, as Agent for the Department of Military Affairs, whose address is State Capitol, Harrisburg, Pennsylvania, and whose interest in the property hereinafter described is that of Lessor for itself and its assigns, hereinafter called the Lessor, and THE UNITED STATES OF AMERICA, hereinafter called the Lessee:

WITNESSETH: The parties hereto for the considerations hereinafter mentioned covenant and agree as follows:

2. Effective as of the date specified in provision 7 hereof this lease supersedes and nullifies Lease No. W-7028-QM-33 dated 1 October 1941 and subsequent Supplemental Agreements Numbers 1 through 11 thereto.

3. The Lessor hereby leases to the Lessee, for construction, operation and maintenance of a training camp for United States troops, all those certain portions of the Indiantown Gap Military Reservation, situate in East Hanover Townships, Dauphin County; and in Union, Cold Spring and East Hanover Townships, Lebanon County, Pennsylvania, comprising a total net area of 18,565.32 acres of land, more or less, as delineated on Exhibit "A" hereto, together with buildings coded as follows on Exhibit "B" hereto:

CODE	DESCRIPTION
A-1	One (1) building (HANGAR: S-9-80).
A-2	One (1) building (GATE HOUSE: S-17-51) transferred to Lessor by Lessee under S/A No. 1, as amended by S/A No. 2, to Lease W-7028-QM-33.
A-3	One (1) building (ADMINISTRATION: S-5-116) transferred to Lessor by Lessee under S/A No. 3 to Lease W-7028-QM-33.
A-4	One (1) building (OLD CHURCH: S-9-79 (old 1103)) which was reserved for use by Lessor in Lease W-7028-QM-33 but leased to Lessee under S/A No. 8 to Lease W-7028-QM-33.
A-5	One (1) building (LATRINE: S-11-36) returned to Lessor by Lessee under S/A No. 10 to Lease W-7028-QM-33.
A-6	One (1) building (RANGE HOUSE: S-24-43 (old U.U.U.)) returned to Lessor by Lessee under S/A No. 10 to Lease W-7028-QM-33.
A-7	One (1) building (QUARTERS: 4 (old N)) made available for use by Lessee under S/A No. 11 to Lease W-7028-QM-33.

4. The Lessor hereby reserves for its use exclusive of the total net area of 18,565.32 acres those portions of the Indiantown Gap Military Reservation comprising the Lessor-owned lands delineated on Exhibits "A" and "B" hereto, totaling 620.83 acres, more or less, and buildings and utilities coded as follows on said Exhibit "B";

CODE	DESCRIPTION

B-1 - Nineteen (~~19~~ 18) family units, each including dwelling and outbuildings (QUARTERS: 11, 12, 21, 22, 23, 24, 26, 27, 28A, 28B, 29, 30, 32, 33, 35, 37, 38, 40, 41 (old FF, GG, DD, B, A, CC, E, F, I, J, K, L, Q, S, U, V, W, BB, AA, respectively)) which were reserved for use by Lessor in Lease W-7028-QM-33, with underlying and surrounding land (average of 0.50 of an acre for each unit) totaling approximately 9.50 acres. See Exhibit "C" for details.

(NOTE: Lease W-7028-QM-33 also reserved Quarters M, N, O, D2, P, T and II for use by Lessor; M, O, II have been renumbered 5, 3, 14, and are excepted from new 1963 lease; N has been renumbered 4 and made available for use by Lessee under S/A No. 11 to Lease W-7028-QM-33 - see Codes B-4 and B-5 below; D2, P and T have been demolished.)

B-2 - Seventeen (~~17~~ 12) family units, each including dwelling and outbuildings (QUARTERS: 6A, 6B, 7, 8, 10, 13, 15A, 15B, 16, 17, 18, 19, 20A, 20B, 34, 36, 42) with underlying and surrounding land (average of 0.50 of an acre for each unit) totaling approximately 8.5 acres. See Exhibit "C" for details.

B-3 - One (1) unnumbered building (THE SCHOOL HOUSE) with underlying land containing 0.50 acres. See Exhibit "C" for details.

B-4 - Three (3) family units, each including dwelling and outbuildings (QUARTERS: 2 (old AAA - Governor's Home), and 5, 3 (old M, O)) which were reserved for use by Lessor in Lease W-7028-QM-33, with underlying and surrounding land comprising approximately 50.00 acres (Governor's Home Area - adjacent to Areas 8, 9 and 11).

(NOTE: Included within the said 50.00 acre area is one (1) family unit (QUARTERS: 4 (old N)) which was reserved for use by the Lessor in said Lease W-7028-QM-33, but which was made available for use by Lessee under S/A No. 11 to Lease W-7028-QM-33.)

B-5 - One (~~1~~ 0) family unit, including dwelling and outbuildings (QUARTERS: 14 (old II)) which was reserved for use by Lessor in Lease W-7028-QM-33, with underlying and surrounding land comprising approximately 99.60 acres (State Memorial Lake Area - adjacent to Areas 14 and 18).

Trans

B-1 - qtrs - 41 - demolished - 11/6/69 3
B-2 - " - 8 - demolished - 3/13/64
B-2 - " - 15A + 15B - Changed to one unit - 3/1/70
B-2 - " - 16 - to be demolished on or 4/29/70
B-2 - " - 13 - demolished - 11/20/69
B-2 - " - 42 - demolished - date unknown
B-2 - " - 14 - given over to State Forestry - water - 1965 (to life easement)
B-5 - " - 2 - to be demolished - early 1971

CODE	DESCRIPTION

B-6 - Two (2) family units, each including dwelling and outbuildings, and four (4) miscellaneous buildings (QUARTERS: 1 (old BBB), 9 (old UU); MISCELLANEOUS: Bomgardner Barn, Yorty Barn, Wagon Shed, 2-car Garage) with underlying and surrounding land comprising approximately 264.00 acres (State Memorial Lake Area - adjacent to Areas 14 and 18).

