DCN: 3022

### DEFENSE BASE REALIGNEMENT AND CLOSURE COMMISSION 2521 S. CLARK STREET, SUITE 600 ARLINGTON, VIRGINIA 22202 (703) 699-2950

### **MEMORANDUM OF MEETING**

DATE:

June 15, 2005

TIME:

9:00 am

**MEETING WITH:** 

Wright-Patterson AFB and Community Officials

**OBJECTIVE:** 

To discuss the BRAC recommendations affecting

**WPAFB** 

**JCSG STAFF:** 

Lester C. Farrington

Lesia Mandzia

### OTHER COMMISSION PARTICIPANTS:

None.

### **NON-COMMISSION PARTICIPANT(S):**

Name/Title/Phone Number

### WPAFB OFFICIALS

COL Peter F. Hoene--AFMC Special Assistant for BRAC, 937-257-8975 Linda McLaughlin--Ass't. to the Commander, 88<sup>th</sup> Base Wing, 937-257-3942 CAPT Jason Decker---Public Affairs, 937-257-6306 Mark Paulson---AF Research Lab, 937-904-6765 Debra Miesle---AFMC/SGS, 937-656-3652 Wendell Banks---AF Research Lab, 937-656-0818DPCX, William Borger---AF Research Lab, 937-255-2520 Charlene Xander---AFMC/Manpower, 937-257-0323 Tom Stafford---AFMC/XPS, 937-257-4141 Paul Ulrich---46OG/OGM/OL-AC, 937-255-6302 John Murphy----46)G/OGM/Ol-AC, 937-255-6302 CAPT Elizabeth Miller---AFMC/SGSR, 937-656-3647

Lori Stryker---AFSG/OMY, 937-257-8389 Lynn Moad---DFSG/DC, 937-257-2714 Doug Fleser---DFSG/OM, 937-257-1955 Pete Jacques---88 ABW/LGRRP, 937-904-3160 Gus Reed---AF Research Lab, 937-255-3267 Jay Asher---ASC/XPP, 937-904-8572 Barbara O'Brien---88 ABW/CECX, 937-257-4804 Linda Cardwell---88 MSS/DPC, 937-257-3699 Jerry Stryker---88 MSS/DPCX, 937-257-1888

### **COMMUNITY OFFICIALS**

Louis C. Ferraro, Jr., Ferro Consulting, 937-427-3834 Jim Leftwich—Dayton Development Coalition, 937-229-9074

### MEETING RESULTS/FOLLOW-UP ACTION:

We met with the community officials at a separate meeting outside the base following the meeting with WPAFB officials.

Air Force officials provided us with a Mission Briefing of Air Force Materiel Command and then discussed each of the 7 BRAC recommendations affecting WPAFB. (4 technical, 2 medical and 1 hqs. & support). The net effect of these recommendations is a GAIN of 589 military personnel and a LOSS of 170 civilian personnel. Following the discussions we were given a windshield tour of Area B of the base that will be affected by the recommendations.

WPAFB officials made the point that they support the Secretary of Defense BRAC recommendations and they are not in a position to speculate or provide opinions on the results or the analysis behind the recommendations. After discussing each recommendation, WPAFB officials stated that the recommendations are not without challenges. Three challenges were discussed—(1) manpower (recruiting sufficient numbers of people for the skills required, (2) MILCON (determining the most appropriate locations to build on the base) and (3) implementation (ensuring organizational changes don't impact mission, ensuring new structure is aligned with common goals and metrics and the reconstitution of specialized functions).

WPAFB officials made the point that the Base has sufficient capacity and space to accommodate the influx of added workload to be received. They further stated that with respect to the sensor work to be received from Rome Lab, the work is compatible with the work that WBAFB now performs on sensors. Officials estimated that 718 people now work in WPAFB's Sensor Directorate (138 officers, 1 enlisted, and 579 civilian personnel).

As a result of our visit, WPAFB agreed to take on the following action items at our request:

- 1. The number of people in WPAFB, Rome & Hanscom Sensor Directorates
- 2. Clarification of terminology—DFSG, OSSG &.CFS.
- 3. The intent of the Rotary Wing Transfer-V-22, PRV, or both?
- 4. A discussion as to what (function and people) is moving out of WPAFB to China Lake concerning Live Fire testing. More precise terminology and specifics needed.
- 5. The intent of the CP0 consolidation (Hqs. & Support)
- 6. Results of recent WPAFB review of manpower impacts (SWAT team results).
- 7. Any disconnects/inconsistencies identified by WPAFB concerning the BRAC recommendations that need clarification.
- 8. Map of WPAFB showing facilities/areas affected by BRAC recommendations (incoming & outgoing)

### **COMMUNITY MEETING**

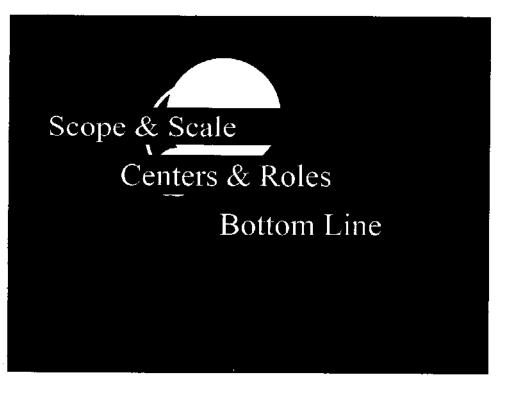
Community officials take issue with the recommendation that calls for Development and Fielding Group (DFSG) and other Operational Support Systems Group elements to Hanscom (Tech-6, 22). They are concerned with the evaluation of military value and the lack of available real estate at Hanscom to accommodate the movement from WPAFB.

