DCN 1002

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION MEETING ATTENDEES
BROOKS AFB TX
6 APRIL 1995

Dr. Jeff Kenton

210-536-3652

HSC staff

BRIGADIER GENERAL BELIHAR	HSC/CC	210-536-3652
MR GRANN	HSC/CD	210-536-6080
COLONEL IRVING	HSC/CCR	210-536-3654
DR GODFREY	AL/CC	210-536-3116
COLONEL JONES	AL/CD	210-536-3136
COLONEL MORLANG	70 MDS/SG	210-536-2087
COLONEL HUDSON	70 ABG/CC	210-536-3411
COLONEL ANTONIO	USAFSAM/AF	210-536-2844
COLONEL SMOGUR	HSC/CCX	210-536-2369
LT COLONEL HARTRANFT	HSC/YA	210-536-3475
COLONEL BINION	AL/OE	210-536-2001
COLONEL POLHAMUS	AL/XP	210-536-2091
COL GORGES	AFCEE/CC	210-536-2162

Col. Gorges 210 536 1995

Commissioners and staffers

REBECCA COX
BEN MONTOYA
JOE ROBLES
WENDI STEEKE

CRAIG HALL (BROOKS)
LES FARRINGTON (BROOKS)
JOE VARALLO (BROOKS)

Congressional Staffers

Senator Phil Gramm's Staff:
Scott Keith 210-366-9494
Bill Christian

Senator Kay Bailey Hutchison's Staff:
Arthur Troilo III 210-340-2885

Congressman Frank Tejeda's Staff:
Nick Dauster 210-924-7387

Congressman Henry Bonilla's Staff:
Phil Ricks 210-697-9055

Brooks Staff:
Terry Shippey
International Association of Fire Fighters
Dino Urdialez
AFGE Local 1757

VARALLO | doc | 14 June | Brooks

Brooks Air Force Base

1. General Blume, the latest Air Force numbers reveal a one time cost of $211-5 to close ~~and move~~ Brooks AFB ~~of well over $200 million~~. ~~Several Brooks closure and~~ the community cantonment proposals under consideration ~~demonstrate~~ shows a one-time cost of $11 million approximately ~~one-tenth to one-twentieth this amount. In addition, these cantonment proposals show long term savings of 30-50% over the official Air Force figures~~.

Given these significant cost savings, does the Air Force still support the complete closure of Brooks?

If ~~so, on what grounds does the~~ Air Force oppose cantonment?

2. General Blume, Brooks AFB, which is a laboratory and product center, ranks low in military value to the Air Force as defined by the BRAC 95 criteria. However, the Air Force strongly believes the Brooks mission is essential. In addition, located in San Antonio, just a few miles from Brooks, are two complementary bases that rank high in military value, namely Kelly and Lackland.

Do you truly believe these criteria were intended to be applied to each installation in and of itself ~~without regard to nearby military facilities~~?

Do you believe these criteria were meant to be applied to laboratories and product centers, which by their ~~very nature do not even contain~~ operational contingencies?

3. General Blume, the age and condition of the facilities intended for the Brooks mission at Wright-Patterson AFB are ~~questionable~~ poor compared with those at Brooks, which are modern and well-kept. In addition, the intended spaces at Wright-Patterson are not contiguous. ~~and it can be assumed the Brooks' missions will become a small fish in a very large pond at Wright-Patterson~~.

Do you believe ~~many professionals will simply resign rather than move~~ to an installation ~~they~~ believe has a lower quality of life?

Will not these sub standard facilities be a reason for Brooks personnel to not transfer?

4. General Blume, with regard to excess capacity, the Joint Cross Service Group reported the economies of scale normally considered when evaluating consolidation should not apply to installations whose primary missions are science and technology related, such as Brooks.

Do you believe that the value of the Brooks mission can be adequately quantified and measured by such considerations as dollars and square footage?

3. General Blume, with regard to excess capacity, the Joint Cross Service Group reported the economies of scale normally considered when evaluating consolidation should not apply to installations whose primary missions are science and technology related, such as Brooks.

Do you believe that the value of the Brooks mission can be adequately quantified and measured by such considerations as dollars and square footage?

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950605-1

FROM: WHITE, TIMOTHY	TO: GENERAL
TITLE: PRESIDENT	TITLE:
ORGANIZATION: AM. COLLEGE OF BIOMEDICINE	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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:

OPPOSING MOVE OF AIR FORCE BIOMEDICAL RESEARCH FACILITIES FROM BROOKS TO WRIGHT-PATTERSON.

950615	Routing Date: 950608	Date Originated: 950601	Mail Date:

Founded in 1954

AMERICAN COLLEGE of SPORTS MEDICINE℠

Mission Statement
The American College of Sports Medicine promotes and integrates scientific research, education, and practical applications of sports medicine and exercise science to maintain and enhance physical performance, fitness, health, and quality of life.

Officers

Timothy P. White, Ph.D.
President
University of California, Berkeley
Berkeley, California

Steven P. Van Camp, M.D.
President-Elect
Alvarado Medical Group
San Diego, California

Russell R. Pate, Ph.D.
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First Vice President
Florida State University
Tallahassee, Florida

[illegible]la M. Clarkson, Ph.D.
[illegible]d Vice President
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Second Vice President
University of Houston
Houston, Texas

James S. Skinner, Ph.D.
Treasurer
Arizona State University
Tempe, Arizona

James R. Whitehead
Executive Vice President
ACSM National Center
Indianapolis, Indiana

June 1, 1995

Base Closure Commission
1700 North Moore Street
Suite 1425
Arlington VA 22209
fax 703/696-0550

Please refer to this number when responding 950603-1

Dear Commissioner:

As President of the American College of Sports Medicine (ACSM), I am writing this letter to protest the proposed move of Air Force biomedical research facilities from Brooks Air Force Base (AFB) to Wright-Patterson AFB in Ohio. Such a move would inevitably involve the destruction of research teams that constitute a unique national resource in research of interest to the ACSM, and impair the work on important national research objectives.

It has been brought to the attention of the ACSM that with the placement of Brooks AFB on the Base Realignment and Closure (BRAC) list for closure, that there has been a counter-proposal made that is designed to leave laboratory portions of the base open to house and support its chief research missions. This would act to maintain the validity and integrity of cutting edge research for which the Armstrong Laboratory has been internationally renowned for decades. The ACSM strongly supports this latter proposal.

The ACSM is an international organization of nearly 15,000 members - physicians, scientists and educators - whose mission is to promote and integrate scientific research, education, and practical applications of exercise science to maintain and enhance physical performance, fitness, health, and quality of life. Research, teaching and clinical evaluation conducted at Brooks AFB have always been linked to a mission similar to ours. Brooks AFB has historically taken the lead in developing research programs and scientists who have made significant contributions to the field of exercise and environmental science. Examples include the late Dr. Lowell Stone, whose novel work that began at Brooks AFB demonstrated the impact of coronary artery blockage on cardiac performance during exercise; Dr. Frank Booth, who received post-doctoral training at Brooks AFB and went on to become an internationally recognized Fellow of the ACSM through his research on muscle function and adaptations to unloading and exercise; Dr. Harold Laughlin, also an ACSM Fellow, whose training through Brooks

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has led to great understanding of blood flow in muscle during exercise. And this list doesn't even mention some of the current scientists, such as Dr. Victor Convertino, who are making great progress in their cardiovascular and thermoregulatory research programs.

Thank you for considering our important perspective.

Sincerely,

Dr. Timothy P. White
President

Professor and Chair
University of California, Berkeley
Department of Human Biodynamics
510/643-5496
510 643-6273 fax

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

Visit To

Human Systems Center, Brooks Air Force Base

6 April 1995

0645 Pick-up at Brooks Billeting and transport to Human Systems Center (Bldg 150)
Escorted by: Brigadier General Robert Belihar
Commander

0700-0715 Continental Breakfast with General Belihar and staff (Bldg 150, Commander's Conference Room)

0715-0745 Mission Briefing By General Belihar (Bldg 150, Commander's Conference Room)

0745-0750 Walking Tour to The United States Air Force School Of Aerospace Medicine (USAFSAM Bldg 180)
Escorted by General Belihar

Met by: Colonel John Stepp
Commander, USAFSAM

8:20 am

0750-0805 USAFSAM Tour and Mission Briefing By Col Stepp

0805-0810 Walking Tour to Crew Technology Division (Bldg 170)
Escorted by General Belihar

8:30

Met by: Dr. William Storm
Research Psychologist

0810-0825 Crew Technology Mission Briefing by Dr Storm and Staff

0825-0830 Walking Tour to Aerospace Physiology Department (Bldg 160)
Escorted by General Belihar

8:40

Met by: Lieutenant Colonel Sam Holoviak
Deputy Chairman
Aerospace Physiology Department
USAFSAM

0830-0845 Anti Spatial Disorientation Demonstrator Briefing
Briefing by: Lt Col Holoviak

0845-0900 Hyperbaric Medicine Branch Briefing (Bldg 160)
Briefing by: Major George Kemper
8:55 Chief, Medical Investigations and Research

0900-0905 Walking Tour to Veterinary Sciences Division (Bldg 125)
Escorted by General Belihar

9:15 Met by: Colonel John Golden
Chief, Veterinary Sciences Division
Armstrong Laboratory

0905-0920 Primate Research Briefing by Colonel Golden

0920-0925 Travel to Occupational and Environmental Health Directorate (Bldg 140)
Escorted by General Belihar

Met by: Colonel Erik Vermulen
9:30 Director, Occupational and Environmental Health
Directorate, Armstrong Laboratory

0925-0940 Mission and Tour by Col Vermulen

0940-0945 Travel to Hangar 9 (Museum)
Escorted by General Belihar

Met by: Lieutenant Colonel Tom Hartranft
Deputy Program Director
Human Systems Program Office

0945-1000 Mission Briefing by Lt Col Hartranft

1000-1005 Travel to Directed Energy Branch (Bldg 1184)
Escorted by General Belihar

Met by: Bruce Stuck
Director, US Army Medical Research Detachment

1005-1020 Mission Briefing by Bruce Stuck

1020-1030 Windshield Tour
Escorted by General Belihar

1030-1045	Arrive at Brooks Club for Civic Leaders Briefing (Room 2) Briefing by Paul Robeson, San Antonio Chamber of Commerce
1045-1100	Press Conference at Brooks Club Ballroom
1100	Depart Brooks Air Force Base

LIST OF PERSONNEL PARTICIPATING IN BROOKS AIR FORCE BASE VISIT

BGEN ROBERT BELIHAR	HSC/CC
MR GARY GRANN	HSC/CD
COL RICHARD JONES	AL/CC
COL WILLIAM MORLANG	70MDS/CC
LTCOL TOM HARTRANFT	HSC/YA
COL ROBERT HUDSON	70ABG/CC
COL MEL ANTONIO	USAFSAM
COL THOMAS SMOGUR	HSC/CCX
COL TOM GORGES	AFCEE/CC
MR DINO URDIALEX	UNION REP
MR TERRY SHIPPEY	UNION REP (FIRE DEPARTMENT)

LTCOL JOHN ELMORE	AL/OE
LTCOL KEN LOCKE	ANALYTICAL SERVICE
COL JOHN STEPP	COMMANDER USAFSAM
LTCOL SAM HOLOVIAK	AEROSPACE PHYSIOLOGY
MAJ JOHN CAULKINS	ALTITUDE CHAMBERS
MAJ GEORGE KEMPER	HYPERBARIC MEDICINE
DR BILL STORM	CENTRIFUGE
Michael Murphy	AL/OER
L/C Bob Cartledge	AL/OEO
Lt. Randall LeBlanc	Navy
Dr. John D'Andrea	Navy, Senior Scientist

DoD Base Closure and Realignment
Report to the Commission

DEPARTMENT OF THE AIR FORCE

ANALYSES AND RECOMMENDATIONS

(Volume V)

February 1995

BROOKS AIR FORCE BASE, TEXAS

Recommendation: Close Brooks AFB. The Human Systems Center, including the School of Aerospace Medicine and Armstrong Laboratory, will relocate to Wright-Patterson AFB, Ohio, however, some portion of the Manpower and Personnel function, and the Air Force Drug Test laboratory, may relocate to other locations. The 68th Intelligence Squadron will relocate to Kelly AFB, Texas. The Air Force Center for Environmental Excellence will relocate to Tyndall AFB, Florida. The 710th Intelligence Flight (AFRES) will relocate to Lackland AFB, Texas. The hyperbaric chamber operation, including associated personnel, will relocate to Lackland AFB, Texas. All activities and facilities at the base including family housing, the medical facility, commissary, and base exchange will close.

Justification: The Air Force has more laboratory capacity than necessary to support current and projected Air Force research requirements. When compared to the attributes desirable in laboratory activities, the Armstrong Lab and Human Systems Center operations at Brooks AFB contributed less to Air Force needs as measured by such areas as workload requirements, facilities, and personnel. As an installation, Brooks AFB ranked lower than the other bases in the Laboratory and Product Center subcategory.

Return on Investment: The total estimated one-time cost to implement this recommendation is $185.5 million. The net of all costs and savings during the implementation period is a cost of $138.7 million. Annual recurring savings after implementation are $27.4 million with a return on investment expected in seven years. The net present value of the costs and savings over 20 years is a savings of $142.1 million.

Impact: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 7,879 jobs (3,759 direct jobs and 4,120 indirect jobs) over the 1996-to-2001 period in the San Antonio, Texas Metropolitan Statistical Area, which is 1.1 percent of the economic area's employment. The cumulative economic impact of all BRAC 95 recommendations, including the relocation of some Air Force activities into the San Antonio area, and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.9 percent of employment in the economic area. Environmental impact from this action is minimal and ongoing restoration of Brooks AFB will continue.

USAF BASE FACT SHEET
BROOKS AIR FORCE BASE, TEXAS

MAJCOM/LOCATION/SIZE: AFMC base in southeastern San Antonio with 1,310 acres

MAJOR UNITS/FORCE STRUCTURE:

- Human Systems Center
  - -- Armstrong Laboratory
  - -- USAF School of Aerospace Medicine
- 70th Air Base Group
- Air Force Center for Environmental Excellence (FOA)
- Air Force Medical Support Agency (FOA)
- 68th Intelligence Squadron (AIA)
- 710th Intelligence Flight (AFR)

USAF MANPOWER AUTHORIZATIONS: (As of FY 95/2)

MILITARY--ACTIVE	1,678
RESERVE	38
CIVILIAN	1,631
TOTAL	3,347

ANNOUNCED ACTIONS:

- The Air Force will reduce approximately 11,700 civilian authorizations in fiscal year 1995. These reductions are a result of the Federal Workforce Restructuring Act of 1994, the National Performance Review, and depot workload reductions. This action helps bring Department of Defense civilian employment levels in line with overall force reductions and results in a decrease of 62 civilian manpower authorizations at Brooks AFB.

Basing Manager: Maj Brackett/XOOB/77357
Editor: Ms Wright/XOOBD/46675/16 Feb 95

BROOKS AIR FORCE BASE, TEXAS (Cont'd)

MILITARY CONSTRUCTION PROGRAM ($000):

FISCAL YEAR 94:

Center for Environmental Compliance (Congress Insert)	8,400

FISCAL YEAR 95:

Directed Energy Facility (Congress Insert)	6,500

SIGNIFICANT INSTALLATION ISSUES/PROBLEMS: None

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
A						
	CAMP BULLIS					
	CORPUS CHRISTI ARMY DEPOT	93	DBCRC	ONGOING	REALGNUP	1993 DBCRC: Repair and maintenance capabilities for H-1 and H-60 helicopters realigned from NADEP Pensacola, FL; scheduled FY 95
	FORT BLISS	88	DEFBRAC	COMPLETE	REALGNDN	1988 DEFBRAC: Realign basic training to Fort Jackson, SC; completed FY 91
	FORT HOOD	90/91	PRESS/DBCRC	COMPLETE	REALGNUP	1990 PRESS: Inactivate 2nd Armored Division (one brigade left intact); completed FY 90 1991 DBCRC: 5th Infantry Division (Mechanized) [redesignated 2nd Armored Division] realigned from Fort Polk, LA; completed FY 94
	FORT SAM HOUSTON	90/91	PRESS/DBCRC	COMPLETE	REALGNUP	1990 PRESS: Convert Health Services Command to a Medical Command (Canceled by Army) 1991 DBCRC: Trauma research realigned from Letterman Army Institute of Research, Presidio of San Francisco, CA (Change to 1988 SECDEF Commission recommendation); completed FY 93
	LONE STAR ARMY AMMUNITION PLANT					
	LONGHORN ARMY AMMUNITION PLANT	90	PRESS	ONGOING	LAYAWAY	1990 PRESS: Layaway; scheduled FY 95

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	RED RIVER ARMY DEPOT	88/90/93	DEFBRAC/PR/DBCRC	ONGOING	REALGNUP	1988 DEFBRAC: Ammunition mission realigned from Pueblo Army Depot, CO; scheduled FY 92-94 1990 PRESS: Realign supply function (Changed by Public Law 101-510) 1993 DBCRC: Realign tactical missile maintenance to Letterkenny Army Depot, PA; scheduled FY 94-97 Wheeled vehicle maintenance realigned from Tooele Army Depot, UT; scheduled FY 94-97 Assume command and control of Tooele Depot Activity; scheduled FY 97
	SAGINAW ARMY AIRCRAFT PLANT					
AF						

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	BERGSTROM AFB	90/91/93	PR/DBCRC/DBCRC	COMPLETE	REALIGN	1990 Press Release indicated Closure. 1991 DBCRC: CLOSED (Realigned) - retain Reserves. (Completed September 30, 1993) Directed retiring assigned RF-4s and deactivation of the 67th Tactical Reconnaissance Wing. Regional Corrosion Control Facility to remain if economical and the Air Force Reserve units to remain in a cantonment area if the base is converted to a civilian airport. Directed the 12 AF Headquarters, 12th Tactical Intelligence Squadron and the 602nd Tactical Air Control Squadron to relocate to Davis-Monthan AFB, AZ. Directed the 712th Air Support Operations Center Squadron be relocated to Fort Hood, TX (USA). 1993 DBCRC: Commission did not accept DoD recommendation to relocate reserve forces from the cantonement area to Carswell AFB, TX. 704th Fighter Squadron (AFRES) and 924th Fighter Group (AFRES) will remain in cantonement area until at least the end of 1996. Close or relocate the Regional Corrosion Control Facility by September 30, 1994 unless civilian airport authority assumes responsibility for operating and maintaining that facility before that date.
	BROOKS AFB	91	DBCRC	ONGOING	REALGNUP	1991 DBCRC: Directed several realignments to Brooks AFB from U.S.Army Laboratories as follows; Laser bioeffects research from Letterman Army Institute of Research, Persidio of San Francisco, CA. Microwave bioeffects research from Walter Reed Institute of Research, Washington, D.C. Heat Physiology research from U.S.Army Institute of Environmental Medicine, Natick, MA.

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	CARSWELL AFB	88/91/93	BRAC/DBCRC/DBCR	COMPLETE	REALIGN	1988 DEFBRAC: Directed transfer of KC-135s from Closing Pease AFB, NH to Eaker, Wurtsmith, Fairchild, Plattsburg and Carswell AFB. (See 1991 DBCRC for other bases.) 1991 DBCRC: CLOSED (Realigned) - retain Reserves - Convert to USNR Base. (Completed Sep 30, 1993) Directed transfer of assigned B-52s to Barksdale AFB, LA. Directed transfer of assigned KC-135s to the Air Reserve Component (in a cantonement area). Directed the tranfer of the 436th Strategic Training Squadron to Dyess AFB, TX. Directed existing AFRES units remain in a cantonment area. 1993 DBCRC: Changes transfer of 436TS fabrication function from Dyess to Luke AFB, AZ and the 436TS maintenance training function to Hill AFB, UT. Rest of the 436TS continues to move to Dyess AFB, TX. Also, Carswell will revert to Navy control with movement of Navy Reserve units from NAS Dallas, Detroit, Memphis and Cecil Field. (Net Navy Personnel movement into Carswell is 1487 Mil and 1493 Civ.)
	DYESS AFB	91/93	DBCRC/DBCRC	ONGOING	REALGN	1991 DBCRC: Directed relocating the 436th Strategic Training Squadron from Closing Carswell AFB, TX to Dyess AFB. 1993 DBCRC: Not all functions of 436TW move. Some now go to Hill AFB, UT and some go to Luke AFB, AZ. Net loss of 23 Mil.
	ELDORADO AFS					
	ELLINGTON FIELD AGS					
	GARLAND AGS					

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	GOODFELLOW AFB	88/91	DEFBRAC/DBCRC	ONGOING	REALGN	1988 DEFBRAC: Directed realignment of 25 courses (including fire fighting, fire truck operation and maintenance, and fuel-inspection training) from Closing Chanute AFB, IL. Other technical training courses also realigned to Sheppard (52), Keesler (22), and Lowry (45) AFBs. (See 1991 DBCRC). 1991 DBCRC: Directed that all technical training from Closing Lowry AFB, CO be redistributed to the remaining technical training centers or relocated to other locations. Directed the realignment of the fuels training from Goodfellow AFB to Sheppard AFB, TX and the realignment of the technical training fire course to Goodfellow AFB unless a satisfactory and cost-effective contract can be arranged.
	KELLY AFB	93	DBCRC	ONGOING	REALIGN	1993 DBCRC: Gained 15 support equipment maintenance personnel from Closing Newark AFB, OH.
	LA PORTE AGS					
	LACKLAND AFB	93	DBCRC	ONGOING	RELIGNUP	1993 DBCRC: Inter-American Air Forces Academy will be relocated from Homestead AFB, FL to Lackland for a net gain of 129 Mil and 22 Civ personnel.
	LAUGHLIN AFB					
	RANDOLPH AFB	91	DBCRC	ONGOING	REALGNUP	1991 DBCRC: Directed movement of 323rd Flying Training Wing from Closing Mather AFB to Randolph AFB rather than to Beale AFB as directed by 90 DEFBRAC.
	REESE AFB					

CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	SHEPPARD AFB	88/91/93	BRAC/DBCRC/DBCR	RCMD	REALGN	1988 DEFBRAC: Directed relocation of 52 classes (including aircraft engine, propulsion, maintenance, and aircrew life-support training) from Closing Chanute AFB, IL to Sheppard AFB. Also relocated classes to Keesler (22), Goodfellow (25), and Lowry (45) AFBs. (See 1991 DBCRC). 1991 DBCRC: Directed that all technical training from Closing Lowry AFB, CO be redistributed to the remaining technical training centers or relocated to other locations. Directed the realignment of the fuels training from Goodfellow AFB, TX to Sheppard AFB and the realignment of the technical training fire course to Goodfellow AFB unless a satisfactory and cost-effective contract can be arranged. 1993 DBCRC: Redirect 1988 Chanute AFB closure directed class relocation; new recommendation moves 16 Metals Tech Non-Destructive Inspection and Aircraft Structural Maintenance training courses to Naval Air Station, Memphis, TN (rather than to Sheppard) and than move with them to NAS Pensacola, FL. Obviates $17.5M in MILCON at Sheppard AFB, TX but will require $16.4 MILCON at Pensacola.
N						
	N/MRC ABILENE	93	DBCRC	CLOSED	CLOSE	1993 DBCRC: Recommended closure of the Navy/Marine Corps Reserve Center at Abilene, TX because its capacity is excess to projected requirements.
	NAS CHASE FIELD	90/91	PRESS/DBCRC	ONGOING	CLOSE	199O PRESS: DOD Secretary proposed NAS Chase Field as a closure in his 1990 press release. 1991 DBCRC: Recommended closing the facility rather than closing and retaining it as an OLF.

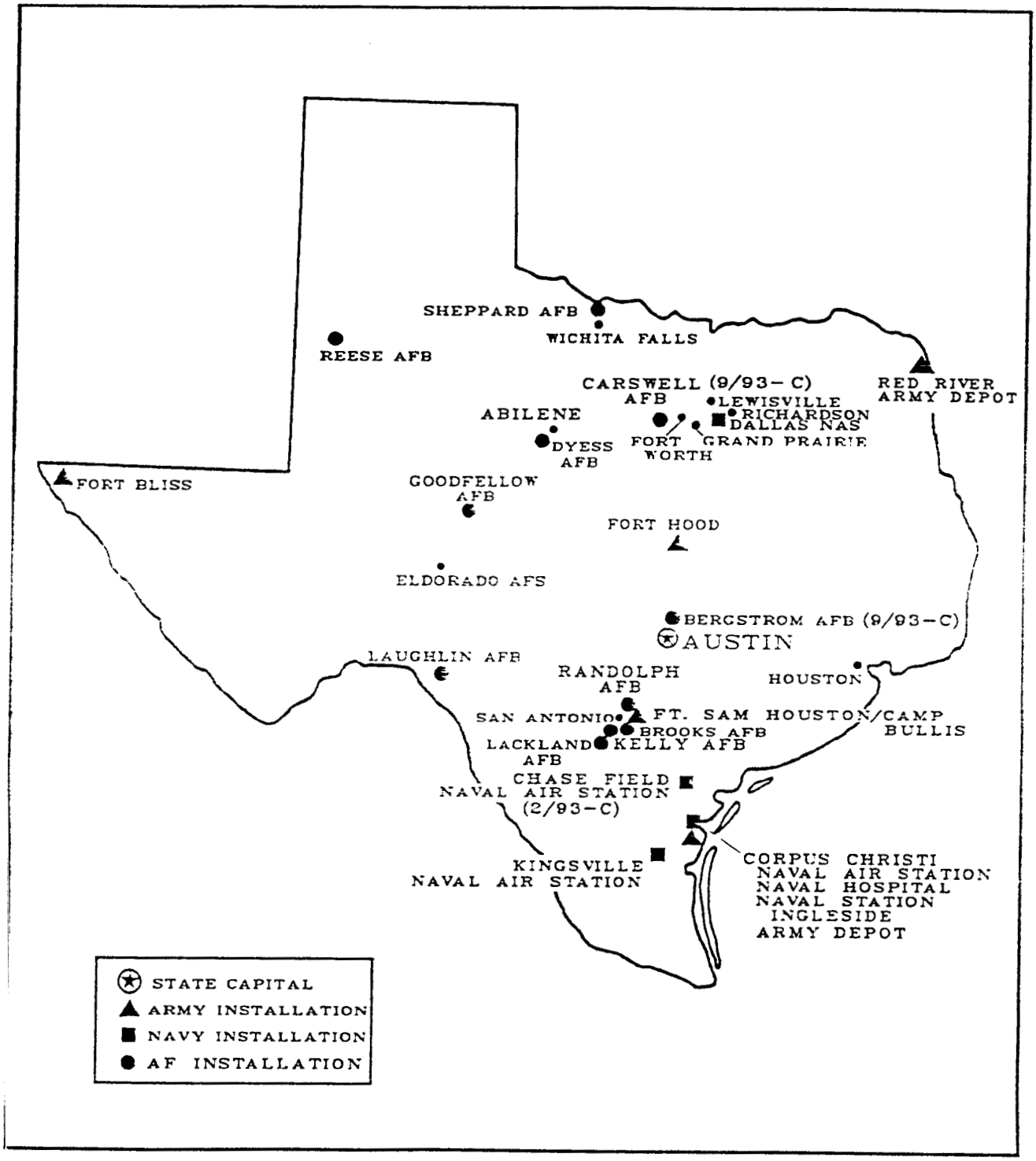
CLOSURE HISTORY - INSTALLATIONS IN TEXAS

24-Mar-95

SVC	INSTALLATION NAME	ACTION YEAR	ACTION SOURCE	ACTION STATUS	ACTION SUMMARY	ACTION DETAIL
	NAS DALLAS	93	DBCRC	ONGOING	CLOSE	1993 DBCRC: Directed the closure of NAS Dallas and relocation of its aircraft, personnel, equipment, and support to Carswell AFB, TX.
	NAS, CORPUS CHRISTI					
	NAS, KINGSVILLE					
	NAVAL HOSPITAL, CORPUS CHRISTI					
	NAVAL STATION GALVESTON	88	DEFBRAC	CLOSED	CLOSE	1988 DEFBRAC: Recommended stopping construction of the new Naval Station and closing the facility. Ships planned to be homeported there will be relocated to the new Naval Station at Ingleside, TX.
	NAVAL STATION INGLESIDE					
	NRF MIDLAND	93	DBCRC	CLOSED	CLOSE	1993 DBCRC: Recommended closure of NRF Midland, TX because its capacity is in excess of projected requirements.

MAP NO. 44

TEXAS



Prepared By: Washington Headquarters Services
Directorate for Information
Operations and Reports

TEXAS

FISCAL YEAR 1994 (DOLLARS IN THOUSANDS)

Personnel/Expenditures	Total	Army	Navy & Marine Corps	Air Force	Other Defense Activities
I. Personnel - Total	271,840	142,401	34,473	88,230	6,736
Active Duty Military	102,544	53,953	6,076	42,515	0
Civilian	54,341	20,281	1,994	25,330	6,736
Reserve & National Guard	114,955	68,167	26,403	20,385	0
II. Expenditures - Total	$15,346,504	$5,587,481	$2,641,691	$5,806,517	$1,310,815
A. Payroll Outlays - Total	7,201,074	3,088,752	710,561	3,183,886	217,875
Active Duty Military Pay	2,585,447	1,319,835	237,585	1,028,027	0
Civilian Pay	1,751,277	705,033	66,018	762,351	217,875
Reserve & National Guard Pay	243,639	150,266	30,949	62,424	0
Retired Military Pay	2,620,711	913,618	376,009	1,331,084	0
B. Prime Contracts Over $25,000 Total	8,145,430	2,498,729	1,931,130	2,622,631	1,092,940
Supply and Equipment Contracts	3,458,801	498,379	543,614	1,376,686	1,040,122
RDT&E Contracts	1,744,152	675,217	840,598	217,862	10,475
Service Contracts	2,292,966	734,965	505,895	1,009,753	42,343
Construction Contracts	522,571	463,228	41,023	18,320	0
Civil Function Contracts	126,940	126,940	0	0	0

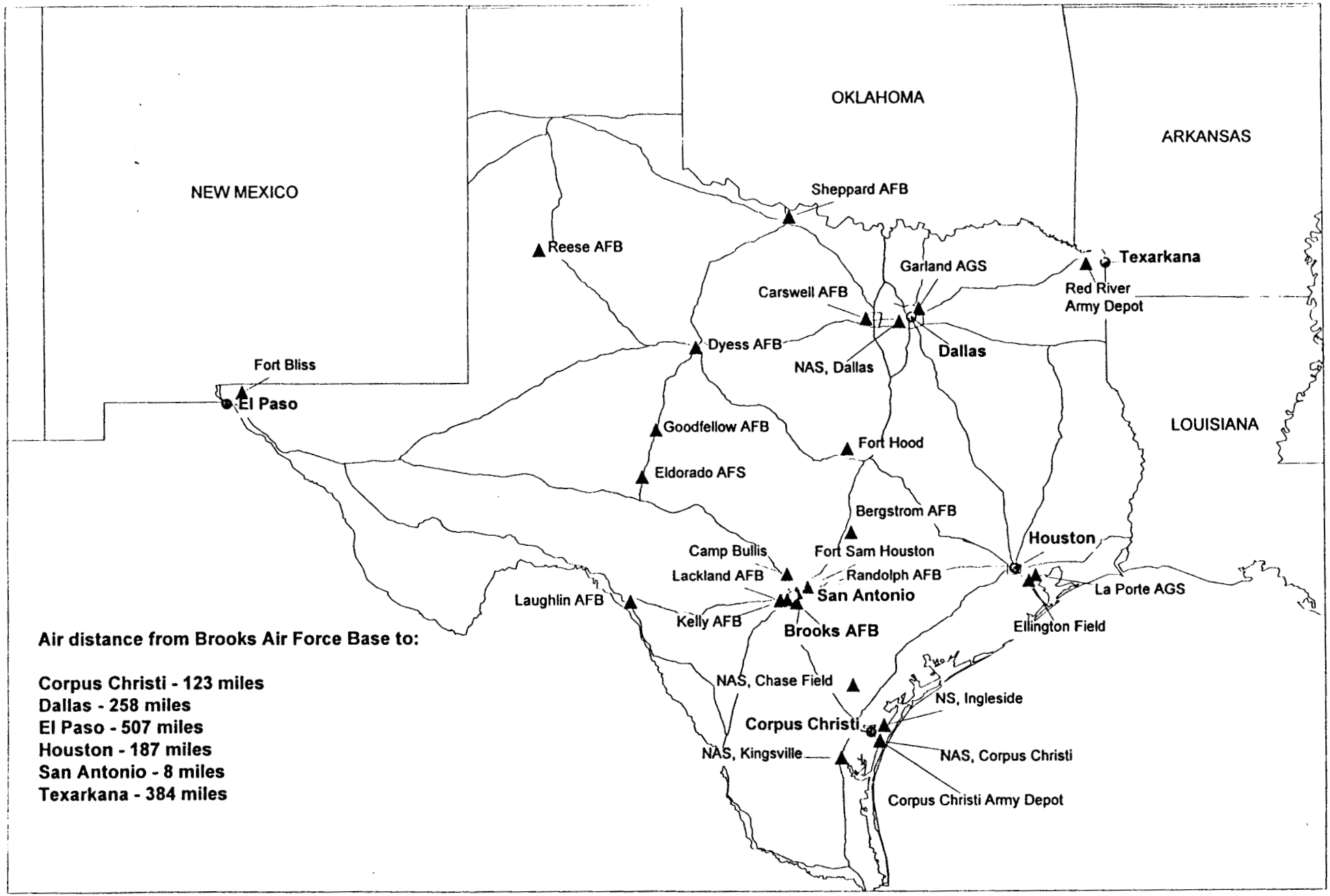
Major Locations of Expenditures	Expenditures			Major Locations of Personnel	Military and Civilian Personnel		
	Total	Payroll Outlays	Prime Contracts		Total	Active Duty Military	Civilian
Fort Worth	$2,491,622	$189,070	$2,302,552	Fort Hood	33,695	29,552	4,143
San Antonio	2,271,483	1,630,004	641,479	Kelly AFB	19,317	4,650	14,667
Fort Hood	1,159,423	857,030	302,393	Fort Bliss	18,175	16,123	2,052
Dallas	939,598	136,735	802,863	Lackland AFB	16,437	13,464	2,973
Corpus Christi	614,491	274,702	339,789	Fort Sam Houston	12,514	8,640	3,874
Fort Bliss	608,710	488,367	120,343	Randolph AFB	8,025	5,165	2,860
Houston	451,397	108,447	342,950	Shep AFB/Wich Falls	7,998	6,519	1,479
Grand Prairie	390,250	23,033	367,217	Corpus Christi	6,019	1,852	4,167
Shep AFB/Wich Falls	383,887	204,525	179,362	Dyess AFB	5,490	5,043	447
Austin	370,752	146,817	223,935	Brooks AFB	3,390	1,798	1,592

Prime Contracts Over $25,000 (Prior Three Years)	Total	Army	Navy & Marine Corps	Air Force	Other Defense Activities
Fiscal Year 1993	$9,010,273	$2,464,013	$1,708,662	$3,701,601	$1,115,997
Fiscal Year 1992	8,671,793	2,695,313	1,454,931	3,311,311	1,210,238
Fiscal Year 1991	10,225,414	2,400,595	1,758,415	4,592,133	1,474,271

Top Five Contractors Receiving the Largest Dollar Volume of Prime Contract Awards in this State	Total Amount	Major Area of Work	
		FSC or Service Code Description	Amount
1. TEXTRON INC	$984,510	RDTE/Aircraft-Engineering Development	$643,829
2. LOCKHEED CORPORATION	713,483	Aircraft Fixed Wing	410,671
3. TEXAS INSTRUMENTS INCORPORATED	687,808	Guided Missile Components	165,219
4. GENERAL DYNAMICS CORPORATION	611,673	Aircraft Fixed Wing	614,049
5. LTV AEROSPACE AND DEFENSE CO	276,036	RDTE/Missile and Space Systems-Advanced De	211,690
Total of Above	$3,273,510	(40.2% of total awards over $25,000)	

Prepared by: Washington Headquarters Services
Directorate for Information
Operations and Reports

Brooks Air Force Base



Air distance from Brooks Air Force Base to:

Corpus Christi - 123 miles
Dallas - 258 miles
El Paso - 507 miles
Houston - 187 miles
San Antonio - 8 miles
Texarkana - 384 miles

United States Air Force

FACT SHEET

Office of Public Affairs, Human Systems Center, 2510 Kennedy Circle, Suite 1,
Brooks AFB TX 78235-5120 Phone (210) 536-3234 Fax (210) 536-3235

HUMAN SYSTEMS CENTER

MISSION

The Human Systems Center of Air Force Material Command, headquartered at Brooks Air Force Base, Texas, is the Air Force advocate for integrating and maintaining the human in Air Force systems and operations. People are the key to all Air Force operations. HSC is the systems-independent product center for human-centered research, development, acquisition and specialized operational support.

Its mission is to protect and enhance human capabilities and human-systems performance with a scope of impact ranging from the individual to combatant command forces including DOD and Allied Nations Forces. The Armstrong Laboratory, the USAF School of Aerospace Medicine, the HSC Program Office (YA), the 70th Medical Squadron and an air base group are the major units of HSC.

HISTORY

HSC's origins go back to Jan. 19, 1918, when the Medical Research Laboratory was formed at Hazelhurst Field, N.Y. In 1922, this Laboratory was redesignated the School of Aviation Medicine, and four years later it moved to Brooks Field which was a center for primary flight training. Both organizations moved to Randolph Field in October 1931. The school moved back to Brooks during the summer of 1959 and the base became the headquarters for the Aerospace Medical Center the same year.

The Center represented the initial step in placing the management of aerospace medical research, education and clinical medicine under one command. Both the school and center were reassigned from Air Training Command to Air Force Systems Command in November 1961 and assigned to the new organization, Aerospace Medical Division (now HSC).

(Current as of Oct. 1994)

On Nov. 21, 1963, President John F. Kennedy dedicated four new buildings of USAFSAM in the complex that housed the Aerospace Medical Division. This was his last official act before his assassination in Dallas the following day.

In 1986, the Department of Defense began streamlining its organization as a result of the Packard Commission recommendations. This division's acquisition mission emphasized its human-centered technologies. It restructured its functional areas and was renamed the Human Systems Division on Feb. 6, 1987.

In December 1990, the Air Force Systems Command underwent a major restructuring which consolidated 16 laboratories nationwide into four. Brooks Air Force Base and the Human Systems Division became home of one of the "super labs." The new lab, named the Armstrong Laboratory, is a world-class center in science and technology for protecting the human in Air Force systems.

On July 1, 1992, the Human Systems Division was renamed the Human Systems Center as part of the structuring of the new Air Force Materiel Command. The command was activated July 1, 1992, when the Air Force Logistics Command and Air Force Systems Command were integrated.

ORGANIZATIONS

The Human Systems Center headquarters supports its subordinate organizations with administration, command and control, and logistics.

U.S. Air Force School of Aerospace Medicine

As the center for aerospace medicine education, the USAF School of Aerospace Medicine is the major provider of educational programs involving aviation, space, and environmental medicine for Air Force, DOD, and Allied Nations personnel. The programs span entry level through graduate medical education in all disciplines encompassed in the aerospace medicine specialty.

70th School Squadron

The 70th Training Squadron advances the education of acquisition professionals to support and sustain all Air Force weapons systems. About 1,600 students are trained annually.

Human Systems Center Program Office

The program office is responsible for the engineering and manufacturing development, production, evolution and sustainment of life support, chemical defense, aeromedical, human resource, and operational analysis systems, and the design and test of Air Force uniforms. The program office demonstrates technology concepts in prototype systems to reduce technical, cost, and schedule risk, and to accelerate the transition arm of the Human Systems Center.

It is responsible for proper execution of engineering and manufacturing development and production programs and coordinates acquisition efforts with other agencies and the using MAJCOMs. The program office is also responsible for the Human Systems Center staff functional work in the areas of engineering, manufacturing/quality assurance, configuration/data management, test and evaluation, and acquisition logistics.

70th Air Base Group

The 70th Air Base Group operates and maintains Brooks Air Force Base in support of HSC and tenant units.

The Armstrong Laboratory

The Armstrong Laboratory, as one of the four Air Force "Super Laboratories," is the Air Force's center of excellence for human-centered science and technology. The laboratory provides the science and technology base and the direct operational support needed to enhance human performance in Air Force systems and operations. The research, development, and support activities of the laboratory address current and future needs in the areas of human resources, crew systems, aerospace medicine, and occupational and environmental health to enhance crew protection and performance, training and logistics, and force management, health and safety.

70th Medical Squadron

The 70th Medical Squadron provides personalized outpatient medical and dental care for the Brooks Air force Base community in a total quality environment. Services include primary care, aerospace medicine, optometry, military health, phermacy, radiology, immunology, military public health, bioenvironmental engineering, and clinical laboratory. Approximately 25,000 patients per year are treated here.

FACT SHEET

United States Air Force

AIR FORCE MATERIEL COMMAND
Human Systems Center
2509 Kennedy Circle, Brooks AFB TX 78235-5118
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ARMSTRONG LABORATORY

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The Armstrong Laboratory has approximately 1600 military and civilian employees (57% civilian, 20% officer, 23% enlisted), with the highest percentage of doctoral degrees among the four AF Superlabs. With a budget of more than $200 million this year, the Armstrong Laboratory conducts its research through five technical directorates: aerospace medicine, crew systems, environics, human resources, and occupational and environmental health, at four principal locations: Brooks AFB TX, Wright Patterson AFB OH, Tyndall AFB FL, and Williams-Gateway Airport, Mesa AZ.

AL provides a single face to the customer for human systems expertise through a combination of science and technology (MFP-6) and defense health programs (MFP-8). Customers include the Air Force war-fighting commands, AFMC SPOs and ALCs, Air Staff (SG, DP, CE), DOD, and other agencies (NASA, FAA, DOT).

- Requirements are documented via Mission Area Plans and the AFMC Technology Master Process (TMP).
- Close connections with users generate many short-suspense requests from operational units, such as:
  - Joint effort with 8th AF to develop countermeasures for crew fatigue during long duration bombing missions from CONUS.
  - -- Measurement of G-susceptibility or "G-layoff effect" for return of aircrew to high performance aircraft following a non-flying assignment (DNIF), at specific request of HQ ACC/CC.
- Periodic customer satisfaction surveys are used to assess and improve responsiveness to customer needs.

Armstrong Laboratory products are developed using an integrated, multidisciplinary approach. Recent examples include:

- Situation Awareness Integration Team (SAINT) answered CSAF question concerning ability to measure and train aircrew situation awareness skills. AL team was established with experts in behavioral psychology, human factors and cognitive sciences, aircrew training, and aerospace medicine. Study results are being incorporated into future pilot selection and aircrew training procedures.

- Human factors vision evaluation supported Board investigation of F-15 shoot-down of Blackhawk helicopters over Iraq. Experts in experimental psychology, optometry, ophthalmology, and optical physics provided quick-look report to Board within 48 hours of request. Detailed technical report evaluating effects of real-world conditions for target/terrain luminance, contrast visibility, visor distortion, airspeed, and target distance on pilot vision completed within ten days of request.

- Advanced Technology Anti-G Suit (ATAGS) developed to increase pilot endurance to high, sustained acceleration by 50 percent over current anti-G suit. Product is the result of close collaboration among laboratory physiologists, engineers, life support specialists, and the Human Systems Program Office. Operational payoffs include increased pilot protection, improved performance, and decreased aircraft/pilot losses due to acceleration-induced loss of consciousness.

- Large rocket motor disposal program has developed technologies and processes to safely remove, treat and dispose of aged rocket propellants. This AL-led program has successfully leveraged over $25M in Air Force, DOD and ARPA technology programs, and has integrated technologies to reduce duplication of effort and compress the project schedule. Full-scale demonstration on a Minuteman II stage III solid rocket motor will be done in FY95.

Other recent success stories include:
- Integrated Maintenance Information System (IMIS) field demonstration on F-16s at Luke AFB AZ.
- Rapid optical scanning and bioventing technologies for hazardous waste site characterization/remediation.
- Multitask trainer: a cost-effective, realistic aircrew trainer that can be deployed with the squadron.
- Miniature color display to provide high resolution/high luminance images for helmet-mounted systems.
- Foreign Comparative Technology evaluation of Russian K-36D aircraft ejection seat.

AL products also have strong dual-use potential. A few examples are:
- Fundamental skill tutors for high school mathematics students.
- Force reflective control stick for wheelchair control in motor-impaired individuals.
- Laser device for deep ophthalmic surgery.
- Advanced molecular sieve oxygen generation and storage systems to replace LOX transport and storage.

Armstrong Laboratory provides a critical focal point for DOD human systems technology:

- Extensive collaboration with parent Human Systems Center organization and Air Force Center for Environmental Excellence, both with headquarters at Brooks AFB TX.

- Defense Reliance centers of excellence established with Army/Navy personnel collocated under AL lead for bioeffects of directed energy (at Brooks AFB TX), and for Toxicology (at Wright-Patterson AFB OH). DOD biodynamics also collocated with AL at Wright-Patterson AFB. AL chemical/biological defense program collocated with the Army at Edgewood Research, Development and Engineering Center, Edgewood MD.

- AL technical excellence recognized through many recent awards, including Theodore C. Lyster and Harry G. Moseley Awards from the Aerospace Medical Association, Fred Hitchcock Award for Excellence in Aerospace Physiology, Distinguished Member Award from the IEEE, General Spruance Award for Flying Safety from SAFE, Engineering Educator's Award from the American Society of Civil Engineers, JCS Award for Excellence in Military Medicine, Air Force Harold Brown Award, R&D 100 Award, CSAF Team Quality Award, Harold Metcalf Award for Technology Transfer, and four AFOSR Star Team Awards.

- Major facilities used to support the AL research programs include the Biocommunications Laboratory, Centrifuge, Impact Acceleration and Vibration Facilities, Directed Energy Bioeffects Facilities, Drug Testing Laboratory, Environmental/Occupational Toxicology Facilities, Environics Laboratories, Secure Simulator Facilities and Full Field of View Dome Display, and Hyperbaric and Hypobaric Research Chambers.

Funding for AL human systems research and technology programs is robust:
- Total FY94 budget was $207.6M from a variety of sources: $125.8M MFP-6, $39.7M MFP-8, $10.2M SBIR, $7.3M SERDP, and $24.6M Other.
- Steady increases in AL budget reflected in FY96 POM.

Summary

- The human will remain the most critical component of weapon systems well into the 21st century. People costs represent over 40 percent of the Air Force operating budget.

- The Armstrong Laboratory, as the prime developer of human systems technology, is dedicated to assuring that Air Force personnel are properly selected, trained, equipped, and protected in current and future Air Force operations.

Current as of 15 Dec 94

FACT SHEET

United States Air Force

AIR FORCE MATERIEL COMMAND
Human Systems Center
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TALKING PAPER
ON
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
ARMSTRONG LABORATORY
HUMAN SYSTEMS CENTER
BROOKS AFB TEXAS

TITLE: VISIT TO BLDG 140

BACKGROUND: The Base Realignment and Closure Commission will tour Building 140, Brooks AFB as part of their review of the Department of Defense recommendation on 1995 base closures. This facility is 60,000 sq ft of modern laboratory space housing analytical chemistry for Air Force environmental and occupational health exposure compliance testing, dosimetry for ionizing radiation exposure documentation and related consultant services.

DISCUSSION:

The Occupational and Environmental Health Directorate provides a)research and development in chemical, radiological, laser and radiofrequency radiation bioeffects and b) engineering services for risk analysis and exposure assessment for occupational, environmental and radiological health supporting Air Force units worldwide. We have collocated Army and Navy units in laser and microwave R&D at Brooks AFB and toxicology R&D at Wright-Patterson AFB.

Building 140 and bldg 175W (not being visited) house our engineering services activities. We provide analytical services inhouse for nearly 80,000 samples per year and contract out another 12,000 samples. We expend $2.2M per year in contract analyses for our customers; the equivalent cost for contracting out our in-house efforts is priced at $10.9M. Analytical efforts save our customers $6M per year.

Our professional consultants provide both direct, on-site services for our customers and manage contracted services as the technical project officers for nearly $50M in customer funded environment, safety and occupational health projects. Our personnel are highly trained, most with advanced technical degrees in areas from environmental engineering, industrial hygiene, medicine, epidemiology and toxicology. We estimate the equivalent services from contracted sources would cost another $6M per year.

The military in our organization have readiness tasking to respond worldwide for nuclear material mishaps and several smaller taskings. Our in-house expertise in radioanalytical analyses directly translates to our being the most proficient DoD response team in this area.

PAYOFF:

The Occupational and Environmental Health Directorate's engineering services activities provide critical military readiness response and highly cost-effective operational support insuring Air Force installations are operationally available. Real cost saving of $12M per year result.

as of 30 Mar 95
Col Erik K. Vermulen
(210) 536-2003

Talking Paper for Armstrong Laboratory (AL)
Veterinary Sciences Division's Move to WPAFB

- BRAC tour on 6 Apr 95 will look at one of six OEV buildings (26K sq ft out of 100K sq ft total)

- AL conducts animal research as part of a broad-based R&D program; directed toward the protection of AF ground and aircrew members; primary areas of research are laser, microwave, and space radiation, G-loss of consciousness, effects of acceleration stress on the cardiovascular system and chronobiology.

  - Majority of animals used are rats and mice; the total number of animals used has steadily decreased over the last decade, by emphasis on alternative methods (e.g., computer modeling, manikins, cell culture, etc.)

  - Nonhuman primates (NHP) are only used for studies requiring close approximation of the human being and for which computer models have not yet been developed.

- Animal research is very regulated; animal use at AL meets or exceeds all DOD and USAF regulations, the federal Animal Welfare Act (AWA), and the requirements outlined in the National Institutes of Health "Guide for the Care and Use of Laboratory Animals."

  - The Institutional Animal Care and Use Committee (IACUC) has oversight over entire animal care and use program; reviews all research protocols to ensure humane use and minimum numbers of animals, inspects facilities, etc. AL Commander is the responsible Institutional Official for the animal care and use program.

  - American Association for Accreditation of Laboratory Animal Care (AAALAC) accreditation; mandated by Congress; AL/Brooks and AL/WPAFB have been accredited since 1967

    - AAALAC provides a voluntary, independent, peer-review of animal care programs; AAALAC is the "gold standard" for animal care programs; only 532 research organizations in US are accredited after a rigorous, on-site inspection. Facility construction to meet AAALAC standards is expensive, costing approximately $300 per square foot.

- The AL animal care and use program is under close scrutiny and has had numerous successful program reviews.

  - <u>May 1991 Special IG Review of AF Use of Animals in Research report:</u> "AF animal research programs are both necessary and being accomplished correctly." Recommended the AF <u>not contract out</u> these programs.

  - <u>Oct 1993 DOD IG Review of the Use of Animals:</u> AL/Brooks "... aggressively supports all humaneness issues/requirements..."

- BAFB has approximately 720 NHP's which will require housing at WPAFB: WPAFB has facilities for approx. 200. Majority of WPAFB's research animals currently housed are rodents.

  - BAFB has superior NHP facilities; WPAFB has superior rodent facilities.

  - If current AL research plus Tri-Service mission are moved to WPAFB, an additional 60,000 sq ft of animal care facility required at an approximate cost of $18M to comply with AAALAC and AWA standards.

- BAFB Veterinary Sciences has close ties to other San Antonio R&D facilities: Southwest Foundation for Biomedical Research; Southwest Research Institute; University of TX Health Science Center, Brooke Army Clinical Investigation Facility; Brooke Army Burn Center; Lackland Clinical Investigation Facility; Lackland Dog Center.

- Our goal is humane biomedical research that will benefit us all.

Colonel Golden/AL/OEV/DSN 240-2825/31 Mar 95

TALKING PAPER ON
TRI-SERVICE DIRECTED ENERGY BIOEFFECTS RESEARCH
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
ARMSTRONG LABORATORY
HUMAN SYSTEMS CENTER
BROOKS AFB TEXAS

BACKGROUND: Under Project Reliance, Brooks AFB Texas is the collocation of all military research on the health and safety of exposure to directed energy in the electromagnetic spectrum. Army, Navy, and Air Force laser and microwave bioeffects research personnel (approximately 133 professionals) utilize 120,000 sq ft of space and highly specialized equipment to assess the hazards of human exposure to various forms of directed energy. Threat assessments, countermeasures, and applications of directed energy bioeffects are also investigated. Much of the research requires the use of animal models, including primates. The scientists, support personnel, state-of-the art research facilities, and animal vivaria at Brooks AFB constitute a resource that is unique in the Western World. It is in service of a military mission that is ever growing in importance because of the increasing use of directed energy on the modern battlefield.

DISCUSSION:

All Military directed energy bioeffects research was collocated in order to increase efficiency, leverage resources, and produce synergy in research designed to protect personnel from hazardous exposure to microwaves and lasers, which will have a constantly increasing role in both peacetime, war, and special military operations. This highly focused research is conducted by integrated teams of mathematicians, physicists, engineers, physicians, ocular scientists, biologists, physiologists, and behaviorists that have been formed by years of experience. Requirements such as heavy, expensive, and often militarily unique equipment, security classification, cross-disciplinary teams, animal use, and readiness demand that this research be done in-house by military civilian and active duty personnel. University or industrial performance of this research would be incredibly more expensive, and much less flexible.

The team from the BRAC 95 will see 1 of the 17 Tri-Service anechoic chambers and 1 of our more than 40 RFR transmitters, the Transformer Energized Megavolt Pulsed Output (TEMPO). The TEMPO is the perfect example of Tri-Service synergy, since it is an Army transmitter, in an Air Force building, being readied for a Navy research protocol. This TEMPO is the only such device available for biological research in the World. Similar emissions from fielded systems could be a hazard to military personnel. The recent move of the TEMPO from Washington, D. C. to Brooks AFB has caused it to be out of commission for 24 months.

PAYOFF: Tri-Service research at Brooks AFB directly protects military personnel from hazardous exposure to microwave and laser directed energy. Military research in this area also supports national and international civilian standards. Litigation avoidance is a secondary benefit. Protection of this program and its mission should be an important consideration in the deliberations and final decision by BRAC95.

Col Eric K. Vermulen, Armstrong Laboratory, OE, (210) 536-2003

LTC Ken Locke
(210)536-3624

Armstrong Laboratory
Analytical Service Division
(AL/OEA)
BROOKS AFB, TX 78235

April 5, 1995

State / Federal Certification Requirements:		
Federal	Drinking water	Waste Water
EPA	40 CFR 141.28	State by State in Region 6
State		
Alabama		
Alaska	Title 18 18AAC 80.250	
Arizona	ARS 36-495 through 36-495.15 (R9-14-600)	
Arkansas		
California	Title 22 Division 4 California Code of Regs Section 64805	
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Connecticut		
Delaware		
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Georgia	Rules for Safe Drinking Water Chapter 391 3-5.29	
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Indiana		
Idaho		
Kansas	Standards for the Approval of Environmental Analytical Laboratories (Part II)	Standards for the Approval of Environmental Analytical Laboratories (Part II)
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Louisana	Regulations Governing Laboratory Certification and Standards of Performance for Laboratories Conducting Drinking Water Chemical Analysis Section 201	
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TALKING PAPER
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- BRAC tour on 6 Apr 95 will look at one of six OEV buildings (26K sq ft out of 100K sq ft total)

- AL conducts animal research as part of a broad-based R&D program; directed toward the protection of AF ground and aircrew members; primary areas of research are laser, microwave, and space radiation, G-loss of consciousness, effects of acceleration stress on the cardiovascular system and chronobiology.

  - Majority of animals used are rats and mice; the total number of animals used has steadily decreased over the last decade, by emphasis on alternative methods (e.g., computer modeling, manikins, cell culture, etc.)

  - Nonhuman primates (NHP) are only used for studies requiring close approximation of the human being and for which computer models have not yet been developed.

- Animal research is very regulated; animal use at AL meets or exceeds all DOD and USAF regulations, the federal Animal Welfare Act (AWA), and the requirements outlined in the National Institutes of Health "Guide for the Care and Use of Laboratory Animals."

  - The Institutional Animal Care and Use Committee (IACUC) has oversight over entire animal care and use program; reviews all research protocols to ensure humane use and minimum numbers of animals, inspects facilities, etc. AL Commander is the responsible Institutional Official for the animal care and use program.

  - American Association for Accreditation of Laboratory Animal Care (AAALAC) accreditation; mandated by Congress; AL/Brooks and AL/WPAFB have been accredited since 1967

    - AAALAC provides a voluntary, independent, peer-review of animal care programs; AAALAC is the "gold standard" for animal care programs; only 532 research organizations in US are accredited after a rigorous, on-site inspection. Facility construction to meet AAALAC standards is expensive, costing approximately $300 per square foot.

- The AL animal care and use program is under close scrutiny and has had numerous successful program reviews.

  - <u>May 1991 Special IG Review of AF Use of Animals in Research report:</u> "AF animal research programs are both necessary and being accomplished correctly." Recommended the AF <u>not contract out</u> these programs.

  - <u>Oct 1993 DOD IG Review of the Use of Animals:</u> AL/Brooks "... aggressively supports all humaneness issues/requirements..."

- BAFB has approximately 720 NHP's which will require housing at WPAFB: WPAFB has facilities for approx. 200. Majority of WPAFB's research animals currently housed are rodents.

  - BAFB has superior NHP facilities; WPAFB has superior rodent facilities.

  - If current AL research plus Tri-Service mission are moved to WPAFB, an additional 60,000 sq ft of animal care facility required at an approximate cost of $18M to comply with AAALAC and AWA standards.

- BAFB Veterinary Sciences has close ties to other San Antonio R&D facilities: Southwest Foundation for Biomedical Research; Southwest Research Institute; University of TX Health Science Center, Brooke Army Clinical Investigation Facility; Brooke Army Burn Center; Lackland Clinical Investigation Facility; Lackland Dog Center.

- Our goal is humane biomedical research that will benefit us all.

Colonel Golden/AL/OEV/DSN 240-2825/31 Mar 95

TALKING PAPER ON
TRI-SERVICE DIRECTED ENERGY BIOEFFECTS RESEARCH
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
ARMSTRONG LABORATORY
HUMAN SYSTEMS CENTER
BROOKS AFB TEXAS

BACKGROUND: Under Project Reliance, Brooks AFB Texas is the collocation of all military research on the health and safety of exposure to directed energy in the electromagnetic spectrum. Army, Navy, and Air Force laser and microwave bioeffects research personnel (approximately 133 professionals) utilize 120,000 sq ft of space and highly specialized equipment to assess the hazards of human exposure to various forms of directed energy. Threat assessments, countermeasures, and applications of directed energy bioeffects are also investigated. Much of the research requires the use of animal models, including primates. The scientists, support personnel, state-of-the art research facilities, and animal vivaria at Brooks AFB constitute a resource that is unique in the Western World. It is in service of a military mission that is ever growing in importance because of the increasing use of directed energy on the modern battlefield.

DISCUSSION:

All Military directed energy bioeffects research was collocated in order to increase efficiency, leverage resources, and produce synergy in research designed to protect personnel from hazardous exposure to microwaves and lasers, which will have a constantly increasing role in both peacetime, war, and special military operations. This highly focused research is conducted by integrated teams of mathematicians, physicists, engineers, physicians, ocular scientists, biologists, physiologists, and behaviorists that have been formed by years of experience. Requirements such as heavy, expensive, and often militarily unique equipment, security classification, cross-disciplinary teams, animal use, and readiness demand that this research be done in-house by military civilian and active duty personnel. University or industrial performance of this research would be incredibly more expensive, and much less flexible.

The team from the BRAC 95 will see 1 of the 17 Tri-Service anechoic chambers and 1 of our more than 40 RFR transmitters, the Transformer Energized Megavolt Pulsed Output (TEMPO). The TEMPO is the perfect example of Tri-Service synergy, since it is an Army transmitter, in an Air Force building, being readied for a Navy research protocol. This TEMPO is the only such device available for biological research in the World. Similar emissions from fielded systems could be a hazard to military personnel. The recent move of the TEMPO from Washington, D. C. to Brooks AFB has caused it to be out of commission for 24 months.

PAYOFF: Tri-Service research at Brooks AFB directly protects military personnel from hazardous exposure to microwave and laser directed energy. Military research in this area also supports national and international civilian standards. Litigation avoidance is a secondary benefit. Protection of this program and its mission should be an important consideration in the deliberations and final decision by BRAC95.

Col Eric K. Vermulen, Armstrong Laboratory, OE, (210) 536-2003

A .FF DIRECTORY

ALVA 23-1, 17 Mar 95
OPR: AL/SDE

ARMSTRONG LABORATORY

Armstrong Laboratory (AL)
2509 Kennedy Circle
Brooks Air Force Base, Texas 78235-5118

COMMAND SECTION

CC	Director Dr Godfrey	3116
CD	Commander/Deputy Director Col Jones	3136
CA	Chief Scientist Dr Mohr	3656
CCE	Executive Officer Ms Boll	3136
CCQ	Hq Sq Sec Commander Capt Coats	2673
CCF	First Sergeant CMSgt Swaney	2740

NOTES

1. AL(FAS) Wright-Patt AFB OH 45433-5001
2. OL-WM(FAS) Mesa AZ 85240-6457
3. AL/(FAS) Tyndall AFB FL 32403-6319
4. AL/(FAS) Aberdeen PG MD 21010-5118
5. AL/(FAS) Kadena AB JA 96370
6. Three-position FASs are divisions
7. Matrixed organization

PROTOCOL (SDEP)

SSgt Edwards	2055
MSgt Rouse (SDNP - WPAFB)	785-7620

QUALITY IMPROVEMENT (QI)

Dr Cupello	2349
Forensic Services Dr Modak	2506

COMPTROLLER (FM)

Mr Lint	(6) 3667

CONTRACTING (HSC/PKR)

Ms Shen	(6) 6343

SUPPORT DIRECTORATE (SD)

SD	Director Col McDaniel	3575
	Executive Manager Ms Andrews	3575
SDE	Superintendent SMSgt Rogers	2280
SDJ	Technical Operations Mr Humes	3448
SDK	Technical Info Services Mr Todd	2808
SDM	Research Engineering & Fab Svcs Mr Koegel	3327
SDN	AL North Support Services Maj Barnum	(1) 785-7618
SDP	Manpower, Personnel & Training Mr Ehrlich	6498
SDS	Technical Visual Services Mr Pilato	2410

PLANS DIRECTORATE (XP)

XP	Director Col Polhamus	2091
	Executive Manager Dr Miller	2091
XPP	Programs Mr Cullen	2838
XPT	Technology Integration Mr Riemer	3687

PREV AND HLTH SERVICES ASESSMENT DIRECTORATE (OPHSA)

PS	Director Col Wright	2604
PSE	Executive Services Ms Fell	2649
PSI	Information Analysis Lt Col Cornall	6519
PSS	Studies and Analysis Vacant	3471
PSP	Clinical Preventive Services Lt Col Meyer	6510

AEROSPACE MEDICINE DIRECTORATE (AO)

AO	Director Col Henriksen	3208
	Executive Manager Vacant	3208
AO-CA	Chief Scientist Col Miner	4751
AOC	Clinical Sciences Col Burton	2811
AOE	Epidemiologic Research Col Wright	2604
AOH	Hyperbaric Medicine Col Davis	3281
AOP	Programs & Operations Lt Col McLean	2144
AOT	Drug Testing Lt Col Mehm	3723

CREW SYSTEMS DIRECTORATE (CF)

CF	Director Mr Brinkley	(1) 785-5227
	Executive Manager Col Hill	(1) 785-5227
CF-CA	Chief Scientist Dr Burton	2448
CFA	Office of Advanced Technology Integration Capt Nesby	(1) 785-6644
CFB	Biodynamics & Biocom Dr Moore	785-3603
CFD	Chemical & Biological Defense Dr Reyes	(4) 584-3995
CFH	Human Engineering Dr Boff	(1) 785-7580
CFP	Programs and Operations Mr Banks	(1) 785-3993
CFT	Crew Technology Col Dixon	2742

ENVIRONICS DIRECTORATE (EQ)

EQ	Director Col Lamb	(3) 523-6274
EQ-CA	Chief Scientist Dr Katona	(3) 523-6272
EQA	Executive Officer Capt Abernathy	523-6293
EQC	Environmental Research Dr Cornette	(3) 523-6007
EQP	Programs & Plans Lt Col Smitherman	(3) 523-6231
EQS	Environmental Compliance Maj Coppola	(3) 523-6308
EQW	Site Remediation Lt Col LaPoe	(3) 523-6244
TIC	Tech Information Center Mr Poulis	(3) 523-6285

HUMAN RESOURCES DIRECTORATE (HR)

HR	Director Col Strickland	2685
	Deputy Director Dr Ruck	3605
HR-CA	Chief Scientist Dr Alley	3605
HRA	Aircrew Training Research Col Carroll	(2) 474-6561
HRG	Logistics Research Mr Cream	(1) 785-6797
HRM	Manpower & Personnel Research Col Zank	2244
HRO	Computer Operations Mr Myer	3931
HRP	Programs & Operations Ms Thompson	3611
HRT	Technical Training Research Lt Col Bushman	2912

OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE (OE)

OE	Director Col Vermulen	2003
	Executive Manager Lt Col (Sel) Kull	2003
OE-1	Mr Thomas	2001
OE-CA	Chief Scientist Dr Farrer	2001
OEA	Analytical Services Lt Col Locke	3626
OEB	Bioenvironmental Engineering Lt Col Montgomery	3305
OEM	Occupational Medicine Col Stokes	2063
OEO	Optical Radiation Lt Col Cartledge	3622
OEP	Programs & Operations Lt Col Elmore	3421
OER	Radiofrequency Radiation Dr Murphy (Acting)	3682
OES	Mathematical Products Dr Albanese	2890
OET	Toxicology Lt Col Childress	(1) 785-3423
OEV	Veterinary Sciences Col Golden	2612
NU	Det 3 Lt Col Pazayra	(6) 634-1769

Defense Switched Network (DSN): 240-XXXX
Commercial: (210) 536-XXXX
Data FAX: DSN/Comm-2371
Video Teleconference Ctr - 2721

CITY OF SAN ANTONIO

OFFICE OF THE MAYOR

April 11, 1995

Lester C. Farrington
BRAC Staff
1700 North Street, Suite 1425
Arlington, VA 22209

Dear Mr. Farrington.

