THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950607-22

DCN 212

FROM: HEFLIN, HOWELL	TO: DAVIS, J. B.
TITLE: SENATOR (AL)	TITLE: COMMISSIONER
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: ANNISTON ARMY DEPOT	

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		X	JB
				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 DBCRC VISIT DEPOT TO DETERMINE CAPABILITY TO HANDLE RECOMMENDED WORKLOAD.

Due Date: 950609	Routing Date: 950607	Date Originated: 950506	Mail Date:

GLEN BROWDER
3D DISTRICT, ALABAMA

COMMITTEE ON NATIONAL SECURITY
COMMITTEE ON THE BUDGET

Congress of the United States
House of Representatives
Washington, DC 20515–0103

WASHINGTON OFFICE
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DISTRICT OFFICES
104 FEDERAL BUILDING
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PHONE: (334) 745–6221

115 EAST NORTHSIDE
TUSKEGEE, AL 36083
PHONE: (334) 727–6490

June 6, 1995

General J.B. Davis
Defense Base Closure and Realignment Commission
1700 North Moore Street, Suite 1425
Arlington, VA 22209

950607-22

Dear General Davis:

We have been following with interest the Defense Base Closure and Realignment Commission's consideration of the Department of Defense recommendation to consolidate ground combat vehicle maintenance at Anniston Army Depot, which we represent. It is our understanding that supporters of Red River Army Depot are arguing that Anniston is incapable of accepting the workload which the Army proposes to move there from Red River. We believe that argument is unsubstantiated.

Because of the intense Commission activity surrounding Red River, we would like to extend a personal invitation to you to visit Anniston Army Depot so that you can see first-hand Anniston's capability, capacity and skills to accept the recommended workload. We have enclosed a Depot brochure that highlights Anniston's facilities, equipment and skills.

In these times of austere defense funding, long-term viability of the ground combat vehicle fleet depends on the consolidation of maintenance at a single site. Without it, workload projections will decline to such low levels that depot overhead costs and customer rates will dramatically increase, to the detriment of readiness. We believe your visit to Anniston Army Depot would confirm this position.

Thank you for your consideration of our invitation. With kindest regards, we are

Sincerely,

Glen Browder
Glen Browder
Member of Congress

Howell Heflin
Howell Heflin
United States Senator

Richard Shelby
Richard Shelby
United States Senator

GLEN BROWDER
3D DISTRICT, ALABAMA

COMMITTEE ON NATIONAL SECURITY
COMMITTEE ON THE BUDGET

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115 EAST NORTHSIDE
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PHONE: (334) 727–6490

June 6, 1995

The Honorable Wendi Louise Steele
Defense Base Closure and Realignment Commission
1700 North Moore Street, Suite 1425
Arlington, VA 22209

950607-22

Dear Commissioner Steele:

We have been following with interest the Defense Base Closure and Realignment Commission's consideration of the Department of Defense recommendation to consolidate ground combat vehicle maintenance at Anniston Army Depot, which we represent. It is our understanding that supporters of Red River Army Depot are arguing that Anniston is incapable of accepting the workload which the Army proposes to move there from Red River. We believe that argument is unsubstantiated.

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Thank you for your consideration of our invitation. With kindest regards, we are

Sincerely,

Glen Browder
Glen Browder
Member of Congress

Howell Heflin
Howell Heflin
United States Senator

Richard Shelby
Richard Shelby
United States Senator

Document Separator

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950607-26

FROM: GOLDEN, HOWARD	TO: DIXON
TITLE: PRESIDENT	TITLE: CHAIRMAN
ORGANIZATION: BOROUGH OF BROOKLYN	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: FORT HAMILTON	

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		X	bs
				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
X	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

LETTER OF SUPPORT.

Date: 950614	Routing Date: 950607	Date Originated: 950606	Mail Date:

CITY OF NEW YORK

950607-26

PRESIDENT OF THE BOROUGH OF BROOKLYN

BOROUGH HALL 209 JORALEMON STREET, BROOKLYN, N.Y. 11201

1-718/802-3700
FAX: 1-718/802-3778

HOWARD GOLDEN
PRESIDENT

June 6, 1995

Mr. Alan J. Dixon
Chairman
U.S. Defense Base Closure and Realignment Commission
Suite 1425
1700 North Moore Street
Arlington, Virginia 22209

Dear Mr. Dixon:

I am writing to you regarding the proposal by the Department of Defense to significantly reduce United States Army operations at Fort Hamilton in Brooklyn, New York.

Dating to the immediate post-Revolutionary War period, Fort Hamilton is one of the oldest military establishments in the United States. Today, the Fort serves as a major Army Reserve facility for the New York metropolitan area.

The proposed reduction of operations at Fort Hamilton, almost to the point of eliminating this facility, will have a significant and adverse impact on thousands of active reservists and military retirees who depend on this facility for support services. The proposed action, if implemented, also will have profound negative social and economic consequences for both the immediate community and the Borough of Brooklyn.

I urge the Base Closure and Realignment Commission to carefully reexamine the Defense Department's proposal. I look forward to working with you, Congressmember Susan Molinari, Mayor Giuliani and New York's other elected officials to explore ways in which the continued full operation of Fort Hamilton can benefit both Brooklyn and the military.

Sincerely,

Howard Golden

Howard Golden

c: Hon. Rudolph W. Giuliani
Hon. Daniel Patrick Moynihan

c: Hon. Alfonse M. D'Amato
Brooklyn Congressional Delegation
Brooklyn Legislative Delegation
Brooklyn City Council Members

Document Separator

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950608-2

FROM: HEFLIN, HOWELL	TO: DIXON
TITLE: SENATOR	TITLE: CHAIRMAN
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: REDSTONE ARSENAL	

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		X	
				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
X	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

RESPONDING TO CHALLENGES BY THE MISSOURI DELEGATION TO THE PROPOSED MOVE OF ~~TR~~ ATCOM TO REDSTONE ARSENAL.

Date: 950612	Routing Date: 950608	Date Originated: 950607	Mail Date:

Congress of the United States
Washington, DC 20515

June 7, 1995

Please refer to this number when responding 950608-2

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

Dear Chairman Dixon:

We wish to respond to the challenges asserted by the Missouri delegation to the Secretary of Defense's recommendation to disestablish the Aviation and Troop Command (ATCOM) and merge the aviation part of ATCOM with the Army Missile Command (MICOM) to create the Aviation and Missile Command at Redstone Arsenal. We believe these challenges have been soundly rebutted by BG James E. Shane, Jr., U.S. Army Director of Management, in his letter to you on April 14, 1995. (attached)

The Missouri delegation responded to Gen. Shane's letter on May 5, 1995 and attempted to assert the same challenges to the process used by the Army. We do not believe the Missouri delegation letter (May 5) offers any new challenges, but would like to offer our perspective on those assertions. We will address, in this letter, the first two challenges offered in that May 5 letter, specifically that 1) the Army failed to comply with the base closure law's requirement that all closure recommendations be based on the Final Selection Criteria, and 2) the Army failed to comply with its own Stationing Strategy.

We must conclude that the Army's analysis complies fully with the Base Closure law relative to the Final Criteria and with its own Stationing Strategy. Part of the assertions by the Missouri delegation is based on the Army's treatment of leased facilities. A review of the treatment of leased facilities by the BRAC law is an appropriate first step.

TREATMENT OF LEASED FACILITIES

The 1989 Base Realignment and Closure law, Sec. 2910, defined the term military installation as follows: "The term 'military installation' means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the Department of Defense." During this first BRAC process, the Services were precluded from considering "leased facilities." This resulted in permanent installations of higher military value than certain leased facilities being recommended for closure because leased facilities were not allowed to be considered.

This inadequacy in the law was rectified by amendment to the definitions section which took effect for the 1991 BRAC round. The amended definition reads: "The term

'military installation' means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the Department of Defense, **including any leased facility.**" (emphasis added). This amendment clearly recognized the need to include leased facilities in the BRAC process.

The BRAC Commission, in its Defense Base Closure and Realignment Commission, 1993 Report to the President, July 1, 1993, further recognized the unique conditions related to leased facilities by recommending that a distinct process be applied to analyze leased facilities. The 1993 Commission recommended that the "DoD direct the Services to include a separate category for leased facilities during the 1995 process to ensure a bottom-up review of all leased space."

The BRAC law clearly requires that the Services include leased facilities in their evaluation, and the 1993 BRAC Commission specifically recommended that leased facilities be treated as a separate category within that evaluation. The Army, in this BRAC round, fully complies with the BRAC law and the 1993 BRAC Commission recommendation to treat leased facilities separately. The Army's treatment of leased facilities separately not only complies with the BRAC law, but also demonstrates an effective and rational approach to achieving the results intended by Congress in establishing the BRAC process.

COMPLIANCE WITH LAW BASED ON FINAL SELECTION CRITERIA

The Missouri delegation accuses the Army of not complying with the base closure law's requirement that all base closure recommendations be based on the Final Selection Criteria. Their May 5 letter states that the Installation Assessment (IA) phase "was the only phase of the Army's base closure selection process in which the first four criteria were used as the basis for developing closure recommendations." This accusation makes the erroneous claim that because the IA criteria are tied to the first four Final Selection Criteria, that this is the only measure based on the first four Final Selection Criteria.

The determination of Military Value, as defined by the first four of the Final Selection Criteria, is crucial in the development of the Army's closure or realignment recommendations. Use of the Installation Assessment is neither the sole means of developing Military Value, nor is its use mandated by the BRAC statute. As General Shane states in his letter of April 14:

> "Although the BRAC law establishes a process by which closure and realignment recommendations are to be made, it does not provide any specific objectives with respect to the type, number, and magnitude of the necessary reductions. Accordingly, before the Army could begin its BRAC process, it had to articulate its generalized, strategic and operational basing requirements. The Army elected to do this in a comprehensive planning document: the Army Stationing Strategy. ...The Army elected, wholly apart from any BRAC legal requirements to do so, to develop this Stationing Strategy. ...[The Army Stationing Strategy] is integral to the process, insofar as an assessment of the military value of any particular Army installation or

facility [is concerned][and Military Value] must be determined with reference to the objectives set forth in its Stationing Strategy." (Shane letter, April 14, page 2)

The Army Stationing Strategy addresses the Final Criteria in its Stationing Requirements which state that closures and realignments should: 1) Preserve only crucial research, development, test, and evaluation capabilities that cannot be sustained by the private sector or academia, 2) optimize the operational efficiency of the U.S. Army's RDT&E and material/maintenance management functions, 3) provide seamless item material management across all commodity groupings, and 4) maintain the capability to support the reconstitution of the U.S. Army forces' transitions from one theater of operation to another.

The Stationing Requirements are to be achieved through the Army's Operational Blueprint which states that closures and realignments should 1) achieve efficiency through collocation and integration of research, engineering, acquisition and logistic functions, 2) collocate/integrate similar functions to provide a more efficient solution than maintaining separate installations organized to perform only commodity specific reserve and engineering support, 3) achieve a high degree of organizational integration and collocation of R&D, acquisition support to the PEO and sustainment of the commodity group, and 4) concentrate in a single location the skills of its research and development, acquisition, and logistics forces to create a cross-disciplined environment.

The claims of the Missouri delegation are unsubstantiated. The Army recommendation to create the Aviation and Missile Command at Redstone Arsenal fully complies with the Army Stationing Strategy and thus meets the Military Value Final Criteria.

COMPLIANCE WITH THE ARMY'S STATIONING STRATEGY

The Missouri delegation claims that the Army contradicted the Stationing Strategy because the Army recommendation does not increase efficiency. This is not the case since: 1) a single Acquisition Center will support the new Aviation and Missile Command, not two as Missouri claims, 2) Integrated Material Management Centers will be reduced by one, and 3) staffing requirements in both the Aviation and Missile commands are similar in job descriptions, education, requirements and engineering disciplines. Thus, **the Army recommendation adheres to the Stationing Strategy by "collocating or integrating similar functions" and by "concentrating in a single location the skills of R&D, acquisition, and logistics forces."**

The Missouri delegation claims that the Missile Command does not perform aviation related functions. This is inaccurate since: 1) MICOM has managed armaments on Army airframes, e.g. TOW, HELLFIRE, LONGBOW and the 2.75" Rocket, 2) MICOM is responsible for functional integration of missile systems onto aircraft, 3) MICOM engineers have extensive and long-standing working relationships with Aviation engineers to ensure air worthiness of helicopters and missiles, and 4) the Army Unmanned Aerial Vehicle

program is managed at Redstone Arsenal. **The Army recommendation adheres to the Stationing Strategy by the "collocation and integration of research and engineering," and by "concentrating in a single location the skills of its research and development force to create a cross-disciplined environment."**

The Missouri delegation claims that Aviation Research and Development will still reside in two separate locations. This claim is not supportable since: 1) the Aviation Research, Development, and Engineering Center (RDEC) and its directorates will merge with the MICOM RDEC to form a single, fully integrated R&D organization, 2) current engineering functions performed at ATCOM will be moved to Redstone Arsenal, 3) Aviation R&D will have on-site access to the MICOM RDEC facilities valued at over $500 million, and 4) existing Aviation RDEC facilities, currently remotely located from ATCOM, will be managed under a single integrated RDEC organization. **The Army recommendation, therefore, adheres to the Stationing Strategy by "collocating and integrating similar functions to provide a more efficient solution than maintaining separate installations" and by "achieving a high degree of organizational integration and collocation of R&D, acquisition support, and sustainment of the commodity group."**

CONCLUSION

The assertions by the Missouri delegation that the Army failed to comply with the Final Criteria and the Army's own Stationing Strategy are simply without justification. The Missouri delegation's assertions:

1) Disregard the historical precedent of BRAC law and specific BRAC Commission recommendations that direct the Services to treat leased facilities as a separate category of installation,

2) Accuse the Army of not following the BRAC law based on an analysis of analytical processes developed by the Army that are over and above the requirements of the BRAC law,

3) Erroneously suggest that all categories of installations must be evaluated on the same set of sub-criteria, discounting the need to evaluate distinct categories of installations by criteria germane to their functions and installation conditions,

4) Erroneously suggest that the sum of the Military Value Assessment is contained in the Army's self-developed Installation Assessment Program, and

5) Suggest, in total contradiction to the facts, that the recommendation to create the Aviation and Missile Command does not conform to the Army's Stationing Strategy.