B-7 - Land comprising approximately 67.30 acres (Lessor's Motor Vehicle Compound - adjacent to Area 10, between Clement Avenue and Range Road). No buildings involved.

B-8 - Two (2) buildings (WAREHOUSES: 11-64 (old 1082), 11-65 (old 1083)) which were reserved for use by Lessor in Lease W-7028-QM-33, with underlying and surrounding land (average of 0.50 of an acre for each building) totaling approximately 1.00 acre.

B-9 - Fifty (50) buildings (BATH HOUSE & STORAGE: S-17-1; BARRACKS: S-17-2, S-17-3, S-17-5, S-17-6, S-17-8, S-17-9, S-17-12, S-17-17, S-17-18, S-17-20, S-17-21, S-17-23, S-17-24, S-17-25, S-17-26, S-17-27, S-17-28, S-17-29, S-17-30, S-17-32; RECREATION HALLS: S-17-4, S-17-33; LAVATORIES: S-17-7, S-17-19, S-17-31; MESS HALLS: S-17-10, S-17-11, S-17-14, S-17-15; ADMINISTRATION: S-17-13, S-17-46; KITCHEN STORAGE: S-17-16; INFIRMARY: S-17-22; FIRE HOSE SHEDS: S-17-34, S-17-35; PAINT SHED: S-17-36; SHEDS: S-17-37, S-17-40, S-17-41, S-17-42, S-17-43, S-17-44; GREASE RACK: S-17-38; GARAGE: S-17-39; OFFICE: S-17-45; WAREHOUSE: S-17-47; POST EXCHANGE: S-17-48; GUARD BUILDING: S-17-49; CARPENTER SHOP: S-17-50) and all utilities transferred to Lessor and approximately 48.00 acres of land surrendered to Lessor by Lessee under S/A No. 1, as amended by S/A No. 2, to Lease W-7028-QM-33.

(NOTE: S/As Nos. 1 and 2 actually included a total of 99.00 acres, approximately 51.00 acres of which are available for use by Lessee under new 1963 lease, and included building S-17-51, which is also available for use by Lessee under said new 1963 lease - see Code A-2 above).

B-10 - One (1) building (ADMINISTRATION: S-5-115) transferred to Lessor and 2.89 acres of land surrendered to Lessor by Lessee under S/A No. 3 to Lease W-7028-QM-33.

NOTE: S/A No. 3 also included building S-5-116 and 3.13 acres of land, which are available for use by Lessee under new 1963 Lease - see Code A-3 above).

Time
B-6 - Mich. Bomgardner Barn - demolished - 1966
B-10 - Bldg S-5-115 - To Lessor under Agreement # 1 - 2/28/1966
B-6 - Qtrs 9 - To Lessor - 1971

CODE	DESCRIPTION

B-11 - One (1) building (QUARTERS: 31 (old EEE, former Red Cross Building)) transferred to Lessor by American National Red Cross, and 2.15 acres of land surrendered to Lessor by Lessee under S/A No. 4 to Lease W-7028-QM-33.

B-12 - Eight (8) buildings (WAREHOUSES: S-11-59, S-11-63, S-11-69, S-11-75 (replaced Carpenter Shop, old 1091, which was reserved for use by Lessor in Lease W-7028-QM-33), S-11-77, S-11-78, S-11-79, S-24-47) built by Lessor on 1.80 acres of land, consisting of nine (9) parcels, surrendered to Lessor by Lessee under S/A No. 5 to Lease W-7028-QM-33.

(NOTE: Building T-11-37, transferred to Lessor under S/A No. 5, was demolished to make way for new construction).

B-13 - Six (6) buildings (SHOPS: 10-102, 10-105; OIL HOUSE: 10-103; WAREHOUSE: 10-104; BOILER HOUSE: 10-106; OFFICE: 10-107) built by Lessor on 4.04 acres of land surrendered to Lessor by Lessee under S/A No. 6 to Lease W-7028-QM-33.

B-14 - Seventy-one (71) buildings (GUARDHOUSE: S-16-2; BOQ: S-16-6, S-16-7, S-16-8, S-16-9, S-16-14, S-16-15, S-16-16, S-16-17, S-16-18, S-16-19; BARRACKS: S-16-20, S-16-21, S-16-22, S-16-23, S-16-24, S-16-30, S-16-31, S-16-32, S-16-33, S-16-34, S-16-37, S-16-38, S-16-39, S-16-40, S-16-41, S-16-46, S-16-47, S-16-48, S-16-49, S-16-50, S-16-55, S-16-56, S-16-57, S-16-59, S-16-60, S-16-64, S-16-65, S-16-66, S-16-67, S-16-68, S-16-71, S-16-74, S-16-75, S-16-76, S-16-77, S-16-78, S-16-85, S-16-86, S-16-87, S-16-88, S-16-89, S-16-91, S-16-92, S-16-93, S-16-95, S-16-113, S-16-114, S-16-116, S-16-117, S-16-118, S-16-121, S-16-122, S-16-124, S-16-125, S-16-127, S-16-132, S-16-133, S-16-134, S-16-136, S-16-137) transferred to Lessor in May 1948 by War Assets Administration.

(NOTE: These buildings were made available for use by Lessee under S/A No. 7 to Lease W-7028-QM-33 but are excepted from new 1963 lease. They are located within the land area excepted from new 1963 lease under Code B-16 below).

Letters

v B-11 - Quarters-31 - Ex Army-Cal. Quartermaster-5-3/1/1948

CODE	DESCRIPTION

B-15 - Eleven (11) buildings (WAREHOUSE: 11-66 (old 1084); CLOTHING AND EQUIPMENT: 11-62, 11-67; SHOP: 11-74; STORAGE: S-11-81, S-11-82, S-11-83, S-11-84, S-11-85, S-11-86, S-11-87) returned to Lessor by Lessee under S/A No. 10 to Lease W-7028-QM-33, with underlying and surrounding land (average of 0.25 of an acre for each building) totaling approximately 2.75 acres.