I hope you enjoyed your visit to Brooks AFB and San Antonio as much as we enjoyed having you here. Wednesday evening on the river could not have been more enjoyable.

The Commission has a tough job. Recognizing this fact, we decided to look for an approach which took into account DoD objectives ,the mission of the Commission, as well as our interests in San Antonio. The result is the cost effective cantonment alternative which we presented to the Commissioners on April 6, 1995. Our cantonment proposal is a true win-win option for the Commission to consider - Brooks AFB is closed, the huge upfront costs are avoided, the move of over 3000+ people is avoided, and more than twice the Net Present Value savings are realized over twenty years. For your information, we also asked ourselves what happens after twenty years; in other words, is there a point in time where the savings associated with complete closure exceed the savings of the cantonment alternative. The answer is "never"; actually, we stopped doing the calculations at seven hundred years.

I know you and the Commissioners will give our proposal a fair hearing. If you have any questions or need clarification, please call Paul Roberson (210-229-2124).

I hope you will visit San Antonio again in the near future.

Sincerely,

Nelson Wolff

Mayor Nelson Wolff
City of San Antonio

Let me know if you have
Need for any additional information

MAILING:
P.O. BOX 839966
SAN ANTONIO, TEXAS 78283-3966

CITY OF SAN ANTONIO, TEXAS
CITY HALL (210) 299-7060
FAX # (210) 270-4077

DRAFT (X Team - See Cmnty Book & Transcr pp52-74)

REGIONAL HEARING ISSUE SUMMARY
BROOKS AFB, TX
DALLAS REGIONAL HEARING, DALLAS CONVENTION CENTER
APRIL 19, 1995

- Gov Bush - Part of the Air Force Brain Trust. Vital Part of the Community. City has come up with an incredibly common sense proposal.

- Sen Hutchinson - Air Force did not look at the savings of the cantonment concept.
  - Commented later on relationship of Brooks with University of Texas

- Mayor Wolff - Noted special City task force created to understand and recognize Brooks. Convinced city of importance of Brooks to USAF due to scientists and the relationship to San Antonio.
  - Scientists will not leave city - thus interruption of research
  - Commission mission is to save money and reduce infrastructure
  - Major Point - Cantonment closes Brooks yet saves taxpayers 2X the DoD proposal
  - Major Point - Concept avoids interruption to research and risk of losing 50-75% of the 3000 professionals

- Judge Cyndi Krier - Reviewed Brooks AFB mission in detail.
  - Unique collection of scientists, researchers, medical doctors and technicians
  - Research mecca with 3000 professionals - 1000 are scientists
  - Noted major research areas and efforts
  - Train 5000 medical students each year
  - Brooks is an integrated research center - noted interrelationships and synergy's to area
  - Nation's military capability will suffer
  - Noted opportunities for interaction and joint venture in San Antonio

- Jose Villarreal - Made detailed comparison of DoD and City proposals (See Book Provided, includes slides)
  - Proposal costs $11 Mil vs. $185 Mil. NPV is $301 Mil vs. $142 Mil.
  - Continues to save more than DoD proposal forever (at least the 700 yrs ran on COBRA)

- Tullos Wells - Discussed the "people" - the Nations loss of the professional investment
  - Noted in response to Commissioner Robles question that either Kelly or Lackland could absorb the workload.

- Congressman Tejeda - Brief recap of issues

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

SUMMARY SHEET

BROOKS AIR FORCE BASE, SAN ANTONIO, TX

INSTALLATION MISSION

Brooks Air Force Base is an Air Force Material Command base. It supports a number of activities such as the Human Systems Center and Armstrong Laboratory. The Human Systems Center's mission is to protect and enhance human capabilities and human-systems performance with a scope of impact ranging from the individual to combatant command forces including DOD and Allied Nations Forces. Armstrong Laboratory is the Air Force's center of excellence for human-centered science and technology.

DOD RECOMMENDATION

- Close Brooks Air Force Base. The Human Systems Center, including the School of Aerospace Medicine and Armstrong Laboratory, will relocate to Wright-Patterson Air Force Base, Ohio, however, some portion of the Manpower and Personnel function, and the Air Force Drug Test Laboratory, may relocate to other locations. The 68th Intelligence Squadron will relocate to Kelly Air Force Base, Texas. The Air Force Center for Environmental Excellence will relocate to Tyndall Air Force Base, Florida. The 710th Intelligence Flight (AFRES) will relocate to Lackland Air Force Base, Texas. All activities and facilities at the base including family housing and the medical facility will close.

DOD JUSTIFICATION

- The Air Force has more laboratory capacity than necessary to support current and projected Air Force research requirements. When compared to the attributes desirable in laboratory activities, the Armstrong Lab and Human Systems Center operations at Brooks Air Force Base contributed less to Air Force needs as measured by such areas as workload requirements, facilities, and, personnel. As an installation, Brooks Air Force Base ranked lower than the other bases in the Laboratory and Product Center subcategory.

COST CONSIDERATIONS DEVELOPED BY DOD

- One-Time Cost: $185.5 million
- Net Costs and Savings During Implementation: $ 138.7 million
- Annual Recurring Savings: $ 27.4 million
- Break-Even Year: 7 years
- Net Present Value Over 20 Years: $ 142.1 million

REPRESENTATION

Governor:	Fife Symington
Senators:	John McCain
	Jon Kyl
Representative:	John Shadegg

ECONOMIC IMPACT

- Potential Employment Loss: 38 jobs retained (38 direct and 0 indirect)
- Phoenix-Mesa, AZ, MSA Job Base: 1,296,646 jobs
- Percentage: 0.0 percent decrease
- Cumulative Economic Impact (1994-2001): TBD percent decrease

- Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in employment in the Orange County, Osceola County, and Seminole County, Florida, economic area.
- As a result of Armstrong Laboratory being retained at Mesa, Arizona, this action results in the retention of 38 direct jobs in the Phoenix-Mesa, Arizona, Metropolitan Statistical Area.

MILITARY ISSUES

- Why was facility reuse planning used as a consideration factor for this recommendation?
- [The Air Force's justification states, in part, that the activities are consistent with the community's plans for redevelopment of the Williams Air Force Base property, including a university and research park. The Defense Base Closure and Realignment Act of 1990 states that "In considering military installations for closure or realignment, the Secretary may not take into account for any purpose any advance conversion planning undertaken by an affected community with respect to the anticipated closure or realignment of an installation" (Title XXIX, Part A, Sec. 2903, paragraph (c)(3)(B)).]

COMMUNITY CONCERNS/ISSUES

- To be provided.

ITEMS OF SPECIAL EMPHASIS

- None.

Mark A. Pross/Air Force Team/March 20, 1995/4:00 p.m.

BASE VISIT REPORT

THURSDAY 6 APRIL 95

BROOKS AIR FORCE BASE
SAN ANTONIO, TEXAS

LEAD COMMISSIONER:

Commissioner Ben Montoya

ACCOMPANYING COMMISSIONERS:

Commissioner Rebecca Cox
Commissioner Joe Robles
Commissioner Wendi Steele

COMMISSION STAFF:

Les Farrington, Cross Service Team
Craig Hall, Air Force Team
Joe Varallo, Cross Service Team

LIST OF ATTENDESS:

PRESENT MISSION OF BASE:

Among its many functions, Brooks is the home of the Human Systems Center (HSC) of the Air Force Material Command. HSC conducts scientific and technical research related to the integration of human factors in Air Force systems. A key component of the HSC is Armstrong Laboratory, one of the four Air Force superlabs, which conducts both in-house and contracted basic, exploratory and advanced development research. In addition, the HSC oversees the USAF School of Aerospace Medicine, the Air Force Center for Environmental Excellence and the Air Force medical support agency, among other tenants and functions at Brooks.

DOD RECOMMENDATION:

Close Brooks AFB. Relocate the Human Systems Center (HSC), including the School of Aerospace Medicine and the Armstrong Laboratory, to Wright-Patterson AFB, Ohio. However, some portion of the Manpower and Personnel function, and the Air Force Drug Test laboratory, may relocate to other locations. The 68th Intelligence Squadron will relocate to Kelly AFB, Texas. The Air Force Center for Environmental Excellence will relocate to Tyndall AFB, Florida. The 710th Intelligence Flight (AFRES) will relocate to Lackland AFB, Texas. The hyperbaric chamber operation, including associated personnel, will relocate to Lackland AFB,

MILITARY ISSUES

- Loss of synergy with San Antonio military community with movement of Human Systems Center and Armstrong Laboratory to Wright-Patterson Air Force Base.
- Mission cannot be maintained at Wright-Patterson because only 25-30% of key scientific personnel will actually move from the biomedically rich San Antonio area.
- Potential loss of accrediation in the scientific community because of the extensive time it will take to become re-accrediated. (missions will suffer)
- Significant underestimate of military construction costs at Wright-Patterson. No transition plan available and site survey only now being conducted by Air Force. Estimates of $103 million per Air Force vs. $250-300 per Brooks.
- Hihh risk in moving some of the large laboratory equipment and supporting piping due to its age. Re-certification at new location may also present a problem (some of current lab equipment was "grandfathered" some time ago.

COMMUNITY CONCERNS/ISSUES

- The Greater San Antonio Chamber of Commerce has a proposal to close Brooks Air Force Base and retain certain Brooks' missions in cantonment in San Antonio (Human Systems Center, Human Systems Program Office, Armstrong Laboratory, School of Aerospace Medicine and the Center for Environmental Excellence). The proposal relocates Intelligence Squadrons to Kelly and Lackland assumes base operations support from Kelly. Lower costs and greater savings are projected with this cantonment approach as compared to the DOD proposal.
- Community proposal considered Kelly and not nearby Lackland. DBCRC to pursue with Air Force cost data on Lackland providing base support.

ITEMS OF SPECIAL EMPHASIS

- Use and support of family housing at Brooks may be an issue.

Lester C. Farrington/Cross Service/04/12/95 6:01 PM

MANPOWER IMPLICATIONS OF THIS RECOMMENDATION (EXCLUDES CONTRACTORS)

	Military	Student	Civilian
Baseline	**3999**	**0**	**11455**
Reductions	237	0	154
Realignments	1717	0	1511
Total	1954	0	1665

MANPOWER IMPLICATIONS OF ALL RECOMMENDATIONS AFFECTING THIS INSTALLATION (INCLUDES ON-BASE CONTRACTORS AND STUDENTS)

	Out		In		Net Gain (Loss)	
Recommendation	Military	Civilian	Military	Civilian	Military	Civilian
TOTAL	1954	1665	0	0	(1954)	(1665)

ENVIRONMENTAL CONSIDERATIONS

- Environmental impact from this action is minimal and ongoing restoration of Brooks will continue.

REPRESENTATION

Governor:	George W. Bush,Jr.
Senators:	Phil Gramm
	Kay Bailey Hutchinson
Representatives:	Gonzalez
	Bonilla
	Smith
	Tejeda

ECONOMIC IMPACT

- Potential Employment Loss: 7,879 jobs (3759 direct and 4120 indirect)
- San Antonio MSA Job Base: 730,857
- Percentage: 1.10 percent decrease
- Cumulative Economic Impact (1994-2001): 0.09 percent decrease

1995 DoD Recommendations and Justifications

Brooks Air Force Base, Texas

Recommendation: Close Brooks AFB. The Human Systems Center, including the School of Aerospace Medicine and Armstrong Laboratory, will relocate to Wright-Patterson AFB, Ohio, however, some portion of the Manpower and Personnel function, and the Air Force Drug Test laboratory, may relocate to other locations. The 68th Intelligence Squadron will relocate to Kelly AFB, Texas. The Air Force Center for Environmental Excellence will relocate to Tyndall AFB, Florida. The 710th Intelligence Flight (AFRES) will relocate to Lackland AFB, Texas. The hyperbaric chamber operation, including associated personnel, will relocate to Lackland AFB, Texas. All activities and facilities at the base including family housing and the medical facility will close.

Justification: The Air Force has more laboratory capacity than necessary to support current and projected Air Force research requirements. When compared to the attributes desirable in laboratory activities, the Armstrong Lab and Human Systems Center operations at Brooks AFB contributed less to Air Force needs as measured by such areas as workload requirements, facilities, and personnel. As an installation, Brooks AFB ranked lower than the other bases in the Laboratory and Product Center subcategory.

Return on Investment: The total estimated one-time cost to implement this recommendation is $185.5 million. The net of all costs and savings during the implementation period is a cost of $138.7 million. Annual recurring savings after implementation are $27.4 million with a return on investment expected in seven years. The net present value of the costs and savings over 20 years is a savings of $142.1 million.

Impacts: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 7,879 jobs (3,759 direct jobs and 4,120 indirect jobs) over the 1996-to-2001 period in the San Antonio, Texas Metropolitan Statistical Area, which is 1.1 percent of the economic area's employment. The cumulative economic impact of all BRAC 95 recommendations, including the relocation of some Air Force activities into the San Antonio area, and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.9 percent of employment in the economic area. Environmental impact from this action is minimal and ongoing restoration of Brooks AFB will continue.

Texas

Bergstrom Air Reserve Base

Outbound

924th Fighter Wing (AFR) ..... Inactivate
F-16s (AFR) ..... To be redistributed/retired
Headquarters 10th Air Force (AFR) ..... To NAS Fort Worth, Texas

Brooks Air Force Base

Outbound

Human Systems Center ..... To Wright-Patterson AFB, Ohio
Armstrong Laboratory ..... To Wright-Patterson AFB, Ohio
68th Intelligence Squadron ..... To Kelly AFB, Texas
Air Force Center for Environmental Excellence ..... To Tyndall AFB, Florida
Air Force Medical Support Agency ..... To Fort Detrick, Maryland
710th Intelligence Flight (AFR) ..... To Medina Annex, Lackland AFB, Texas
Hyperbaric chamber/personnel ..... To Lackland AFB, Texas

Kelly Air Force Base

Inbound

DNA's Field Command ..... From Kirtland AFB, New Mexico
68th Intelligence Squadron ..... From Brooks AFB, Texas
Air Force Inspection Agency ..... From Kirtland AFB, New Mexico
Air Force Safety Agency ..... From Kirtland AFB, New Mexico

Lackland Air Force Base

Inbound

Air Force Office of Security Police ..... From Kirtland AFB, New Mexico
710th Intelligence Flight (AFR) Medina Annex ..... From Brooks AFB, Texas
Hyperbaric chamber/personnel ..... From Brooks AFB, Texas

Fort Worth

Outbound

Air Force Electronic Warfare Evaluation Simulator activity ..... To Edwards AFB, California

Naval Air Station Fort Worth

Inbound

Headquarters 10th Air Force (AFR) ..... From Bergstrom Air Reserve Base

Reese Air Force Base

Outbound

64th Flying Training Wing ..... Inactivate
Assigned aircraft ..... To other Air Force undergraduate flying training bases/retire

BROOKS/ARMSTRONG LABORATORY QUESTIONS

1. Major General Blume, considering that an active runway is not at all necessary to the militarily unique laboratory functions at Brooks Air Force Base, and there are several active military runways in San Antonio, why would the DoD methodology consider a runway foremost in its assessment of the military value of Brooks?

2. Major General Blume, in all of DoD capacity, ~~40%~~ approximately 35-40% of human systems research and technology development is conducted at Brooks AFB. ~~20%~~ 15-20% is conducted at Wright-Patterson AFB, Ohio, and the remaining 40% is conducted by the Army and the Navy at 15-17 separate sites.

The Joint-Cross Service Groups ~~considered~~ recommended the consolidation of Army and Navy human systems lab functions at Brooks & WPAFB, and found that Brooks has more capacity than Wright-Patterson, and a ~~indicated the~~ higher functional value ~~the certified data~~

Given all of this, why did the Air Force recommend the closure of Brooks?

3. Major General Blume, a strong cantonment plan has emerged that proposes to close Brooks, while preserving the functions of ~~Armstrong Laboratory~~ Human Systems Center, ie, A-L-, SAM, Hum Sys SPO, etc), one of the four Air Force "superlabs."

This plan would 1)save tens of millions of dollars over moving to Wright-Patterson, 2)preserve the unique "missions and missionaries" at Brooks and 3) not jeopardize Armstrong Lab's "world-class" status. and preserve the unique mix of skills & education of both the civilian & military personnel.

Did the Air Force consider this option?

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950427-10

FROM: CHEEVER, CHARLES F.	TO: CIRILLO, FRANK
TITLE: BRAC 95 CO-CHAIR	TITLE: AF TEAM LEADER
ORGANIZATION: SAN ANTONIO BRAC 95	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: BROOK AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR				COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER	✓		
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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:

DESCRIBING ALTERNATIVE PLAN FOR CLOSURE OF BROOKS AFB USING CANTONMENT AREA.

Date: 950504	Routing Date: 950427	Date Originated: 950426	Mail Date:

BRAC '95

BASE REALIGNMENT AND CLOSURE TASK FORCE

Please refer to this number when responding 950427-10

April 26, 1995

Francis A. Cirillo, Jr.
Air Force Team Leader
Defense Base Closure and
Realignment Commission
1700 N. Moore Street, Suite 1425
Arlington, VA 22209

Dear Mr. Cirillo:

Thank you for your April 20, 1995 letter and the opportunity to describe the San Antonio cantonment strategy, and specifically, the concept of operations for Brooks AFB in more detail.

The San Antonio cantonment strategy is straight-forward. Brooks AFB would be closed and all base operating support (BOS) and real property maintenance (RPMA) would be provided by Kelly AFB or Lackland AFB. This concept would accomplish the following.

- Brooks AFB would be closed.
- $174 million in one-time closure costs would be avoided ($11 million vice $185 million).
- The 20 year new present value savings would exceed $301 million--more than twice as much as the DOD proposal.
- The return on investment would begin in year one.

In addition, the risks of losing perhaps as many as 50-75% of the scientists and engineers (who tell us they will not move to Dayton and Panama City) would be avoided and the synergies with San Antonio's very substantial military and civilian human systems and bioscience communities (which can not be matched in Dayton and Panama City) would be preserved.

BRAC '95
P.O. BOX 1628
SAN ANTONIO, TEXAS 78232

210-229-2147

FAX: 210 229 1600

TEL AVIV UNIVERSITY אוניברסיטת תל-אביב

SACKLER FACULTY OF MEDICINE
CHAIM SHEBA MEDICAL CENTER, ISRAEL
MAURICE AND GABRIELA GOLDSCHLEGER EYE RESEARCH INSTITUTE

הפקולטה לרפואה ע"ש סאקלר
המרכז הרפואי ע"ש חיים שיבא
המכון לחקר העין ע"ש מוריס וגבריאלה גולדשלגר

TEL. 03-6358829 טל'

April 19th, 1995

Mr. Paul Roberson, Chairman,
BRAC - San Antonio,
Chamber of Commerce, Greater San Antonio,
P.O. Box 1638,
San Antonio,
TX 78296,
U.S.A.

Dear Sir,

It is with great consternation that I recently heard that the U.S. Army Laser Laboratory currently in Brooks AFB in San Antonio is liable to be relocated again as part of the ongoing BRAC efforts.

I have been closely associated with this laboratory for nearly twenty years and, knowing the scientific and personnel situation there, I must register a strong protest and warning against moving it again.

The reasons for my strong misgivings regarding this ominous possibility are as follows:

1. The military problems engendered by the use of laser as very effective long-range weapons aimed at blinding soldiers has become common knowledge. The threat is so dire that the Red Cross is attempting to pass a resolution forbidding the use of such weapons, on par with nuclear, chemical and biological warfare. This ban is highly unlikely to be effective since laser technology is driven by civilian industry for civilian purposes and all the potential weapon user has to do is to buy it off-the-shelf. If you are interested in the subject, it is detailed in a recently published book entitled "Laser Weapons" by Wolbarsht and Anderberg. The bottom line is that laser weapons are a serious present-day threat for the U.S. Military. It will also be a civilian threat when terrorists purchase lasers for their purposes.

2. The U.S. Army Laser Laboratory (U.S. Army Medical Research and Development Detachment located in Building 176 at Brooks Air Force Base) is the only laboratory in the world researching the treatment of laser-induced eye injuries. There is no present-day treatment for those potentially blinding wounds.The laboratory's scientists are on the verge of developing practical treatment for such injury and thus will save not only eyesight of soldiers which will be impaired in future military conflicts, but also that people who are often nowadays injured in industrial and laboratory accidents.

3. This laboratory is also the only one in the world that specializes in the evaluation of such casualities.

המכון לחקר העין ע"ש מוריס וגבריאלה גולדשלגר, המרכז הרפואי ע"ש שיבא, תל השומר 52621. פקסימיליה: 03-5351577.
Maurice and Gabriela Goldschleger Eye Research Institute, Sheba Medical Center, Tel Hashomer 52621, Israel Fax: 972 3 5351577
E-Mail: eyeres@ccsg.tau.ac.il :דואר אלקטרוני

4. This laboratory is also the source of the basic data required for the establishment of safety criteria for laser use. The data accumulated and published by its staff is used worldwide for the formulation of regulations for safe employment of laser instruments in all walks of life, civilian and military.

5. The work of the laboratory was interrupted and stopped for about two years when they moved from San Francisco to San Antonio. Even if one disregards the human costs and expenses incurred by moving such a laboratory, the impact of the idleness which will be forced again upon the laboratory by another move will unacceptably retard the state of readiness of the U.S. military forces. Please bear in mind that they have just begun to research again after the last move.

6. Furthermore, I doubt that most of the personnel in this laboratory (or their families) will agree to another translocation. Thus the U.S. military (and the world) will lose the best research team in this field. This loss, which will be unremediable, will set back the research efforts in this field for very many years.

In view of all the above, I suggest and hope that you will object to and oppose moving the U.S. Army Medical Research Detachment from their present location.

Sincerely yours,

Michael Belkin, M.A., M.D.
Professor of Ophthalmology

THE GREATER SAN ANTONIO CHAMBER OF COMMERCE
Fax Transmission

TO: Lisa Farrington — Name
703 696 0550 — Fax Number
BRAC Staff — Organization
5/1/95 — Date

From:
___ Tullos Wells, Chairman of the Board - 229-2128
___ Joe Krier, President - 229-2128
___ Frances Wright Collins, Exec. Vice President - 229-2111
___ Jose Trujillo, Director of Operations - 229-2109
___ Lloyd Cunningham, VP-Information Systems - 229-2126
___ Patti Larsen, VP-Communications 229-2112
___ Bill Mock, VP-Small Business - 229-2132
___ Toni Renfrow, VP-Special Events - 229-2129
✓ Paul Roberson, Sr. VP-Military Affairs, BRAC - 229-2124
___ Tris Casteneda, VP-Governmental Affairs - 229-2162
___ Doug Williams, VP-Military Affairs - 229-2148
___ Richard Heard, VP-Membership - 229-2160
___ Dominick Pisano, Dir. Bus. Retention & Expansion229-2106
___ Jackie Craver, Vice President-Major Industry - 229-2114
___ _____

NUMBER OF PAGES **INCLUDING** COVER SHEET: 3

COMMENTS OR INSTRUCTIONS: _____

The Chamber.
An Advocate for Business Since 1894

602 E. Commerce Street P.O. Box 1628 San Antonio, TX 78296
Fax: (210) 229-1600 Exec. Fax: (210) 229-2140

LJCSG Process (1)

- 30 Nov 94 Review Group
  - Report to, Assist MILDEPs
  - Consider CSFs
- Membership: MILDEPS, OSD DDR&E, T&E, PA&E, S&SS, TWP, P&R, Comptroller, IG
- Scope:
  - T&E ? (negated) (correlate output)
  - 81 "Activities"
  - Life cycle segments: S&T, ED, ISE
  - 30 CSFs (22 Product, 8 Pervasive - S&T only)
  - Provide as much useful info, as soon as possible, to MILDEPs
- Working Group
  - Deputy DDR&E(LM) Chair (adjudicate)
  - 2 reps/Service: develop data call, analysis plan; analyze data

LSCSG Process (2)

- Joint Cross Service Analysis Tool
  - FC = Peak workyears between 86-93
  - FR = FY97 projected workyears; used FR-20% - reasonable
  - FV = weights, measures, "fit check"
  - MV: Mid-November. No real change
- Recommendations
  - 3 sets; summary with MV 21 Nov. military value
  - Mostly sub-marginal
- DDR&E/SAE Policy (Aug-Sep)
  - Biomedical, Energetics, C4I (Data Call 6 Oct; Briefs 14, 20 Oct)
  - Data available 17 Nov; DDR&E analysis, correlate w/T&E, brief LJCSG
  - Memo #4: Air Vehicles, A-A/A-G Weapons, Energetics, C4I "macro", 29 Nov

LJCSG Comments

MACPO

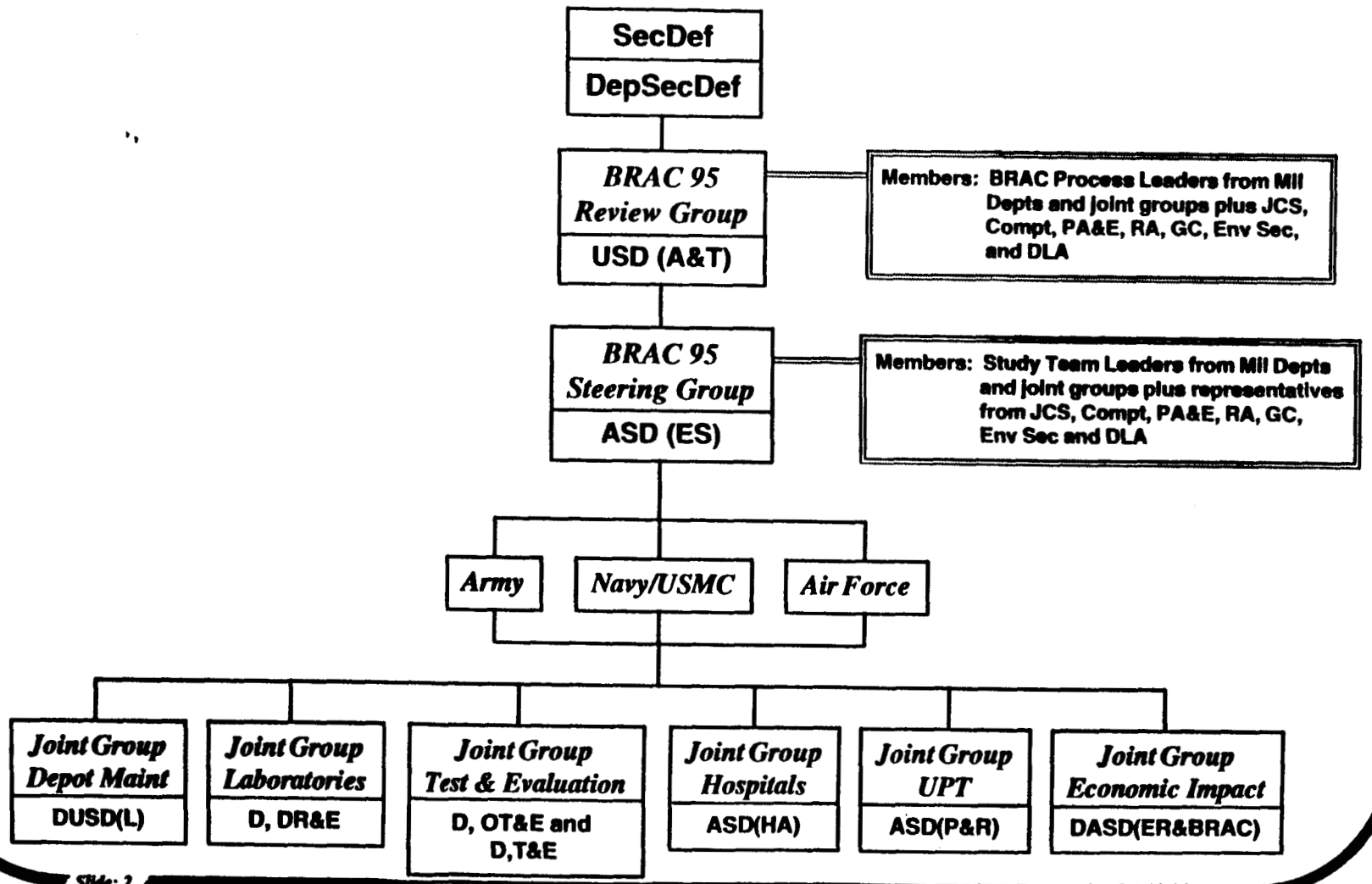
- Excess Capacity
  - Plant Replacement Value vs Workyears
  - "Required" lab capacity: DSB, DPG, Dorn (35%)
  - FY97 for FR; FC as peak
  - Response: FR+-20%, FR-20% (CSF 93-97=8%)
- New Data Call - various interpretations

no technical restraints on out-sourcing

- Insertion of Analysis Tool after Data Call
- Approach
  - CSFs = 55K/>105K (AF 90+%, A 70%, N 40%)
  - No clear picture of organizations, installations
  - Pervasive not just S&T
  - Life Cycle: thin slices, imbalance of coverage
  - Segregation from T&E (overlap and misses)

RDT&E

BRAC 95 Organization for Analysis



As of: 1/11/94

BRAC 95 Laboratory and Acquisition Command Reductions

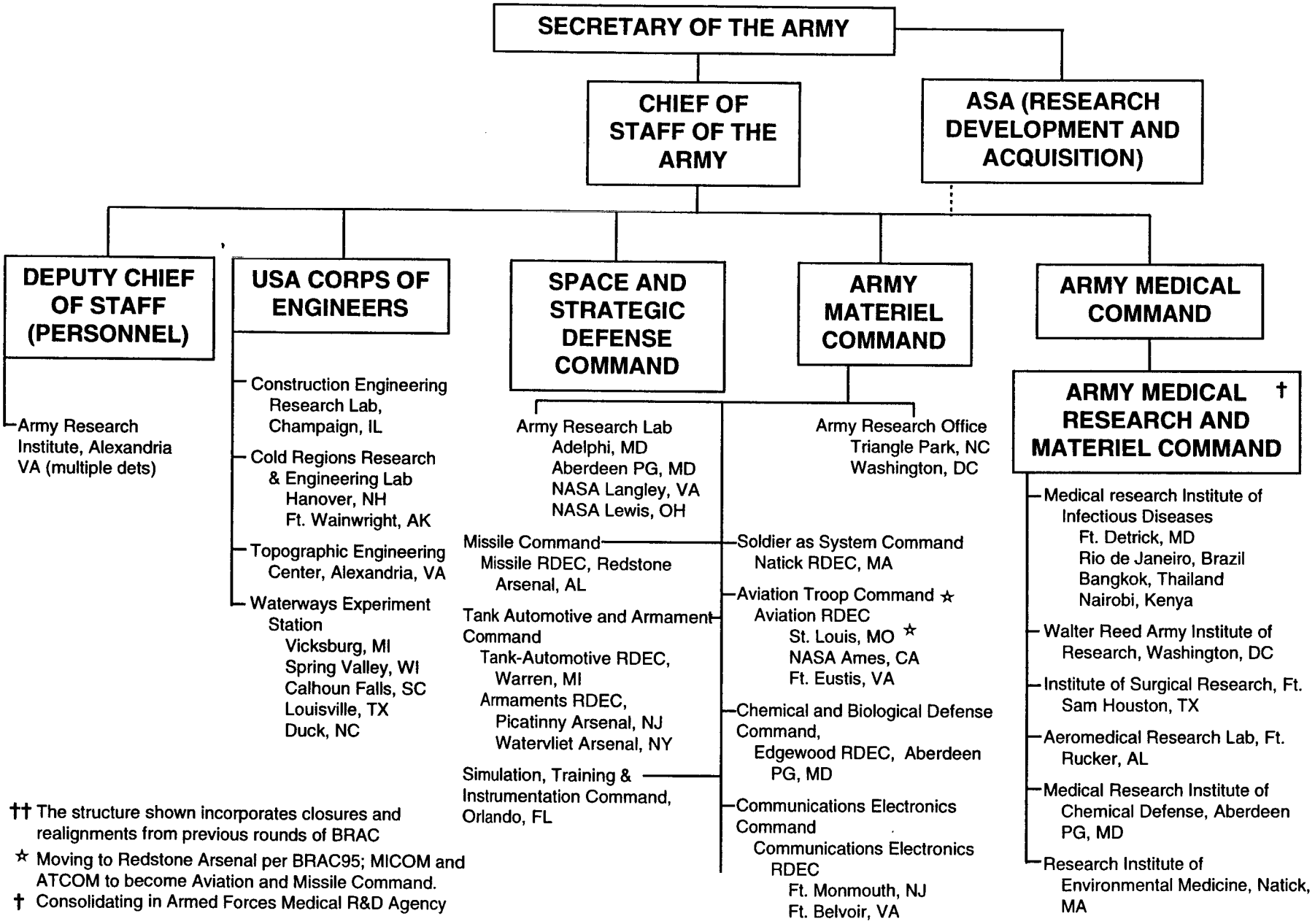
			FY-96 Employees			Force Structure Red'n#			BRAC Eliminations#				Total Reductions#			
			Off	Enl	Civ	Off	Enl	Civ	Off	Enl	Civ	Tot	Off	Enl	Civ	Tot
ARMY	*	ATCOM	163	84	3971	0	0	74	25	19	1022		25	19	1096	1140
		Total Army	**163**	**84**	**3971**	**0**	**0**	**74**	**25**	**19**	**1022**	**1066**	**25**	**19**	**1096**	**1140**
NAVY		NSWCCD, Annapolis	2	0	725	0	0	307	1	0	138		1	0	445	446
		NMRI Bethesda	56	160	193	0	0	0	8	41	27		8	41	27	76
	*	NAVMASSO	11	92	267	0	0	0	2	4	15		2	4	15	21
		NAWCAD Indianapolis	9	25	2852	0	2	240	6	0	1028	*	6	2	1268	1276
		NUWC Keyport, WA	16	132	2573	7	107	561	0	0	28		7	107	589	703
		NAWCAD Lakehurst	59	341	1944	-4	5	342	35	248	547	*	31	253	889	1173
		NSWC Crn Div Louisville	5	11	1607	1	0	300	4	0	437		5	0	737	742
		NUWC New London, CT	2	10	999	0	7	520	2	3	58		2	10	578	590
	*	NBL, New Orleans	4	11	37	0	0	0	1	11	37		1	11	37	49
		NISE East, Norfolk	4	12	348	3	7	295	0	0	0		3	7	295	305
		NISE West, San Diego	1	6	909	0	0	118	0	0	58		0	0	176	176
	*	NRL Orlando	0	0	100	0	0	0	0	0	45		0	0	45	45
		NHRC, San Diego	10	7	68	0	0	1	3	2	10		3	2	11	16
		NPRDC, San Diego	4	13	154	0	0	0	1	6	5		1	6	5	12
		NAWCAD Warminster	2	14	311	0	0	17	1	10	82		1	10	99	110
		NSWCDD White Oak	5	3	777	4	3	645	1	0	66		5	3	711	719
	*	ONR	35	4	419	0	0	0	0	0	0		0	0	0	0
	*	NAVSEA	316	70	4144	21	2	671	1	0	67		22	2	738	762
	*	SPAWAR	179	24	1031	2	0	156	43	4	358		45	4	514	563
		Total Navy	**720**	**935**	**19458**	**34**	**133**	**4173**	**109**	**329**	**3006**	**3444**	**143**	**462**	**7179**	**7784**
AF		Rome Laboratory	84	46	786	74	46	-137	0	0	50		74	46	-87	33
	*	Brooks AFB	640	999	1766	-186	-129	101	36	201	154		-150	72	255	177
		Williams AFB	5	10	24	0	0	0	0	0	0		0	0	0	0
		Total Air Force	**729**	**1055**	**2576**	**-112**	**-83**	**-36**	**36**	**201**	**204**	**441**	**-76**	**118**	**168**	**210**
		TOTAL DoD	**1612**	**2074**	**26005**	**-78**	**50**	**4211**	**170**	**549**	**4232**	**4951**	**92**	**599**	**8443**	**9134**
		Labs Only	**268**	**801**	**14407**	**85**	**177**	**3209**	**63**	**321**	**2616**	**3000**	**148**	**498**	**5825**	**6471**

\# All unsigned numbers are reductions; negative (-) numbers are increases.

* Reductions are not from laboratories but from acquisition commands or headquarters

* Includes "no salary savings estimations" : 601 at Indianapolis, 333 at Lakehurst

BRAC 95 PROPOSED IMPACT ON ARMY ACQUISITION STRUCTURE ††

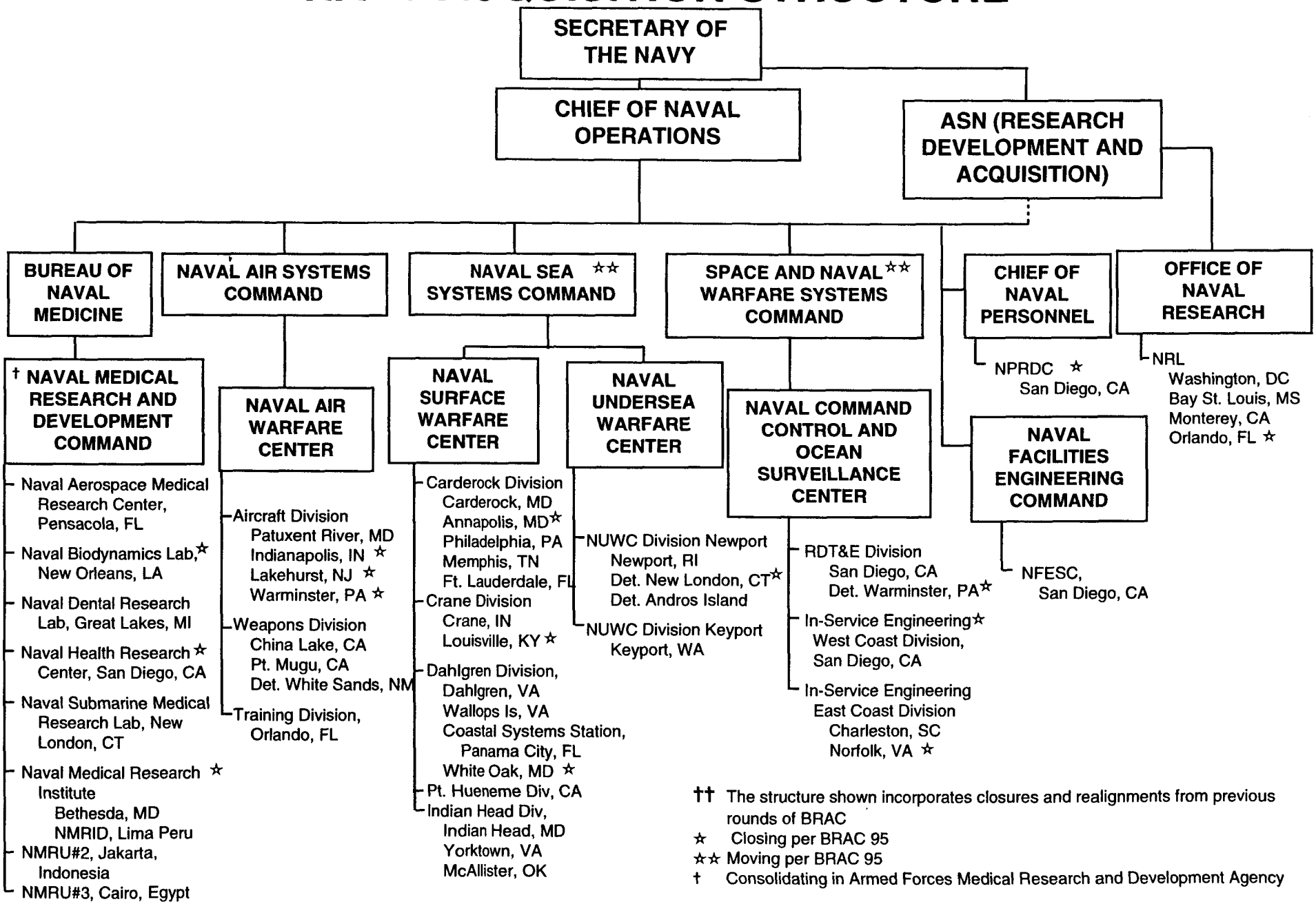


†† The structure shown incorporates closures and realignments from previous rounds of BRAC

☆ Moving to Redstone Arsenal per BRAC95; MICOM and ATCOM to become Aviation and Missile Command.

† Consolidating in Armed Forces Medical R&D Agency

BRAC 95 PROPOSED IMPACT ON NAVY ACQUISITION STRUCTURE ††



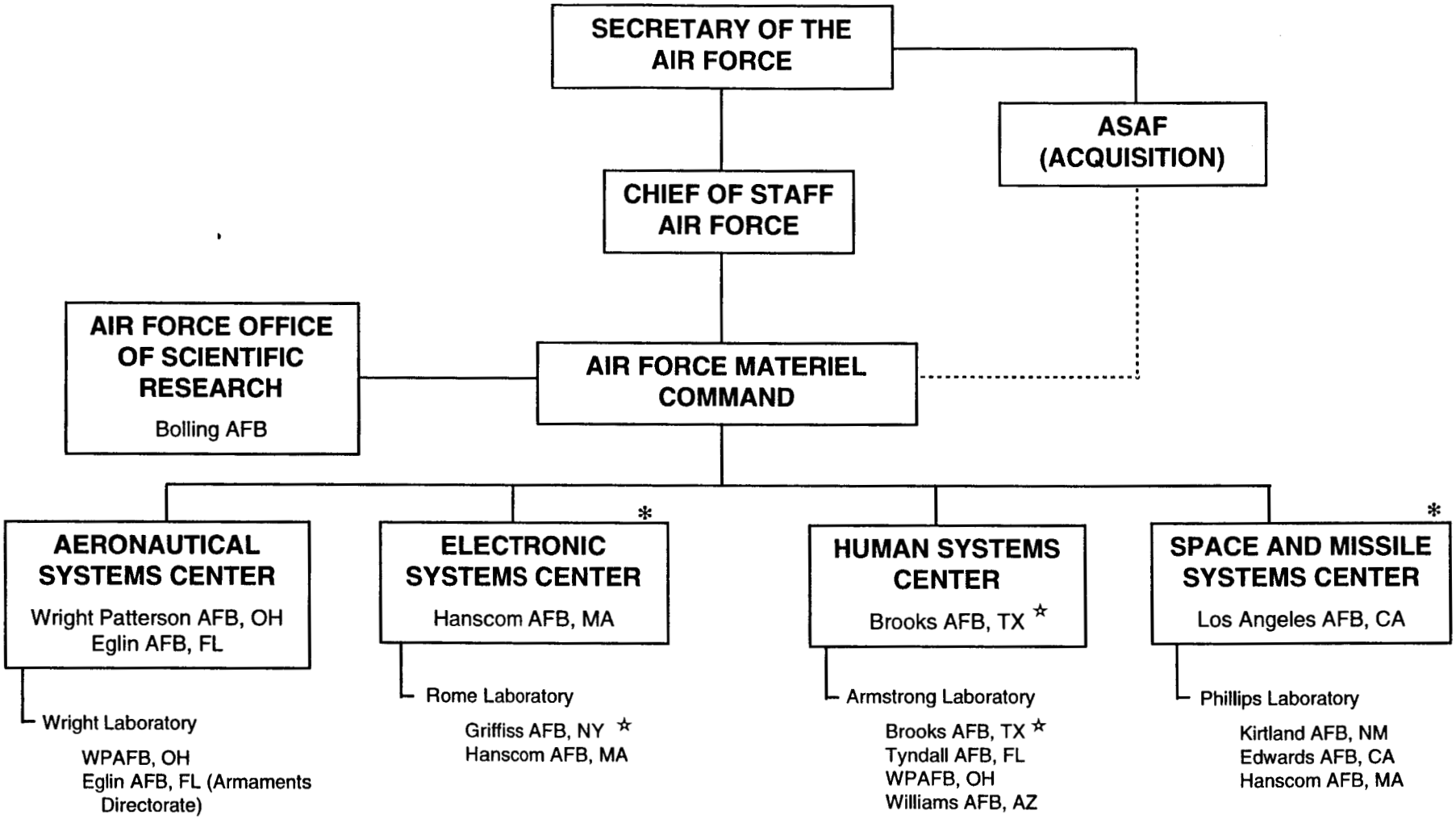
†† The structure shown incorporates closures and realignments from previous rounds of BRAC

☆ Closing per BRAC 95

☆☆ Moving per BRAC 95

† Consolidating in Armed Forces Medical Research and Development Agency

BRAC 95 PROPOSED IMPACT ON AIR FORCE ACQUISITION STRUCTURE ††



☆ BRAC 95Proposed Moves:
HSC and Armstrong Lab Brooks are moving to WPAFB, OH
Rome Lab Griffiss AFB moving to Hanscom AFB and Ft. Monmouth, NJ
Phillips Lab stays in place; Kirtland AFB is closing

†† The structure shown incorporates closures and realignments from previous rounds of BRAC

* Electronic Systems Center and Space and Missile Systems Center rely on FFRDCs (Mitre Corporation and Aerospace Corporation, respectively) for systems engineering and integration.

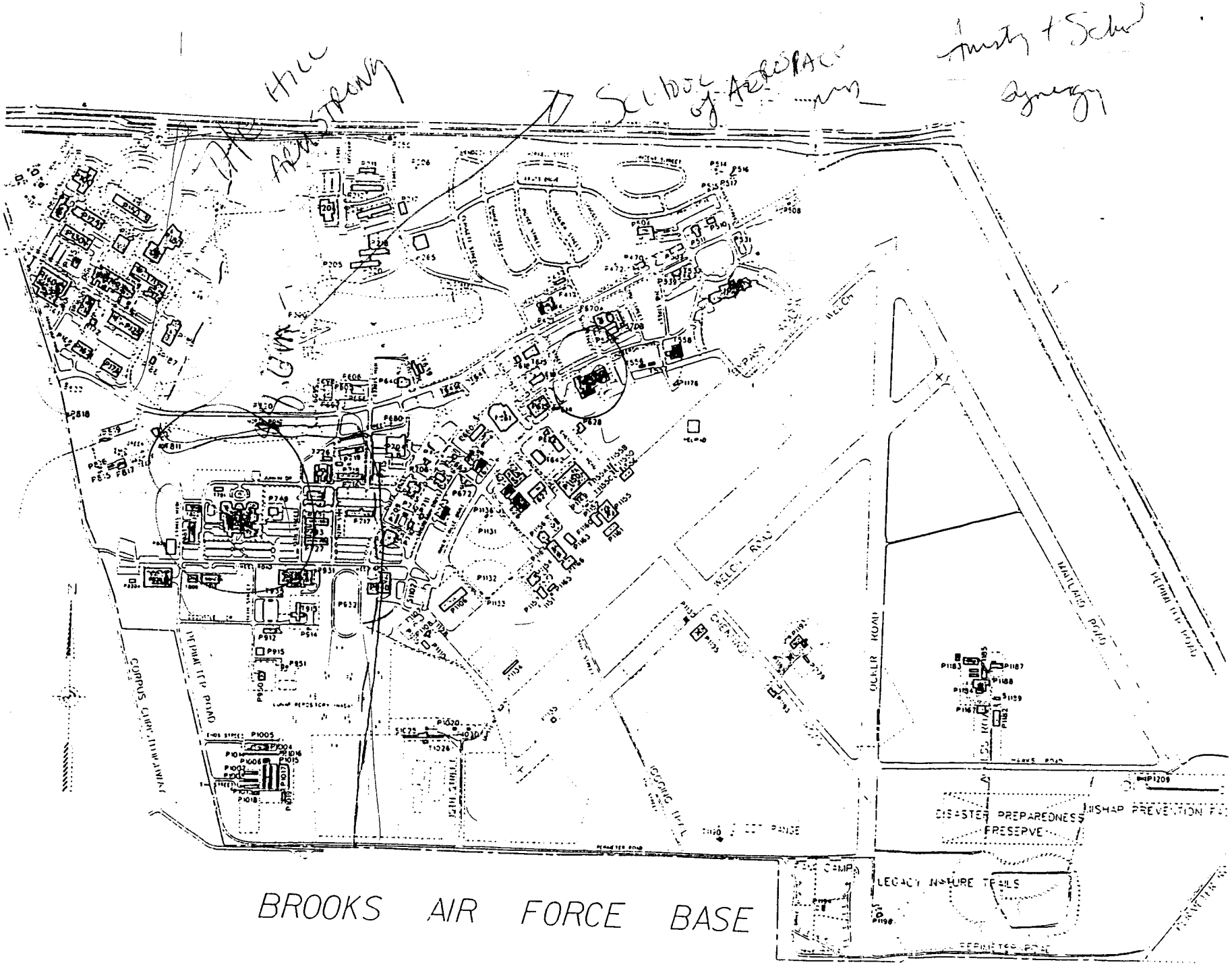
STRATEGY

- Develop an alternative proposal

    - Closure of Brooks
    - Retain missions in San Antonio
        - -- Equal or greater NPV savings
        - -- Greatly reduced front end costs
        - -- No disruption of research
        - -- Continued internal and external synergy

- Approach
    - Reduce/eliminate support functions
    - Retain missions in cantonment areas

	OPTION I Total Closure	OPTION II Retain HSC, AL, SAM and AFCEE in Cantonment	OPTION III Retain HSC, AL and SAM in Cantonment
One time Cost	185.5M	11M	24M
Annual Savings	27.4M	21.6M	21.2M
ROI	7YRS	IMMED.	IMMED.
Net Present Value 20 Yrs	**142.1M**	**301M**	**284M**
Positions Eliminated	391	391	391
Positions Realigned	3,228	518	885
Remain at "Brooks Annex"	0	2710	2343



The Hill Armstrong
School of Aerospace
Industry + School Synergy
WELCH ROAD
OCKER ROAD
MAITLAND ROAD
PERIMETER ROAD
CORPUS CHRISTI HIGHWAY
DISASTER PREPAREDNESS PRESERVE
LEGACY NATURE TRAILS
BROOKS AIR FORCE BASE

BROOKS - AN ALTERNATIVE STRATEGY

BROOKS' MISSIONS ARE A NATIONAL ASSEST

- The only integrated Human Systems Research effort in DoD
  - Interdisciplinary group of physicians, social, biological, and medical scientists and engineers focused on the extension of human capabilities and enhanced performance
  - Programs cover the spectrum of research and development (Pgms 6.1 - 6.5) and the Defense Health Program
- The Armstrong Laboratory is a world leader in its mission area. As one of only four Air Force "super-labs," has a first class, multi-disciplinary capability with critical mass of research scientists and engineers
  - Unique facilities in excellent condition
    - Centrifuge (acceleration tolerance/protection)
    - Hyperbaric Chambers
    - Altitude Chambers
    - Spatial Disorientation Demonstrator (one of only three in the world)
    - Directed Energy Chambers (radio frequency radiation exposure)
    - The Air Force Drug Testing Laboratory
  - A leader in implementing tri-service programs and co-locations (e.g. Directed Energy Bioeffects program)
  - Unlimited opportunity to absorb additional DoD human research missions and to become a DoD Center of Excellence for human systems technology
  - $6.75M directed energy facility under contract for construction (FY '95)

- USAF School of Aerospace Medicine is
  - The nation's leading aerospace medical training program
  - Internationally known and respected
  - The Armstrong Laboratory provides 30% of the faculty
    - A proven vehicle for transitioning the latest medical knowledge from the research lab to USAF operational aerospace flight surgeons, nurses, and technicians
  - $7.2M facility under construction (FY '94)

- Air Force Center for Environmental Excellence
  - Absolutely essential to long term Air Force environmental programs in the areas of compliance, hazardous waste cleanup, and environmental planning
  - $7.5M facility under construction (FY '94)

SAN ANTONIO PROVIDES A UNIQUE SYNERGISM FOR BROOKS

- There is an absolutely one-of-a-kind configuration of biomedical research and teaching activities in San Antonio
  - University of Texas Health Science Center
  - Texas Research and Technology Foundation
  - Southwest Research Institute
  - Southwest Foundation for Biomedical Research
  - Wilford Hall Medical Center
  - Brooke Army Medical Center
  - University of Texas at San Antonio

- These research and teaching activities are providing an unparalleled opportunity for interaction and cross-fertilization and a critical pay off to the Air Force and DoD
  - This synergy is a significant capability multiplier, unavailable in other locations
  - Specific joint projects are outlined in the attachment

AIR FORCE CAN CAPITALIZE ON THIS SYNERGY & ACHIEVE HUGE SAVINGS BY RETAINING BROOKS' MISSIONS IN SAN ANTONIO

- Close Brooks AFB and retain missions in a cantonment area supported by Kelly AFB

	DoD OPTION	CANTONMENT OPTION I	CANTONMENT OPTION II
	Close Brooks Move HSC, AL, SAM to WPAFB Move AFCEE to Tyndall	Close Brooks Keep HSC, AL, SAM, AFCEE in Cantonment BOS by Kelly	Close Brooks Keep HSC, AL, SAM in Cantonment BOS by Kelly
Brooks AFB	Close	Close	Close
People			
Eliminate	391	391	391
Move	3228	518	885
One Time Cost	185M	11M	24M
20 Year NPV	142M	301M	284M
Recurring Savings	27.4M	21.6M	21.2M
ROI	7yrs	Immediate	Immediate

AIR FORCE HAS AN OPPORTUNITY TO ACHIEVE THE FOLLOWING PAYOFF

The pay off includes:

- Avoid moving 3000+ people
- Avoid 185M Up Front Cost
- Avoid disruption to Research and Environmental Programs
- No Loss of Valuable Scientist
- Retain internal and external synergy
- Save 150M+ over 20 years

SOUTHWEST FOUNDATION FOR BIOMEDICAL RESEARCH (SFBR)

1. SW Foundation has worked closely with scientists at Brooks on a number of projects related to the safety of astronauts in the shuttle program. Scientists at SW Foundation have an intimate working knowledge of the capabilities at Brooks and have developed professional relationships that are priceless in the pursuit of scientific development.

2. The Foundation has the largest baboon colony in the world and works closely with the Armstrong Labs in the evaluation and prevention of adverse physiological effects of G-forces on flight crew members.

3. Anticipated projects with Brooks AFB include the use of Foundation baboons in safety tests involving gas exposure at high altitudes and the physiological effects of pregnancy in female pilots. Relocation would put these programs at risk due to geographic separation of the scientists from the special experimental facilities at Brooks AFB.

UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER/SAN ANTONIO (UTHSCSA)

1. Currently working in a collaborative study with the Air Force Office of Prevention and Health Services Assessment at Brooks AFB to assess the availability, accessibility and adequacy of health care experienced by USAF active duty women assigned in theater during Operation Desert Shield/Desert Storm (ODS). Results of this research will lead to integration of validated women's health issues into preventive medicine planning and planning for onsite medical capabilities during deployments and military operations.

2. The participation of USAF officers from Brooks AFB as adjunct faculty played a major role in the development and maintenance of the Masters of Public Health program at UTHSCSA. Withdrawal of this faculty and the public health resources of Brooks AFB would put this program at risk. Lost would be a wealth of resources in the fields of occupational health, toxicology, environmental health, preventive medicine, and aerospace medicine.

3. The Department of Defense/U.S. Air Force, operating through Brooks AFB and the Armstrong Laboratory, assisted in the development of a unique anechoic chamber and dual frequency microwave transmitter for joint research into the bioeffects of microwave radiation with special attention to the mutagenic hazards. This effort was funded jointly by a Department of Defense University Equipment Grant ($300,000) and the Permanent University Fund of the University of Texas ($180,000). The facility has subsequently been employed by University scientists to perform Air Force sponsored research.

4. Armstrong Laboratory personnel play an active role in the newly formed UTHSCSA Center for Environmental Radiation Toxicology, a multi-institutional endorsed entity created to foster research and education in radiation bioeffects and encourage collaboration among over 55 staff members at six San Antonio research institutions. The Air Force, Army, and Navy personnel at Armstrong direct segments of and lecture in a first-ever

graduate course in non-ionizing radiation, lending their expertise in microwave and laser sources, dosimetry, bioeffects, and standard setting. Their loss, and the loss of the facilities at Armstrong for off-site studies, would be a major blow to the Center.

5. Conducting joint research into laser-caused damage to tissues of the eye.

6. Working together on the capture and provision of data on human retinal disorders to support development of a USAF computer model to predict visual disturbance and performance after injury or exposure to environmental threat.

7. Close educational and clinical collaboration between the Armstrong Laboratory and the Department of Anesthesiology in research and teaching of hyperbaric medicine.

SOUTHWEST RESEARCH INSTITUTE (SwRI)

1. Brooks experts in physiology and medicine provide consultation to Southwest Research Institute in support of advanced drug testing for the commercial biotechnology and pharmaceutical industry, worldwide.

2. SwRI is dependent on the closed runways at BAFB for joint research and crash testing for the Dept. of Transportation.

3. Brooks AFB is an active participant in the efforts of the Southwest Research Consortium.

4. SwRI has served as host for numerous symposia and seminars which have included and given visibility and PR to Brooks staff and the Air Force.

WILFORD HALL MEDICAL CENTER (WHMC)

1. Brooks is one of only four hyperbaric treatment facilities in the DoD. Closure would deprive the Air Force's major teaching and referral center of this treatment modality.

2. Highly specialized lab tests for clinical care and research from WHMC are performed by the Occupational and Environmental Lab at Brooks AFB. Movement of this lab would result in both delays and expensive contract services.

3. A major resource for reference for both Wilford Hall and BAMC is the Armstrong Library at Brooks AFB. Many students and faculty use this fine facility for clinical and research reference.

4. Prototype and developmental medical equipment is built by the fabrication shop (AL/DO) at Brooks. Non-patented equipment is also reproduced there.

5. Brooks is a primary source of information systems expertise, backup, and contracting.

6. With recent reductions in the nation's metrology program, Brooks AFB is one of the few places critical medical equipment can be calibrated.

7. As the major referral center for the Air Force, WHMC relies heavily on the expertise from the Office of Preventive and Health Assessment (OPSA) at BAFB.

8. WHMC is currently involved in a number of joint research protocols with agencies at BAFB. Among them are several high profile studies such as "Injury and Illness Among Air Force Female Military Recruits" and "Outcomes of a New Physical Fitness Training Program in Air Force Basic Military Training."

University of Texas at San Antonio (UTSA)

1. Armstrong Laboratory, through a CRDA with UTSA, has developed an intelligent tutoring system to enhance the quality of secondary education in mathematics, science and writing. This joint activity has recently been licensed to the private sector to further develop and market this technology.

2. Development of new doctoral-level programs at UTSA has been significantly enhanced by the proximity of Brooks scientists and engineers.

3. UTSA has activity interacted with Brooks AFB and the Armstrong Laboratory in developing innovative concepts to improve technology transfer policies and increase opportunities.

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950501-3

FROM: HICKMAN, JAMES R.	TO: DAVIS, J. B (GEN)
TITLE:	TITLE: COMMISSIONER
ORGANIZATION:	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR				COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON	✓			COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER	✓		
DIR./INFORMATION SERVICES				Jim SCHRAFFENDER		✓	

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
	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

EXPRESSING CONCERN THAT THE USAF SCHOOL OF AEROSPACE MEDICINE AND THE ARMSTRONG LAB ARE BEING MOVED FROM BROOKS.

Date: 950508	Routing Date: 950501	Date Originated: 950412	Mail Date:

April 12, 1995

James B. Davis, Gen (Ret) USAF
Defense Base Closure and Realignment
Commission
1700 North Moore Street
Suite 1425
Arlington, VA

SUBJECT: Closure and Realignment of Brooks AFB

Dear Commission Member:

1. I am James R. Hickman, Jr., M.D., Col. USAF MC (Ret.). Since my retirement in 1993 from the Armstrong Laboratory at Brooks AFB Texas, I have been a consultant in the Department of Internal Medicine at the Mayo Clinic with joint appointments in the Divisions of Preventive Medicine and Cardiovascular Disease. I am also a consultant in Aerospace Medicine. At the time of my retirement, I was completing a six-year tenure as the Chief of the Clinical Sciences Division, Aerospace Medical Directorate, Armstrong Laboratory. I am quite familiar with the USAF Biomedical Research Programs.

2. I implore you to postpone your decision to move the resources of the USAF School of Aerospace Medicine and the Armstrong Laboratory from Brooks AFB until you have received the advice and counsel of a panel of select scientists who can evaluate the impact of such a decision on the long-range health and productivity of this critical segment of our country's scientific capability.

3. Having carefully weighed the pending decision, I am convinced that the contemplated course of action will set back the USAF's sole aerospace medicine R&D capability by at least a decade, if not irrevocably. The ease with which a flying organization or a clerical unit can be relocated does not translate to the fragile environment of world class research organizations.

4. This letter does not afford the opportunity to do more than briefly outline concerns which are widely shared among scientists knowledgeable of this arena. Please consider the following:

   1. The Brooks complex is unarguably the closest aerospace medical counterpart to a Harvard or an MIT which the USAF has ever had. It takes decades to create a top quality scientific program, nurture long-term projects, create highly skilled successors, and mold the unit into a world class center. Regrettably, it is an established fact that the biomedical R&D organizations in the USAF have been in a state of continued turmoil and waning vigor for the past decade, largely due to declining funding, manning instability, and massive reorganizations produced by macro changes at the strategic level. Small, pristine scientific gems got caught up in major weapons system development restructuring at the highest levels, much to the detriment of highly productive and unique life sciences programs. The Brooks campus has been especially hard hit by almost continuous exposure to these forces. This analysis is not intended as a criticism of anyone--it is simply how things have

turned out. Ten years ago, if one had wished to formulate a plan to fatally cripple the USAF's aerospace medicine capability, one would have instigated a decade of continual reorganization, entangling the scientific personnel and their leaders in continual retrenchment, crippling productivity with bottom line oriented personnel decisions ("take the vacancies"), recurrent funding cuts, and leaving every scientific organization anemic and weakened rather than choosing a few vigorous survivors. At the end of this decade, one would then physically move the aerospace medicine organizations out of their facilities which were organically designed for the mission, fragment the teams, and then shoehorn the remnants into facilities designed for a different type of research. At the end of this decade, one would then also combine the inevitable disruptions and inefficiencies of geographic dislocation with the debilitating separation of the USAF aerospace medicine facilities from the San Antonio biomedical community. To obtain mandated savings, we have fostered expensive survival of weakened units--units which could be vigorous and productive for a small margin. But, we have spread around the cuts in a fashion which leaves many weak and few strong. Now, we are preparing to do it again. Where is your analysis of level field competition among R&D facilities, in order to identify the survivors? Under Item 4(3) in this letter, you will learn that this competition has already been held, and apparently ignored. We are unwittingly following a disastrous blueprint. The Aerospace Medicine Programs at Brooks are viable, but will <u>not</u> survive the contemplated move in a state remotely similar to the international status which they have previously enjoyed. In many facets of life, timing is everything. In your current plan, a bad plan has been elevated to devastating proportions by deadly timing. This is not simply a pessimistic view--it is the realistic view of every seasoned scientist that I have queried. It is almost inconceivable that an institution synonymous with world class excellence, upon whom our allies and the aviation world have depended so heavily, could have been handled in such a capricious manner, while organizations of less stature and accomplishment have been spared. It seems inconceivable that the USAF's aerospace medical capability could be virtually destroyed to save $6 million a year for 20 years. Quite the contrary, the USAF and the DOD should be deeply concerned about the current state of operational medical research, given the challenges which the Gulf War, Grenada, and Panama demonstrated. If one wished to devise a plan <u>today</u> to strengthen and foster this critical mission, the <u>last</u> thing one would do would be to uproot the vital core elements. Your commission is preparing to make a decision which will have more impact on life sciences research in the USAF than any single decision in the history of this endeavor. The value of all facilities, materiel, and personnel must be translated into the total cost of producing the end product. Only the end product has intrinsic value. It is my belief that the projected savings will be dwarfed by the degradation of the scientific end product.

2. The combined expertise of the Brooks campus, Southwest Research, Wilford Hall Medical Center, Brook Army Medical Center, the University of Texas Health Science Center at San Antonio, Johnson Space Center, and the Texas Medical Center at Houston represents the greatest concentration of aerospace medical talent and allied disciplines in the world. Wright-Patterson Air Force Base Medical Center is a good hospital. The Armstrong Laboratory at Wright-Patterson is an excellent human factors laboratory. Wright State University is a growing institution, but regrettably is not an institution of great distinction. At the risk of fraying

sensibilities in the process, it must be pointed out that the Dayton and San Antonio complexes, in terms of the totality of aerospace medicine resources and distinction, are in completely different leagues. The co-location of the Brooks campus and the Wilford Hall Medical Center were not accidental. I urge you to review the careful thought which went into the creation of the former Aerospace Medical Division, and all of its implications for teaching, research, and care of the aircrew member. The critical adjacencies of the San Antonio complex are, and have been too valuable to sacrifice for the current projected savings. There is a history of great wisdom in the development of the San Antonio complex--it must not be sacrificed for fiduciary gains which are massively overshadowed by the long-term negatives of the proposed plan. San Antonio, Texas is the center of specialty training in Aerospace Medicine. The education of the Army and the Air Force residents in Aerospace Medicine, including some from Canada and other countries, revolves around the vibrant nature of the San Antonio medical complex. The first year of the Aerospace Medical Residency is a Masters in Public Health. The University of Texas Health Science Center at San Antonio has been very accommodating in offering the first year Masters program, as an extension of the University of Texas Health Science Center at Houston. This allows many of the residents to complete all three years of training in one geographic location. The USAF Third Year Residency and the US Army Third Year Residency are heavily built around Kelly/WHMC and BAMC, respectively. Moving USAFSAM and the Aerospace Medical Consultation Service, which is pivotal to the education of the residents, out of San Antonio is a colossal mistake. But if it is moved, the residency must follow You cannot move the faculty to Dayton, and leave the residency in San Antonio. At least six years of intensive effort and great expense have gone into a revised residency program which meets the needs of both the U.S. Air Force and the U.S .Army. Wright State University does offer a residency in Aerospace Medicine, but it is a civilian oriented program, not designed to turn out military flight surgeons. Further, the breadth and depth of facilities and talent available in the Dayton area simply do not compare to the San Antonio complex. The current plan for Brooks will have a huge regressive effect on the training of specialists in Aerospace Medicine. Further, I can envision hundreds of thousands of dollars annually in excess PCS moves and TDYs which will result from abandoning the cost effective adjacencies of San Antonio. Every facility at Brooks has been built with the referred aircrew member in mind. I have spent enough time at Wright-Patterson to tell you that such streamlining currently does not exist, and will represent a huge dollar cost to recreate. Travel in and out of San Antonio has become progressively easier for the 1000 or so aircrew members who come to the consultation from world-wide referrals. Dayton, Ohio, represents a significant step backwards in this regard.