We strongly assert that the Army recommendation to create the Aviation and Missile Command at Redstone Arsenal fully conforms to BRAC law and fully meets the

requirement to base recommendations on the Final Criteria and the Army's Stationing Strategy. We support the Army recommendation.

We appreciate your consideration of these views as you and the Commission deliberate the Department of Defense recommendations.

Sincerely,

Howell Heflin
U.S. Senator

Bud Cramer
Member of Congress

Richard Shelby
U.S. Senator

Van Hilleary
Member of Congress

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
200 ARMY PENTAGON
WASHINGTON DC 20310-0200

REPLY TO ATTENTION OF

April 14, 1995

ARMY RESPONSE: ATCOM MVA OF LEASES.

The Honorable Alan J. Dixon
Chairman, The Defense Base Closure
and Realignment Commission
1700 North Moore Street, Ste. 1425
Arlington, Virginia 22209

Dear Chairman Dixon:

Thank you for providing us with a copy of the attached letter from the Missouri Congressional Delegation (the "MCD Letter"), which suggests that the Secretary of Defense improperly recommended to the 1995 Defense Base Closure and Realignment Commission the closure of Aviation and Troop Command (ATCOM). I would like to respond on behalf of the Army, and I appreciate this opportunity to present the Army's views on the several issues that the MCD Letter raises, and to explain why these issues should not lead the 1995 Commission to reject the ATCOM recommendation.

Because we believe that many of these issues stem from a misunderstanding of the way in which the Army's closure and realignment recommendations were formulated, we feel it is useful to provide a brief description of the Army's Base Realignment and Closure (BRAC) process before turning to the particular issues raised by the MCD Letter.

I. THE ARMY'S BRAC PROCESS AND ITS STATIONING STRATEGY

As you are aware, the BRAC process is designed to facilitate objective, fair, and open decisions with respect to necessary reductions in military infrastructure. Accordingly, each recommended closure or realignment is arrived at through uniform application of the eight, published Department of Defense (DoD) Selection Criteria. Through evenhanded application of these Selection Criteria within categories, the military value of each particular facility or installation is assessed separately, after which the effects associated with any potential closure or realignment—including the costs to the military, and the implications for affected local communities and the environment—are determined.

A. The Stationing Strategy

Although the BRAC law establishes a process by which closure and realignment recommendations are to be made, it does not provide any specific objectives with respect to the type, number, and magnitude of the necessary reductions. Accordingly, before the Army could begin its BRAC process, it had to articulate its generalized, strategic and operational basing requirements. The Army elected to do this in a comprehensive planning document: the Army Stationing Strategy.

The Army's Stationing Strategy does not outline specific stationing decisions, nor does it recommend the closure or realignment of any particular installations or facilities. Indeed, the Army elected, wholly apart from any BRAC legal requirement to do so, to develop this Stationing Strategy because of its independent planning utility. Thus, the Army's Stationing Strategy provides an operational foundation upon which BRAC planning and analysis can proceed. It is both antecedent to the BRAC process, insofar as it establishes the parameters within which BRAC decisionmaking takes place, and it is integral to the process, insofar as an assessment of the military value of any particular Army installation or facility must be determined with reference to the objectives set forth in its Stationing Strategy.

B. The BRAC Process

After developing its Stationing Strategy, the Army began its formal BRAC process with a comprehensive review and inventory of all of its installations. To facilitate fair comparisons, and consistent with Department of Defense policy, the Army assigned each installation or facility to one of 14 categories, each of which contained installations or facilities with similar characteristics. Pursuant to a 1993 BRAC Commission recommendation, and consistent with DoD policy guidance, the Army established a separate Leased Facilities Category ("LFC") within which leased facilities could be compared to one another.[1]

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[1]See, Defense Base Closure and Realignment Commission: 1993 Report to the President, 1 July 1993, p. 2-3 ("The Commission suggests DoD direct the services to include a separate category for leased

(continued...)

(1) Military Value Assessments

The Army then applied the Military Value Criteria ("MVC)—i.e., the first four of the published DoD Selection Criteria--to each installation or facility within a category.[2] Like all the published criteria, the MVC were applied uniformly within each category so that, consistent with BRAC law, all installations or facilities would be considered equally, and the military value of each such installation or facility would be assessed separately. Uniform application of the MVC within each category yielded a Military Value Assessment ("MVA") for each particular installation or facility within that category. This MVA was a combination of both quantitative and qualitative assessments of the worth of a particular installation or facility.

In most instances, the quantitative component of the MVA was developed according to the Army's BRAC 95 Installation Assessment Program (IAP), a decision pad

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[1](...continued)
facilities during the 1995 process to ensure a bottom-up review of all leased space."). DoD's policy guidance subsequently left to each of the services the decision as to whether to create a separate category for the review of leased facilities. Although the other military departments chose not to create a separate LFC, the Army nonetheless concurred with the 1993 Commission and believed that a separate LFC would yield better analysis of leased facilities.

[2]Consistent with DoD policy guidance and applicable legal requirements, only those activities that were performed in leased space and which share a common mission, have permanently authorized personnel, have a separate support structure, and cost more than $200K annually were considered in the LFC. As directed by DoD's policy guidance, "[c]ivilian personnel authorizations of organizations in leased space, which are part of an organization [that is either located] on a nearby military installation or . . . [is located] within the same metropolitan statistical area, shall be considered part of the civilian personnel authorizations of that installation." See, "1995 Base Realignments and Closures (BRAC 95) — Policy Memorandum Three," 29 December 1994, pp. 1-2. Accordingly, these adjunct leases were assessed as part of their host installations.

computer model that was designed to assist in the comparison of installations according to a common set of weighted attributes, each of which related to one of the MVC. Thus, certified data were collected for each of these attributes. This data was then entered into the IAP, which in turn produced an Installation Assessment—i.e., a quantitative ranking of installations within a particular category.

With respect to the LFC, however, the IAP was not employed, because its list of weighted attributes was designed to assist in the comparison of particular *installations*, rather than in the comparison of particular (leased) *facilities*.[3] In other words, installations and leased facilities are fundamentally different, and thus they cannot be evaluated according to the same list of attributes. For example, comparing leased facilities based on things such as each leased facility's aviation maintenance facilities, ranges, hard surface staging areas, and other such attributes incorporated in the IAP model would not have been instructive as to the relative merit of each such facility: no leased facilities possess these attributes, and thus all would have received equally low scores in these areas.

Accordingly, an Installation Assessment was not prepared for facilities within the LFC, and, perhaps in this limited respect, the Army's BRAC process for leased facilities might be said to have differed slightly from its process for other types of installations. In lieu of an Installation Assessment, however, the Army did, as described more fully below, undertake a quantitative assessment of each leased facility according to consideration of empirical attributes that were more directly relevant to comparisons of leased facilities.

Once these quantitative assessments were completed—either through the IAP or, in the LFC, through consideration of other relevant empirical attributes—the qualitative portion of the MVA was undertaken. These qualitative assessments sought to ascertain the consistency of the quantitative assessments with the objectives outlined in the Army's Stationing Strategy. Thus, the Stationing Strategy

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[3]Groups of leases in the same headquarters and same geographical area were deemed a single facility for the purposes of the Military Value Assessment.

served as a qualitative template against which the quantitative assessments could be measured and revised accordingly.

Therefore, as with other categories, the MVA for each leased facility within the LFC was determined separately. Each such MVA was a combination of both quantitative assessments, which were arrived at through comparisons of relevant empirical data, and qualitative assessments, which were provided by the Army's Stationing Strategy. Although the Army determined separately the Military Value of each leased facility without reference to an Installation Assessment, the MVA of each leased facility was nonetheless composed of a similar quantitative assessment tempered by the qualitative guidance provided by the Stationing Strategy. In no instance did the Army assess the military value of a leased facility solely according to the qualitative guidance provided by the Army's Stationing Strategy.

(2) Identification of Study Candidates

After completing the aforementioned quantitative and qualitative assessments, each installation or facility within a category received a Military Value Assessment relative to other installations of facilities within that category. In turn, those installations or facilities that were deemed to possess relatively low military value within the category were designated as candidates for further study for possible closure or realignment. With respect to the LFC, all facilities within the category were deemed to be of relatively low military value, especially with respect to MVC two and four, and thus all facilities were designated as candidates for further study.

(3) Development of Alternatives and Application of DoD Selection Criteria Four through Eight

Once the Study Candidates were identified for each category, the Army developed between one and six specific base closure and realignment alternatives for each such candidate. These alternatives were derived from force structure decisions, the Stationing Strategy, previous BRAC reviews, Major Army Command recommendations, staff proposals, and Joint Cross-Service Group alternatives. Each of these competing alternatives was then assessed and refined according to affordability, economic and environmental analyses.

More particularly, the fifth DoD Selection Criterion—"[t]he extent and timing of potential cost savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs"—was applied uniformly to all study candidates within a category through use of The Cost of Base Realignment Actions (COBRA) Model, DoD's model for resource analysis and measurement of the affordability of each potential closure or realignment. Thus once relevant data was plugged in for each of the alternatives, the COBRA analysis indicated the likely costs and savings associated with each potential closure or realignment.

The sixth and seventh DoD Selection Criteria—"[t]he economic impact on communities[,]" and "[t]he ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel[,]" respectively—were applied uniformly to all study candidates within a category through use of DoD's standard model for the calculation of economic impacts. Thus, once relevant data for each of the alternatives was plugged in, this model indicated the likely economic and infrastructure impacts associated with the potential closure or realignment.

Finally, the eighth DoD Selection Criteria—"[t]he environmental impact"—was applied uniformly to all study candidates within a category by an Environmental Review Committee, which collected and analyzed Environmental Baseline Summaries and produced an initial assessment for each installation or facility. Subsequent analysis then refined these assessments, and they were factored into analysis of each of the alternatives.

II. THE ARMY DID, ACCORDING TO CRITERIA ONE THROUGH FOUR, ASSESS MILITARY VALUE IN THE FORMULATION OF ITS ATCOM RECOMMENDATION.

The charge that the Army failed to assess military value in the formulation of its ATCOM recommendation is without foundation. MVAs were fundamental to all of the Army's BRAC analysis—including its analysis of leased facilities at ATCOM and elsewhere. Although, for the reasons identified above, facilities within the leasing category were not ranked pursuant to an *Installation Assessment*, a *Military Value Assessment* was nonetheless prepared for each facility within this

A. Application of the First Criterion: "current and future mission requirements and the impact on operational readiness of DoD's total force."

The Army considered, in both quantitative and qualitative terms, ATCOM's current and future mission requirements and their impact on the operational readiness of the armed forces. Quantitatively, it considered the attributes of leased facilities that bore on such requirements and readiness, such as the size of the facilities according to their type, the population housed, the costs of the lease, and the penalties to terminate the lease. Qualitatively, the Army assessed existing ATCOM leased facilities in light of the aforementioned general and more particularized objectives of the Stationing Strategy.

B. Application of the Second Criterion: "availability and condition of land and facilities at both the existing and potential receiving locations."

The Army considered, in both quantitative and qualitative terms, the availability and condition of land and facilities at ATCOM's existing leased sites and at potential receiving sites such as Redstone Arsenal, Corpus Christi Army Depot, Rock Island Arsenal, Aberdeen Proving Ground, Detroit Arsenal, Fort Monmouth, and Natick Research, Development, Engineering Center. Quantitatively, it considered the attributes of leased facilities that bore on such matters, collecting information on such things as the percent of permanent facilitates at an existing leased site and potential receiving sites, the average age of facilities at each location, and the features and size of such facilities accordingly to their type. As part of this analysis, the Army used its corporate facility data base to determine whether facilities were available at potential receiving locations, and, if so, whether they required renovation to accommodate a relocating function. If facilities were not available, then the data base was used to determine what facilities would have to be constructed to accommodate such relocations. Qualitatively, the Army once again assessed its quantitative analysis in light of the aforementioned general and more particularized objectives of its Stationing Strategy.