(NOTE: Warehouse 11-66 (old 1084) was reserved for use by Lessor in Lease W-7028-QM-33 under designation "Garage No. 84"; there are no records to show when and how Lessee obtained the use of this building. The status of buildings S-11-36, S-24-43 (old U.U.U.), S-11-59, S-11-63, S-11-69; S-11-77, S-11-78, S-11-79, also returned to Lessor under S/A No. 10 to Lease W-7028-QM-33, is as follows: S-11-36 and S-24-43 (old U.U.U.), available for use by Lessee under new 1962 lease - see Codes A-5 and A-6 above; S-11-59, S-11-63, S-11-69, S-11-77, S-11-78, S-11-79, excepted from new 1963 lease - see Code B-12 above. There are no records to show when and how Lessee obtained use of buildings S-11-59, S-11-63, S-11-69, S-11-77, S-11-78, S-11-79 between completion of construction by Lessor and execution of said S/A No. 10 by which the buildings were returned to Lessor by Lessee).

B-16 - Fifty-nine (59) buildings (STOREHOUSE: S-16-1; INFIRMARY: S-16-3; ADMINISTRATION: S-16-4, S-16-53, S-16-79, S-16-128; POST EXCHANGE: S-16-5; LAVATORY: S-16-10, S-16-11, S-16-12, S-16-26, S-16-29; S-16-42, S-16-45, S-16-58, S-16-62, S-16-81, S-16-82, S-16-94, S-16-100, S-16-108, S-16-115, S-16-123, S-16-135; MESS, OFFICERS: S-16-13; MESS HALL, EM: S-16-25, S-16-35, S-16-36, S-16-51, S-16-61, S-16-63, S-16-72, S-16-73, S-16-90, S-16-103, S-16-104, S-16-119, S-16-120, S-16-131; STOREHOUSE & CO. ADMIN: S-16-27, S-16-28, S-16-43, S-16-44, S-16-54, S-16-69, S-16-70, S-16-80, S-16-83, S-16-97, S-16-111, S-16-112, S-16-126, S-16-130; RECREATION: S-16-52, S-16-84, S-16-129; CLASS ROOM: S-16-138, S-16-139, S-16-140) and all utilities transferred to Lessor under provision 6 below, with underlying and surrounding land comprising approximately 46.00 acres.

B-17 - Land comprising approximately 10.30 acres in Area No. 0, adjacent to Fisher Avenue and Wiley Road, for construction of a building.

5. The Lessor hereby further reserves the right to use the Indiantown Gap Military Reservation for the training of the Pennsylvania National Guard and any other State military force and the Pennsylvania State Police, subject to mutual agreement between local representatives of the parties hereto.

6. The Lessee hereby transfers to the Lessor, and the Lessor hereby accepts, custody of and ownership responsibility for the following listed fifty-nine (59) buildings and all utilities within a 46.00 acre portion of Area 16, coded B-16 in provision 4 hereof and on Exhibit "B" hereto, in lieu of removal thereof and restoration of the premises by the Lessee, which buildings are excepted from this lease: STOREHOUSE: S-16-1; INFIRMARY: S-16-3; ADMINISTRATION: S-16-4, S-16-53, S-16-79, S-16-128; POST EXCHANGE: S-16-5; LAVATORY: S-16-10, S-16-11, S-16-12, S-16-26, S-16-29, S-16-42, S-16-45, S-16-58, S-16-62, S-16-81, S-16-82, S-16-94, S-16-100, S-16-108, S-16-115, S-16-123, S-16-135; MESS, OFFICERS: S-16-13; MESS HALL, EM: S-16-25, S-16-35, S-16-36, S-16-51, S-16-61, S-16-63, S-16-72, S-16-73, S-16-90, S-16-103, S-16-104, S-16-119, S-16-120, S-16-131; STOREHOUSE & CO. ADMIN: S-16-27, S-16-28, S-16-43, S-16-44, S-16-54, S-16-69, S-16-70, S-16-80, S-16-83, S-16-97, S-16-111, S-16-112, S-16-126, S-16-130; RECREATION: S-16-52, S-16-84, S-16-129; CLASS ROOM: S-16-138, S-16-139, S-16-140.

7. TO HAVE AND TO HOLD THE said premises with their appuretnances for the term beginning 1 July 1963 through 30 June 1964, provided that, unless and until the Lessee or the Lessor shall give notice of termination in accordance with provision 13 hereof, this lease shall remain in force thereafter from year to year without further notice, and provided further that this lease shall in no event extend beyond 30 June 1989.

8. The Lessee shall pay to the Lessor rent at the following rate: One Dollar ($1.00) for the entire term of this lease, the receipt and sufficiency of which are hereby acknowledged.

9. The Lessee shall not assign this lease in any event, and shall not sublet the demised premises or any part thereof, without the previous written approval of the Lessor and will not permit the use of said premises by anyone other than the Lessee, its agents and servants, without such written approval. In case of such approved sublease, the Lessee shall remain liable for all covenants and undertakings herein contained, except for such covenants or undertakings which are expressly released by the Lessor.

10. The Lessor hereby remises, releases and forever discharges the Lessee, its officers, agents and employees of and from any and all manner of actions, liability and claims, which the Lessor may now have or shall hereafter have against the Lessee, its officers, agents and employees, for (1) restoration of Lessor-owned buildings and utilities used by the Lessee and heretofore surrendered to the Lessor, (2) removal of buildings and utilities constructed by the Lessee and heretofore or hereby transferred to the Lessor, and restoration of underlying and adjacent land areas, and (3) restoration of land areas, heretofore and hereby surrendered to the Lessor, or by reason of any matter, cause or thing whatsoever particularly arising out of the use and occupancy of said Lessor-owned buildings and utilities; the construction of buildings and utilities heretofore and hereby transferred to the Lessor; and the use of lands heretofore and hereby surrendered to the Lessor.