3. The Aeromedical Consultation Service at Brooks evaluates aircrew referred world-wide with complex and obscure medical problems. Medical grounding of a USAF aircrew member is an instantaneous loss of somewhere between $6 and $13 million in training costs for the taxpayers. The Consultation Service was specifically designed for rapid and indepth evaluation of aircrew by medical specialists also trained in Aerospace Medicine. It has taken over 30 years to create this center in its present form, and to mold this service into its inextricable relationships with Wilford Hall and Brooke Army. The epidemiological approach to aircrew standards, using long-term studies, has netted savings of over $750 million in the last 20 years. I urge you to have a formal briefing on this activity. It is housed in

organic facilities--built for the purpose, and well integrated into all of the other Brooks' laboratories. In 1990-91, Air Force Systems Command commissioned independent scientific reviewers to examine every single USAF R&D activity. The final goal of the review was to report and identify for the Secretary of the Air Force the top two research and development programs in the entire USAF. The long-term epidemiological approach to aircrew standards in the Clinical Sciences Division at the Armstrong Laboratory was chosen as one of the Air Force's two top R&D technologies. The Clinical Sciences Division is internationally renowned for this activity. Virtually every aviation service in the world has relied upon Brooks for aircrew standards. This activity competed with programs costing several hundredfold, and won out on a level field, in the areas which really counted--mission relevance and technical excellence. I urge you to take a careful look at the operational cost of this unit and the return on investment. The data are available and well-documented. This research organization, like others at Brooks, has also been battered by the previously mentioned upheavals in Air Force R&D in recent years. I spent the majority of my professional career in this organization. This activity simply will not survive, much less retain its world class stature, if moved from Brooks and separated from the San Antonio arena. The proposed plan is a recipe for mediocrity. Long-term studies of 25-30 years' duration, in which millions have been invested, are coming to fruition. The potential dollar savings involved in selection and retention research are huge. I am completely convinced that the reversals and damage to this program will dwarf the envisioned savings when this activity is removed from San Antonio. The timing is simply devastating. I am mystified as to why we would gamble with the future, and the return on investment of the USAF's top R&D program. This program is one of the few money making propositions which the taxpayers actually have. Surely, the USAF's top R&D program, which is operated at very low expense, deserves more consideration than the purely materiel and personnel costs in the Brooks closing equation.

The belief that you will not create huge unrecognized cost in recreating these specialized laboratories, for the Clinical Sciences Division alone, suggests an unfamiliarity with the mission requirements and facilities. There may also be a belief that you can simply move the medical facilities to Wright-Patterson Air Force Base Medical Center. There is a long history which must be factored into such a decision, for there is a lengthy history to show that the USAF Medical Centers, because of their sick patient mission, have not been able to do the intensive immediate aircrew evaluations, or to maintain the long-term epidemiological research projects. I urge you to receive some briefings on painful lessons learned in this regard, before the mistakes are repeated. The crush of an ever increasing demand for sick patient treatment has never allowed the Air Force Medical Centers to primarily conduct these aerospace medical activities, and yet the San Antonio medical centers has been an invaluable partner in subspecialty evaluations such as neurosurgery, orthopedics, and multiple other areas. The medical center at Wright-Patterson actually <u>sends</u> complex cases to WHMC, not vice versa. In which locale would you place the Air Force Consultation Service for aircrew members?

4. The greatest future savings in aircrew research will come from <u>selection</u> research--medical outcome studies done on selectees who have undergone specialized examinations in a stratified selection process. Such research and development has

previously never been feasible, because UPT candidates could be examined at over 200 locations, except for the Air Force Academy cadets who are all examined in one locale. It was virtually impossible to equip even a handful of specialized examination centers, much less 200. Further, TDY costs to specialized centers for applicants was prohibitive. After 15 years of active evolution, the aircrew selection mission is now possible, because all non-academy UPT candidates now come through San Antonio for reasons independent of medical selection. Specialized stratified selection started at Brooks in 1994. On the very threshold of an R&D effort which can realistically save $25-50 million annually in training costs, the activity will be moved to Dayton, and this unparalleled opportunity will be lost. Again, the timing is simply devastating. I would not sacrifice this selection program for $25 million a year, much less $6 million. Will we recreate a third R&D unit in San Antonio, or send the aircrew applicants to Wright-Patterson, or simply write off this initiative which has been 15 years in the planning? I urge you to hear briefings on this subject. The destruction of this program alone will offset any realignment savings.

5. I am deeply concerned that the damages to USAF Aerospace Medical R&D will be profound, totally outweighing any proposed savings. I urge you to delay a decision regarding Brooks until you can receive a thoughtful and indepth review of the scientific impact of the proposed plan. Senior aerospace medical scientists throughout NATO are simply stunned that the USAF would close Brooks, a name synonymous with international excellence. The scientific community is shocked at what we are risking for ephemeral savings.

Lastly, the Department of Defense must demonstrate that excellence will not be gambled for short-term paper savings. There is great sadness in offering up a world leader in the name of projected savings which are not only debatable, but are quite minimal in the overall picture within the Department of Defense. If any facility has ever earned the right to exist, Brooks has. When we have killed the international leader in the Aeromedical Sciences, we will have killed a portion of the USAF's prestige, world standing, and greatness. Every great organization needs to preserve its finest.

Thank you for reading my letter.

Sincerely,

James R. Hickman

James R. Hickman, Jr., M.D., M.P.H.

JRH:cal

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE

15 MAY 1995

MEMORANDUM FOR BASE CLOSURE COMMISSION (Mr. Francis A. Cirillo, Jr.)

FROM: HQ USAF/RT

SUBJECT: Brooks AFB Cantonment COBRA Taskers Update (RT Taskers 378 & 481)

We are still in the process of responding to your taskers of April 20, 1995 (950420-2) and May 3, 1995 (950504-3). The MAJCOM certified package is expected to arrive in RT on 16 May. It will need to be fully coordinated within the Air Force. We will be unable to meet our May 15, 1995 suspense. Both the Air Force and Community COBRAs on a Brooks AFB cantonment will be provided NLT May 19, 1995.

Maj Mike Wallace, 695-6766, is my point of contact. Please call if you have any questions.

AFMC
to
TC

JAY D. BLUME, Jr., Maj Gen, USAF
Special Assistant to the Chief of Staff
for Realignment and Transition

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
1700 NORTH MOORE STREET SUITE 1425
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WENDI LOUISE STEELE

May 3, 1995

Major General Jay D. Blume, Jr. (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
Washington, D.C. 20330-1670

Please refer to this number
when responding 9505 04-3

Dear General Blume:

We appreciate your response to our 10 April request to review a community COBRA run on Brooks AFB. After reviewing your response and receiving a detailed concept of operations (Atch) provided by the Brooks AFB community, we have decided to ask you to conduct an alternative COBRA run on Brooks AFB with the following assumptions.

a. Closure of Brooks AFB with approximately 15% of the base placed in cantonment.

b. HSC, Armstrong Lab, USAF School of Aerospace Medicine, AFCEE, and HSC/YA retained in their present configurations.

c. Family housing retained at Brooks AFB with support from Kelly AFB.

d. All BOS provided by Kelly AFB.

In order to assist the Commission in its work, we request this information to be provided no later than May 15, 1995. Thank you for your assistance in this matter.

Sincerely,

Francis A. Cirillo, Jr., PE
Air Force Team Leader

Attachment
Brooks AFB Community Concept of Operations

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
1700 NORTH MOORE STREET SUITE 1425
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MG JOSUE ROBLES, JR., USA (RET)
WENDI LOUISE STEELE

NOT APPROVED YET DRAFT

20 April 1995

Mr. Paul Roberson
Senior Vice President, Military Affairs
The Greater San Antonio Chamber of Commerce
602 E. Commerce
P. O. Box 1628
San Antonio, Texas 78296-1628

APPROVED

Dear Mr. Roberson:

We recently received from Air Force a response to the COBRA analysis provided to us by the Brooks AFB community. The Air Force stated they have serious concerns with several of the assumptions. In addition, the Air Force stated they could not provide any analysis of the concept of operations supporting the community's proposal since such a concept had not been provided.

To be able to fully evaluate the merits of your proposal as well as Air Force views, we would like you to provide to the Commission as soon as possible the concept of operations that supports your cantonment proposal for Brooks Air Force Base. Please be as specific as possible on the assumptions you used in developing the proposal and associated COBRAs.

We are enclosing for your information our request to the Air Force and a copy of their reply. Thank you for your assistance in this matter. If you have any questions, please contact Les Farrington of our staff.

Sincerely,

Francis A. Cirillo Jr., PE
Air Force Team Leader

Enclosures: As stated

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE

MEMORANDUM FOR BASE CLOSURE COMMISSION (Mr. Francis A. Cirillo, Jr.)

FROM: HQ USAF/RT

13 APR 1995

SUBJECT: Request for Information (AF/RT Tasker 355)

Thank you for your letter of April 3, 1995, providing us with an opportunity to comment on the assumptions made by the Brooks AFB community advocates in their COBRA run supporting their alternative to the DoD recommendation. We have serious concerns with several of the assumptions. In addition, since we do not know their concept of operations, we cannot provide any analysis as to the validity of that concept.

As you note, the community assumes the elimination of 391 positions, identical to those eliminated from a complete base closure. The COBRA reviewed leads to assuming their alternative is based on transferring BOS support to Kelly rather than Lackland. In any case, substantial transfers of personnel would be required. While some reductions are potentially available, the retention of 75 percent of the personnel and most of the activities would require most of the BOS positions to be transferred to Kelly. Thus, the manpower savings appear to be significantly overstated.

The proposal from the Commission to reconsider the retention of housing at Brooks AFB for use of other San Antonio personnel has merit, and the Air Force is considering the issue of retention of housing in conjunction with the site survey for the Brooks closure. We will provide a position on the Commission proposal after the process is complete in mid-May. If the percentage of personnel at Brooks AFB are retained, as assumed by the community, this housing would be absolutely essential, and could not be closed. If the housing were closed without loss of personnel, the housing shortage in the San Antonio area would be increased.

We note that there are MILCON estimates of $5 Million at Brooks AFB and $1 Million at Kelly AFB. Since we do not know the basis for these estimates we cannot comment on their accuracy, but would note that some MILCON would be required. This is particularly true if a cantonment is developed for Brooks AFB, and current perimeters are altered.

As a final point, please note that, apart from the cost issues, the failure to reduce laboratory capacity by altering the closure of Brooks AFB, and consolidating functions at Wright-Patterson AFB, would leave additional excess capacity within the Air Force. Furthermore, Brooks AFB was rated the lowest of the Lab and Product Center installations. As a result, the Air Force would not favor this alternative.

I trust this responds to your request. Maj Mike Wallace, 695-6766, is my point of contact.

Jay D. Blume Jr.

JAY D. BLUME, Jr., Maj Gen, USAF
Special Assistant to the Chief of Staff
for Realignment and Transition

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
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WENDI LOUISE STEELE

April 10, 1995

Major General Jay D. Blume, Jr. (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
Washington, D.C. 20330-1670

71

Please refer to this number when responding 950410-24

Dear General Blume:

Due to continued community interest and recent national news coverage we request you perform an additional COBRA run on Brooks AFB with the following assumptions.

a. Cantonment of Brooks AFB with base support provided by Lackland AFB.

b. Retain HSC, Armstrong Lab, School of Aerospace Medicine, AFCEE, and YA in contonment at Brooks. 68th Intel Sqdn and 710th Intel Flight (AFRES) relocate to Lackland.

c. Review and carefully estimate the number of positions that could be eliminated with a closure of Brooks but cantonment of major missions. In other words, identify the number of BOS-payroll positions that would be eliminated if we realign Brooks and canton the missions with the base support provided by Lackland AFB.

In order to assist the Commission in its work, we request this information to be provided no later than May 1, 1995. Thank you for your assistance in this matter.

Sincerely,

Francis A. Cirillo, Jr., PE
Air Force Team Leader

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MG JOSUE ROBLES, JR., USA (RET)
WENDI LOUISE STEELE

20 April 1995

Mr. Paul Roberson
Senior Vice President, Military Affairs
The Greater San Antonio Chamber of Commerce
602 E. Commerce
P. O. Box 1628
San Antonio, Texas 78296-1628

Please refer to this number when responding 950420-2

Dear Mr. Roberson:

We recently received from Air Force a response to the COBRA analysis provided to us by the Brooks AFB community. The Air Force stated they have serious concerns with several of the assumptions. In addition, the Air Force stated they could not provide any analysis of the concept of operations supporting the community's proposal since such a concept had not been provided.

To be able to fully evaluate the merits of your proposal as well as Air Force views, we would like you to provide to the Commission as soon as possible the concept of operations that supports your cantonment proposal for Brooks Air Force Base. Please be as specific as possible on the assumptions you used in developing the proposal and associated COBRAs.

We are enclosing for your information our request to the Air Force and a copy of their reply. Thank you for your assistance in this matter. If you have any questions, please contact Les Farrington of our staff.

Sincerely,

F X Cirillo

For Francis A. Cirillo Jr., PE
Air Force Team Leader

Enclosures: As stated

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April 10, 1995

Major General Jay D. Blume, Jr. (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
Washington, D.C. 20330-1670

71

Please refer to this number when responding 950410-24

Dear General Blume:

Due to continued community interest and recent national news coverage we request you perform an additional COBRA run on Brooks AFB with the following assumptions.

a. Cantonment of Brooks AFB with base support provided by Lackland AFB.

b. Retain HSC, Armstrong Lab, School of Aerospace Medicine, AFCEE, and YA in contonment at Brooks. 68th Intel Sqdn and 710th Intel Flight (AFRES) relocate to Lackland.

c. Review and carefully estimate the number of positions that could be eliminated with a closure of Brooks but cantonment of major missions. In other words, identify the number of BOS-payroll positions that would be eliminated if we realign Brooks and canton the missions with the base support provided by Lackland AFB.
Kelly

In order to assist the Commission in its work, we request this information to be provided no later than May ~~1~~, 1995. Thank you for your assistance in this matter.
8

Sincerely,

Francis A. Cirillo, Jr., PE
Air Force Team Leader

Per Discussion F Cirillo / J Owsley / Mike Wallace AF/RE
4/13

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950410-24

FROM: CIRILLO, FRANK	TO: BLUME, JAY
TITLE: AF TEAM LEADER	TITLE: SPECIAL ASST
ORGANIZATION: DBCRC	ORGANIZATION: HEADQUARTERS USAF
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON				COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER	✓		
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER			
DIR./INFORMATION SERVICES							

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
	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

REQUESTING THEY PERFORM COBRA RUN ON BROOKS AFB USING NEW ASSUMPTIONS.

Due Date: 950501	Routing Date: 950410	Date Originated: 950410	Mail Date: 950410

Rec 6 pm

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
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MG JOSUE ROBLES, JR., USA (RET)
WENDI LOUISE STEELE

April 3, 1995

Please refer to this number when responding 950404-2

Major General Jay Blume (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
Washington, D.C. 20330-1670

Dear General Blume:

Request you provide a review of the attached COBRA run submitted by the Brooks AFB community through the Defense Base Closure and Realignment Commission. This COBRA run shows better Return on Investment (ROI) numbers with one-tenth the One-Time Cost compared to the DoD submission on Brooks AFB. We have reviewed the community's Brooks AFB COBRA run and have found two areas that we would like you to specifically evaluate.

The first area is with regards to Family Housing. The Brooks AFB community shuts down 100% of the family housing even though they create a contonement and leave 75% of the personnel at Brooks AFB. The second area is with regards to positions eliminated. In the community's COBRA run, they eliminate the same number of positions (391) as in the DoD recommendation. We would appreciate your views on these assumptions.

Additionally, in testimony to the Commission regarding Family Housing at Brooks AFB, you provided for the record a response that AETC and AFMC are evaluating the possibility of transferring the responsibility for Brooks AFB housing to Kelly AFB or Lackland AFB. We would like an update to this evaluation so that we may include it in our analysis of the Brooks AFB action.

To assist the Commission in its work, we respectfully request this information be provided to this office no later than April 12, 1995. Thank you for your assistance in this matter.

Sincerely,

Francis A. Cirillo Jr., PE
Air Force Team Leader

Enclosure: Community COBRA Run on Brooks AFB

Rec 6 pp'd

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
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WENDI LOUISE STEELE

April 3, 1995

Please refer to this number when responding 950404-2

Major General Jay Blume (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
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Sincerely,

Francis A. Cirillo Jr., PE
Air Force Team Leader

Enclosure: Community COBRA Run on Brooks AFB

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE

03 MAY 1995

MEMORANDUM FOR BASE CLOSURE COMMISSION (Mr. Francis A. Cirillo, Jr.)

FROM: HQ USAF/RT

SUBJECT: Brooks AFB Cantonment COBRA Taskers Update (RT Taskers 378 & 481)

We are in the process of responding to your FAXs of April 20, 1994 (Tasker 950420-2) and May 3, 1995 (Tasker 950504-3). We have found serious miscalculations in the initial data package submittal to us. Upon receipt of the designated command's final submission, it will need to be fully coordinated within the Air Force so we will be unable to meet your suspense of 8 May, 1995 for this COBRA. Additionally, we have been tasked to provide a COBRA for a community version of a Brooks AFB cantonment with a suspense of May 15, 1995. Please note we believe there is a conflict between the first two assumptions with Brooks AFB being cantoned within 15% of the base and having HSC, Armstrong Lab, USAF School of Aerospace Medicine, AFCEE, and HSC/YA retained in their current configurations. We assure you any such conflicts will be resolved prudently. Both the Air Force and Community COBRAs on a Brooks AFB cantonment will be provided NLT May 15, 1995.

I trust this responds to your request. Maj Mike Wallace, 695-6766, is my point of contact.

Jay D. Blume

JAY D. BLUME, Jr., Maj Gen, USAF
Special Assistant to the Chief of Staff
for Realignment and Transition

Frank & Steve
Use as needed.
All arrived 05/05.
I have not distributed.
Copy Sent To
Bob B., Craig H., Les F

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

Suite 1425
1700 North Moore Street
Arlington, Virginia 22209

FAX COVER SHEET

DATE: 2 MAY 95 Tues

TO: ROBT. CASTORENA

FAX #: 210 925 6204

FROM: [redacted] CROSS SERVICE TEAM / JOE VARALLO

NUMBER OF PAGES (including cover): 2

COMMENTS:

IF YOU HAVE TROUBLE RECEIVING THIS FAX PLEASE CALL 703-696-0504.

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950504-3

FROM: CIRILLO, FRANK	TO: BLUME, JAY
TITLE: AF TEAM LEADER	TITLE: SPECIAL ASST
ORGANIZATION: DBCRC	ORGANIZATION: HEADQUARTERS USAF
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON				COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER	✓		
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER			
				B2	✓		
DIR./INFORMATION SERVICES							

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
	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

REQUESTING COBRA RUNS FOR BROOKS AFB.

Date:	Routing Date: 950504	Date Originated: 950503	Mail Date: 950504

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950510-19

FROM: KRIER, CYNDI T.	TO: COX, REBECCA
TITLE: COUNTY JUDGE	TITLE: COMMISSIONER
ORGANIZATION: SAN ANTONIO, TX	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX	✓		
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE	✓		
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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 ISSUE PAPER DEALING WITH BROOKS AFB INTERACTIONS WITH LOCAL MILITARY INSTALLATIONS, SAN ANTONIO AND SOUTH TEXAS.

[redacted]:	Routing Date:	Date Originated:	Mail Date:

CYNDI TAYLOR KRIER
COUNTY JUDGE
BEXAR COUNTY COURTHOUSE
SAN ANTONIO, TEXAS 78205-3036
(210) 220-2626 • FAX (210) 220-2926

950510-19

May 04, 1995

Rebecca G. Cox, Commissioner
Defense Base Closure and Realignment
1700 North Moore Street, Suite 1425
Arlington, VA 22209

Dear Rebecca:

Thank you for listening so attentively to our presentation of an alternative plan for Brooks Air Force Base at your Base Realignment and Closure Commission (BRAC) regional hearing in Dallas.

Because of the interest expressed in the community synergy which exists between Brooks Air Force Base and other local public and private institutions, I wanted to share with you the additional information which is enclosed. The same opportunities for joint efforts -- with their cost savings and creative energies -- simply do not exist at the proposed relocation sites.

Rebecca, we appreciate the open mind you and your colleagues on BRAC have kept toward our proposal throughout this process. Think what a good precedent you could set for other communities to see incentives in developing ideas to save even more than the Department of Defense's original proposals!

I look forward to continuing to work with you. As a former member of the Secretary of Defense's Advisory Committee on Women and the Services (DACOWITS), I have enjoyed being directly involved in military issues again and, on a personal level, I am glad to see women serving as Commissioners. Thank you.

Sincerely yours,

Cyndi

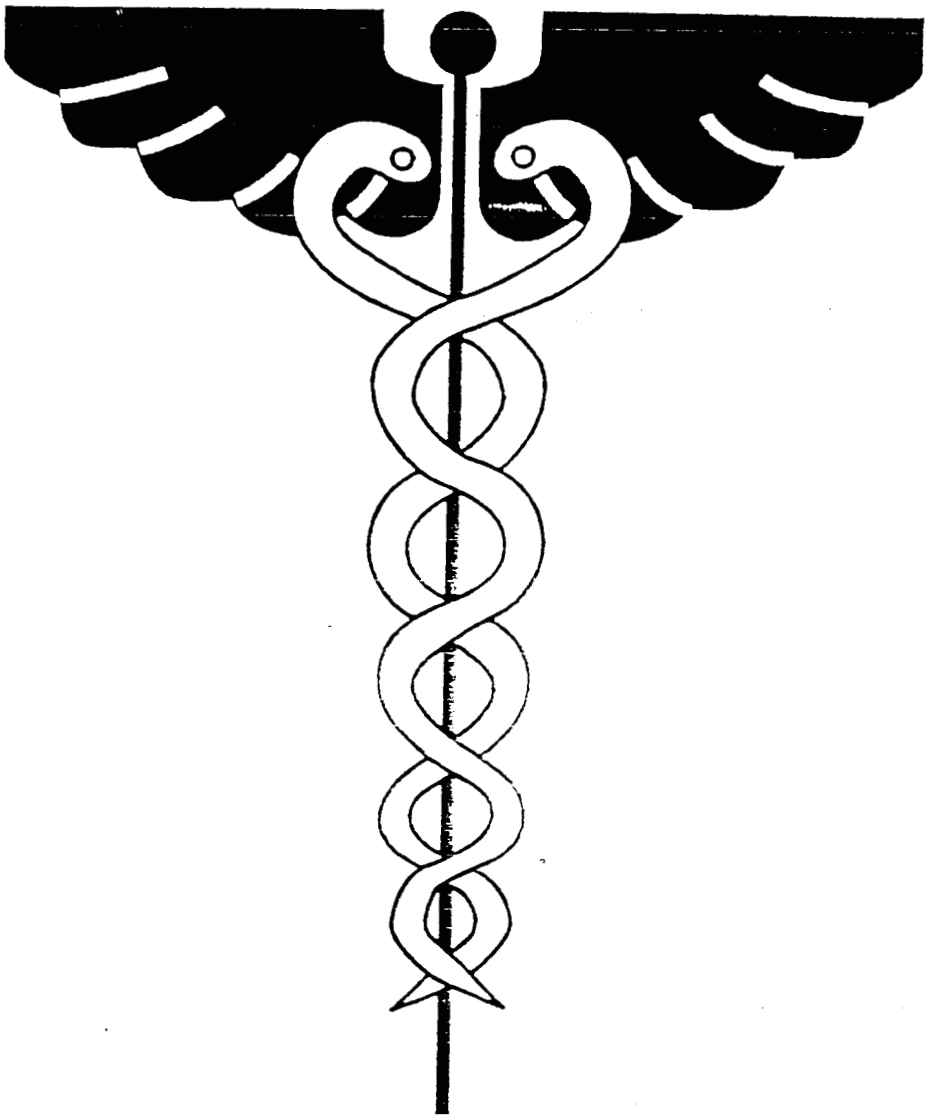
Cyndi Taylor Krier

CTK/mkm

Enclosure

BROOKS AIR FORCE BASE

Interactions with Local Military Installations, San Antonio and South Texas



Prepared by:
Community Relations Division
Office of Public Affairs
Human Systems Center
2510 Kennedy Circle, Suite 1
Brooks AFB, TX 78235-5120
Telephone: (210) 536-5140

15 April 1995

April 15, 1995

From the Commander...

Throughout the years, Brooks Air Force Base has developed close ties with military and civilian organizations in both San Antonio and surrounding South Texas communities.

These ties, whether professional, civic or social, are important relationships that are taken into consideration during BRAC deliberations. It is important that the relationships be identified and described, and that they be presented in a consolidated list. The following document offers such a listing.

We've compiled an extensive profile of the many relationships that have developed through the years between Brooks and its military and civilian neighboring communities. For further explanation on any interaction, don't hesitate to contact the Community Relations Division of Public Affairs.

Brig. Gen. Robert P. Belihar
Commander, Human Systems Center

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Kelly Air Force Base

- Advanced Hybrid Oxygen Systems--Aircraft. The continued development by the Human Systems Center of an Advanced Hybrid Oxygen System will provide the information necessary to retrofit the C-5 fleet with a self-producing oxygen system.

- Combat Edge. The Human Systems Center ensures personal equipment developed through program COMBAT EDGE will have proper documentation and management control to permit transfer of the program to the San Antonio Air Logistics Center.

- Computer systems training. The School of Aerospace Medicine has a Cooperative Research Development Agreement for Computer Systems Training with the Electronic Warfare Center at Kelly Air Force Base.

- Health physics emergency response and radioactive waste. Emergency response to potential nuclear mishaps using response kits at Kelly Air Force Base. Support to radiological waste site clean-up and safe material disposal.

- Integrated weapon system management. The Human Systems Center is responsible for the sustainment of human systems, and the sustainment activities of life support, and chemical and biological systems in concert with the San Antonio Air Logistics Center.

- Occupational medicine. The Kelly Air Force Base Occupational Medicine Department is the only bona fide program within the Air Force. The department provides consultations, formal training for Residents in Aerospace Medicine, and pilot testing support for the evaluation of safety and injury prevention programs.

- Pre-production and production of Transportable Blood Transshipment Center. Human Systems Center activities at Kelly Air Force Base cover tasks performed by each organization in all activities involved with the pre-production and production of the Transportable Blood Transshipment Center.

- Shared faculty. Kelly Air Force Base provides instructors for the School of Aerospace Medicine occupational medicine courses and assists in training public health officers.

- Software Maintenance, Test Program support and Maintenance Skills Tutor. The Human Systems Center provides functional and managerial responsibilities associated with the Maintenance Skills Tutor software support.

Lackland Air Force Base

- Wilford Hall Medical Center. The 70th Medical Squadron provides support to WHMC in four areas: (1) Faculty for Ophthalmology Residency, (2) Low-vision expertise, (3) Rotation of students to 70th MDS, and (4) Forensic Dentistry Program for dental residents.

  - Clinical rotations. Wilford Hall Medical Center provides clinical rotations for Phase III Residents in Aerospace Medicine.

  - Instructor support. The School of Aerospace Medicine teaches entomology and vector-borne diseases for Wilford Hall Medical Center, Kelly Air Force Base and the Armstrong Laboratory.

  - Assistance in Red Flag training. The School of Aerospace Medicine provides instructors for the field training portion of Red Flag at Wilford Hall Medical Center.

  - Shared faculty and instructors. Wilford Hall Medical Center provides subject matter experts in various courses of the school.

  - Coordination. The Air Force Medical Support Agency contacts the Air Force Defense Medical Logistics Standard Support System personnel at Wilford Hall Medical Center on a daily basis.

  - Medical consultants. The Air Force Medical Support Agency has direct access to research and clinical practice consultants at Wilford Hall Medical Center in more then 40 specialty areas for policy, planning, design input, and technological innovation.

  - Epidemiologic support. Wilford Hall Medical Center relies on the Epidemilogic Research Division's computer to meet Department of Defense required turnaround time for pap smears. This division shares lab services with WHMC thereby reducing duplication and costs.

  - Medical specialty support. Due to geographical location, Wilford Hall Medical Center can provide timely infectious disease and immunology consultation for major projects.

  - Ophthalmology research. Ophthalmology research is conducted jointly between Wilford Hall Medical Center, and the Armstrong Laboratory to look at eye disorders to determine if people with evidence of retinal detachment, pigmentary dispersion syndrome (a potential type of glaucoma) can safely fly.

Lackland Air Force Base (Continued)

- Basic Military Training Center. The Armstrong Laboratory screens all Air Force recruits for rubella, rubeola, and pregnancy, with a three day turnaround; evaluate and monitor physical fitness and nutrition programs for trainees; and provide the center with disease surveillance for trainees to prevent epidemics during training.

  - Multi-dimensional Aptitude Battery. This is a comparison between a computerized and a written test. A computerized version of the Multi-dimensional Aptitude Battery is being developed. Air Force recruits are administered this test to allow comparison with the written version.

  - Testing Air Force recruits. The Armstrong Laboratory established a unique, world class 36,453 square foot facility at Lackland Air Force Base, equipped with 200 computer-based test stations, as well as paper and pencil testing. This allows for testing of 30,000 recruits a year to provide research basis for the development of new selection and classification tests for enlisted, officer and aircrew personnel.

Randolph Air Force Base

- Aeromedical services support. The 70th Medical Squadron provides aeromedical support to the 12th Medical Group in four areas: (1) Flight surgeon support to the 12th Medical Group, (2) Flight surgeon support to the Navigator Training Program, (3) A flight surgeon flies with Navigator Training Aircraft, and (4) the 12th Medical Group Radiology Department supports 70th MDS mammography program.

- Recruiting service support. The 70th Medical Squadron supports the Health Professions Scholarship Program by providing physical exams to student participants and through summer rotations and visits to the clinic.

- Flying training. The 559th Flying Training Squadron at Randolph Air Force Base provides five weeks of flying training for Phase II Residents in Aerospace Medicine and provides orientation flights for students attending the Aerospace Medicine Primary course.

- Aircraft availability. The 12th Flying Training Wing at Randolph Air Force Base provides aircraft for flight surgeons assigned to the School of Aerospace Medicine to accrue required flying time.

- Consultant services. Air Force Medical Support Agency personnel from all four of their divisions serve as consultants on assignments at the Air Force Military Personnel Center approximately four times a year.

- Memorandum of Agreement -- G-induced loss of consciousness. Because Air Education and Training Command (AETC) aircrews account for 90 percent of Air Force G-induced loss of consciousness incidents, AETC and the Air Force Material Command (AFMC) have established a centrifuge training agreement to improve G awareness and tolerance of AETC Pilot Instructor Training candidates at Randolph Air Force Base. This training is intended to enhance instructor pilot effectiveness in training student pilots relative to the anti-G straining maneuver in a high-G environment. In this agreement, the operational staff of the Armstrong Laboratory provides High-G Awareness Training for up to 20 AETC instructor pilot trainees per day at a daily cost to AETC of $2,000.

Randolph Air Force Base (Continued)

- Advanced Spatial Disorientation Demonstrator (ASDD) Research pool. Research to be conducted on the ASDD by Crew Technology Division personnel of the Armstrong Laboratory requires a pool of three types of Air Force subjects: (1) Pilot candidates who have not begun the flight phase of Undergraduate Pilot Training, (2) student pilots in the transition phase between T-37 and T-38 aircraft, and (3) pilots with operational flying experience in combat aircraft. Randolph Air Force Base currently is a pool of all three subject types, with no temporary duty costs associated. A move away from San Antonio will mean loss of this valuable yet inexpensive subject pool, significantly impacting the mission of the Spatial Disorientation Countermeasures Task Group.

- Air Force Military Personnel Center support. Timely receipt of mission support, due to geographical location, enables the Air Force Military Personnel Center to provide demographic and personnel data to the Armstrong Laboratory for major projects, survey design and review services.

- Air Force Occupational Measurement Squadron support. The Armstrong Laboratory and the School of Aerospace Medicine support personnel of the Air Force Occupational Measurement Squadron by providing unique aerospace medicine expertise which is invaluable in the occupational surveys for various aerospace medicine career fields in the Air Force .

- Intelligent computer-assisted training. The Armstrong Laboratory developed tools to support intelligent computer-assisted training for AETC at Randolph Air Force Base.

- Data processing arrangement. Provides for exchange of personnel data between the Armstrong Laboratory and the Air Force Military Personnel Center in support of research and analysis of officer selection and classification systems.

- Training planning research with the Occupational Measurement Squadron. The Armstrong Laboratory develops technologies to improve high-level Air Force training decisions, primarily to determine what, where, and when to train tasks required for successful job performance.

- Individual differences in learning abilities. Randolph Air Force Base provides subjects and data to Armstrong Laboratory to evaluate fundamental human abilities and uses this knowledge to vastly improve the selection and classification of both officer and enlisted personnel, which allows for extended testing times to administer complex learning tasks.

Fort Sam Houston

- Computer training. The School of Aerospace Medicine has a Cooperative Research Development Agreement with the Army Center for Public Works to supply computer training as part of a Water Management Issues Course.

- Accessibility of Meat Laboratory and Cold Storage Facility. Fort Sam Houston Academy of Health Sciences provides their facilities for training the School of Aerospace Medicine public health officers and apprentices.

- Instructor support. The School of Aerospace Medicine provides instructor support for Army Veterinary Officers Course and noncommissioned officer training programs teaching food safety and public health activities.

- Subject matter experts. The Army Academy of Health Sciences instructors support tropical medicine, deployment medicine and preventive medicine lectures in the Global Medicine course.

- Cross-service cooperation opportunities. The chief information officer for the Army's Medical Department is located at Fort Sam Houston, and the Air Force Surgeon General's chief information officer is located at the Air Force Medical Support Agency at Brooks Air Force Base, which leads to extensive cross-service cooperation opportunities.

- Lead testing. Air Force lead testing specimens for newborns are shipped to the Epidemiologic Research Division and transferred to Brooks Army Medical Center with rapid turnaround and low cost.

Other Federal Agencies

- **U.S. Air Force Academy Liaison Officer and Reserve Officer Training Corps Scholarship Administrator.** This officer, assigned to Human Systems Center, works with 22 San Antonio area high schools in advising, recruiting, and assisting high school students interested in competing for entry to the U.S. Air Force Academy or Air Force Reserve Officer Training Corps scholarships by both counseling students and parents and attending college fairs.

- **Acquisition professional development training support.** The 70th Training Squadron provides Acquisition Professional Development Program training to NASA personnel.

- **Naval support.** The 70th MS provides medical and dental support to Navy personnel in San Antonio.

- **Aerospace Medicine Primary Course for NASA.** School of Aerospace Medicine provides the Aerospace Medicine Primary course training for NASA Fellows in Space Medicine and prospective NASA research physicians.

- **Altitude decompression sickness research.** For more than 20 years, NASA has funded decompression sickness research at Brooks Air Force Base. Decompression procedures for extra-vehicular activity are determined by this work.

- **Audie Murphy Veterans' Hospital.** The Armstrong Laboratory provides clinical hyperbaric medicine services to patients from Audie Murphy Veterans Hospital.

- **Tactical information broadcast service.** The Human Systems Center delivers a Technical Information Broadcast Service Tutor using the Microcomputer Intelligence for Technical Training Tutor Technology. Product is supplied to the Air Intelligence Agency maintenance technicians.

- **Joint research in radiological and toxicological effects with NASA's Joint Space Center.** The Armstrong Laboratory's research in long-term health effects from ionizing radiation in space including current dosimetry experiments on-board the shuttle, and monitoring of high-energy proton exposed animals -- a protocol more than two decades old.

Other Federal Agencies (Continued)

- Collaboration with NASA in environmental technology. A cooperative effort regarding participation of the Air Force Center for Environmental Excellence and the Human Systems Center in the application of NASA environmental and occupational health technology information and developments.

- Astronaut selection. Armstrong Laboratory medical experts are routinely sent to NASA's Joint Space Center to conduct the astronaut psychiatric and psychological aviator selection evaluation, to support the Astronaut Selection Panel, and to consult with NASA Medical Operations to review and update psychiatric standards and selection procedures.

- Other Human Systems Center and NASA activities.

  - Training of astronauts for shuttle launch G-profile. Tests are conducted at the Armstrong Laboratory to provide Space Shuttle astronauts with +Gx centrifuge exposure which simulates the acceleration profile of the Space Shuttle's launch into earth orbit. Up to 25 astronauts have been trained annually.

  - Pre-breathe protocols for extra-vehicular activity. Investigation of the causes and potential cures of decompression sickness caused by exposure to low ambient pressures. Development of pre-breathe protocols for extra-vehicular activity and risk mitigation.

  - Effects of microgravity on astronaut cognitive performance. This cooperative NASA and Armstrong Laboratory experiment was to determine the interactive effects of microgravity and fatigue on cognitive performance of three shuttle crew astronauts during the flight of the Space Shuttle Columbia in July 1994. Follow-on studies for a June 1996 flight involve the interactive effects of fatigue, performance and microgravity.

  - Medical and occupational health training. NASA Flight Surgeon training and NASA personnel training in substance abuse and other areas are provided by Armstrong Laboratory to Joint Space Center. Considerable cross-training is done between the two institutes.

  - Re-entry anti-G suit testing. Tests of extended coverage anti-G suit to provide protection for astronauts during the long, low-level G-profile encountered during shuttle reentry into earth's atmosphere.

Other Federal Agencies (Continued)

- Visual performance degradation in micro-gravity. Astronaut reports of degraded near vision during space flight have raised concerns about visual performance of personnel working in space and next-generation ultra-high altitude aircraft. The Vision Function Tester, was flown aboard the Space Shuttle Endeavor in 1994. For the first time, recession of the visual near point in microgravity was demonstrated and quantified.

- The effects of hyperbaric oxygen and gravity on leukocytes, apoptosis and multi-drug resistance. Preliminary data obtained from an experiment onboard STS-67 indicates that apoptosis (programmed cell death) may be responsible in part for cellular atrophy in astronauts. In addition, data obtained from cells flown on STS-69 to determine how hyperbaric oxygen and low gravity may be used to identify mechanisms of multi-drug resistance so that multi-drug resistance found in cancer or bacteria cells may be reversed. Both these results are being investigated with follow-on studies planned.

- Space launch risk assessment. Improved computer modeling systems are being developed and used to estimate toxic corridors for normal and catastrophic abort scenarios. Enhancements to the existing models will provide more realistic toxic corridor estimation and should result in less frequent launch delays due to weather.

- Microgravity on cardiovascular function. The primate facilities are used to answer critical questions. A non-human primate model instrumental with blood flow and pressure sensors was designed and developed to study the effects of altering gravity on cardiovascular function. Also, developing spaceflight experiments using this model with NASA and the Russians, and conducted experiments using this model in a head-down tilt configuration during parabolic flight in a KC-135 aircraft. These experiments will extend our knowledge about the mechanisms of blood pressure control by making measurements of cardiovascular responses that cannot be obtained in human subjects and using this information to develop countermeasures against adverse effects of spaceflight.

Other Federal Agencies (Continued)

- Exercise countermeasures. The Armstrong Laboratory is evaluating the use of a single bout of cycling that elicits maximal effort performed 24 hours prior to reentry. This approach would eliminate significant use of time, oxygen, energy (food) and water now required to support extensive periods of exercise during spaceflight. This exercise may also enhance blood pressure regulation and help eliminate the major problems with fainting following return from spaceflight. A protocol is being designed with Joint Space Center for a space flight experiment.

- Other medical and scientific collaboration. Participate with NASA on the Space Technology Interdependency Group (STIG), co-chair the STIG Operations Committee, which sponsored the Workshops on Space Operations Applications and Research (SOAR). These conferences, held in Houston, are funded and co-chaired by the Armstrong Laboratory and NASA. AL personnel perform as members of NASA medical and scientific working groups and review committees, including astronaut selection panel, astronaut selection criteria review, NASA Human Factors Discipline Working Group (DWG), NASA Musculoskeletal DWG, NASA Artificial Gravity WG, NASA Exercise Countermeasure Project Task Force, and NASA Peer Reviews-Human Factors, Space Physiology, Innovative Research, NIH-NASA Neurolab.

San Antonio and South Texas

- St. Mary's University. Agreement for local doctoral students to gain practical experience performing research at Armstrong Laboratory.

- Trinity University. Research agreement on bioeffects of electromagnetic fields: Conduct joint research extending manpower for Air Force and collocated tri-service bioeffects research and systems testing for high energy microwave systems.

- Texas A&M University. Food and Safety Technology: Participate in joint research in methodologies for extrapolation of risk to human populations using limited test data and statistical approaches.

- University of Texas Health Science Center. Intelligent Tutoring Systems in Fundamental Skills: Develops intelligent tutoring systems for teaching English, math and science at the 9th grade level in the San Antonio area schools.

- University of Texas at Austin. The Release of Air Force Instructional Design Software: Develops state-of-the-art tools for instructional design automation and courseware authoring, resulting in improved learning and teaching environments.

- Palo Alto College. Environmental Technical Training: Provides technical and professional lecture hours and equipment access for junior college level education of environmental technicians.

- University of Texas Health Science Center, University of Texas at San Antonio, Trinity University, Southwest Research Laboratory, Southwest Research Institute. Joint Research on the Center of Excellence in Radiological Toxicology: Joint research on the biological effects of laser, microwave and visible electromagnetic energy and associated risks.

San Antonio and South Texas (Continued)

- Adjunct faculty.
  - Palo Alto College (2)
  - Our Lady of the Lake University (1)
  - St. Mary's University (5)
  - University of Texas at Austin (1)
  - Trinity University (1)
  - University of Texas at San Antonio Health Sciences Center (11)
  - San Antonio College (2)
  - Embry Riddle Aeronautical University Randolph Air Force Base (1)
  - University of Texas at San Antonio (3)
  - Rice University Summer Faculty Associate (1)
  - St. Philips College (1)

- Consultants.
  - Texas Education Agency on Master Teacher Program (1)
  - Exxon Corporation in Houston (1)
  - University of Texas at San Antonio (1)
  - NASA (1)
  - Southwest Research Institute (1)

- Collaborative research projects with students and faculty.
  - St. Mary's University (2)
  - University of Texas at Austin (2)
  - Trinity University (1)
  - Texas A&M University (4)
  - San Antonio College (2)
  - Embry Riddle Aeronautical University Randolph Air Force Base (1)
  - University of Texas San Antonio (1)
  - Rice University (1)

San Antonio and South Texas (Continued)

- Public health training -- San Antonio Chest Hospital. The School of Aerospace Medicine has a Memorandum of Understanding with the San Antonio Chest Hospital to provide hands-on public health training for residents in aerospace medicine. Residents in turn provide medical services for hospital customers.

- Public health training -- Texas Department Of Health. The School of Aerospace Medicine maintains a Memorandum of Understanding with the Texas Department of Health, Region 6 to provide field training in regional public health practice for residents in aerospace medicine. Residents provide free health care for customers.

- Clinical rotations -- Texas Center for Infectious Diseases. The Texas Center for Infectious Diseases provides clinical rotations for the School of Aerospace Medicine Phase III residents.

- Instructor support. The School of Aerospace Medicine provides instructor support for U.S. Department of Agriculture-sponsored meat inspection classes taught at the University of Texas at San Antonio.

- Training for nurse anesthetists. The School of Aerospace Medicine has a Memorandum of Understanding with the University of Texas Health Science Center to train nurse anesthetists at the nursing school in hyperbaric medicine.

- Aerospace medicine primary training. The School of Aerospace Medicine provides Aerospace Medicine Primary training for the physicians attending their residency in space medicine at the University of Texas Medical Branch at Galveston, Texas.

- Classroom space. The School for Aerospace Medicine provides classroom space to Palo Alto and Webster Colleges.

- Shared and adjunct faculty. The School of Aerospace Medicine provides instructors for masters in public health course at the University of Texas Health Science Center.

- ACHE (San Antonio) Participation. The administrator of the 70th Medical Squadron is president-elect of the Federal Healthcare Executives of ACHE (San Antonio).

San Antonio and South Texas (Continued)

- Southeast San Antonio healthcare initiative. The administrator of the 70th Medical Squadron is a key executive in Southeast San Antonio Healthcare Initiatives Task Force.

- Greater San Antonio Hospital Council. The 70th Medical Squadron supports the Greater San Antonio Hospital Council through: (1) Professional input in coordination of healthcare in South Texas, and (2) Rotation of students through 70th MDS.

- Health Science Center support. The 70th Medical Squadron supports the University of Texas Health Science Center through: (1) Faculty for Family Practice Program, (2) Students rotations at 70th MDS, and (3) Forensic Dentistry Course for School of Dentistry in association with the School of Aerospace Medicine.

- Restoration Advisory Board. Base-sponsored local civic/base membership. Co-chairs are civic/local area leader living near the base, along with director, Environmental Management. This group meets to publicly discuss base restoration projects and provide community members a forum to ask questions about the status of restorations planned or occurring at the base.

- College and university enrollment. Brooks Air Force Base personnel enrollment in the following San Antonio area colleges and universities
  - San Antonio College
  - Palo Alto College
  - Incarnate Word College
  - Our Lady of the Lake
  - St. Mary's University
  - Texas Lutheran
  - University of Texas at San Antonio
  - University of Texas at San Antonio Nursing School
  - University of Texas Health Science Center
  - Southwest Texas State University
  - Trinity University
  - St. Philips College
  - University of Houston Clear Lake
  - San Jacinto Community College

San Antonio and South Texas (Continued)

- San Antonio area organizations working with Brooks Air Force Base Family Support Center.
  - Army and Air Force Exchange Service
  - American Association of Retired People
  - Alamo Community College District
  - Alamo Federal Executive Board, Youth and Education Council
  - Allied Finance
  - American Testing and Technical Services
  - American Red Cross, Station Manager, Lackland Air Force Base
  - Applied Materials
  - Army Career and Alumni Program
  - Army Education Center
  - Austin Police Department
  - BDM Technologies
  - Baptist Memorial Hospital System
  - Bexar County Civil Service Commission
  - Bexar County Justice Center
  - Bexar County Sheriff's Office
  - Brown and Root Services Corp.
  - Greater San Antonio Chamber of Commerce
  - Southside Chamber of Commerce
  - Hispanic Chamber of Commerce
  - City of Austin, Fire Department
  - City of San Antonio, Department of Community Initiatives
  - City of San Antonio, Economic Development

San Antonio and South Texas (Continued)

- The following San Antonio organizations have agreements to use the runways and apron.
  - •• Southwest Research Institute-- Runway used for crash testing vehicles
  - •• H.E.B. Grocery Co. -- Runway used for local and regional annual truck driving safety contests
  - •• Brady Green Clinic -- Runway used to train bus drivers annually
  - •• VIA Metropolitan Transit -- Runway used for annual local and regional safety driving competition for truck drivers
  - •• Trans Tech Resources -- Runway used to test braking systems
  - •• EG & G Automotive Research -- Runway used to test types of vehicles for manufacturers
  - •• BFI Waste Systems -- Runway used for safe driving classes for BFI truck drivers
  - •• Bexar County Sheriff's Department -- Runway used for holding high speed and other driving classes for sheriff's department
  - •• Texas Department of Mental Health and Retardation -- Runway used to brief drivers on safe driving techniques
  - •• Alamo Area Council of Governments -- Runway used to hold high-speed and other driving classes for regional law enforcement departments
  - •• Club Miniature Aircraft Combat Association -- Runway used to fly RCA airplanes
  - •• San Antonio Road Runners -- 10K bi-annual run
  - •• Path Finders Central Texas Association -- Annual jogging competition
  - •• San Antonio Sports Car Association -- Apron used to host monthly car rallies
  - •• Young Astronaut's Rocket Club -- Apron used to launch homemade rockets
  - •• Alzafar Shrine Temple -- Apron used for state and international driving championship
  - •• Pad Rats Rocket Club -- Apron used annually to launch rockets

- San Antonio companies that hold goods and services purchase agreements with the 70th Air Base Group.

Federal Sales Services
Virus Reference Lab
Bergen Brunswig
Syncor
Universal Contact
Liquid Carbonics
Natwell
BVA
Micro-Bio
General Medical
Southwest Photo
AAA Stamp and Engraving Co.
Southwell Company
A-1 Transmission
AAMCO Transmission
Alamo Spring Co.
American Car Care Center
Atlas Body and Truck Shop
Bohls Bearing and Power Transmission Services
Cavazos and Sons
Cummins
Case
Commercial Body Co.
Kooling Systems of San Antonio
Domingo Vara Chevrolet
Diesel Injection
The Exhaust Center
Fiesta Dodge
Fruehauf Trailers
George's Body Shop
General Brake and Alignment
General Tire
Gillespie Ford
Gunn Chrysler
Goodyear Tires
Grande Truck Center, Inc.
Hydraulic Supply Services Co
Interstate Battery
Kuenstler Machinery
Meineke Discount Mufflers
Metalcrafters, Inc.
Allen Moving and Storage
American Transfer and Storage Co.
Amistad Transfer and Storage
Alamo Moving and Storage
Armstrong Moving and Storage
A-1 Freeman Moving and Storage
Allen Transfer and Storage
Austin Van and Storage, Inc.
Stock Yard Center Public Scales
Van De Walle Farm, Inc.
Ashley Salvage Co.
Big Tex Grain Co.
Allied Feed Mill
Alamo Interstate Truck Stop
Roegelein Co.
Southwest Livestock Exchange and Trucking Co.
Ryder
U-Haul
Jays Automotive BPA
Motor Mart
Hanke Automotive
Mission Automotive
Newco Radiator Service
Conley Lott Nichols Machinery Co.
JAYS Automotive Specialties
Moto Mart Auto Parts
Mission Auto Parts
Pee-Wee Hance
Bergen Brunswig
Quality Beverage Company
Ace Mart
SYSCO
Alamo Paint and Wallpaper
Acme Soap Co.
American West
American Wine Co.
American Refrigeration
Bel-Air Auto Supply
Big Red Bottling Co.
Builders Square
BUDCO, Inc.

Midas Muffler Shop
Northstar Dodge
Northside Towing
Ottmers Auto Services
One Stop Radiator and Air Conditioning Services
Phenix Glass
Rush GMC
River City Hydraulics, Inc.
S&W Trailer Service
Safe Lite Glass
Southway Ford
Safety-Kleen Corp.
San Antonio Equipment and Hydraulic
Santex International Truck
Service Parts and Machine Co.
Southwest Brake and Alignment
Stewart and Stevenson, Inc.
Texas Mobile Glass Inc.
Texas State Glass
Torrado Chrysler Plymouth
Tire Station Richard Calvillo
U.S. Auto Glass
Mission Wrecker Service
Red Arrow Freight Lines
Carretta Trucking Co.
Canada Dry Co.
Coachman Inn
Coca Cola Co.
Halo Dist Co.
The Home Depot
Labatt Food Service
San Antonio Coors
Meny's Frame
NAPA
Office Depot, Inc.
Paul's Trophy
Penland Co.
Powell Vacuum Cleaner Center
Sutherland Lumber
Sears Product
Texas Bottlers
Southway Ford, Inc.
Southwell Co.
Wang
Century Papers, Inc.
Overnight Transportation
Watkins Motor Lines
ACH Enterprises Travel and Tours
Brookhill Funeral Home
Atlantic and Pacific Moving Co.
Ziegler Glass, Inc.

San Antonio and South Texas (Continued)

- The 70th Medical Squadron provides support and cooperation to the following San Antonio organizations.

  - City of San Antonio Emergency Medical Services. (1) Medical response augmentation to City Disaster Plan, and (2) San Antonio Emergency Medical Service responds to after hours emergency calls on Brooks Air Force Base

  - Alamo Federal Executive Board. Representative to Youth and Education Committee

  - San Antonio Federal Women's Program Mangers Council. (1) second vice president, (2) leadership and executive management, and (3) Federal Women's Program manager for Brooks Air Force Base

  - San Antonio Health Care Coordinating Council. Professional input and coordination of healthcare in San Antonio

  - Trinity University. In conjunction with the Greater San Antonio Hospital Council, students in Healthcare Administration rotate through the 70th MDS

  - St. Mary's University. Family advocacy and social work lectures

  - San Antonio Dental Society. (1) National Children's Dental Health month and (2) School visits

  - American Heart Association. (1) Cardio-pulmonary resuscitation trainees for San Antonio (12,000+ trained) and (2) Health promotions programs interface and lectures

  - CAMP. (1) Board of directors and steering committee, (2) Medical Care, (3) Dental Care, (4) Camp Counselors, and (5) CAMP Jog-a-thon support

San Antonio and South Texas (Continued)

- Public Affairs activities. The Human Systems Center's public affairs office is the focal point for civic relationships between Brooks Air Force Base and the San Antonio area. Some of its community relations activities include:

  - Tours. To educate visitors to the activities at Brooks Air Force Base through visits to base facilities and functions. (1994 -- 142 tours, 3,557 visitors)

  - Speakers bureau. Brook Air Force Base scientists, engineers and other professionals visit schools and civic groups to present the Brooks Air Force Base mission. (1994: 134 speakers, 6,550 audience)

  - Parades. A highly visible part of Brooks Air Force Base civic involvement throughout South Texas. (1994: 18 parades, 500,000+ spectators)

  - Science fairs. Brook Air Force Base science and technology focus make it a natural to participate in the judging of regional science fairs. The Alamo Regional Science Fair alone used 114 judges from the base.

  - Engineer for a day. An annual Spring event at Brooks Air Force Base, high school student across San Antonio visit the base and observe first hand the activities of high-tech engineers in their workplaces.

  - Fiesta. Brooks Air Force Base is an active participant in San Antonio's annual Fiesta celebration. Brook Air Force Base ambassadors and senior leadership participate in more than 40 different Fiesta events during the 10-day period.

- San Antonio Bar Association, Environmental Law and the St. Mary's University Law School -- Mentoring Program. Brooks Air Force Base lawyers participate with local chapter affiliation of lawyers, interplay of local civic, governmental and federal concerns in the law. Review of current areas of emphasis or upcoming changes in legislation affecting local area programs. Mentoring program simply provides professional adjunct assistance to students in need in the local university setting.

- Elementary school -- Recycling and environmental awareness programs. Base environmental professionals' promotion of environmental programs, proper recycling techniques, and instilling earth concerns with youth.

San Antonio and South Texas (Continued)

- Liaison Officer to the Civil Air Patrol. There are approximately 30 cadets (all southside teenagers) that meet at Brooks Air Force Base each week. The base has provided the Civil Air Patrol with a room in Bldg. T638. In addition, the cadets have privileges at the enlisted dining facility. Senior patrol members, when performing official functions may utilized base transportation assets, temporary quarters facilities and such services as audiovisual support.

- Shared trainer for San Antonio 2000. The 70th Training Squadron personnel sought out due to expertise to provide metrics training, and youth and education counseling for San Antonio 2000 Councils composed of industry and governmental area professionals committed to lifelong learning, enhanced public schools and renewed community values. Partnerships consist of: City of San Antonio, Bexar County, The University of Texas at San Antonio, Greater San Antonio Chamber of Commerce, USAA, United Way of San Antonio, Alamo Community College District, and Brooks Air Force Base. National Disaster Medical System-Brooks' ambulances and crew responsible for ground transport for city patients.

- San Antonio area schools that participate in Brooks Air Force Base Civilian Personnel Student Aid and Summer Hire Program.
  - Highlands High School
  - McCollum High School
  - Harlandale High School
  - Sam Houston High School
  - Brackenridge High School
  - Fox Tech High School
  - Lanier High School
  - Burbank High School
  - South San High School
  - Southwest High School
  - Palo Alto College
  - San Antonio College
  - University of Texas at San Antonio
  - S E R Jobs For Progress, Inc. San Antonio

San Antonio and South Texas (Continued)

- Brooks Air Force Base humanitarian donations.
  - Oblates of Mary Immaculate
  - Habitat for Humanity Military House
  - Battered Women's Shelter (Bexar County)
  - Four Winds Ministries
  - Christian Senior Services
  - Children's Shelter of San Antonio
  - Gideon's San Antonio East Camp
  - San Antonio Food Bank
  - Children's Shelter of San Antonio
  - Four Winds Ministries
  - Christian Senior Services
  - Battered Women's Shelter
  - Randolph Special Activity Fund
  - Fisher House of Lackland Air Force Base
  - Archdiocese of San Antonio
  - Knights of Columbus, Deaf Program
  - Meals On Wheels

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950426-17

FROM: HOLLOWAY, HARRY C.	**TO:** DIXON
TITLE: ASSOCIATE ADMIN.	**TITLE:** CHAIRMAN
ORGANIZATION: NASA	**ORGANIZATION:** DBCRC
INSTALLATION (s) DISCUSSED: BROOKS AFB.	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA	✓		
STAFF DIRECTOR	✓			COMMISSIONER COX	✓		
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS	✓		
GENERAL COUNSEL	✓			COMMISSIONER KLING	✓		
MILITARY EXECUTIVE				COMMISSIONER MONTOYA	✓		
				COMMISSIONER ROBLES	✓		
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE	✓		
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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:

EXPRESSING CONCERN OVER CLOSURE OF ARMSTRONG LAB, HUMAN SYSTEMS CENTER, AND SCHOOL OF AEROSPACE MEDICINE; ALSO, FORWARDING LETTER HE SENT TO GEN. BELLHAR AND LETTER FROM DR JAMES HICKMAN ADDRESSED TO DBCRC.

Date: 950428	**Routing Date:** 950426	**Date Originated:** 950420	**Mail Date:**

National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

APR 20 1995

Reply to Attn of: U

950426-17

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

Dear Senator Dixon:

Enclosed you will find a copy of a recent letter I sent to Brigadier General Robert Belihar, USAF, at the Brooks Air Force Base located in San Antonio, Texas.

The impending closure of three facilities at Brooks AFB -- namely the Armstrong Laboratories, the Human Systems Center, and the School of Aerospace Medicine -- is a source of great concern to NASA. The support that NASA receives from these facilities is vital to America's space program. I have enclosed a copy of my letter to General Belihar highlighting my concerns, as well as a copy of a letter from James Hickman, M.D., Col. USAF MC (Ret.).

Given the importance of these facilities to the U.S. space program, it is imperative that the impending changes in the location and structure of the Human Systems Center be carefully considered before any move is approved.

If you would like to discuss this matter further, please do not hesitate to contact me at (202) 358-0122.

Sincerely,

Harry C. Holloway, M.D.
Associate Administrator for
Life and Microgravity Sciences and Applications

Enclosures

National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

Reply to Attn of: U

APR 7 1995

Robert Belihar, Brigadier General, USAF
Human Systems Center
2510 Kennedy Circle, Suite One
Brooks Air Force Base, Texas 78235-5120

Dear General Belihar:

It was with great concern that I recently learned of the Base Realignment and Closure Commission's recommendation to close Brooks Air Force Base located in San Antonio, Texas.

As you know, Brooks AFB plays a key role in many of the medical programs conducted by the National Aeronautics and Space Administration (NASA), particularly with the Johnson Space Center in Houston. The support we receive from the Armstrong Laboratories, the Human Systems Center, and the School of Aerospace Medicine has been instrumental in furthering our efforts in medical operations and research. The significant medical importance of these unique facilities and the technical expertise of their personnel are critical to the success of our human spaceflight program. I have attached a list of some of NASA's cooperative agreements with Brooks AFB; these clearly demonstrate the vital role that these three organizations play in the accomplishment of NASA's mission.

I am currently involved in an extended analysis of our own consolidation options. I have noted a tendency to underestimate the costs of moving research enterprises and facilities from site to site. Many assume that it is a simple matter to pack up a laboratory in one part of the country and move it to another. As a scientist who has run laboratories in the past, let me assure you that this is emphatically not the case. Moving a research enterprise is an extremely disruptive proposition. I would expect that it would take a period of years before the research program at Brooks would recover from a significant move. Productive research programs are thoroughly dependent on teams of experienced researchers, and such teams are inevitably destroyed when a research program is moved any significant distance.

As you consider the stream of over-head savings associated with a given consolidation option, I urge that you also consider the immediate and long term costs of a significant reduction in research productivity and the lost benefits associated with deferred progress in the outstanding research programs at Brooks. I anticipate that the cost to NASA will be heavy. NASA is depending on Brooks to provide timely research results as we work to bring orbital research into the Space Station era, and the inevitable lost time associated with a consolidation may carry a significant cost for the Space Program.

Given the importance of these facilities to the U.S. Space Program, it is imperative that the impending changes in the location and structure of the Human Systems Center be carefully considered before any move is approved. A full analysis of the costs of disrupting Brooks' research program is a difficult undertaking, not subject to a simple book-keeping approach. The value of research findings is difficult to anticipate, and the opportunity costs associated with deferring such findings is also very difficult to capture. One option for pursuing such an analysis would be to establish an impartial scientific panel to report on the scientific costs of the available options.

I would be more than happy to discuss this matter with you at any time. You can reach me at (202) 358-0122.

Sincerely,

Harry C. Holloway, M.D.
Associate Administrator,
Office of Life and Microgravity
Sciences and Applications

Attachment

HUMAN SYSTEMS CENTER, ARMSTRONG LABORATORY
BROOKS AIR FORCE BASE, TEXAS
MEDICAL COOPERATION AND SUPPORT TO NASA

1. Astronaut Selection. Armstrong Laboratory (AL) medical experts are routinely sent to NASA JSC to conduct the astronaut psychiatric and psychological aviator selection evaluation, to support the Astronaut Selection Panel, and to consult with NASA Medical Operations to review and update psychiatric standards and selection procedures.

2. Training of Astronauts for Shuttle Launch G-Profile. Tests are conducted at AL to provided Space Shuttle astronauts with +Gx centrifuge exposure which simulates the acceleration profile of the Space Shuttle's launch into Earth orbit. Up to 25 astronauts have been trained annually.

3. Prebreathe Protocols for EVA. Investigation of the causes and potential cures of decompression sickness caused by exposure to low ambient pressures. Development of prebreathe protocols for EVA and bend risk mitigation.

4. Effects of Microgravity on Astronaut Cognitive Performance. This cooperative NASA/USAF AL experiment was to determine the interactive effects of microgravity and fatigue on cognitive performance of three Shuttle crew astronauts during the flight of the Space Shuttle Columbia in July 1994. Follow-on studies for a June 1996 flight involve the interactive effects of fatigue, performance and microgravity.

5. Medical and Occupational Health Training. NASA Flight Surgeon training and NASA personnel training in substance abuse and other areas are provided by AL to JSC. Considerable cross-training is done between the two institutes.

6. Re-Entry Anti-G Suit Testing. Tests of extended coverage anti-G suit to provide protection for astronauts during the long, low-level G-profile encountered during Shuttle re-entry into Earth's atmosphere.

7. Visual Performance Degradation in Micro-Gravity. Astronaut reports of degraded near vision during space flight have raised concerns about visual performance of personnel working in space and next-generation ultra-high altitude aircraft. The Vision Function Tester, was flown aboard the Space Shuttle Endeavor in 1994. For the first time, recession of the visual near point in microgravity was demonstrated and quantified.

8. The Effects of Hyperbaric Oxygen and Gravity on Leukocytes , Apoptosis and Multidrug Resistance. Preliminary data obtained from an experiment on board STS-67 indicates that apoptosis (programmed cell death) may be responsible in-part for cellular atrophy in astronauts. In addition, data obtained from cells flown on STS-69

to determine how hyperbaric oxygen and low gravity may be used to identify mechanisms of multidrug resistance so that multidrug resistance found in cancer or bacteria cells may be reversed. Both these results are being investigated with follow-on studies planned.

9. Space Launch Risk Assessment. Improved computer modeling systems are being developed and used to estimate toxic corridors for normal and catastrophic abort scenarios. Enhancements to the existing models will provide more realistic toxic corridor estimation and should result in less frequent launch delays due to weather.

10. Mircrogravity on Cardiovascular Function. The primate facilities are used to answer critical questions. A non-human primate model instrumented with blood flow and pressure sensors was designed and developed to study the effects of altering gravity on cardiovascular function. Also, developing spaceflight experiments using this model with NASA and the Russians, and conducted experiments using this model in a head-down tilt configuration during parabolic flight in a KC-135 aircraft. These experiments will extend our knowledge about the mechanisms of blood pressure control by making measurements of cardiovascular responses that cannot be obtained in human subjects and using this information to develop countermeasures against adverse effects of spaceflight.

11. Exercise Countermeasures. AL is evaluating the use of a single bout of cycling that elicits maximal effort performed 24 hours prior to reentry. This approach would eliminate significant use of time, oxygen, energy (food) and water now required to support extensive periods of exercise during spaceflight. This exercise may also enhance blood pressure regulation and help eliminate the major problems with fainting following return from spaceflight. A protocol is being designed with JSC for a space flight experiment.