### They made the following points:

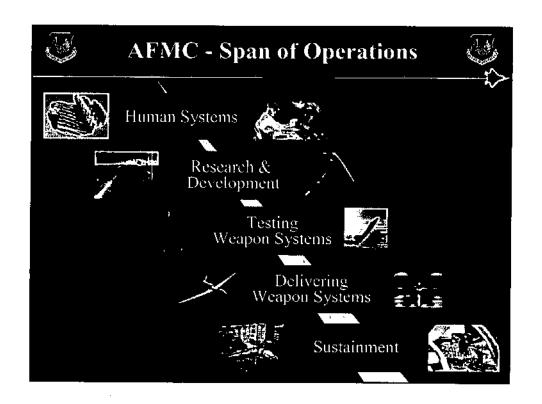
- 1. Evaluation of military did not capture all available data
- 2. Local Dayton information technology contractors were not accounted for in the calculation of military value.
- 3. Collocation of acquisition and users should be maintained at WBAFB.
- 4. DOD does not perform IT R&D on Business Management Operations.
- 5. Inclusion of a business systems acquisition organization like DFSG in C4ISR was inappropriate and misleading.
- 6. Sufficient land for MILCON is not available at Hanscom AFB. Roughly, 40 acres are required and only 8.4 unconstrained acres are available.
- 7. Relocation to Hanscom does not adequately address the enormous differences in cost of operations between Hanscom and WPAFB.

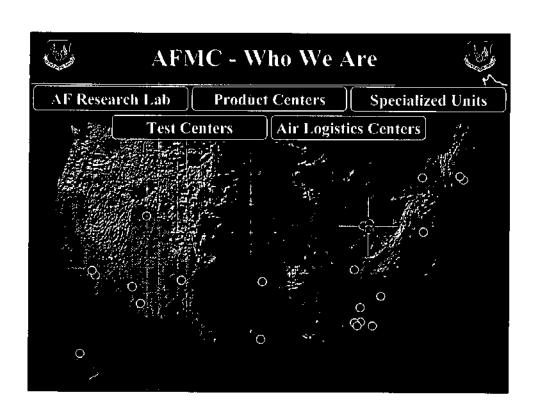
Community officials provided a working paper and other data at the conclusion of the meeting.

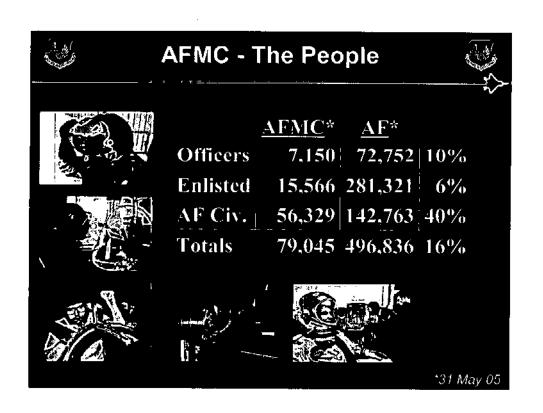
# Air Force Materiel Command Mission Briefing "War winning capabilities... on time, on cost."