C. Application of the Third Criterion: "ability to accommodate contingency, mobilization, and future requirements at both existing and potential receiving locations."

The Army considered, both in quantitative and qualitative terms, ATCOM's ability to accommodate contingency, mobilization, and future requirements at both its present location and at other potential locations. Quantitatively, the Army considered the attributes of leased facilities and potential receiving locations that bore on such abilities, examining things such as buildable acres or unused space or buildings, the ability of information systems at both locations to accommodate expansions, the sites' proximity to or possession of an airport. Qualitatively, the Army again reviewed its quantitative findings in light of the general and more particularized objectives set forth in its stationing strategy.

D. Application of the Fourth Criterion: "cost and manpower implications."

The Army considered, both in quantitative and qualitative terms, the manpower and cost implications of retaining ATCOM at its existing leased sites or relocating functions to several other installations. Quantitatively, it considered the attributes that bore on such manpower and cost factors, collecting data on things such as the square footage requirements at existing and potential receiving sites, the costs per square foot of existing leased space and space elsewhere, the manpower-to-square-footage requirements of ATCOM at its existing and potential receiving locations. Qualitatively, and as with the other criteria, the Army assessed its quantitative assessments with reference to the general and more particularized objectives outlined in its Stationing Strategy.

III. THE ARMY COMPLIED WITH ITS STATIONING STRATEGY IN THE FORMULATION OF ITS ATCOM RECOMMENDATION

The charge that the Army has not complied with its Stationing Strategy in the formulation of its ATCOM recommendation is incorrect. As explained above, the Army's Stationing Strategy is a planning document that provides guidance to its managers with respect to future operational requirements. This operational blueprint does, as noted above, encourage increased efficiency and reductions in overhead. It also, however, encourages the Army to minimize the use of

leased space, eliminate excess capacity, and collocate activities where functional synergy can be achieved and facility support is available.

The ATCOM recommendation complies fully with all of the Army's Stationing Strategy's objectives and guidance. This recommendation increases efficiency through collocation, integration, or relocation of discrete research, engineering, acquisition, and logistics functions at several installations. In turn, the synergies achieved through such collocations, integrations, and relocations assist in reducing overhead costs—in large part because once they are relocated, fewer personnel are required to accomplish the same functions. Moreover, the ATCOM recommendation is fully consist with the Stationing Strategy's other objectives insofar as it minimizes the use of leased space, eliminates excess capacity at receiving locations, and, as noted above, achieves a number of functional synergies.

IV. THE ARMY DID NOT OVERSTATE THE SAVINGS IT WOULD EXPECT TO REALIZE FROM THE CLOSURE OF ATCOM.

The allegation that the Army has overstated the savings it expects to realize from the closure of ATCOM is without merit. The Army would save nearly $50 million annually as a result of the synergies, efficiencies, and consolidations it expects to realize from the closure of ATCOM.

Contrary to the suggestion in the MCD Letter, the DoD COBRA model does not consider, or take credit for, any savings that might result from any previously planned personnel reductions or reductions that are otherwise independent of the BRAC process; only those savings associated with personnel reductions generated by a proposed closure or realignment are considered. Moreover, the DoD COBRA model is designed to assess only the potential savings that DoD likely would realize from the closure or realignment of any particular installation or facility. Whether the Federal Government would also likely save money as a result of any particular closure or realignment is a broader question that the current process was simply not designed to address. Nonetheless, we note that if the Army vacates GSA leased space, then GSA could make such space available to another Federal agency, or it could dispose of the property entirely—either of which could result in savings to the Federal Government.

Finally, the Army did conclude in its 1993 BRAC analysis that the relocation of ATCOM to a *single* installation would be too expensive. However, the 1995 recommendation, by relocating functions to *several* installations, avoids many of the significant construction costs, that, in large part, were responsible for the high costs associated with relocation in 1993. Indeed, if the Army had considered disestablishing ATCOM and relocating its functions to several installations during its 1993 BRAC process, then it likely would have forwarded such a recommendation to the 1993 Commission.

V. THE ARMY CONSIDERED ALL PRACTICABLE ALTERNATIVES IN THE FORMULATION OF ITS RECOMMENDATION TO CLOSE ATCOM.

The suggestion that the Army failed to consider more cost-effective alternatives to the closure of ATCOM is inaccurate. As explained above, BRAC analysis necessarily considers feasible, competing alternatives, and the recommended closure of ATCOM was the best of these alternatives. The Army did consider alternatives to the ATCOM recommendation, such as relocating Headquarters, Strategic Space and Defense Command ("SSDC") from a leased facility to Redstone Arsenal. However, the COBRA analysis performed for this alternative indicated that it would cost more and save less. Moreover, this alternative was less consistent with the Army's Stationing Strategy, since relocation of SSDC to Redstone Arsenal would not increase efficiency, reduce overhead, or create any functional synergies.

VI. CONCLUSIONS

In summary, we do not believe that any of the issues raised by the MCD Letter can withstand close scrutiny. Through uniform application of the Military Value Criteria within each category, the Army developed a separate Military Value Assessment for each installation and facility—including those in the Leased Facility Category. The ATCOM recommendation is fully consistent with the Stationing Strategy's guidance, and the Army did not overstate or improperly calculate the savings that would be realized from the recommended closure of ATCOM. Lastly, the Army's BRAC process ensured that all practicable and feasible alternatives were considered.

Thank you again for allowing us to address these issues. We hope that this letter will assist the Commission in understanding the Army's BRAC processes in general, and its recommendation respecting ATCOM in particular.

James E. Shane, Jr.
Brigadier General, US Army
Director of Management

Attachment

category.[4]

The quantitative component of these MVAs took the form of assessments of lease costs, space, features, and other common attributes of leased facilities. The qualitative component of these MVAs consisted of evaluating the utility of each facility in light of both the Stationing Strategy's general operational objectives—i.e., "[e]liminate excess capacity[,] . . . [m]inimize use of leased space[,] . . . [and] [c]ollocate tenants from different major commands where functional synergy can be obtained and facility support is available"—and its more particular operational objectives with respect to commodity-oriented commands such as ATCOM—i.e., achieve "[e]fficiency . . . through collocation and integration of research, engineering, acquisition and logistics functions, as well as reduce[] overhead[.]"

Just as with other categories of installations, MVAs for each facility within the LFC category were arrived at through uniform application of each of the four Military Value Criteria. With respect to the ATCOM leases, each of the four criteria was applied to arrive at a MVA for the facility.

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[4]It appears that in part, the MCD Letter may have mistaken an "Installation Assessment" for a "Military Value Assessment", and the MCD therefore concluded that since the former was not prepared for facilities within the leasing category, no Military Value Assessments were undertaken for facilities within the category. As noted above, the two are not the same. An Installation Assessment is merely a discretionary, quantitative ranking of installations within a category according to a decision pad computer model. It may form the quantitative component of a Military Value Assessment, but it alone does not comprise the Military Value Assessment. Conversely, a Military Value Assessment in a mandatory determination, consisting of both quantitative and qualitative measures of the worth of each installation or facility within a category. Thus a Military Value Assessment may depend in part upon an Installation Assessment—if such an assessment is appropriate for facilities or installations within a particular category—but it need not be based upon such an Installation Assessment.

Document Separator

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
WASHINGTON, DC 20310-0200

REPLY TO
ATTENTION OF

May 31, 1995

Defense Base Closure
and Realignment Commission
1700 North Moore Street
Suite 1425
ATTN: Mr Brown
Arlington, Virginia 22209

Please refer to this number when responding 950605-28

Dear Mr. Brown,

I appreciate the opportunity to comment on the point paper regarding missile maintenance at Hill AFB, as requested in your 15 May 1995 letter (950515-7).

First, it must be made clear that no one in DoD who reviewed or approved the current DoD Letterkenny recommendation considers it a significant deviation from the BRAC 93 recommendation. Furthermore, the General Accounting Office (GAO) raised no objection on this account.

I take issue with the Air Force approach of trying to close an Army depot rather than deal with their own 1-2 depot excess infrastructure problem. I also have serious concerns with the cost figures you have been provided by the Air Force. If you desire to pursue this alternative, I strongly recommend that GAO investigate these calculations.

During the past several months, the Air Force proponents of moving work to Hill AFB have changed scenarios, cost estimates, and personnel figures to meet their objectives. Why are these still changing? Is it to prevent closure and gain workload from other Services? Additionally during the BRAC process, the Air Force could only achieve a 7% reduction of its personnel due to operational requirements, but can take 1.4 million manhours of workload from the Army without any personnel transfers. How can the certified workload data submitted by the Air Force be used during the DoD joint analysis, but be different for this analysis? Inconsistencies abound in the Hill AFB point paper. They continue to indicate that this is a workload competition only and refuse to acknowledge the entire BRAC costs to move the artillery workload, or the ammunition storage for Letterkenny. Specific comments on this point paper are attached along with additional comments by the U.S. Army Industrial Operations Command.

By our calculations, the cost to move the missile mission to Hill AFB remains four to nine times as expensive as DoD's recommendation, with fewer savings. I hope this information is helpful and provides a more complete picture than you have been given on the matter.

Sincerely,

James E. Shane, Jr.
Brigadier General, U.S. Army
Director of Management

Enclosures

COMMENTS
ON
AIR FORCE POINT PAPER
LETTERKENNY TO HILL SCENARIO

Air Force Review: The Air Force indicated that it did not have an opportunity to review the assumptions and inputs into the COBRA model prior to it submission to the Commission. On the contrary, we provided our information to the Air Force Staff in draft on 5 May 1995. The Air Force indicated to us that it was a fair and conservative approach. They did have questions over our construction and manpower figures, but understood the methodology used by The Army Basing Study.

Personnel: The two issues presented by Hill AFB are the 600 approved Reduction in Force (RIF) scheduled for September 1995 and the anticipated reductions of the Dorn memorandum that will be spread over the POM. The approved RIF is a scheduled force reduction and will be executed prior to congressional approval of BRAC and should not be considered as part of the BRAC analysis, using approved DoD methodology. Under the Dorn Memorandum, each of the Services are scheduled to take approximately a 35,000 man reduction over the POM. The eliminations due to BRAC can help meet this reduction. The Air Force would still have to take the entire cut somewhere else if Hill AFB is exempted in order to accept the tactical missile mission without any personnel from Letterkenny. The net effect is an additional cost to DoD. The Army considers these to be force structure reductions and not savings to be applied to any potential BRAC action.

MILCON: There are three issues: ATACM's building; Patriot radar site; and the ammunition storage. Resolving differences between the Army and Air Force over the first two issues would require a detailed requirements review. In absence of this review, we applied standard DoD factors and remain confident in our approach. The storage construction issue has two parts. The first deals with the conventional ammunition tiering concept and the second is a question of available storage space. As a point of correction, the eastern area tier I depot is not Anniston Army Depot but rather Crane and Bluegrass Depots. Anniston is a tier II depot in the eastern region. Additionally, the conventional ammunition tiering program only deals with conventional ammunition and not tactical missiles. With respect to the last issue, the Air Force claims to have found an additional 62 KSQFT of storage at an additional cost of $300,000. This could reduce the ammunition storage construction from $117 M to $106 M. The requirement to store tactical missile is still a requirement.

Time Frame: Whether a EIS or EA is required is a mute point. The law requires either a EA or EIS to be performed prior to the mission being started. If the transfer starting in Oct 1995, then the year of return on investment would be 2001 verses 2002. The number of years to achieve the return on investment would not change. The Army's standard practice of one year to complete all required environmental documentation appears reasonable in this case.

Training: Differences over the cost of training are difficult to resolve quickly. However, the cost of training should be related to the number of trained employees being transferred. The Letterkenny $28 M estimate was based on at least 30% of Letterkenny staff transferring. Hill's $17 M estimate is based on no transfers. We split the difference in an attempt to resolve the conflict.

Inventory Transfer: Trying to determine who is correct on Patriot is very difficult. The cost to move inventory is not a "wash" IAW BRAC cost. This is not a depot "open" competition for work load.

Equipment Transfer: There is a difference of opinion on this matter.

Sunk Cost: Sunk cost does not appear to be a factor in determining whether a base should close. The purpose and intent of BRAC is to redistribute workload to reduce excess infrastructure.

Recurring Costs: A cost comparison rate used in the Hill AFB point paper indicates a $9 per hour difference in Hill AFB favor. However, this rate is made up of several rates - direct labor, material, and overhead. The material cost are directly related to the workload involved and should not be used except in direct workload comparison. The overhead rate is a combination of indirect labor, base operations and repair and maintenance costs associated with the facilities and infrastructure used by the depot, and other factors. Since this is an area of uncertainty due to downsizing factors, it is not a stable rate. The only remaining rate that can be compared is the direct labor rate. A recent report on selected annual depots maintenance cost data, derived from the Military Department data submission done in accordance with Chapter 76 of the DoD Accounting Manual, DoD 7220.9-M, indicates that the simple average of labor rates from 1990 to 1994 for Ogden Air Logistics Center is $21.12/hour while the rate for Letterkenny was $18.31/hour. This is a difference of $2.81/hour in Letterkenny's favor.