11. If the Lessor desires that the Lessee supply utilities and other services for the use of the Lessor, then the Lessor shall enter into contracts with the contracting officer of the Army having authority to execute contracts for the sale of said services, including but not limited to electric energy, water and sewage services, said contracts to be prepared in accordance with the provisions of applicable Army Regulations and to be subject to review by the Commanding General, Second U. S. Army, and the Department of the Army Power Procurement Officer. The contracts shall provide that the Lessor shall pay the costs, as determined by said contracting officer, of producing and/or supplying such services, such costs to include the Lessor's proportionate share of the cost of operation and maintenance of the Lessee-owned facilities by which such utilities or services are produced or supplied, including the cost of installation of suitable metering devices and connections for measuring electric energy consumed, plus a percentage of the estimated cost of line losses, transformer losses, and street lighting, such percentage to be based on the relative consumption by the Lessor and the Lessee; and the cost of water and sewage services to be based on the relative strength of personnel engaged in activities, or occupying buildings, of the Lessor and the Lessee. The Lessee shall be under no obligation to furnish utilities or services. Payment shall be made in the manner prescribed by the said contracting officer upon bills rendered monthly. The determination of the rates and charges made hereunder shall be subject to study and review by the Lessor as to reasonableness. Within sixty (60) days after the rendering of such bills the Lessee will furnish, on demand, detailed and itemized data substantiating such rates and charges. Within ninety (90) days after the rendering of such bills, the Lessor may appeal such rates and charges to the Secretary of the Army or his designated representative.

12. The Lessee shall have the right, during the existence of this lease, to make alterations, attach fixtures, and erect additions, structures, or signs, in or upon the premises hereby leased (provided such alterations, additions, structures, or signs shall not be detrimental to or inconsistent with the rights granted to other tenants on the property or in the building in which said premises are located); which fixtures, additions, or structures so placed in or upon or attached to the said premises shall be and remain the property of the Lessee and may be removed therefrom by the Lessee prior to the termination of this lease, and the Lessee, if required by the Lessor, shall, before the expiration of this lease or renewal thereof, restore the premises to the same condition as that existing at the time of entering upon the same under preceding Lease No. W-7028-QM-33, reasonable and ordinary wear and tear and damages by the elements or by circumstances over which the Lessee has no control, excepted: Provided, however, that the Lessor shall be consulted prior to commencement of any work contemplated under this condition, and, Provided further, that if the Lessor requires restoration, the Lessor shall give written notice thereof to the Lessee ninety (90) days before the termination of the lease. This provision is also applicable to structures and facilities heretofore constructed on the demised premises by the Lessee, except those heretofore and hereby transferred to the Lessor in lieu of restoration.

13. If the said premises be destroyed by fire or other casualty this lease shall immediately terminate. In case of partial destruction or

damage, so as to render the premises untenable, either party may terminate the lease by giving written notice to the other within fifteen (15) days thereafter.

14. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefit to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the lease be for the general benefit of such corporation or company.

IN WITNESS WHEREOF, the parties hereunto have subscribed their names as of the date first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

COMMONWEALTH OF PENNSYLVANIA
Department of Property & Supplies,
Acting for and as Agent of the
Department of Military Affairs

By: _____
Deputy Secretary of Property & Supplies

APPROVED:

Department of Military Affairs
By the Adjutant General of
Pennsylvania

THE UNITED STATES OF AMERICA

By: _____
JOSEPH W. FEHER
Chief, Real Estate Division
U. S. Army Engineer District, Baltimore

APPROVED AS TO FORM AND
MANNER OF EXECUTION:

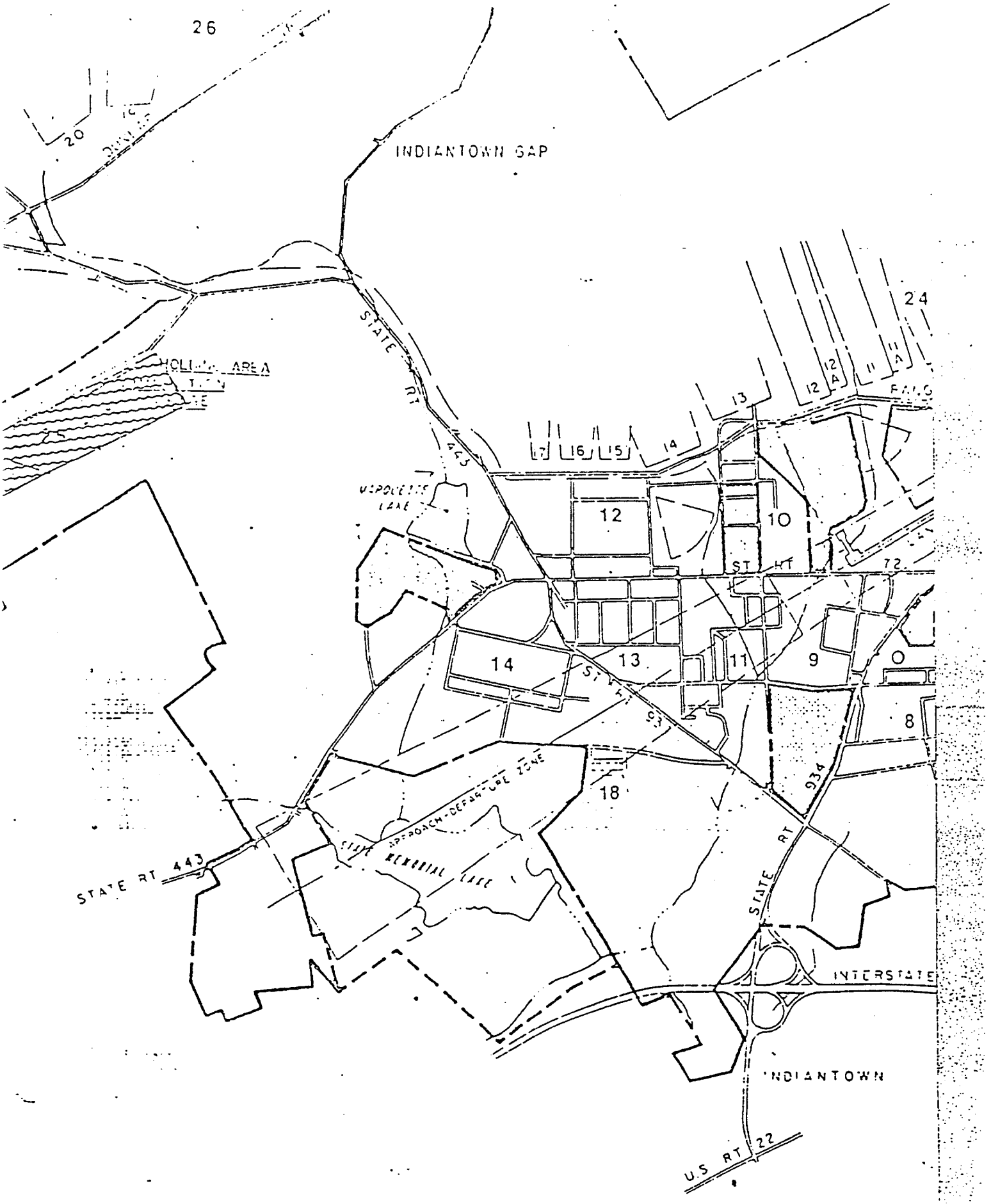
Raymond Mills
Dep. Atty. Gen.
Attorney ~~General~~