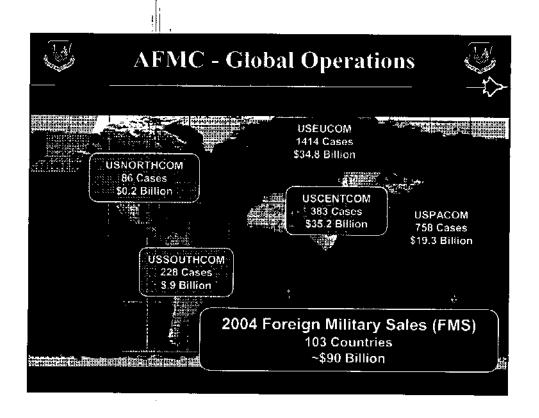


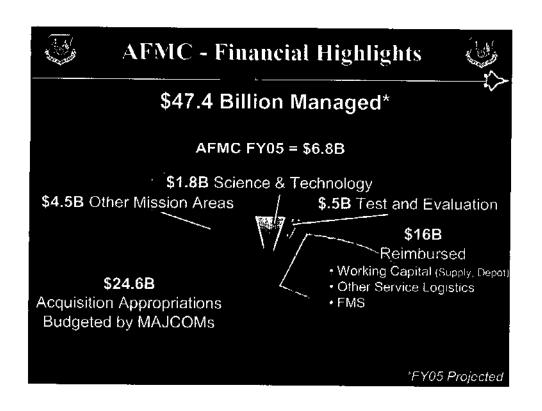


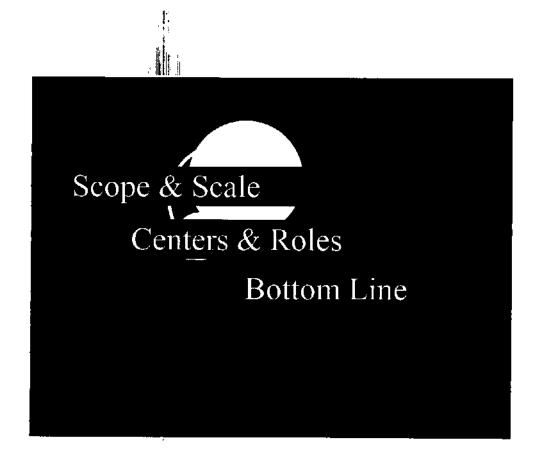


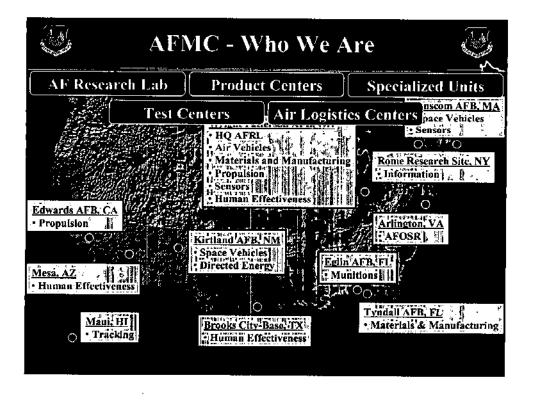


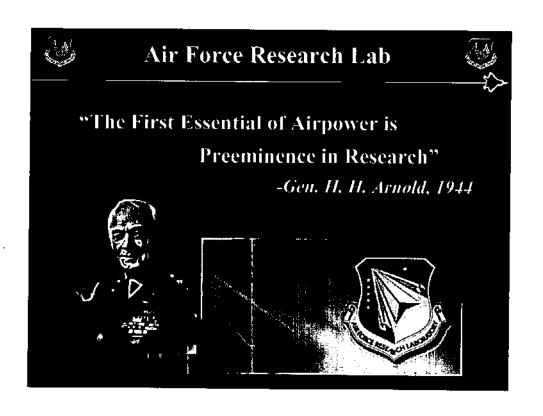


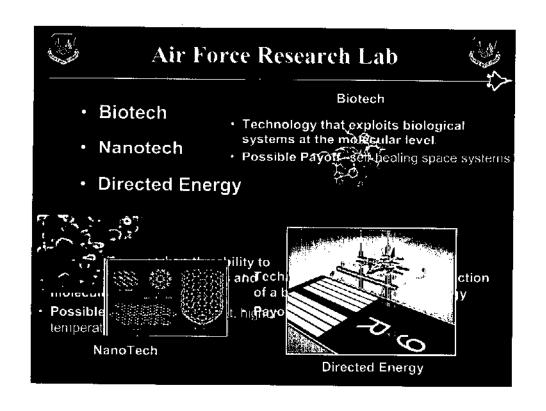


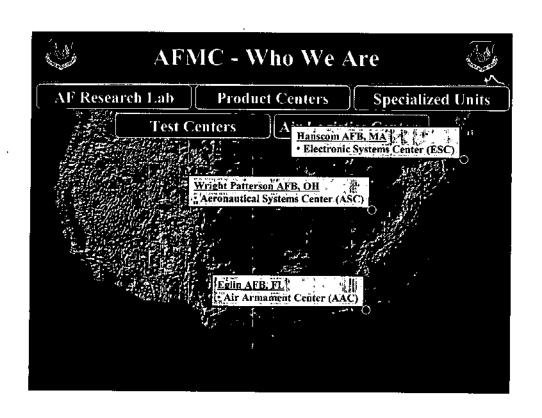


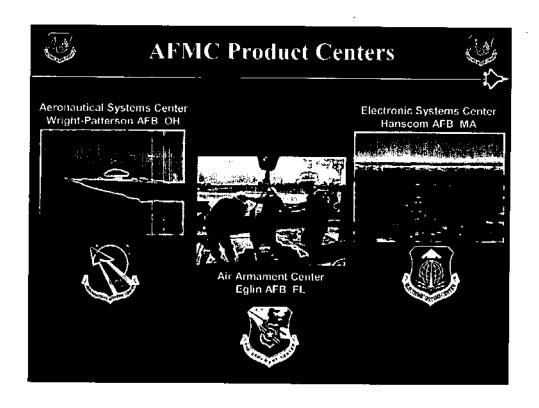


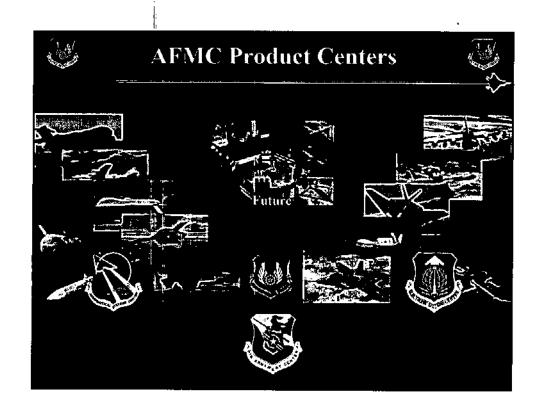


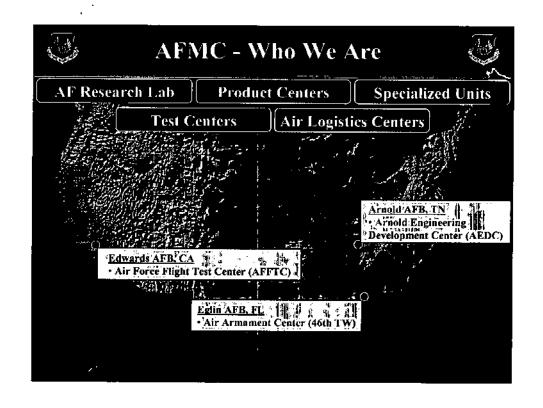


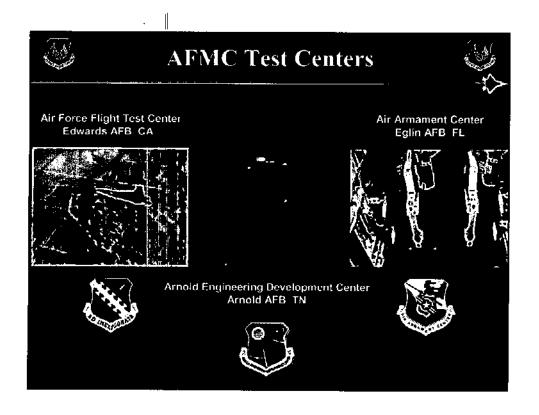


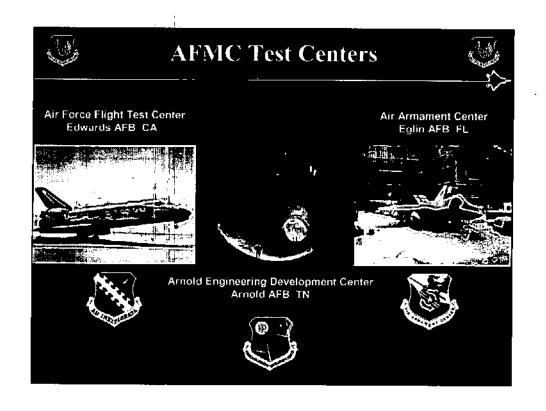