12. Other Medical and Scientific Collaboration. Participate with NASA on the Space Technology Interdependency Group (STIG), Co.-Chair the STIG Operations Committee, which sponsored the Workshops on Space Operations Applications and Research (SOAR). These Conferences, held in Houston, are funded and Co-Chaired by AL and NASA/JSC. AL Personnel perform as members of NASA Medical and Scientific Working Groups and Review Committees, including Astronaut Selection Panel, Astronaut Selection Criteria Review,
NASA Human Factors Discipline Working Group (DWG), NASA Musculoskeletal DWG, NASA Artificial Gravity WG, NASA Exercise Countermeasure Project Task Force, and NASA Peer Reviews - Human Factors, Space Physiology, Innovative Research, NIH-NASA Neurolab.

April 13, 1995

Defense Base Closure and Realignment
Commission
1700 North Moore Street
Suite 1425
Arlington, VA

SUBJECT: Closure and Realignment of Brooks AFB

1. I am James R. Hickman, Jr., M.D., Col. USAF MC (Ret.). Since my retirement in 1993 from the Armstrong Laboratory at Brooks AFB Texas, I have been a consultant in the Department of Internal Medicine at the Mayo Clinic with joint appointments in the Divisions of Preventive Medicine and Cardiovascular Disease. I am also a consultant in Aerospace Medicine. At the time of my retirement, I was completing a six-year tenure as the Chief of the Clinical Sciences Division, Aerospace Medical Directorate, Armstrong Laboratory. I am quite familiar with the USAF Biomedical Research Programs.

2. I implore you to postpone your decision to move the resources of the USAF School of Aerospace Medicine and the Armstrong Laboratory from Brooks AFB until you have received the advice and counsel of a panel of select scientists who can evaluate the impact of such a decision on the long-range health and productivity of this critical segment of our country's scientific capability.

3. Having carefully weighed the pending decision, I am convinced that the contemplated course of action will set back the USAF's sole aerospace medicine R&D capability by at least a decade, if not irrevocably. The ease with which a flying organization or a clerical unit can be relocated does not translate to the fragile environment of world class research organizations.

4. This letter does not afford the opportunity to do more than briefly outline concerns which are widely shared among scientists knowledgeable of this arena. Please consider the following:

   1. The Brooks complex is unarguably the closest aerospace medical counterpart to a Harvard or an MIT which the USAF has ever had. It takes decades to create a top quality scientific program, nurture long-term projects, create highly skilled successors, and mold the unit into a world class center. Regrettably, it is an established fact that the biomedical R&D organizations in the USAF have been in a state of continued turmoil and waning vigor for the past decade, largely due to declining funding, manning instability, and massive reorganizations produced by macro changes at the strategic level. Small, pristine scientific gems got caught up in major weapons system development restructuring at the highest levels, much to the detriment of highly productive and unique life sciences programs. The Brooks campus has been especially hard hit by almost continuous exposure to these forces. This analysis is not intended as a criticism of anyone--it is simply how things have turned out. Ten years ago, if one had wished to formulate a plan to fatally cripple the USAF's aerospace medicine capability, one would have instigated a decade of

continual reorganization, entangling the scientific personnel and their leaders in continual retrenchment, crippling productivity with bottom line oriented personnel decisions ("take the vacancies"), recurrent funding cuts, and leaving every scientific organization anemic and weakened rather than choosing a few vigorous survivors. At the end of this decade, one would then physically move the aerospace medicine organizations out of their facilities which were organically designed for the mission, fragment the teams, and then shoehorn the remnants into facilities designed for a different type of research. At the end of this decade, one would then also combine the inevitable disruptions and inefficiencies of geographic dislocation with the debilitating separation of the USAF aerospace medicine facilities from the San Antonio biomedical community. To obtain mandated savings, we have fostered expensive survival of weakened units--units which could be vigorous and productive for a small margin. But, we have spread around the cuts in a fashion which leaves many weak and few strong. Now, we are preparing to do it again. Where is your analysis of level field competition among R&D facilities, in order to identify the survivors? Under Item 4(3) in this letter, you will learn that this competition has already been held, and apparently ignored. We are unwittingly following a disastrous blueprint. The Aerospace Medicine Programs at Brooks are viable, but will <u>not</u> survive the contemplated move in a state remotely similar to the international status which they have previously enjoyed. In many facets of life, timing is everything. In your current plan, a bad plan has been elevated to devastating proportions by deadly timing. This is not simply a pessimistic view—it is the realistic view of every seasoned scientist that I have queried. It is almost inconceivable that an institution synonymous with world class excellence, upon whom our allies and the aviation world have depended so heavily, could have been handled in such a capricious manner, while organizations of less stature and accomplishment have been spared. It seems inconceivable that the USAF's aerospace medical capability could be virtually destroyed to save $6 million a year for 20 years. Quite the contrary, the USAF and the DOD should be deeply concerned about the current state of operational medical research, given the challenges which the Gulf War, Grenada, and Panama demonstrated. If one wished to devise a plan <u>today</u> to strengthen and foster this critical mission, the <u>last</u> thing one would do would be to uproot the vital core elements. Your commission is preparing to make a decision which will have more impact on life sciences research in the USAF than any single decision in the history of this endeavor. The value of all facilities, materiel, and personnel must be translated into the total cost of producing the end product. Only the end product has intrinsic value. It is my belief that the projected savings will be dwarfed by the degradation of the scientific end product.

2. The combined expertise of the Brooks campus, Southwest Research, Wilford Hall Medical Center, Brook Army Medical Center, the University of Texas Health Science Center at San Antonio, Johnson Space Center, and the Texas Medical Center at Houston represents the greatest concentration of aerospace medical talent and allied disciplines in the world. Wright-Patterson Air Force Base Medical Center is a good hospital. The Armstrong Laboratory at Wright-Patterson is an excellent human factors laboratory. Wright State University is a growing institution, but regrettably is not an institution of great distinction. At the risk of fraying sensibilities in the process, it must be pointed out that the Dayton and San Antonio complexes, in terms of the totality of aerospace medicine resources and distinction,

are in completely different leagues. The co-location of the Brooks campus and the Wilford Hall Medical Center were not accidental. I urge you to review the careful thought which went into the creation of the former Aerospace Medical Division, and all of its implications for teaching, research, and care of the aircrew member. The critical adjacencies of the San Antonio complex are, and have been too valuable to sacrifice for the current projected savings. There is a history of great wisdom in the development of the San Antonio complex--it must not be sacrificed for fiduciary gains which are massively overshadowed by the long-term negatives of the proposed plan. San Antonio, Texas is the center of specialty training in Aerospace Medicine. The education of the Army and the Air Force residents in Aerospace Medicine, including some from Canada and other countries, revolves around the vibrant nature of the San Antonio medical complex. The first year of the Aerospace Medical Residency is a Masters in Public Health. The University of Texas Health Science Center at San Antonio has been very accommodating in offering the first year Masters program, as an extension of the University of Texas Health Science Center at Houston. This allows many of the residents to complete all three years of training in one geographic location. The USAF Third Year Residency and the US Army Third Year Residency are heavily built around Kelly/WHMC and BAMC, respectively. Moving USAFSAM and the Aerospace Medical Consultation Service, which is pivotal to the education of the residents, out of San Antonio is a colossal mistake. But if it is moved, the residency must follow. You cannot move the faculty to Dayton, and leave the residency in San Antonio. At least six years of intensive effort and great expense have gone into a revised residency program which meets the needs of both the U.S. Air Force and the U.S .Army. Wright State University does offer a residency in Aerospace Medicine, but it is a civilian oriented program, not designed to turn out military flight surgeons. Further, the breadth and depth of facilities and talent available in the Dayton area simply do not compare to the San Antonio complex. The current plan for Brooks will have a huge regressive effect on the training of specialists in Aerospace Medicine. Further, I can envision hundreds of thousands of dollars annually in excess PCS moves and TDYs which will result from abandoning the cost effective adjacencies of San Antonio. Every facility at Brooks has been built with the referred aircrew member in mind. I have spent enough time at Wright-Patterson to tell you that such streamlining currently does not exist, and will represent a huge dollar cost to recreate. Travel in and out of San Antonio has become progressively easier for the 1000 or so aircrew members who come to the consultation from world-wide referrals. Dayton, Ohio, represents a significant step backwards in this regard.

3. The Aeromedical Consultation Service at Brooks evaluates aircrew referred world-wide with complex and obscure medical problems. Medical grounding of a USAF aircrew member is an instantaneous loss of somewhere between $6 and $13 million in training costs for the taxpayers. The Consultation Service was specifically designed for rapid and indepth evaluation of aircrew by medical specialists also trained in Aerospace Medicine. It has taken over 30 years to create this center in its present form, and to mold this service into its inextricable relationships with Wilford Hall and Brooke Army. The epidemiological approach to aircrew standards, using long-term studies, has netted savings of over $750 million in the last 20 years. I urge you to have a formal briefing on this activity. It is housed in organic facilities--built for the purpose, and well integrated into all of the other Brooks' laboratories. In 1990-91, Air Force Systems Command commissioned

independent scientific reviewers to examine every single USAF R&D activity. The final goal of the review was to report and identify for the Secretary of the Air Force the top two research and development programs in the entire USAF. The long-term epidemiological approach to aircrew standards in the Clinical Sciences Division at the Armstrong Laboratory was chosen as one of the Air Force's two top R&D technologies. The Clinical Sciences Division is internationally renowned for this activity. Virtually every aviation service in the world has relied upon Brooks for aircrew standards. This activity competed with programs costing several hundredfold, and won out on a level field, in the areas which really counted--mission relevance and technical excellence. I urge you to take a careful look at the operational cost of this unit and the return on investment. The data are available and well-documented. This research organization, like others at Brooks, has also been battered by the previously mentioned upheavals in Air Force R&D in recent years. I spent the majority of my professional career in this organization. This activity simply will not survive, much less retain its world class stature, if moved from Brooks and separated from the San Antonio arena. The proposed plan is a recipe for mediocrity. Long-term studies of 25-30 years' duration, in which millions have been invested, are coming to fruition. The potential dollar savings involved in selection and retention research are huge. I am completely convinced that the reversals and damage to this program will dwarf the envisioned savings when this activity is removed from San Antonio. The timing is simply devastating. I am mystified as to why we would gamble with the future, and the return on investment of the USAF's top R&D program. This program is one of the few money making propositions which the taxpayers actually have. Surely, the USAF's top R&D program, which is operated at very low expense, deserves more consideration than the purely materiel and personnel costs in the Brooks closing equation.

The belief that you will not create huge unrecognized cost in recreating these specialized laboratories, for the Clinical Sciences Division alone, suggests an unfamiliarity with the mission requirements and facilities. There may also be a belief that you can simply move the medical facilities to Wright-Patterson Air Force Base Medical Center. There is a long history which must be factored into such a decision, for there is a lengthy history to show that the USAF Medical Centers, because of their sick patient mission, have not been able to do the intensive immediate aircrew evaluations, or to maintain the long-term epidemiological research projects. I urge you to receive some briefings on painful lessons learned in this regard, before the mistakes are repeated. The crush of an ever increasing demand for sick patient treatment has never allowed the Air Force Medical Centers to primarily conduct these aerospace medical activities, and yet the San Antonio medical centers has been an invaluable partner in subspecialty evaluations such as neurosurgery, orthopedics, and multiple other areas. The medical center at Wright-Patterson actually <u>sends</u> complex cases to WHMC, not vice versa. In which locale would you place the Air Force Consultation Service for aircrew members?

4. The greatest future savings in aircrew research will come from <u>selection</u> research--medical outcome studies done on selectees who have undergone specialized examinations in a stratified selection process. Such research and development has previously never been feasible, because UPT candidates could be examined at over 200 locations, except for the Air Force Academy cadets who are all examined in one

locale. It was virtually impossible to equip even a handful of specialized examination centers, much less 200. Further, TDY costs to specialized centers for applicants was prohibitive. After 15 years of active evolution, the aircrew selection mission is now possible, because all non-academy UPT candidates now come through San Antonio for reasons independent of medical selection. Specialized stratified selection started at Brooks in 1994. On the very threshold of an R&D effort which can realistically save $25-50 million annually in training costs, the activity will be moved to Dayton, and this unparalleled opportunity will be lost. Again, the timing is simply devastating. I would not sacrifice this selection program for $25 million a year, much less $6 million. Will we recreate a third R&D unit in San Antonio, or send the aircrew applicants to Wright-Patterson, or simply write off this initiative which has been 15 years in the planning? I urge you to hear briefings on this subject. The destruction of this program alone will offset any realignment savings.

5. I am deeply concerned that the damages to USAF Aerospace Medical R&D will be profound, totally outweighing any proposed savings. I urge you to delay a decision regarding Brooks until you can receive a thoughtful and indepth review of the scientific impact of the proposed plan. Senior aerospace medical scientists throughout NATO are simply stunned that the USAF would close Brooks, a name synonymous with international excellence. The scientific community is shocked at what we are risking for ephemeral savings.

Lastly, the Department of Defense must demonstrate that excellence will not be gambled for short-term paper savings. There is great sadness in offering up a world leader in the name of projected savings which are not only debatable, but are quite minimal in the overall picture within the Department of Defense. If any facility has ever earned the right to exist, Brooks has. When we have killed the international leader in the Aeromedical Sciences, we will have killed a portion of the USAF's prestige, world standing, and greatness. Every great organization needs to preserve its finest.

Thank you for reading my letter.

Sincerely,

James R. Hickman, Jr., M.D., M.P.H.

JRH:cal

Defense Base Closure and Realignment Commission
Executive Correspondence Tracking System (ECTS)

[redacted]-5 (I, O)
Originated: 03/03/95 Received: 03/03/95 Referred to: LIAISON Due: 03/07/95 Closed: 03/08/95 COMPLETE.
From: TEJEDA, FRANK (REP. (TX) at U.S. CONGRESS).
To: DIXON, ALAN (CHAIRMAN at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: REQUEST THAT REGIONAL HEARING FOR TEXAS BASES BE HELD IN SAN ANTONIO.

950328-3 (I, O)
Originated: 03/23/95 Received: 03/28/95 Referred to: Due: / / Closed: 03/28/95 NONE REQ.
From: TEJEDA, FRANK (REP. (TX) at U.S. CONGRESS).
To: COX, REBECCA (COMMISSIONER at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: THANK YOU FOR MEETING WITH HIM REGARDING BROOKS AFB.

950404-2 (O, O)
Originated: 04/03/95 Received: / / Referred to: Due: / / Closed: 04/04/95 NONE REQ.
From: CIRILLO, FRANK (AIR FORCE TEAM LEADER at 1993 DBCRC).
To: BLUME, JAY (SPECIAL ASST TO SEC OF AF at HEADQUARTERS USA/RT).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: REQUESTING THEY PROVIDE REVIEW OF COBRA RUN REGARDING BROOKS AFB.

950410-24 (O, O)
Originated: 04/10/95 Received: / / Referred to: Due: / / Closed: 04/10/95 NONE REQ.
From: CIRILLO, FRANK (AIR FORCE TEAM LEADER at 1993 DBCRC).
To: BLUME, JAY (SPECIAL ASST TO SEC OF AF at HEADQUARTERS USA/RT).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: REQUESTING THAT THEY PERFORM A COBRA RUN ON BROOKS AFB USING NEW ASSUMPTIONS.

950413-9 (I, O)
Originated: 04/13/95 Received: 04/13/95 Referred to: Due: / / Closed: 04/13/95 NONE REQ.
From: , (at BROOKS AIR FORCE BASE).
To: VARALLO, JOE (CROSS SERVICE ASSOC ANAL at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: FORWARDING PRESS CLIPS REGARDING DBCRC VISIT TO BASE.

950417-15 (I, O)
Originated: 04/11/95 Received: 04/17/95 Referred to: Due: / / Closed: 04/17/95 NONE REQ.
From: WOLFF, NELSON (MAYOR at SAN ANTONIO, TX).
To: COX, REBECCA (COMMISSIONER at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: THANK YOU FOR VISITING BASE. ALSO, LETTER OF SUPPORT FOR THE ALTERNATIVE PLAN OFFERED.

950419-22 (O, O)
Originated: 04/19/95 Received: 04/19/95 Referred to: AIR FORCE Due: / / Closed: 04/19/95 NONE REQ.
From: CIRILLO, FRANK (AIR FORCE TEAM LEADER at 1993 DBCRC).
To: BLUME, JAY (SPECIAL ASST TO SEC OF AF at HEADQUARTERS USA/RT).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: REQUEST FOR BRIEFING ON THE SCOPE AND NATURE OF CLASSIFIED WORK INVOLVED WITH HSC.

NOTE: 14 Records Selected by CAMPBELL, Criteria: .

Defense Base Closure and Realignment Commission
Executive Correspondence Tracking System (ECTS)

9[redacted]-2 (O, O)
Originated: 04/20/95 Received: / / Referred to: Due: / / Closed: 04/20/95 NONE REQ.
From: CIRILLO, FRANK (AIR FORCE TEAM LEADER at 1993 DBCRC).
To: ROBERSON, PAUL (PROJECT DIRECTOR at BRAC '95 TASK FORCE SA,TX).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: PLEASE PROVIDE DBCRC THE CONCEPT OF OPERATIONS THAT SUPPORTS YOUR CANTOMENT PROPOSAL FOR BROOKS.

950426-17 (I, O)
Originated: 04/20/95 Received: 04/26/95 Referred to: LIAISON Due: / / Closed: 05/01/95 COMPLETE.
From: HOLLOWAY, HARRY C. (ASSOCIATE ADMINISTRATOR at NASA).
To: DIXON, ALAN (CHAIRMAN at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: EXPRESSING CONCERN OVER CLOSURE OF ARMSTRONG LAB, HUMAN SYSTEMS CENTER AND THE SCHOOL OF AEROSPACE MEDICINE; ALSO, FORWARDING LETTER HE SENT TO GEN BELIHAR AND LETTER FROM DR. JAMES HICKMAN ADDRESSED TO DBCRC.

950426-22 (I, O)
Originated: 04/20/95 Received: 04/26/95 Referred to: LIAISON Due: 05/03/95 Closed: / / PENDING.
From: TASKER, DAVID (EYE PHYSICIAN at).
To: GENERAL, (at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: SUBMITTING TESTIMONY FOR THE RECORD AT THE DALLAS REGIONAL HEARING.

950427-10 (I, O)
Originated: 04/26/95 Received: 04/27/95 Referred to: LIAISON Due: 05/04/95 Closed: / / PENDING.
Fr[redacted] CHEEVER, CHARLES E. (BRAC 95 CO-CHAIR at SAN ANTONIO BRAC 95), and VILLARREAL, JOSE (BRAC 95 CO-CHAIR at SAN ANTONIO B
[redacted]RILLO, FRANK (AIR FORCE TEAM LEADER at 1993 DBCRC).
In[redacted]lation(s): BROOKS AFB, TX (F-CNBC).
Contents: DESCRIBING ALTERNATIVE PLAN FOR CLOSURE OF BROOKS AFB USING CANTONMENT AREA.

950428-1 (I, O)
Originated: 04/26/95 Received: 04/27/95 Referred to: Due: / / Closed: 04/28/95 NONE REQ.
From: LEHMAN, CHRIS (at COMMONWEALTH CONSULTING).
To: CORNELLA, AL (COMMISSIONER at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: FORWARDING COPY OF LUBBOCK NEWSPAPER THAT DISCUSSES DBCRC'S VISIT.

950428-9 (I, O)
Originated: 04/25/95 Received: 04/28/95 Referred to: LIAISON Due: 05/02/95 Closed: / / PENDING.
From: GIBBONS, SAM M. (REP. (FL) at U.S. CONGRESS).
To: DIXON, ALAN (CHAIRMAN at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: FORWARD CONSTITUENT LETTER SUPPORTING ARMSTRONG LAB.

950501-3 (I, O)
Originated: 04/12/95 Received: 05/01/95 Referred to: LIAISON Due: 05/08/95 Closed: / / PENDING.
From: HICKMAN, JAMES R. (at).
To: DAVIS, GEN J.B. (COMMISSIONER at DBCRC).
Installation(s): BROOKS AFB, TX (F-CNBC).
Contents: EXPRESSING CONCERN THAT THE USAF SCHOOL OF AEROSPACE MEDICINE AND THE ARMSTRONG LAB ARE BEING MOVED FROM BROOKS.

NOTE: 14 Records Selected by CAMPBELL, Criteria: .

Brooks -

Brooks to WP

$25m - Mean $220m → W-P cost & more

$115m ms/km

$105 personnel + equipment

BCEG today - site survey

- built analysis →

→ contourment → cost management - $4-5m

→ assumptions -

(4) I. facility condition at BAFB

A) # of bldgs already built - new - 3-5 yr

B) new construction - 3/4 finished

C) equipment - chambers → hypo - basic chamber - high altitude - low O_2

replaces re-cert

hyperbaric

(5)

II Brain pool loss -

A) medium + engineer degree - 90% of civilians won't move

- military professionals won't move - military move

- already brain drain

III. 3 to 5 year project delay in work +

IV. Breaking up synergy

A) internal synergy - Histories

1) AFSCEE

2) AFONS

3) AFMSA

4) SAM

5) YA - Human Systems Spo

Project reliance - directed energy - + Army - Navy

VI Project relevance

1) went exists Now Ary + Nary PF called program - co-located -

Bunch ↓ → Ary ↑

3) Hyman System Institute (HSI)

40% → 15-16 locations at DoD

→ consolidate at Bunch

IX Cost $220m (VS) $5m contract

100 or 200 people

contract vs. closure

→ 40-50 yr. payback

X Mission impact → some will be eliminated

$25m out from MIL Con - eliminate entire function -

contracted out → $8m to contract out -

to drive one time cost down →

XI

XII Recruiting Site - need MILCON - $115m

- difficult → stuff into 40-50 yr. Bldg -

lead + asbestos →

XIII YA - acquisition → not ABC → ABC - broken cycle of entire product life cycle -

acquisition -

↑ costs

XIV AFSE → central US for recruiting - contract monitoring + consulting → if MOVE & FEA -

TDY - lose of synergy

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Kelly 'annex' plan would keep 3,000 Brooks AFB jobs in S.A.

City leaders battle to save base's missions

By Don Driver
Express-News Staff Writer

The primary missions and most of the jobs at threatened Brooks AFB would be saved under a unique annexation plan that still calls for the base itself to be closed, Mayor Nelson Wolff said Thursday.

The city's counterattack to a Pentagon recommendation to close the base and move its missions and personnel to installations in Florida and Ohio was unveiled one week before a visit to Brooks by members of the independent Defense Base Closure and Realignment Commission, commonly called BRAC.

Local supporters of Brooks hope to convince BRAC to keep the base's primary research and medical missions at or near their present locations in two, non-contiguous "cantonment" areas, while closing the rest of the facility around them.

The plan would save more than 3,000 jobs at the Southeast Side base.

"We have concluded that it would be futile to argue to retain Brooks AFB as it exists today," Wolff said in a prepared statement.

"We believe we have developed an option which allows the Air Force to close Brooks; realize savings over 20 years which are far greater than their current plan; and, at the same time, retain Brooks' missions in San Antonio," the mayor said.

The Armstrong Laboratory School of Aerospace Medicine and the Air Force Center for Environmental Excellence would be retained, but all base support functions either would be eliminated or relocated to Kelly AFB.

"We could call it the Brooks Annex at Kelly AFB," suggested retired Brig. Gen. Paul Roberson, project director of the Mayor's BRAC '95 Task Force. "It would

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collapse Brooks into a small industrial/office complex which will be a skeleton of what's there now."

As an example, there would be no medical clinics, commissary, base exchange or other similar facilities, he said.

The bulk of the base's 1,310 acres, other than the cantonment areas, would become available for reuse as an office or industrial complex, according to the task force.

The plan officially was unveiled Thursday during a news conference at which Wolff and other task force members donned blue T-shirts with white letters reading: "Keep Brooks Working!" The other side of the T-shirt reads: "Brooks, The Knowledge Base."

Under the plan, the base still would lose 391 military and civilian jobs, and 518 others, primarily base support positions, would be relocated to Kelly.

But about 3,000 other threatened jobs would remain, saving moving costs and keeping the base's highly educated work force in San Antonio.

The plan, supporters said, would save $301 million over 20 years and would avoid a $185 million upfront cost in closing the installation and relocating its missions and personnel elsewhere.

"This is the best option we have to keep as many jobs as we can in San Antonio," said Dino Urdiales, president of the American Federation of Government Employees at Brooks and a task force member.

Defense Secretary William Perry has recommended to BRAC that Brooks be closed, with the Armstrong Laboratory and the School of Aerospace Medicine relocated to Wright-Patterson AFB, Ohio. The Air Force Center for Environmental Excellence would go to Tyndall AFB, Fla.

An $8 million academic complex for the aerospace medicine facility and a $7.2 million environmental excellence site are both nearing construction at Brooks, projects that began long before the Pentagon recommended closing the base.

The mayor's task force realizes it has a difficult task ahead of it since, historically, only 15 percent of the installations have ever been spared the budget ax by BRAC once they were placed on the Pentagon's hit list.

"We didn't want to get into an argument with the Air Force and Defense Department challenging their data," Wolff said. "We know the odds are tough so let's go with something that makes good sense."

Jose Villarreal, task force co-chair, said: "It's a unique plan. This is something unlike any other community has done. We're not contesting (Defense Department) data, but (are) coming up with a unique approach.

"The result is a win-win situation which results in savings to the Pentagon, and we get the retention of at least 3,000 jobs."

Charles Cheever, another task force co-chairman, said cantonments are not new to the Air Force and some already exist at other installations in the United States.

PHOTO BY STEWART F. HOUSE

Paul Roberson, project director of the local base closure task force, shows his support Thursday of a plan to save key missions at Brooks AFB. Task force co-chairman Charles Cheever (left) and Patty Larsen of the Greater San Antonio Chamber of Commerce joined Roberson in outlining the plan to the San Antonio Express-News Editorial Board.

Ironically, the Pentagon's base closure report proposes to keep the Phillips Laboratory in cantonment at its present site at Kirtland AFB, N.M.

Phillips and Armstrong are two of the Air Force's four "super labs."

Roberson told the San Antonio Express-News Editorial Board that he briefed BRAC staffers about the plan Monday and said: "I sensed they were intrigued with the idea."

Chuck Pizer, a BRAC spokesman, said staff members are reviewing the proposal.

"The technical guys will run all the numbers and take a look at it," he said by phone from Washington. "We'll give it due consideration."

Task force officials already have briefed congressional members on the proposal.

"It's a very sound and very solid strategy," said U.S. Rep. Frank Tejeda, D-San Antonio, in whose district the base is located. "If accepted by BRAC, the strategy presents a win-win situation for all parties involved.

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5,000 rally for Brooks AFB as BRAC members drive by

By Don Driver
Express-News Staff Writer

Tommy Limon was on a personal quest when he went to a rally Thursday to save the jobs at endangered Brooks AFB.

"Brooks gave us software for our school and it helped out a lot," the 18-year-old senior in the Harlandale School District said. "They did good for us, and now it's time for us to do good for them."

Limon and 30 classmates joined a vast sea of blue T-shirts lining Southeast Military Drive as a cheering section 5,000 strong screamed their support for the threatened base.

Four base closing panel commissioners leaving the installation after a whirlwind tour probably felt like visiting rock superstars when they saw the quarter-mile long crowd, wearing blue T-shirts plastered with job-saving slogans, stretching down both sides of the road.

"Keep Brooks Working!" the crowd yelled as a bright red antique fire truck, its siren blaring and packed with base supporters using bullhorns to lead the cheers, pulled in to lead the procession.

The commissioners smiled and waved from their cars and silently carried with them the fate of the base and its nearly 4,000 jobs.

"It was fantastic — the turnout far exceeded all our expectations," said Sheila Klein, executive director of the private Brooks Heritage Foundation. "The commissioners were running a bit late and the crowd kept swelling as people driving by got out of their cars to join us."

The massive rally was staged to show community support for Brooks to the visiting members of the Defense Base Closure and Realignment Commission, commonly known as BRAC, who will decide whether Brooks lives or dies.

"The rally definitely makes an impact" on the BRAC panel, said City Councilwoman Lynda Billa Burke, whose district includes Brooks.

> "They did good for us, and now it's time for us to do good for them."
>
> — Tommy Limon, Harlandale student

"I think two of them are coming back for a vacation," she said. "They fell in love with San Antonio."

Organizers had expected 3,000 people to show up, but as early-morning fog made way for a sunny sky the crowd swelled to 5,000, according to an estimate by police Capt. Steve Baum.

"It reminds me of a big pep rally," he said of the screaming, cheering crowd that lined Southeast Military from the base's main gate to the intersection with Goliad Road.

So many showed up that organizers ran out of the blue T-shirts that were emblazoned with the slogan "Keep Brooks Working!"

"Honk your horns — keep our jobs," said Howard Bradford, a 49-year-old former civil servant who joined others in yelling to passing vehicles.

Cars, trucks and 18-wheelers all blared their horns, but a passing black hearse drew a momentary pause from some in the crowd.

"It's like an omen passing by if we don't stand up and support Brooks," pointed out Linda Tippins, 45, a member of San Antonio Fighting Back.

Limon and his classmates at Burger King Corporate Academy, a non-traditional educational program at Harlandale, were on an authorized field trip to attend the rally and show their support for Brooks, which has often aided the school's programs, principal Warren Wagner said.

"The software really made a difference in the students' academic lives," he said, adding that Brooks has played a key role in many community efforts.

The enthusiastic crowd ranged from infants in strollers to the elderly and included four busloads of students from Holy Name Catholic School. The 200 students included about 50 who either live on Brooks, or whose parents work at the base.

"I think they should keep Brooks open so no one loses their jobs or homes," said Morgan White, 9, a third-grader.

The crowd included military retirees who had served at Brooks, civil servants from neighboring bases showing their support for their colleagues and just plain neighbors who have grown up with the Southeast Side installation.

Joseph Salas, 43, a worker at nearby Kelly AFB, which had its closure scare two years ago, was standing along the road with his wife and infant daughter to sound off for Brooks.

"They supported us two years ago — so we're going to support them," he summed up.

Tim Baney had his 6-year-old daughter, Staci, perched on his shoulders as he took his place along Southeast Military.

"We need to support this base," said Baney, whose wife works at Brooks. "This is the only thing on this side of town, and we need to keep it open. If it does close, I hope they put the facilities to good use."

Meanwhile, Myra Burton sat near the main gate watching her favorite soap opera on a portable 5-inch television while waiting for the BRAC commissioners to drive by.

"I'm here to help save Brooks, but I don't want to miss 'All My Children,'" she said.

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BRAC members give some hope of saving Brooks

'Cantonment' bid will be studied

By Jim Hutton
Express-News Staff Writer

Four base closure commission members offered city and civic leaders a glimmer of hope Thursday for their plans to keep key missions at Brooks AFB while still closing the base.

After an early morning tour of the installation, the panelists positively cited the city's alternative proposal to the Pentagon's plan to close Brooks and move its key missions to bases in Ohio and Florida.

They noted the difficulty in moving facilities and missions elsewhere and expressed concern about possible refusals by civilian professionals to relocate.

Defense Base Closure and Realignment Commission members Benjamin Montoya, Joe Robles Jr., Wendi Steele and Rebecca Cox listened to a briefing from Mayor Nelson Wolff in conjunction with the Mayor's '95 BRAC Task Force, which is trying to keep San Antonio's military installations open.

Defense Secretary William Perry announced in late February that Brooks was one of 22 major installations nationwide recommended for closure.

The base closure commission, commonly called BRAC, will make decisions to follow or to change the Pentagon's original plan for restructuring and further downsizing the military.

PHOTOS BY GLORIA FERNIZ

Sara Jay Elizondo, 18 months, stands next to a relative in a 'Keep Brooks Working' T-shirt during a rally Thursday on Southeast Military Drive, put on to show local support for the benefit of visiting members of the base closure commission.

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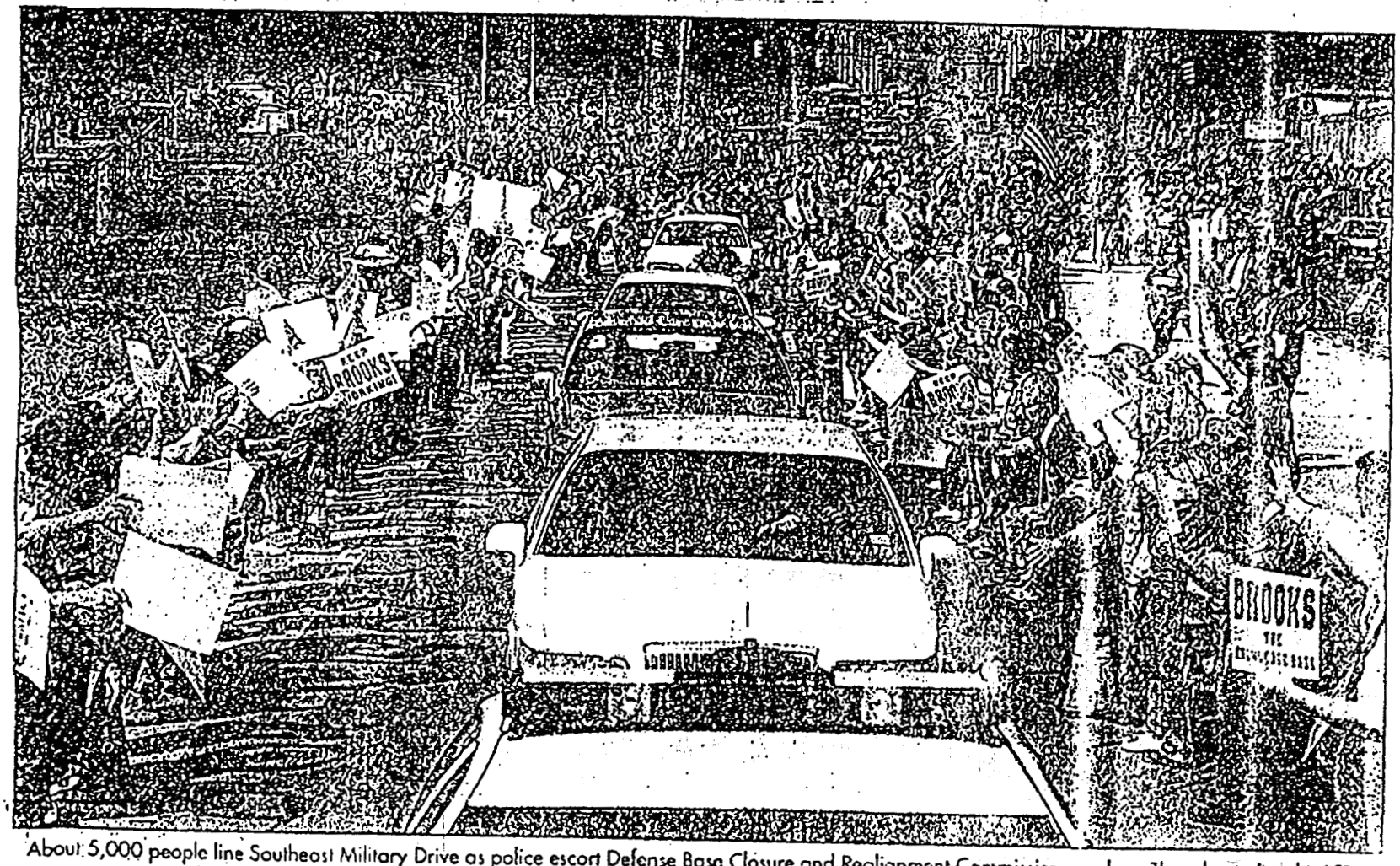

About 5,000 people line Southeast Military Drive as police escort Defense Base Closure and Realignment Commission members Thursday to Brooks AFB.

Montoya said panel members would meet May 9 or 10 to discuss changes to the Pentagon list. May 17 is the deadline for BRAC to announce the changes.

"I'm pleased to see an alternative for Brooks," Montoya said at a news co[illegible]nce at the Brooks Club.

The local task force proposes closing Brooks but keeping chief elements and missions in "cantonment," meaning portions of the base still would house key missions but would be annexed by Kelly AFB as a support component.

The primary missions to be kept would be the Human Systems Center, the School of Aerospace Medicine, the Armstrong Laboratory and the Center for Environmental Excellence. Commissioners saw the facilities on their visit.

The remainder of the base then could be [illegible] for private or public entrepr[illegible]al ventures, task force off[illegible] said.

"It's extremely helpful to have proposals playing with the same Air Force facts and figures," said Steele, a former U.S. Senate liaison for BRAC in 1991.

Local task force leaders employed the same facts, figures and fi-

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Base gets ray of hope during visit

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nancial data used by the Air Force when it reviewed Brooks.

"It's a lot of a win-win situation with the community if it works with the Department of Defense," Steele added. "We've already sent the proposal to the Air Force and our staff is looking into it."

About moving crucial missions from Brooks to Wright-Patterson AFB in Ohio or Tyndall AFB in Florida, Montoya said: "I see construction here coming from the ground and feel what has to be moved."

More than $20 million in construction is under way, including new buildings for the School of Aerospace Medicine and the Center for Environmental Excellence.

"By the end of the day, I was wondering what the right thing is to do and the cost to move these things," added Montoya, a retired rear admiral and 30-year engineering veteran in the Navy who now is president and chief executive officer of the Public Service Co. of New Mexico.

"This is a one-of-a-kind facility," said Robles, a retired Army major general and chief financial officer-corporate controller for San Antonio-based USAA Financial Services.

"It's not like moving a tank battalion or a squadron from Point A to Point B," he added. "We've got to look at the human and dollar costs, down time, and the possibility of running two places at the same time."

Montoya added: "My vision today was of large (think) tanks, miles of piping, and people in gowns doing important work. That and replication and the loss of brain power."

While Cox, a 1993 BRAC member and a vice president of Continental Airlines, said there are no easy choices, the panel members agreed the biomedical and biotechnological relationships between Brooks and community research and teaching facilities were important.

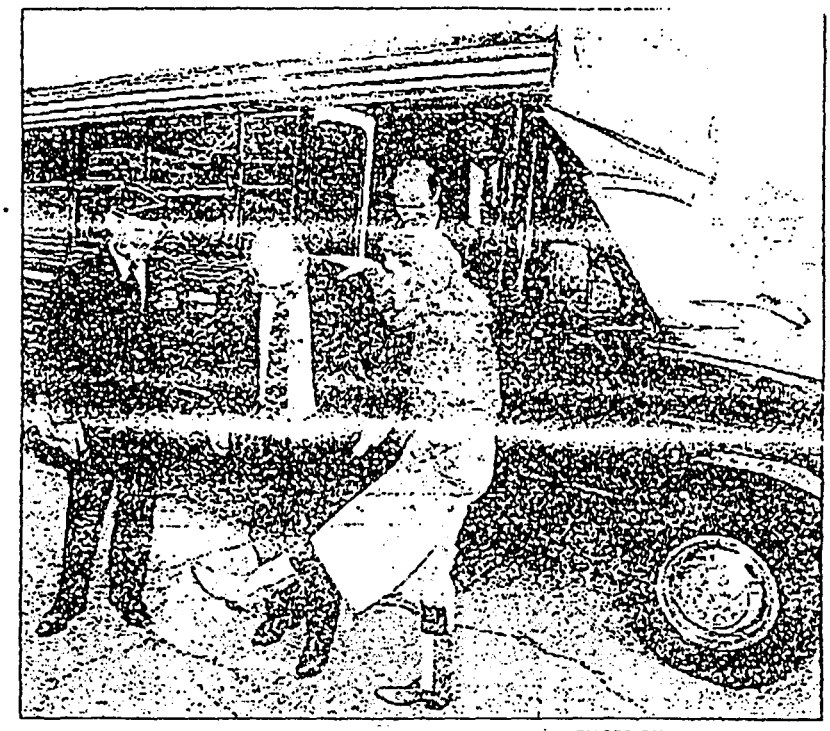

PHOTO BY JOHN DAVENPORT

City Councilwoman Lynda Billa Burke shows her Lone Star boots Thursday to Benjamin Montoya, one of the Defense Base Closure and Realignment Commission members who toured Brooks AFB.

"Synergism is going on here," Montoya said. "The military doesn't have a choice, but civilians have the choice to move. Some will or won't if other (bioresearch) services are in the area.

"The way the medical community has expanded here, people will not move," Montoya added. "We've heard a low end of 10 percent and a high end of 30 percent (of professionals) won't move."

Robles said of San Antonio: "There are synergic benefits of being a bioscience center. The local community and base are the benefactors."

Steele added: "Synergy can relate to military value."

Military value ranks as the first four of eight selection criteria by the Defense Department for installations being considered for closure or realignment.

A majority of city and task force leaders were cautiously optimistic after presenting the 15-minute briefing to the panel members and then listening at the follow-up 15-minute news conference.

"These people (panel members) are charged with saving money and are looking for reasons, and we gave them reasons to do that," Wolff said afterward.

"They were responsive to our proposal," he added.

Paul Roberson, task force project director, said: "Their reaction was one of great interest, and they saw value in the proposal.

"But that doesn't mean they accept it. But we will get a fair hearing," added Roberson, a retired Air Force brigadier general. The regional BRAC hearing is April 19 in Dallas.

"I think we're on the right track with something new and different. We addressed the cost, mission and people issues."

While saying the "community showed they support Brooks, which did not surprise us," Montoya said the panel members would not discuss Kelly AFB and its air logistics center, which escaped the Pentagon's "hit" list.

Panel members in the past reportedly have been skeptical of the Air Force's decision to keep open all five of its huge logistics centers.

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Brooks backers extend welcome to base closure commissioners

By Jim Hutton
Express-News Staff Writer

About 150 supporters sporting T-shirts and signs lauding Brooks AFB and chanting, "We want Brooks," welcomed two members of the base closure commission Wednesday night to San Antonio for a brief Thursday inspection of the installation.

Members Benjamin Montoya of New Mexico and Wendi Steele of Houston arrived at San Antonio International Airport, receiving the "red carpet" treatment from the Greater San Antonio Chamber of Commerce after touring Reese AFB in Lubbock.

Brooks, like Reese, has been placed on the closure list by the Defense Department, but additions and deletions to the original Feb. 28 list may be made up to May 17 by the independent Base Closure and Realignment Commission, commonly called BRAC.

Two other BRAC commissioners, San Antonian Joe Robles Jr. and Rebecca Cox of California, are to join Montoya and Steele on Thursday at Brooks.

"We're a long way from talking about death," Montoya said, referring to Brooks and other military facilities that the Pentagon wants to close.

"Our visit is very preliminary, and the community response is a big asset," Steele said, looking down the lengthy airport walkway with Brooks AFB supporters.

Regarding the outpouring of support, Montoya added: "We're going to see a lot of people. We came from Lubbock and (the people supporting Reese) brought tears to our eyes."

On Wednesday morning, community leaders and residents rallied to urge San Antonians to show solidarity for city's plan to save the endangered base's mission.

"Our message is that a greater savings can be made by still following the Air Force plan to close the base," Mayor Nelson Wolff told about 30 supporters in attendance in a vacant hardware store parking lot on the corner of Southeast Military Drive and Goliad Road, near Brooks.

A plan by the Mayor's '95 BRAC Task Force would salvage key missions at Brooks and save about 3,000 jobs. Also, it would provide $301 million in savings over 20

Brooks backers extend welcome to base closure panel members

Continued from 1B

years, compared with $165 million in upfront expenses for closing the base and realigning missions and personnel elsewhere.

The base's primary missions — Armstrong Laboratory, School of Aerospace Medicine, Human Systems Center and Center for Environmental Excellence — would become an annex to Kelly AFB under the task force plan.

"When you see the human factor, I've been told by authorities that research programs (at Brooks) might be set back 10 years if they were moved to (Wright-Patterson AFB) in Dayton, Ohio," Wolff said, adding many Brooks civilians would not accept transfers to Dayton.

Wolff will brief commissioners on the task force's plan Thursday.

The four BRAC members will see a human chain of blue T-shirts and signs Thursday along Southeast Military Drive, said City Councilwoman Lynda Billa Burke.

"I feel confident we'll have 3,000 people in T-shirts," Burke said about the commissioners' departure from Brooks at 11 a.m. Thursday along Southeast Military Drive.

A street rally is planned for 9:30 a.m. Thursday in the vacant parking lot in preparation for supporters' lining the roadway for the BRAC members' departure.

The commission members were housed at Brooks overnight before beginning their tour early Thursday morning.

The tour will focus on elements of the Human Systems Center, Armstrong Laboratory and School of Aerospace Medicine.

Supporters are expected to wear free promotional T-shirts stating in white lettering: "Keep BROOKS Working" on one side and "BROOKS The Knowledge Base" on the other side.

"We've even gotten responses (for help to save Brooks) from Floresville and Pleasanton," Burke said.

"Those responses have been unsolicited ...." Saying San Antonio had supported the military through the good times and the bad times historically, Burke added: "The military can't provide for itself without an active and supportive community."

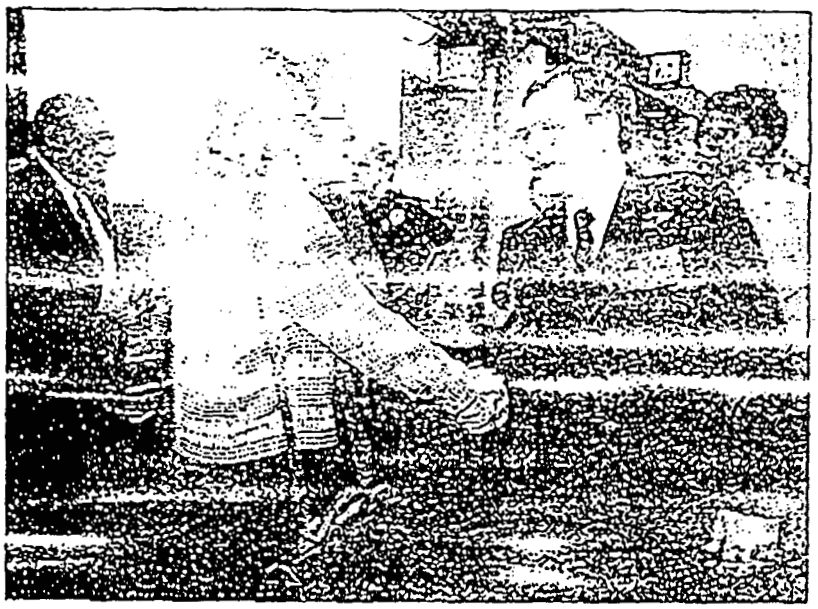

PHOTO BY JERRY LARA

Brig. Gen. Robert Belihar, commander of the Human Systems Center at Brooks AFB, greets base closure panel members Wendi Steele and Benjamin Montoya at San Antonio International Airport on Wednesday night.

> *"We're going to see a lot of people. We came from Lubbock and (the people supporting Reese) brought tears to our eyes."*
>
> — Benjamin Montoya, base closure commission

One organizer, Gina Castaneda, said unity was critical to show backing to commission members.

"It's important to see the South Side unite for this thing," said Castaneda, community relations director at Southwest General Hospital.

"I work in the area, grew up in the area, live in the area and my kids go to school in the area," she added.

Saying Thursday's showing of community support is crucial for Brooks to survive in some capacity, Castaneda added: "If they drive out of the gate and see no one here, their attitude will be: 'They don't care.'"

"We've gone out and done intense organizing, and the support will show up," Castaneda said.

Dino Urdialez, president of the American Federation of Government Employees Local 1757 at Brooks, downplayed the human factor Wednesday.

"The people (jobs) issue is not a big issue," Urdialez said. "The economic factor is the only thing that can save Brooks.

"We're not going to get it on cries and tears. ... I'm pretty sure 3,224 jobs will not be moved." he added.

Urdialez said several groups and individuals were not in favor of the task force's plan of "cantonment" or saving specific missions in geographic "pockets" on the base with mission support from Kelly AFB.

"You can grab 100 people and get 100 different ideas," the union president said.

"There's no chance in hell to save Brooks," Urdialez said about the entire base. "We've got to make it worthwhile economically (to the commissioners)."

San Antonio Express-News
A division
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Editorials

Brooks strategy a brilliant option

When Defense Secretary William Perry recommended to the Base Realignment and Closure Commission on Feb. 28 that Brooks AFB be closed, there was almost a sigh of relief: Better Brooks than Kelly, was the consensus.

Those who subscribed to that way of thinking — with the addendum to start exploring what to do with the 1,300-acre Brooks site — should think again: The local BRAC '95 Task Force has devised a common sense, fiscally sound defense of Brooks that the Air Force, BRAC and taxpayers should find enticing.

Essentially, the local strategy is to allow the Air Force to close Brooks, yet preserve a small cantonment area that would be attached to nearby Kelly AFB.

The plan would eliminate the base administration, the base exchange, golf course, clinic and other support facilities — approximately 400 civilian and military jobs. Seventy-five percent of the base's land would become available for reuse.

What would be preserved in the cantonment area are the Air Force School of Aerospace Medicine, one of its four "super labs," the Armstrong Laboratory, which Perry recommended moving to Ohio, and the Air Force Center for Environmental Excellence, destined for Florida under the '95 base closure plan.

The local option would keep some 3,000 jobs here, many of them well-educated, well-paid people, who face being uprooted under the present base-closure strategy.

More important to taxpayers: Closing Brooks while keeping the missions here would save money. The Air Force estimated the cost of closing Brooks and relocating its missions would be $185 million, resulting in $142 million in savings over 20 years and a $27.4 million annual recurrent saving.

The local BRAC task force contends its plan would cost but $11 million to implement with savings over 20 years of $301 million and $21.6 million in annual savings.

In other words, the plan accomplishes the cost-saving; it maintains these missions in a city that is almost synonymous with the Air Force; and it does so with the least disruption to the missions and the missionaries.

Finally, keeping the missions here will allow the Air Force to use two new buildings presently under construction (which cost taxpayers $15.2 million to build).

The BRAC staff will crunch the numbers and four BRAC commissioners will be here Thursday to tour Brooks. We think the city has done its homework and has given the BRAC a unique, sensible option. If it's a last best shot, it is a brilliant one.

Texas. All activities and facilities at the base including family housing and the medical facility will close.

DOD JUSTIFICATION:

The Air Force has more laboratory capacity than necessary to support current and projected Air Force research requirements. When compared to the attributes desirable in laboratory activities, the Armstrong Lab and Human Systems Center operations at Brooks AFB contributed less to Air Force needs as measured by such areas as workload requirements, facilities and personnel.. As an installation, Brooks ranked lower than the other categories than the other bases in the Laboratory and Product Center subcategory.

MAIN FACILITIES REVIEWED:

The day began with a briefing by General Belihar and the Command staff at Brooks.
The tour included: (In-between building visits, a windshield tour was conducted of housing areas and new construcution, and other areas.)

1) United States Air Force School of Aerospace Medicine (SAM) (Bldg 180)
2) Crew Technology Division (Bldg 170)
3) Aerospace Physiology Department (Bldg 160)
4) Veterinary Sciences Division (Bldg 125)
5) Occupational and Environmental Health Directorate (Bldg 140)
6) Hangar 9 (Museum) for Human Systems display
7) Directed Energy Branch (Bldg 1184)

At the officers' club, the four commissioners then held a 15-minute press conference, and met with community leaders and elected officials separately.

KEY ISSUES IDENTIFIED:

There were no significant issues discovered during the visit that had been previously unknown. The following issues were discussed for clarification:

Military value: The methodology used by DOD for assessing the military value of Brooks is questionable. Brooks does not have an active runway since most of its activities are laboratory related. There are several active runways at military installations in and around San Antonio.

Human Systems Technology: In all of DOD capacity, 40% of human systems research and technology development is conducted at Brooks AFB. 20% is conducted at Wright-Patterson AFB, Ohio, and the remaining 40% is conducted by the Army and Navy at 15-17 separate sites. The DOD Joint Cross Service Group recommended that Brooks and Wright-Patterson be net receivers of future functions.

1ST STORY of Level 1 printed in FULL format.

Copyright 1995 The Austin American-Statesman
Austin American-Statesman

April 02, 1995

SECTION: Business; Pg. H1

LENGTH: 1051 words

HEADLINE: Bergstrom development still lagging; Plans for airport spur few investors

BYLINE: Kim Tyson American-Statesman Staff

BODY:

On Texas 71, near the site of Austin-Bergstrom International Airport, a mobile home dealer's signs shouts ''Big Daddy StacksEm Deep, SellsEm Cheap,'' and the Silver Stone Inn Kitchenette offers affordable rooms.

With the exception of a few fast-food franchises, this part of Travis County hasn't changed much since Bergstrom Air Force Base was closed in late 1992.

It's still dominated by farms, planted in hay, sorghum and oats and populated by more cattle than people.

Scattered real estate brokers' signs dot tracts along Texas 71 and U.S. 183, the two main highways bordering the airport.

[illegible]t there hasn't been a rush to buy land in the area and capitalize on the $[illegible] million airport that is expected to open in 1998.

One reason is that Austin has ample industrial land ready for development; moreover, most lenders recall the lessons of the late 1980s and are not in the mood to lend money that hints of real estate speculation.

Still, the Del Valle area, which surrounds the airport, is attracting attention from disparate sources. There are plans for an 18-hole private golf course about a half mile east of the airport, and one land broker reports feelers from a computer chipmaking company.

Others believe the area is suited for low-cost housing.

''Not everybody can live in a $200,000 house,'' said Robert Tiemann, an Austin investor and cattle rancher who is part of a group that has bought land in the area. ''If the City of Austin is really sincere to move growth away from these environmentally sensitive areas they ought to do what they can to make Southeast Austin grow.''

Dan Berdoll, a rancher whose family owns 800 acres east of the airport, said many longtime residents are just glad to see the airport arriving.

''I don't know that (the airport) makes it worth a whole lot more. But it could have been worse,'' said Berdoll, a board member at Cattlemen's State Bank and a former Del Valle Independent School District trustee.

''It could have been a federal penitentiary or something like that,'' he said of earlier proposals for converting Bergstrom. ''We've already got the sewage t- -tment plant, the jail and the trash dump -- a few things that don't add a :-:o the value of your property and your community.''

Wilburn Heine, who still lives on the farm where he was born in 1921, hopes the airport will generate new revenue to the Del Valle schools, but he has seen speculation before.

Heine, who farms a 77-acre plot, sold 279 acres during the mid-1980s real estate boom, when investors who were betting on Austin's growing need for more housing developments called him night and day.

''At that time we could hardly sleep at night,'' recalled Halger Heine, Wilburn's wife.

He doesn't get those calls now.

Hal Armstrong III, who owns 670 acres just northeast of the airport, said he is getting inquiries.

''There have been small people looking for retail, gas station opportunities, as well as bigger developers looking at master-planned type things.

''It's kind of early in the curve right now, but the interest is definitely out there,'' Armstrong said.

While the new airport has generated renewed interest in the area, it has r ted so far in limited investment, according to brokers.

''There are definitely California mixed-use developers with serious interest in the airport area,'' said land broker Joyce Weedman. ''However, they have not come up to the plate. Their hesitation is the same as others: How quickly will they get (projects) through the city? And how soon will the airport be on the ground?''

While a number of manufacturing companies are eyeing Austin, locating near the new airport isn't high on their list of priorities, said Frank Niendorff, president of Commercial Industrial Properties, an Austin real estate brokerage company.

''I think anybody who speculates on land because they think the airport is going to cause a lot of growth is naive,'' he said. ''Right now I don't see a lot of transactions from speculators. I see a lot of interest and people asking questions.''

Niendorff noted that thousands of acres of land have been zoned for industrial development in the Austin metropolitan area, including land nearBergstrom. Not all of the land in southeast Travis County hasutility service, but the City of Austin system has excess utility capacity and major lines in the area.

''In the southeast section of the city there are probably 1,600 acres of land th- are viable sites,'' Niendorff said.

Lockheed Missiles & Space Co., which has a 700-acre tract, has enough developed land for more than a million square feet of industrial space. That is nearly twice what the entire city absorbed in 1994 and represents a five-year supply given the pace of absorption in the southeast sector last year.

''Having an airport does not cause demand for industrial space,'' Niendorff said. ''It facilitates it and it makes it real convenient for companies that locate in and around an airport over the long term.''

Developer Sandy Gottesman, a major owner of industrial properties around Austin, agreed: ''I think the airport will be one factor, but there are many other factors.''

A February report prepared by Espey, Huston & Associates for Bluebonnet Electric Cooperative, the Lower Colorado River Authority and the Association of Wholesale Customers predicted the greatest impact would be in Austin west of the airport. The study also found little real estate speculation so far.

According to plat records at the Travis Central Appraisal District, many large tracts remain in the hands of longtime property owners. Others holding property in the area near the airport include investors who bought foreclosed tracts from the Resolution Trust Corp. or Federal Deposit Insurance Corp. after the real estate bust of the late '80s and investment partnerships that are buying industrial sites.

(from map)

Major property owners and investors near the planned Austin airport

T.C. 'Buck' Stein er Fmaily

* Bennett Consolidated

* Met Center NYCTEX Ltd.

* Lockheed Missiles & Space Co.

* Mitchel and Rose Wong

* Rovert Carr

* Hal Armstrong III

* Ivy Berdoll Fmaily

* Bill Gurasich and Tim Chambers

* Robert Tiemann, Robert Jenkins Pension Plan & Trust and Charles Voith

LOAD-DATE-MDC: April 02, 1995

52ND STORY of Level 1 printed in FULL format.

Copyright 1995 The Dayton Daily News
The Dayton Daily News

March 2, 1995, THURSDAY, CITY EDITION

SECTION: NEWS, Pg. 9A

LENGTH: 424 words

HEADLINE: AT BROOKS, DISBELIEF AND ANGER;
SOME SAY MOVE IS JUST POLITICS

BYLINE: Tom Beyerlein; DAYTON DAILY NEWS

DATELINE: SAN ANTONIO, TEXAS

BODY:

Employees of Brooks Air Force Base were still trying to sort out their emotions Wednesday concerning Tuesday's announcement that the Pentagon has recommended closing the 77-year-old base and moving most of its functions to Wright-Patterson Air Force Base.

"I'm upset about it because they're not going by the merit of the base itself (in making the decision to close it)," said Elizabeth Gomez, a clerk at Brooks Armstrong Laboratory. "It's political. 'I'll close one of your bases and you close one of mine.' - that's the game they're playing, but they're playing with people's lives."

Gomez, 34, expresses a common feeling among Brooks' employees: That Brooks was slated for closing because of the heavy concentration of military bases in the San Antonio area, not because it doesn't provide a vital service.

She said the full impact of the announcement "hasn't hit some people." Some of her co-workers say they'll go to Wright-Patterson while others like Gomez plan to look for jobs in the area.

"I personally would not be able to get use to the snow and the cold," she said. "I would not go, no sir."

Dino Urdialez, president of the union that represents 820 primarily non-professional Brooks' employees, said details of the proposed closure are sketchy. Employees may not learn details until August. He said the union's national leadership was still working to try to keep Brooks open. The base-closing recommendations still need to be approved by the Base Closure and Realignment Commission, Congress and President Clinton.

Many of the approximately 2,500 jobs that would come to Wright-Pat from Brooks would be high-tech professional jobs. Armstrong Lab does research and development in aerospace medicine, human factors and occupational and environmental health.

"We're trying to quell any discomfort they may feel," said Urdialez, 43, an air conditioner mechanic at Brooks and president of Local 1757 of the American Federation of Government Employees. "It's a long drawn-out process."

Under the Pentagon's plan Brooks is tentatively scheduled to close by 2001, but Maj. Peter Kirk, Brooks' spokesman, said a specific schedule for beginning the closure has not been set. "It's way too early in the process."

rdialez said he was shocked by the decision to close Brooks, but "I've been in civil service long enough to know they have to cut somewhere." He said he hopes base closures prompt communities to find new sources of jobs not dependent on the military. "You can't change it, you have to adapt."

NOTES:
Wright-Pat: Looking to the future

GRAPHIC: PHOTO: One of the operations the Pentagon proposes to move to Wright-Pat is the Intelligent Training Systems, where Air Force TSgt. Chuck Lexa works with a virtual reality system on orbital dynamics. The final decision is months away., CREDIT: By RICK HUNTER/SAN ANTONIO EXPRESS-NEWS

LOAD-DATE-MDC: March 4, 1995

BROOKS' MISSIONS ARE A NATIONAL ASSET

- **The only integrated Human Systems Research program in DoD**
  - Interdisciplinary group of physicians, social, biological, and medical scientists and engineers focused on the extension of human capabilities and enhanced performance
  - Programs cover the spectrum of research and development (Pgms 6.1-6.5) and the Defense Health Program
- **The Armstrong Laboratory is a world leader in its mission area**
  - As one of only four Air Force "super-labs," has a first class, multi-disciplinary capability with critical mass of research scientists and engineers
  - Unique facilities in excellent condition
    - Centrifuge (acceleration tolerance/protection)
    - Hyperbaric Chambers
    - Spatial Disorientation Demonstrator (one of only three in the world)
    - Directed Energy Chambers (radio frequency radiation exposure)
    - *The* Air Force Drug Testing Laboratory
  - Unique interaction with Air Education and Training Command in training concepts and technologies
  - A leader in implementing tri-service programs and co-locations (e.g. Directed Energy Bioeffects program)
  - Unlimited opportunity to absorb additional DoD human research missions and to become a DoD center of Excellence for human systems technology
  - $6.75M directed energy facility under contract for construction (FY'95)
- **USAF School of Aerospace Medicine**
  - The nation's leading aerospace medical training program
  - Internationally known and respected
  - The Armstrong Laboratory provides 30% of the facility
    A proven vehicle for transitioning the latest medical knowledge from the research lab to USAF operational aerospace flight surgeons, nurses, and technicians
  - $7.2M facility under construction (FY '94)
- **Air Force Center for Environmental Excellence**
  - Absolutely essential to long term Air Force environmental programs in the areas of compliance, hazardous waste cleanup, and environmental planning
  - $7.5M facility under construction (FY '94)

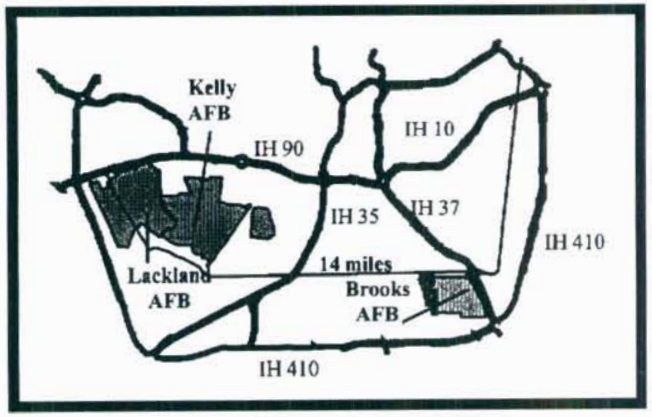
SAN ANTONIO PROVIDES A UNIQUE SYNERGY

- One of a kind configuration of biomedical teaching and research activities
- Significant capability multiplier
  - Interaction and cross fertilization
  - Joint projects

	D.O.D PROPOSAL	CANTONMENT ALTERNATIVE
SCENARIO	Close Brooks; Move Missions to Wright Patterson and Tyndall	Close Brooks; Keep Missions in cantonment; BOS by Kelly Lackland
BROOKS AFB	CLOSE	CLOSE
PEOPLE		
• Eliminate	391	391
• Move	3228	518 (local)
1X COST	$185 m	$11 m
20 YR NPV	$142 m	$301 m
ROI	7 years	Immediate

THE CASE FOR CANTONMENT

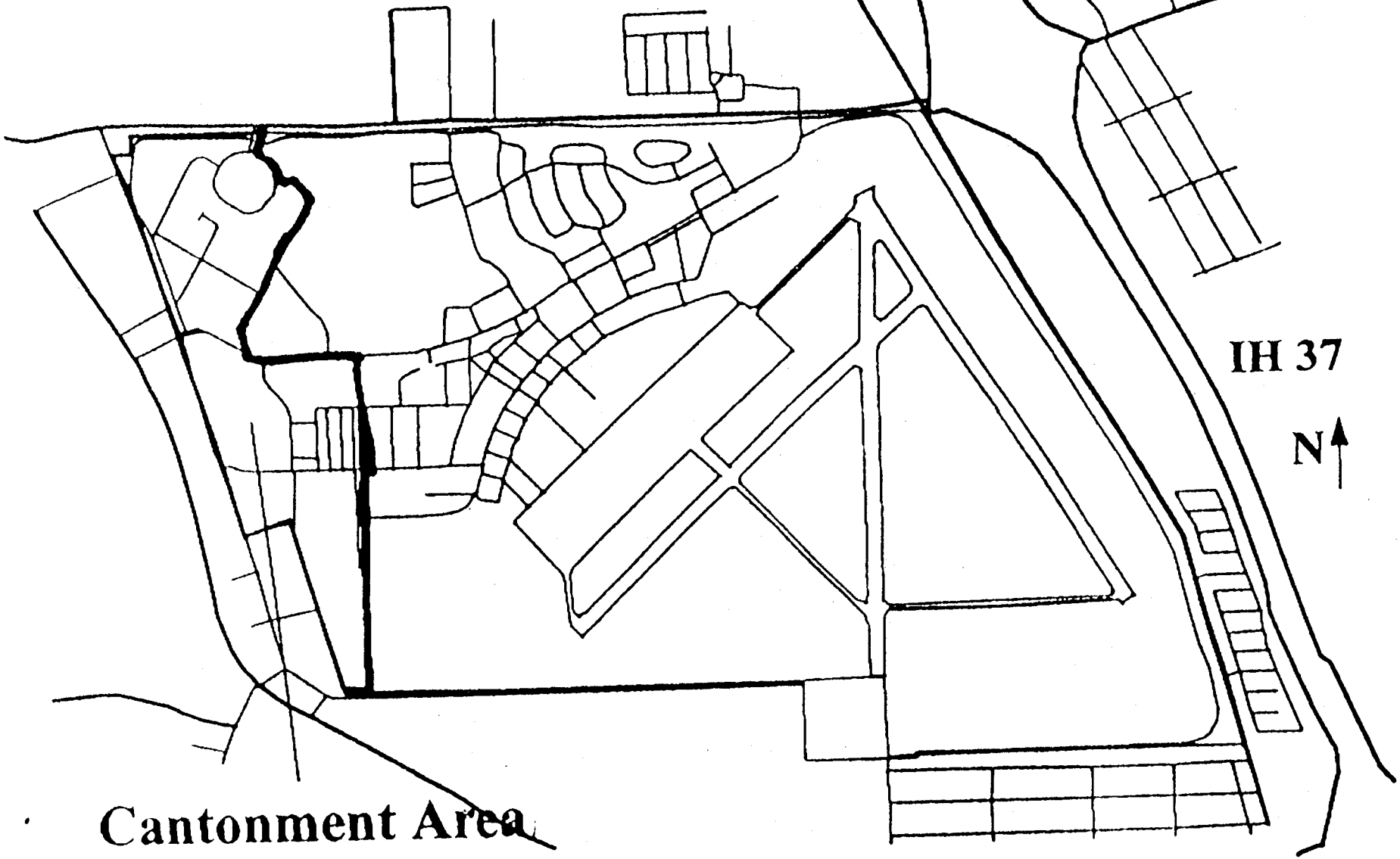
- Closes Brooks AFB
- Eliminates 391 manpower spaces
- Saves $174 million in one time closure costs
- Saves $159 million more than DOD proposal over 20 years
- Avoids risk to research and teaching missions
- 2710 fewer moves



BROOKS AIR FORCE BASE

The Center For Human Systems Technology

BROOKS AFB



The San Antonio cantonment strategy is built on the following concept of operations:

- BROOKS AFB. Brooks AFB would be closed. A small portion of the base (approximately 15%) would be retained as a cantonment area. The remaining 85% would be made available for reuse. A conceptual drawing of the cantonment area is attached. However, it is only a concept; the actual boundaries would be determined by the Air Force. AFCEE would move into its new facility which would remain as a stand alone building in the reuse area. The few other activities that are presently located outside the cantonment area could remain as stand-alone activities or be moved into the cantonment.