APPROVED:

William W. Scranton

Governor

This lease has been executed by the Lessor in accordance with authority granted by ~~Act of Legislature No. , Clause , approved the day of , A.D. 19 .~~ Section 2402(n) of the Administrative Code of 1929, the Act of April 9, 1929, P.L. 177, as last amended by the Act of March 28, 1961 P.L. 66


INDIANTOWN GAP
STATE RT 443
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INTERSTATE
INDIANTOWN
U.S RT 22
STATE RT 443

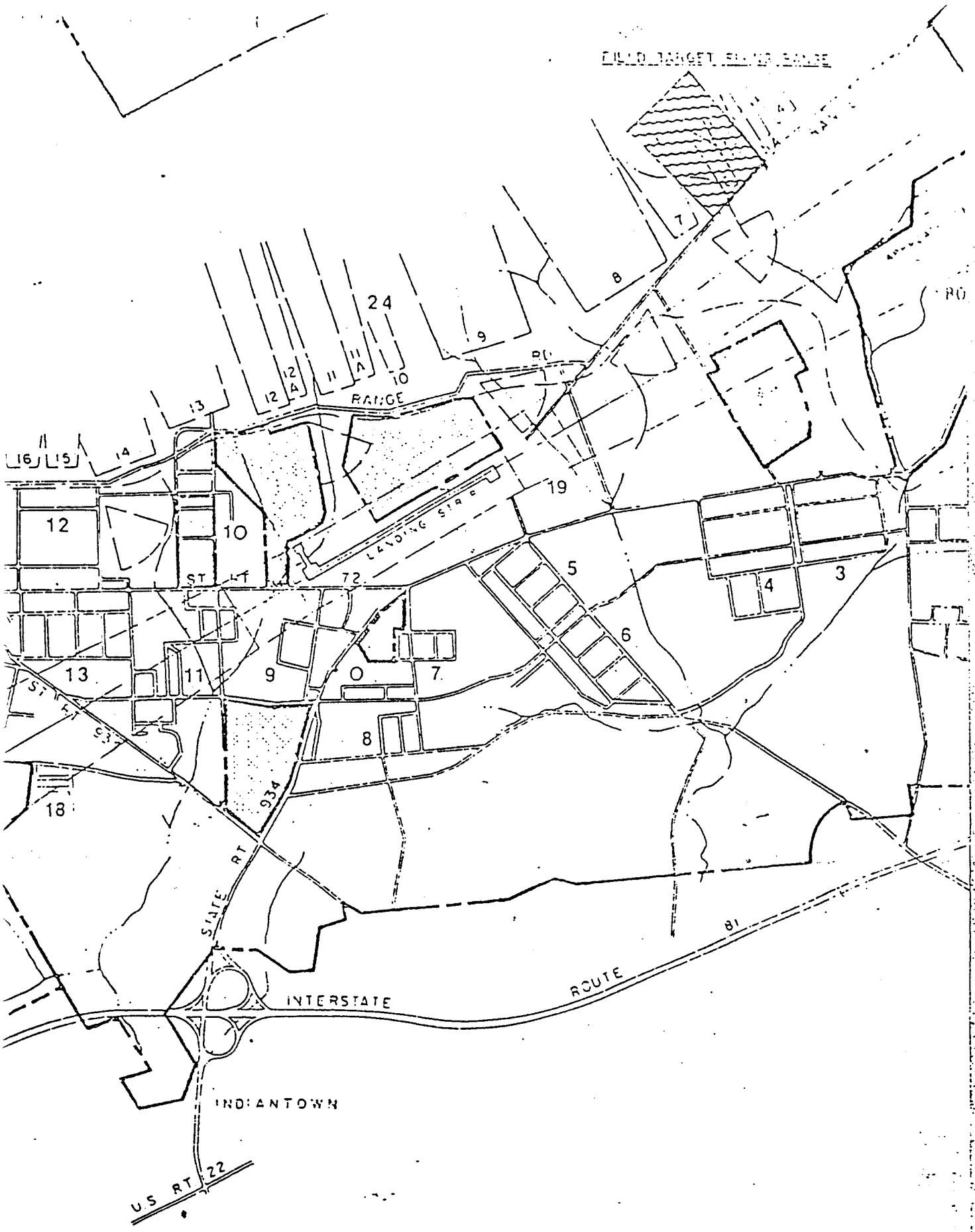
FIELD TARGET FIRING RANGE
24
RANGE
LANDING STRIP
INTERSTATE ROUTE 81
STATE RT 934
INDIANTOWN
U.S RT 22