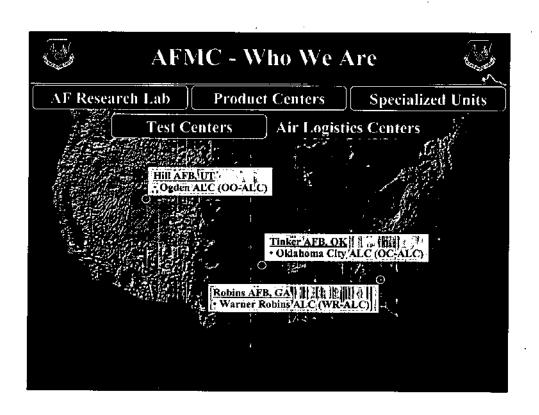


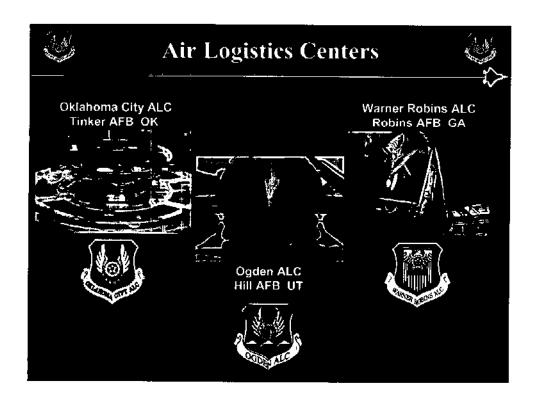


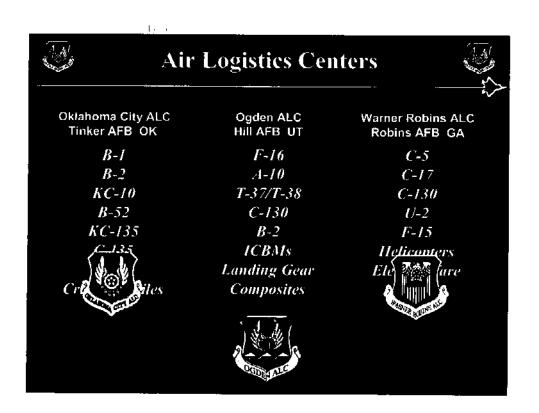


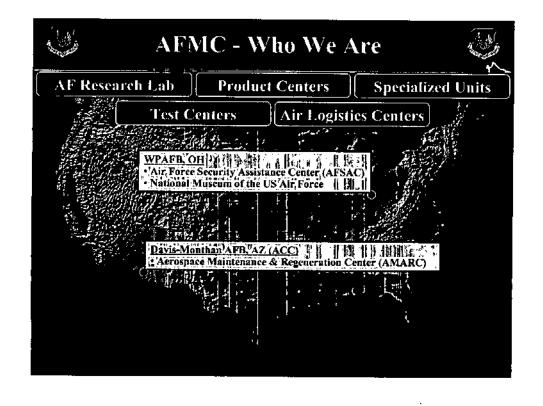


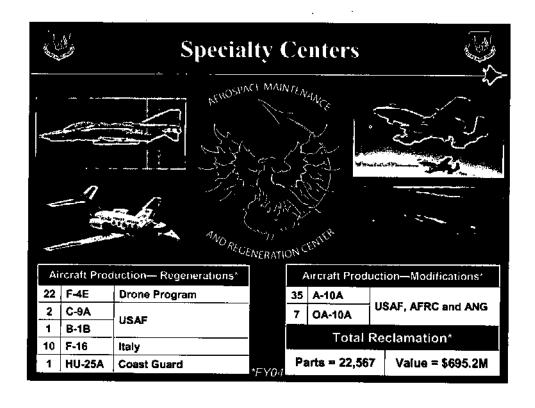


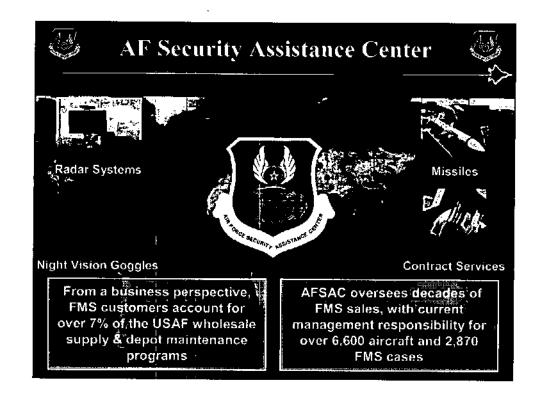


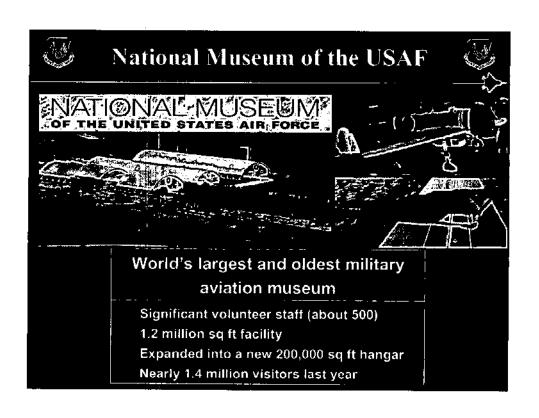


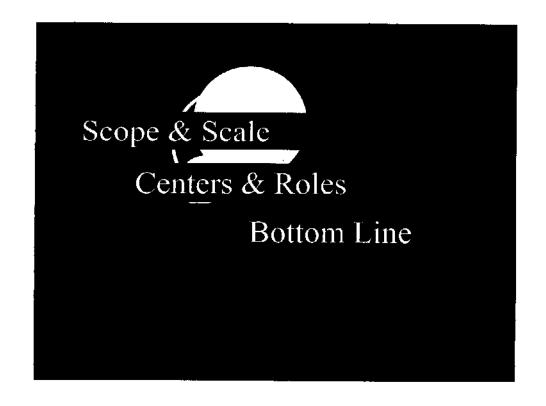














### The Bottom Line

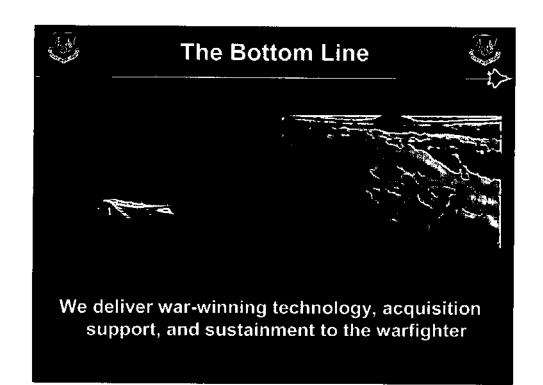


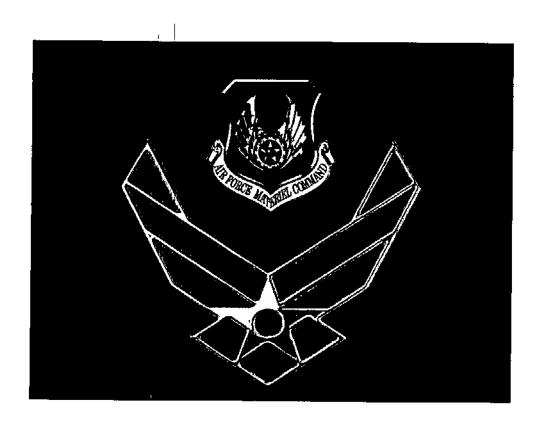
Our Vision...