Other MILCON: The Army did not add any MILCON because of the lack of knowledge of the facilities at Hill AFB. If Hill AFB currently has an excess of 300,000 SQFT of administrative space, 1.5 M SQFT maintenance space, and 187,000 SQFT ammunition storage space, then Hill AFB has 14% of all available space currently excess to their needs. We understand this is growing. The following is scheduled to go: BRAC 95 reduction of the Test and Evaluation mission, reduction of strategic missile workload due to treaties, all the new family housing being constructed may excess, or the proposed 1700 man/ workload reduction scheduled per the Dorn memorandum.

ISC: The Army did not include any ISC in its analysis, as per the current DoD directive.

Relocation costs: The additional cost of $300 K should be added to the COBRA associated with the addition 87 KSQFT recently identified by Hill AFB. If this relocation is to Navajo National Guard Depot, then the storage cost and any reconfigure cost should also be added.

Cost Avoidance: The Army used a cost avoidance of $25 M. At the 10 May hearing, the Commission used the DoD IG figures of $44.1 M which would reduce the cost avoidance to $18.1 M increasing the cost of the scenario by $6.9 M. If the Army does not include any cost avoidances as their paper indicates, then the scenario would increase in cost by an additional $25 M.

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND
ROCK ISLAND, ILLINOIS 61299-6000

REPLY TO
ATTENTION OF

25 MAY 1995

AMSMC-AEE (15-1a)

MEMORANDUM FOR Commander, U.S. Army Material Command, ATTN: AMCSO (Mr. Daryl Powell), 5001 Eisenhower Avenue, Alexandria, VA 22333-0001

SUBJECT: Comments on Air Force Point Paper on Tactical Missile Consolidation, dated May 8, 1995

1. Enclosed is our response addressing the subject point paper on tactical missile consolidation.

2. The POC is the undersigned at AMSMC-AEE, DSN 793-3930/3164, datafax DSN 793-7768, e-mail address is ro01@ria-emh2.army.mil.

Encl

ALAN G. WILSON
Chief, Performance Evaluation Division

DEPARTMENT OF THE ARMY
LETTERKENNY ARMY DEPOT
CHAMBERSBURG, PENNSYLVANIA 17201

REPLY TO
ATTENTION OF:

SDSLE-I

23 May 1995

MEMORANDUM FOR Commander, U. S. Army Industrial Operations Command,
ATTN: AMSMC-AEB (Gary Wallett),
Rock Island, IL 61299-6000

SUBJECT: Odgen-Air Logistics Center (OO-ALC) Point Paper on Tactical Missile Consolidation

1. Letterkenny Army Depot (LEAD) has been requested to review and comment on point paper authored by OO-ALC "Point Paper on Army BRAC 93 Re-direct Proposal Tactical Missile Consolidation for BRAC Commission," May 8, 1995. Comments to point paper are provided at enclosure.

2. OO-ALC is desperate for new workload. The entire driving force for their proposal is to reduce personnel cuts. Army Tactical Missile System (ATACMS), HAWK, and PATRIOT cause major problems for tactical missile consolidation at OO-ALC. OO-ALC has no building to perform ATACMS maintenance and All-Up-Round (AUR) work. OO-ALC has proposed using Building 2214 for this work. Building 2214 is inadequate and would require $3.2M in renovation costs. OO-ALC does not have the facilities, equipment, or experienced personnel to perform HAWK and PATRIOT maintenance and overhaul. Total cost to transition HAWK and PATRIOT is $36M. It is extremely difficult to duplicate the Radar Test Site, HAWK Test Pattern Range, special facilities, and training plus experience to gain proficiency in system repair. The DOD Tactical Missile Study, 18 January 1991 stated "Army HAWK and PATRIOT missile support equipment is fully entrenched at LEAD and is not relocateable without major perturbations to DOD organic infrastructure and Army operational mission assignments."

3. Consolidation of tactical missiles at LEAD is still the best decision because of LEAD's ability to test, repair, store, analyze, and demilitarize missiles at one location. The DOD Tactical Missile Study stated "LEAD is the only existing site that can perform the consolidation of all existing Services' depot workload."

SDSLE-I 23 May 1995

SUBJECT: Odgen-Air Logistics Center (OO-ALC) Point Paper on Tactical Missile Consolidation

4. Point of contact for additional information is Mr. Robert Wood, SDSLE-I, DSN 570-9798.

Encl

HALLIE J. BUNK
Director of Integrated
Logistics Support

COMMENTS TO OO-ALC POINT PAPER

1. OPERATIONAL READINESS. The OO-ALC proposal is made with no coordination with SARDA, PMs and PEOs. No consideration is given to the impact caused by transitioning systems that are scheduled to undergo major modifications such as; PATRIOT radar enhancement modification, PATRIOT PAC 3 missile, and ATACMS upgrades. The Army and Marines will be without air defense for at least 18 months caused by the transition of HAWK, PATRIOT and Avenger. The DOD Tactical Missile Study; 18 January 1991 stated "Army HAWK and PATRIOT missile support equipment is fully entrenched at LEAD and is not relocatable without major perturbations to DOD organic infrastructure and Army operational mission assignments.".

2. WORKLOAD. The workload hours stated by OO-ALC for PATRIOT and HAWK AUR are 211K hrs not 58K hrs. OO-ALC includes the workload for PATRIOT and HAWK AUR but does not include the cost to transition this workload. The Army estimates the cost to transition this workload at $129M.

3. PERSONNEL. OO-ALC is due to RIF 600 personnel in September 1995. OO-ALC states that there would be no personnel costs associated with consolidation of tactical missiles at OO-ALC, if this RIF was canceled. This is contrary to the Air Force BRAC recommendation to down size in place. Transition can not begin until approval of an environmental assessment, approximately 18 months. The RIF will be enacted 18 months prior to the beginning of transition. Also what percentage of these personnel have experience in tactical missile repair? The OO-ALC personnel are not trained in the specific systems that would be transitioning, and just as the USAF Program Managers insisted that LEAD electronic journeymen be system trained, Sidewinder and Maverick specifically, so must the OO-ALC personnel be competent and trained on the peculiarities and technologies inherent in different systems. This is a significant challenge and can not be overcome by wishful thinking. Each transitioning system requires a certification and first article test, where the personnel prove they are capable of performing the mission in detail including repair of system, certification of equipment, supply, etc. OO-ALC personnel can not pass certification without the system specific training supplemented by on the job training. It would be prudent to hire as many personnel from the losing source of repair as possible to reduce learning curves and shorten maintenance interrupt. If action is considered a transfer of function, losing source of repair personnel have transfer rights.

4. MILCON. LEAD has 382,161 sq ft of floor space dedicated to repair of tactical missile systems specified in BRAC 93. An additional 100,00 sq ft of space is required for maintenance of HAWK, PATRIOT, and Avenger 62,000 for trucks, shelters, HMMWVs, trailers, and launchers and 48,000 for wire harness, small motor rebuild, power generators, NBC filters, and other maintenance support functions. OO-ALC utilizes 46,500 sq ft for Sidewinder and Maverick. They have the capability to expand an additional 165,000 sq ft (Bldg 5 & 100) for a total of 211,500 sq ft. OO-ALC has a 170,161 sq ft shortfall of space to perform tactical missile maintenance. OO-ALC has not identified additional

facilities that will be required to perform missile maintenance and additional vehicle and maintenance support facilities. OO-ALC has 1.5M sq ft of excess space of which some portion could be used for missile maintenance; but they have equipment stationed in these buildings. There will be a cost associated with removal of this equipment. Until additional facilities are identified, how they are configered, and which system will they support, renovation costs can not be clearly identified. There are specific facilities requirements for each missile system. There will be MILCON costs for all or a portion of the OO-ALC facilities 170K sq ft shortfall. At $75 a square foot (Standard Planning Factor), renovation costs would be $12.75M or a portion thereof. OO-ALC has no concept of maintenance processes and workflow required to support systems like HAWK, PATRIOT, and Avenger. Facility utilization is an important factor in development of maintenance processes and workflow. OO-ALC lack of experience would cause increased maintenance time and costs. OO-ALC facility planning does not address future workload such as THAAD, Ground Based Sensor, Javelin, Longbow, and ERINT for which LEAD has already planned.

a. Army TACMS. OO-ALC will use Building 2214 for AUR maintenance of ATACMS. We have confirmed through the ATACMS-PM Logistics Support Office that no one there told the Air Force that OO-ALCs Building 2214 is "fully capable of accepting the current ATACM maintenance workload" as the OO-ALC Point Paper states. In fact, the ATACMS PM, office said that using the information provided to OO-ALC it would be impossible to determine the suitability of Building 2214 for ATACMS utilization. Facilities Design Criteria for ATACMS, 26 April 1995 states that a minimum ceiling height of 12 ft is required in all areas with the exception of 15 ft requirement in the canning/decaning area. Doors must be 16 ft in width for forklift movement of missiles and containers. Building 2214 door width is 10 ft. Building 2214 ceiling height is 15 ft, but pipes, framework, and other obstructions leave a working height of only 9 ft. Building 2214 bays are explosive rated to 425 lbs. the TACMS explosive weight is 410 lbs. This permits only one missile in each explosive bay. Also the bays are not large enough to house the missile and support equipment required to test the missile. 1,100 sq ft of environmentally controlled area is required to repair guidance and control electronics, which Building 2214 does not have. The building is adjacent to a HILL AFB natural gas vent which impedes it's munitions hazard classification. The building is reported to be under review by Hill AFB explosive safety office to determine if it should be used as a munitions operation. Renovation costs to Building 2214 would be $3.2 M.(construction cost x 59%= renovation cost) $5.5M x 59%=$3.2M. The LEAD estimate of $3.2M is a realistic estimate for upgrading Building 2214. This does not address the growth potential built into LEAD's ATACMS facility Building 3810 for future Block 1 and 2 workload. LEAD's Building 3810 also has the space and explosive requirements to perform THAAD AUR testing and repair along with the current ATACMS mission.

b. Radar Test Site. HAWK and PATRIOT missile systems are tested at Letterkenny's 28 acre radar test site a specially designed facility that simulates a tactical emplacement. The test site location must have an unobstructed 12 kilometer line of site free space radiation zone. This site must have 160,000 sq ft of hard stand and 2,500 sq ft of

environmentally controlled work space and power requirements to support PATRIOT and HAWK. OO-ALC has not identified a location for the radar test site. Does OO-ALC's location meet security requirements, free space radiation requirements, elevation (to check ground clutter), and electro magnetic interference requirements? The cost to build the PATRIOT test site at LEAD in 1988 was $1.8M. Existing infrastructure was already in place(building & power) Inflation and cost to build new building would raise cost to $2.5M. Cost to install macadam hard stand would be $476K. Total cost to duplicate test site at OO-ALC is $3M. LEAD will utilize the HAWK radar test site to support THAAD after HAWK is removed from the inventory. The THAAD radar test site will require a 7.5 kilometer aircraft keep out zone. OO-ALCs proximity to Hill AFB runway would create problems establishing this keep out zone.

c. Ammunition Storage. OO-ALC states "It is the Aie Force's opinion that additional storage over and above that required to meet immediate repair needs is not necessary. Tactical missiles should be stored at the three TIER 1 depots." TIER 1 depots are considered active core, and will store training ammunition and initial war reserve ammunition requirements. TIER 2 or cadre depots will maintain additional war reserve ammunition. The decision to centralize the repair of tactical missile guidance and control section sections at LEAD is not inconsistent with the LEAD TIER 2 designation. Due to the extensive commitment by TIER 1 depots to the support of power projection they do not posses the storage space for DOD's tactical missiles. LEAD utilizes 680K sq ft of ammunition storage space to support tactical missile consolidation and ammunition area missile workload. An additional 506K sq ft is required to support TMRF for HAWK and PATRIOT missiles. OO-ALC would require an additional 1M sq ft of ammunition storage space to support these workloads. The cost to construct this additional storage at OO-ALC would be $117.9M. This would also require additional costs for roads, rails, loading docks, security, and ammunition area support staff.

5. TIME FRAME. No irreversible actions can be started until completion of an Environmental Assessment (EA). LEAD's BRAC 91 environmental assessment required 17 months to complete. The Army Corps of Engineers started process in Mar 91, awarded contract in Sep 91 with completion of assessment in Aug 92. LEAD's BRAC 93 Environmental assessment was a modification to BRAC 91 assessment. This required 6 months to complete. The time frame when HAWK and PATRIOT transition is irrelevant to the approval of EA OO-ALC would not be able to begin any facility renovation or equipment transition until approval of EA.

6. TRAINING. The training costs for HAWK is based on cost data received from Ordnance, Missiles, and Munitions Center School, Redstone Arsenal, AL. PATRIOT training costs are based on cost data received from Raytheon. These costs include training cost, per diem, TDY, OJT and labor. Training costs are $15.8M for PATRIOT and $6.2M for HAWK. System specific training of OO-ALC journeymen electronics/missile repairmen is a critical requirement and can not be overlooked regardless of how skilled or highly trained they are on other systems. Each of the 25 missile systems is unique and requires system specific training in theory of operation and on the job training. The

customer requires the trained personnel to be certified "system support capable" during first article test and certification. Example: PATRIOT System expertise by LEAD technicians required approximately 18 months of training and three years experience on use of DMPE, system integration and checkout, and modifications to become fully proficient. LEAD's PATRIOT personnel had previous radar and system integration experience in HAWK.