EXHIBIT "A"
TO NEW 1963 Lease
BETWEEN
COMMONWEALTH OF PENNSYLVANIA
by the DEPARTMENT OF PROPERTY AND SUPPLIES
AS Agent for the Department of Military Affairs
AND
UNITED STATES OF AMERICA
FOR THE USE OF CERTAIN LAND AND BUILDINGS ON THE
INDIANTOWN GAP MILITARY RESERVATION

RED — Existing Boundary line of Indiantown Gap Military Reservation, approximately 19,186.15 acres, Lessor-owned.

YELLOW — Original boundary line of Indiantown Gap Military Reservation as of 1 October 1941, approximately 14,638.00 acres, Lessor-owned.

GREEN — Land excepted from new 1963 lease, approximately 620.83 acres. See Exhibit "B" for additional details.

Total land leased to Government under new 1963 Lease (including approximately 16.70 acres made available for use by the Government under S/A No. 9 to Lease W-7028-QM-33 for establishment of a trailer court) - 19,186.15 minue 620.83 = 18,565.32 acres, more or less.

BLUE — Existing boundary line of Indiantown Gap Military Reservation Railhead, Lickdale, Pennsylvania, approximately 64.298 acres, Government-owned. NOT INCLUDED IN LEASE.

BROWN — Land licensed to the Department of the Army by the Pennsylvania Game Commission for artillery firing, beginning 1 June 1955 for an indefinite term, approximately 264.00 acres within the Commission's Parcel No. 211. NOT INCLUDED IN LEASE.

5. A tract of land extending approx. 80 feet Northwest from dwelling, 8 feet Northeast to Asher Miner Road, 250 feet Southeast and 75 feet Southwest.

Buildings on this tract of land consist of the following:

QUARTERS-11 2-1/2 Story Frame Dwelling, 1-Car Garage and Barn.

6. A tract of land extending 53 feet West from dwelling to Sternberg Road, 43 feet Northeast, 25 feet Southeast and 14 feet Southwest to Boundary Road.

Buildings on this tract of land consist of the following:

QUARTERS-12 2-1/2 Story Frame Dwelling and 1-Car Garage.

7. A tract of land extending 42 feet Southwest from dwelling, 21 feet Northwest, 35 feet Northeast and 23 feet Southeast to Boundary Road.

Buildings on this tract of land consist of the following:

QUARTERS-13 2-1/2 Story Frame Dwelling and 1-Car Garage.

8. A tract of land extending 150 feet Southwest from dwelling, 300 feet Northwest, 300 feet Northeast and 30 feet Southeast to Penna. Route 443.

Buildings on this tract of land consist of the following:

QUARTERS-15 A and B 2-1/2 Story Stone Double Dwelling, 2-Car Garage and Barn.

9. A tract of land extending 300 feet West from dwelling, 300 feet North, 200 feet East and 150 feet South to Range Road.

Buildings on this tract of land consist of the following:

QUARTERS-16 2-1/2 Story Frame Dwelling; Wood Shed, Chicken House, Stable, School House, 2-Car Garage and Barn.

10. A tract of land extending 44 feet Southwest from dwelling, 210 feet Northwest, 255 feet Northeast and 75 feet Southeast to Clement Avenue.

Buildings on this tract of land consist of the following:

QUARTERS-17 2-1/2 Story Frame Dwelling, Work Shop Smoke House, Horticulutral Green House and Barn.

11. A tract of land extending 30 feet Northwest from dwelling, 150 feet Northeast, 12 feet Southeast and 50 feet Southwest.

Buildings on this tract of land consist of the following:

QUARTERS-18 2-1/2 Story Frame Dwelling, Stone Summer House and 3-Car Garage.

12. A tract of land extending 150 feet Southwest from dwelling, 50 feet Northwest, 25 feet Northeast to Asher Miner Road and 75 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-19 1-1/2 Story Frame Dwelling and 1-Car Garage.

13. A tract of land extending 100 feet Southwest from dwelling, 50 feet Northwest, 10 feet Northeast to Asher Miner Road and 25 Feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-20 A and B 2-1/2 Story Frame Double Dwelling and 2-Car Garage.

14. A tract of land extending 60 feet Southwest from dwelling, 40 feet Northwest, 25 feet Northeast to Asher Miner Road and 40 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-21 1-1/2 Story Frame Dwelling and 2-Car Garage.

15. A tract of land extending 46 feet Southeast from dwelling, 46 feet Northwest, 18 feet Northeast to Asher Miner Road and 32 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-22 1-1/2 Story Frame Dwelling and 2-Car Garage.

16. A tract of land extending 38 feet Southwest from dwelling, 32 feet Northwest, 25 Feet Northeast to Asher Miner Road and 50 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-23 1-1/2 Story Frame Dwelling and 2-Car Garage.

17. A tract of land extending 12 feet Southwest from dwelling, to Asher Miner Road, 52 feet Northwest, 50 feet Northeast and 48 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-24 1-1/2 Story Frame Dwelling and 2-Car Garage

18. A tract of land extending 32 feet Southwest from dwelling, 41 feet Northwest, 50 feet Northeast and 29 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-25 1-1/2 Story Frame and Log Dwelling.