To Be A Valued Team Member . . .

Of The World's Most Respected
Air & Space Force

War-Winning Capabilities...On Time, On Cost









# HQ AFMC Briefing to BRAC Commissioner Staffers 15 Jun 05 WPAFB, OH

1



### Overview



- ROE
- · Criteria
- AFMC Base by Base Breakout
- Challenges
- Summary

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### Rules of Engagement



- Support SECDEF recommendations
- Do not speculate or provide opinion on results or analysis behind them
- Follow Chain of Command and AF Comm Plan (PA channels) with regard to requests for information
- Support Commission visits to your installation
- Provide support for HQ teams
  - Provide full-time team to work with HQ AFMC site survey team
- SAF/PA is focal point for all requests for data



### **BRAC 05 Selection Criteria**



### Military Value

- Current/Future Mission
   Capabilities
- 2. Availability/Condition of Land, Facilities, & Associated Airspace
- 3. Ability to Accommodate
  Contingency, Mobilization,
  & Future Total Force
  Requirements
- 4. Cost of Operations & Manpower Implications

### **Other Considerations**

- 5. Extent/Timing of Potential Costs & Savings
- 6. Economic Impact on Existing Communities
- 7. Ability of both Existing & Receiving Communities' Infrastructure to Support Forces, Missions, & Personnel
- 8. Environmental Impact for Restoration, Waste Management, & Compliance Activities



### Wright-Patterson AFB Inbound



### Inbound

- AFRL Sensors (AFRL/SN) from Rome NY and Hanscom AFB
- AFRL Human Effectiveness (AFRL/HE) from Brooks AFB and Mesa AZ
- Brooks City Base Closure
  - United States Air Force School of Aerospace Medicine
  - Air Force Institute of Occupational Health
  - Naval Health Research Center Electro-Magnetic Energy Detachment
  - · Human Systems Dev and Acq (Excluding Chem/Bio)
  - Disestablishing high-onset gravitational force centrifuge and relocating the physiological training unit to Wright-Patterson AFB from Holloman AFB.
- Fixed Wing Aircraft Dev and Acq from Robins, Tinker and Hill
- Naval Aeromedical Research Lab from NAS Pensacola, FL



### Wright-Patterson AFB Outbound



### -AFM(

### Outbound

- AFRL Information (AFRL/IF) to Hanscom AFB
- Development and Fielding Systems Group (DFSG-aka MSG)\* to Hanscom AFB
- V-22 related Dev and Acq to Pax River MD
  - Includes Personnel Recovery Vehicle (PRV)
- Live Fire Testing (46 TW) to China Lake
- Consolidate CPOs at Randolph AFB
- Consolidate DLR Procurement in Place Under DLA

<sup>\*</sup> Organization not specifically identified in SecDef recommendations, but assumed to move



### **Brooks City Base**



- Close Brooks City Base
  - To Wright-Patterson AFB
    - United States Air Force School of Aerospace Medicine
      - Air Force Institute of Occupational Health
    - Naval Health Research Center Electro-Magnetic Energy Detachment
    - · Human Systems Dev and Acq (Excluding Chem/Bio)
    - AFRL Human Effectiveness (AFRL/HE)
  - To Aberdeen MD
    - · Human Effectiveness (311 HSW) Dev and Acq (Chem/Bio)
  - To Lackland AFB
    - Air Force Center for Environmental Excellence
    - · Air Force Medical Support Agency
    - · Air Force Medical Operations Agency
    - Air Force Element Medical Defense Agency
    - · Air Force Element Medical-DoD
    - · Air Force-Wide Support Element
    - · 710th Information Operations Flight
    - · 68th Information Operations Squadron
  - To Ft Sam Houston
    - Army Medical Research Detachment to the Army Institute of Surgical Research
  - Disestablish any remaining organizations



### **Hanscom AFB**



- Inbound
  - AFRL Information (AFRL/IF) from Wright-Patterson AFB
  - Air & Space Info Systems Research and Dev. & Acq.
    - Development and Fielding Systems Group (DFSG) from Wright-Patterson AFB\*
    - Operations & Sustainment Systems Group (OSSG) from Maxwell-Gunter AFB\*
    - Cryptologic Systems Group (CPSG--Dev & Acq) from Lackland AFB\*
- Outbound
  - AFRL Space (AFRL/VS) to Kirtland AFB
  - AFRL Sensors (AFRL/SN) to Wright-Patterson AFB
- \* Organizations not specifically identified in SecDef recommendations, but assumed to move



### Kirtland AFB



- Inbound
  - AFRL Space (AFRL/VS) from Hanscom AFB, MA
  - F-16 Block 30s to ANG from Cannon AFB, NM
  - Consolidate Army Reserve Center
- Outbound
  - Create single Southwest Regional Correction Facilities (to Miramar)



### Rome NY, Mesa AZ, AFRL/AFOSR VA and Tyndall AFB, FL



- Rome
  - AFRL Sensors (AFRL/SN) to Wright-Patterson AFB
  - AFRL Information (AFRL/IF) Retained at Rome NY
- Close AFRL/HE at Mesa AZ
  - To Wright-Patterson AFB
- AFOSR Relocate to National Naval Medical Center, Bethesda, MD
  - Co-Locate with Extramural Research Program Managers from Army Research Office, Office of Naval Research, DARPA, DTRA
- Tyndall AFB, FL
  - AFRL Chem/Bio Research to Aberdeen