7. INVENTORY TRANSFER. Inventory transfer costs to implement tactical missile consolidation at LEAD are $710K to date. These costs are from the Tactical Missile Consolidation Implementation Plan, updated cost data Mar 95. An additional $237K was spent by DLA. These costs include systems that transitioned to LEAD and do not include HAWK, PATRIOT, and Avenger. These three systems have the largest inventory and their inventory transfer costs would be the largest. HAWK world wide assets are resident at LEAD. The cost to transfer these assets would be astronomical.

8. OTHER COSTS.

a. Equipment Transfer. HAWK and PATRIOT systems include 37 test sets and consoles plus various ancillary equipment, adapters, fixtures, and cabling. LEAD's estimated cost to move this equipment is $4.75M. This estimate includes; inventory, packing, set-up, checkout, and calibration. This estimate is based on experience gained in the transition of 13 systems to LEAD and cost to transition equipment to Tobyhanna Army Depot. The $4.75M to relocate HAWK and PATRIOT does not include $1.274M to move the HAWK Indoor Test Pattern Range which must be added.

b. Emerging Systems. OO-ALC must be capable of supporting the emerging future systems requirements as well as the existing workload. Several systems, such as THAAD, CORPS SAM, and ATACMS Block 1 and 2 have already committed to establishing depot support at LEAD. Planning efforts have been initiated to include these requirements at LEAD. These requirements make the OO-ALC option even more expensive than current shortfalls identified.

c. Sunk Costs. OO-ALC comments on sunk costs are irrelevant as they pertain to tactical missile consolidation.

d. Total Package Fielding Support. LEAD provides total package fielding support on HAWK, PATRIOT, and Avenger, to field units. This is a massive activity involving vehicular and ground support equipment workload foreign too OO-ALC personnel. A recent LEAD PATRIOT fielding involved preparation and shipment of 48 railcars loaded with specialized PATRIOT equipment which was delivered to the customer fully operational and with LEAD personnel delivering new equipment training to unit personnel..

e. Recurring Costs. The OO-ALC identifies labor rates for OO-ALC, LEAD, and TOAD reportedly taken from the DOD Cost Comparability Handbook. A review of the

handbook shows that these rates are not present in that reference. Where these rates came from can not be determined but they are not correct. Experienced has proved comparing "apples to apples" between services is not possible due to differences in accounting systems. BRAC analysis did not use recurring labor rates and should not be part of this analysis. Valid comparison between the different services labor rates is not possible at this time. However the direct labor rate at LEAD is less than half of the OO-ALC average labor rate.

9. COSTS NOT INCLUDED.

a. Other MILCON. Not applicable to tactical missile consolidation as civilian employees will not use Base Housing, commissary, Base Exchange, etc.

b. ICS. The cost for Maverick ICS is less than $4M not $78.5M as stated by OO-ALC.

10. PERSPECTIVE. LEAD has transitioned and been certified as the DOD depot for 15 of the 23 missile systems scheduled to transition. Beyond the electronic repair capability associated with repair of complex, state of the art missile systems, LEAD has the capability to provide total repair and support to ground support equipment on systems such as HAWK, PATRIOT, Avenger, and future systems like THAAD and Ground Based sensor. OO-ALC is certified to repair only 2 systems and has no ground support equipment. Transition of the 15 missile systems at LEAD would result in the loss of $26M already expended at LEAD, plus the cost to transition to another location. Cost to transition tactical missiles to LEAD is $42M, with $26M expended. Cost to transition to another location would be at least $42M plus $36M to transition HAWK and PATRIOT. The DOD Tactical Missile Study stated "LEAD is the only existing site that can perform the consolidation of all existing Services' depot workload.".

OO-ALC/LIW
ARMAMENT DIVISION
6033 ELM LANE
HILL AFB UT 84056-5819
DSN: 777-2099
COMM: (801) 777-5432

Please refer to this number when responding: 950509-6

TO: Glen Knapp / Ben Bader

SUBJ: Response Army BEAC

PHONE:

FROM: OO-ALC/LIW

_____ # PAGES (INCLUDING COVER)

MESSAGE:

We review the evaluation of the Air Force's Base ability to accept the Tactical Missile Workload Consolidation for DoD and have provided our comments. If you have any questions please call me.

Jeannie Hathenbruck

FAX NUMBER
DSN: 458-2099
COMM: (801) 777-2099

THOMAS L. SHIVELY, Colonel, USAF
Chief, Armament Division
Commodities Directorate

JEANNIE HATHENBRUCK
Chief, Logistics Operations
Armament Division

POINT PAPER
ON
ARMY BRAC 93 RE-DIRECT PROPOSAL
TACTICAL MISSILE CONSOLIDATION
FOR BRAC COMMISSION
May 8, 1995

- The BRAC Commission on Apr. 26, 1995, directed the Army to analyze consolidation of all the DoD tactical missile workload at Hill AFB.

  - Representatives from the Army and OSD with Air Force personnel conducted a quick site survey of Hill AFB and reviewed the tactical missile workload requirements.

  - The total FY 1999 workload required to transfer to Hill AFB was determined to be 1.272 M direct labor hours (DLH) plus 121K DLH (at Hill AFB) for a total of 1.393 DLH. The 1.393M DLH includes the original 677K DLH identified during the BRAC 93 decision plus 658K DLH attributed to Patriot and Hawk at Letterkenny Army Depot (LEAD), and 58K DLH for Patriot and Hawk all up round (AUR) at Red River Army Depot (RRAD). The only DLH not included are those required for the AUR currently performed at LEAD, which were not provided to the Air Force. However, all costs associated with transferring the workload (e.g., facilities, equipment, etc.) were included in the Air Force proposal.

- The Air Force provided the Army Base Study Office a written cost estimate to move the identified DoD tactical missile workload to Hill AFB. The Army Base Study Office assessed the Air Force and Army data submitted, and made cost-adjustments (increases) to the Air Force proposal. The Air Force did not have an opportunity to review these increased costs prior to the Army Base Study Office incorporating them into the COBRA analysis.

- After completing the COBRA analysis, the Army provided the Air Force with the methodology used in determining the cost increases to the Air Force proposal. The Air Force has reviewed the Army's cost increases and provides the following comments:

  - PERSONNEL: The Army was directed by the BRAC Commission to use the DoD BRAC recommendation submitted Feb. 28, 1995. The BRAC Commission Staff provided the Army with the Hill AFB personnel increase of 237 (personnel authorizations), associated with the DoD BRAC recommendation. However, not included in the model, were the more than 1500 personnel losses (faces) from Hill AFB between FY 1996 and FY 2001 directed by the Dorn memo. This does not include the 600 personnel (faces) scheduled for RIF during September 1995. The losses will include personnel with related skills used in the full range of tasks for the repair of DoD tactical missiles and could be realigned with minimal training. Utilizing these personnel reductions avoids the need to hire direct labor or PCS personnel (faces). There will be no personnel hiring costs at Hill AFB for transferring this workload, therefore, the COBRA personnel transferring costs should be eliminated.

  - MILCON:

    - ATACM's ALL-UP ROUND MAINTENANCE FACILITY (BLDG. 2214)
      Based on information provided by the facilities engineer in the ATACM program office, Hill AFB has the depot level facilities available to support a consolidation of the ATACM's missile workload without incurring any substantial construction costs. Building 2214, the building selected for the ATACM's Full-Up Round Maintenance Facility, has been certified and approved in accordance with DoD Explosive Standards to handle 9,800 pounds of Class 1, Division 1.1 explosives. In addition to having the adequate explosive handling rating, Building 2214 meets the

floor space requirements for ATACM missile operations. Building 2214 is not scheduled for demolition. Hill AFB is prepared to expand Building 2214 based on the ATACM missile system workload in order to establish an efficient missile maintenance operation. Such changes will include: 1) Incorporating an orientation pad and test stand for the final guidance control alignment calibration for the ATACM, 2) Continue and complete the work already started on hardening the natural gas metering station located adjacent to Bldg. 2214 (current work on this issue was prompted by other facility requirements affected by the metering station, not due to Bldg. 2214 operations), 3) Adding additional security lighting to the building (even though it is in a secured, controlled access area with military police sentry's monitoring activities; the same area where the Minuteman and Peacekeepers are stored), 4) Upgrading the environmental control conditioning to the building, 5) Providing enclosed sheltering for the loading platforms, protecting personnel and munitions from inclement weather, and 6) Adding radio frequency (RF) protection around the building. Most of these modifications will be handled within Hill AFB's Civil Engineering Squadron with minimal outlay in funding. Overall the Air Force proposes renovation costs of $495K for Building 2214. This includes $295K for facility modifications and $200K for support equipment. This changes our original estimate of $287K. The structural integrity and wall construction of the building can be accounted for by the Class 1, Division 1.1 rating approved for the building. In addition, ceiling height is adequate for safe movement of the 14'x3.5'x3' missile container. The missile itself, 13' in length and 2' in diameter, easily fits into and can be handle within the existing bays of building 2214. Furthermore, the entrance and exit utility doors are 8'x10'. This allows the current sideloading munitions forklift to pick-up and position the missile, in it's container, within Building 2214. Finally, Building 2214 is fully capable of accepting the ATACM missile maintenance workload without the extensive renovation costs called out by the LEAD personnel.

••• PATRIOT RADAR TEST SITE: The $510K estimate for the radar test site construction was based on what we believed were similar operations. Due to short time frames, Hill AFB was unable to obtain accurate costs for equipment and construction of a radar test site. We will accept the $2M costs, but feel that with adequate time to prepare, these costs could be brought down.

••• MISSILE STORAGE: LEAD identified a requirement for 1M ft^2 of tactical missile explosive storage to be collocated with the maintenance facility. The Air Force requires a total of 314,975 ft^2 for AUR and explosive component storage if stacked one item high. This includes AUR, rocket motor, explosive components, and guidance and control sections. However, according to system specification, the Air Force missiles can be stored from 5 to 11 high. Using an average of three high, the Air Force storage requirements are reduced to 104,955 ft^2. Fifty percent of that requirement is for storage of the Maverick and was not considered for AUR consolidation. Deducting the Air Force requirement from the 1M ft^2 identified by LEAD leaves approximately 900K ft^2 required for Army and Marine Corps missiles. Discussions with the Navy indicate they plan to continue use of their East and West Coast repair and storage facilities and not consolidated at LEAD. Based on our analysis of Air Force requirements and Navy stated intentions, 1M ft^2 appears to be excessive.

Review of the storage requirement of 1M ft^2 of space, as called for in the BRAC Commission Analyst Notes, found that Hill has over 187K ft^2 of missiles storage space available. This 187K ft^2 was obtained by vacating 62.2K ft^2 utilized for the storage of strategic missile and 125K ft^2 used to store tactical missiles and other conventional munitions items. Available space is 87K ft^2 greater than previously reported and resulted from a more in-depth study of existing storage requirements. Costs associated are described in the Munitions Storage MILCON paragraph following.

The Air Force explosive storage regulations do not require class 1.4 explosive items be stored in igloos. Our normal procedures are to license a warehouse facility and use it to store these type of

items. An additional 50K ft^2 of 1.4 storage is available immediately to store GCS, freeing up additional 1.1 class for AUR storage.

The proposed consolidation is to consider complete collocation of the required storage at the depot maintenance location. This criteria is not consistent with present DoD procedures and is not necessary for successful, economic depot performance. Historically, Maverick Missiles have been stored at Tooele and Red River Army Depots and all up round repairs performed at Hill AFB within the GCS depot. Approximately 75% - 90% of Air Force missiles are stored at operational locations. Even more important, it is unwise both strategically and logistically to store all missiles in one location as described below. The services' System Program Managers have not been consulted about the tactical missile consolidated storage at one location.

During Desert Storm and more recently Somalia and Bosnia, we found because of collateral damage reasons, precision guided munitions were then and are now the weapon of choice. Precision guided munitions must be strategically located for outload purposes whether by air, rail or surface. Therefore, in future conflicts, it would be logistically impossible to outload all service requirements from one location. Also, from a strategic standpoint, the impacts of locating all of DoD's most expensive weapons in one location could be disastrous.

Because of this, DoD has developed a stockpile optimization plan placing critical assets in three Tier I Army storage depots, in the east (Anniston AD), west (Tooele AD) and midwest (McCallister AD). This provides optimum outload to meet critical scenarios. At this point in time, assets have not yet been moved (not yet funded) to any of the Tier I Depots, negating any relocation costs. We verified with the Army representative author of the Army Tiering concept that LEAD is a Tier II depot.

It is the Air Force's opinion that additional storage over and above that required to meet immediate repair needs, is not necessary. Tactical missiles should be stored at the three Tier I depots.