19. A tract of land extending 75 feet West from dwelling, 75 feet North, 50 feet East and 50 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-26 2-1/2 Story Frame Dwelling, Stone Summer Kitchen and 1-Car Garage.

20. A tract of land extending 38 feet West from dwelling, 6 feet North to Clement Avenue, 40 feet East and 75 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-27 2-1/2 Story Frame Dwelling and 1-Car Garage.

21. A tract of land extending 32 feet West from dwelling to Utility Road, 11 feet North to Clement Avenue, 20 Feet East and 63 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-28 2-1/2 Story Frame Double Dwelling A and B

22. A tract of land extending 20 feet West from dwelling, 11 feet North to Clement Avenue, 20 feet East and 58 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-29 2-1/2 Story Frame Dwelling.

23. A tract of land extending 20 feet West from dwelling, 11 feet North to Clement Avenue, 35 feet East and 68 feet South.

BUILDINGS on this tract of land consist of the following:

QUARTERS-30 2-1/2 Story Frame Dwelling.

24. A tract of land extending 45 feet Southwest from dwelling, 51 feet Northwest to Fisher Avenue, 75 feet Northeast and 35 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-32 2-1/2 Story Frame Dwelling and 5-Car Garage.

25. A tract of land extending 150 feet Southwest from dwelling, 170 feet Northwest, 25 feet Northeast and 50 feet Southeast

Buildings on this tract of land consist of the following:

QUARTERS-33 2-1/2 Story Frame Dwelling, 2-Car Garage and Barn.

t of land extending 140 feet Southwest from dwelling, 40 feet
est, 50 feet Northeast and 50 feet Southeast.

NGS on this tract of land consist of the following:

ARTERS-40 2-1/2 Story Frame Dwelling, Summer Kitchen
and 1-Car Garage.

t of land extending 250 feet Southwest from dwelling, 100 feet
est, 25 feet Northeast and 200 feet Southeast.

ngs on this tract of land consist of the following: / AC

UARTERS-41 2-1/2 Story Frame Dwelling, Summer
kitchen and Barn.

of land extending 250 feet Southwest from dwelling, 50 feet
est, 55 feet Northeast to Quartermaster Road and 50 feet
st.

gs on this tract of land consist of the following:

ARTERS-42 1-Story Frame Dwelling and Former
School House.

of land extending 23 feet Southwest from building, 10 feet
st to Asher Miner Road, 43 feet Northeast and 20 feet Southeast.

gs on this tract of land consist of the following:

Single Story Frame Building (Originally known as the School House)

EXHIBIT "C"
TO NEW 1963 LEASE
BETWEEN
COMMONWEALTH OF PENNSYLVANIA
by the DEPARTMENT OF PROPERTY AND SUPPLIES
as Agent for the DEPARTMENT OF MILITARY AFFAIRS
AND
UNITED STATES OF AMERICA
FOR USE OF CERTAIN LAND AND BUILDINGS ON THE
INDIANTOWN GAP MILITARY RESERVATION

A tract of land extending 16 feet West from dwelling to Fisher Avenue, 183 feet North to Engineer Road, 275 feet East and 300 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-6 A and B — 2-1/2 Story Frame Double Dwelling, 2-Car Garage, and Barn.

A tract of land extending 36 feet West from dwelling to Penna. Route 343, 60 feet Northeast, 175 feet Southeast and 150 feet Southwest.

Buildings on this tract of land consist of the following:

QUARTERS - 7 — 2-1/2 Story Brick Dwelling, Wash House, Pump House, Work Shop, Chicken House, 2-Car Garage and Barn.

A tract of land extending 166 feet West from dwelling to Penna. Route 343, 180 feet North, 23 feet East and 21 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-8 — 2-1/2 Story Stone Dwelling, Pump House, Chicken House, Wagon Shed, Pig-Sty and Barn.

A tract of land extending 78 feet West from dwelling, 9 feet North to Asher Miner Road, 76 feet East to Intersection of Asher Miner Road and Boundary Road and 39 feet south to Boundary Road.

Buildings on this tract of land consist of the following:

QUARTERS-10 — 1-1/2 Story Log Dwelling.

5. A tract of land extending approx. 50 feet Northwest from dwelling, 8 feet Northeast to Asher Miner Road, 250 feet Southeast and 75 feet Southwest.

Buildings on this tract of land consist of the following:

QUARTERS-11 2-1/2 Story Frame Dwelling, 1-Car Garage and Barn.

6. A tract of land extending 53 feet West from dwelling to Sternberg Road, 43 feet Northeast, 25 feet Southeast and 14 feet Southwest to Boundary Road.

Buildings on this tract of land consist of the following:

QUARTERS-12 2-1/2 Story Frame Dwelling and 1-Car Garage.

7. A tract of land extending 42 feet Southwest from dwelling, 21 feet Northwest, 35 feet Northeast and 23 feet Southeast to Boundary Road.

Buildings on this tract of land consist of the following:

QUARTERS-13 2-1/2 Story Frame Dwelling and 1-Car Garage.

8. A tract of land extending 150 feet Southwest from dwelling, 300 feet Northwest, 300 feet Northeast and 30 feet Southeast to Penna. Route 443.

Buildings on this tract of land consist of the following:

QUARTERS-15 A and B 2-1/2 Story Stone Double Dwelling, 2-Car Garage and Barn.

9. A tract of land extending 300 feet West from dwelling, 300 feet North, 200 feet East and 150 feet South to Range Road.

Buildings on this tract of land consist of the following:

QUARTERS-16 2-1/2 Story Frame Dwelling, Wood Shed, Chicken House, Stable, School House, 2-Car Garage and Barn.

10. A tract of land extending 24 feet Southeast from dwelling, 150 feet Northwest, 255 feet Northeast and 75 feet Southeast to Clement Avenue.