### Hill AFB



### Inhound

- Realign base-level LANTIRN intermediate maintenance from Edwards AFB, CA; Mountain Home AFB, ID; and Luke AFB, AZ
- F-110 Intermediate Maintenance from NAS Joint Reserve Base Fort Worth, TX and Nellis AFB, NV
- F-16 Block 40 from Cannon AFB

### Outbound

- Fixed Wing Aircraft Dev and Acq to Wright-Patterson AFB (Not Aircraft in Sustainment)
- Weapons and Armament Dev and Acq to Eglin AFB (In-Service Engineering Only)
- Consolidate CPOs at Randolph AFB
- Consolidate DLR Procurement In-Place Under DLA
- Retail Supply, Storage, and Distribution Management Reconfiguration
- Relocate supply contracting function for tires to ICP at Defense Supply Center Columbus, OH
- Privatize Commodity Management (Tires, Packaged POL, Compressed Gasses)
- Distribute 419th Fighter Wing F-16s to Homestead ARB, FL and NAS Joint Reserve Base Fort Worth, TX



### **Robins AFB**



### Inbound

- Cryptologic ICP from Lackland AFB
- Close NAS Atlanta
- Consolidate/Co-Locate AF Personnel and Recruiting
- Relocate Engineering Installation Squadron (ANG), from Middle Georgia Reg. Airport, GA

### Outbound

- Rotary Wing Aircraft Dev and Acq to Redstone Arsenal AL (Not Aircraft in Sustainment)
- Fixed Wing Aircraft Dev and Acq to Wright-Patterson AFB (Not Aircraft in Sustainment)
- Consolidate CPOs at Randolph AFB
- Consolidate DLR Procurement in Place Under DLA
- Retail Supply, Storage, and Distribution Management Reconfiguration
   Becomes Strategic Distribution Platform
- Privatize Commodity Management (Tires, Packaged POL, Compressed Gasses)
- 12 PAA of KC-135 aircraft to McConnell AFB



### Tinker AFB



- Inbound
  - 4 PAA of KC-135 from Portland IAP OR
- Outbound
  - Fixed Wing Aircraft Dev and Acq to Wright-Patterson AFB (Not Aircraft in Sustainment)
  - Global Air Traffic Operations Program Office (GATOPO) to Will Rogers Air Guard Station OK
  - Consolidate CPOs at Randolph AFB
  - Consolidate DLR Procurement in Place Under DLA
  - Retail Supply, Storage, and Distribution Management Reconfiguration
    - Becomes Strategic Distribution Platform
  - Privatize Commodity Management (Tires, Packaged POL, Compressed Gasses)



### Eglin AFB



- Inbound
  - Weapons and Armament Dev and Acq from Hill AFB (În-Service Engineering Only)
  - Defense Threat Reduction Agency from Fort Belvoir, VA
  - JSF Initial Training (AETC)
  - Realign 7th SFG from Ft Bragg NC (Army)
  - Relocate Armed Forces Reserve Center Expeditionary Combat Support manpower from NAS Joint Reserve Base Willow Grove, PA
- Outbound
  - C4ISR T&E to Edwards
  - Retire F-15s/MC-130Ps
    - Please Note: This is Not Listed as BRAC action in the SecDef's Recommendations





- Inbound
  - Air & Space C4ISR T&E from Eglin
- Outbound
  - Create single Southwest Regional Correction Facilities (to Miramar)
  - Realign base-level LANTIRN intermediate maintenance to Hill AFB



### Challenges



- Manpower
- MILCON
- Implementation
  - Need to maintain mission focus during transition
    - Ensure organizational changes don't impact mission
    - Ensure new structure is aligned with common goals and metrics
  - Need to reconstitute specialized functions



### Summary

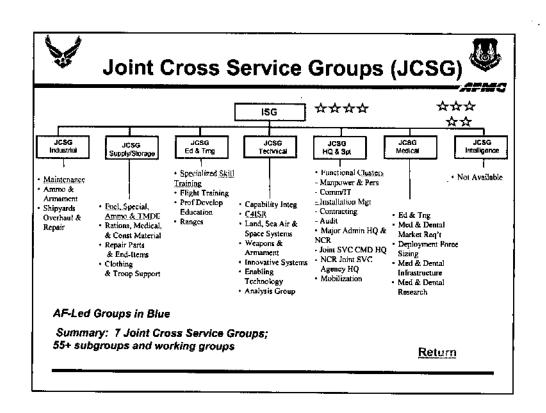


- · BRAC has entered Next Phase
  - Commission Review of SecDef Recommendations
    - 8 Sep 05: Provide Recommendations to POTUS
  - Site Surveys—Gathering data for implementation
    - · Draft P-Plan inputs





## **BACKUP**



### **Dayton Development Coalition Working Paper**

# Excerpts from Technical Joint Cross Service Group Consolidate Air and Space C4ISR Research, Development and Acquisition, Test and Evaluation

### Consolidate Air and Space C4ISR Research, Development and Acquisition, Test and Evaluation

Recommendation: Realign Wright-Patterson Air Force Base, OH, Maxwell Air Force Base, AL, and Lackland Air Force Base, TX, by relocating Air & Space Information Systems Research and Development & Acquisition to Hanscom Air Force Base, MA.

**Justification:** This recommendation will reduce the number of technical facilities engaged in Air & Space Sensors, Electronic Warfare, and Electronics and Information Systems RDAT&E from 6 to 2. Through this consolidation, the Department will increase efficiency of RDAT&E operations resulting, in a multi-functional center of excellence in the rapidly changing technology area of C4ISR.

Payback (Projected): The total estimated one-time cost to the Department of Defense to implement this recommendation is \$254.4M. The net of all costs and savings to the Department during the implementation period is a cost of \$115.3M. Annual recurring savings to the Department after implementation are \$36.2M with a payback expected in 8 years. The net present value of the costs and savings to the Department over 20 years is a savings of \$238.0M.