- THE MISSIONS. HSC, AL, USAFSAM, AFCEE, AND HSC/YA would be retained in their present configurations. They would occupy their current facilities thereby negating the requirement for $103 million of new military construction at Wright Patterson and Tyndall AFBs and $82 million in movement, personnel, overhead, other, and one-time unique costs.

- BOS. Base operating support would be provided by Kelly AFB or Lackland AFB which are only 14 miles away. A detailed analysis of the support functions is attached. It shows a savings of 423 manpower spaces (Note: 391 was used in the briefing to the Commission and the COBRA runs to avoid confusion). Family housing was not retained in this proposal because additional family housing was not provided at Wright Patterson and Tyndall in the DOD proposal; however, it could be retained without substantially altering the savings. Minimal non-mission facilities were retained in the proposal making the Brooks Cantonment analogous to Wright Field (Area B) in the DOD proposal. The facilities closure factor was based on a building-by building review. Fire response service would be provided by the City at a cost of $70,000 per year.

- RPMA. Real property maintenance costs were developed using the "Real Property Replacement Costs" report (which was obtained under the Freedom of Information Act). This report was used to calculate the annual upkeep and repair costs and the utility costs. These data are also attached.

- MILITARY CONSTRUCTION. Five million dollars in military construction costs were included in the proposal for perimeter fencing and minor construction to facilitate moving a few activities from the reuse area into the cantonment. An additional one million dollars was included for minor modifications at Kelly or Lackland to accommodate the added BOS personnel

It is important to note that the laboratory capacity reduction (as measured in direct work years) achieved by the San Antonio proposal is identical to the reduction in the DOD proposal. In addition, $174 million in one-time closure costs are avoided and a 20 year net present value savings of $301 million--more than twice as much as the DOD proposal--is achieved.

The short time left before the Commission makes their final decision, makes it is very important that we have a common understanding of this concept of operations and the supporting data at the earliest possible time. We are, therefore, ready to provide any additional information you may require and to meet with you and the appropriate Air Force representatives at your convenience to review the data and resolve any remaining uncertainties Please contact Paul Roberson at (210) 229-2124 to arrange a meeting or to obtain additional information.

Sincerely,

Helen Ayala BRAC '95 Co-Chair	Charles E. Cheever, Jr BRAC '95 Co-Chair	Jose Villarreal BRAC '95 Co-Chair

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

COMMUNITY COBRA

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Starting Year : 1996
Final Year : 2001
ROI Year : Immediate

NPV in 2015($K): -301,520
1-Time Cost($K): 11,143

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3,000	3,000	0	0	0	0	6,000	0
Person	-3,658	-12,588	-17,914	-17,993	-18,061	-18,079	-88,294	-18,079
Overhd	-132	-1,903	-3,306	-3,371	-3,444	-3,511	-15,667	-3,585
Moving	710	713	9	10	9	3	1,454	0
Missio	0	0	0	0	0	0	0	0
Other	104	104	0	0	0	0	208	0
TOTAL	24	-10,674	-21,211	-21,355	-21,496	-21,587	-96,299	-21,664

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	18	18	0	0	0	0	36
Enl	100	101	0	0	0	0	201
Civ	77	77	0	0	0	0	154
TOT	195	196	0	0	0	0	391
POSITIONS REALIGNED							
Off	10	9	1	1	1	1	23
Enl	67	80	32	39	32	8	258
Stu	0	0	0	0	0	0	0
Civ	114	114	2	2	2	3	237
TOT	191	203	35	42	35	12	518

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND VA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN RELOCATES TO KELLY AFB; THE 710TH INTEL FLIGHT (AFRES) RELOCATES TO LACKLAND.

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3,000	3,000	0	0	0	0	6,000	0
Person	1,266	1,660	868	1,036	1,172	1,211	7,214	1,211
Overhd	765	812	350	339	333	321	2,919	266
Moving	710	713	9	10	9	3	1,454	0
Missio	0	0	0	0	0	0	0	0
Other	104	104	0	0	0	0	208	0
TOTAL	5,845	6,290	1,226	1,385	1,514	1,535	17,796	1,478

Savings ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	0	0	0	0	0	0	0	0
Person	4,924	14,249	18,782	19,029	19,233	19,291	95,508	19,291
Overhd	897	2,715	3,656	3,710	3,776	3,832	18,586	3,851
Moving	0	0	0	0	0	0	0	0
Missio	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	5,820	16,964	22,438	22,740	23,010	23,123	114,094	23,142

NET PRESENT VALUES REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Year	Cost($)	Adjusted Cost($)	NPV($)
1996	24,419	24,090	24,090
1997	-10,673,737	-10,248,110	-10,224,019
1998	-21,211,352	-19,820,462	-30,044,482
1999	-21,354,613	-19,420,272	-49,464,753
2000	-21,496,006	-19,025,651	-68,490,405
2001	-21,587,470	-18,595,235	-87,085,640
2002	-21,663,904	-18,161,630	-105,247,270
2003	-21,663,904	-17,675,552	-122,922,822
2004	-21,663,904	-17,202,484	-140,125,306
2005	-21,663,904	-16,742,077	-156,867,383
2006	-21,663,904	-16,293,992	-173,161,375
2007	-21,663,904	-15,857,900	-189,019,275
2008	-21,663,904	-15,433,479	-204,452,754
2009	-21,663,904	-15,020,418	-219,473,172
2010	-21,663,904	-14,618,411	-234,091,583
2011	-21,663,904	-14,227,164	-248,318,747
2012	-21,663,904	-13,846,389	-262,165,136
2013	-21,663,904	-13,475,804	-275,640,940
2014	-21,663,904	-13,115,138	-288,756,078
2015	-21,663,904	-12,764,124	-301,520,202

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	6,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		6,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,487,073	
Unemployment	43,848	
Total - Personnel		1,852,751
Overhead		
Program Planning Support	753,581	
Mothball / Shutdown	875,000	
Total - Overhead		1,628,581
Moving		
Civilian Moving	0	
Civilian PPS	1,324,800	
Military Moving	0	
Freight	128,903	
One-Time Moving Costs	0	
Total - Moving		1,453,703
Other		
HAP / RSE	209,456	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		209,456
Total One-Time Costs		11,143,491
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		11,143,491

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: WRIGHT-PATTERSON AFB, OH
(All values in Dollars)

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	5,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		5,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,487,073	
Unemployment	43,848	
Total - Personnel		1,852,751
Overhead		
Program Planning Support	753,581	
Mothball / Shutdown	875,000	
Total - Overhead		1,628,581
Moving		
Civilian Moving	0	
Civilian PPS	1,324,800	
Military Moving	0	
Freight	128,903	
One-Time Moving Costs	0	
Total - Moving		1,453,703
Other		
HAP / RSE	208,456	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		208,456
Total One-Time Costs		10,143,491
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		10,143,491

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BASE X
(All values in Dollars)

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: TYNDALL AFB, FL
(All values in Dollars)

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: KELLY AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	1,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		1,000,000
Personnel		
Civilian RIF	0	
Civilian Early Retirement	0	
Civilian New Hires	0	
Eliminated Military PCS	0	
Unemployment	0	
Total - Personnel		0
Overhead		
Program Planning Support	0	
Mothball / Shutdown	0	
Total - Overhead		0
Moving		
Civilian Moving	0	
Civilian PPS	0	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		0
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		
Total One-Time Costs		1,000,000
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		1,000,000

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Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

All Costs in $K

Base Name	Total MilCon	IMA Cost	Land Purch	Cost Avoid	Total Cost
WRIGHT-PATTERSON AFB	0	0	0	0	0
BROOKS AFB	5,000	0	0	0	5,000
BASE X	0	0	0	0	0
TYNDALL AFB	0	0	0	0	0
KELLY AFB	1,000	0	0	0	1,000
Totals:	6,000	0	0	0	6,000

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

MilCon for Base: BROOKS AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
CANTONEMENT	OTHER	0	n/a	0	n/a	5,000

Total Construction Cost:	5,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	0
TOTAL:	5,000

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

MilCon for Base: KELLY AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
MINOR ADAPTATIONS	OTHER	0	n/a	0	n/a	1,000

Total Construction Cost:	1,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	0
TOTAL:	1,000

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

PERSONNEL SUMMARY REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

PERSONNEL SUMMARY FOR: WRIGHT-PATTERSON AFB, OH

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

Officers	Enlisted	Students	Civilians
3,709	2,993	0	14,109

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
3,709	2,993	0	14,109

PERSONNEL SUMMARY FOR: BROOKS AFB, TX

BASE POPULATION (FY 1996):

Officers	Enlisted	Students	Civilians
640	999	0	1,766

FORCE STRUCTURE CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	0	186	0	0	0	0	186
Enlisted	0	129	0	0	0	0	129
Students	0	0	0	0	0	0	0
Civilians	0	-101	0	0	0	0	-101
TOTAL	0	214	0	0	0	0	214

BASE POPULATION (Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
826	1,128	0	1,665

PERSONNEL REALIGNMENTS:
To Base: KELLY AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	1	1	1	1	23
Enlisted	67	80	32	39	32	8	258
Students	0	0	0	0	0	0	0
Civilians	114	114	2	2	2	3	237
TOTAL	191	203	35	42	35	12	518

TOTAL PERSONNEL REALIGNMENTS (Out of BROOKS AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	1	1	1	1	23
Enlisted	67	80	32	39	32	8	258
Students	0	0	0	0	0	0	0
Civilians	114	114	2	2	2	3	237
TOTAL	191	203	35	42	35	12	518

SCENARIO POSITION CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	-18	-18	0	0	0	0	-36
Enlisted	-100	-101	0	0	0	0	-201
Civilians	-77	-77	0	0	0	0	-154
TOTAL	-195	-196	0	0	0	0	-391

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
767	669	0	1,274

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

PERSONNEL SUMMARY FOR: BASE X

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

Officers	Enlisted	Students	Civilians
736	3,263	0	11,455

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
736	3,263	0	11,455

PERSONNEL SUMMARY FOR: TYNDALL AFB, FL

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

Officers	Enlisted	Students	Civilians
802	3,801	0	1,011

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
802	3,801	0	1,011

PERSONNEL SUMMARY FOR: KELLY AFB, TX

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

Officers	Enlisted	Students	Civilians
825	3,539	0	14,036

PERSONNEL REALIGNMENTS:
From Base: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	1	1	1	1	23
Enlisted	67	80	32	39	32	8	258
Students	0	0	0	0	0	0	0
Civilians	114	114	2	2	2	3	237
TOTAL	191	203	35	42	35	12	518

TOTAL PERSONNEL REALIGNMENTS (Into KELLY AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	1	1	1	1	23
Enlisted	67	80	32	39	32	8	258
Students	0	0	0	0	0	0	0
Civilians	114	114	2	2	2	3	237
TOTAL	191	203	35	42	35	12	518

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
848	3,797	0	14,273

TOTAL PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 1/6
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	2	2	2	3	237
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*+		0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	2	2	2	3	237
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		77	77	0	0	0	0	154
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIfs)*+		5	5	0	0	0	0	10
Priority Placement#	60.00%	46	46	0	0	0	0	92
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		114	114	2	2	2	3	237
Civilians Moving		114	114	2	2	2	3	237
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		46	46	0	0	0	0	92
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

+ The Percentage of Civilians Not Willing to Move (Voluntary RIFs) varies from base to base.

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

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

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

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	2	2	2	3	237
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	2	2	2	3	237
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		77	77	0	0	0	0	154
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIFs)*	6.00%	5	5	0	0	0	0	10
Priority Placement#	60.00%	46	46	0	0	0	0	92
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		46	46	0	0	0	0	92
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BASE X	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	0.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	0.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

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

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

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

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: KELLY AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		114	114	2	2	2	3	237
Civilians Moving		114	114	2	2	2	3	237
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	3,000	3,000	0	0	0	0	6,000
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIF	127	127	0	0	0	0	255
Civ Retire	33	33	0	0	0	0	67
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	662	662	0	0	0	0	1,325
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	47	50	9	10	9	3	129
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	22	22	0	0	0	0	44
OTHER							
Program Plan	229	172	129	97	72	54	753
Shutdown	437	437	0	0	0	0	875
New Hire	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	741	746	0	0	0	0	1,487
OTHER							
HAP / RSE	104	104	0	0	0	0	208
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	5,404	5,356	138	107	81	57	11,143

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	98	203	221	242	260	266	1,291	266
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	342	731	868	1,036	1,172	1,211	5,361	1,211
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	441	934	1,089	1,278	1,433	1,478	6,652	1,478
TOTAL COST	5,845	6,290	1,226	1,385	1,514	1,535	17,796	1,478

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

RECURRINGSAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	301	904	1,205	1,205	1,205	1,205	6,025	1,205
O&M								
RPMA	320	969	1,297	1,297	1,297	1,297	6,477	1,297
BOS	275	843	1,154	1,208	1,274	1,330	6,085	1,349
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	1,796	5,387	7,183	7,183	7,183	7,183	35,914	7,183
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	708	2,124	2,832	2,832	2,832	2,832	14,160	2,832
Enl Salary	1,807	5,440	7,266	7,266	7,266	7,266	36,311	7,266
House Allow	612	1,297	1,501	1,748	1,953	2,010	9,123	2,010
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	5,820	16,964	22,438	22,740	23,010	23,123	114,094	23,142
TOTAL SAVINGS	5,820	16,964	22,438	22,740	23,010	23,123	114,094	23,142

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	3,000	3,000	0	0	0	0	6,000
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	161	161	0	0	0	0	322
Civ Moving	710	713	9	10	9	3	1,454
Other	689	631	129	97	72	54	1,672
MIL PERSONNEL							
Mil Moving	741	746	0	0	0	0	1,487
OTHER							
HAP / RSE	104	104	0	0	0	0	208
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	5,404	5,356	138	107	81	57	11,143

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	-301	-904	-1,205	-1,205	-1,205	-1,205	-6,025	-1,205
O&M								
RPMA	-320	-969	-1,297	-1,297	-1,297	-1,297	-6,477	-1,297
BOS	-176	-640	-933	-966	-1,014	-1,064	-4,794	-1,083
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	-1,796	-5,387	-7,183	-7,183	-7,183	-7,183	-35,914	-7,183
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	-2,515	-7,564	-10,098	-10,098	-10,098	-10,098	-50,471	-10,098
House Allow	-270	-566	-633	-713	-780	-799	-3,761	-799
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	-5,380	-16,030	-21,349	-21,462	-21,577	-21,645	-107,442	-21,664
TOTAL NET COST	24	-10,674	-21,211	-21,355	-21,496	-21,587	-96,299	-21,664

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: WRIGHT-PATTERSON AFB, OH

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: WRIGHT-PATTERSON AFB, OH

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

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: WRIGHT-PATTERSON AFB, OH

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	2,500	2,500	0	0	0	0	5,000
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	127	127	0	0	0	0	255
Civ Retire	33	33	0	0	0	0	67
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	662	662	0	0	0	0	1,325
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	47	50	9	10	9	3	129
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	22	22	0	0	0	0	44
OTHER							
Program Plan	229	172	129	97	72	54	753
Shutdown	437	437	0	0	0	0	875
New Hires	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	741	746	0	0	0	0	1,487
OTHER							
HAP / RSE	104	104	0	0	0	0	208
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	4,904	4,856	138	107	81	57	10,143

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	0	0	0	0	0	0	0	0
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	0	0	0	0	0	0	0	0
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	0	0	0	0	0	0	0	0
TOTAL COSTS	4,904	4,856	138	107	81	57	10,143	0

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

RECURRINGSAVES -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	301	904	1,205	1,205	1,205	1,205	6,025	1,205
O&M								
RPMA	320	969	1,297	1,297	1,297	1,297	6,477	1,297
BOS	275	843	1,154	1,208	1,274	1,330	6,085	1,349
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	1,796	5,387	7,183	7,183	7,183	7,183	35,914	7,183
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	708	2,124	2,832	2,832	2,832	2,832	14,160	2,832
Enl Salary	1,807	5,440	7,266	7,266	7,266	7,266	36,311	7,266
House Allow	612	1,297	1,501	1,748	1,953	2,010	9,123	2,010
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	5,820	16,964	22,438	22,740	23,010	23,123	114,094	23,142
TOTAL SAVINGS	5,820	16,964	22,438	22,740	23,010	23,123	114,094	23,142

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	2,500	2,500	0	0	0	0	5,000
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	161	161	0	0	0	0	322
Civ Moving	710	713	9	10	9	3	1,454
Other	689	631	129	97	72	54	1,672
MIL PERSONNEL							
Mil Moving	741	746	0	0	0	0	1,487
OTHER							
HAP / RSE	104	104	0	0	0	0	208
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	4,904	4,856	138	107	81	57	10,143

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	-301	-904	-1,205	-1,205	-1,205	-1,205	-6,025	-1,205
O&M								
RPMA	-320	-969	-1,297	-1,297	-1,297	-1,297	-6,477	-1,297
BOS	-275	-843	-1,154	-1,208	-1,274	-1,330	-6,085	-1,349
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	-1,796	-5,387	-7,183	-7,183	-7,183	-7,183	-35,914	-7,183
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	-2,515	-7,564	-10,098	-10,098	-10,098	-10,098	-50,471	-10,098
House Allow	-612	-1,297	-1,501	-1,748	-1,953	-2,010	-9,123	-2,010
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	-5,820	-16,964	-22,438	-22,740	-23,010	-23,123	-114,094	-23,142
TOTAL NET COST	-916	-12,108	-22,300	-22,632	-22,929	-23,065	-103,951	-23,142

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BASE X

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BASE X

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

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: BASE X

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: TYNDALL AFB, FL

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: TYNDALL AFB, FL

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

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: TYNDALL AFB, FL

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: KELLY AFB, TX

ONE-TIME COSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	500	500	0	0	0	0	1,000
Fam Housing	0	0	0	0	0	0	0
Land Purch	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIFs	0	0	0	0	0	0	0
Civ Retire	0	0	0	0	0	0	0
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPS	0	0	0	0	0	0	0
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Driving	0	0	0	0	0	0	0
Unemployment	0	0	0	0	0	0	0
OTHER							
Program Plan	0	0	0	0	0	0	0
Shutdown	0	0	0	0	0	0	0
New Hires	0	0	0	0	0	0	0
1-Time Move	0	0	0	0	0	0	0
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
TOTAL ONE-TIME	500	500	0	0	0	0	1,000

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: KELLY AFB, TX

RECURRINGCOSTS -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	98	203	221	242	260	266	1,291	266
Unique Operat	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Off Salary	0	0	0	0	0	0	0	0
Enl Salary	0	0	0	0	0	0	0	0
House Allow	342	731	868	1,036	1,172	1,211	5,361	1,211
OTHER								
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	98	203	221	242	260	266	6,652	1,478
TOTAL COSTS	941	1,434	1,089	1,278	1,433	1,478	7,652	1,478

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

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

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base: KELLY AFB, TX

ONE-TIME NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total
CONSTRUCTION							
MILCON	500	500	0	0	0	0	1,000
Fam Housing	0	0	0	0	0	0	0
O&M							
Civ Retir/RIF	0	0	0	0	0	0	0
Civ Moving	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
MIL PERSONNEL							
Mil Moving	0	0	0	0	0	0	0
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	0	0	0	0	0	0
Info Manage	0	0	0	0	0	0	0
1-Time Other	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0
TOTAL ONE-TIME	500	500	0	0	0	0	1,000

RECURRING NET -----($K)-----	1996	1997	1998	1999	2000	2001	Total	Beyond
FAM HOUSE OPS	0	0	0	0	0	0	0	0
O&M								
RPMA	0	0	0	0	0	0	0	0
BOS	98	203	221	242	260	266	1,291	266
Unique Operat	0	0	0	0	0	0	0	0
Caretaker	0	0	0	0	0	0	0	0
Civ Salary	0	0	0	0	0	0	0	0
CHAMPUS	0	0	0	0	0	0	0	0
MIL PERSONNEL								
Mil Salary	0	0	0	0	0	0	0	0
House Allow	342	731	868	1,036	1,172	1,211	5,361	1,211
OTHER								
Procurement	0	0	0	0	0	0	0	0
Mission	0	0	0	0	0	0	0	0
Misc Recur	0	0	0	0	0	0	0	0
Unique Other	0	0	0	0	0	0	0	0
TOTAL RECUR	441	934	1,089	1,278	1,433	1,478	6,652	1,478
TOTAL NET COST	941	1,434	1,089	1,278	1,433	1,478	7,652	1,478

PERSONNEL, SF, RPMA, AND BOS DELTAS (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Base	Personnel Change	Personnel %Change	SF Change	SF %Change	SF Chg/Per
WRIGHT-PATTERSON AFB	0	0%	0	0%	0
BROOKS AFB	-909	-25%	-700,000	-36%	770
BASE X	0	0%	0	0%	0
TYNDALL AFB	0	0%	0	0%	0
KELLY AFB	518	3%	0	0%	0

Base	RPMA($) Change	RPMA($) %Change	RPMA($) Chg/Per	BOS($) Change	BOS($) %Change	BOS($) Chg/Per
WRIGHT-PATTERSON AFB	0	0%	0	0	0%	0
BROOKS AFB	-1,296,871	-34%	1,427	-1,348,986	-14%	1,484
BASE X	0	0%	0	0	0%	0
TYNDALL AFB	0	0%	0	0	0%	0
KELLY AFB	0	0%	0	266,242	2%	514

Base	RPMABOS($) Change	RPMABOS($) %Change	RPMABOS($) Chg/Per
WRIGHT-PATTERSON AFB	0	0%	0
BROOKS AFB	-2,645,858	-20%	2,911
BASE X	0	0%	0
TYNDALL AFB	0	0%	0
KELLY AFB	266,242	1%	514

RPMA/BOS CHANGE REPORT (COBRA v5.0C)
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

Net Change($K)	1996	1997	1998	1999	2000	2001	Total	Beyond
RPMA Change	-320	-969	-1,297	-1,297	-1,297	-1,297	-6,477	-1,297
BOS Change	-176	-640	-933	-966	-1,014	-1,064	-4,794	-1,083
Housing Change	-301	-904	-1,205	-1,205	-1,205	-1,205	-6,025	-1,205
TOTAL CHANGES	-798	-2,512	-3,435	-3,468	-3,516	-3,565	-17,296	-3,585

INPUT DATA REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: No

Base Name	Strategy:
WRIGHT-PATTERSON AFB, OH	Realignment
BROOKS AFB, TX	Deactivates in FY 2001
BASE X	Realignment
TYNDALL AFB, FL	Realignment
KELLY AFB, TX	Realignment

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND YA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN RELOCATES TO KELLY AFB; THE 710TH INTEL FLIGHT (AFRES) RELOCATES TO LACKLAND.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
WRIGHT-PATTERSON AFB, OH	BROOKS AFB, TX	1,265 mi
BROOKS AFB, TX	BASE X	1,000 mi
BROOKS AFB, TX	TYNDALL AFB, FL	846 mi
BROOKS AFB, TX	KELLY AFB, TX	14 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from BROOKS AFB, TX to KELLY AFB, TX

	1996	1997	1998	1999	2000	2001
Officer Positions:	10	9	1	1	1	1
Enlisted Positions:	67	80	32	39	32	9
Civilian Positions:	114	114	2	2	2	3
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: WRIGHT-PATTERSON AFB, OH

Total Officer Employees:	3,709	RPMA Non-Payroll ($K/Year):	11,009
Total Enlisted Employees:	2,993	Communications ($K/Year):	5,714
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	0
Total Civilian Employees:	14,109	BOS Payroll ($K/Year):	57,011
Mil Families Living On Base:	34.0%	Family Housing ($K/Year):	11,777
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.89
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	18,046	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	116	Activity Code:	AF092
Enlisted VHA ($/Month):	75		
Per Diem Rate ($/Day):	93	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: BROOKS AFB, TX

Total Officer Employees:	640	RPMA Non-Payroll ($K/Year):	3,765
Total Enlisted Employees:	999	Communications ($K/Year):	192
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	8,585
Total Civilian Employees:	1,766	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	19.0%	Family Housing ($K/Year):	1,205
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.87
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	1,918	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	AF009
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Name: BASE X

Total Officer Employees:	736	RPMA Non-Payroll ($K/Year):	6,147
Total Enlisted Employees:	3,263	Communications ($K/Year):	3,887
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	21,001
Total Civilian Employees:	11,455	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	54.0%	Family Housing ($K/Year):	6,225
Civilians Not Willing To Move:	0.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	13,709	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	66	Activity Code:	00001
Enlisted VHA ($/Month):	50		
Per Diem Rate ($/Day):	69	Homeowner Assistance Program:	No
Freight Cost ($/Ton/Mile):	0.10	Unique Activity Information:	No

Name: TYNDALL AFB, FL

Total Officer Employees:	802	RPMA Non-Payroll ($K/Year):	[illegible]
Total Enlisted Employees:	3,801	Communications ($K/Year):	[illegible]
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	[illegible]
Total Civilian Employees:	1,011	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	48.0%	Family Housing ($K/Year):	[illegible]
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	[illegible]
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	4,817	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	65	Activity Code:	86
Enlisted VHA ($/Month):	55		
Per Diem Rate ($/Day):	75	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Name: KELLY AFB, TX

Total Officer Employees:	825	RPMA Non-Payroll ($K/Year):	16,993
Total Enlisted Employees:	3,539	Communications ($K/Year):	3,681
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	13,945
Total Civilian Employees:	14,036	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	14.0%	Family Housing ($K/Year):	2,870
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	16,316	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	43
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: WRIGHT-PATTERSON AFB, OH

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	23%	12%	16%	22%	11%	16%
Shutdown Schedule (%):	0%	23%	12%	16%	22%	27%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0%
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 700 Perc Family Housing ShutDown: 100.0%

Name: BASE X

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	23%	12%	16%	22%	11%	16%
Shutdown Schedule (%):	0%	23%	12%	16%	22%	27%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: TYNDALL AFB, FL

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	23%	12%	16%	22%	11%	16%
Shutdown Schedule (%):	0%	23%	12%	16%	22%	27%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

Name: KELLY AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	186	0	0	0	0
Enl Force Struc Change:	0	129	0	0	0	0
Civ Force Struc Change:	0	-101	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	-18	-18	0	0	0	0
Enl Scenario Change:	-100	-101	0	0	0	0
Civ Scenario Change:	-77	-77	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
Scenario File : A:\COBRA\BROOKS-1.CBR
Std Fctrs File : A:\COBRA\BROOKS.SFF

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: BROOKS AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
CANTONEMENT	OTHER	0	0	5,000

Name: KELLY AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
MINOR ADAPTATIONS	OTHER	0	0	1,000

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	76.80%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	66.90%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	80.00%	PPS Actions Involving PCS:	50.00%
Officer Salary($/Year):	78,668.00	Civilian PCS Costs ($):	28,800.00
Off BAQ with Dependents($):	7,073.00	Civilian New Hire Cost($):	4,000.00
Enlisted Salary($/Year):	36,148.00	Nat Median Home Price($):	114,600.00
Enl BAQ with Dependents($):	5,162.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost($/Week):	174.00	Max Home Sale Reimburs($):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary($/Year):	46,642.00	Max Home Purch Reimburs($):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	0.00%
SF File Desc:	DEPOT FACTORS	RSE Homeowner Receiving Rate:	0.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	0.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	0.00%
(Indices are used as exponents)		MilCon Design Rate:	0.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	0.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	0.00%
Mothball Cost ($/SF):	1.25	MilCon Site Preparation Rate:	0.00%
Avg Bachelor Quarters(SF):	256.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,320.00	Inflation Rate for NPV.RPT/ROI:	0.00%

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

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate($/Ton):	284.00
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle($/Mile):	0.43
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle($/Mile):	1.40
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement($/Mile):	0.18
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	4.10
Total HHG Cost ($/100Lb):	35.00	Routine PCS($/Pers/Tour):	6,437.00
Air Transport ($/Pass Mile):	0.20	One-Time Off PCS Cost($):	9,142.00
Misc Exp ($/Direct Employ):	700.00	One-Time Enl PCS Cost($):	5,761.00

Data As Of 21:59 03/09/1995, Report Created 10:21 04/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #1
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STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	$/UM	Category	UM	$/UM
Horizontal	(SY)	0	Optional Category A	( )	0
Waterfront	(LF)	0	Optional Category B	( )	0
Air Operations	(SF)	0	Optional Category C	( )	0
Operational	(SF)	0	Optional Category D	( )	0
Administrative	(SF)	0	Optional Category E	( )	0
School Buildings	(SF)	0	Optional Category F	( )	0
Maintenance Shops	(SF)	0	Optional Category G	( )	0
Bachelor Quarters	(SF)	0	Optional Category H	( )	0
Family Quarters	(SF)	0	Optional Category I	( )	0
Covered Storage	(SF)	0	Optional Category J	( )	0
Dining Facilities	(SF)	0	Optional Category K	( )	0
Recreation Facilities	(SF)	0	Optional Category L	( )	0
Communications Facil	(SF)	0	Optional Category M	( )	0
Shipyard Maintenance	(SF)	0	Optional Category N	( )	0
RDT & E Facilities	(SF)	0	Optional Category O	( )	0
POL Storage	(BL)	0	Optional Category P	( )	0
Ammunition Storage	(SF)	0	Optional Category Q	( )	0
Medical Facilities	(SF)	0	Optional Category R	( )	0
Environmental	( )	0			

OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING
3040 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3040

CLOSE HOLD

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

21 NOV 1994

SUBJECT: Laboratory Joint Cross-Service Group Alternatives for MILDEP Consideration - #3

Attached are the final Laboratory Joint Cross-Service Group (LJCSG) alternatives, including the analysis of Optimization Model output constrained by Military Value (MV), for Military Department (MILDEP) consideration. The Optimization Model workload distribution for the MV run is contained in the columns labeled "MINNMV Load". Any resulting changes to the analysis are described at the end of each Common Support Function writeup.

Similiar to the set of alternatives attached to my 4 Nov 1994 letter, alternatives LJCSG 24, 25, 26 & 27 are derived from the original Optimization Model run conditions; and LJCSG 24A, 25A/26A & 27A are derived from (a) combining Human Systems and Manpower & Personnel and (b) holding STRICOM and NAWC Orlando "open".

All of the comments contained in my prior transmittal letters (1 Nov and 4 Nov) remain valid. As before, the members of the LJCSG and its Working Group are available to provide assistance and answer any questions you may have on the attached alternatives.

Anita Jones

Anita K. Jones
Chair, Laboratory Joint
Cross-Service Group

Attachments

FIXED STRUCTURES

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WL-WPAFB	ST	412.5	324.9	324.9	324.9	324.9	48
NAWC-PAX	ST	71.7	71.7	71.7	71.7	71.7	50
ASC,MOD-WPAFB	ST	7.1	0	0	0	0	31
CHINA LAKE	ST	4.5	0	0	0	0	45
ASC-WPAFB	ED	4599	3691.3	3691.3	3734.7	3691.3	50
NAWC-PAX	ED	43.7	43.7	43.7	0.22	43.7	50
MRDEC-RSA	ED	40	0	0	0	0	34
ASC,MOD-WPAFB	ED	14.2	0	0	0	0	31
CHINA LAKE	ED	12.1	0	0	0	0	36
ALC-ROBINS	ISE	37.9	37.9	37.9	37.9	37.9	34
ASC,MOD-WPAFB	ISE	27.4	0	26.1	13.9	26.1	31
CHINA LAKE	ISE	20.5	20.5	20.5	20.5	20.5	36
ALC-TINKER	ISE	12.2	12.2	0	12.2	0	33
ALC-KELLY	ISE	11	9.02	0	0	0	24
NAWC-PAX	ISE	8.2	8.2	8.2	8.2	8.2	50
ALC-HILL	ISE	4.9	4.9	0	0	0	30
MRDEC-RSA	ISE	4	4	4	4	4	34
AVRDEC-STL	ISE	2.2	0	0	0	0	16

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- S&T: Consolidate ASC,MOD-WPAFB work at WL-WPAFB and China Lake work at NAWC-Pax. ED: Consolidate ASC,MOD-WPAFB and MRDEC-RSA with ASC-WPAFB and China Lake at NAWC-Pax. ISE: For MINXCAP, distribute ASC,MOD-WPAFB and AVRDEC-StL work; For MINSITE, distribute ALC-Tinker, ALC-Kelly, ALC-Hill and AVRDEC-StL; For MAXFV, distribute ALC-Kelly, ALC-Hill and AVRDEC-StL.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1 (3 Subsets).

*** ANALYSIS/RATIONALE:**

Mission Compatibility. Missions within life cycles are similar and compatible; however, MRDEC-RSA's mission is entirely devoted to UAV efforts.

Facilities and Equipment Compatibility. ALC-Kelly is a Robotics Center of Excellence (COE) and should be relocated to continue this effort and maximize the equipment investment made to date. ALC-Robins reported all facilities/equipment under the "Depot" data call. Otherwise facilities are comparable within life cycles.

Relocation Constraints/Restrictions (Fit Check). None.

Other. UAV work was reported only at MRDEC-RSA, although NAWC-Pax shows the wording "...UAV structures..." within their mission statement. No other reference was made to UAV within their data call response.

*** ADVISORY COMMENTS** : The Army in considering this alternative should consider whether to continue MRDEC-RSA's UAV work or if there are opportunities existing for cross-servicing. Additionally, the Army should examine, in cooperation with the Navy and Air Force, any cross-service opportunities for its AVRDEC-StL ISE work. The Navy and Air Force should examine any cross-service opportunities as part of their consolidation efforts under the 3 subsets of Alternative 1. Due to the nature of the subfunctions, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative.

MV ANALYSIS: The selected alternative remains the same with the following underlined change under the ISE section- "...; For <u>MINNMV and</u> MINNSITE, distribute ALC-Tinker, ALC-Kelly, ALC-Hill and AVRDEC-StL; ...".

FIXED PROPULSION

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WL-WPAFB	ST	444.6	432.1	432.1	432.1	432.1	62
NAWC-PAX	ST	81.1	0	0	0	0	54
ASC,MOD-WPAFB	ST	14.2	0	0	0	0	23
CHINA LAKE	ST	0.3	0.002	0	0	0	35
ASC-WPAFB	ED	264	197.9	197.9	197.9	197.9	45
NAWC-PAX	ED	170.7	170.7	170.7	170.7	170.7	54
MRDEC-RSA	ED	32	0	0	0	0	34
CHINA LAKE	ED	15	0	0	0	0	35
NCCOSC	ED	4.3	0	0	0	0	33
NAWC-PAX	ISE	46.2	40.5	40.5	40.5	40.5	54
MRDEC-RSA	ISE	2	0	0	0	0	34
ALC-TINKER	ISE	1.4	0	0	0	0	28
AVRDEC-STL	ISE	1.1	0	0	0	0	14

* ALTERNATIVES CONSIDERED BY THE LJCSG:

1 -- Consolidate all S&T work at WL-WPAFB; all EMD at ASC-WPAFB and NAWC-Pax; and all ISE at NAWC-Pax.

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility. ASC, MOD-WPAFB performs machine shop work in support of WL-WPAFB and aircraft modifications for the Air Force Flight Test Centers. WL-WPAFB and NAWC-Pax perform similar R&D propulsion efforts. China Lake works on air breathing propulsion for air targets. MRDEC-RSA's work is entirely for UAV propulsion. ALC-Tinker, ALC-Hill and ASC-WPAFB describe their missions as technology insertion focused and oriented at performance from office locations.

Facilities and Equipment Compatibility. Much of NAWC-Pax facilities and equipment are oriented at T&E effort. No special facilities/equipment exists at ALC-Tinker, ALC-Hill, ASC-WPAFB which prevents consolidation.

Relocation Constraints/Restrictions (Fit Check). None.
Other. None.

* **ADVISORY COMMENTS** : The Army should consider whether the UAV mission at MRDEC-RSA should continue or if an opportunity exists for cross-service consolidation. Additionally, the Army should examine, in cooperation with the Navy and Air Force, any cross-service opportunities for its AVRDEC-StL ISE work. Air Force and Navy should explore the feasibility of downsizing overall propulsion workload in order to consolidate at a single location each. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative. All ISE work should be examined to determine if incorporation within Military Department Depot functions is a more appropriate arena for this work to be performed.

MV ANALYSIS: No change to the selected alternative.

FIXED AVIONICS

* **MODEL OUTPUT**:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WL-WPAFB	ST	792.7	617.5	617.5	617.5	617.5	46
PAX	ST	211.3	211.3	211.3	211.3	211.3	78
NRL	ST	56.7	0	0	0	0	33
ASC,MOD-WPAFB	ST	44.6	0	0	0	0	23
CHINA LAKE	ST	35	35	35	35	35	57
CRANE	ST	0.4	0	0	0	0	36
ASC-WPAFB	ED	1043	775.9	775.9	775.9	775.9	42
PAX	ED	551	551	551	551	551	78
PT MUGU	ED	410	410	410	410	410	50
CHINA LAKE	ED	276.2	276.2	276.2	276.2	276.2	57
INDY	ED	157	0	0	0	0	37
ASC,MOD-WPAFB	ED	126.7	0	0	0	0	23
NCCOSC	ED	73.3	0	0	0	0	36
NRL	ED	46.4	0	0	0	0	33
MRDEC-RSA	ED	40	0	0	0	0	26
PT MUGU	ISE	697	517.4	517.4	517.4	517.4	50
CHINA LAKE	ISE	451.6	451.6	451.6	451.6	451.6	57
PAX	ISE	165.4	165.4	165.4	165.4	165.4	78
ALC-MCL	ISE	108	0	0	0	0	20
CRANE	ISE	66.9	0	0	0	0	36
INDY	ISE	18.7	0	0	0	0	37
ALC-TINKER	ISE	5.4	0	0	0	0	26
ALC-HILL	ISE	4.9	0	0	0	0	30
DAHLGREN	ISE	4.5	0	0	0	0	25
MRDEC-RSA	ISE	3	0	0	0	0	26

*** ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – Consolidate S&T work at WL-WPAFB, NAWC-Pax and China Lake. ED work is consolidated at ASC-WPAFB, NAWC-Pax, NAWC-Pt Mugu and China Lake. ISE work is consolidated at NAWC Pt Mugu, China Lake and NAWC-Pax.

*** SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

*** ANALYSIS/RATIONALE:**

Mission Compatibility. MRDEC-RSA mission is devoted entirely to UAV work. NRL work is oriented at EO/IR sensors, EW and Combat ID. All ALC organizations within the Air Force characterize their work as technology insertion. Otherwise, function compatibility is achievable.

Facilities and Equipment Compatibility. Specialized facilities exist at many of the sites slated as receivers in the above alternative. Additionally, they also exist at sites divesting this work such as Dahlgren and NAWC-Indy, however, none of the descriptive summaries for facilities/equipment indicate unique, unmovable items.

Relocation Constraints/Restrictions (Fit Check). None.

Other. None

*** ADVISORY COMMENTS :** The Army should consider whether MRDEC-RSA's UAV work be continued or if an opportunity exists for cross-serving of these functions with the other Military Departments. The Air Force's ISE work at ALC-McClellan should be reviewed to determine if the alternative for consideration makes sense in light of its overall mission. The Navy and Air Force should examine the feasibility of S&T consolidation into a single site each. The Navy and Air Force should examine any cross-servicing opportunities as part of their consolidation efforts.

MV ANALYSIS: No change to the selcted alternative.

FIXED FLIGHT SUBSYSTEMS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WL-WPAFB	ST	566.2	455.5	455.5	455.5	455.5	47
ASC,MOD-WPAFB	ST	26.4	0	0	0	0	35
NAWC-LAKEHURST	ST	21	21	21	21	21	60
NAWC-PAX	ST	5.6	5.6	5.6	5.6	5.6	50
NSWC-CRANE	ST	0.4	0	0	0	0	36
NAWC-LAKEHURST	ED	1022	1022	1022	1022	1022	60
ASC-WPAFB	ED	537	438.5	438.5	438.5	438.5	40
HSC, BROOKS	ED	277	0	0	0	0	33
ASC,MOD-WPAFB	ED	140.9	0	0	0	0	35
CHINA LAKE	ED	69.1	0	0	0	0	35
NAWC-PAX	ED	51.6	51.6	51.6	51.6	51.6	50
MRDEC-RSA	ED	48	0	0	0	0	31
NAWC-INDY	ED	9.4	0	0	0	0	33
NSWC-CRANE	ED	4.2	0	0	0	0	36
LAKEHURST	ISE	269.2	254.2	254.2	254.2	254.2	60
NAWC-PAX	ISE	29.6	0	0	0	0	50
ASC,MOD-WPAFB	ISE	29.4	0	0	0	0	35
AVRDEC-STL	ISE	16.3	0	0	0	0	26
ALC-TINKER	ISE	5.4	0	0	0	0	16
MRDEC-RSA	ISE	5	0	0	0	0	31
ALC-HILL	ISE	4.9	0	0	0	0	30
NSWC-CRANE	ISE	1.2	0	0	0	0	36
NAWC-INDY	ISE	0.5	0	0	0	0	33

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Consolidate all S&T work at WL-WPAFB, China Lake and NAWC-Pax. Consolidate ED work at NAWC-Lakehurst, ASC-WPAFB and NAWC-Pax. Consolidate all ISE at NAWC-Lakehurst.

*** SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

*** ANALYSIS/RATIONALE:**

Mission Compatibility. NSWC-Crane workload is devoted to battery missions and not compatible with other locations. NAWC-Lakehurst is heavily oriented at Aircraft Launch and Recovery Equipment. MRDEC-RSA is entirely devoted to work effort in UAVs. AVRDEC-StL effort is devoted to SEMA, C-12 and C-23 ISE effort. Otherwise the functions are compatible or performed in an office environment which permits their movement. The Human Systems Center at Brooks AFB seems to be oriented at the human systems /manpower/training portions of this CSF as well as to clothing and textiles efforts. Some of the limited product oriented work is compatible but much of the effort booked against this CSF belongs in the other pervasive CSFs. HSC, Brooks AFB, whose work activity is strongly oriented at human systems, was submitted in the Fixed Flight Subsystems CSF because the Human Systems Pervasive CSF was limited to S&T efforts by LJCSG data call guidance.

Facilities and Equipment Compatibility. Generally compatible with NAWC-Lakehurst, NAWC-Pax, NAWC-Indy, ASC, Mod-WPAFB having dedicated facilities/equipment for technical functions as well as office spaces.

Relocation Constraints/Restrictions (Fit Check). NONE.

Other. None

*** ADVISORY COMMENTS** : Air Force should examine the need for clothing and textiles work at HSC, Brooks AFB against possible technical gains derived from its merging with the joint Clothing and Textile efforts at Natick RDEC. HSC, Brooks colocation with AL-Brooks AFB may continue to be desired but should be examined in conjunction with other CSFs directly impacting those activities. The Army should examine whether it is desired for MRDEC-RSA to continue UAV work or if there exists an opportunity for cross-servicing. Additionally, the Army should examine, in cooperation with the Navy and Air Force, any cross-servicing opportunities for its AVRDEC-StL ISE work. The Navy and Air Force should examine any cross-servicing opportunities as part of their consolidation efforts. Since the NSWC-Crane mission is devoted to batteries, the Navy should examine whether this function be retained at NSWC-Crane. Additionally, the Navy and Air Force should examine whether the S&T technical functions are comparable and have potential for consolidation. Due to the nature of the subfunctions, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative.

MV ANALYSIS: No change to the selected alternative.

(NOTE: An error was made in the S&T listings, NAWC-Lakehurst was incorrectly listed as China Lake in the 20 Oct 1993 unconstrained alternatives.)

ROTARY STRUCTURES

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
ARL-LANGLEY	ST	37	37	37	37	37	35
AATD-EUSTIS	ST	33.5	6	6	6	6	26
AVNRDEC-STL	ST	17.4	17.4	17.4	17.4	17.4	45
AVNRDEC-STL	ED	14.2	11.12	11.12	11.12	11.12	45
NSWC CARDER	ED	1.8	0	0	0	0	13
AVNRDEC-STL	ISE	4.4	4.4	4.4	4.4	4.4	45
NSWC CARDER	ISE	2.3	0.24	0.24	0.24	0.24	13

* **ALTERNATIVES CONSIDERED BY LJCSG:**

1 -- Optimization Model Output (Carderock removed from EMD work)

2 -- Retain existing capability - low probability of infrastructure reduction

3 -- Optimization Model Output with Carderock also removed from ISE work (0.24 workyears) (e.g., Consolidate this CSF in the Army)

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1

* **ANALYSIS/RATIONALE:**

Mission Compatability - Carderock is involved in the V-22 program; AATD-EUSTIS is involved in ballistic testing of structures; AVNRDEC-STL is involved in airworthiness qualification and system engineering; and ARL-LANGLEY is involved in structural integrity. The Missions therefore are complementary, not overlapping.

Facilities and Equipment Compatibility - AATD-EUSTIS has a ballistic test range worth less than $250K. None of the other activities have any significant facilities or equipment of relevance to this CSF.

Relocation Constraints/Restrictions (Fit Check) - AATD-EUSTIS possesses a license for the storage and use of explosive ballistic projectiles up to 30 mm. None of the other activities have any relevant licenses, permits, geological/climatological constraints, or special support infrastructure.

Other - AVNRDEC-STL will remain involved in the Rotary CSF due to its Flight Subsystem work
ARL-LANGLEY will remain involved in the Rotary CSF due to its Structural S&T work
AATD-EUSTIS will remain involved in the Rotary CSF due to its Flight Subsystem S&T work.

* **ADVISORY COMMENTS** : Carderock remains involved in this CSF only because of the model's assignment of .24 workyears of ISE. This level of effort could presumably be accommodated at any other ISE activity and is well within the error of the estimated future requirement for this CSF/lifecycle combination. Therefore, the Navy should consider ceasing ISE work at NSWC Carderock (0.24 workyears) and possibly consolidating this function with the Army. Due to the nature of the subfunctions, life cycles, and related functions performed within the activities, MILDEPS should carefully assess the suggested alternative.

MV ANALYSIS: No change to the selected alternative.

ROTARY PROPULSION

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
ARL-LEWIS	ST	47	47	47	47	47	49
AATD-EUSTIS	ST	38.1	20.02	20.02	20.02	20.02	26
NAWC PAXRVR	ST	3	3	3	3	3	49
AVNRDEC-STL	ST	2.2	2.2	2.2	2.2	2.2	39
NAWC PAXRVR	ED	16.5	16.5	16.5	16.5	16.5	49
AVNRDEC-STL	ED	12	6.29	6.29	6.29	6.29	39
AVNRDEC-STL	ISE	27.2	21.14	21.14	21.14	21.14	39
NAWC PAXRVR	ISE	12.5	12.5	12.5	12.5	12.5	49
AATD-EUSTIS	ISE	2.3	0	0	0	0	26

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Optimization Model Output

2 -- Retain existing capability - low probability of infrastructure reduction

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

2 -- Retain existing capability - low probability of infrastructure reduction

* **ANALYSIS/RATIONALE:**

Mission Compatability - AVNRDEC-STL is involved in Airworthiness Qualification and System Engineering; AATD-EUSTIS is involved in propulsion engine/drive train/components; NAWC PAXRVR is involved in propulsion transmission/drive train engineering and helo T&E; and ARL-LEWIS is involved in systems/components RDT&E. Therefore there is some overlap in mission and capability in the activities.

Facilities and Equipment Compatability - NAWC PAXRVR has over $50M in relevant test facilities and ARL-LEWIS has access to over $1B in NASA R&D facilities. The other two activities have no relevant facilities/equipment.

Relocation Constraints/Restrictions (Fit Check) - none relevant

Other - AVNRDEC STL will remain involved in the Rotary CSFs due to its Flight Subsystem work
AATD-EUSTIS will remain involved in the Rotary CSFs due to its Flight Subsystem S&T work
ARL-LEWIS must remain involved in this CSF due to the S&T workload
NAWC PAXRVR will remain involved in this CSF due to the EMD workload

Hence, the selected alternative is to retain the existing capability, since no participating activities are suggested for removal from the Rotary CSF

* **ADVISORY COMMENTS** : Although the model did not suggest any significant consolidations, there may be service alternatives for consolidation not readily apparent from the certified data.

MV ANALYSIS: No change to the selected alternative.

ROTARY AVIONICS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NAWC PAXRVR	ST	9.2	9.2	9.2	9.2	9.2	60
AVNRDEC_STL	ST	2.2	0	0	0	0	32
NAWC CHINA LAKE	ST	2.2	2.2	2.2	2.2	2.2	50
NRL	ST	1.2	0.6	0.6	0.6	0.6	41
NSWC CRANE	ST	0.4	0	0	0	0	26
NAWC INDY	ED	69.7	51.3	51.3	51.3	51.3	36
NAWC PAXRVR	ED	34.9	34.9	34.9	34.9	34.9	60
NAWC CHINA LAKE	ED	10.1	10.1	10.1	10.1	10.1	50
AVNRDEC_STL	ED	9.8	0	0	0	0	32
NAWC PT MUGU	ED	7	0	0	0	0	33
NCCOSC RDT&E	ED	2.1	0	0	0	0	19
NRL	ED	1.7	1.7	1.7	1.7	1.7	41
NSWC CRANE	ED	0.2	0	0	0	0	26
NAWC PAXRVR	ISE	37.4	37.4	37.4	37.4	37.4	60
AVNRDEC_STL	ISE	29.4	7.22	7.22	7.22	7.22	32
NAWC CHINA LAKE	ISE	21.7	21.7	21.7	21.7	21.7	50
NRL	ISE	9.4	9.4	9.4	9.4	9.4	41
NAWC PT MUGU	ISE	7	7	7	7	7	33
NSWC DAHLGREN	ISE	3.9	0	0	0	0	22
NSWC CRANE	ISE	0.4	0	0	0	0	26

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Optimization Model Output

2 -- Retain existing capability - low probability of infrastructure reduction

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

2 - Retain existing capability - low probability of infrastructure reduction

*** ANALYSIS/RATIONALE:**

Mission Compatibility - NAWC INDY is involved electronic systems and avionics systems; NAWC PAXRVR is involved in ASW systems/sensors/integration/algorithms, software support, airborne recce/surveillance, and aircrew systems; NAWC CHINA LAKE is involved in software and system integration; AVNRDEC_STL is involved in airworthiness qualification and system engineering; NAWC PT MUGU is involved in EW system engineering; NCCOSC RDT&E is involved in GPS integration testing; NRL is involved in EO/IR systems; NSWC CRANE is involved in batteries; and NSWC DAHLGREN is involved in EM vulnerability testing. Therefore, one would characterize the activities as complementary, not duplicitive.

Facilities and Equipment Compatibility - There are no particularly unique facilities possessed by the activities

Relocation Constraints/Restrictions (Fit Check) - NSWC DAHLGREN possesses a license to do R/F testing which would not be easy to obtain elsewhere, unless it was a very sparsely inhabited location.

Other - AVNRDEC_STL will remain involved in rotary wing CSFs due to its Flight Subsystems work

CRANE is involved in batteries and should remain involved in that aspect of this CSF

NAWC CHINA LAKE could be eliminated from this CSF by shifting its work to activities with a lower CSF. However, CHINA LAKE will remain open to support other CSFs, so shifting the work from CHINA LAKE would not lead to infrastructure reduction and therefore CHINA LAKE should remain involved in the CSF.

NAWC PAXRVR and NAWC INDY must remain involved due to the need for their EMD capacity.

NSWC DAHLGREN, contrary to the model's suggestion, must remain involved due to its R/F testing capability

NAWC PT MUGU can be removed from this CSF by shifting its work to AVNRDEC_STL, an activity with essentially the same FV (33 vs. 32). However, NAWC PT MUGU will remain open due to its work in fixed wing CSFs, so there is no likely infrastructure reductions to be gained by its removal.

NCCOSC can be eliminated from this CSF as suggested by the model, however this would break up the center for GPS testing, so that is not recommended.

NRL should remain involved as suggested by the model due to its EO/IR expertise.

Therefore, all the activities currently active in this CSF should remain so.

*** ADVISORY COMMENTS** : Although the model did not suggest any significant consolidations, there may be service alternatives for consolidation not readily apparent from the certified data.

MV ANALYSIS: No change to the selected alternative.

ROTARY FLIGHT SUBSYSTEMS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
AVRDEC-MOFFIT	ST	149	19.96	19.96	19.96	19.96	38
AATD-EUSTIS	ST	131.6	131.6	131.6	131.6	131.6	47
AVNRDEC STL	ST	61	61	61	61	61	54
NAWC LAKEHURST	ST	1.2	1.2	1.2	1.2	1.2	53
NSWC CRANE	ST	0.4	0	0	0	0	36
AVNRDEC STL	ED	105.7	105.7	105.7	105.7	105.7	54
AATD-EUSTIS	ED	92.3	0	0	0	0	47
NAWC LAKEHURST	ED	53.6	47.1	47.1	47.1	47.1	53
NSWC CRANE	ED	3	0	0	0	0	36
NAWC CHINA LAKE	ED	2.2	0	0	0	0	21
AVNRDEC STL	ISE	157.5	127.28	127.28	127.28	127.28	54
AATD-EUSTIS	ISE	39.2	0	0	0	0	47
NAWC LAKEHURST	ISE	14	0	0	0	0	53
NSWC CRANE	ISE	0.9	0	0	0	0	36

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Optimization Model Output

2 -- Retain existing capability - low probability of infrastructure reduction

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

2 -- Retain existing capability - low probability of infrastructure reduction

* **ANALYSIS/RATIONALE:**

Mission Compatibility - AVNRDEC STL is involved in airworthiness and safety engineering; AVRDEC-MOFFIT is involved in computer modeling and simulation; AATD EUSTIS is involved in subsystem work, particularly cargo and maintenance; NAWC CHINA LAKE is involved in live fire testing; NAWC LAKEHURST is involved in helo landing testing; and NSWC CRANE is involved in batteries.

Facilities and Equipment Compatibility - AVRDEC-MOFFIT has access to over $1.5B of NASA's facilities and equipment at NASA Ames and Langley; AATD-EUSTIS has an I/R Suppression Facility worth about $3M; and NAWC LAKEHURST has over $5M in helo landing test facilities.

Relocation Constraints/Restrictions (Fit Check) - none relevant to this CSF

Other - Due to the Flight Subsystems EMD workload and the capacities of the activities involved, ARDEC_STL must remain involved in this CSF (no combination of other activities can accept the required workload).

Due to the Flight Subsystems S&T workload and the capacities of the activities involved, AVAPTECH_EUSTIS must remain involved in this CSF (no combination of other activities can accept the required workload).

LAKEHURST was selected to remain involved in EMD work due to its FV being higher than AVAPTECH_EUSTIS. LAKEHURST's FV is based in part on the rotary CSFs' shared facilities with fixed wing CSFs at LAKEHURST. Should the Navy recommend closing LAKEHURST, they should consider the potential consolidation of this CSF with the Army.

CRANE is involved in batteries, and contrary to the model's recommendations should stay involved in that aspect of rotary wing flight subsystems.

Similarily, CHINA LAKE is involved in live fire testing at a very low level and, contrary to the model's recommendations, should stay involved in that part of rotary wing flight subsystems.

The same analysis applies to the activities involved in the ISE portion of the life cycle.

For the S&T phase of the life cycle, all but CRANE must remain open to absorb the required workload. As indicated above, CRANE is involved in batteries and should remain involved in that part of rotary wing flight subsystems.

* **ADVISORY COMMENTS** :None required

MV ANALYSIS: No change to the selected alternative.

ICBM/SLBM

*** MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NAWC CHINLK	ST	4.3	2.54	2.54	2.54	2.54	48
NSWC DAHLGR	ST	0.5	0.5	0.5	0.5	0.5	64
DET 10 SMC NORTON	ED	2011	463.74	463.74	463.74	463.74	46
NSWC DAHLGR	ED	261.4	261.4	261.4	261.4	261.4	64
NAWC CHINLK	ED	21.1	21.1	21.1	21.1	21.1	48
NSWC INDY	ED	1.4	0	0	0	0	32
NAWC CHINLK	ISE	33.5	20.44	20.44	7.44	20.44	48
NSWC DAHLGR	ISE	30.2	30.2	30.2	30.2	30.2	64
NSWC IND HEAD	ISE	13	0	0	13	0	55
OO - ALC	ISE	2.4	0	0	0	0	37
NAWC INDY	ISE	2.3	0	0	0	0	32

*** ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – ST - For all runs, work remains consolidated at two Navy sites.

EMD - For all runs, Air Force remains consolidated in one location. Navy consolidates from three activities to two activities.

ISE - Work consolidates to a maximum of two Navy sites.

2 – Retain existing capabilities, low probability of infrastructure reduction.

3 – Consolidate all EMD work in this common support function to the Air Force and all ISE and ST to the Navy at reduced number of activities.

4 – Air Force consolidate across lifecycle at SMC LA and Navy consolidate across life cycle at NAWC CHINLK and NSWC DAHLGR.

*** SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

* **ANALYSIS/RATIONALE:**

Mission compatibility: Air Force and Navy are only participants in this common support function and the types of work conducted are different. The Air Force has a preponderance of EMD, primarily in ground based ICBMs consolidated at one location and a relatively small amount of ISE with no ST. Navy EMD, ISE and ST is performed at multiple activities on SLBMs.

Facilities and Equipment Compatibility: DET 10 consists primarily of acquisition management facilities while NAWC CHINLK and NSWC DAHLGR are collocated with test and evaluation facilities.

Relocation Constraints/Restrictions: Trident test facilities at NAWC CHINLK are not compatible with consolidation at DET 10. NSWC DAHLGR co-location with ship and submarine mission planning provides a synergy which should not be disrupted.

Other: None

ADVISORY COMMENTS : ICBM portion of Det 10 is scheduled for relocation to SMC-LA based on a previous BRAC decision. Consolidation of SLBM efforts within the Navy should be carefully reviewed for feasibility in view of low levels of work and low probability of infrastructure reduction. Due to the nature of the subfunction, life cycles, and related functions performed within the activities (e.g., NSWC IND HEAD), MILDEPs should carefully assess the suggested alternative.

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* **MILITARY VALUE ANALYSIS** : No changes to selective alternative

CONVENTIONAL MISSILES & ROCKETS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NAWC CHINA LK	ST	129.2	129.2	129.2	129.2	129.2	77
NSWC IND HEAD	ST	16.1	0	0	16.1	0	62
MRDEC, REDSTONE	ST	743	505.04	505.04	488.94	505.04	59
NSWC DAHLGREN	ST	32.5	0	0	0	0	44
NSWC CRANE	ST	1.7	0	0	0	0	36
WL-EAFB	ST	45.2	0	0	0	0	22
NAWC CHINA LK	ED	871.7	871.7	871.7	871.7	871.7	77
NSWC IND HEAD	ED	51	0	0	51	0	62
MRDEC, REDSTONE	ED	1683	1534.78	1534.78	1483.78	1534.78	59
NSWC DAHLGREN	ED	151.3	0	0	0	0	44
NAWC PT MUGU	ED	11	0	0	0	0	38
ASC EAFB	ED	873	0	0	0	0	35
NSWC, PT HUEN	ED	13.8	0	0	0	0	21
NAWC INDY	ED	14	0	0	0	0	17
NAWC CHINA LK	ISE	1409.9	1409.9	1409.9	1409.9	1409.9	77
NSWC IND HEAD	ISE	213.7	0	0	213.7	0	62
MRDEC, REDSTONE	ISE	415	415	415	258.08	415	59
NSWC DAHLGREN	ISE	56.5	56.5	53.13	0	56.5	44
NAWC PT MUGU	ISE	730	0	3.65	0	0	38
NSWC CRANE	ISE	22.3	0	0	0	0	36
NSWC, PT HUEN	ISE	135.3	0	0	0	0	21
NAWC INDY	ISE	2.6	0.28	0	0	0.28	17

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – Consolidate work into two MILDEPS; Army remains consolidated at MRDEC for all life cycles; consolidate remaining S&T and EMD work at one Navy site; consolidate remaining ISE at a reduced number of Navy sites. Army and Navy sites with the necessary capability shall serve as consolidation/collocation receiver sites for Air Force Conventional Missiles and Rockets work

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

* **ANALYSIS/RATIONALE:**

Mission Compatibility: MRDEC REDSTONE provides research, development, and engineering support services to PEO and Program /Product Managers for the Army's Tactical Missile and related weapon systems with on-site, co-located matrixed technical support. ASC/WL EAFB and NAWC CHINA LAKE/PT MUGU missions of air launched missiles and rockets are comparable and indicate possible duplication, particularly in HARM and AMRAAM efforts.

MRDEC is the Army's lead organization for technologies in missile propulsion, guidance and control/terminal homing, and HWIL missile system simulation, as well as the lead Center for the Early Entry, Lethality, and Survivability Battle Lab at Ft. Monroe, Va.

ASC EAFB works on HARM, sensor development, aircraft integration, and threat file. They conduct DT/OT testing, AGM-142 development/production/testing, and evaluate foreign systems and IIR seekers. They also work in the Joint AMRAAM effort and the AIM 9X and AGM-130/GBU-15 programs.

WL EAFB performs weapon flight certification (SEEK EAGLE) and aircraft/weapon integration, weapon flight mechanics, advanced guidance, munitions and assessments.

NAWC CHINA LAKE is engaged in "nose-to-tail" engineering and support for Navy tactical missile systems (eg. HARM, Sidewinder, Sparrow, Phoenix, AMRAAM). They conduct work in energetics materials, fuze, propulsion as well as airframe development and analysis and advanced guidance (eg. IR/Radar seekers)

NAWC PT MUGU supports overwater testing and HWIL simulation as well as JSOW mission planning and classified programs.

NAWC INDY works on JSOW producibility, UAV common electronics and HARM BIT testing.

NSWC DAHLGREN principally supports the development of shipboard missile systems, including warheads.

NSWC INDIAN HEAD focuses on energetics including research, development, scale-up to production and In-Service Engineering across a broad spectrum of weapon systems including Navy unique mines/mine clearance systems and torpedoes as well as the Tri-Service CADS/PADS/AEPS responsibility.

NSWC PT HUENEME provides significant support for In-Service shipboard missile systems.

NSWC CRANE provides missile battery work along with conventional ammunition and missile fuze ISE and weapon storage.

Facilities and Equipment Compatibility:

MRDEC listed "major facilities/equipment of $382M ($145 shared) including the Advance Simulation Center (ASC), Field Operations Facility (w/ Multi-Role Survivable Radar), Physical Sciences Research Facility, Radio Frequency Research Facility, Prototype Engineering Facility, Patriot and Hawk Software Support Facilities, and the Integrated Family of Test Equipment Software Support Facility,

ASC EAFB listed no unique facilities and no "major" (over $10M) facilities/equipment.

WL EAFB listed $18M "major" facilities/equipment ($6M shared with other functions) including the Guided Weapon Evaluation Facility and Kinetic Kill Vehicle Hardware in the Loop Laboratory, noting the unique "target imaging synthesis".

NAWC CHINA LAKE listed $892M ($530M shared) which included the Air Breathing Propulsion Lab, Anti-Radiation Missile (ARM) Seeker Test Complex, ARM Targets, ARM Integration Complex, Armament/Weapons Design Prototyping and Integration Facility, Ordnance and Propulsion Pilot Plant, Engineering Prototype Facility, Environmental Test Complex, Fuze Development Lab, Guidance Components T&A Complex, IR Seeker/ GTCS/ DDT&E Complex, Materials and Processes Research Facility, Missile Engagement Simulation Arena (MESA), Mk 45 TDD Engineering Development HITL/Test Lab, Optics and Laser Research Facility, Ordnance and Propulsion Foreign Materials Exploitation Lab, Ordnance Stowage Facilities, Propellants and Explosive Formulation Labs, Propulsion and Energy Conversion Research Facility, RF Seeker/Guidance/Control DDT&E Complex, Sensor and Targeting Technolgy Facility, Simulation Laboratory Missile HITL, TARIF/Combat Environment, TSSAM HITL, VHF

Anechoic Chamber, Warhead/Bomb Assembly/Integration Facilities, Weapon System Support Facility Complex, and the Weapons Survivability Lab.

NAWC PT MUGU listed $304M ($268 shared) including the F-14 Installed System Test Facility, Ready Missile Test Facility, Bistatic Radar Reflectivity Lab, Monostatic Radar Reflectivity Lab, Missile Hardware-in-the-loop Lab, and Special Projects Facilities.