Buildings on this tract of land consist of the following:

QUARTERS-17 2-1/2 Story Frame Dwelling, Work Shop Smoke House, Horticulutral Green House and Barn.

11. A tract of land extending 30 feet Northwest from dwelling, 150 feet Northeast, 12 feet Southeast and 50 feet Southwest.

Buildings on this tract of land consist of the following:

QUARTERS-18 2-1/2 Story Frame Dwelling, Stone Summer House and 3-Car Garage.

12. A tract of land extending 150 feet Southwest from dwelling, 50 feet Northwest, 25 feet Northeast to Asher Miner Road and 75 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-19 1-1/2 Story Frame Dwelling and 1-Car Garage.

13. A tract of land extending 100 feet Southwest from dwelling, 50 feet Northwest, 10 feet Northeast to Asher Miner Road and 25 Feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-20 A and B 2-1/2 Story Frame Double Dwelling and 2-Car Garage.

14. A tract of land extending 60 feet Southwest from dwelling, 40 feet Northwest, 25 feet Northeast to Asher Miner Road and 40 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-21 1-1/2 Story Frame Dwelling and 2-Car Garage.

5. A tract of land extending 46 feet Southeast from dwelling, 46 feet Northwest, 18 feet Northeast to Asher Miner Road and 32 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-22 1-1/2 Story Frame Dwelling and 2-Car Garage.

6. A tract of land extending 38 feet Southwest from dwelling, 32 feet Northwest, 25 Feet Northeast to Asher Miner Road and 50 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-23 1-1/2 Story Frame Dwelling and 2-Car Garage.

7. A tract of land extending 12 feet Southwest from dwelling, to Asher Miner Road, 52 feet Northwest, 50 feet Northeast and 48 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-24 1-1/2 Story Frame Dwelling and 2-Car Garage

8. A tract of land extending 32 feet Southwest from dwelling, 41 feet Northwest, 50 feet Northeast and 29 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-25 1-1/2 Story Frame and Log Dwelling.

9. A tract of land extending 75 feet West from dwelling, 75 feet North, 50 feet East and 50 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-26 2-1/2 Story Frame Dwelling, Stone Summer Kitchen and 1-Car Garage.

0. A tract of land extending 38 feet West from dwelling, 6 feet North to Clement Avenue, 40 feet East and 75 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-27 2-1/2 Story Frame Dwelling and 1-Car Garage.

1. A tract of land extending 32 feet West from dwelling to Utility Road, 11 feet North to Clement Avenue, 20 Feet East and 63 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-28 2-1/2 Story Frame Double Dwelling
A and B

2. A tract of land extending 20 feet West from dwelling, 11 feet North to Clement Avenue, 20 feet East and 58 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-29 2-1/2 Story Frame Dwelling.

23. A tract of land extending 20 feet West from dwelling, 11 feet North to Clement Avenue, 35 feet East and 68 feet South.

BUILDINGS on this tract of land consist of the following:

QUARTERS-30 2-1/2 Story Frame Dwelling.

24. A tract of land extending 45 feet Southwest from dwelling, 51 feet Northwest to Fisher Avenue, 75 feet Northeast and 35 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-32 2-1/2 Story Frame Dwelling and
5-Car Garage.

25. A tract of land extending 150 feet Southwest from dwelling, 170 feet Northwest, 25 feet Northeast and 50 feet Southeast

Buildings on this tract of land consist of the following:

QUARTERS-33 2-1/2 Story Frame Dwelling, 2-Car Garage
and Barn.

26. A tract of land extending 50 feet Southwest from dwelling, 150 feet Northwest, 225 feet Northeast and 25 feet Southeast to Penna. Legislative Route 38054.

Buildings on this tract of land consist of the following:

QUARTERS-34 2-1/2 Story Frame Dwelling and 2-Car Garage.

27. A tract of land extending 45 feet Southwest from dwelling, 150 feet Northwest, 210 feet Northeast and 60 feet Southeast to Coulter Road.

Buildings on this tract of land consist of the following:

QUARTERS-35 2-1/2 Story Frame Dwelling, Summer Kitchen and Brick Barn.

28. A tract of land extending 150 feet Southwest from dwelling, 210 feet Northwest, 12 feet Northeast to Penna. Legislative Route 38054 and 45 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-36 2-1/2 Story Frame Dwelling, Wagon Shed, 2 Chicken Houses and Barn.

29. A tract of land extending 300 feet Southwest from dwelling, 150 feet Northwest, 60 feet Northeast to Quartermaster Road and 25 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-37 2-1/2 Story Frame Dwelling, Summer Kitchen and Barn

30. A tract of land extending 150 feet West from dwelling to Quartermaster Road, 30 feet North, 260 feet East and 290 feet South.

Buildings on this tract of land consist of the following:

QUARTERS-38 2-1/2 Story Frame Dwelling, Summer House, 2-Chicken Houses, Work Shop, 1-Car Garage and Barn.

A tract of land extending 140 feet Southwest from dwelling, 40 feet Northwest, 50 feet Northeast and 50 feet Southeast.

BUILDINGS on this tract of land consist of the following:

QUARTERS-40 2-1/2 Story Frame Dwelling, Summer Kitchen and 1-Car Garage.

A tract of land extending 250 feet Southwest from dwelling, 100 feet Northwest, 25 feet Northeast and 200 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-41 2-1/2 Story Frame Dwelling, Summer kitchen and Barn.

A tract of land extending 250 feet Southwest from dwelling, 50 feet Northwest, 55 feet Northeast to Quartermaster Road and 50 feet Southeast.

Buildings on this tract of land consist of the following:

QUARTERS-42 1-Story Frame Dwelling and Former School House.

A tract of land extending 23 feet Southwest from building, 10 feet Northwest to Asher Miner Road, 43 feet Northeast and 20 feet Southeast.

Buildings on this tract of land consist of the following:

Single Story Frame Building (Originally known as the School House)