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 2250 jobs (1262 direct jobs and 988 indirect jobs) over the 2006-2011 period in the Dayton, OH, Metropolitan Statistical Area, which is 0.44 percent of economic area employment. The aggregate economic impact of all recommended actions on these economic regions of influence was considered and is at Appendix B of Volume I.

Community Infrastructure: A review of community attributes indicates no issues regarding the ability of the infrastructure of the communities to support missions, forces, and personnel. There are no known community infrastructure impediments to implementation of all recommendations affecting the installations in this recommendation.

Environmental Impact: This recommendation has the potential to impact air quality at Hanscom. Additional operations at Hanscom may impact archeological sites, which may constrain operations. This recommendation may require building on constrained acreage at Hanscom. The hazardous waste program at Hanscom will need modification. Additional operations may impact wetlands at Hanscom, which may restrict operations.

This recommendation has no impact on dredging; marine mammals, resources, or sanctuaries; noise; waste management; or water resources. This recommendation will require spending approximately \$0.5M cost for waste management and environmental compliance activities. This cost was included in the payback calculation. This recommendation does not otherwise impact the costs of environmental restoration, waste management, and environmental compliance activities. The aggregate environmental impact of all recommended BRAC actions affecting the bases in this recommendation has been reviewed. There are no known environmental impediments to implementation of this recommendation.

### **DAYTON REGION RECOMMENDATION**

The Development and Fielding Systems Group (DFSG) and other Operational Support Systems Group elements at Wright-Patterson Air Force Base (AFB) should *not* be realigned to Hanscom AFB for the following reasons:

- 1. Substantial data evaluations of DFSG's Military Value were not captured in the DOD BRAC analyses, and have the potential to increase the risk of failure in operations support acquisition programs, thereby jeopardizing logistics support for warfighting commanders.
- Local Dayton Region IT development contractors supporting DFSG's acquisition
  mission are part of the intellectual capital and not accounted for in the calculation
  of Military Value. (The A&AS DFSG on-site contractors were factored into the
  BRAC equation).
- 3. DFSG provides acquisition services to AFMC functional users, who then, enabled by the business (i.e., operational support) systems, provide capability to the war fighter. Geographical separation of the acquisition service provider (DFSG) from the functional users and managers at Headquarters AFMC injects significant risk of acquisition program failure and increased costs. This collocation of the service provider (DFSG) to its users and system managers (located at Wright-Patt AFB) is a major critical element in the success or failure of development and fielding according to both government auditors and private industry research publications. (Source: Gartner Research & GAO-05-381, April 29, 2005; GAO-05-723T, June 8, 2005)
- 4. The Department of Defense does not perform IT Research and Development on Business Management (Operations Support) Systems. DOD's announced policy for its Business Management Modernization Program (Air Force identifies it as Operational Support Modernization Program) is to acquire Commercial-Off-The-Shelf (COTS), specifically Enterprise Resource Planning, solutions.
- 5. The inclusion of a business systems acquisition organization like DFSG in the broad C4ISR category was inappropriate and misleading. Most of the work

conducted at Hanscom AFB relates to developing and acquiring embedded C4ISR systems and subsystems rapidly produced as **weapons systems** for the warfighter. DFSG is an Acquisition organization focused on assisting its functional customers with business process reengineerings, evaluating the functionality of commercial-off-the-shelf business management solutions like Enterprise Resource Planning, managing requirements put in Requests For Proposals, and managing the acquisition and fielding of business management, aka operational support systems for the Air Force and DOD.

- 6. Sufficient land for Military Construction Programs is not available at Hanscom AFB. "Roughly 40 acres" are required. "Hanscom reported its largest parcel is 18.27 acres, and only 8.4 unconstrained acres are zoned for industrial ops." (Source: Summary of Scenario Environmental Impacts Criterion 8, Technical Joint Cross Scrvice Group, Consolidate Air and Space C4ISR Research, Development and Acquisition, Test and Evaluation).
- 7. The DOD recommendation to realign DFSG, and other Operations Support Systems Wing elements located at Wright-Patterson AFB, does not adequately address the enormous differences in cost of operations between Hanscom AFB, MA and Wright-Patterson AFB, OH. Examination of the "Economy" and "Cost of Living" data in the following table reveals that costs of operation for activities realigned to Hanscom AFB will soar because of locality pay differentials, difficulty in hiring qualified Government and contractor personnel (lower unemployment rate in Boston), housing costs, etc.

Table I Personnel Projections

	200	6-2011 Period		
Source of Numbers	Direct Job	Indirect Job	Non- A&AS	Total
BRAC Report	(1262)	(988)	0	(2250)
Local Validation	(1262)	(988)	(2400)	(4650)

Table II Economic Projections

GENERAL	Dayton	Boston	Washington	Los Angeles	US Ava.
State Population	OH (************************************	MA 557,056	DC DC S11[636	CA (***)3,687,700	USA 0809.777
County	Montgomery	Suffolk	District of Columbia	Los Angeles Los Angeles Long	
	# C-37 CO   1-37	557056	511636	3687700	
RACE					
White Black	29.50% \$39.10%	56.20%	30.90%	50.80%	81.80%
Asian Amer Indian	1.00%	8.20%	2.80%	12.40%	11.60%
Other Hispanic		6.50%	2.70%	22.40% 49.70%	3.50%
PROFESSIONS				Service and the service and th	BATTACTAS: 0 10 1 X-Section
Executive Professional	10.20%	14.40%	16.30% 23.00%	13.00%	12.60%
i ecnnica <u>i</u> Sales	3.80%	4.50%	4.70%	3.20%	3.60%
Clerical Blue collar and and	18.20%	19.50%	21.20%	17.40%	15.90%
					Tables (many to
ECONOMY	Dayton	Boston	Washington	Los Angeles	US Avg.
Income per cap. Householding Table	\$13,677	\$22,916	\$27,334	\$21,865	\$21,658 \$44,958
Unemp. rate Rec.job growth	3.80%	2.20%	2.30%	5.50%	4.00%