**** MISSILE STORAGE MILCON: Review of the storage requirement of 1M ft^2 of space, as called for in the BRAC Commission Analyst Notes, found that Hill AFB has over 187K ft^2 of missiles storage space available. This 187K ft^2 was obtained by vacating 62.2K ft^2 utilized for the storage of strategic missiles and 125K ft^2 used to store tactical missiles and other conventional munitions items. Available space is 87K ft^2 greater than previously reported and resulted from a more in-depth study of existing storage requirements. There is an estimated cost of $300K to obtain this space. Strategic missile storage has been programmed for closing and no costs are associated with obtaining this space. The munitions storage space will be realized through demilitarization, attrition due to normal issue, and the movement of material from 30K ft^2 of storage.

With the availability of 187K ft^2 of space at Hill AFB, an additional area of 813K ft^2 is required to meet the estimated 1M ft^2 identified by LEAD. Hill AFB believes the 1M ft^2 to be excessive for several reasons previously explained, 1) strategic requirements to not locate all depot assets at one location, 2) logistical requirements for shipping during a Desert Shield/Storm scenario, and 3) vertical storage of assets in new type igloos. However, to abide by the direction received, Hill is providing cost for the stipulated large storage area.

Acreage for additional storage is available at Tooele AD or UTTR (Oasis), or a combination of these two sites. Construction costs would be $106M (813K ft^2 * $131/ ft^2). Construction of larger facilities of a more modern design, such as those being constructed at Hill AFB, could be expected to save 40% of this construction costs ($66M). This would occur due to better utilization of space with vertical walled units allowing better vertical storage.

The need for construction of an additional 460 igloos at Hawthorne, NV, or McCallister Army Ammunition Plant, OK, for storage of conventional munitions currently stored at LEAD, should not be a factor in the tactical missile workload consolidation study. This requirement is totally independent of and not associated with the 1M ft^2 of space stated as being required for tactical missile storage, and as a result Hill AFB has only calculated cost of obtaining 1M ft^2 of space.

In summary, Hill AFB's position is that the MILCON for tactical missiles storage would be $66M or less, and when the storage requirements are fully identified and analyzed, the existing 187K ft^2 available at Hill AFB plus the designated Tier I storage at Anniston, Tooele, and McCallister, would be fully adequate for all storage requirements. This is especially true from a strategic and logistic point of view. It would not be wise to store all assets at one location, as any disaster could cripple the U.S. posture. In addition, shipment of assets from one location during a Desert Shield/Storm scenario would be a logistics nightmare.

- TIME FRAME: In accordance with DoD and Air Force implementation of the National Environmental Policy Act, an Environmental Assessment (EA) will be completed. Only when the EA results in a finding of significant impact is an environmental impact survey (EIS) required. The workloads recommended for transfer during the first years of the plan include no known new processes, chemicals, waste streams, etc., that would impact our present environmental licensing at Hill AFB. The major systems, Patriot and Hawk, do not transfer until FY 1998-1999 providing more than enough time to complete and respond to any new environmental issues. Therefore, an EA is expected to demonstrate that no significant impact will be found, and an EIS will not be required.

- TRAINING: LEAD estimated training on all 21 systems to be $28.3M, of which $22M was slated for Hawk and Patriot systems, equating to 78% of the total training budget. We believe the $22M training budget for Hawk and Patriot to be excessive.

The Dorn memo continues to drive downsizing at Hill AFB. This action will require the release of direct labor personnel, during the workload transfer schedule, with the skills to support the full scope of DoD tactical missile workload. The Air Force still believes that $17.4M is excessive for all training because of the resident skills base at Hill AFB, but will accept the $17.4M based on data from LEAD.

- INVENTORY TRANSFER: The inventory transfer cost is considered a "wash" for inventory not presently at LEAD. The inventory will either be shipped to Hill AFB or LEAD depending on the decision of the BRAC. The increased inventory documented in this paragraph, from the estimated $50K to the reported $3.1M, appears significant. However, our inventory cost estimates are based on the belief that the Army depots practice good supply discipline and only retain the material required to support the current year requirements. This, coupled with the projected transfer date of the first quarter of FY 1999, provides ample time to reduce the inventory to a minimum before the transfer begins. We would further expect the Army to only order mandatory material requirements for up to six months prior to workload transfer with other parts being held in the item manager's account or forwarded to the new depot. This practice will further reduce the inventory to the point we believe the cost to transfer will be more in-line with our projected $50K for Patriot and a $1.8M total.

- OTHER COSTS:

  - EQUIPMENT TRANSFER: The equipment transfer cost of $7.3M, for the Hawk and Patriot weapon systems appears to be high. The equipment transfer costs for all of the tactical missiles to LEAD is estimated to be $5M. This includes the Maverick Missile System which has more test stations and test sets than the 24 test sets currently used on the Patriot System. We believe a more conservative $2.5M should meet the equipment transfer cost for both Hawk and Patriot.

- SUNK COSTS: Sunk costs are a reality of downsizing throughout DoD. LEAD has identified $25M already spent consolidating tactical missiles. Sunk costs will be associated with any scenario, i.e., the closure of LEAD will result in a loss of funds spent implementing the 93 BRAC recommendation, or failure to obtain optimum utilization of the Hill AFB infrastructure by adding workload will require closure, disposal, or transfer of in-place facilities—a loss to DoD. This is a significant impact to the $1B infrastructure in place at Hill AFB.

- RECURRING COSTS: Even though labor costs are not included in the COBRA model, long term savings based on labor rates should be evaluated. The difficulty in comparing rates between services is due to the differences in the accounting systems, i.e., material, overhead, G&A, etc. However, consistently, Hill AFB labor rates are less than LEAD, ANAD and TOAD. The Depot Maintenance operation Indicator Report identifies Hill AFB average labor rate of $69.27 compared to the LEAD rate of $101.36. The Cost Comparability Handbook (Aug 93) identifies Hill AFB labor rate as $49.38, LEAD as $65.33, and TOAD as $58.31. A comparison using the Cost Comparison Handbook labor rates between Hill AFB and LEAD shows considerable annual savings can be achieved for GCS, launcher, and vehicle repair.

- COSTS NOT INCLUDED:

  - OTHER MILCON: Hill AFB sees the tactical missile consolidation as a civilian workload. However, the Hill AFB infrastructure is in-place to support a large contingent of military personnel. The facilities remain while the assigned contingent has decreased over the past several years. Our military personnel and their family members are provided both on-base and off-base support, including, social activities, child care, Base Exchange, hospital, theater, banking, school, housing, Commissary, Hobby shops, educational opportunities, etc. Our downsizing efforts will result in mothballing approximately 300K ft^2 of administrative area. Other MILCON concerns identified in this section should not be considered.

  - ICS: Based on the decision of the Joint Cross Service Group for Depot Maintenance (JSCG/DM), interim contractor support (ICS) is the responsibility of the owning service and will not be considered in costs to relocate workload. Like the estimated $84.5M attributed to Patriot and Hawk, the 1993 estimate for Maverick ICS was $76.5M, which if considered, would have greatly skewed the original analysis.

  - RELOCATION COSTS: Hill AFB identified 100K ft^2 for tactical missile explosive storage, 70K ft^2 immediately available and an additional 30K ft^2 available in the future. The paper made mention of existing storage of ICBMs at Navajo National Guard Depot, AZ, and possible deep storage of Air Force Munitions. However, all movement would be done through attrition requiring no relocation dollars. ICBMs planned or currently stored at Navajo were already budgeted for by the PEO and igloos would not need modification to accommodate deep storage of Air Force munitions items. An additional 87K ft^2 of explosive storage at Hill AFB would also be freed up with a relocation cost of $300K, for a total 187K ft^2. Hill AFB also has additional storage available for GCS 1.4 storage in excess of 50K ft^2.

- COST AVOIDANCE: Since all of the missile systems have not yet transferred to LEAD, it seems inappropriate to label the difference between the original BRAC 93 appropriation and what has been expended to date as "cost avoidance".

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

5: 6 Jun

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

May 15, 1995

Colonel Michael G. Jones
Director, The Army Basing Study
200 Army Pentagon
Washington, D.C. 20310-0200

Please refer to this number when responding 950515-7

Dear Colonel Jones:

The Defense Base Closure and Realignment Commission is forwarding the attached point paper for comment. It is a response to a visit by Office of the Secretary of Defense and Army personnel to Hill Air Force Base to gather information on the Letterkenny-to-Hill scenario.

Please provide your response no later than 6 June 1995. Thank you for your assistance. I appreciate your time and cooperation.

Sincerely,

for Clarence R. Brown, Army Team
Edward A. Brown III
Army Team Leader

EAB/rmm

Document Separator

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
WASHINGTON, DC 20310-0200

REPLY TO
ATTENTION OF

May 31, 1995

Defense Base Closure
and Realignment Commission
1700 North Moore Street
Suite 1425
ATTN: Mr Brown
Arlington, Virginia 22209

Please refer to this number
when responding 950605-28

Dear Mr. Brown,

I appreciate the opportunity to comment on the point paper regarding missile maintenance at Hill AFB, as requested in your 15 May 1995 letter (950515-7).

First, it must be made clear that no one in DoD who reviewed or approved the current DoD Letterkenny recommendation considers it a significant deviation from the BRAC 93 recommendation. Furthermore, the General Accounting Office (GAO) raised no objection on this account.

I take issue with the Air Force approach of trying to close an Army depot rather than deal with their own 1-2 depot excess infrastructure problem. I also have serious concerns with the cost figures you have been provided by the Air Force. If you desire to pursue this alternative, I strongly recommend that GAO investigate these calculations.

During the past several months, the Air Force proponents of moving work to Hill AFB have changed scenarios, cost estimates, and personnel figures to meet their objectives. Why are these still changing? Is it to prevent closure and gain workload from other Services? Additionally during the BRAC process, the Air Force could only achieve a 7% reduction of its personnel due to operational requirements, but can take 1.4 million manhours of workload from the Army without any personnel transfers. How can the certified workload data submitted by the Air Force be used during the DoD joint analysis, but be different for this analysis? Inconsistencies abound in the Hill AFB point paper. They continue to indicate that this is a workload competition only and refuse to acknowledge the entire BRAC costs to move the artillery workload, or the ammunition storage for Letterkenny. Specific comments on this point paper are attached along with additional comments by the U.S. Army Industrial Operations Command.

By our calculations, the cost to move the missile mission to Hill AFB remains four to nine times as expensive as DoD's recommendation, with fewer savings. I hope this information is helpful and provides a more complete picture than you have been given on the matter.

Sincerely,

James E. Shane, Jr.
Brigadier General, U.S. Army
Director of Management

Enclosures

COMMENTS
ON
AIR FORCE POINT PAPER
LETTERKENNY TO HILL SCENARIO

Air Force Review: The Air Force indicated that it did not have an opportunity to review the assumptions and inputs into the COBRA model prior to it submission to the Commission. On the contrary, we provided our information to the Air Force Staff in draft on 5 May 1995. The Air Force indicated to us that it was a fair and conservative approach. They did have questions over our construction and manpower figures, but understood the methodology used by The Army Basing Study.

Personnel: The two issues presented by Hill AFB are the 600 approved Reduction in Force (RIF) scheduled for September 1995 and the anticipated reductions of the Dorn memorandum that will be spread over the POM. The approved RIF is a scheduled force reduction and will be executed prior to congressional approval of BRAC and should not be considered as part of the BRAC analysis, using approved DoD methodology. Under the Dorn Memorandum, each of the Services are scheduled to take approximately a 35,000 man reduction over the POM. The eliminations due to BRAC can help meet this reduction. The Air Force would still have to take the entire cut somewhere else if Hill AFB is exempted in order to accept the tactical missile mission without any personnel from Letterkenny. The net effect is an additional cost to DoD. The Army considers these to be force structure reductions and not savings to be applied to any potential BRAC action.

MILCON: There are three issues: ATACM's building; Patriot radar site; and the ammunition storage. Resolving differences between the Army and Air Force over the first two issues would require a detailed requirements review. In absence of this review, we applied standard DoD factors and remain confident in our approach. The storage construction issue has two parts. The first deals with the conventional ammunition tiering concept and the second is a question of available storage space. As a point of correction, the eastern area tier I depot is not Anniston Army Depot but rather Crane and Bluegrass Depots. Anniston is a tier II depot in the eastern region. Additionally, the conventional ammunition tiering program only deals with conventional ammunition and not tactical missiles. With respect to the last issue, the Air Force claims to have found an additional 62 KSQFT of storage at an additional cost of $300,000. This could reduce the ammunition storage construction from $117 M to $106 M. The requirement to store tactical missile is still a requirement.

Time Frame: Whether a EIS or EA is required is a mute point. The law requires either a EA or EIS to be performed prior to the mission being started. If the transfer starting in Oct 1995, then the year of return on investment would be 2001 verses 2002. The number of years to achieve the return on investment would not change. The Army's standard practice of one year to complete all required environmental documentation appears reasonable in this case.

Training: Differences over the cost of training are difficult to resolve quickly. However, the cost of training should be related to the number of trained employees being transferred. The Letterkenny $28 M estimate was based on at least 30% of Letterkenny staff transferring. Hill's $17 M estimate is based on no transfers. We split the difference in an attempt to resolve the conflict.

Inventory Transfer: Trying to determine who is correct on Patriot is very difficult. The cost to move inventory is not a "wash" IAW BRAC cost. This is not a depot "open" competition for work load.