NAWC INDY listed $72M ($70M shared) including the Avionics/Electronics Development Lab, Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) Facilities, and Material Lab.

NSWC DAHLGREN listed $309M ($268M shared) including the Potomac River Test Range, Explosive Environmental Area, and Electromagnetic Vulnerability Assessment Facility.

NSWC INDIAN HEAD listed $647M ($524M shared) including Energetics Material Research Laboratory, Weapons Product Development, NitramineGun/High Energy Propellant Facility, Chemicals Processing, Composite Propellant/PBX Processing, Extruded Energetics Products Facility, Ordnance Test and Evaluation Facility, and Chemical/Physical Characterization.

NSWC PT HUENEME listed $19M ($17M shared) including the Surface Warfare Engineering Facility

NSWC CRANE listed $62M ($47M shared) including the Electrochemical Power Systems Facility, Ordnance Environmental Test Facility, Missile Fuze Test Facility

Relocation Constraints/Restrictions (Fit Check): MRDEC has 3300 buildable acres and the ability to absorb 873 workyears. Ongoing MILCON projects for a Life Cycle Software Engineering Center and the Distributed Interactive Simulation facility will offer 146,000 square feet of additional space for expansion.

ASC EAFB and WL EAFB indicated limited capacity for expansion (ASC - no additional workyears, WL - no additional square footage).

NAWC CHINA LAKE has 6400 acres and 90,000 square feet available for expansion with the ability to absorb an additional 900 workyears.

NSWC DAHLGREN has ability to absorb up to 150 weapons testing workyears and 50 weapons development workyears with no investment and lists 175 acres available for expansion.

NAWC PT MUGU reported ability to absorb 360 additional workyears and 190 buildable acres.

Other: This CSF requires isolation and restricted airspace and target areas for developmental testing as well as classified system development. ASC includes "Range Systems" in this CSF, generally not included in these analyses. Similar systems capability exists at the NAWC CHINA LAKE/PT MUGU and the MRDEC facilities.

*** ADVISORY COMMENTS :**

Due to the unique nature of energetics and explosives work, some level of redundancy within DoD is highly desirable, both for surge capacity and for insurance against catastrophic accidents which can shut down capability at a given site. Care must be taken to preserve sufficient capacity in this area. The collocation of major test range facilities and capabilities and the T&E facilities and capabilities which were not part of the LJCSG analysis are major factors which need to be considered in the MILDEP analysis. The total effort needs to be considered in any analysis of consolidation. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPS should carefully assess the suggested alternative.

*** MILITARY VALUE ANALYSIS** : No changes to selective alternative

WEAPONS/CRUISE MISSILES

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NAWC CHINLK	ST	19.2	19.2	19.2	19.2	19.2	67
NSWC DAHLGR	ST	16.8	10.64	10.64	10.64	10.64	48
NAWC PAXRVR	ST	1.5	0	0	0	0	40
ASC WPAFB	ED	325	189.16	189.16	189.16	189.16	43
NSWC DAHLGR	ED	173.8	173.8	173.8	173.8	173.8	48
NAWC CHINLK	ED	98	98	98	98	98	67
NAWC PTMUGU	ED	12	0	0	0	0	36
NAWC PAXRVR	ED	10	0	0	0	0	40
NCCOSC RDTE	ED	8.7	0	0	0	0	36
NAWC INDY	ED	1.8	0	0	0	0	19
NAWC CHINLK	ISE	153.3	153.3	153.3	153.3	153.3	67
NSWC INDIAN HEAD	ISE	42.1	0	0	24.78	0	44
NAWC PT MUGU	ISE	25	2.28	2.28	0	2.28	36
NAWC PAXRVR	ISE	22.5	22.5	22.5	0	22.5	40
OC-ALC	ISE	1.4	0	0	0	0	14
NSWC CRANE	ISE	0.7	0	0	0	0	17

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – ST - Navy consolidates to two sites.

EMD - Air Force remains consolidated at ASC WPAFB. Navy consolidates to two sites.

ISE - Work consolidates to three Navy sites.

2 – Retain existing capabilities, low probability of infrastructure reduction.

3 – ST - Navy consolidates to reduced number of activities

EMD - Air Force remains consolidated in one location at ASC WPAFB. Navy consolidates to reduced number of activities.

ISE - Navy consolidates to reduced number of activities. Air Force remains consolidated in one location at OC-ALC.

4 – Air Force consolidate across life cycle at ASC WPAFB and Navy consolidate across lifecycle at two sites.

*** SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

*** ANALYSIS/RATIONALE:**

Mission Compatibility: Air Force and Navy are only participants in this common support function. Unique aspects and requirements of marine environment vice Air Force operational environment exist. Air Force presently consolidated at one location for all EMD with small level of effort in ISE at single location and no ST conducted. Navy EMD, ISE and ST performed at multiple activities.

Facilities and Equipment Compatibility: ASC WPAFB consists primarily of acquisition management facilities. Navy facilities are co-located with test and evaluation facilities.

Relocation Constraints/Restrictions: Navy work in this common support function benefits from co-location with development test flight functions at NAWC PTMUGU and NAWC CHINLK.

Other: None

*** ADVISORY COMMENTS** : Consolidating this common support function into one service is not expected to result in the closure of any activities due to other required work outside this common support function performed at these locations. Due to the unique nature of energetics and explosives work, some level of redundancy is highly desirable within DOD both for surge capacity and for insurance against catastrophic accidents which can shut down capability at a given site. Care must be taken to preserve sufficient capacity in this area. The collocation of major test range facilities and capabilities and the T&E facilities and capabilities which were not part of the LJCSG analysis are major factors which need to be considered in the MILDEP analysis. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative.

*** MILITARY VALUE ANALYSIS** : No changes to selective alternative

(NOTE: An error was made in the ISE listings, NSWC INDIAN HEAD was incorrectly listed as NAWC INDY in the 20 Oct 1993 unconstrained alternatives.)

GUIDED PROJECTILES

* **MODEL OUTPUT**

ACTIVITY	LC	FC	MINXCAP load	MINSITE load	MAXFV load	MINNMV load	FV
ARDEC_PICATINNY	ST	72.3	48.72	48.72	48.72	48.72	57
NAWC CHINA LK	ST	6.6	0	0	0	0	37
ARDEC_PICATINNY	EMD	125.5	125.5	125.5	125.5	125.5	57
NSWC DAHLGREN	EMD	7.7	7.7	7.7	7.7	7.7	43
ASC_EGLIN	EMD	118	37.68	37.68	37.68	37.68	40
ARDEC_PICATINNY	ISE	14.7	9.84	9.84	9.84	9.84	57
NAWC INDY	ISE	1	0	0	0	0	21

* **ALTERNATIVES:**

1 -- Retain current configuration in EMD, consolidate ISE and S&T at ARDEC

2 -- Retain capability at each activity in support of MILDEP unique missions

3 -- Single Service Consolidate all efforts within the ARMY at ARDEC

* **SELECTED ALTERNATIVES FOR MILDEP CONSIDERATION:**

Alternative 1.

* **ANALYSIS / RATIONALE:**

Mission Compatibility:

S&T- ARDEC which conducts or manages the R&D and life cycle engineering of armaments and munition systems and serves as "the national mobility base in times of emergency", has similar capability and similar efforts appear to be ongoing, including Sense and Destroy Armor (SADARM).

NAWC CHINA LAKE effort is principally in support of the Navy Fire Support Mission (mission analysis, weapon analysis, GPS, seeker guidance, gun hardening of components) and Rocket Assisted Projectiles (4 year effort culminating in gun launched rocket propulsion from an Advanced High Power Gun). Also efforts are listed in energetics and risk reduction technology development .

EMD - ASC EAFB lists Guidance Electronics Unit (GEU) efforts principally in support of JSOW and JDAM, joint programs with Navy and AF leads, respectively. Navy efforts in these programs were

reported under Conventional Missiles/Rockets and Bombs.

NSWC DAHLGREN efforts in this CSF align with and could be absorbed into their work in shipboard gun systems and 5 inch projectiles. Similar work is ongoing at ARDEC.

ISE - The 1 workyear of effort at NAWC INDY covers WALLEYE support equipment and AWW-13 production support, both of which could probably be absorbed in other NAVY Weapon ISE activities. ARDEC performs in-production and logistic support for assigned armaments and munitions.

Facilities and Equipment Compatibility: ARDEC possesses facilities and equipment, principally in support of their Guns and Ammunition work, which are equivalent or comparable to that at other activities reporting work in this CSF. Though there were no "Major" (>$10M) facilities and equipment listed, several upcoming facilities were noted. These include a new Weapons Development/Live Fire Testing Lab, and an Advanced Warhead Development Facility and Explosives Development Facility to be awarded for construction in Sep 94;

ASC EAFB listed no "major" facilities/equipment.

NSWC DAHLGREN listed $295M in "major" facilities/equipment (($275M shared) including the Potomac River Test Range, Explosive Environmental Area, and the Electromagnetic Vulnerability Assessment Facility.

NAWC CHINA LAKE listed $120M ($116M shared) including the Ordnance / Propulsion Pilot Plant, Ordnance/Propulsion support, and Sensor/Targeting Technology Facility.

NAWC INDY listed $72M ($70M shared) including the Avionics/Electronics Development Lab, Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) Facilities, and Material Lab.

Relocation Constraints/Restrictions (Fit Check): ARDEC lists no excess space available for expansion, but notes the ability to support 1264 additional workyears and 3070 buildable acres. ARDEC also maintains a required level terrain and restricted airspace for large caliber ballistic R&D testing. Similar capability exists at NAWC CHINA LAKE with the potential to absorb up to 900 additional workyears by 1997. The Potomac River Test Range should be made available for any unique overwater Navy testing.

NSWC DAHLGREN has ability to absorb up to 150 weapons testing workyears and 50 weapons development workyears with no investment and lists 175 acres available for expansion.

NAWC INDY noted that the reported CSF effort was less than 15% of the total workload. They reported the potential of adding up to 93,000 square feet of net floor area by constructing mezzanines in the main building complex, at a cost of $5.6M, which would allow an additional 500 workyears. They also reported 68 acres available for expansion.

ASC EAFB listed no"major" facilities/equipment and no capacity for additional workload.

Other: Though ARDEC reports a relative humidity greater than 20%, necessary to dissipate static electricity for safe propellant and manufacturing, it is assumed that other activities engaged in this type of work have adequate safety procedures in place.

*** ADVISORY COMMENTS:** ASC EAFB efforts listed under the GUIDED PROJECTILES CSF for the JDAM and JSOW programs could have been reported under BOMBS.

Due to the unique nature of energetics and explosives work, some level of redundancy within DoD is highly desirable, both for surge capacity and for insurance against catastrophic accidents which can shut down capability at a given site. Care must be taken to preserve sufficient capacity in this area. The collocation of major test range facilities and capabilities and the T&E facilities and capabilities which were

not part of the LJCSG analysis are major factors which need to be considered in the MILDEP analysis. The total effort needs to be considered in any analysis of consolidation. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPS should carefully assess the suggested alternative.

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* **MILITARY VALUE ANALYSIS** : No changes to selective alternative

BOMBS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NAWC CHINA LK	ST	12.8	12.8	12.8	12.8	12.8	53
WL-EAFB	ST	563.1	309.6	309.6	309.6	309.6	45
NAWC CHINA LK	ED	64.9	64.9	64.9	64.9	64.9	53
NSWC IND HEAD	ED	1.7	0	0	1.7	0	46
ASC EAFB	ED	131	64.86	64.86	63.16	64.86	39
NAWC CHINA LK	ISE	101.8	101.8	101.8	101.8	101.8	53
NSWC IND HEAD	ISE	21.4	0	0	21.4	0	46
NAWC INDY	ISE	11.8	11.8	11.8	11.8	11.8	34
NAWC PT MUGU	ISE	105	41.2	41.2	19.8	41.2	29

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Consolidate EMD at one Navy and one Air Force Site and ISE at a reduced number of Navy sites. Retain current S&T configuration.

2 -- Retain current configuration, low probability of reduced infrastructure

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

ALTERNATIVE 1

* **ANALYSIS/RATIONALE:**

Mission Compatibility: Similar missions exists at NAWC CHINA LAKE and the combined WL and ASC EAFB activities:

WL EAFB is the single Air Force S&T technical base for conventional armaments (warheads, explosives, fuzes, weapon airframes, and target vulnerability/effectiveness).

ASC EAFB works in BOMBS EMD through weapon certification for flight (SEEK EAGLE), inertial guided bombs and cluster weapons, Joint Programs (ie. JDAM) along with weapon fuze and warhead development testing.

NAWC CHINA LAKE is the Navy center for S&T for air warfare systems, guided missiles, and aircraft weapon integration as well as weapon survivability/lethality, energetic materials, fuzes, RCS/IR signature measurement, optics, classified programs, and networking between Hardware-in-the-loop (HWIL) simulations and actual weapon system evaluation to develop target vulnerability/effectiveness, and prototype production for all Navy air weapon systems and joint programs such as JDAM.

NAWC PT MUGU is an integrated element of the Naval Western Test Range Complex which performs HWIL simulation, aircraft integration as well as ISE for assigned weapons (e.g. GP Bombs, Cluster Bombs).

NAWC INDY performs EMD on electronic components and BIT testing as well as acting as Cognizant Field Activity (CFA) for aircraft weapon racks and launchers.

NSWC INDIAN HEAD focuses on energetics including research, development, scale-up to

production and In-Service Engineering across a broad spectrum of weapon systems including Navy unique mines/mine clearance systems and torpedoes as well as the Tri-Service CADS/PADS/AEPS responsibility.

BOMB ISE work was only reported in the Navy.

Facilities and Equipment Compatibility: In general, similar facilities and capabilities exist at WL EAFB and NAWC CHINA LAKE with a somewhat different focus:

WL EAFB reported a major (>$10M) equipment/facility total value of $100M ($13M of which was shared with other functions) including a Radio Freq/MMW Facility, LADAR Development and Evaluation Research Facility, High Explosive R&D Facility, Kinetic Kill Vehicle HIL Simulation Facility, Hypervelocity Research Facility, and an Advance Warhead Experimentation Facility.

NAWC CHINA LAKE listed "major" equipment/facilities of $437M, ($405M shared) including an Ordnance and Pilot Production Plant, Engineering Prototype Facility, Environmental Test Facility, Fuze Development Lab, Ordnance stowage Facility, Propellants and Explosive Formulation Labs,Propulsion and Energy Conversion Research Facility, TARIF/Combat Environment, Warhead/Bomb Assembly/Integration Facilities, and Weapon System Support Facility Complex.

ASC EAFB lists no "major" equipment/facilities reporting only RDT&E Technical space being shared in three buildings.

NAWC PT MUGU reported $12.5M ($12.3M shared) comprised of the Ready Missile Test Facility, "...the only ordnance approved test facilities that allow the combined environments testing...".

NAWC INDY reported the vast majority of their facility utilization in the AVIONICS CSFs. Within the BOMBS CSF are listed "major" facilities/equipment of $71M ($70M shared) including the Avionics/Electronics Development Lab, CAD/CAM Facility and Material Lab.

NSWC INDIAN HEAD reported $302 ($299 shared) including the Energetics Material Research Laboratory, Weapons Product Development, and Composite Propellant/PBX Processing, each of which is shared 1% of the time for work on BOMBS.

While no specific listed facilities appear to be totally unique, except for specific weapon ISE support, each location seems to have certain focus areas. MILDEPS should carefully review the specific facility capabilities to ensure compatibility and costs associated with moving or replicating facilities.

Relocation Constraints/Restrictions (Fit Check): ASC EAFB notes for expansion capability that the "Existing and Planned workload have existing facilities at capacity" and that the ability to absorb additional workload is "Not Applicable (without reduction in existing program and/or increase in office space)." They did however report 2605 acres available for expansion.

WL EAFB could absorb 200 workyears and listed 3533 acres available for expansion.

NAWC CHINA LAKE reported 92,000 square feet available, noting that there was actually "a much greater amount that could be utilized for lab space". They report that up to 900 workyears could be absorbed by 1997, 6400 buildable acres.

NAWC PT MUGU reported "no S&T expansion potential identified" as their BOMBS "efforts exist in T&E oriented spaces." There are, however, three ongoing MILCON projects which update current BOMBS facilities and 190 acres available on the main base. Additional acreage is available on San Nicolas Island.

NAWC INDY noted that the reported CSF effort was less than 15% of the total workload. They reported the potential of adding up to 93,000 square feet of net floor area by constructing mezzanines in the main building complex, at a cost of $5.6M, which would allow an additional 500 workyears. They also reported 68 acres available for expansion.

NSWC INDIAN HEAD reported ability to absorb an additional 300 workyears in energetics S&T, EMD and ISE, and 300-500 of low rate Energetics production with 828 available acres.

Other: None

* **ADVISORY COMMENTS** : ASC EAFB efforts listed under the GUIDED PROJECTILES CSF for the JDAM and JSOW programs could have been reported under BOMBS.

Due to the unique nature of energetics and explosives work, some level of redundancy within DoD is highly desirable, both for surge capacity and for insurance against catastrophic accidents which can shut down capability at a given site. Care must be taken to preserve sufficient capacity in this area. The collocation of major test range facilities and capabilities and the T&E facilities and capabilities which were not part of the LJCSG analysis are major factors which need to be considered in the MILDEP analysis. The total effort needs to be considered in any analysis of consolidation. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPS should carefully assess the suggested alternative.

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* **MILITARY VALUE ANALYSIS** : No changes to selective alternative

GUNS and AMMUNITION

* **MODEL OUTPUT**:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
NSWC IND HEAD	ST	3.6	0	0	3.6	0	63
ARDEC_PICATINNY	ST	629.5	629.5	629.5	627.04	629.5	60
NAWC CHINA LK	ST	2.1	0	1.14	0	1.14	44
NSWC DAHLGREN	ST	20.2	0	0	0	0	44
NSWC CRANE	ST	21.6	0	0	0	0	36
ARL_APG	ST	269	0	0	0	0	29
BENET	ST	69.7	0	0	0	0	27
WL-EAFB	ST	13	0	0	0	0	26
NSWC LOUISVILLE	ST	12	0	0	0	0	20
NSWC IND HEAD	ED	2.2	0	0	2.2	0	63
ARDEC_PIC	ED	863.5	852.8	852.8	850.6	852.8	60
NAWC CHINA LK	ED	10.6	0	0	0	0	44
NSWC DAHLGREN	ED	322.1	0	0	0	0	44
NSWC CRANE	ED	35	0	0	0	0	36
BENET	ED	153.4	0	0	0	0	27
ASC_EGLIN	ED	12	0	0	0	0	20
NSWC LOUISVILLE	ED	28	0	0	0	0	20
NSWC IND HEAD	ISE	35.2	0	0	35.2	0	63
ARDEC_PIC	ISE	2496.8	1716.72	1716.72	1681.52	1716.72	60
NAWC CHINA LK	ISE	17.2	0	0	0	0	44
NSWC DAHLGREN	ISE	16.5	0	0	0	0	44
NSWC CRANE	ISE	116.5	0	0	0	0	36
NAWC PT MUGU	ISE	43	0	0	0	0	32
BENET	ISE	167.4	0	0	0	0	27
NSWC LOUISVILLE	ISE	1.9	0	0	0	0	20

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Consolidate all EMD and ISE work at ARDEC; consolidate S&T work to ARDEC and one Navy site.

2 -- Consolidate all CSF work at ARDEC and two Navy sites.

3 -- Consolidate to two services with the majority of the work to ARDEC (maintain unique capability at BENET (large caliber tubes)), and the unique Ship work consolidated within the Navy.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 3.

* **ANALYSIS/RATIONALE:**

Mission Compatibility: The GUNS and AMMO CSF includes work on large caliber, artillery guns, small caliber weapon (eg. rifles), Ship Gun Systems, and Aircraft Gun Systems. These appear to be sufficiently unique to warrant analysis as separate capabilities.

ARDEC, PICATINNY hosts the majority of the armament and munitions "lab" work for the Army, with capability in artillery and small caliber weapons including the Advanced Field Artillery System (AFAS), Future Armored Resupply Vehicle (FARV) and other helicopter and vehicle programs such as the USMC Ltwt Armored Vehicle as well as the Soldier Enhancement Programs (SEP) for the USA and USMC. They do work in energetics, including explosives and pyrotechnics as well as stockpile survey programs.

BENET Labs, resident on WATERVLIET ARSENAL, is the National Mobility Base for Cannon Tubes, and may be unique in their production and development capability.

ARL-APG works in Electric Guns, liquid propellants, active/reactive armor, ballistics, and warhead development.

ASC EAFB cites work principally in BOMBS (sled/flight testing) with some small effort in aircraft gun systems.

WL EAFB also has a small effort which looks at the S&T portion of aircraft gun systems, listing weapons flight dynamics and advanced guidance.

NAWC CHINA LAKE is involved, at a fairly low level, in aircraft system integration, survivability/lethality, technical management of assigned systems and development of an Advanced Aircraft Gun and 25mm Advanced Multipurpose Ammunition as well as Gun System production support. NAWC PT MUGU is involved in ISE for aircraft gun systems.

NSWC INDIAN HEAD focuses on energetics including research, development, scale-up to production and In-Service Engineering across a broad spectrum of weapon systems (eg. 16 inch Naval Gun ammunition), Navy unique systems (eg. mines/mine clearance and torpedoes), Tri-Service CADS/PADS/AEPS responsibility, as well as the production of energetic specialty chemicals (eg. Army 105mm Nitromine gun propellant).

NSWC CRANE works in pyrotechnics and conventional Navy Gun and small arms Ammunition.

NSWC LOUISVILLE works in Navy Gun Systems, with organic depot capability, and development work in Advanced Gun Weapons systems, and Naval Surface Fire Support.

NSWC DAHLGREN is working principally in Navy Gun Ammunition, warheads and fuzes, providing system safety and configuration management.

Facilities and Equipment Compatibility: ARDEC listed $234M of "Major" (>$10M) facilities and equipment ($0 shared with other functions) including the Electric Armaments Research Center, Armament Technology Facility, Experimental Armament/Weapon Prototyping Facility, Energetics Laboratory, Propellant Experimental Facility, Environmental Experimental Facilities, Business Processing/Workplace Automation Facility, Combat Vehicle Diagnostic/Prognostic Laboratory, Energetic Experimentation R&D Facility, and Fabrication Facility.

Though BENET Lab lists no "essential" facilities for this CSF, it has approximately $20M of large caliber production and development equipment in addition to access to WATERVLIET facilities which needs to be considered in these analyses.

NAWC CHINA LAKE listed $300M ($288 shared), including the Engineering Prototype Facility, Environmental Test Complex, Optics and Laser Research Facility, Ordnance Stowage Facilities, Propellants and Explosive Formulation Labs, TARIF/ Combat Environment, and Weapon System Support Facility Complex.

NSWC INDIAN HEAD lists $432M ($409 shared) including the Energetics Material Research Laboratory, Weapons Product Development, Nitramine Gun and High Energy Propellant Facility, Chemicals Processing, Ordnance Test and Evaluation Facility, and Chemical/Physical Characterization.

NSWC DAHLGREN lists $295M ($79M shared) including the Potomac River Test Range, Explosive Environmental Area, and Electromagnetic Vulnerability Assessment Facility.

NSWC CRANE listed $25 M ($8M shared) including Ballistic Test Facility (Indoor/Outdoor Range)

ASC EAFB, WL EAFB, ARL APG, and NSWC LOUISVILLE listed no"major" facilities/equipment.

Relocation Constraints/Restrictions (Fit Check): ARDEC lists 366,900 square feet as excess, available for expansion, with ability to support 1264 additional workyears and 3070 buildable acres.

BENET LAB listed 3.5 buildable acres and did not list any capability to absorb additional workyears.

ARL-APG listed 1150 buildable acres and the capability to absorb 100-150 additional workyears.

ASC EAFB notes for expansion capability that the "Existing and Planned workload have existing facilities at capacity" and that the ability to absorb additional workload is "Not Applicable (without reduction in existing program and/or increase in office space)." They did however report 2605 acres available for expansion.

WL EAFB could absorb 200 workyears and listed 3533 acres available for expansion.

NSWC INDIAN HEAD reported ability to absorb an additional 300 workyears in energetics S&T, EMD and ISE, and 300-500 of low rate Energetics production with 828 available acres.

NSWC CRANE lists capacity to absorb 9 additional workyears.

NSWC LOUISVILLE listed capacity for 20 additional workyears and 64 buildable acres.

NSWC DAHLGREN has ability to absorb up to 150 weapons testing workyears and 50 weapons development workyears with no investment and lists 175 acres available for expansion.

NAWC CHINA LAKE reported 92,000 square feet available, noting that there was actually "a much greater amount that could be utilized for lab space". They report that up to 900 workyears could be absorbed by 1997 and 6400 buildable acres.

Unique Shipboard Gun System and integrated system development and testing (ie accurate tracking without onboard telemetry on the Potomac River Test Range and access to the AEGIS Training Facility) must be reviewed for relocation/replication. Tactical Aircraft gun system development requires test range and airspace as well as aircraft system capability for integration.

Other: ARDEC had a high Functional Value (FV) and the largest capacity, making it the principle receiver site for the majority of this CSF workload. It is located near a large academic concentration, with 111 four year and 50 two year colleges and universities within 50 miles. NSWC DAHLGREN has the largest share of Ship Gun Systems work and the third highest FV.

*** ADVISORY COMMENTS :**

Due to the unique nature of energetics and explosives work, some level of redundancy within DoD is highly desirable, both for surge capacity and for insurance against catastrophic accidents which can shut down capability at a given site. Care must be taken to preserve sufficient capacity in this area. The collocation of major test range facilities and capabilities and the T&E facilities and capabilities which were not part of the LJCSG analysis are major factors which need to be considered in the MILDEP analysis. The total effort needs to be considered in any analysis of consolidation. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPS should carefully assess the suggested alternative.

*** MILITARY VALUE ANALYSIS** : No changes to selective alternative

DIRECTED ENERGY WEAPONS

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
Phillips - Kirtland	ST	1164	827.78	827.78	827.78	827.78	3.7
ARL - Adelphi	ST	45	0	0	0	0	2.3
China Lake	ST	5.5	5.5	5.5	5.5	5.5	4.5
Phillips - Kirtland	ED	14	11.2	11.2	11.2	11.2	3.7

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Collocate S&T work at Phillips-Kirtland and China Lake. No Change to ED.
2 -- Leave all MILDEP work as is.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

* **ANALYSIS/RATIONALE:**

Mission Compatibility: Specific details of the technology and application of high power microwave and directed energy phenomena to offensive and defensive weapon systems and strategic and tactical implementation is classified. Project Reliance coordination among the MILDEPs has eliminated duplication and maximized the sharing of information among the three activities. ARL - Adelphi is the only facility within the national high power microwave program to test ground based systems. Workyears at China Lake are insignificant in size when compared to the total program at China Lake and across this CSF.

Facilities and Equipment Compatibility: Special capabilities reside at each site.

Relocation Constraints/Restrictions (Fit Check): Cost of relocation of both equipment and personnel must be carefully compared with expected efficiencies to be gained from collocation. There does not appear to be a total "showstopper" for relocating ARL - Adelphi workyears.

Other: None

* **ADVISORY COMMENTS :** All Army directed energy weapon ST workyears are focused at ARL-Adelphi. Nine separate activities provide customer funds to ARL-Adelphi to perform, manage and coordinate high power microwave and directed energy work for application to Army defense systems. Collocating a portion of ARL-Adelphi will not necessarily reduce significantly the interface and integration technology work required. Classified nature of the MILDEP work in this CSF makes detailed analysis impossible in this unclassified environment.
Because this CSF has relatively new technology and applications, potential future requirements may expand as concepts are proven to be cost effective and necessary for future systems. Emphasis on coordination through the Reliance process must be emphasized to insure an efficient DOD structure for this CSF. Due to the nature of the subfunctions and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative.

MV ANALYSIS: No change to the selected alternative.

SPACE - Launch Vehicles

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
Phillips - EDW	ST	623.5	221.12	221.12	221.12	221.12	46
SMC-LAAFB	ED	822	538.4	538.4	538.4	538.4	44
China Lake	ISE	3.3	2	2	2	2	31

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Leave existing activities in place.
2 -- Leave China Lake work as is. Consolidate/collocate Air Force activities within Air Force if economically feasible.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1.

* **ANALYSIS/RATIONALE:**

Mission Compatibility: Different life cycle phases for the same CSF. Collocation could provide additional synergy from integrated/concurrent engineering teams in ST and ED.
Facilities and Equipment Compatibility: Phillips-EDW appears to have more acreage for test and evaluation of rocket motors and propellants which could not be relocated to SMC-LAAFB.
Relocation Constraints/Restrictions (Fit Check): SMC-LAAFB does not have need for special permits or licenses which would be required to operate in another location. Phillips-EDW has shown a number of licenses which could be a constraint in another location.
Other: China Lake workyears are insignificant for this CSF.

* **ADVISORY COMMENTS** : Current close proximity between Phillips-EDW and SMC-LAAFB requires an analysis of relocating the two activities onto one installation. Future downsizing may increase the available space at both activities. The decision should be based upon the economics of relocation, appropriate office and lab space and efficiency gained which can be translated into reduced workyears. No readily apparent consolidations exist. Some opportunities may evolve from the review of Energetics at Phillips-EDW and China Lake.

MV ANALYSIS: No change to the selected alternative.

SATELLITES

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
Phillips-KAFB	ST	550	438.7	438.7	425.9	438.7	27
Phillips-Edwards	ST	125.8	0	0	0	0	18
NRL	ST	32.4	32.4	32.4	32.4	32.4	36
NCCOSC	ST	25.8	25.8	25.8	25.8	25.8	41
Crane	ST	12.8	0	0	12.8	0	32
China Lake	ST	2.2	2.2	2.2	2.2	2.2	49
Dahlgren	ST	0.2	0.2	0.2	0.2	0.2	37
SMC-LAAFB	ED	2765	2262.56	2262.56	2262.56	2262.56	49
NRL	ED	396.1	0	0	0	0	36
NCCOSC	ED	168.5	0	0	0	0	41
Dahlgren	ED	7.2	0	0	0	0	37
NCCOSC	ISE	65.5	59.8	59.8	59.8	59.76	41
ALC-MCL	ISE	19	0	0	0	0	21
ALC-Peterson	ISE	7	0	0	0	0	25
Dahlgren	ISE	6.4	0	0	0	0	37

* ALTERNATIVES CONSIDERED BY THE LJCSG:

1 – Consolidate EMD work at SMC-LAAFB. Consolidate ISE work at NCCOSC. Leave all ST work as is except for Phillips-KAFB and Phillips-Edwards which should be consolidated. (Note: MINXCAP and MINSITE recommend Crane also be consolidated; MAXFV recommends Crane ST remain in place.)

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility: Crane work represent consolidated ST in batteries for this product CSF and should not be broken out from other battery work and expertise. ALC-Peterson ISE work have been collocated with U.S. Space Command to provide on-site system logistics and software support for space and warning systems and should remain as is.

Facilities and Equipment Compatibility: Facilities and equipment appear to be compatible for consolidation based upon economics of relocation for the ST and ED workyears.

Relocation Constraints/Restrictions (Fit Check): The nature of satellite laboratory requirements does not require much in the way of special characteristics which are difficult or very expensive to duplicate. In several cases, the activities have established partnerships with academia or private sector organizations which leverage resources for advancing technology.

Other: China Lake and Dahlgren ST levels of work are not significant in this CSF.

* **ADVISORY COMMENTS** : Collocation of NRL and NCCOSC to an Air Force installation for ED breaks some of the efficiency of having these technologies being developed in close proximity to S&T related fields such as electronic devices, and communications, command and control. However, it does take a step forward toward consolidating the three space related CSFs within one MILDEP. For all three life cycles, the Navy and Air Force should examine any cross-servicing opportunities as part of their consolidation efforts. Due to the nature of the subfunctions, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative.

MV ANALYSIS: No change to the selected alternatives.

The Analysis section for Facilities and Equipment Compatibility should read: The degree of facilities and equipment compatibility was not apparent or clearly exhibited in the data call responses for the S&T and ED locations. However, the relative levels of on-site technical/scientific work must be weighted heavily in the consideration of consolidation alternatives. This should be considered by the MILDEPs in their economic analyses.

SPACE - GROUND CONTROL SYSTEMS

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
SMC-LAAFB	ED	614.0	488.1	488.1	488.1	488.1	28
NRL	ED	68.4	0	0	0	0	23
ALC-Peterson	ISE	15.0	13.8	13.8	13.8	13.8	32

* ALTERNATIVES CONSIDERED BY THE LJCSG:

1 -- Collocate NRL work at SMC-LAAFB. Leave ISE work at Peterson AFB as is.
2 -- Leave all work at current locations.

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility: SMC-LAAFB shows only ED work for the CSFs requested through the data call. NRL shows a majority of its work as ST with some ED work reflecting an integrated engineering approach to system development. Neither organization shows ST work in GCS.

Facilities and Equipment Compatibility: Office space appears to be adequate for the ED work.

Relocation Constraints/Restrictions (Fit Check): None

Other: The ISE work at ALC-Peterson is collocated with U.S. Space Command to provide logistics and software support for space and warning systems. Relocation to another site seems inappropriate.

* ADVISORY COMMENTS : Collocation of GCS ED work may result in loss of some efficiencies among work years which tie together S&T and related technologies at NRL. This must be carefully weighed against future cost savings from efficiency gained in operations and overall reduction in program size.

MV ANALYSIS: No change to the selected alternative.

C4I AIRBORNE

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
RL GAFB	ST	1099.1	796.48	796.48	577.98	796.48	27
CERDEC MON	ST	295.7	295.7	295.7	295.7	295.7	42
CERDEC BELV	ST	289.1	0	0	0	0	18
RL HAFB	ST	218	0	0	218	0	34
NCCOSC RDTE	ST	69.9	69.9	69.9	69.9	69.9	28
NAWC CHINA LAKE	ST	11	0	0	0	0	26
NRL	ST	5.3	0	0	0	0	4
NSWC CRANE	ST	0.5	0	0	0.5	0	27
ESC HAFB	ED	3003.4	1913.54	1913.54	1913.56	1913.56	40
CERDEC MON	ED	316.6	316.6	316.6	316.6	316.6	42
CERDEC BELV	ED	105.2	0	0	0	0	18
NCCOSC RDTE	ED	99.2	0	0	0	0	28
NRL	ED	19.2	0	0	0	0	4
NAWC CHINA LAKE	ED	4.9	0.02	0.02	0	0	26
CERDEC MON	ISE	218.1	188.19	188.19	188.19	188.19	42
NAWC PAX	ISE	8	0	0	0	0	26
NRL	ISE	5.3	0	0	0	0	4
NAWC CHINA LAKE	ISE	3.8	0	0	0	0	26

* ALTERNATIVES:

1 – ST Air Force consolidates to one site, Army consolidates to one site and Navy consolidates to one site.

EMD Consolidate work into ESC HAFB and CERDEC MON.

ISE Consolidate work into CERDEC MON.

For both EMD and ISE, Air Force and Army sites with the necessary capability shall serve as consolidation/co-location receiver sites for Navy work.

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility - Based on the data available all of the missions are compatible except RL HAFB. RL HAFB seems to perform research at the piece part or component level whereas the others concentrate at the subsystem and system level.

Facilities and Equipment Compatibility - Facility investment appears to be compatible (in the ~$30M to $60M range except for CERDEC MON and RL GAFB which have $835M and $222M respectively). $500M of the CERDEC MON facilities is a Software Facility.

Relocation Constraints/Restrictions (Fit Check) - No constraints were identified.

Other - None

* ADVISORY COMMENTS :

The Air Force should consider consolidating work between RL HAFB and WL WPAFB in the ELECTRONIC DEVICES CSF.

Although CERDEC MON is anchored by the large facility investment software development can be accomplished remotely through networks so this should not preclude some movement of work where it makes sense.

The consolidation of CERDEC MON and CERDEC BELV was selected based on minimal mission descriptions that appear to be compatible. This needs more detailed MILDEP evaluation.

The three C4I CSFs are very closely related and should be analyzed as a whole. Indeed C4I is a broad area of technology and some activities are involved in other common and "non-common" efforts (e.g., Navy unique Afloat C4I) that should be considered as part of any analysis of the alternatives. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative. Additionally, ESC HANSCOM contains the AF C4I Acquisition Management function, which is comparable to that contained in the Army CECOM and Navy SPAWAR activities, neither of which were included in this analysis.

MV ANALYSIS: No change to the selected alternative.

C4I FIXED GROUND

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
CERDEC MON	ST	75.5	75.5	75.5	75.5	75.5	49
NCCOSC	ST	59.4	59.4	59.4	59.4	59.4	61
CERDEC BELV	ST	49	0	0	0	0	29
MISSILE RDEC	ST	19	1.9	1.9	1.9	1.9	37
NRL	ST	1.1	0	0	0	0	25
NCCOSC	ED	380.3	380.3	380.3	380.3	380.3	61
ESC HAFB	ED	186.9	0	0	0	0	27
MISSILE RDEC	ED	109	109	109	109	109	37
NAWC PTMUGU	ED	80	36.92	36.92	36.92	36.92	31
CERDEC MON	ED	77.6	77.6	77.6	77.6	77.6	49
NISE EAST	ED	39.3	39.3	39.3	39.3	39.3	40
NSWC DAHLGR	ED	16.5	0	0	0	0	29
NAWC PAX	ED	16	16	16	16	16	38
CERDEC BELV	ED	15.3	0	0	0	0	29
NISE WEST	ED	0.1	0	0	0	0	28
NISE EAST	ISE	688.5	688.5	688.5	688.5	688.5	40
NISE WEST	ISE	227.8	0	0	0	0	28
NAWC PAX	ISE	115	81.52	81.52	81.52	81.52	38
CERDEC MON	ISE	53.5	53.5	53.5	53.5	53.5	49
DET 25 SM-ALC	ISE	21	0	0	0	0	26
SM-ALC	ISE	8	0	0	0	0	23
MISSILE RDEC	ISE	1	0	0	0	0	37
NAWC INDY	ISE	0.6	0	0	0	0	29

* ALTERNATIVES:

1 -- ST Army consolidate to a maximum of two sites; Navy consolidate to one site.
EMD Army consolidates to a maximum of two sites; Navy consolidates to a maximum of four

sites; and Army and Navy sites with the necessary capability shall serve as co-location/consolidation receiving sites for Air Force work.

ISE Navy consolidates to a maximum of two sites; Army consolidates to one site; and Army and Navy sites with the necessary capability shall serve as co-location/consolidation receiving sites for Air Force work.

* SELECTED ALTERNATIVES FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility - The missions appear to be compatible with the differences being activities' FIXED GROUND systems communicate with different external systems such as Fleet, Space, Aircraft, or units in the field. The basic equipment design probably has considerable commonality.

Facilities and Equipment Compatibility - No major incompatibilities found.

Relocation Constraints/Restrictions (Fit Check) - No constraints were determined.

Other - Although several activities continue work in the EMD phase, this is because there are no one or two activities large enough to absorb all of the work. NCCOSC, MISSILE RDEC, NAWC PTMUGU, CERDEC MON, NISE EAST, and NAWC PAX all continue work and absorb the work from the other activities. In ISE, NISE EAST is large enough to absorb most of the ISE work. That work remaining is absorbed by NAWC PAX and CERDEC MON.

* ADVISORY COMMENTS :

The consolidation of CERDEC MON and CERDEC BELV was selected based on minimal mission descriptions that appear to be compatible. This needs more detailed MILDEP evaluation.

The three C4I CSFs are very closely related and should be analyzed as a whole. Indeed C4I is a broad area of technology and some activities are involved in other common and "non-common" efforts (e.g., Navy unique Afloat C4I) that should be considered as part of any analysis of the alternatives. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative. Additionally, ESC HANSCOM contains the AF C4I Acquisition Management function, which is comparable to that contained in the Army CECOM and Navy SPAWAR activities, neither of which were included in this analysis.

MV ANALYSIS: No change to the selected alternative.

C4I GROUND MOBILE

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
CERDEC MON	ST	350.2	348.8	348.8	348.8	348.8	70
CERDEC BELV	ST	155.3	0	0	0	0	35
TOPO ENGCTR	ST	22.1	0	0	0	0	35
NCCOSC	ST	19.3	0	0	0	0	50
CERDEC MON	ED	393.2	382.48	382.48	382.48	382.48	70
CERDEC BELV	ED	62.3	0	0	0	0	35
NAWC PTMUGU	ED	52	0	0	0	0	36
TOPO ENGCTR	ED	25.3	0	0	0	0	35
ESC HAFB	ED	21.4	0	0	0	0	27
NSWC CRANE	ED	15	0	0	0	0	39
NISE WEST	ED	0.4	0	0	0	0	23
CERDEC MON	ISE	273.6	248.72	248.72	248.72	248.72	70
NISE WEST	ISE	31.6	0	0	0	0	23
SM-ALC	ISE	30	0	0	0	0	17
NSWC CRANE	ISE	16.1	0	0	0	0	39
TOPO ENGCTR	ISE	11.1	0	0	0	0	35
NAWC PTMUGU	ISE	10	0	0	0	0	36
NAWC INDY	ISE	6.1	0	0	0	0	38
DET25 SM-ALC	ISE	4	0	0	0	0	27

* **ALTERNATIVES:**

1 -- ST Consolidate all work at CERDEC MON
EMD Consolidate all work at CERDEC MON
ISE Consolidate all work at CERDEC MON

For ST, EMD and ISE, the Army site with the necessary capability shall serve as the consolidation/co-location receiver site for the Air Force and Navy work.

* SELECTED ALTERNATIVES FOR MILDEP CONSIDERATION:

Alternative 1

* ANALYSIS/RATIONALE:

Mission Compatibility - The missions all seem to be compatible except, of course, the ground vehicles in which the C4I systems are installed will differ between services. Except for CERDEC BELV, the workloads are fairly small at the other activities so it is possible that no real infrastructure savings will be achieved by the services. Also TOPO ENGCTR mission is more topographically oriented than C4I electronics oriented. Additionally, if the other services ISE is collocated with their Depot work it may not be cost effective to separate the ISE work from the Depot work.

Facilities and Equipment Compatibility - Facilities appear to be compatible except for CERDEC MON which has the large facility investment that dominates all of the others.

Relocation Constraints/Restrictions (Fit Check) - None apparent.

Other- None

* ADVISORY COMMENTS :

The consolidation of CERDEC MON and CERDEC BELV was selected based on minimal mission descriptions that appear to be compatible. This needs more detailed MILDEP evaluation.

The three C4I CSFs are very closely related and should be analyzed as a whole. Indeed C4I is a broad area of technology and some activities are involved in other common and "non-common" efforts (e.g., Navy unique Afloat C4I) that should be considered as part of any analysis of the alternatives. Due to the nature of the subfunction, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative. Additionally, ESC HANSCOM contains the AF C4I Acquisition Management function, which is comparable to that contained in the Army CECOM and Navy SPAWAR activities, neither of which were included in this analysis.

MV ANALYSIS: No change to the selected alternative.

ELECTRONIC DEVICES

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
ARL-ADELPHI	ST	328	259.8	259.8	259.8	259.8	39
NRL	ST	237.7	237.7	237.7	237.7	237.7	50
WL WPAFB	ST	180.8	0	0	0	0	32
NCCOSC RDTE	ST	48.3	48.3	48.3	48.3	48.3	51
NSWC CRANE	ST	25.8	0	0	0	0	30
NAWC INDY	ST	25.2	0	0	0	0	34
NAWC CHINA LAKE	ST	23	23	23	23	23	47

* ALTERNATIVES CONSIDERED BY THE LJCSG:

1 -- Consolidate work into ARL-ADELPHI, NRL, NCCOSC RDTE, and NAWC CHINA LAKE.

2 -- Same as 1 above except do not consolidate the Navy activities (See ANALYSIS/RATIONALE)

3 -- Army remains consolidated at ARL ADELPHI
Navy consider within-service consolidation
Air Force consider consolidation of WL WPAFB with RL HAFB(See Avisory Comments)

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 1

* ANALYSIS/RATIONALE:

Mission Compatibility - ARL-ADELPHI, NRL, and WL WPAFB all conduct similar research, i.e. basic research on electronic devices, optical devices, and microwave devices.

-- some service unique specialization
-- tailored research for their users
-- some possible duplication

-No other fit check parameters influence alternative selection
-Smaller Labs (NCCOSC RDTE, NSWC CRANE, NAWC INDY, and NAWC CHINA LAKE) are small entities of larger units and appear to be more specialized to support their immediate parent organization mission. Physical separation may have an impact on their responsiveness.

Facilities and Equipment Compatibility- All three of the larger Labs have $30M to $60M invested in somewhat similar facilities and equipment.

Relocation Constraints/Restrictions (Fit Check) - None
Other - None

* ADVISORY COMMENTS :

As noted above smaller Labs (NCCOSC RDTE, NSWC CRANE, NAWC INDY, and NAWC CHINA LAKE) are small entities of larger units and appear to be more specialized to support their immediate parent organization mission. Physical separation may have an impact on their responsiveness.

The Air Force should consider consolidating WL WPAFB ELECTRONIC DEVICES with Rome Lab Hanscom which reported similar research under C4I AIRBORNE CSF.

MV ANALYSIS: No change to the selected alternative.

ENVIRONMENTAL SCIENCES

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
PL-HAFB	ST	556	556	556	556	556	48
NRL	ST	360	360	360	360	360	46
TOPENG	ST	314.5	0	0	0	124.46	32
CRREL	ST	174	124.46	124.46	124.46	0	34
ARL_WSANDS	ST	82	0	0	0	0	27
ARL_ADELPHI	ST	58	0	0	0	0	26
NCCOSC	ST	9.7	9.7	9.7	9.7	9.7	45

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- For all runs, work is consolidated at PL-HAFB, NRL, CRREL and NCCOSC RDTE.

2 -- Retain existing capabilities, low probability of infrastructure reduction

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1

* **ANALYSIS/RATIONALE:**

Mission Compatibility: The work conducted at PL-HAFB and NRL appears to be reasonably compatible. Review of the ST conducted at TOPO ENGCTR indicates this is only DOD activity concentrating on terrain data generation, analysis,visualization, etc. In a similar manner, CRREL is the only organization concentrating on the effects of cold weather on equipment, materials, systems, etc. Air Force work is consolidated at one activity while Army and Navy efforts in this common support function are conducted at multiple activities.

Facilities and Equipment Compatibility: Only the facilities and equipment at PL-HAFB and NRL appear to be compatible.

Relocation Constraints/Restrictions: NCCOSC RDTE requires uobstructed view of the ocean's horizon at typical shipboard heights in order to conduct ST in this common support function. CRREL requires a climate which provides at least 100 inches of snowfall annually and a freezing index of at least 1500 degree days. ARL - WSMR requires isolation for outdoor testing to conduct Environmental Sciences ST.

Other: No significant opportunities for cross-servicing. There are some potential opportunities for

relocating work to reduced number of activities within both the Army and Navy.

* **ADVISORY COMMENTS** : Air Force should remain consolidated in one location at PL-HAFB. Army and Navy should consider consolidating to a reduced number of activities; the Navy preferably to a single site. Due to the nature of the subfunctions, life cycles, and related missions performed within the activities, MILDEPs should carefully assess the suggested alternative.

MV Analysis: Alternative 1 should read: The Army should consolidate to one activity; the Navy to two activities; and the Air Force to one activity.

INFECTIOUS DISEASES

* **MODEL OUTPUT:**

Activity		Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WRAIR	INFECT	ST	395.3	395.3	395.3	395.3	395.3	61
NMRI, BETHESDA	INFECT	ST	107	21.74	21.74	21.74	21.74	31
RIID, FT DETRICK	INFECT	ST	29.9	0	0	0	0	30
NAV DENTAL INST	INFECT	ST	37	0	0	0	0	20

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Army consolidate infectious diseases at a single site
Navy consolidate infectious diseases at a single site

2 -- Retain existing capabilities, low probability of infrastructure reduction

3 -- Navy consolidate infectious diseases at a single site
Army remains at two sites

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

ALTERNATIVE 3

* **ANALYSIS/RATIONALE:**
Mission Compatibility

WALTER REED ARMY INSTITUTE OF RESEARCH "Conducts field surveys to identify threats to health and safety of soldiers in peace and war, conducts basic research that may have applicability to those threats, develops solutions (vaccines, drugs, doctrine) based on that science, and performs field tests of the newly-developed products. This work spans the full spectrum of military biomedicine, including all the medical Common Support Functions (Infectious Diseases, Human Systems, Combat Casualty Care, Combat Dentistry, Chemical-Biological Defense)."

NAVAL MEDICAL RESEARCH INSTITUTE "Conducts basic and applied research on the development of vaccines and other methods for the prevention, rapid diagnosis, and treatment of infectious diseases of military importance. Conducts basic and applied research on the epidemiology of infectious diseases and provides assessments of the potential effects of new emerging disease threats in the areas of military interest. Conducts basic and applied research on rapid, field-deployable methods for the identification and diagnosis of potential biological warfare agents."

ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES "Conducts research to develop strategies, products, information, procedures and training for medical defense against highly hazardous infectious diseases that require special laboratory containment for study...and for medical defense against biological warfare threats such as microbial agents and toxins." "USAMRIID is the only maximum biological containment facility within DoD and one of only three in the U.S."

NAVAL DENTAL RESEARCH INSTITUTE "Conducts research in dental and allied sciences relative to dental health of Navy and Marine Corps personnel, with special emphasis on the recruit. Provides continuing scientific competence through staff and consulting services to accomplish dental research relevant to the present and future mission of the Navy. Maintain a program of fundamental research in areas of military importance to develop skills and knowledge in anticipation of future Navy and Marine Corps dental problems."

Although the optimization model "zeroed out" USMRIID FT. DETRICK, it represents a critical capability with unique high cost facilities. This capability is likely to become more critical in the future.

***ADVISORY COMMENTS:**

The optimization model output continues NMRI Bethesda in infectious diseases because the DoD functional requirement is slightly greater than the functional capacity of Walter Reed Army Institute of Research. The Navy should further consider if its infectious disease work could be co-located/consolidated with the Army at Walter Reed.

MV ANALYSIS: No change to selected alternative

INFECTIOUS DISEASES

* **MODEL OUTPUT:**

Activity		Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WRAIR	INFECT	ST	395.3	395.3	395.3	395.3	395.3	61
NMRI, BETHESDA	INFECT	ST	107	0	21.74	21.74	0	31
RIID, FT DETRICK	INFECT	ST	29.9	21.74	0	0	21.74	30
NAV DENTAL INST	INFECT	ST	37	0	0	0	0	20

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- Army consolidate infectious diseases at a single site
Navy consolidate infectious diseases at a single site

2 -- Retain existing capabilities, low probability of infrastructure reduction

3 -- Navy consolidate infectious diseases at a single site
Army remains at two sites

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

ALTERNATIVE 3

* **ANALYSIS/RATIONALE:**
Mission Compatibility

WALTER REED ARMY INSTITUTE OF RESEARCH "Conducts field surveys to identify threats to health and safety of soldiers in peace and war, conducts basic research that may have applicability to those threats, develops solutions (vaccines, drugs, doctrine) based on that science, and performs field tests of the newly-developed products. This work spans the full spectrum of military biomedicine, including all the medical Common Support Functions (Infectious Diseases, Human Systems, Combat Casualty Care, Combat Dentistry, Chemical-Biological Defense)."

NAVAL MEDICAL RESEARCH INSTITUTE "Conducts basic and applied research on the development of vaccines and other methods for the prevention, rapid diagnosis, and treatment of infectious diseases of military importance. Conducts basic and applied research on the epidemiology of infectious diseases and provides assessments of the potential effects of new emerging disease threats in the areas of military interest. Conducts basic and applied research on rapid, field-deployable methods for the identification and diagnosis of potential biological warfare agents."

ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES "Conducts research to develop strategies, products, information, procedures and training for medical defense against highly hazardous infectious diseases that require special laboratory containment for study...and for medical defense against biological warfare threats such as microbial agents and toxins." "USAMRIID is the only maximum biological containment facility within DoD and one of only three in the U.S."

NAVAL DENTAL RESEARCH INSTITUTE "Conducts research in dental and allied sciences relative to dental health of Navy and Marine Corps personnel, with special emphasis on the recruit. Provides continuing scientific competence through staff and consulting services to accomplish dental research relevant to the present and future mission of the Navy. Maintain a program of fundamental research in areas of military importance to develop skills and knowledge in anticipation of future Navy and Marine Corps dental problems."

Although the optimization model only loaded USAMRIID FT. DETRICK in the MINXCAP case, it represents a critical capability with unique high cost facilities. This capability is likely to become more critical in the future.

***ADVISORY COMMENTS:**

The optimization model output continues NMRI Bethesda in infectious diseases because the DoD functional requirement is slightly greater than the functional capacity of Walter Reed Army Institute of Research. The Navy should further consider if its infectious disease work could be co-located/consolidated with the Army at Walter Reed.

MV ANALYSIS: No change to selected alternative

The optimization model output loaded USAMRIID FT. DETRICK in the MINNMV case, further supporting the previous analysis that the Army remain at two sites and the Navy cosolidate at one site.

* **ANALYSIS/RATIONALE:**
Mission Compatibility

Considerable duplication of capability exists across a heterogeneous mix of diverse human systems subfunctions requiring differing skill/knowledge bases and equipment/facilities. Sufficient information to determine specific workload distribution of these diverse subfunctions does not exist. The Military Departments need to determine the optimal dispersal of Human Systems subfunctions to consolidation receiving sites from the activities ceasing Human Systems functions.

Activity	Physiology in Extreme Environment	Human Performance	Toxicology	Non-Ionizing Radiation	Biodynamic	Human System Interface	Ionizing Radiation	Dentistry	Operational Medicine
WRAIR								x	x
ARM_BROOKS		x		x	x	x			
NAWC CHINA LK		x				x			
ARM_WPAFB		x	x		x	x			
ARL_APG		x				x			
NAMRC PCOLA		x			x				
NAWC PAX RVR					x	x			
USARIEM	x	x							
NPRDC, SAN DIEGO		x							
AFRRI							x		
NAV DENTAL INST								x	
NMRI, BETHESDA	x	x	x						x
USAARL, FT RUC		x			x				
NAV HEALTH RSCH		x							x
NAVY BIOLAB					x				
AVRDEC, MOFF					x	x			
AVRDEC, ST LOU						x			

* **Facilities and Equipment Compatibility**
GREATER THAN $10M ASSETS

ARMSTRONG LAB BROOKS AFB
- Human Rated Centrifuge $13.9M
- Altitude & Environmental Simulation Chambers $21.3M
- 20 Microwave Transmitters $28M

ARMSTRONG LAB WRIGHT-PAT AFB
- Dynamic Environment Simulator Centrifuge $22.2M

NAVAL AEROSPACE MEDICAL RESEARCH LAB PENSACOLA
- Corriolis Acceleration Platform $20M
- Human Disorientation Device $10M

ARMY RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK
Climatic Chamber Facility w/ temperature, rain and wind $50M

ARMED FORCES RADIOBIOLOGICAL RESEARCH INSTITUTE BETHESDA
TRIGA Reactor $16.2M
Human Systems Linear Electron Accelerator $14.7M

NAVAL MEDICAL RESEARCH INSTITUTE BETHESDA
Man-Rated Diving Chamber Complex $30M
Hemoglobin Production Facility $10M

ARMY AEROMEDICAL RESEARCH LAB FT. RUCKER
Helicopter Research Simulator $20M
Specially Instrumented Aircraft, 2 Rotary & 1 Fixed wing $25M
Man Rated Multi axis Ride Simulator $10M

ARMY AVIATION RESEARCH, DEVELOPMENT & ENGINEERING CENTER MOFFETT FIELD
Crew Station R&D Facility $34M
Helicopter Human Factors Research Facility $11M
Automation Sciences Research Facility $12M

*** Relocation Constraints/Restrictions (Fit Check):**

It appears the Climatic Chamber at the Army Research Institute of Environmental Medicine, Natick is unique amongst Activities performing Human Systems Research. However, it appears the Climatic Chamber may be moveable, as it appears it may be modular in construction. Another possible alternative would be to leave the facility intact under the installation host activity, USANRDEC, and have USANRDEC provide the necessary service to the Human Systems community. USANRDEC is already providing other climatic and research chamber support to USARIEM.

The Helicopter Research Simulator at Army Aeromedical Research Lab, Ft. Rucker appears to be easily relocateable. The specially instrumented aircraft appear to be flight worthy and could be flown to a new location. The Man-rated Multi-axis Ride Simulator also appears to be relocateable; however, similar capability exists at several other activities performing biodynamics.

The ability to relocate the equipment/facilities at Army Aviation Research, Development & Engineering Center, Moffett Field is not readily apparent. However, it does appear the Crew Station R&D Facility is comprised mainly of computer hardware and consoles. Further, based on the functions performed, similar capabilities probably exist elsewhere.

*** ADVISORY COMMENTS :**

The Armed Forces Radiobiological Research Institute, Bethesda has two major pieces of equipment. The Human Systems Linear Electron Accelerator $14M appears to be relocateable. The TRIGA Reactor $16.2M appears to be a different problem. With significantly declining workload, the real need for a reactor should be reviewed and a determination made as to whether it could be deactivated in place.

MV ANALYSIS: No change to selected alternative

MANPOWER & PERSONNEL

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
USARIEM	ST	27	0	0	27	0	45
NPRDC, SAN DIEGO	ST	79.5	0	79.5	79.5	79.5	42
USARI, ALEXANDRIA	ST	101.6	101.6	101.6	101.6	101.6	38
ARM_BROOKS	ST	127.4	127.4	59.46	32.46	59.46	34
NAMRC PCOLA	ST	6.9	6.9	0	0	0	24
NMRI, BETHESDA	ST	9.4	4.66	0	0	0	21
USAARL, FT RUC	ST	38.9	0	0	0	0	19

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – Army consolidate at 1 site

Navy consolidate at 1 site

Air Force consolidate at 1 site

2 – Retain existing capabilities, low probability of infrastructure reduction

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 1

* **ANALYSIS/RATIONALE:**

Mission Compatibility: All Activities with the exception of Naval Medical Research Institute, Bethesda are basically involved in manpower assessment, selection, and criteria. The Naval Medical Research Institute, Bethesda is basically involved in Human Performance.

Facilities and Equipment Compatibility: No incompatibilities noted

Relocation Constraints/Restrictions (Fit Check): None

Other: None

* **ADVISORY COMMENTS** :

There is considerable inter-relationships between the Manpower & Personnel, Training Systems, and Human Systems Common Support Functions (CSFs), with differentiation often very subjective, at best. Many of the activities total work is confined to only these CSFs and they have reported performance of work in more than one of these CSFs. Analysis must involve considerations across all of these CSFs. The Training Systems CSF has already undergone significant Cross-Service consolidation/co-location. The decrease in out year requirements necessitates further consolidation to reduce unwarranted infrastructure. The Navy should consider combining its Manpower & Personnel work with Training Systems at NAWC Orlando. Similarly, The Army should consider combining its Manpower & Personnel workload with its Training Systems work at STRICOM Orlando.

MV ANALYSIS: No change to selected alternative

HUMAN SYSTEMS/MANPOWER & PERSONNEL

* **MODEL OUTPUT:**

Activity		Life Cycle	Functional Capacity	MAXFV Load	MINSITE Load	MINXCAP Load	MINNMV Load	FV
AERODYN-MOFFET	HUM-PERS	ST	30	0	0	30	0	24
USAARL FT RUCKER	HUM-PERS	ST	186	0	0	186	186	28
AFRRI	HUM-PERS	ST	297	297	297	297	297	29
ARDEC-ST LOUIS	HUM-PERS	ST	5.4	0	0.027	2.7	0	24
ARL-APG	HUM-PERS	ST	222	222	222	0	222	36
ARM-BROOKS	HUM-PERS	ST	815.7	815.7	815.7	815.7	815.7	39
ARM-WPAFB	HUM-PERS	ST	518	518	518	518	518	36
NAVBIOLAB	HUM-PERS	ST	22.5	0	0	22.5	0	26
NAWC CHINA LAKE	HUM-PERS	ST	3.5	3.5	3.5	3.5	3.5	40
NAMRC PENSACOLA	HUM-PERS	ST	49.5	49.5	0	0	0	38
NDRI GREAT LAKES	HUM-PERS	ST	37	0	0	0	0	28
NHRC SAN DIEGO	HUM-PERS	ST	122	0	0	122	0	26
NMRI BETHESDA	HUM-PERS	ST	253.8	0	253.8	0	0	28
NPRDC SAN DIEGO	HUM-PERS	ST	81.5	81.5	0	81.5	81.5	30
NAWC PAX RIVER	HUM-PERS	ST	27.8	27.8	27.8	27.8	27.8	32
USARI ALEXANDRIA	HUM-PERS	ST	101.6	39.3	70.473	101.6	56.8	28
RIEM NATICK	HUM-PERS	ST	154	154	0	0	0	32
WRAIR WASH DC	HUM-PERS	ST	97.7	97.7	97.7	97.7	97.7	45

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – **The Armed Forces Radiobiological Research Institute, Bethesda (AFFRI) continues Human Systems/Manpower & Personnel functions and serves as a co-location/consolidation receiving site for Army and Navy Human Systems/Manpower & Personnel subfunctions for which AFFRI has the capability that the Army or Navy does not have at their receiving sites.**

Army consolidates Human Systems/Manpower & Personnel functions to a maximum of 4 sites. Human Systems/Manpower & Personnel subfunctions being consolidated that require capability that doesn't exist at Army receiving sites, should be co-located/consolidated in the Navy, Air Force or AFFRI when that capability exists, in lieu of establishing new capabilities at the Army receiving sites.

Navy consolidates Human Systems/Manpower & Personnel functions to a maximum of 4 sites. Human Systems/Manpower & Personnel subfunctions being consolidated that require capability that doesn't exist at Navy receiving sites, should be co-located/consolidated in the Army, Air Force or AFRRI when that capability exists, in lieu of establishing new capabilities at the Navy receiving sites.

Air Force continues Human Systems/Manpower & Personnel functions at a maximum of 2 sites and serves as co-location/consolidation receiving sites for Army and Navy Human Systems/Manpower & Personnel subfunctions for which the Air Force has the capability that the Army or Navy does not have at their consolidation receiving sites.

2 -- Retain existing capabilities, low probability of infrastructure reduction.

3 -- Alternative 1 except the Armed Forces Radiobiological Research Institute, Bethesda does not serve as a receiving site for additional Human Systems/Manpower & Personnel subfunctions. Although AFRRI has a capacity of 297 workyears and the optimization model fully loads them, relocating additional Human Systems/Manpower & Personnel subfunctions to AFRRI is not practical. AFRRI specializes solely in Ionizing Radiation research and is the only activity engaged in Ionizing Radiation research. To establish other Human Systems/Manpower & Personnel subfunctions capability at AFRRI is not practical when there is already more capacity than required in the balance of the infrastructure.

Additionally, AFFRI's workload shows a significant steady decline, with only 79 workyears programmed in FY97. The continued need for Ionizing Radiation research needs to be carefully considered as well as other alternatives for accomplishing the research, in lieu of maintaining capability and capacity at AFFRI.

* SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:

Alternative 3

* ANALYSIS/RATIONALE:
Mission Compatibility

Considerable duplication of capability exists across a heterogeneous mix of diverse Human Systems/Manpower & Personnel subfunctions requiring differing skill/knowledge bases and equipment/facilities. Sufficient information to determine specific workload distribution of these diverse subfunctions does not exist. The Military Departments need to determine the optimal dispersal of Human Systems/Manpower & Personnel subfunctions to consolidation receiving sites from the activities ceasing Human Systems/Manpower & Personnel functions.

Activity	Physiology in Extreme Environment	Human Performance	Toxicology	Non-Ionizing Radiation	Biodynamic	Human System Interface	Ionizing Radiation	Dentistry	Operational Medicine	Manpower Assessment, Selection & Classification
WRAIR								X	X	
ARM_BROOKS		X		X	X	X				X
NAWC CHINA LK		X				X				
ARM_WPAFB		X	X		X	X				
ARL_APG		X				X				
NAMRL PCOLA		X			X					X
NAWC PAX RVR					X	X				
USARIEM	X	X								X
NPRDC, SAN DIEGO		X								X
AFRRI							X			
NAV DENTAL INST								X		
NMRI, BETHESDA	X	X	X						X	
USAARL, FT RUC		X			X					X
NAV HEALTH RSCH		X							X	
NAVY BIOLAB					X					
AVRDEC, MOFF					X	X				
AVRDEC, ST LOU						X				
USARI ALEX. VA										X

Although the Optimization Model only loads the Naval Medical Research Institute in the MINSITE case, it is recommended that it continue Human Systems/Manpower & Personnel functions. It is one of two activities currently performing the Physiology in Extreme Environment Subfunction, the other being the Army Research Institute of Environmental Medicine, Natick which the Optimization Model does not load. Under the Infectious Diseases CSF, the Naval Medical Research Institute remains loaded.