December 1985   1985	132 114.2 114.2 118.7 138.1 130.7 110 Boston 187180 13.20% \$15 \$15	127.7 127.7 110.2 1136.4 97 97 114.3 Washington 176860	140 110 110 119.7 114.4 107 Los Angeles 231510 \$11	100 100 100 100 100 100 100 100 \$146.102 \$16.43
Cost (Cost	132 114.2 118.7 138.1 130.7 110 110 127.00%	127.7 110.2 136.4 97 123.6 114.3 Washington	140 110 113.4 119.7 114.4 107 231510 231510 \$11.	100 100 100 100 100 100 <b>US Avg.</b> \$146,102 \$16.43
tsco	132 114.2 114.2 138.1 130.7 110 Boston 187180 \$15 \$15 \$15	127.7 110.2 110.2 97 97 114.3 Washington 176860	140 110 113.4 119.7 114.4 107 <b>Los Angeles</b> 231510 \$11.	100 100 100 100 100 100 \$146,102 \$16.43
cost	114.2 118.7 138.1 130.7 110 Boston 187180 13.20% \$15 \$15	110.2 136.4 97 123.6 114.3 Washington 176860	110 113.4 119.7 114.4 107 <b>Los Angeles</b> 231510 531510 511.	100 100 100 100 100 <b>US Avg.</b> \$146.102 \$16.43
Cost	114.2 138.1 130.7 110 Boston 187180 \$15 \$15 \$160.9	110.2 136.4 (17.3.6 123.6 (14.3) 114.3 Washington 176860	110 119.7 114.4 107 <b>Los Angeles</b> 231510 811.	100 100 100 100 <b>US Avg.</b> \$146,102 \$16.43
COST	118.7 138.1 110 110 Boston 187180 \$15 \$15 \$160.9	136.4 97 123.6 114.3 Washington 176860	119.7 114.4 107 107 <b>Los Angeles</b> 231510 811.	100 100 100 100 <b>US Avg.</b> \$146,102 \$16.43
cost	138.1 130.7 110 Boston 187.180 \$15 \$15 \$160.9	97 123.6 114.3 Washington 176860	119.7 114.4 107 <b>Los Angeles</b> 231510 511.	100 100 100 <b>US Avg.</b> \$146,102 \$16.43
Coost	130.7 110 Boston 187180 13.20% \$15 \$160.9	123.6 114.3 Washington 176860	114.4 107 <b>Los Angeles</b> 231510 511	100 100 US Avg. \$146.102 \$16.43
Cost	110  Boston 187180 13.20% \$15 \$15 27.00%	114.3 Washington 176860	107  Los Angeles 231510 231510 512150%	100 US Avg. \$146,102 \[\frac{7}{7}:80\%\] \[\frac{8}{8}:6.43\]
Cost	Boston 187180 1320% \$15 \$15 27.00%	Washington 176860	Los Angeles 231510 231510 512150%	US Avg. \$146,102 77,30% \$16.43
<u>k</u>	187180 \$15 \$16.9 27.00%	176860	231510 231510 12150%	\$146,102 \$7.80% \$16.43
	18/180 \$15 160.9 27.00%	176860	231510 7-712150% 	\$146,102 77.80% 29 \$16.43
	\$15 160.9 27.00%	11.60%等于	\$11	\$16.43
	27.00%	815	9	610.43
	27.00%	(15) (15)	100	一般的は最近にはてている。
	第四十年間の日本においましたのは日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	37 80%	A1 100	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
:	62,30%	48 90%	41:10 /0	39.10%
	10.70%	13.40%	7 10%	A 200.
			90	0.50
HEAL TH Dayton	Boston	Washington	Los Angeles	US Ava
Phys. per cap. Trans. 328	923 mark	702年	E 240 F	230
Health cost index 96.1	130.7	123.6	114.4	100
CRIME Dayton	Boston	Washington	Los Angeles	US Avg.
Violent crime 1,063.70	1,302.10	1,627.70	1,283,20	446.1
EDUCATION Dayton	Boston	Washington	Los Angeles	US Ava.
	78.30%	76.80%	71.10%	79.50%
2yr.coll.grad.	1.6.10% 体验	3.60% 2003	<b>建筑等</b> 第10%等	7.60%
<u>4yr coll. grad.</u> 11.50%	21.00%	19.00%	19.10%	17.30%

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PhD Graduates 🕏 📬	5.5.5.20% · · · · · · · · · · · · · · · · · · ·	12.90%	19.60%	11.4 9:10%	8,50%
School expend.	\$5,954%	\$9,040%	\$8,048%	\$5,118%	\$5,928
Pupl/tchr.ratio		16.5	14:9	8:72	
CLIMATE	Dayton	Boston	Washington	Los Angeles	US Avg.
Rainfall (in.)	36.7	42.9	39	14.6	34.6
Snowfall (in.)	29 F	415 415	91.2	0.17	24.3
Precip. days	131	253	111	36	109
Sunny days	182	205	207	258 - 158	213
Days over 90	17	12	37	9	
Freezing days	117年	66	# SZ 12 12 12 12 12 12 12 12 12 12 12 12 12	是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	83.5.5
Avg. July high	85	82	88.2	83	85.9
Avg Jan low	19 Comment	· ** *** ** ** ** ** ** ** ** ** ** ** *	3 Car 27.7 Car 25	748	26.8
Comfort index					Patrician Confession C
(higher=better)	33	36	26	43	35
Elevation fl	(2) 740 年8年	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		267 267	25 Com 1750 W. C.
Area (sq. mi.)	55	48.4	61.4	469.3	20.2
TRANSPORTATION	Dayton	Boston	Washington	Los Angeles	US Avg.
Commute time	17.8	23.3	25.6	24.7	19.1
COMMUTE MODE			-		
Auto (alone)	72.10%	40.20%	36.00%	65.70%	75.90%
Carpool	**************************************	11,00%	11.60%	15.60%	13.10%
	7.7	30.8	35.8	10.3	2.80%
Bike or walk	F. F. 6.00%	15.90%	13.70%	5.40%	5:70%
Work at home	1.60%	2.20%	3.00%	3.00%	2.60%
PLACE OF WORK					
Same county	88.60%	70.50%	78.00%	97.30%	78.10%
Ulferent county	**************************************	28.60%	0:00%	2.40%	18.60%;
Different state	0.60%	0.90%	22.00%	0.30%	3.20%

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