Equipment Transfer: There is a difference of opinion on this matter.

Sunk Cost: Sunk cost does not appear to be a factor in determining whether a base should close. The purpose and intent of BRAC is to redistribute workload to reduce excess infrastructure.

Recurring Costs: A cost comparison rate used in the Hill AFB point paper indicates a $9 per hour difference in Hill AFB favor. However, this rate is made up of several rates - direct labor, material, and overhead. The material cost are directly related to the workload involved and should not be used except in direct workload comparison. The overhead rate is a combination of indirect labor, base operations and repair and maintenance costs associated with the facilities and infrastructure used by the depot, and other factors. Since this is an area of uncertainty due to downsizing factors, it is not a stable rate. The only remaining rate that can be compared is the direct labor rate. A recent report on selected annual depots maintenance cost data, derived from the Military Department data submission done in accordance with Chapter 76 of the DoD Accounting Manual, DoD 7220.9-M, indicates that the simple average of labor rates from 1990 to 1994 for Ogden Air Logistics Center is $21.12/hour while the rate for Letterkenny was $18.31/hour. This is a difference of $2.81/hour in Letterkenny's favor.

Other MILCON: The Army did not add any MILCON because of the lack of knowledge of the facilities at Hill AFB. If Hill AFB currently has an excess of 300,000 SQFT of administrative space, 1.5 M SQFT maintenance space, and 187,000 SQFT ammunition storage space, then Hill AFB has 14% of all available space currently excess to their needs. We understand this is growing. The following is scheduled to go: BRAC 95 reduction of the Test and Evaluation mission, reduction of strategic missile workload due to treaties, all the new family housing being constructed may excess, or the proposed 1700 man/ workload reduction scheduled per the Dorn memorandum.

ISC: The Army did not include any ISC in its analysis, as per the current DoD directive.

Relocation costs: The additional cost of $300 K should be added to the COBRA associated with the addition 87 KSQFT recently identified by Hill AFB. If this relocation is to Navajo National Guard Depot, then the storage cost and any reconfigure cost should also be added.

Cost Avoidance: The Army used a cost avoidance of $25 M. At the 10 May hearing, the Commission used the DoD IG figures of $44.1 M which would reduce the cost avoidance to $18.1 M increasing the cost of the scenario by $6.9 M. If the Army does not include any cost avoidances as their paper indicates, then the scenario would increase in cost by an additional $25 M.

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND
ROCK ISLAND, ILLINOIS 61299-6000

REPLY TO
ATTENTION OF

AMSMC-AEE (15-1a)

25 MAY 1995

MEMORANDUM FOR Commander, U.S. Army Materiel Command, ATTN: AMCSO (Mr. Daryl Powell), 5001 Eisenhower Avenue, Alexandria, VA 22333-0001

SUBJECT: Comments on Air Force Point Paper on Tactical Missile Consolidation, dated May 8, 1995

1. Enclosed is our response addressing the subject point paper on tactical missile consolidation.

2. The POC is the undersigned at AMSMC-AEE, DSN 793-3930/3164, datafax DSN 793-7768, e-mail address is ro01@ria-emh2.army.mil.

Encl

ALAN G. WILSON
Chief, Performance Evaluation Division

DEPARTMENT OF THE ARMY
LETTERKENNY ARMY DEPOT
CHAMBERSBURG, PENNSYLVANIA 17201

REPLY TO
ATTENTION OF:

SDSLE-I

23 May 1995

MEMORANDUM FOR Commander, U. S. Army Industrial Operations Command,
ATTN: AMSMC-AEE (Gary Wallett),
Rock Island, IL 61299-6000

SUBJECT: Odgen-Air Logistics Center (OO-ALC) Point Paper on Tactical Missile Consolidation

1. Letterkenny Army Depot (LEAD) has been requested to review and comment on point paper authored by OO-ALC "Point Paper on Army BRAC 93 Re-direct Proposal Tactical Missile Consolidation for BRAC Commission," May 8, 1995. Comments to point paper are provided at enclosure.

2. OO-ALC is desperate for new workload. The entire driving force for their proposal is to reduce personnel cuts. Army Tactical Missile System (ATACMS), HAWK, and PATRIOT cause major problems for tactical missile consolidation at OO-ALC. OO-ALC has no building to perform ATACMS maintenance and All-Up-Round (AUR) work. OO-ALC has proposed using Building 2214 for this work. Building 2214 is inadequate and would require $3.2M in renovation costs. OO-ALC does not have the facilities, equipment, or experienced personnel to perform HAWK and PATRIOT maintenance and overhaul. Total cost to transition HAWK and PATRIOT is $36M. It is extremely difficult to duplicate the Radar Test Site, HAWK Test Pattern Range, special facilities, and training plus experience to gain proficiency in system repair. The DOD Tactical Missile Study, 18 January 1991 stated "Army HAWK and PATRIOT missile support equipment is fully entrenched at LEAD and is not relocateable without major perturbations to DOD organic infrastructure and Army operational mission assignments."

3. Consolidation of tactical missiles at LEAD is still the best decision because of LEAD's ability to test, repair, store, analyze, and demilitarize missiles at one location. The DOD Tactical Missile Study stated "LEAD is the only existing site that can perform the consolidation of all existing Services' depot workload."

SDSLE-I

23 May 1995

SUBJECT: Odgen-Air Logistics Center (OO-ALC) Point Paper on Tactical Missile Consolidation

4. Point of contact for additional information is Mr. Robert Wood, SDSLE-I, DSN 570-9798.

Encl

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Director of Integrated
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COMMENTS TO OO-ALC POINT PAPER.

1. OPERATIONAL READINESS. The OO-ALC proposal is made with no coordination with SARDA, PMs and PEOs. No consideration is given to the impact caused by transitioning systems that are scheduled to undergo major modifications such as; PATRIOT radar enhancement modification, PATRIOT PAC 3 missile, and ATACMS upgrades. The Army and Marines will be without air defense for at least 18 months caused by the transition of HAWK, PATRIOT and Avenger. The DOD Tactical Missile Study, 18 January 1991 stated "Army HAWK and PATRIOT missile support equipment is fully entrenched at LEAD and is not relocateable without major perturbations to DOD organic infrastructure and Army operational mission assignments.".

2. WORKLOAD. The workload hours stated by OO-ALC for PATRIOT and HAWK AUR are 211K hrs not 58K hrs. OO-ALC includes the workload for PATRIOT and HAWK AUR but does not include the cost to transition this workload. The Army estimates the cost to transition this workload at $129M.

3. PERSONNEL. OO-ALC is due to RIF 600 personnel in September 1995. OO-ALC states that there would be no personnel costs associated with consolidation of tactical missiles at OO-ALC, if this RIF was canceled. This is contrary to the Air Force BRAC recommendation to down size in place. Transition can not begin until approval of an environmental assessment, approximately 18 months. The RIF will be enacted 18 months prior to the beginning of transition. Also what percentage of these personnel have experience in tactical missile repair? The OO-ALC personnel are not trained in the specific systems that would be transitioning, and just as the USAF Program Managers insisted that LEAD electronic journeymen be system trained, Sidewinder and Maverick specifically, so must the OO-ALC personnel be competent and trained on the peculiarities and technologies inherent in different systems. This is a significant challenge and can not be overcome by wishful thinking. Each transitioning system requires a certification and first article test, where the personnel prove they are capable of performing the mission in detail including repair of system, certification of equipment, supply, etc. OO-ALC personnel can not pass certification without the system specific training supplemented by on the job training. It would be prudent to hire as many personnel from the losing source of repair as possible to reduce learning curves and shorten maintenance interrupt. If action is considered a transfer of function, losing source of repair personnel have transfer rights.

4. MILCON. LEAD has 382,161 sq ft of floor space dedicated to repair of tactical missile systems specified in BRAC 93. An additional 100,00 sq ft of space is required for maintenance of HAWK, PATRIOT, and Avenger 62,000 for trucks, shelters, HMMWVs, trailers, and launchers and 48,000 for wire harness, small motor rebuild, power generators, NBC filters, and other maintenance support functions. OO-ALC utilizes 46,500 sq ft for Sidewinder and Maverick. They have the capability to expand an additional 165,000 sq ft (Bldg 5 & 100) for a total of 211,500 sq ft. OO-ALC has a 170,161 sq ft shortfall of space to perform tactical missile maintenance. OO-ALC has not identified additional

facilities that will be required to perform missile maintenance and additional vehicle and maintenance support facilities. OO-ALC has 1.5M sq ft of excess space of which some portion could be used for missile maintenance; but they have equipment stationed in these buildings. There will be a cost associated with removal of this equipment. Until additional facilities are identified, how they are configered, and which system will they support, renovation costs can not be clearly identified. There are specific facilities requirements for each missile system. There will be MILCON costs for all or a portion of the OO-ALC facilities 170K sq ft shortfall. At $75 a square foot (Standard Planning Factor), renovation costs would be $12.75M or a portion thereof. OO-ALC has no concept of maintenance processes and workflow required to support systems like HAWK, PATRIOT, and Avenger. Facility utilization is an important factor in development of maintenance processes and workflow. OO-ALC lack of experience would cause increased maintenance time and costs. OO-ALC facility planning does not address future workload such as THAAD, Ground Based Sensor, Javelin, Longbow, and ERINT for which LEAD has already planned.

a. Army TACMS. OO-ALC will use Building 2214 for AUR maintenance of ATACMS. We have confirmed through the ATACMS-PM Logistics Support Office that no one there told the Air Force that OO-ALCs Building 2214 is "fully capable of accepting the current ATACM maintenance workload" as the OO-ALC Point Paper states. In fact, the ATACMS PM, office said that using the information provided to OO-ALC it would be impossible to determine the suitability of Building 2214 for ATACMS utilization. Facilities Design Criteria for ATACMS, 26 April 1995 states that a minimum ceiling height of 12 ft is required in all areas with the exception of 15 ft requirement in the canning/decaning area. Doors must be 16 ft in width for forklift movement of missiles and containers. Building 2214 door width is 10 ft. Building 2214 ceiling height is 15 ft, but pipes, framework, and other obstructions leave a working height of only 9 ft. Building 2214 bays are explosive rated to 425 lbs. the TACMS explosive weight is 410 lbs. This permits only one missile in each explosive bay. Also the bays are not large enough to house the missile and support equipment required to test the missile. 1,100 sq ft of environmentally controlled area is required to repair guidance and control electronics, which Building 2214 does not have. The building is adjacent to a HILL AFB natural gas vent which impedes it's munitions hazard classification. The building is reported to be under review by Hill AFB explosive safety office to determine if it should be used as a munitions operation. Renovation costs to Building 2214 would be $3.2 M.(construction cost x 59%= renovation cost) $5.5M x 59%=$3.2M. The LEAD estimate of $3.2M is a realistic estimate for upgrading Building 2214. This does not address the growth potential built into LEAD's ATACMS facility Building 3810 for future Block 1 and 2 workload. LEAD's Building 3810 also has the space and explosive requirements to perform THAAD AUR testing and repair along with the current ATACMS mission.

b. Radar Test Site. HAWK and PATRIOT missile systems are tested at Letterkenny's 28 acre radar test site a specially designed facility that simulates a tactical emplacement. The test site location must have an unobstructed 12 kilometer line of site free space radiation zone. This site must have 160,000 sq ft of hard stand and 2,500 sq ft of

environmentally controlled work space and power requirements to support PATRIOT and HAWK. OO-ALC has not identified a location for the radar test site. Does OO-ALC's location meet security requirements, free space radiation requirements, elevation (to check ground clutter), and electro magnetic interference requirements? The cost to build the PATRIOT test site at LEAD in 1988 was $1.8M. Existing infrastructure was already in place(building & power) Inflation and cost to build new building would raise cost to $2.5M. Cost to install macadam hard stand would be $476K. Total cost to duplicate test site at OO-ALC is $3M. LEAD will utilize the HAWK radar test site to support THAAD after HAWK is removed from the inventory. The THAAD radar test site will require a 7.5 kilometer aircraft keep out zone. OO-ALCs proximity to Hill AFB runway would create problems establishing this keep out zone.

c. Ammunition Storage. OO-ALC states "It is the Aie Force's opinion that additional storage over and above that required to meet immediate repair needs is not necessary. Tactical missiles should be stored at the three TIER 1 depots." TIER 1 depots are considered active core, and will store training ammunition and initial war reserve ammunition requirements. TIER 2 or cadre depots will maintain additional war reserve ammunition. The decision to centralize the repair of tactical missile guidance and control section sections at LEAD is not inconsistent with the LEAD TIER 2 designation. Due to the extensive commitment by TIER 1 depots to the support of power projection they do not posses the storage space for DOD's tactical missiles. LEAD utilizes 680K sq ft of ammunition storage space to support tactical missile consolidation and ammunition area missile workload. An additional 506K sq ft is required to support TMRF for HAWK and PATRIOT missiles. OO-ALC would require an additional 1M sq ft of ammunition storage space to support these workloads. The cost to construct this additional storage at OO-ALC would be $117.9M. This would also require additional costs for roads, rails, loading docks, security, and ammunition area support staff.