* Facilities and Equipment Compatibility
GREATER THAN $10M ASSETS

ARMSTRONG LAB BROOKS AFB
Human Rated Centrifuge $13.9M
Altitude & Environmental Simulation Chambers $21.3M
20 Microwave Transmitters $28M

ARMSTRONG LAB WRIGHT-PAT AFB
Dynamic Environment Simulator Centrifuge $22.2M

NAVAL AEROSPACE MEDICAL RESEARCH LAB PENSACOLA
Corriolis Acceleration Platform $20M
Human Disorientation Device $10M

ARMY RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE NATICK
Climatic Chamber Facility w/ temperature, rain and wind $50M

ARMED FORCES RADIOBIOLOGICAL RESEARCH INSTITUTE BETHESDA
TRIGA Reactor $16.2M
Human Systems Linear Electron Accelerator $14.7M

NAVAL MEDICAL RESEARCH INSTITUTE BETHESDA
Man-Rated Diving Chamber Complex $30M
Hemoglobin Production Facility $10M

ARMY AEROMEDICAL RESEARCH LAB FT. RUCKER
Helicopter Research Simulator $20M
Specially Instrumented Aircraft, 2 Rotary & 1 Fixed wing $25M
Man Rated Multi axis Ride Simulator $10M

ARMY AVIATION RESEARCH, DEVELOPMENT & ENGINEERING CENTER MOFFETT FIELD
Crew Station R&D Facility $34M
Helicopter Human Factors Research Facility $11M
Automation Sciences Research Facility $12M

ARMY RESEARCH INSTITUTE ALEXANDRIA VA
Rotary Wing Flight Simulator $27.8M

*** Relocation Constraints/Restrictions (Fit Check)**

It appears the Climatic Chamber at the Army Research Institute of Environmental Medicine, Natick is unique amongst Activities performing Human Systems Research. However, it appears the Climatic Chamber may be moveable, as it appears it may be modular in construction. Another possible alternative would be to leave the facility intact under the installation host activity, USANRDEC, and have USANRDEC provide the necessary service to the Human Systems community. USANRDEC is already providing other climatic and research chamber support to USARIEM.

The Helicopter Research Simulator at Army Aeromedical Research Lab, Ft. Rucker appears to be easily relocateable. The specially instrumented aircraft appear to be flight worthy and could be flown to a new location. The Man-rated Multi-axis Ride Simulator also appears to be relocateable; however, similar capability exists at several other activities performing biodynamics.

The ability to relocate the equipment/facilities at Army Aviation Research, Development & Engineering Center, Moffett Field is not readily apparent. However, it does appear the Crew Station R&D Facility is comprised mainly of computer hardware and consoles. Further, based on the functions performed, similar capabilities probably exist elsewhere.

*** ADVISORY COMMENTS :**

The Armed Forces Radiobiological Research Institute, Bethesda has two major pieces of equipment. The Human Systems Linear Electron Accelerator $14M appears to be relocateable. The TRIGA Reactor $16.2M appears to be a different problem. With significantly declining workload, the real need for a reactor should be reviewed and a determination made as to whether it could be deactivated in place.

MV ANALYSIS: No Change to selected alternative

TRAINING SYSTEMS

* **MODEL OUTPUT:**

Activity		Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
U S A R I , ALEXANDRIA	TRAIN	ST	157.3	157.3	157.3	157.3	157.3	54
ARM_WMS	TRAIN	ST	168	168	168	143.48	0	41
NPRDC, SAN DIEGO	TRAIN	ST	122.1	0	97.5775	122.1	122.1	41
NAWC ORLANDO	TRAIN	ST	125.4	0	0	0	125.4	39
ARM_BROOKS	TRAIN	ST	96.3	96.3	0	0	18.0775	37
STRICOM	TRAIN	ST	8	1.2775	0	0	0	24
NAWC CHINA LK	TRAIN	ST	0.5	0.0025	0.0025	0	0.0025	23

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 -- At a minimum:
Army consolidate Training Systems S&T work at a single site
Navy consolidate Training Systems S&T work at a single site
Air Force consolidate Training Systems S&T work at a single site

2 -- Retain existing capabilities, low probability of infrastructure reduction

3 -- Army, Navy, and Air Force co-locate all Training Systems S&T work at Orlando,FL.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 3

* **ANALYSIS/RATIONALE:**

Mission Compatibility: No major anomalies noted

Facilities and Equipment Compatibility: No major anomalies noted

Relocation Constraints/Restrictions (Fit Check): None

Other: It should be noted that although the optimization model "zeroed out" NAWC Training Systems Division Orlando, and STRICOM Orlando, this was impacted by not including Engineering Development work in pervasive Common Support Functions. NAWC Orlando performed 936 workyears of training systems work in FY 1993, the majority of which was uncounted. Under Agreement on Armed Services Training and Personnel Systems Science and Technology Evaluation and Management (TAPSTEM) Committee signed November 1990, the NAWC Orlando mission is to be the principal Navy center for research and development, test and evaluation, acquisition and product support of training

systems; to provide interservice coordination and training systems support for the Army and Air Force; and to perform such other functions and tasks as directed by higher authority.

Additionally, STRICOM is collocated with NAWC Orlando, being a tenant of NAWC Orlando. STRICOM performed 229 workyears of Training Systems work in FY1993, the majority of which was uncounted. The Air Force Aircrew Training Research Division of Armstrong Lab at Williams AFB is already planned for relocation to the Central Florida Research Park in Orlando to join NAWC Orlando and STRICOM. Further, the colocation of NASA-KSC and approximately 150 contractors in the Center of Excellence in Central Florida allows concentration of resources to accomplish similar missions and tasks, avoids duplication of efforts, promotes technology sharing and produces cost avoidances in travel and technical synergism between government/ industry/ academia.

* **ADVISORY COMMENTS:** Subfunctions being consolidated that require capability that doesn't exist at a MILDEPs receiving sites, should be considered for consolidation in another MILDEP when that capability exists, in lieu of establishing new capabilities at the receiving sites.

MV ANALYSIS: No change to selected alternative

The optimization model output for the MINNMV case does load Armstrong Lab - Brooks AFB 18.0775 workyears out of its total capacity of 96.3 and does not load any workyears into Armstrong Lab - Williams AFB. This is not considered a significant enough change to warrant a change to the selected alternative.

TRAINING SYSTEMS

* **MODEL OUTPUT:**

Activity		Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
U S A R I , ALEXANDRIA	TRAIN	ST	157.3	157.3	157.3	157.3	157.3	54
ARM_WMS	TRAIN	ST	168	0	168	142.813	0	41
NPRDC, SAN DIEGO	TRAIN	ST	122.1	122.1	0	122.1	122.1	41
NAWC ORLANDO	TRAIN	ST	125.4	125.4	97.54	0.627	125.4	39
ARM_BROOKS	TRAIN	ST	96.3	18.04	0	0	18.04	37
STRICOM	TRAIN	ST	8	0.04	0.04	0.04	0.04	24
NAWC CHINA LK	TRAIN	ST	0.5	0	0	0	0	23

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – At a minimum:
Army consolidate Training Systems S&T work at a single site
Navy consolidate Training Systems S&T work at two sites
Air Force consolidate Training Systems S&T work at a single site

2 – Retain existing capabilities, low probability of infrastructure reduction

3 – Army, Navy, and Air Force co-locate all Training Systems S&T work at Orlando, FL.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 3

* **ANALYSIS/RATIONALE:**

Mission Compatibility: No major anomalies noted

Facilities and Equipment Compatibility: No major anomalies noted

Relocation Constraints/Restrictions (Fit Check): None

Other: It should be noted that NAWC Training Systems Division Orlando performed 936 workyears of training systems work in FY 1993, the majority of which was uncounted because Engineering Development work is not counted in pervasive CSFs. Under Agreement on Armed Services Training and Personnel Systems Science and Technology Evaluation and Management (TAPSTEM) Committee signed November 1990, the NAWC Orlando mission is to be the principal Navy center for research and development, test and evaluation, acquisition and product support of training systems; to provide interservice coordination and training systems support for the Army and Air Force; and to perform such other functions and tasks as directed by higher authority.

Additionally, STRICOM is collocated with NAWC Orlando, being a tenant of NAWC Orlando. STRICOM performed 229 workyears of Training Systems work in FY 1993, the majority of which was uncounted. The Air Force Aircrew Training Research Division of Armstrong Lab at Williams AFB is already planned for relocation to the Central Florida Research Park in Orlando to join NAWC Orlando and STRICOM. Further, the collocation of NASA-KSC and approximately 150 contractors in the Center of Excellence in Central Florida allows concentration of resources to accomplish similar missions and tasks, avoids duplication of efforts, promotes technology sharing and produces cost avoidances in travel and technical synergism between government/ industry/ academia.

* **ADVISORY COMMENTS:** Subfunctions being consolidated that require capability that doesn't exist at a MILDEPs receiving sites, should be considered for consolidation in another MILDEP when that capability exists, in lieu of establishing new capabilities at the receiving sites.

MV ANALYSIS: No change to selected alternative

The optimization model output for the MINNMV case does load Armstrong Lab - Brooks AFB 18.04 workyears out of its total capacity of 96.3 and does not load any workyears into Armstrong Lab - Williams AFB. This is not considered a significant enough change to warrant a change to the selected alternative.

ENVIRONMENTAL QUALITY

* **MODEL OUTPUT:**

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINSITE Load	FV
WES VICKSBURG	ST	454.2	454.2	454.2	454.2	454.2	52
CERL	ST	321	0	97.04	16.04	194.04	27
CRREL	ST	97	97	97	97	0	31
AL TAFB	ST	81	81	0	81	0	29
NRL	ST	71.9	71.9	71.9	71.9	71.9	43
NCCOSC	ST	15	15	15	15	15	42
ARDEC PICATINNY	ST	11.3	9.74	0	0	0	26
NAWC CHINA LK	ST	8.3	8.3	8.3	8.3	8.3	35
NSWC, ANNAPOLIS	ST	6.3	6.3	0	0	0	26

* **ALTERNATIVES CONSIDERED BY THE LJCSG:**

1 – For MINXCAP, work at CERL is stopped and all other activities are unchanged with the exception of ARDEC which maintains a slightly reduced workload.
For MINSITE, AL-TAFB, ARDEC and NSWC-Annapolis cease work completely, CERL is significantly reduced, and all other activites remain at full capacity.
For MAXFV, all activities remain fully loaded with the exceptions of ARDEC and NSWC-Annapolis which stop all work in this common support function.

2 – Retain existing capabilities, low probability of infrastructure reduction.

3 – Air Force remains consolidated at AL-TAFB. Army and Navy relocate to reduced number of activities.

* **SELECTED ALTERNATIVE FOR MILDEP CONSIDERATION:**

Alternative 3

* **ANALYSIS/RATIONALE:**

Mission Compatibility: The work at all activities appears to be compatible. CRREL is the only activity concentrating on cold weather unique aspects of Environmental Quality ST. Air Force efforts in this common support function are consolidated at a single location while Army and Navy efforts are conducted at multiple activities.

Facilities and Equipment Compatibility: Facilities and equipment appear to be compatible.

Relocation Constraints/Restrictions: CRREL requires a climate which provides at least 100 inches of snowfall annually and a freezing index of at least 1500 degree days. NCCOSC RDTE requires close proximity to a marine environment as a resource and test bed, and AL/TAFB needs a certain type of subsurface soil geology to conduct environmental qualiity ST.

Other: None

*** ADVISORY COMMENTS :**

If the Air Force decides to close Tyndall AFB based upon considerations other than work in this common support function and: (1) elects to divest from this technical area, then work should be consolidated at an Army location, or (2) decides to retain the environmental quality function, then the work should be relocated to AL-BAFB because of the occupational/ environmental health work and Air Force Center for Environmental Excellence (AFCEE) already located there.

*** MILITARY VALUE ANALYSIS :** No changes to selective alternative

ADVANCED MATERIALS

* MODEL OUTPUT:

Activity	Life Cycle	Functional Capacity	MINXCAP Load	MINSITE Load	MAXFV Load	MINNMV Load	FV
WL-WPAFB	ST	721.0	440.4	440.4	440.4	440.4	46
NRL	ST	376.3	376.3	376.3	376.3	376.3	54
CHINA LAKE	ST	21.9	21.9	21.9	21.9	21.9	62
ASC,MOD CTR-WPAFB	ST	20.3	0	0	0	0	30
NCCOSC	ST	14.0	0	0	0	0	41
NAWC, PAX	ST	13.2	0	0	0	0	38
NSWC, CRANE	ST	2.6	0	0	0	0	31

* ALTERNATIVES:

1 -- Consolidate all S&T work at Wright Lab-WPAFB, NRL and China Lake.

* SELECTED ALTERNATIVES FOR MILDEP CONSIDERATION:

Alternative 1.

* ANALYSIS/RATIONALE:

Mission Compatibility. The S&T mission content appears to be similar between ASC, MOD-WPAFB and WL-WPAFB. Similarly, materials work at NRL, China Lake and NAWC, Pax cover a wide spectrum of materials work such as emerging materials, composites and low observables. NCCOSC and NSWC-Crane work relates to electronic packaging and other electronics circuit specific materials.

Facilities and Equipment Compatibility. Facilities and equipment are generally comparable between the consolidated activities within the selected alternative.

Relocation Constraints/Restrictions (Fit Check). Permits and licenses appear to be similar for all activities listed in this CSF within the selected alternative.

Other. None.

* ADVISORY COMMENTS : The Navy and Air Force should each examine the feasibility of consolidating advanced materials to a single site. Concurrently, the Navy and Air Force should discuss other opportunities for cross-servicing. The Navy should consider merging electronics materials missions at NSWC-Crane and NCCOSC with the Electronic Device functions at these same locations. This work would then become part of any alternatives being considered under the Electronic Device CSF and other options in relationship to the electronic materials missions at NCCOSC and NSWC-Crane should be based on that analysis. Due to the nature of the subfunctions, life cycles, and related functions performed within the activities, MILDEPs should carefully assess the suggested alternative. [NOTE: Excluded from this CSF analysis were activity's which were included in DDR&E decision memorandum of 18 March 1994 related to the Army's Materials Research Facility at APG, MD, and the Navy's Materials Facility at Carderock, MD.]

MV ANALYSIS: No change to the selected alternative.

BRAC '95

BASE REALIGNMENT AND CLOSURE TASK FORCE

May 23, 1995

Joseph T. Varallo, II
Analyst Associate
Defense Base Closure
and Realignment Commission
1700 N. Moore Street, Suite 1425
Arlington, VA 22209

Dear Mr. Varallo:

Enclosed is the list of people who attended the BRAC Commissioners' dinner on April 5, 1995. If you need additional information, please contact Paul L. Roberson at 229-2124.

Sincerely,

Paul L. Roberson
BRAC '95 Project Director

BRAC '95
P.O. BOX 1628
SAN ANTONIO, TEXAS 78232

210-229-2147

FAX: 210-229-1600

R.S.V.P. SIGN SHEET

MEETING: **Commissioners' Dinner**

TIME: **8:00 p.m.**

PLACE: **Club Giraud**

Name	Yes
Judge Cyndi Taylor Krier Bexar County Courthouse 100 Dolorosa San Antonio, Texas 78205	x
Mayor Nelson Wolff City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Charles E. Cheever, Jr. Broadway National Bank P.O. Box 17001 San Antonio, Texas 78217	x
Jose Villarreal Akin, Gump, Staus, Hauer & Feld, LLP 300 Convent 1500 Nations Bank Plaza San Antonio, Texas 78205	x
Councilwoman Lynda Billa Burke City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Joseph R. Krier President The Greater San Antonio Chamber of Commerce P.O. Box 1628 San Antonio, Texas 78232	x

Tullos Wells Chairman The Greater San Antonio Chamber of Commerce P.O. Box 1628 San Antonio, Texas 78232	x
Leo Gomez President The Hispanic Chamber of Commerce 603 Navarro, #100 San Antonio, Texas 78205	x
Eddie Herrera Chairman The Hispanic Chamber of Commerce 603 Navarro, #100 San Antonio, Texas 78205	x
Cindy Taylor President The Southside Chamber of Commerce 908 McCreless Mall San Antonio, Texas 78223	x
Robert Triesch Chairman The Southside Chamber of Commerce 908 McCreless Mall San Antonio, Texas 78223	x
Dionicio Urdialez President AFGE, Local 1757 P.O. Box 35454 San Antonio, Texas 78235	x
Jesse Salcedo President AFGE, Local 1617 3311 Roselawn San Antonio, Texas 78226	x
Herb Klein Vice President Performance Skills Incorp. 334 Bluff	x

Paul Roberson The Greater San Antonio Chamber of Commerce P.O. Box 1628 San Antonio, Texas 78232	x
Councilman Roger Perez City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Councilman Lyle Larson City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Councilman William Thorton City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Alex Briseno City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Rolando Bono City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966	x
Skardon Baker Policy Assistant, Governor George W. Bush P.O. Box 2136 Austin, Texas 78768-2136	x
Craig Hall Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x
Charles C. Smith, Jr. Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x

Lester C. Farrington Senior Analyst Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x
Joseph T. Varallo, II Analyst Associate Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x
Benjamin Montoya BRAC Commissioner Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	
Josue Robles, Jr. BRAC Commissioner Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x
Wendi L. Steele BRAC Commissioner Defense Base Closure & Realignment Commission 1700 N. Moore Street, Suite 1425 Arlington, VA 22209	x
William Christian Special Assistant Senator Phil Gramm 370 Russell Senate Office Building Washington, D.C. 20510	x
Mike Champness Senator Phil Gramm 370 Russell Senate Office Building Washington, D.C. 20510	x

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950530-16

FROM: PETERSON, PETE	TO: DIXON
TITLE: REP (FL)	TITLE: CHAIRMAN
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: TYNDALL AFB, BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA	✓		
STAFF DIRECTOR	✓			COMMISSIONER COX	✓		
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS	✓		
GENERAL COUNSEL	✓			COMMISSIONER KLING	✓		
MILITARY EXECUTIVE				COMMISSIONER MONTOYA	✓		
				COMMISSIONER ROBLES	✓		
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE	✓		
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER	✓		
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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 INFORMATION SUPPORTING MOVE OF AF CENTER FOR ENVIRONMENTAL EXCELLENCE FROM BROOKS AFB TO TYNDALL AFB.

Due Date: 950601	Routing Date: 950530	Date Originated: 950526	Mail Date:

PETE PETERSON
2D DISTRICT, FLORIDA

COMMITTEE
ON
APPROPRIATIONS
SUBCOMMITTEES:
ENERGY AND WATER
RESOURCES
AGRICULTURE AND RURAL
DEVELOPMENT

Congress of the United States
House of Representatives
Washington, DC 20515-0902

May 26, 1995

WASHINGTON OFFICE
426 CANNON BUILDING
WASHINGTON, DC 20515-0902
(202) 225-5235

DISTRICT OFFICES:
930 THOMASVILLE ROAD, SUITE 101
TALLAHASSEE, FL 32303
(904) 561-3979

MARIANNA
(904) 526-7516

LAKE CITY
(904) 752-1088

30 WEST GOVERNMENT STREET
ROOM 203
PANAMA CITY, FL 32401
(904) 785-0812

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

Please refer to this number
when responding 950530-16

Dear Mr. Dixon:

I respectfully request that you consider the attached information regarding the recommended move of the Air Force Center for Environmental Excellence (AFCEE) from Brooks AFB to Tyndall AFB. These facts should give you a better understanding of why this transfer should take place.

As you know, the City of San Antonio recently made a presentation to the BRAC Commission at the Regional Hearing in Dallas, Texas. Among their recommendations to the Commission was a proposal to cordon off 15% of Brooks AFB into a cantonment area with support coming from either Kelly AFB or Lackland AFB.

Although I was not personally in attendance at the hearing, I have received information on some very serious concerns with the cantonment proposal. The attachments to this letter go into further detail of these potential problems. As a reminder, Major General McCarthy, the Air Force Civil Engineer, strongly supports the original plan to move AFCEE from Brooks to Tyndall.

Thank you in advance for your careful consideration of this matter, and best of luck with the challenges you face in the coming months. Please do not hesitate to contact me or my staff assistant, Mr. Andy Ball, at (202) 225-5235, should you need additional information.

Sincerely,

Pete Peterson

Pete Peterson, M.C.

DBP:jab

PRINTED ON RECYCLED PAPER

COMMENTS CONCERNING SAN ANTONIO'S PROPOSAL REGARDING BROOKS AFB

* School of Aerospace Medicine

  - Proposal is not specific as to whether the cantonment area will include the New School of Aerospace Medicine facility or if it will be set off by itself. In either case there appears to be no consideration given to housing and feeding the approximately 5000 students they train each year. Are the students to be housed and fed at Kelly/Lackland and be transported each day to Brooks?

* Increased costs due to inefficiency caused by protracted support from fourteen (14) miles away is not considered.

  - Host base services of finance, facility operations and maintenance, personnel, housing, procurement, food service, travel, security, fire protection, etc. would cost more.

  - Brooks' occupants would suffer loss of productive time due to travel between Brooks and host base.

  - These additional costs would be ongoing.

* Operating a cantonment area with protracted support functions located miles away is not practical.

  - Historically, users will demand and the support base will agree to provide satellite facilities on site to be more responsive to the service required.

  - In time, the base will return to almost its original support configuration, which defeats the base closure notion.

  - In BRAC '93 Rome Laboratory in New York was placed in a cantonment area at Griffiss AFB; in BRAC '95 the Secretary recommended the cantonment close and the lab relocate to Hanscom AFB, MA.

*Air Force Center for Environmental Excellence

- Proposal is not specific as to what will be done with the nearly completed $7.5 million AFCEE facility on the east end of Brooks.

- Although a single cantonment was presented, will there be a second cantonment or will there have to be another $7.5 million facility built within the proposed cantonment area?

* Proposal shows $6 million in military construction; $5 million at Brooks and $1 million at Kelly.

- The construction cost appears much too low to attain the one cantonment area proposed.

* The proposal implied that all functions of Armstrong Laboratory (AL) and Human Systems Center (HSC) mission presented are physically located at Brooks AFB.

- Tyndall Environics Division currently performs all the functions presented on one chart and referred to in their testimony (page 59, lines 11 - 17) "....the development and implementation for new techniques for cleaning up environmental waste..., use of micro-organisms to enhance waste cleanup."

- Armstrong Laboratory contingent (300+ people) currently at Wright-Patterson AFB is performing most of the functions that are claimed to be performed at Brooks. (aircrew systems, toxicology, and logistic support)

- Nuclear/biological/chemical defense which is performed at Aberdeen, MD

- Aircrew training which is performed at Mesa, AZ

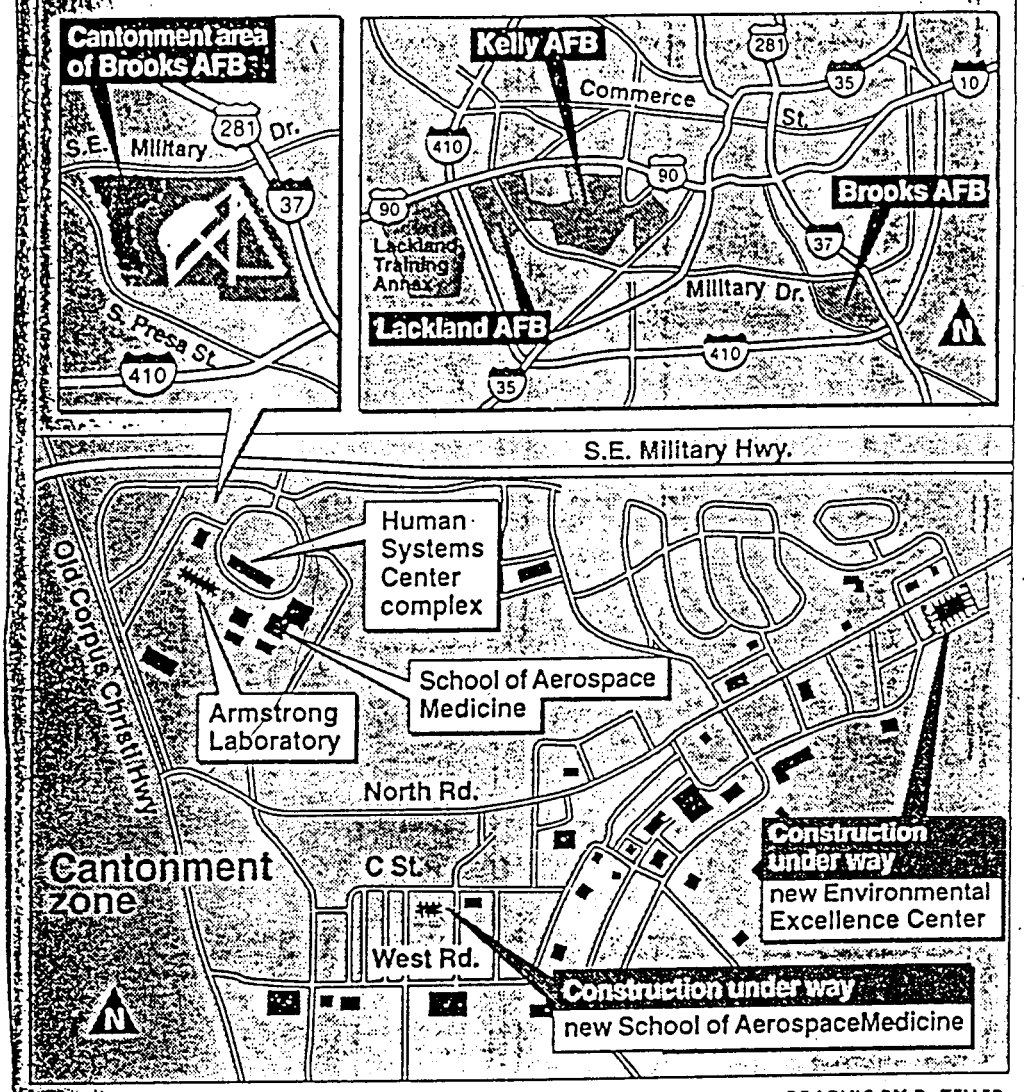
* No credit was given for reducing the overhead costs due to the synergism of co-locating AFCEE with AFCESA at Tyndall or Armstrong Laboratory and HSC with Wright Laboratory and Aeronautical Systems Center (ASC), or Armstrong Laboratory's other divisions at Wright-Patterson AFB.

* The survey of affected people referred to in their testimony appears to be biased when they said "... more than 50% won't move. " There probably will be some loss, but it should not approach 50%.

* A significant portion of the savings and reduced costs claimed in the San Antonio COBRA model versus the Air Force COBRA model comes from implementing the San Antonio proposal in two (2) years instead of the six (6) years indicated in the Air Force proposal.

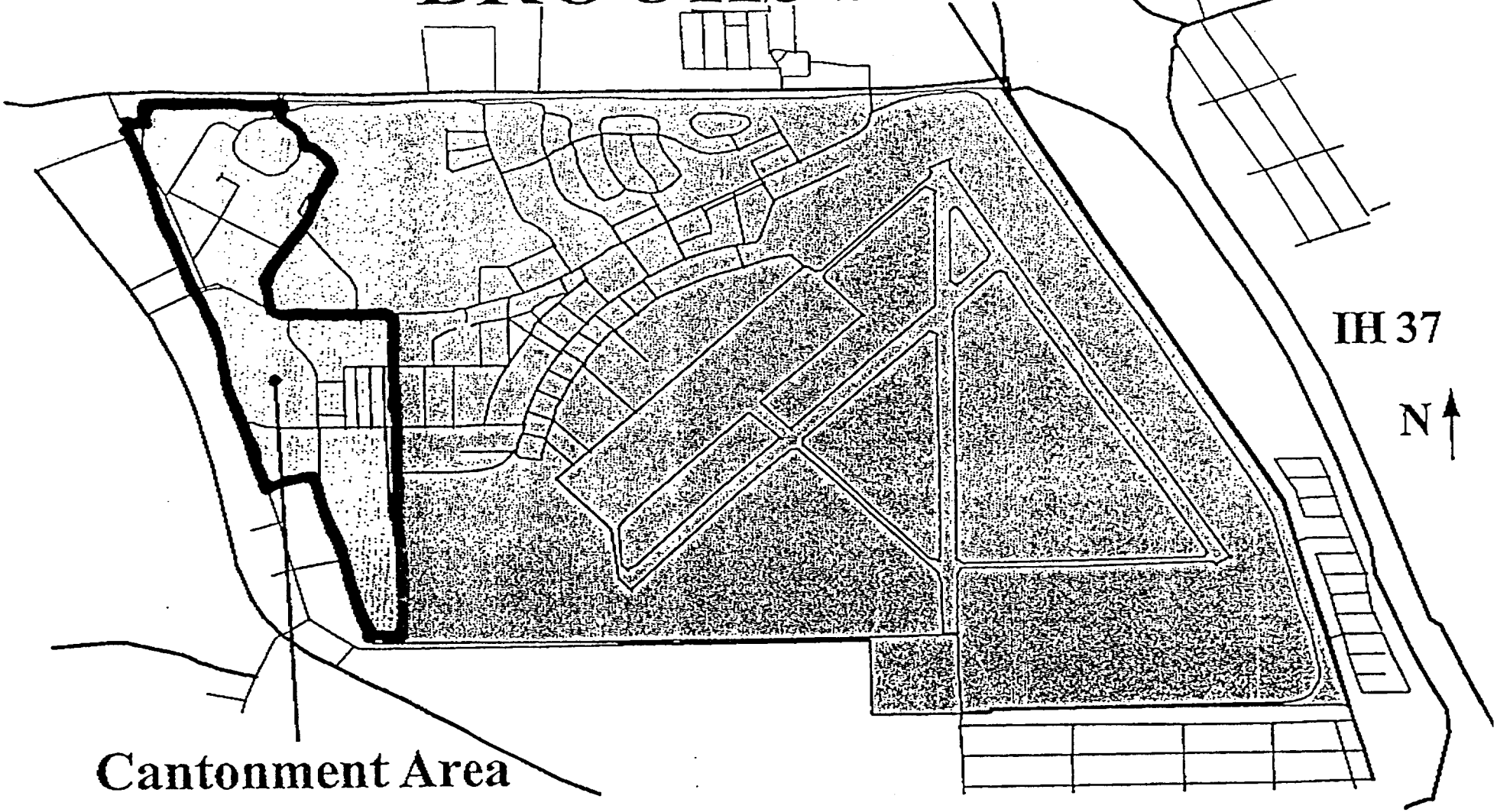
Savings Brooks' missions

Roughly more than 75 percent of Brooks AFB would be closed as part of a 'cantonment' strategy to save three key missions. The Human Systems Center complex, including the Armstrong Laboratory, and the new School of Aerospace Medicine would remain in an area on the west side of the base and would be annexed by Kelly AFB. The Air Force Center for Environmental Excellence would move into a $7.2 million building nearing construction about a mile east from the systems complex.



GRAPHIC BY P. ZELLER

BROOKS AFB



another FAXinating missive

from

Human Systems Center Public Affairs
2510 Kennedy Circle, Suite 1
Brooks AFB TX 78235-5120
Cmcl (210) 536-3234 (voice) 536-3235 (fax)
DSN prefix 240

Number of pages (inc. cover sheet) 7 Date 31 MAY 95
From Larry Farlow

To Col WAYNE PURSER FAX number 88 226 - 0550

Message: NEWS CLIPPINGS.

JOE -

PER your request of Brooks.

Wayne

SAN ANTONIO EXPRESS-NEWS
DATE 31 May 95
PAGE 1A

Plan to save Brooks bombs with Air Force

By Gary Martin
Express-News Washington Bureau

WASHINGTON — A San Antonio proposal to isolate and save key military missions at Brooks AFB failed to dissuade the Air Force from its recommendation to shutter the base and move thousands of jobs to bases in Ohio and Florida.

The San Antonio "cantonment" strategy that essentially fences off major functions at the base and places them under the support of Kelly or Lackland AFBs was criticized by the Air Force for failing to reduce unneeded facilities, according to documents released Tuesday.

"The failure to reduce laboratory capacity by altering the closure of Brooks AFB, and consolidating functions at Wright-Patterson AFB, will leave excess capacity within the Air Force," said Maj. Gen. Jay Blume Jr., special assistant to the Air Force chief of staff for base closure issues.

"The Air Force continues to believe the community's proposal would not achieve needed savings and reductions of infrastructure, and relies on assumptions of support that may not be practical in the long-term," Blume wrote the Defense Base Closure and Realignment Commission, commonly referred to as BRAC.

BASES ON THE BRINK

Lawmakers' visits 1B

The Air Force's reaction to the cantonment plan came as no surprise to city leaders, who are urging the base closure commission to shut down the base, but keep the Armstrong Laboratory, the School of Aerospace Medicine, the Human Systems Center and Center for Environmental Excellence in San Antonio.

The annexation plan would keep about 3,000 Brooks jobs in the city.

In a briefing late Tuesday afternoon at Brooks for Texas Republican Sen. Phil Gramm, Paul Roberson, project director of the Mayor's '95 BRAC Task Force, said he had seen the Air Force's documents re-

See STRATEGY/4A

BASES ON THE BRINK

Strategy for saving Brooks jobs draws rejection from Air Force

Continued from 1A

acting negatively to "cantonment."

"But we have not had enough time to study their analysis," Roberson said of the data.

The task force's executive board will meet Wednesday morning, with a review of the Air Force's reaction to the cantonment strategy being a primary topic of discussion, Roberson added.

Meanwhile, Gramm said: "I was absolutely dumbfounded to see Brooks on the list. If anyone had told me that Brooks would be on the list, I wouldn't have believed them.

"Cantonment is an excellent alternative in the long term and with upfront costs — not having to build new buildings."

Under Air Force recommendations, several key missions at Brooks would be shifted to Wright-Patterson AFB in Ohio and Tyndall AFB in Florida.

"The reaction to cantonment by the commission has been good," Gramm said.

After receiving the San Antonio proposal, the base closure commission asked the Air Force to review the plan and to provide computer analysis. The analysis was completed and submitted to the commission late Friday.

It was released Tuesday to the San Antonio Express-News.

Chuck Pizer, a base closure spokesman, said commission staff now will review the Air Force analysis and compare closure recommendations from the Pentagon and San Antonio.

"The final decision will be voted upon by the commissioners in June," Pizer said, adding that serious consideration of all aspects of the closure will be studied.

Defense Secretary William Perry recommended closing Brooks and consolidating major functions at Wright-Patterson in a "hit list"

Eyeing the costs

Costs to keep key missions at Brooks AFB with base services provided by Kelly or Lackland AFB vs. Air Force cost to close Brooks and move missions to bases in Ohio and Florida:

	Cantonment plan		
	Kelly control	Lackland control	Close Brooks, move missions
20-year savings	$119.7 million	$115 million	$172 million
Initial cost	$21.3 million	$21.8 million	$211.5 million
Military construction needed	$7.5 million	$7.9 million	$115.5 million
Annual personnel savings beyond 2001	$12.7 million	$11.9 million	$20 million
Positions eliminated*	266	250	506
Positions realigned*	689	507	2,876

* Includes military and civilians

Source: Air Force computer analysis

EXPRESS-NEWS GRAPHIC

U.S. Sen Phil Gramm and Brig. Gen. Robert Belihar, commander of the Human Systems Center at Brooks AFB, discuss the possible closure of the Southeast Side installation after a meeting with reporters Tuesday in the base's officers' club.

PHOTO BY JOHN DAVENPORT

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released Feb. 28.

The base closure commission has until July 1 to finalize its own recommendations and submit them to President Clinton, who can either accept or reject the entire roster of bases to be eliminated.

The commission is expected to solidify the list by June 22, according to BRAC staff.

In the analysis of the San Antonio plan for Brooks, Blume said "the Air Force views 'paper studies' dealing with cantonments of laboratories cautiously due to the complexity of leaving substantial operations in a stand alone or cantoned scenario."

According to computer analysis, the Air Force plan would provide the largest cost savings over a 20-year period. The Air Force recommendation would save $172 million, while cantonment under Kelly or Lackland would save $119.7 million or $115 million, respectively.

The one-time costs to implement the plans, however, make the Air Force recommendation most expensive at $211.5 million, compared with isolating Brooks' functions and providing services at Kelly, $21.3 million, or Lackland, $21.8 million.

Likewise, military construction needed to consolidate at Wright-Patterson would cost $115.5 million, while the amount of building and improvements needed at Kelly or Lackland remain low at $7.5 million or $7.9 million, respectively.

Large savings are realized under the Air Force plan through job eliminations. More than 500 positions would be eliminated under the Air Force plan, about twice the amount of jobs cut under San Antonio proposals.

While the San Antonio plan gives a "more economically appealing" alternative to the Air Force recommendation, it does little to cut or consolidate excess capacity, said one base closure official who spoke on background.

Nevertheless, the official said all points of the Pentagon and San Antonio plans would be studied carefully over the next few weeks.

In an April letter to the commission, Blume said that apart from the cost issues, the failure to reduce laboratory capacity made cantonment an unsatisfactory alternative.

"Furthermore, Brooks AFB was rated the lowest of the lab and product center installations. As a result, the Air Force would not favor this alternative," Blume wrote.

Staff Writer Jim Hutton contributed to this report.

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PAGE 1B

P.5
MAY 31 '95 11:16AM HSD-PA BROOKS AFB TX

Gramm tells bases' backers to keep emphasis on facts

By Jim Hutton and Don Driver
Express-News Staff Writers

Facts and figures must be emphasized if San Antonio is to keep Brooks and Kelly AFBs from being shut down by the base closure commission, U.S. Sen. Phil Gramm said Tuesday.

"The influence you have is the power of logic you're using, not who you are," said Gramm, referring to any political persuasion applied to the Defense Base Closure and Realignment Commission, commonly called BRAC, which is intended to be a apolitical group.

Gramm spoke at a news conference at Brooks AFB, where torrential rains delayed his arrival and prevented a tour of the Southeast Side base.

The senator, also prevented from touring Kelly, received briefings from Brig. Gen. Robert Belihar, commander of the Human Systems Center at Brooks; Maj. Gen. Lewis Curtis III, San Antonio Air Logistics Center commander at Kelly; and Paul Roberson, project director of the Mayor's '95 BRAC Task Force.

BASES ON THE BRINK

"We have a strong story to tell, and it will take a tremendous amount of work to make it happen," Gramm said about saving Brooks and Kelly.

Brooks originally was recommended in late February for closure by the Air Force. Recently, Kelly was added to the list for review along with the four other air logistics centers nationwide.

"We think we have a fighting chance to take both bases off the list with the analysis

See GONZALEZ/6B

PHOTO BY BOB OWEN

Maj. Gen. Lewis Curtis III (left), logistics center commander at Kelly AFB, shows U.S. Rep. Henry B. Gonzalez a double-lined pipe for the base's new wastewater system. Dedication ceremonies Tuesday for the system also were attended by TNRCC Chairman John Hall (right).

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DATE _____
PAGE _____

Gonzalez fears politics in BRAC process

Continued from 1B

we have done," Gramm added.

Also Tuesday, U.S. Rep. Henry B. Gonzalez was at Kelly dedicating a new $9.5 million industrial wastewater collection system.

Gonzalez said the odds were small that Kelly AFB would be closed. He also said President Clinton still should reject any recommendation by the commission that may call for elimination of the massive installation.

"I just can't see, and I don't predict there will be, a decision to close the base," Gonzalez said.

"I think everybody is facing reductions, and to what extent and form we need to be alert," he added.

The veteran congressman, in whose district Kelly is located, once again issued a warning that if the commission should recommend that the base be closed, he would "absolutely" urge Clinton to reject the entire list of recommendations.

"He's the chief executive — that's where it goes," he said.

Under law, the president either can accept the entire list of recommended closures or reject it all, but can't alter portions of the list.

"I personally do not believe the president will reject the whole list," Gramm said. "I've never seen Congress reject the final proposal."

The president must receive the list by July 1. Congress also must ratify or reject the list in its entirety.

Gonzalez also warned against politics entering the base closure review process, pointing out California had strong connections to the administration and that state's delegation "has never hesitated to use every leverage they could."

The veteran Democrat, in a news conference after the dedication, said an Air Force ranking that put Kelly in the bottom tier among the five air logistics centers being reviewed for possible closure was "politically inspired."

The other maintenance depots being reviewed along with Kelly are at McClellan AFB in Sacramento, Calif.; Hill AFB in Ogden, Utah; Tinker AFB in Oklahoma City; and Robins AFB in Warner Robins, Ga.

John Hall, chairman of the Texas Natural Resource Conservation Commission, also attended the dedication with Curtis. Hall said he hopes a bill passed in the Legislature will resolve the city's water woes.

Kelly and other San Antonio military installations ranked low on environmental quality during a Pentagon review because of the long-standing dispute over use of the Edwards aquifer.

But those days should be over following passage of the bill, Hall said, adding that "Kelly is the leader among military installations" on environmental issues.

The base "probably has the most efficient pollution-prevention program of any installation in the country," Hall said. The installation was honored in March for having the best pollution-prevention program in the Defense Department for 1994.

The new waste water collection system will carry rinse water and liquid wastes from the base's industrial shops to another facility on base for treatment. It replaces an older system that had spring leaks and had experienced pipe failures.

SAN ANTONIO EXPRESS-NEWS
DATE 31 May 95
PAGE 5B

Kelly escape for West Siders

Some recent letter-writers have suggested that national security should be the first consideration in closing Kelly or Brooks AFBs. I agree.

However, closure will be political. McClellan AFB in California should probably be the depot to close, but President Clinton needs California for re-election.

Due to the many military facilities in San Antonio, it's about time that we give up a base, so Brooks will be the sacrificial lamb. Why not? It's small and unique.

Closing Kelly, however, would devastate an already impoverished society.

As far as Kelly being a social program for Hispanics, as some charge: It's not. People work for a living and produce a quality product. The percentage of Hispanics employed at Kelly is due to the large Hispanic population in the San Antonio area.

The employment of Hispanics at Kelly gives hope to their children for a bright future and a chance to move out of the West Side into Windcrest maybe. It helps them break the vicious cycle of poverty.

Kelly has employed many generations of Hispanic families, and many have been able to break from the traditional West Side atmosphere.

Pete Arreola,
Schertz

Tejeda leading in local effort

San Antonio owes a debt of gratitude to U.S. Rep. Frank Tejeda for his leadership and hard work in securing $7 million from the House Subcommittee on Military Installations to provide improved Interstate 35 access to the new Brooke Army Medical Center.

This new facility will have more than 1 million outpatient visits per year, and highway accessibility is critical for both outpatient and emergency traffic. Without this federal funding, the project would have had to be funded with city, county and state tax dollars.

Tejeda continues to be a tireless, effective advocate for all of our military missions and an outstanding team leader in San Antonio's BRAC '95 effort.

J. Tullos Wells,
Chairman, Greater San Antonio Chamber of Commerce

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

23 MAY 1995

HQ USAF/RT
1670 Air Force Pentagon
Washington, DC 20330-1670

Defense Base Closure and Realignment Commission
1700 North Moore Street, Suite 1425
Arlington, BA 22209

Dear Mr. Cirillo

This is to provide you additional COBRA runs based on site survey information for the following recommendations: Depot Consolidation (duplicate copy of our 15 Apr 95 submission to you), Brooks AFB, Hill AFB (UTTR), and Rome Lab. Also included is an updated Grand Forks AFB COBRA. The earlier version included $17.5 million of environmental costs. These costs are not a BRAC expense as they are included in the missile unit deactivation that is already programmed in the Air Force budget.

We trust this information is useful for your analysis.

Sincerely

Jay D. Blume Jr

JAY D. BLUME, Jr.
Major General, USAF
Special Assistant to the Chief of Staff
for Base Realignment and Transition

Attachments:
1. Depot COBRA
2. Brooks COBRA
3. Hill (UTTR) COBRA
4. Grand Forks COBRA
5. Rome Lab COBRA
6. Electronic Copies

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE

15 MAY 1995

MEMORANDUM FOR BASE CLOSURE COMMISSION (Mr. Francis A. Cirillo, Jr.)

FROM: HQ USAF/RT

SUBJECT: Brooks AFB Cantonment COBRA Taskers Update (RT Taskers 378 & 481)

We are still in the process of responding to your taskers of April 20, 1995 (950420-2) and May 3, 1995 (950504-3). The MAJCOM certified package is expected to arrive in RT on 16 May. It will need to be fully coordinated within the Air Force. We will be unable to meet our May 15, 1995 suspense. Both the Air Force and Community COBRAs on a Brooks AFB cantonment will be provided NLT May 19, 1995.

Maj Mike Wallace, 695-6766, is my point of contact. Please call if you have any questions.

Jay D. Blume

JAY D. BLUME, Jr., Maj Gen, USAF
Special Assistant to the Chief of Staff
for Realignment and Transition

AFMC to AETC concept

Kelly + Community [illegible]

[illegible]

AFMOA, AF [illegible]

+ large contin [illegible]

DBCRC Verbal Tasking

POINT PAPER
ON
BROOKS AFB, TEXAS

Gen Blume/RT authorized Gen Tattini → to compile - on behalf of corporate AF, NOT AFMC

ISSUE

The city of San Antonio, Texas has proposed cantonment of the mission activities at Brooks AFB in lieu of the AF/DoD recommended closure of the base.

DISCUSSION

The Air Force does not support the cantonment option because the proposed closure of the base with relocation of the preponderance of the mission activities to Wright-Patterson AFB, Ohio (WPAFB) has greater military value (based on the first four BRAC 95 selection criteria) Atch 1 shows WPAFB to be a Tier I base (best) and Brooks AFB to be a Tier III base (good)-- i.e. the AF had no deficient installations in this category.

- Criteria 1: "Current and future mission requirements as well as the impact on operational readiness of the DoD's total force" will be enhanced by assigning the Human Systems SPO to Aeronautical Systems Center (ASC) at WPAFB and establishing a Human Systems Institute, comprised of the Armstrong Lab (AL) and the School of Aerospace Medicine (USAFSAM) at WPAFB.
  - The Human Systems SPO was previously assigned to ASC. Further, previous SPO/other qualified personnel remain assigned at ASC who could staff the SPO to mitigate against government personnel unwilling to transfer to WPAFB.
  - Relocation of AL to WPAFB would, for the most part, consolidate AL in one geographic location and continue its mission as an AF "super" lab. The AF has been committed to this process of consolidation for many years (Atch 2) and has taken every opportunity inside and outside of BRAC to consolidate labs and collocate labs with their "parent" product centers. ASC is by far the largest "customer" of AL technology for human systems.
  - USAFSAM relies for approximately half of its instructors on AL. Conversely, AL relies on the faculty and staff of USAFAM to conduct and support the research mission of the laboratory. This mutually beneficial and highly synergistic relationship would be preserved and continue at WPAFB since military instructors could be moved to WPAFB as part of the normal permanent change of station (PCS) process. Further, this relationship can be enhanced since Wright State University (contiguous to WPAFB) is the only civilian degree granting institution for aerospace medicine in the country. Also, the planned relocation of USAFSAM will draw heavily on shared use of facilities with the Air Force Institute of Technology (AFIT) located at WPAFB.
  - The San Antonio proposal lists San Antonio as a "one-of-a-kind biomedical community". Atch 3 shows that the Dayton region around WPAFB is also a "biomedical center of excellence".

- Criteria 2: The "availability and condition of land, facilities and associated airspace" shows that Brooks AFB has no useable runway or active duty forces based there. On the other hand, WPAFB is one of the Air Force premier operational bases and one of the very few proposed as a "receiving location" for additional operational forces in BRAC 95.
  - On base AF warfighting personnel will be invaluable to enhancing the ability of the HSI and Human Systems SPO to accomplish their mission.
  - ~~Revitalization~~ REUTILIZATION of existing acquisition technical and educational facilities at WPAFB to host HSI and SPO activity greatly reduces the AF's excess capacity in these areas. This collocation further enhances WPAFB as the largest Research, Development and Acquisition (RD&A) complex in the free world.

- Criteria 3: Brooks AFB has no ability to "accommodate contingency, mobilization and future total force requirements". However, WPAFB continues to be a principal part of these AF activities with considerable demonstrated potential to expand (i.e. every major class of AF aircraft has been operated from WPAFB at some time in the last 20 years--fighters, bombers, transports, tankers).

- Criteria 4: The city has provided estimated "cost and manpower implications" for the cantonment. This data as well as the data for the proposed closure has been updated (Atch 4). This data shows that closure eliminates almost twice as many people--506 vs 266 and moves four times as many, 2876 vs 689. From a cost standpoint, it is elimination of positions which produce significant savings which more than offset one time moving costs.

- Criteria 5 is the first of the non-military value criteria and deals with "the extent and timing of potential costs and savings".
  - Atch 4 shows that closure has a 43% greater net present value ($172M vs $120M) than cantonment. Thus, cantonment will cost the Air Force $52M more than closure in constant dollars.
  - Although the one time cost of closure is $211.5M vs 21.4M for cantonment, the cantonment cannot be viewed as a closure since most missions will remain (Atch 5). The one time costs of closure is much more than offset by the much higher annual savings $32.3M for closure vs $10.5M for cantonment. Atch 4 shows that the site process has now refined the AF estimate for return on investment to 6 years (very desirable in BRAC terms). Note it will take at least two years for the cantonment (with its lower military value) to "pay back" vs the immediate payback asserted in the San Antonio proposal (Atch 4).

- Criteria 6: The economic impact on the San Antonio area of closing Brooks AFB was 1.1% in the AF analysis. No adverse economic impacts for WPAFB as a receiver site were identified.

- Criteria 7: Both communities were deemed to have the communities with the "infrastructure to support forces, missions, and personnel." Brooks color coded green, and WPAFB color coded green in the AF analysis.

- Criteria 8: No adverse environmental impacts were found for moving from Brooks AFB (coded red) to WPAFB (coded yellow).

RECOMMENDATION :

The high military value of WPAFB coupled with the high net present value and 200% greater annual savings of closing Brooks AFB (including the quick return or investment) very favorably supports the AF/DoD proposal to close Brooks AFB versus the community proposal to canton Brooks AFB..

actions could result in cost increases to other Federal departments and agencies, DoD found that these costs in most cases analyzed would amount to a small fraction of BRAC savings -- less than 2 percent -- and therefore would not be likely to alter BRAC decisions.

BRAC 95 Selection Criteria

In selecting military installations for closure or realignment, the Department of Defense, giving priority consideration to military value (the first four criteria below), will consider:

Military Value

1. The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.

2. The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.

3. The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.

4. The cost and manpower implications.

Return on Investment

5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.

Impacts

6. The economic impact on communities.

7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions and personnel.

8. The environmental impact.

ATCH 1

INDUSTRIAL/TECHNICAL SUPPORT - PRODUCT CENTERS and LABORATORIES Subcategory

ANALYSIS RESULTS at TIERING (20 Oct)

The following grades and data reflect the information on which the BCEG members based their tiering determination. Information in this chart was updated as the result of a number of factors between initial tiering and final recommendations.

Base Name	I.1 Flying Operations	I.5 Product Center/ Lab Evaluation	II Facilities and Infrastructure	III Contingency and Mobility	IV Costs and Manpower Implications	V Return on Investment	VI Economic Impact	VII Community	VIII Environmental Impact
Brooks AFB	Red	Yellow	Green -	Red +	246/-78	10	7,723 (1.2%)	Green -	Red +
Hanscom AFB	Red	Green -	Yellow +	Red +	421/-158	9	18,769 (1.0%)*	Green -	Yellow +
Kirtland AFB	Yellow +	Green -	Yellow +	Yellow	448/-469	6	20,364 (8.0%)	Green -	Green -
Los Angeles AFB	Red	Yellow +	Yellow	Red +	450/-142	10	22,935 (0.6%)*	Yellow	Green -
Rome Lab	Red	Yellow +	Green -	Red +	134/ 112	100+	10,931 (8.2%)*	Yellow +	Yellow +
Wright-Patterson AFB	Yellow +	Green -	Yellow +	Green -	1,567/ 834	49	52,399 (11.9%)	Green -	Yellow -

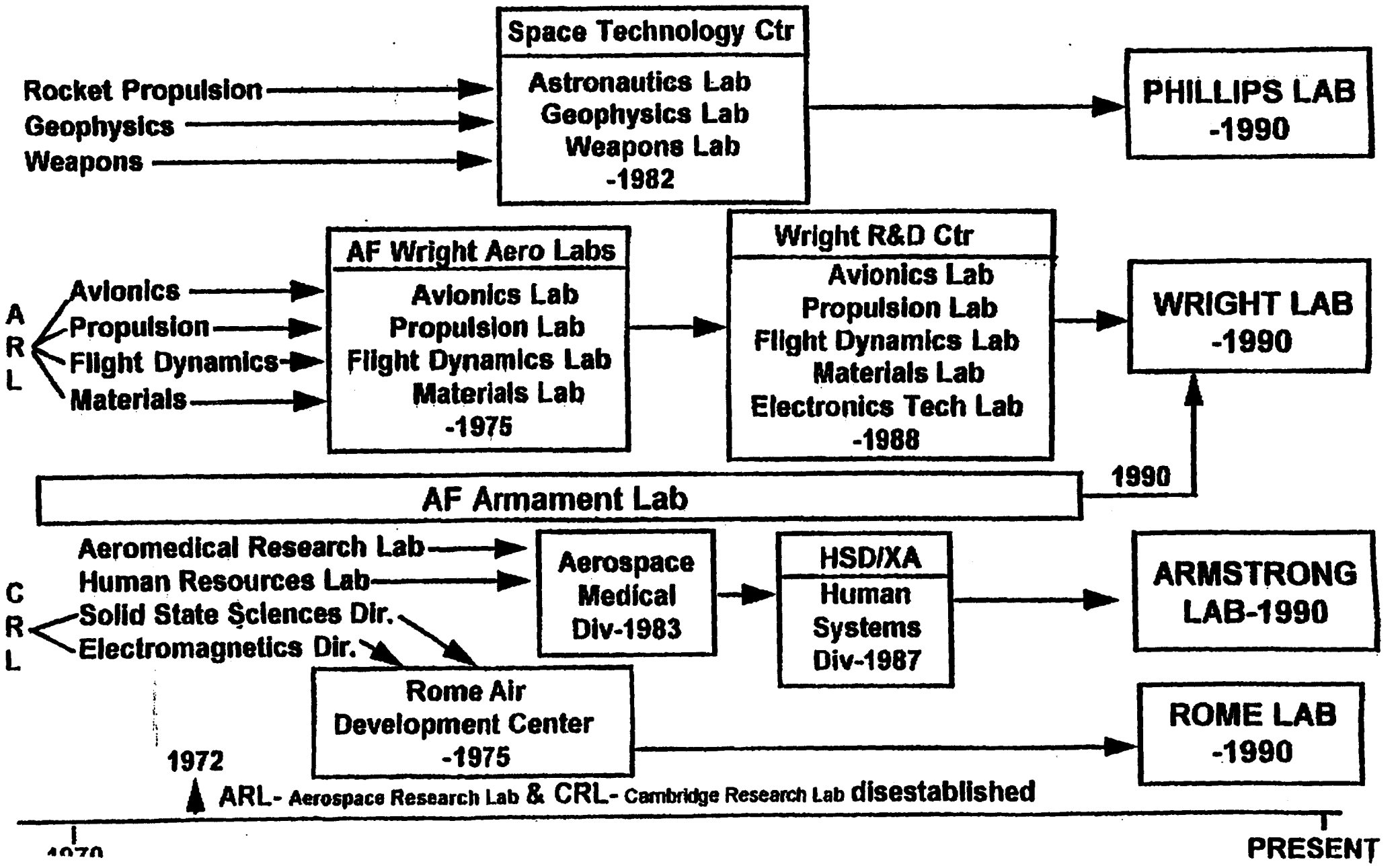
INDUSTRIAL/TECHNICAL SUPPORT - PRODUCT CENTERS and LABORATORIES Subcategory

TIERING OF BASES

As an intermediate step in the Air Force Process, the BCEG members established the following tiering of bases based on the relative merit of bases within the subcategory as measured using the eight selection criteria. Tier I represents the highest relative merit,

TIER I
Hanscom AFB
Rome Lab
Wright-Patterson AFB
TIER II
Kirtland AFB
Los Angeles AFB
TIER III
Brooks AFB

AF LAB CONSOLIDATIONS



ATCH 2

BRAC '95

Dayton Region -- Biomedical Center of Excellence

- **Academic**
  - Wright State University -- Only Civilian School of Aerospace Medicine
  - Strong Medical Programs at Ohio State University and University of Cincinnati
  - Dayton Area Graduate Studies Institute (DAGSI)
- **Private Sector**
  - Kettering Heart Institute
  - Hipple Cancer Institute
  - Numerous Commercial Laboratories Specializing in R&D, Medical & Environmental Testing, and Biomedical Research

ATCH 3

BRAC '95

Dayton Region -- Biomedical Center of Excellence (Continued)

- **Federal**
  - Tri-Service Regional Medical Center (Covers 10 Surrounding States)
  - Wright Technology Network
  - Fitts Human Engineering Division, Armstrong Laboratories (Wright-Patterson AFB)
  - Regional Veterans Administration Medical Center

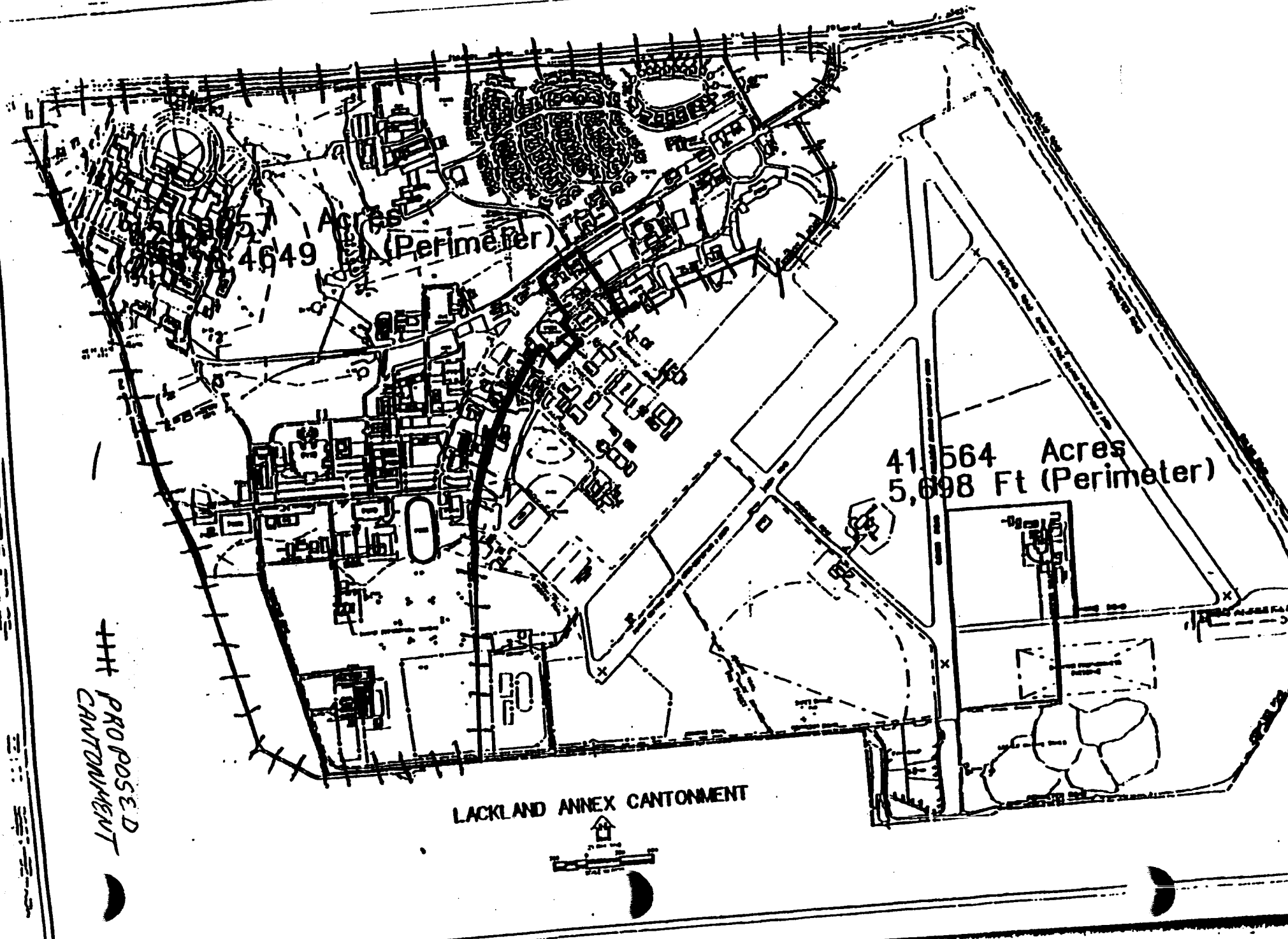
Brooks AFB
COBRA Comparisons

BRAC '95

	DOD Proposal		Alternative	
• Scenario	Relocate		Cantonment	
• Brooks AFB	Close		~~Close~~	
• People				
- Eliminate	~~391~~	506	~~391~~	266
- Relocate	~~3,228~~	2,876	~~518~~	689
• One-Time Cost	~~$185M~~	$211.5M	~~$11M~~	$21.4M
• Recurring Savings	~~27M~~	32M	---	11M
• 20 Year Net Present Value	~~($142M)~~	($172M)	~~($301M)~~	($120M)
• Return on Investment	~~7 Yrs~~	6 Yrs	~~Immed~~	2 Yrs
Military Value (Installation)	High		Low	

6/1/9

ATCH 4


4649 Acres
(Perimeter)
41,564 Acres
5,698 Ft (Perimeter)
PROPOSED CANTONMENT
LACKLAND ANNEX CANTONMENT

ATCH 5

(DRAFT)

DRAFT

-MEMO of decision for YAES' Signature-
-AF/WPAFB initiated-
- cont actual data that supports $211 one time cost

DECISION MEMORANDUM

ON THE

ORGANIZATIONAL APPROACH FOR THE POTENTIAL

CLOSURE OF BROOKS AFB

1. The DOD Base Realignment and Closure (BRAC) recommendation is to close Brooks AFB and to relocate key Human Systems Center (HSC) elements (i.e., the Human Systems Program Office [YA SPO], the Armstrong Laboratory [AL], and the School of Aerospace Medicine [SAM]) to Wright-Patterson AFB. A team composed of interested headquarters and field elements was chartered to address command and organizational relationships to be established if this recommendation is sustained throughout the BRAC process. This decision is necessary to permit estimation of associated relocation costs.

2. The team presented a decision briefing to AFMC/CC on 18 APR 95. As a result of this briefing and associated staff work, the following principles will be observed if the BRAC recommendation is sustained:

a. The Human Systems Center will be disestablished and AFMC will reduce from four product centers to three: Aeronautical Systems Center, Space and Missile Systems Center, and Electronics Systems Center.

b. The YA SPO will be incorporated into the ASC organization as a Product Support Organization. It will enjoy the same status as the current comparable ASC organizations.

c. Acknowledging the need to preserve the close relationship between AL and SAM, an organization composed of AL and SAM will be formed. This organization will be commanded by a medical corps flag officer and will provisionally be referred to as the Human Systems Institute (HSI). AL and SAM will retain their identities as components of the new organization. Judgment is expressly reserved by AFMC/CC regarding the reporting relationship of the HSI Commander. The two possible reporting relationships are to report to the AFMC Commander or to the ASC Commander.

d. All existing HSC functional and support elements will be transferred to ASC. Functional support to HSC/YA and to HSI will be provided by ASC. Functional and support elements include, but are not limited to Acquisition Logistics, Program Management, Engineering and Manufacturing, Comptroller, Contracting, Environmental Management, History, Public Affairs, Protocol, Development Planning (Plans & Requirements [XR]) and other BOS functions which will be administered in accordance with prevailing policies. HSI will maintain a plans function (XP) to assure a focused integration of aerospace human-centered technology in conjunction with Air Force, joint service, and other DOD/government agencies and non-government customers. This

will include chairmanship of the following Technology Planning Integrated Product Teams (TPIPTs): Human Systems Integration, Operational Medical Support, and Environmental, Safety, and Occupational Health.

e. Notwithstanding the reporting relationships, HSI will enjoy, as a co-equal, the full range of infrastructure support afforded other AFMC elements at WPAFB including facilities, centralized personnel services, and training services.

f. Consistent with the above, the Command Section of HSI is intended to be minimal.

3. At the conclusion of the briefing to AFMC/CC, all parties agreed that the above approach permitted a viable organization and pledged to exert additional effort to further reduce allowable costs associated with this relocation.

4. This memorandum will be effective if the BRAC 95 Commission opts to propose closure of Brooks AFB in their 1 Jul 95 recommendation, and it shall serve as the basis for development of a comprehensive P-Plan to accomplish the BRAC recommendation. Primary responsibility for development of the P-Plan rests with HSC and it shall be coordinated with all appropriate parties. The initial draft of this document shall be available for AFMC staff review within 90 days of the BRAC recommendation (approximately 1 Oct 95). If a recommendation is made and approved in BRAC 95 to close Brooks AFB, this P-Plan will be used to integrate the Human Systems SPO into ASC and to stand-up HSI, both to occur no later than 1 Oct 96.

RONALD W. YATES
General, USAF
Commander

- initial by WPAFB - goes w/ orig. approval

Point Paper
on
Brooks AFB - BRAC 95

Purpose

- Provide the current estimated costs and potential concerns with the closure of Brooks AFB

Background

- **BRAC Recommendation, 1 Mar 95**

  -- Closure of Brooks AFB
    --- Human Systems Center (HSC), Armstrong Lab (AL), and the School of Aerospace Medicine (SAM) will relocate to WPAFB
    --- The 68th Intelligence Squadron will relocate to Kelly AFB
    --- The 710 Intelligence Flight will relocate to Lackland AFB
    --- The AF Center for Environmental Excellence will relocate to Tyndall AFB
    --- The hyperbaric chamber will relocate to Lackland AFB
    --- The AF Drug Testing Lab may move elsewhere.

- **HQ AFMC/CC decision (4/18/95) to disestablish HSC and establish the Human Systems Institute (HSI) to be headed by a medical general officer.**

  -- Human Systems Program Office (HSC/YA) will realign under ASC at WPAFB
  -- AL and SAM will remain under HSI

Discussion

- **Closure Cost Estimates Using AF/RT Cost Estimation Model**

	One-Time Cost	Recurring Savings/Yr	Return on Investment	-----Positions----- Elim	Realigned
Original Estimate (20 Feb 95)	$185.5M	$27.4M	7 Years	391	3,228
Latest Estimate (18 May 95)	$211.5M	$32.3M	6 Years	506	2,876

(E. Thielen/HQ AFMC/XPX/DSN 787-6370/et/1 Jun 95)

- **AFMC Recommended Changes to BRAC Language, 2 May 95**

  -- AFMC recommended relocating the 68th Intelligence Squadron to Lackland-Medina
    --- Original BRAC language directed relocation to Kelly AFB
    --- Site visitation team visit, 14-17 Mar 95, determined Lackland-Medina location to be more economical with no loss of mission capability
    --- Recommendation accepted by Base Closure Executive Group (BCEG)
  -- AFMC recommended relocating the AF Drug Testing Lab to Kelly AFB
    --- Original language was not specific in their relocation
    --- Drug testing is going to a regional set-up; this lab is responsible for western/southwestern US ... should stay in that area.

- **Brooks Cantonment Proposal**

  -- COBRA models run by AF/RT (26 May 95)
  -- Two runs, each using a different base for Base Operating Support (BOS):

	One-Time Cost	Recurring Savings/Yr	Return on Investment	-----Positions----- Elim	Realigned
Cantonment Using Kelly AFB for BOS (San Antonio Community Alternative)	$21.4M	$10.5M	2 Years	266	689
Cantonment Using Lackland AFB for BOS (Base Closure Commission Alternative)	$21.8M	$10.3M	2 Years	250	507

Recommendation

- **None, for information only**

Consolidation of these elements at Wright-Patterson AFB would provide military benefit through the synergy resulting from having both the basic research and the development/acquisition of human centered technologies/equipment and the aeronautical weapon systems at one location.

- Aeronautical Systems Center (ASC) at Wright-Patterson has the mission of acquiring all aeronautical weapon systems (i.e., F-16, F-15, F-22, B-2, C-17, F-117, etc.) and associated training and support equipment. Human centered considerations are inextricable from the design and development of such systems. Additionally, man-machine interface issues are more efficiently resolved during the early stages (i.e. research, development, acquisition) of weapon systems management life cycle. Until 1989, the HSPO was located at Wright-Patterson with the weapon system program offices it served.

- Wright Laboratory (WL), the Air Forces largest 'super lab', is located at WPAFB. Its core technologies are flight dynamics, avionics, propulsion, and materials which are the leading edge technologies upon which advanced weapon systems are based. WL works closely with the AL divisions currently located at WPAFB in the joint cockpit office. It would forge stronger bonds with the remaining AL divisions, once collocated. There is a 50 year tradition of physiological research at WPAFB which started with the Aeromedical Research Lab which is the genesis of the current AL and the roots of the divisions of AL currently at WPAFB.

- The AFSAM would be sustained and enhanced within the WPAFB community. The local universities provide a wealth of education in the field of medicine. The region has a total of over 1600 full-time faculty, 1100 part-time faculty and 1800 full-time medical students. Wright State University School of Medicine, which is contiguous to WPAFB, has the only civilian school of aerospace medicine in the United States. Additionally, the AF's second largest medical center is located at WPAFB and currently services tri-service medical needs across a 10 state region. It provides direct access to clinical resources to complement the AFSAM curriculum. Moreover, there is a full complement of private medical facilities and biomedical research institutions in proximity of WPAFB.

- Brooks AFB has no ability to "accommodate contingency, mobilization and future total force requirements." However, WPAFB continues to be a principal part of these AF activities with considerable demonstrated potential to expand (i.e. every major class of AF aircraft has been operated from WPAFB at some time in the last 20 years-fighters, bombers, transports, tankers).

The military value of locating the HSC elements currently at Brooks AFB at WPAFB are derived from the synergistic benefit of co-locating the basic and applied research, as well as the development and acquisition, of both the weapon systems and the human centered technologies, upon which they rely. The AF can no longer afford the inefficiencies of maintaining separate infrastructures for these two inextricable facets of military capability -- the weapon systems and the humans which fly them.

ECONOMICS

Cost of relocation of Brooks AFB activities would save money with payback in six years.

- This is driven by the lower cost of operations at Wright-Patterson AFB. All COBRA analysis studies run by the Air Force and the San Antonio community agree that more efficient operations of facilities would be at Wright-Patterson AFB.

- The one time cost of closure of Brooks AFB is $211.5M vs $42.4M for cantonment. However, the cantonment should not be viewed as a true closure since most missions and facilities will remain. The one time costs of closure is offset by the higher annual savings of $32.3M vs $10.5M for cantonment. The site survey process has now refined the Air Force estimate for return on investment to 6 years (very desirable in BRAC terms). Note: It will take at least two years for the cantonment (with its lower military value) to "pay back" vs the immediate payback asserted in the San Antonio proposal.

- Consolation at WPAFB will save significant dollars by reducing base support management, oversight and Headquarters support functions now duplicated between Brooks and Wright-Patterson Air Force Bases.

The cantonment alternative proposed by the San Antonio community understates the true cost of that option.

- The proposed cost of other cantonment operations across DoD have been historically understated (Kirkland AFB and Rome AFB are examples).

- The Brooks cantonment plan closes no facilities or infrastructure as represented by that option (it sells land, but does not close physical plant).

- The city of San Antonio has provided estimated "cost and manpower implications" for the cantonment. This data as well as the data for the proposed closure has been updated. This data shows that closure eliminates almost twice as many people -- 506 vs 266 and moves four times as many, 2876 vs 689. From a cost standpoint, it is the elimination of positions which produce significant savings which more than offset one time moving costs.

- The updated Air Force COBRA analysis of the Brooks closure delineates "the extent and timing of potential costs and savings." Closure has a 43% greater net present value ($172.1M vs $119.7M) than cantonment. Thus, cantonment would cost the Air Force at least $52M more than closure in constant dollars.

- The cantonment option does not result in like consolidations of laboratory functions. The cantonment option also fails to reduce DoD infrastructure which is a primary consideration of the BRAC process.

CONSOLIDATION

Realignment of Brooks AFB activities to Wright-Patterson AFB significantly contributes to accomplishment of DoD/Air Force goals for *laboratory consolidation*.

- Wright-Patterson has the highest concentration and diversity of research and development activities and is ranked as a Category one (1) Air Force Product Center (Best) by the DoD Joint Cross Service Group and the Air Force.

- Brooks AFB ranked lowest of nine (9) Air Force Product Center/Laboratories by the DoD Joint Cross Service Group and has no excess capacity to accomplish additional future taskings.

Consolidation also supports joint facility use, reduces infrastructure and overhead.

- There are highly effective and efficient support activities at Wright-Patterson AFB, i.e. a regional military housing and other necessary base operating support infrastructure.

- Collocation reduces infrastructure for base and headquarters support with 506 positions eliminated.

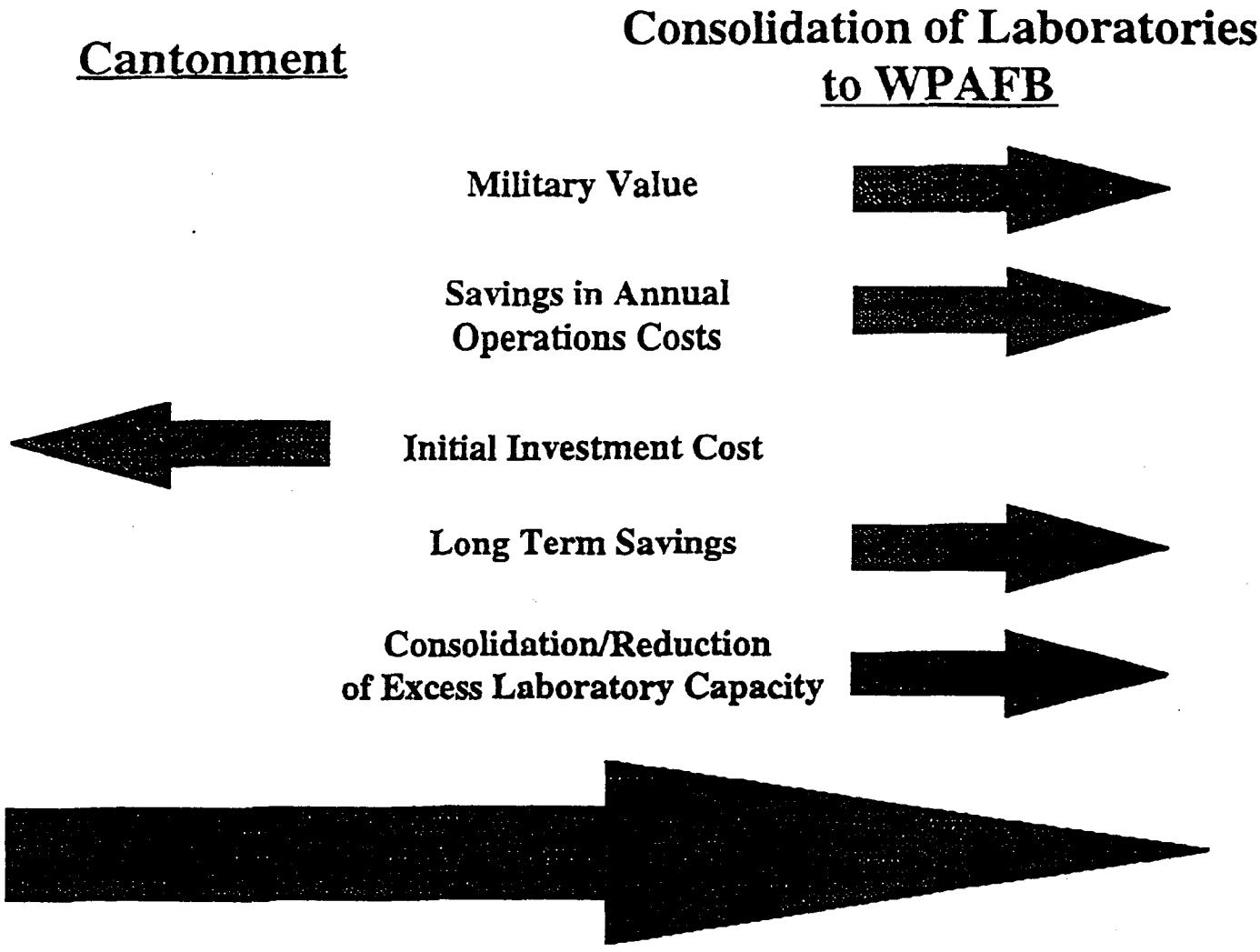
- Availability, affordability and quality of housing and educational opportunities, both on an off base are available at Wright-Patterson AFB and Dayton, Ohio.

- Movement of Brooks AFB activities to Wright-Patterson AFB provides synergistic effects with the collocation of similar and mutually dependent activities.

- WPAFB has available laboratory and office space capacity to support a critical mass of the transferring activities' needs.

- Complements research, development, education, and acquisition skill base readily available at Wright-Patterson AFB.

- A significant skill base for aerospace medicine and human factors engineering is also resident at Wright-Patterson AFB and the surrounding area.



Consolidation of Brooks activities to Wright-Patterson is the right answer. It meets all relevant BRAC criteria.

Relocation to Wright-Patterson is the right answer when viewed from three perspectives:

- Military Value - Provides total man-machine integration for all USAF weapon system management.
- Economics - Provides for best business case. The up front cost pays back in only six years.
- Reduction of Excess Capacity - Provides for reduction of excess capacities and promotes cross - servicing in weapon system man-machine endeavors.

Fax Cover Sheet

ARMSTRONG LABORATORY
2509 Kennedy Circle
Brooks AFB TX 78235-5118

Defense Switched Network (DSN): 240-XXXX
Commercial: (210) 536-XXXX
FAX Extension: 2371

WORLD-CLASS PEOPLE

GLOBAL VISION

DATE: 8 JUNE 95 TIME: _____

FROM: DR BILL STORM OFF SYM: AL/CFT PHONE: DSN 240-3464

TO: Name: MR FARRINGTON
Office:
Phone: Fax #: 703-696-0550

SUBJECT: Your Request for Centrifuge Comparison

No. of Pages: 3 (including cover)

REMARKS:

AL Centrifuges at Brooks AFB and Wright-Patterson AFB: Recommendations following BRAC Decision

- **Comparison of centrifuge capabilities**
  - -- Onset rate at BAFB is 6G/sec (matches current fighters); WPAFB rate is 1G/sec
  - -- BAFB system has a single direction of G application (sufficient for current aircraft); WPAFB system G direction can be varied to some extent (a limited potential for future agile aircraft)
  - -- BAFB gondola is smaller; WPAFB gondola is larger with greater volume permitting installation of a simple visual display system
  - -- BAFB system is relatively simple and inexpensive to operate/maintain; WPAFB system is complex and more expensive to operate/maintain
  - -- Both systems employ old technology
    - --- Operations are manpower intensive
    - --- Aging systems are more likely to have maintenance problems in the future
    - --- Fail to fully exploit modern technology

- **Utilization of centrifuges**
  - -- BAFB centrifuge is approximately 130% utilized, i.e., requests for centrifuge support exceeds time available by 30%
  - -- WPAFB centrifuge is not operating at capacity, but it does share a portion of the overall R&D load
    - --- Closing BAFB centrifuge without reestablishing an extended capability at WPAFB would deprive customers of support
  - -- Maintaining high-G onset capability in R&D community is mandatory to ensure relevance of research; must match capabilities of front line fighters. This is particularly true with the impending closure of the USN high-onset centrifuge

- **Consolidated Operations at WPAFB**
  - -- Recommend:
    - --- Closure of the BAFB centrifuge. No shipment to WPAFB will be required
    - --- Maintain operation of WPAFB centrifuge. As requirements evolve, make decision to close or maintain this facility.
    - --- Construct a state-of-the-art centrifuge at WPAFB with increased capabilities and decreased operations and maintenance costs

- **Factors impacting consolidation recommendation**
  - -- USAF needs two R&D centrifuges to meet current demands; future requirements are unknown
  - -- Moving BAFB centrifuge to WPAFB and reconstructing it on site ($3-4M) will be less expensive than constructing a new centrifuge at WPAFB ($11-15M); however:
    - --- Reconstructing old technology is not an effective use of funds
    - --- Modern centrifuge technology is readily available since contractors have recently or are in the process of constructing other centrifuges, i.e., minimum development costs
  - -- Advantages of construction of a new centrifuge
    - --- Incorporation of modern, efficient data capture systems--improved quality of science
    - --- Incorporation of modern visual display systems; improved relevance and exploitation of initiatives in performance investigation
    - --- Increased realism in flight profiles including future agile flight loads
    - --- Cost avoidance in maintenance
    - --- Cost avoidance in manpower devoted to operations; more efficient design and synergy of combining two centrifuge teams

- **Recommendation:** Support construction of a new centrifuge at WPAFB

Col Hill/AL/CF/DSN 785-5227/3 Apr 95

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950606-10

FROM: TEJEDA, FRANK	TO: DIXON
TITLE: REP. (TX)	TITLE: CHAIRMAN
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: BROOKS AFB	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA	✓		
STAFF DIRECTOR	✓			COMMISSIONER COX	✓		
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS	✓		
GENERAL COUNSEL	✓			COMMISSIONER KLING	✓		
MILITARY EXECUTIVE				COMMISSIONER MONTOYA	✓		
				COMMISSIONER ROBLES	✓		
DIR./CONGRESSIONAL LIAISON		✓		COMMISSIONER STEELE	✓		
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER			
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER		X	
DIR./INFORMATION SERVICES							

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
	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

PROVIDING COMMENTS ON HQ USAF/RT ANALYSES OF THE BROOKS CANTONMENT PROPOSAL STATING AF/RT DEPARTED SUBSTANTIALLY FROM THE CANTONMENT PLAN PRESENTED TO COMMISSION.

Date: 950608	Routing Date: 950606	Date Originated: 950605	Mail Date:

FRANK TEJEDA
28TH DISTRICT, TEXAS

323 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-4328
202-225-1640

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1313 S.E. MILITARY DRIVE, SUITE 115
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Congress of the United States
House of Representatives
Washington, DC 20515-4328

ARMED SERVICES COMMITTEE
SUBCOMMITTEES
RESEARCH AND TECHNOLOGY
MILITARY INSTALLATIONS AND FACILITIES
OVERSIGHT AND INVESTIGATIONS

VETERANS' AFFAIRS COMMITTEE
SUBCOMMITTEES
HOSPITALS AND HEALTH CARE
COMPENSATION, PENSION AND INSURANCE

June 5, 1995

Please refer to this number when responding 950606-10

Alan Dixon
Chairman
Defense Base Closure and
Realignment Commission
1700 North Moore Street, Suite 1425
Arlington, VA 22209

Dear Chairman Dixon:

Thank you for the opportunity to review and comment on the HQ USAF/RT analyses of the Brooks Cantonment proposal. The analyses and the accompanying Cobra runs were illuminating and disclosed a number of areas where AF/RT has departed substantially from the Cantonment concept briefed to the Commission. These are delineated below and reflected in the enclosed Cobra run, which was developed by individuals familiar with Air Force management.

After reviewing these comparisons, I believe you will agree with me: The Community's Cantonment strategy for Brooks is a win - win proposal. It closes Brooks AFB, saves twice as much as the Air Force proposal, and avoids major disruption to the Human Systems mission and the loss of an enormous number of essential scientists who say they will not leave San Antonio.

A detailed comparison follows:

- <u>POSITIONS ELIMINATED</u>

••	AF (BOS by Kelly)	266
••	AF (BOS by Lackland)	250
••	S.A. proposal	423

The San Antonio estimate was based on the 1993 <u>Kelly-Brooks BOS Consolidation Study</u> that was obtained under the Freedom of Information Act. That study involved a function-by-function, space-by-space review by the senior staffs of the two bases. Using that methodology, updated for intervening program changes, we concluded that 423 spaces could be eliminated if Kelly AFB were to provide the BOS for Brooks AFB. I understand a more recent study by the bases found that a considerably larger number of spaces could be eliminated. A reduction of 423 was used in the attached Cobra run.

- POSITIONS REALIGNED

	BOS	Other	TOTAL
•• AF (BOS by Kelly)			689
••• BOS (to Kelly)	375		
••• AIA (to Lackland)		146	
••• Drug Lab (To base X)		168	
•• AF (BOS by Lackland)			507
••• BOS (to Lackland)	339		
••• AIA (to Lackland)		0	
••• Drug Lab (To base X)		168	
•• S.A. proposal			375
••• BOS	375		

The San Antonio proposal would realign 375 BOS personnel from Brooks to Kelly or Lackland. The AF Cantonment Cobra runs appear to validate these BOS requirements estimates. The only difference in numbers is the movement of the Intelligence units and the Drug Lab which need not move under the Cantonment proposal.

- REALIGNMENT TIMING

•• AF (BOS by Kelly)	FY 1998
•• AF (BOS by Lackland)	FY 1998
•• S.A. proposal	FY 1996, 1997

Under the San Antonio proposal, with only BOS realignment, all realignments and eliminations can be carried out quickly and efficiently--half in FY 1996 and half in FY 1997. The minor MILCON requirements can easily be accomplished in that time-frame.

- ONE-TIME UNIQUE COSTS

•• AF (BOS by Kelly)	$7,000,000
•• AF (BOS by Lackland)	7,500,000
•• S.A. proposal	0

Under the San Antonio proposal, with only BOS realigning, there are no one-time unique costs that are not already included in MILCON or personnel movement costs.

- FREIGHT MOVEMENT

•• AF (BOS by Kelly)	2,733 Tons
•• AF (BOS by Lackland)	2,405 Tons
•• S.A. proposal	0

Under the San Antonio proposal with the Intelligence units and the Drug Lab remaining in place, there would be no requirement to move large quantities of freight. Small quantities of BOS equipment could be moved back and forth between the Brooks cantonment and the BOS Host base (11 miles) as required with no identifiable freight movement requirements or costs.

- ACTIVE RECURRING MISSION COSTS

••	AF (BOS by Kelly)	$2,780,000 per year
••	AF (BOS by Lackland)	2,808,000 per year
••	S.A. proposal	2,808,000 per year

Though the analysis shows that economies can be achieved in commercially serviced telephone, shuttle bus, and information management services when these services are competitively bid, we have not included those savings in our analysis. Moreover, the contract costs for military family housing maintenance will be incurred under any scenario that retains military family housing and should be added to all previous Cobra data to keep the comparisons parallel.

- MISC RECURRING COST

••	AF (BOS by Kelly)	$1,050,000 per year
••	AF (BOS by Lackland)	0 per year
••	S.A. proposal	0 per year

We have been unable to identify other recurring costs on the $1 million per year scale as shown for the "BOS by Kelly" run. Since they appear not to apply to the "BOS by Lackland" case, we have not included them in our revised Cobra run.

- MILITARY FAMILY HOUSING

••	AF (BOS by Kelly)	Open
••	AF (BOS by Lackland)	Open
••	S.A. original proposal	Closed
••	S.A. revised proposal	Open
••	AF Original Proposal	Closed

Military Family Housing was closed in the original San Antonio Cantonment proposal because it had been closed in the original Air Force proposal and no new housing had been provided at Wright Patterson. In the revised Cobra run that is enclosed, military family housing is shown as open. The original Air Force proposal should be likewise revised to ensure parallel comparisons.

- **20-YEAR NPV**

••	AF (BOS by Kelly)	$119.7 million (MFH retained)
••	AF (BOS by Lackland)	115.2 million (MFH retained)
••	S.A. original proposal	301.5 million (MFH closed)
••	S.A. revised proposal	247.8 million (MFH retained)
••	Original AF proposal	142.0 million (MFH closed)

This further consideration of the Cantonment proposal convinces me even more that it is a win-win proposal--one that would save twice as much as the other proposals with only minor one-time closure costs. I would appreciate the Commission's thorough review of this alternative proposal, which achieves substantial savings to the Government at a time of great pressure on Defense budgets. Please feel free to contact me if you, the Commissioners or the Commission staff have any questions.

Sincerely,

Frank Tejeda

Congressman Frank Tejeda

Enclosure

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Starting Year : 1996
Final Year : 2001
ROI Year : Immediate

NPV in 2015($K): -247,783
1-Time Cost($K): 10,898

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	2,767	3,000	0	0	0	0	5,767	0
Person	-3,906	-13,462	-19,102	-19,102	-19,102	-19,102	-93,776	-19,102
Overhd	245	-494	-1,261	-1,289	-1,310	-1,326	-5,435	-1,374
Moving	738	738	0	0	0	0	1,476	0
Missio	0	0	2,808	2,808	2,808	2,808	11,232	2,808
Other	111	111	0	0	0	0	222	0
TOTAL	-45	-10,108	-17,555	-17,583	-17,604	-17,620	-80,515	-17,668

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	19	19	0	0	0	0	38
Enl	115	114	0	0	0	0	229
Civ	78	78	0	0	0	0	156
TOT	212	211	0	0	0	0	423
POSITIONS REALIGNED							
Off	10	9	0	0	0	0	19
Enl	64	64	0	0	0	0	128
Stu	0	0	0	0	0	0	0
Civ	114	114	0	0	0	0	228
TOT	188	187	0	0	0	0	375

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND YA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN AND THE 710TH INTEL FLIGHT (AFRES) REMAIN AT BROOKS. MFH RETAINED. BOS PROVIDED BY LACKLAND AFB OR KELLY AFB.

COBRA REALIGNMENT SUMMARY (COBRA v5.08) - Page 2/2
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3,000	3,000	0	0	0	0	6,000	0
Person	1,349	1,665	652	652	652	652	5,621	652
Overhd	729	950	659	631	610	594	4,173	546
Moving	738	738	0	0	0	0	1,476	0
Missio	0	0	2,808	2,808	2,808	2,808	11,232	2,808
Other	111	111	0	0	0	0	222	0
TOTAL	5,927	6,463	4,119	4,090	4,069	4,053	28,723	4,006

Savings ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	233	0	0	0	0	0	233	0
Person	5,255	15,127	19,754	19,754	19,754	19,754	99,397	19,754
Overhd	485	1,444	1,920	1,920	1,920	1,920	9,608	1,920
Moving	0	0	0	0	0	0	0	0
Missio	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	5,972	16,571	21,673	21,673	21,673	21,673	109,238	21,673

NET PRESENT VALUES REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Year	Cost($)	Adjusted Cost($)	NPV($)
1996	-44,865	-44,260	-44,260
1997	-10,108,022	-9,704,953	-9,749,213
1998	-17,554,710	-16,403,597	-26,152,810
1999	-17,583,004	-15,990,302	-42,143,112
2000	-17,604,224	-15,581,119	-57,724,231
2001	-17,620,139	-15,177,815	-72,902,046
2002	-17,667,884	-14,811,623	-87,713,669
2003	-17,667,884	-14,415,205	-102,128,874
2004	-17,667,884	-14,029,397	-116,158,271
2005	-17,667,884	-13,653,914	-129,812,185
2006	-17,667,884	-13,288,481	-143,100,666
2007	-17,667,884	-12,932,828	-156,033,494
2008	-17,667,884	-12,586,694	-168,620,188
2009	-17,667,884	-12,249,824	-180,870,012
2010	-17,667,884	-11,921,970	-192,791,981
2011	-17,667,884	-11,602,890	-204,394,871
2012	-17,667,884	-11,292,350	-215,687,222
2013	-17,667,884	-10,990,122	-226,677,344
2014	-17,667,884	-10,695,983	-237,373,327
2015	-17,667,884	-10,409,715	-247,783,042

TOTAL ONE-TIME COST REPORT (COBRA v5.08) - Page 1/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	6,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		6,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,666,665	
Unemployment	43,848	
Total - Personnel		2,032,343
Overhead		
Program Planning Support	661,560	
Mothball / Shutdown	506,250	
Total - Overhead		1,167,810
Moving		
Civilian Moving	0	
Civilian PPS	1,382,400	
Military Moving	0	
Freight	93,290	
One-Time Moving Costs	0	
Total - Moving		1,475,690
Other		
HAP / RSE	221,911	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		221,911
Total One-Time Costs		10,897,754
One-Time Savings		
Military Construction Cost Avoidances	233,000	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		233,000
Total Net One-Time Costs		10,664,754

ONE-TIME COST REPORT (COBRA v5.08) - Page 2/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	5,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		5,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,666,665	
Unemployment	43,848	
Total - Personnel		2,032,343
Overhead		
Program Planning Support	661,560	
Mothball / Shutdown	506,250	
Total - Overhead		1,167,810
Moving		
Civilian Moving	0	
Civilian PPS	1,382,400	
Military Moving	0	
Freight	93,290	
One-Time Moving Costs	0	
Total - Moving		1,475,690
Other		
HAP / RSE	221,911	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		221,911
Total One-Time Costs		9,897,754
One-Time Savings		
Military Construction Cost Avoidances	233,000	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		233,000
Total Net One-Time Costs		9,664,754

ONE-TIME COST REPORT (COBRA v5.08) - Page 3/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: LACKLAND AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	1,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		1,000,000
Personnel		
Civilian RIF	0	
Civilian Early Retirement	0	
Civilian New Hires	0	
Eliminated Military PCS	0	
Unemployment	0	
Total - Personnel		0
Overhead		
Program Planning Support	0	
Mothball / Shutdown	0	
Total - Overhead		0
Moving		
Civilian Moving	0	
Civilian PPS	0	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		0
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		0
Total One-Time Costs		1,000,000
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		1,000,000

TOTAL MILITARY CONSTRUCTION ASSETS (COBRA v5.08) - Page 1/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

All Costs in $K

Base Name	Total MilCon	IMA Cost	Land Purch	Cost Avoid	Total Cost
BROOKS AFB	5,000	0	0	-233	4,767
LACKLAND AFB	1,000	0	0	0	1,000
Totals:	6,000	0	0	-233	5,767

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

MilCon for Base: BROOKS AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
BROOKS AFB	OTHER	0	n/a	0	n/a	5,000

Total Construction Cost:	5,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	233
TOTAL:	4,767

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

MILITARY CONSTRUCTION ASSETS (COBRA v5.08) - Page 3/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

MilCon for Base: LACKLAND AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
MINOR ADAPTATIONS	OTHER	0	n/a	0	n/a	1,000

Total Construction Cost:	1,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	0
TOTAL:	1,000

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

PERSONNEL SUMMARY REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

PERSONNEL SUMMARY FOR: BROOKS AFB, TX

BASE POPULATION (FY 1996):

Officers	Enlisted	Students	Civilians
640	999	0	1,766

FORCE STRUCTURE CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	0	186	0	0	0	0	186
Enlisted	0	111	0	0	0	0	111
Students	0	0	0	0	0	0	0
Civilians	0	-101	0	0	0	0	-101
TOTAL	0	196	0	0	0	0	196

BASE POPULATION (Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
826	1,110	0	1,665

PERSONNEL REALIGNMENTS:
To Base: LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

TOTAL PERSONNEL REALIGNMENTS (Out of BROOKS AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

SCENARIO POSITION CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	-19	-19	0	0	0	0	-38
Enlisted	-115	-114	0	0	0	0	-229
Civilians	-78	-78	0	0	0	0	-156
TOTAL	-212	-211	0	0	0	0	-423

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
769	753	0	1,281

PERSONNEL SUMMARY FOR: LACKLAND AFB, TX

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

Officers	Enlisted	Students	Civilians
1,787	4,738	0	2,578

PERSONNEL SUMMARY REPORT (COBRA v5.08) - Page 2
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

PERSONNEL REALIGNMENTS:
From Base: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

TOTAL PERSONNEL REALIGNMENTS (Into LACKLAND AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
1,806	4,866	0	2,806

TOTAL PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 1/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	0	0	0	0	228
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*+		0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	0	0	0	0	228
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		78	78	0	0	0	0	156
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIFs)*+		5	5	0	0	0	0	10
Priority Placement#	60.00%	47	47	0	0	0	0	94
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		114	114	0	0	0	0	228
Civilians Moving		114	114	0	0	0	0	228
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		47	47	0	0	0	0	94
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

+ The Percentage of Civilians Not Willing to Move (Voluntary RIFs) varies from base to base.

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

PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 2/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	0	0	0	0	228
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	0	0	0	0	228
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		78	78	0	0	0	0	156
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIFs)*	6.00%	5	5	0	0	0	0	10
Priority Placement#	60.00%	47	47	0	0	0	0	94
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		47	47	0	0	0	0	94
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: LACKLAND AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		114	114	0	0	0	0	228
Civilians Moving		114	114	0	0	0	0	228
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

PERSONNEL, SF, RPMA, AND BOS DELTAS (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

	Personnel			SF		
Base	Change	%Change		Change	%Change	Chg/Per
BROOKS AFB	-798	-22%		-405,000	-21%	507
LACKLAND AFB	375	4%		0	0%	0

	RPMA($)			BOS($)		
Base	Change	%Change	Chg/Per	Change	%Change	Chg/Per
BROOKS AFB	-745,285	-20%	934	-1,174,480	-13%	1,472
LACKLAND AFB	0	0%	0	545,988	2%	1,456

	RPMABOS($)		
Base	Change	%Change	Chg/Per
BROOKS AFB	-1,919,765	-14%	2,406
LACKLAND AFB	545,988	2%	1,456

RPMA/BOS CHANGE REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Net Change($K)	1996	1997	1998	1999	2000	2001	Total	Beyond
RPMA Change	-185	-558	-745	-745	-745	-745	-3,724	-745
BOS Change	-24	-341	-628	-628	-628	-628	-2,879	-628
Housing Change	0	0	0	0	0	0	0	0
TOTAL CHANGES	-210	-898	-1,374	-1,374	-1,374	-1,374	-6,603	-1,374

INPUT DATA REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: No

Base Name	Strategy:
BROOKS AFB, TX	Deactivates in FY 2001
LACKLAND AFB, TX	Realignment

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND YA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN AND THE 710TH INTEL FLIGHT (AFRES) REMAIN AT BROOKS. MFH RETAINED. BOS PROVIDED BY LACKLAND AFB OR KELLY AFB.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
BROOKS AFB, TX	LACKLAND AFB, TX	11 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from BROOKS AFB, TX to LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001
Officer Positions:	10	9	0	0	0	0
Enlisted Positions:	64	64	0	0	0	0
Civilian Positions:	114	114	0	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: BROOKS AFB, TX

Total Officer Employees:	640	RPMA Non-Payroll ($K/Year):	3,765
Total Enlisted Employees:	999	Communications ($K/Year):	192
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	8,585
Total Civilian Employees:	1,766	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	19.0%	Family Housing ($K/Year):	1,205
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.87
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	1,918	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	AF009
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: LACKLAND AFB, TX

Total Officer Employees:	1,787	RPMA Non-Payroll ($K/Year):	6,730
Total Enlisted Employees:	4,738	Communications ($K/Year):	663
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	24,111
Total Civilian Employees:	2,578	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	21.0%	Family Housing ($K/Year):	3,991
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.87
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	10,008	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	AF046
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	2,808	2,808	2,808	2,808
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0%
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	233	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 405 Perc Family Housing ShutDown: 0.0%

Name: LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0%
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Pctrs File : C:\COBRA\BROOKS.SPF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	186	0	0	0	0
Enl Force Struc Change:	0	111	0	0	0	0
Civ Force Struc Change:	0	-101	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	-19	-19	0	0	0	0
Enl Scenario Change:	-115	-114	0	0	0	0
Civ Scenario Change:	-78	-78	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: BROOKS AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
BROOKS AFB	OTHER	0	0	5,000

Name: LACKLAND AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
MINOR ADAPTATIONS	OTHER	0	0	1,000

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	76.80%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	66.90%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	80.00%	PPS Actions Involving PCS:	50.00%
Officer Salary($/Year):	78,668.00	Civilian PCS Costs ($):	28,800.00
Off BAQ with Dependents($):	7,073.00	Civilian New Hire Cost($):	4,000.00
Enlisted Salary($/Year):	36,148.00	Nat Median Home Price($):	114,600.00
Enl BAQ with Dependents($):	5,162.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost($/Week):	174.00	Max Home Sale Reimburs($):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary($/Year):	46,642.00	Max Home Purch Reimburs($):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	0.00%
SF File Desc:	DEPOT FACTORS	RSE Homeowner Receiving Rate:	0.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	0.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	0.00%
(Indices are used as exponents)		MilCon Design Rate:	0.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	0.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	0.00%
Mothball Cost ($/SF):	1.25	MilCon Site Preparation Rate:	0.00%
Avg Bachelor Quarters(SF):	256.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,320.00	Inflation Rate for NPV.RPT/ROI:	0.00%

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

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
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STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate($/Ton):	284.00
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle($/Mile):	0.43
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle($/Mile):	1.40
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement($/Mile):	0.18
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	4.10
Total HHG Cost ($/100Lb):	35.00	Routine PCS($/Pers/Tour):	6,437.00
Air Transport ($/Pass Mile):	0.20	One-Time Off PCS Cost($):	9,142.00
Misc Exp ($/Direct Employ):	700.00	One-Time Enl PCS Cost($):	5,761.00

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	$/UM	Category	UM	$/UM
Horizontal	(SY)	0	Optional Category A	( )	0
Waterfront	(LF)	0	Optional Category B	( )	0
Air Operations	(SF)	0	Optional Category C	( )	0
Operational	(SF)	0	Optional Category D	( )	0
Administrative	(SF)	0	Optional Category E	( )	0
School Buildings	(SF)	0	Optional Category F	( )	0
Maintenance Shops	(SF)	0	Optional Category G	( )	0
Bachelor Quarters	(SF)	0	Optional Category H	( )	0
Family Quarters	(SF)	0	Optional Category I	( )	0
Covered Storage	(SF)	0	Optional Category J	( )	0
Dining Facilities	(SF)	0	Optional Category K	( )	0
Recreation Facilities	(SF)	0	Optional Category L	( )	0
Communications Facil	(SF)	0	Optional Category M	( )	0
Shipyard Maintenance	(SF)	0	Optional Category N	( )	0
RDT & E Facilities	(SF)	0	Optional Category O	( )	0
POL Storage	(BL)	0	Optional Category P	( )	0
Ammunition Storage	(SF)	0	Optional Category Q	( )	0
Medical Facilities	(SF)	0	Optional Category R	( )	0
Environmental	( )	0			

COBRA REALIGNMENT SUMMARY (COBRA v5.08) - Page 1/2
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Starting Year : 1996
Final Year : 2001
ROI Year : Immediate

NPV in 2015($K): -247,783
1-Time Cost($K): 10,898

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	2,767	3,000	0	0	0	0	5,767	0
Person	-3,906	-13,462	-19,102	-19,102	-19,102	-19,102	-93,776	-19,102
Overhd	245	-494	-1,261	-1,289	-1,310	-1,326	-5,435	-1,374
Moving	738	738	0	0	0	0	1,476	0
Missio	0	0	2,808	2,808	2,808	2,808	11,232	2,808
Other	111	111	0	0	0	0	222	0
TOTAL	-45	-10,108	-17,555	-17,583	-17,604	-17,620	-80,515	-17,668

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	19	19	0	0	0	0	38
Enl	115	114	0	0	0	0	229
Civ	78	78	0	0	0	0	156
TOT	212	211	0	0	0	0	423
POSITIONS REALIGNED							
Off	10	9	0	0	0	0	19
Enl	64	64	0	0	0	0	128
Stu	0	0	0	0	0	0	0
Civ	114	114	0	0	0	0	228
TOT	188	187	0	0	0	0	375

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND YA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN AND THE 710TH INTEL FLIGHT (AFRES) REMAIN AT BROOKS. MFH RETAINED. BOS PROVIDED BY LACKLAND AFB OR KELLY AFB.

COBRA REALIGNMENT SUMMARY (COBRA v5.08) - Page 2/2
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3,000	3,000	0	0	0	0	6,000	0
Person	1,349	1,665	652	652	652	652	5,621	652
Overhd	729	950	659	631	610	594	4,173	546
Moving	738	738	0	0	0	0	1,476	0
Missio	0	0	2,808	2,808	2,808	2,808	11,232	2,808
Other	111	111	0	0	0	0	222	0
TOTAL	5,927	6,463	4,119	4,090	4,069	4,053	28,723	4,006

Savings ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	233	0	0	0	0	0	233	0
Person	5,255	15,127	19,754	19,754	19,754	19,754	99,397	19,754
Overhd	485	1,444	1,920	1,920	1,920	1,920	9,608	1,920
Moving	0	0	0	0	0	0	0	0
Missio	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	5,972	16,571	21,673	21,673	21,673	21,673	109,238	21,673

NET PRESENT VALUES REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Year	Cost($)	Adjusted Cost($)	NPV($)
1996	-44,865	-44,260	-44,260
1997	-10,108,022	-9,704,953	-9,749,213
1998	-17,554,710	-16,403,597	-26,152,810
1999	-17,583,004	-15,990,302	-42,143,112
2000	-17,604,224	-15,581,119	-57,724,231
2001	-17,620,139	-15,177,815	-72,902,046
2002	-17,667,884	-14,811,623	-87,713,669
2003	-17,667,884	-14,415,205	-102,128,874
2004	-17,667,884	-14,029,397	-116,158,271
2005	-17,667,884	-13,653,914	-129,812,185
2006	-17,667,884	-13,288,481	-143,100,666
2007	-17,667,884	-12,932,828	-156,033,494
2008	-17,667,884	-12,586,694	-168,620,188
2009	-17,667,884	-12,249,824	-180,870,012
2010	-17,667,884	-11,921,970	-192,791,981
2011	-17,667,884	-11,602,890	-204,394,871
2012	-17,667,884	-11,292,350	-215,687,222
2013	-17,667,884	-10,990,122	-226,677,344
2014	-17,667,884	-10,695,983	-237,373,327
2015	-17,667,884	-10,409,715	-247,783,042

TOTAL ONE-TIME COST REPORT (COBRA v5.08) - Page 1/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	6,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		6,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,666,665	
Unemployment	43,848	
Total - Personnel		2,032,343
Overhead		
Program Planning Support	661,560	
Mothball / Shutdown	506,250	
Total - Overhead		1,167,810
Moving		
Civilian Moving	0	
Civilian PPS	1,382,400	
Military Moving	0	
Freight	93,290	
One-Time Moving Costs	0	
Total - Moving		1,475,690
Other		
HAP / RSE	221,911	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		221,911
Total One-Time Costs		10,897,754
One-Time Savings		
Military Construction Cost Avoidances	233,000	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		233,000
Total Net One-Time Costs		10,664,754

ONE-TIME COST REPORT (COBRA v5.08) - Page 2/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	5,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		5,000,000
Personnel		
Civilian RIF	254,665	
Civilian Early Retirement	67,164	
Civilian New Hires	0	
Eliminated Military PCS	1,666,665	
Unemployment	43,848	
Total - Personnel		2,032,343
Overhead		
Program Planning Support	661,560	
Mothball / Shutdown	506,250	
Total - Overhead		1,167,810
Moving		
Civilian Moving	0	
Civilian PPS	1,382,400	
Military Moving	0	
Freight	93,290	
One-Time Moving Costs	0	
Total - Moving		1,475,690
Other		
HAP / RSE	221,911	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		221,911
Total One-Time Costs		9,897,754
One-Time Savings		
Military Construction Cost Avoidances	233,000	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		233,000
Total Net One-Time Costs		9,664,754

ONE-TIME COST REPORT (COBRA v5.08) - Page 3/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: LACKLAND AFB, TX
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	1,000,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		1,000,000
Personnel		
Civilian RIF	0	
Civilian Early Retirement	0	
Civilian New Hires	0	
Eliminated Military PCS	0	
Unemployment	0	
Total - Personnel		0
Overhead		
Program Planning Support	0	
Mothball / Shutdown	0	
Total - Overhead		0
Moving		
Civilian Moving	0	
Civilian PPS	0	
Military Moving	0	
Freight	0	
One-Time Moving Costs	0	
Total - Moving		0
Other		
HAP / RSE	0	
Environmental Mitigation Costs	0	
One-Time Unique Costs	0	
Total - Other		0
Total One-Time Costs		1,000,000
One-Time Savings		
Military Construction Cost Avoidances	0	
Family Housing Cost Avoidances	0	
Military Moving	0	
Land Sales	0	
One-Time Moving Savings	0	
Environmental Mitigation Savings	0	
One-Time Unique Savings	0	
Total One-Time Savings		0
Total Net One-Time Costs		1,000,000

TOTAL MILITARY CONSTRUCTION ASSETS (COBRA v5.08) - Page 1/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

All Costs in $K

Base Name	Total MilCon	IMA Cost	Land Purch	Cost Avoid	Total Cost
BROOKS AFB	5,000	0	0	-233	4,767
LACKLAND AFB	1,000	0	0	0	1,000
Totals:	6,000	0	0	-233	5,767

MILITARY CONSTRUCTION ASSETS (COBRA v5.08) - Page 2/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

MilCon for Base: BROOKS AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
BROOKS AFB	OTHER	0	n/a	0	n/a	5,000

Total Construction Cost:	5,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	233
TOTAL:	4,767

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

MilCon for Base: LACKLAND AFB, TX

All Costs in $K

Description:	MilCon Categ	Using Rehab	Rehab Cost*	New MilCon	New Cost*	Total Cost*
MINOR ADAPTATIONS	OTHER	0	n/a	0	n/a	1,000

Total Construction Cost:	1,000
+ Info Management Account:	0
+ Land Purchases:	0
- Construction Cost Avoid:	0
TOTAL:	1,000

* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.

PERSONNEL SUMMARY REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

PERSONNEL SUMMARY FOR: BROOKS AFB, TX

BASE POPULATION (FY 1996):

Officers	Enlisted	Students	Civilians
640	999	0	1,766

FORCE STRUCTURE CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	0	186	0	0	0	0	186
Enlisted	0	111	0	0	0	0	111
Students	0	0	0	0	0	0	0
Civilians	0	-101	0	0	0	0	-101
TOTAL	0	196	0	0	0	0	196

BASE POPULATION (Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
826	1,110	0	1,665

PERSONNEL REALIGNMENTS:
To Base: LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

TOTAL PERSONNEL REALIGNMENTS (Out of BROOKS AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

SCENARIO POSITION CHANGES:

	1996	1997	1998	1999	2000	2001	Total
Officers	-19	-19	0	0	0	0	-38
Enlisted	-115	-114	0	0	0	0	-229
Civilians	-78	-78	0	0	0	0	-156
TOTAL	-212	-211	0	0	0	0	-423

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
769	753	0	1,281

PERSONNEL SUMMARY FOR: LACKLAND AFB, TX

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

Officers	Enlisted	Students	Civilians
1,787	4,738	0	2,578

PERSONNEL SUMMARY REPORT (COBRA v5.08) - Page 2
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Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

PERSONNEL REALIGNMENTS:
From Base: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

TOTAL PERSONNEL REALIGNMENTS (Into LACKLAND AFB, TX):

	1996	1997	1998	1999	2000	2001	Total
Officers	10	9	0	0	0	0	19
Enlisted	64	64	0	0	0	0	128
Students	0	0	0	0	0	0	0
Civilians	114	114	0	0	0	0	228
TOTAL	188	187	0	0	0	0	375

BASE POPULATION (After BRAC Action):

Officers	Enlisted	Students	Civilians
1,806	4,866	0	2,806

TOTAL PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 1/3
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Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	0	0	0	0	228
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*+		0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	0	0	0	0	228
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		78	78	0	0	0	0	156
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIFs)*+		5	5	0	0	0	0	10
Priority Placement#	60.00%	47	47	0	0	0	0	94
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		114	114	0	0	0	0	228
Civilians Moving		114	114	0	0	0	0	228
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		47	47	0	0	0	0	94
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

+ The Percentage of Civilians Not Willing to Move (Voluntary RIFs) varies from base to base.

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

PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 2/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Base: BROOKS AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		114	114	0	0	0	0	228
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		114	114	0	0	0	0	228
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		78	78	0	0	0	0	156
Early Retirement	10.00%	8	8	0	0	0	0	16
Regular Retirement	5.00%	4	4	0	0	0	0	8
Civilian Turnover	15.00%	12	12	0	0	0	0	24
Civs Not Moving (RIFs)*	6.00%	5	5	0	0	0	0	10
Priority Placement#	60.00%	47	47	0	0	0	0	94
Civilians Available to Move		2	2	0	0	0	0	4
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		2	2	0	0	0	0	4
CIVILIAN POSITIONS REALIGNING IN		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		8	8	0	0	0	0	16
TOTAL CIVILIAN RIFS		7	7	0	0	0	0	14
TOTAL CIVILIAN PRIORITY PLACEMENTS#		47	47	0	0	0	0	94
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

PERSONNEL IMPACT REPORT (COBRA v5.08) - Page 3/3
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Pctrs File : C:\COBRA\BROOKS.SFF

Base: LACKLAND AFB, TX	Rate	1996	1997	1998	1999	2000	2001	Total
CIVILIAN POSITIONS REALIGNING OUT		0	0	0	0	0	0	0
Early Retirement*	10.00%	0	0	0	0	0	0	0
Regular Retirement*	5.00%	0	0	0	0	0	0	0
Civilian Turnover*	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Civilians Moving (the remainder)		0	0	0	0	0	0	0
Civilian Positions Available		0	0	0	0	0	0	0
CIVILIAN POSITIONS ELIMINATED		0	0	0	0	0	0	0
Early Retirement	10.00%	0	0	0	0	0	0	0
Regular Retirement	5.00%	0	0	0	0	0	0	0
Civilian Turnover	15.00%	0	0	0	0	0	0	0
Civs Not Moving (RIFs)*	6.00%	0	0	0	0	0	0	0
Priority Placement#	60.00%	0	0	0	0	0	0	0
Civilians Available to Move		0	0	0	0	0	0	0
Civilians Moving		0	0	0	0	0	0	0
Civilian RIFs (the remainder)		0	0	0	0	0	0	0
CIVILIAN POSITIONS REALIGNING IN		114	114	0	0	0	0	228
Civilians Moving		114	114	0	0	0	0	228
New Civilians Hired		0	0	0	0	0	0	0
Other Civilian Additions		0	0	0	0	0	0	0
TOTAL CIVILIAN EARLY RETIRMENTS		0	0	0	0	0	0	0
TOTAL CIVILIAN RIFS		0	0	0	0	0	0	0
TOTAL CIVILIAN PRIORITY PLACEMENTS#		0	0	0	0	0	0	0
TOTAL CIVILIAN NEW HIRES		0	0	0	0	0	0	0

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

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

PERSONNEL, SF, RPMA, AND BOS DELTAS (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

	Personnel			SF		
Base	Change	%Change		Change	%Change	Chg/Per
BROOKS AFB	-798	-22%		-405,000	-21%	507
LACKLAND AFB	375	4%		0	0%	0

	RPMA($)			BOS($)		
Base	Change	%Change	Chg/Per	Change	%Change	Chg/Per
BROOKS AFB	-745,285	-20%	934	-1,174,480	-13%	1,472
LACKLAND AFB	0	0%	0	545,988	2%	1,456

	RPMABOS($)		
Base	Change	%Change	Chg/Per
BROOKS AFB	-1,919,765	-14%	2,406
LACKLAND AFB	545,988	2%	1,456

RPMA/BOS CHANGE REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

Net Change($K)	1996	1997	1998	1999	2000	2001	Total	Beyond
RPMA Change	-185	-558	-745	-745	-745	-745	-3,724	-745
BOS Change	-24	-341	-628	-628	-628	-628	-2,879	-628
Housing Change	0	0	0	0	0	0	0	0
TOTAL CHANGES	-210	-898	-1,374	-1,374	-1,374	-1,374	-6,603	-1,374

INPUT DATA REPORT (COBRA v5.08)
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: No

Base Name	Strategy:
BROOKS AFB, TX	Deactivates in FY 2001
LACKLAND AFB, TX	Realignment

Summary:

CLOSE BROOKS AFB; RETAIN HSC, ARMSRTONG LAB, SCHOOL OF AEROSPACE MEDICINE, AFCEE, AND YA IN CANTONEMENT AT BROOKS FIELD. THE 68TH INTEL SQDN AND THE 710TH INTEL FLIGHT (AFRES) REMAIN AT BROOKS. MFH RETAINED. BOS PROVIDED BY LACKLAND AFB OR KELLY AFB.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
BROOKS AFB, TX	LACKLAND AFB, TX	11 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from BROOKS AFB, TX to LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001
Officer Positions:	10	9	0	0	0	0
Enlisted Positions:	64	64	0	0	0	0
Civilian Positions:	114	114	0	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: BROOKS AFB, TX

Total Officer Employees:	640	RPMA Non-Payroll ($K/Year):	3,765
Total Enlisted Employees:	999	Communications ($K/Year):	192
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	8,585
Total Civilian Employees:	1,766	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	19.0%	Family Housing ($K/Year):	1,205
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.87
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	1,918	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	AF009
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

INPUT DATA REPORT (COBRA v5.08) - Page 2
Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: LACKLAND AFB, TX

Total Officer Employees:	1,787	RPMA Non-Payroll ($K/Year):	6,730
Total Enlisted Employees:	4,738	Communications ($K/Year):	663
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	24,111
Total Civilian Employees:	2,578	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	21.0%	Family Housing ($K/Year):	3,991
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.87
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	10,008	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	AF046
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.07	Unique Activity Information:	No

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	2,808	2,808	2,808	2,808
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0%
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	233	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 405 Perc Family Housing ShutDown: 0.0%

Name: LACKLAND AFB, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	0	0	0	0	0
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	0	0	0	0	0	0
1-Time Moving Save ($K):	0	0	0	0	0	0
Env Non-MilCon Reqd($K):	0	0	0	0	0	0
Activ Mission Cost ($K):	0	0	0	0	0	0
Activ Mission Save ($K):	0	0	0	0	0	0
Misc Recurring Cost($K):	0	0	0	0	0	0
Misc Recurring Save($K):	0	0	0	0	0	0
Land (+Buy/-Sales) ($K):	0	0	0	0	0	0
Construction Schedule(%):	50%	50%	0%	0%	0%	0%
Shutdown Schedule (%):	50%	50%	0%	0%	0%	0%
MilCon Cost Avoidnc($K):	0	0	0	0	0	0
Fam Housing Avoidnc($K):	0	0	0	0	0	0
Procurement Avoidnc($K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0

Facil ShutDown(KSF): 0 Perc Family Housing ShutDown: 0.0%

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Fctrs File : C:\COBRA\BROOKS.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: BROOKS AFB, TX

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	186	0	0	0	0
Enl Force Struc Change:	0	111	0	0	0	0
Civ Force Struc Change:	0	-101	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	-19	-19	0	0	0	0
Enl Scenario Change:	-115	-114	0	0	0	0
Civ Scenario Change:	-78	-78	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: BROOKS AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
BROOKS AFB	OTHER	0	0	5,000

Name: LACKLAND AFB, TX

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
MINOR ADAPTATIONS	OTHER	0	0	1,000

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	76.80%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	66.90%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	80.00%	PPS Actions Involving PCS:	50.00%
Officer Salary($/Year):	78,668.00	Civilian PCS Costs ($):	28,800.00
Off BAQ with Dependents($):	7,073.00	Civilian New Hire Cost($):	4,000.00
Enlisted Salary($/Year):	36,148.00	Nat Median Home Price($):	114,600.00
Enl BAQ with Dependents($):	5,162.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost($/Week):	174.00	Max Home Sale Reimburs($):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary($/Year):	46,642.00	Max Home Purch Reimburs($):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	0.00%
SF File Desc:	DEPOT FACTORS	RSE Homeowner Receiving Rate:	0.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	0.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	0.00%
(Indices are used as exponents)		MilCon Design Rate:	0.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	0.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	0.00%
Mothball Cost ($/SF):	1.25	MilCon Site Preparation Rate:	0.00%
Avg Bachelor Quarters(SF):	256.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,320.00	Inflation Rate for NPV.RPT/ROI:	0.00%

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

Data As Of 21:59 03/09/1995, Report Created 09:45 06/03/1995

Department : AIR FORCE
Option Package : BROOKS ALT #3
Scenario File : C:\COBRA\BROOKS-3.CBR
Std Pctrs File : C:\COBRA\BROOKS.SFF

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate($/Ton):	284.00
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle($/Mile):	0.43
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle($/Mile):	1.40
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement($/Mile):	0.18
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	4.10
Total HHG Cost ($/100Lb):	35.00	Routine PCS($/Pers/Tour):	6,437.00
Air Transport ($/Pass Mile):	0.20	One-Time Off PCS Cost($):	9,142.00
Misc Exp ($/Direct Employ):	700.00	One-Time Enl PCS Cost($):	5,761.00

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	$/UM	Category	UM	$/UM
Horizontal	(SY)	0	Optional Category A	( )	0
Waterfront	(LF)	0	Optional Category B	( )	0
Air Operations	(SF)	0	Optional Category C	( )	0
Operational	(SF)	0	Optional Category D	( )	0
Administrative	(SF)	0	Optional Category E	( )	0
School Buildings	(SF)	0	Optional Category F	( )	0
Maintenance Shops	(SF)	0	Optional Category G	( )	0
Bachelor Quarters	(SF)	0	Optional Category H	( )	0
Family Quarters	(SF)	0	Optional Category I	( )	0
Covered Storage	(SF)	0	Optional Category J	( )	0
Dining Facilities	(SF)	0	Optional Category K	( )	0
Recreation Facilities	(SF)	0	Optional Category L	( )	0
Communications Facil	(SF)	0	Optional Category M	( )	0
Shipyard Maintenance	(SF)	0	Optional Category N	( )	0
RDT & E Facilities	(SF)	0	Optional Category O	( )	0
POL Storage	(BL)	0	Optional Category P	( )	0
Ammunition Storage	(SF)	0	Optional Category Q	( )	0
Medical Facilities	(SF)	0	Optional Category R	( )	0
Environmental	( )	0			

6 JUNE 95 FACILITY REVIEW
178FG/BROOKS BRAC BEDDOWN

LIST OF ATTENDEES

NAME	ORGANIZATION	PHONE
MR J. P. SUTTON	ASC/CD	785-3229
MR LEON GLASPELL	88 ABW/CA	787-3943
COL ROBERT "LANCE" MEYER	178 FG/CC	346-2178
MR CRAIG HALL	BRAC COMMISSION	226-0504/198
MR LES FARRINGTON	BRAC COMMISSION	226-0504/190
MR JOE VARALLO	BRAC COMMISSION	226-0504/190
MR FRED BRINKMAN	88 CEG/CECX	787-4804
MR WILLIAM F. STORM	BROOKS AFB	240-3464
MR BILL HUMES	BROOKS AFB	240-3446
MR JOHN FEDON	WRIGHT LAB/POME	785-4013
MR JAMES DAWSON	88 CEG/CECX	787-4804
MR JAMES HODGE	88 CEG/CECP	787-74427
LT COL GENE DEGRAPHENREID	HQ AFMC/XPX	787-6322
MR SKIP THIELEN	HQ AFMC/XPX	787-2622
MR NORM THOELE	AL/SDNL	785-6069
MR ED WOZNIAK	88 ABW/XPP	787-6291

BROOKS BEDDOWN AT WPAFB
BRAC SITE VISIT
6 JUNE 1995

AGENDA

0930 - 1015	INBRIEF - BEDDOWN OVERVIEW (AREA C, BLDG 110, RM 109)
1015 -1030	**TRAVEL TO BLDG 262, AREA A**
1030 - 1100	COURTESY VISIT TO AFMC/XP
1100 - 1115	**TRAVEL TO AREA B**
1115 - 1130	TOUR BLDG 32
1130 - 1140	**TRAVEL TO EXECUTIVE DINING ROOM (EDR)**
1140 - 1210	LUNCH (EDR)
1210 - 1220	**TRAVEL TO BLDG 17**
1220 -1250	BLDGs 17, 57, TOUR FOR HSC/YA, SYSTEM PROGRAM OFFICE, BLDG 28 (TOUR FOR AL STAFF) & BLDG 33 (TOUR CENTRIFUGE FACILITY FOR CREW TECHNOLOGY
1250 - 1300	**TRAVEL TO BLDG 22**
1300 - 1315	BLDG 22 (TOUR FOR AL/SD LIBRARY AND AL/OE OCCUPATIONAL ENVIRONMENTAL HEALTH)
1315 - 1325	**TRAVEL TO BLDG 190**
1325 - 1345	BLDG 190, 434, 79 (TOUR FOR AL/AO AEROSPACE MEDICINE)
1345 - 1355	**TRAVEL TO BLDG 126**
1355 - 1405	BLDG 126 (TOUR FOR AL/CFT CREW TECHNOLOGY)
1405 - 1410	**TRAVEL TO BLDG 125**
1410 - 1425	BLDG 125 (TOUR FOR SYSTEMS ACQUISITION SCHOOL)
1425 - 1435	**TRAVEL TO BLDG 838**
1435 - 1450	BLDG 838 &839 (TOUR AL/OE OCCUPATIONAL ENVIRONMENTAL HEALTH VIVARIUM AND LABORATORY); BLDG 821 (TOUR FOR SCHOOL OF AEROSPACE MEDICINE)
1450 - 1500	DRIVE BY PROPOSED SITE FOR SCHOOL OF AEROSPACE MEDICINE
1500 - 1515	RETURN TO AREA C

OPTIONAL TOURS
BLDG 441
BLDG 450
BLDG 145

AIR NATIONAL GUARD BEDDOWN AT WPAFB
BRAC SITE VISIT
6 JUNE 1995

AGENDA

0930-1015	INBRIEF - BEDDOWN OVERVIEW (AREA C, BLDG 110, RM 109)
1015-1025	TRAVEL TO FLIGHTLINE
1025-1040	TOUR FAC 144, BLDGS 136, 91, AND 93
1040-1100	TOUR BLDG 101
1100-1115	TOUR BLDG 268
1115-1125	TOUR BLDGS 103 AND 106
1125-1130	TRAVEL TO BLDG 259
1130-1145	TOUR BLDG 259
1145-1200	WINDSHIELD TOUR OF BLDGS 95, 255 AND 58
1200-1230	LUNCH
1230-1300	TRAVEL TO SPRINGFIELD ANG FACILITIES

TONY P. HALL
THIRD DISTRICT, OHIO
COMMITTEES:
HOUSE COMMITTEE ON RULES
SUBCOMMITTEE ON RULES OF THE HOUSE

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

1432 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-3503
(202) 225-6465

DISTRICT OFFICE:
501 FEDERAL BUILDING
200 WEST SECOND STREET
DAYTON, OH 45402
(513) 225-2843

June 6, 1995

Please refer to this number when responding 950606-11

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

Dear Senator Dixon:

As you know, the Department of Defense selection criteria for closing and realigning military installations inside the United States, as published in the Federal Register on December 9, gives priority consideration to military value.

I am forwarding to you a series of questions aimed at building the record on the relative military values of the Department of Defense's recommendation to close Brooks Air Force Base and the San Antonio community's alternative to maintain the functions of Brooks in a cantonment area.

I would appreciate it if the Defense Base Closure and Realignment Commission could pose these questions to the Air Force so that the response may become part of the record.

Sincerely,

Tony P. Hall
Member of Congress

TPH:mdg
cc: Air Force Legislative Liaison

Enclosure

PRINTED ON RECYCLED PAPER

6- 6-95 ;10:37AM ; HON. TONY HALL- 7036960550;# 1/ 2

Question for Air Force
Brooks Air Force Base

1. Please address the military value of the closure of Brooks Air Force Base versus the cantonment option presented by the City of San Antonio. Include information related to the following topics:

   a) Reuniting Armstrong Laboratory versus maintaining two separate locations for the laboratory.

   b) Collocating Armstrong Laboratory with Wright Laboratory versus maintaining the laboratories in two separate locations.

   c) Collocating the Human Systems Program Office acquisition work with Aeronautical Systems Center acquisition work versus maintaining two separate acquisition functions.

   d) Other factors related to the relative military value of the two options.

2. Please address concerns raised by the City of San Antonio that critical expertise would be lost by moving functions at Brooks AFB to Wright-Patterson AFB.

BROOKS COBRA COMPARISONS

($ in ~~millions~~ millions)

	INITIAL AF 3/3/95	COMM CANTONMENT 4/3/95	AF POST SITE SURVEY 5/19/95	AF/CANTONMENT 5/26/95	AF/CANTONMENT 5/26/95
ONE-TIME COST	$ 185.5M	$ 11.1 M	$ 211.5M	$ 21.3M	$ 21.8M
ANN. SAVINGS	27.4M	21.6 M	32.2M	10.5M	10.3 M
ROI	2008 (7YRS)	IMMED.	2007(6YRS)	2000(2YRS)	2000(2YRS)
NPV	142.1 M	301 M	172.1M	119.7	115.2
PERS ELIM	391	391	506	266	250
PERS REALIG	3228	518	2876	689	507
				↑ (BOS BY KELLY)	↑ (BOS BY LACKLAND)

AF STATES CANTONMENT DOES NOT REPRESENT AN AF POSITION

MILCON 103.2 6.0 115.5 FCFarrington

7.6 8.0

BROOKS BEDDOWN AT WPAFB
BRAC SITE VISIT
6 JUNE 1995

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dining hall capacity
Services commander

OPTIONAL TOURS
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BLDG 450
BLDG 145

6 JUNE 95 FACILITY REVIEW
178FG/BROOKS BRAC BEDDOWN

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BRAC SITE VISIT
6 JUNE 1995

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1100-1115	TOUR BLDG 268
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1125-1130	TRAVEL TO BLDG 259
1130-1145	TOUR BLDG 259
1145-1200	WINDSHIELD TOUR OF BLDGS 95, 255 AND 58
1200-1230	LUNCH
1230-1300	TRAVEL TO SPRINGFIELD ANG FACILITIES

Aeronautical Systems Center

BROOKS AFB BEDDOWN
BRAC VISIT

6 JUNE 1995

Aeronautical Systems Center

BROOKS AFB MILCON

	Scope (SF)	Cost Then YR $M
Renovate for SPO (Bldg 17, 57)	74,000	11.0
Renovate for AL Staff (Bldg 28)	90,000	1.0
ADAL for Centrifuge (Bldg 33)	10,700	3.5
Renovate for AL Library (Bldg 22)	20,000	2.2

Aeronautical Systems Center

BROOKS AFB MILCON (Cont.)

	Scope (SF)	Cost Then YR $M
ADAL for Occupational Environmental Health (AL/OE)		
– Renovation (Bldg 22)	36,000	4.0
– New Construction	61,350	12.9
– Add to Vivarium	50,000	16.4
ADAL for Aerospace Medicine (AL/AO)		
– Renovation (Bldg 190, 434, 79, 195)	68,000	12.1
– New Construction	27,700	8.3
ADAL for Crew Technology (AL/CFT)		
– Renovation (Bldg 126)	35,000	----
– New Construction	29,100	9.2

Aeronautical Systems Center

BROOKS AFB MILCON (Cont.)

	Scope (SF)	Cost Then YR $M
ADAL for USAF School of Aerospace Medicine		
– Renovation (Bldg 821)	24,000	1.6
– New Construction	89,100	13.0
– Pipeline Student Dormitory	53,500	7.0
– Outdoor Training Area	3,000	0.5
Alter for Systems Acquisition School	15,400	0.7

Aeronautical Systems Center

BROOKS AFB MILCON SUMMARY

	SCOPE (SF)	COST (THEN YR $M)
RENOVATION	362,400	32.6
NEW	324,450	70.8
TOTAL	686,850	103.4

only W-P
+20$M

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

Please refer to this number when responding 950609-7

ALAN J. DIXON, CHAIRMAN

COMMISSIONERS:
AL CORNELLA
REBECCA COX
GEN J. B. DAVIS, USAF (RET)
S. LEE KLING
RADM BENJAMIN F. MONTOYA, USN (RET)
MG JOSUE ROBLES, JR., USA (RET)
WENDI LOUISE STEELE

Jun 9, 1995

Major General Jay D. Blume, Jr. (Lt. Col. Mary Tripp)
Special Assistant to the Chief of Staff
for Base Realignment and Transition
Headquarters USAF
1670 Air Force Pentagon
Washington, D.C. 20330-1670

Dear General Blume:

We request you provide any additional backup information regarding the site survey for the Brooks AFB recommendation. We are especially interested in information pertaining to how the manpower savings were obtained. Please highlight if appropriate, how the "Dorn" cuts were applied. We need this back up information in order to complete our analysis.

To assist the Commission in its work, we request this information to be provided by June 15, 1995. Thank you for your assistance in this matter.

Sincerely,

Francis A. Cirillo, Jr., PE
Air Force Team Leader