5. TIME FRAME. No irreversible actions can be started until completion of an Environmental Assessment (EA). LEAD's BRAC 91 environmental assessment required 17 months to complete. The Army Corps of Engineers started process in Mar 91, awarded contract in Sep 91 with completion of assessment in Aug 92. LEAD's BRAC 93 Environmental assessment was a modification to BRAC 91 assessment. This required 6 months to complete. The time frame when HAWK and PATRIOT transition is irrelevant to the approval of EA OO-ALC would not be able to begin any facility renovation or equipment transition until approval of EA.

6. TRAINING. The training costs for HAWK is based on cost data received from Ordnance, Missiles, and Munitions Center School, Redstone Arsenal, AL. PATRIOT training costs are based on cost data received from Raytheon. These costs include training cost, per diem, TDY, OJT and labor. Training costs are $15.8M for PATRIOT and $6.2M for HAWK. System specific training of OO-ALC journeymen electronics/missile repairmen is a critical requirement and can not be overlooked regardless of how skilled or highly trained they are on other systems. Each of the 25 missile systems is unique and requires system specific training in theory of operation and on the job training. The

customer requires the trained personnel to be certified "system support capable" during first article test and certification. Example: PATRIOT System expertise by LEAD technicians required approximately 18 months of training and three years experience on use of DMPE, system integration and checkout, and modifications to become fully proficient. LEAD's PATRIOT personnel had previous radar and system integration experience in HAWK.

7. INVENTORY TRANSFER. Inventory transfer costs to implement tactical missile consolidation at LEAD are $710K to date. These costs are from the Tactical Missile Consolidation Implementation Plan, updated cost data Mar 95. An additional $237K was spent by DLA. These costs include systems that transitioned to LEAD and do not include HAWK, PATRIOT, and Avenger. These three systems have the largest inventory and their inventory transfer costs would be the largest. HAWK world wide assets are resident at LEAD. The cost to transfer these assets would be astronomical.

8. OTHER COSTS.

a. Equipment Transfer. HAWK and PATRIOT systems include 37 test sets and consoles plus various ancillary equipment, adapters, fixtures, and cabling. LEAD's estimated cost to move this equipment is $4.75M. This estimate includes; inventory, packing, set-up, checkout, and calibration. This estimate is based on experience gained in the transition of 13 systems to LEAD and cost to transition equipment to Tobyhanna Army Depot. The $4.75M to relocate HAWK and PATRIOT does not include $1.274M to move the HAWK Indoor Test Pattern Range which must be added.

b. Emerging Systems. OO-ALC must be capable of supporting the emerging future systems requirements as well as the existing workload. Several systems, such as THAAD, CORPS SAM, and ATACMS Block 1 and 2 have already committed to establishing depot support at LEAD. Planning efforts have been initiated to include these requirements at LEAD. These requirements make the OO-ALC option even more expensive than current shortfalls identified.

c. Sunk Costs. OO-ALC comments on sunk costs are irrelevant as they pertain to tactical missile consolidation.

d. Total Package Fielding Support. LEAD provides total package fielding support on HAWK, PATRIOT, and Avenger, to field units. This is a massive activity involving vehicular and ground support equipment workload foreign too OO-ALC personnel. A recent LEAD PATRIOT fielding involved preparation and shipment of 48 railcars loaded with specialized PATRIOT equipment which was delivered to the customer fully operational and with LEAD personnel delivering new equipment training to unit personnel..

e. Recurring Costs. The OO-ALC identifies labor rates for OO-ALC, LEAD, and TOAD reportedly taken from the DOD Cost Comparability Handbook. A review of the

handbook shows that these rates are not present in that reference. Where these rates came from can not be determined but they are not correct. Experienced has proved comparing "apples to apples" between services is not possible due to differences in accounting systems. BRAC analysis did not use recurring labor rates and should not be part of this analysis. Valid comparison between the different services labor rates is not possible at this time. However the direct labor rate at LEAD is less than half of the OO-ALC average labor rate.

9. COSTS NOT INCLUDED.

a. Other MILCON. Not applicable to tactical missile consolidation as civilian employees will not use Base Housing, commissary, Base Exchange, etc.

b. ICS. The cost for Maverick ICS is less than $4M not $78.5M as stated by OO-ALC.

10. PERSPECTIVE. LEAD has transitioned and been certified as the DOD depot for 15 of the 23 missile systems scheduled to transition. Beyond the electronic repair capability associated with repair of complex, state of the art missile systems, LEAD has the capability to provide total repair and support to ground support equipment on systems such as HAWK, PATRIOT, Avenger , and future systems like THAAD and Ground Based sensor. OO-ALC is certified to repair only 2 systems and has no ground support equipment. Transition of the 15 missile systems at LEAD would result in the loss of $26M already expended at LEAD, plus the cost to transition to another location. Cost to transition tactical missiles to LEAD is $42M, with $26M expended. Cost to transition to another location would be at least $42M plus $36M to transition HAWK and PATRIOT. The DOD Tactical Missile Study stated "LEAD is the only existing site that can perform the consolidation of all existing Services' depot workload.".

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_____ # PAGES (INCLUDING COVER)

MESSAGE:

We review the evaluation of the Air Force's Base ability to accept the Tactical Missile Workload Consolidation for DoD and have provided our comments. If you have any questions please call me.

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POINT PAPER
ON
ARMY BRAC 93 RE-DIRECT PROPOSAL
TACTICAL MISSILE CONSOLIDATION
FOR BRAC COMMISSION
May 8, 1995

- The BRAC Commission on Apr. 26, 1995, directed the Army to analyze consolidation of all the DoD tactical missile workload at Hill AFB.

  - Representatives from the Army and OSD with Air Force personnel conducted a quick site survey of Hill AFB and reviewed the tactical missile workload requirements.

  - The total FY 1999 workload required to transfer to Hill AFB was determined to be 1.272 M direct labor hours (DLH) plus 121K DLH (at Hill AFB) for a total of 1.393 DLH. The 1.393M DLH includes the original 677K DLH identified during the BRAC 93 decision plus 658K DLH attributed to Patriot and Hawk at Letterkenny Army Depot (LEAD), and 58K DLH for Patriot and Hawk all up round (AUR) at Red River Army Depot (RRAD). The only DLH not included are those required for the AUR currently performed at LEAD, which were not provided to the Air Force. However, all costs associated with transferring the workload (e.g., facilities, equipment, etc.) were included in the Air Force proposal.

- The Air Force provided the Army Base Study Office a written cost estimate to move the identified DoD tactical missile workload to Hill AFB. The Army Base Study Office assessed the Air Force and Army data submitted, and made cost-adjustments (increases) to the Air Force proposal. The Air Force did not have an opportunity to review these increased costs prior to the Army Base Study Office incorporating them into the COBRA analysis.

- After completing the COBRA analysis, the Army provided the Air Force with the methodology used in determining the cost increases to the Air Force proposal. The Air Force has reviewed the Army's cost increases and provides the following comments:

  - PERSONNEL: The Army was directed by the BRAC Commission to use the DoD BRAC recommendation submitted Feb. 28, 1995. The BRAC Commission Staff provided the Army with the Hill AFB personnel increase of 237 (personnel authorizations), associated with the DoD BRAC recommendation. However, not included in the model, were the more than 1500 personnel losses (faces) from Hill AFB between FY 1996 and FY 2001 directed by the Dorn memo. This does not include the 600 personnel (faces) scheduled for RIF during September 1995. The losses will include personnel with related skills used in the full range of tasks for the repair of DoD tactical missiles and could be realigned with minimal training. Utilizing these personnel reductions avoids the need to hire direct labor or PCS personnel (faces). There will be no personnel hiring costs at Hill AFB for transferring this workload, therefore, the COBRA personnel transferring costs should be eliminated.

  - MILCON:

    - ATACM's ALL-UP ROUND MAINTENANCE FACILITY (BLDG. 2214)
      Based on information provided by the facilities engineer in the ATACM program office, Hill AFB has the depot level facilities available to support a consolidation of the ATACM's missile workload without incurring any substantial construction costs. Building 2214, the building selected for the ATACM's Full-Up Round Maintenance Facility, has been certified and approved in accordance with DoD Explosive Standards to handle 9,800 pounds of Class 1, Division 1.1 explosives. In addition to having the adequate explosive handling rating, Building 2214 meets the

floor space requirements for ATACM missile operations. Building 2214 is not scheduled for demolition. Hill AFB is prepared to expand Building 2214 based on the ATACM missile system workload in order to establish an efficient missile maintenance operation. Such changes will include: 1) Incorporating an orientation pad and test stand for the final guidance control alignment calibration for the ATACM, 2) Continue and complete the work already started on hardening the natural gas metering station located adjacent to Bldg. 2214 (current work on this issue was prompted by other facility requirements affected by the metering station, not due to Bldg. 2214 operations), 3) Adding additional security lighting to the building (even though it is in a secured, controlled access area with military police sentry's monitoring activities; the same area where the Minuteman and Peacekeepers are stored), 4) Upgrading the environmental control conditioning to the building, 5) Providing enclosed sheltering for the loading platforms, protecting personnel and munitions from inclement weather, and 6) Adding radio frequency (RF) protection around the building. Most of these modifications will be handled within Hill AFB's Civil Engineering Squadron with minimal outlay in funding. Overall the Air Force proposes renovation costs of $495K for Building 2214. This includes $295K for facility modifications and $200K for support equipment. This changes our original estimate of $287K. The structural integrity and wall construction of the building can be accounted for by the Class 1, Division 1.1 rating approved for the building. In addition, ceiling height is adequate for safe movement of the 14'x3.5'x3' missile container. The missile itself, 13' in length and 2' in diameter, easily fits into and can be handle within the existing bays of building 2214. Furthermore, the entrance and exit utility doors are 8'x10'. This allows the current sideloading munitions forklift to pick-up and position the missile, in it's container, within Building 2214. Finally, Building 2214 is fully capable of accepting the ATACM missile maintenance workload without the extensive renovation costs called out by the LEAD personnel.

*** PATRIOT RADAR TEST SITE: The $510K estimate for the radar test site construction was based on what we believed were similar operations. Due to short time frames, Hill AFB was unable to obtain accurate costs for equipment and construction of a radar test site. We will accept the $2M costs, but feel that with adequate time to prepare, these costs could be brought down.

*** MISSILE STORAGE: LEAD identified a requirement for 1M ft^2 of tactical missile explosive storage to be collocated with the maintenance facility. The Air Force requires a total of 314,975 ft^2 for AUR and explosive component storage if stacked one item high. This includes AUR, rocket motor, explosive components, and guidance and control sections. However, according to system specification, the Air Force missiles can be stored from 5 to 11 high. Using an average of three high, the Air Force storage requirements are reduced to 104,955 ft^2. Fifty percent of that requirement is for storage of the Maverick and was not considered for AUR consolidation. Deducting the Air Force requirement from the 1M ft^2 identified by LEAD leaves approximately 900K ft^2 required for Army and Marine Corps missiles. Discussions with the Navy indicate they plan to continue use of their East and West Coast repair and storage facilities and not consolidated at LEAD. Based on our analysis of Air Force requirements and Navy stated intentions, 1M ft^2 appears to be excessive.

Review of the storage requirement of 1M ft^2 of space, as called for in the BRAC Commission Analyst Notes, found that Hill has over 187K ft^2 of missiles storage space available. This 187K ft^2 was obtained by vacating 62.2K ft^2 utilized for the storage of strategic missile and 125K ft^2 used to store tactical missiles and other conventional munitions items. Available space is 87K ft^2 greater than previously reported and resulted from a more in-depth study of existing storage requirements. Costs associated are described in the Munitions Storage MILCON paragraph following.

The Air Force explosive storage regulations do not require class 1.4 explosive items be stored in igloos. Our normal procedures are to license a warehouse facility and use it to store these type of

items. An additional 50K ft^2 of 1.4 storage is available immediately to store GCS, freeing up additional 1.1 class for AUR storage.

The proposed consolidation is to consider complete collocation of the required storage at the depot maintenance location. This criteria is not consistent with present DoD procedures and is not necessary for successful, economic depot performance. Historically, Maverick Missiles have been stored at Tooele and Red River Army Depots and all up round repairs performed at Hill AFB within the GCS depot. Approximately 75% - 90% of Air Force missiles are stored at operational locations. Even more important, it is unwise both strategically and logistically to store all missiles in one location as described below. The services' System Program Managers have not been consulted about the tactical missile consolidated storage at one location.

During Desert Storm and more recently Somalia and Bosnia, we found because of collateral damage reasons, precision guided munitions were then and are now the weapon of choice. Precision guided munitions must be strategically located for outload purposes whether by air, rail or surface. Therefore, in future conflicts, it would be logistically impossible to outload all service requirements from one location. Also, from a strategic standpoint, the impacts of locating all of DoD's most expensive weapons in one location could be disastrous.

Because of this, DoD has developed a stockpile optimization plan placing critical assets in three Tier I Army storage depots, in the east (Anniston AD), west (Tooele AD) and midwest (McCallister AD). This provides optimum outload to meet critical scenarios. At this point in time, assets have not yet been moved (not yet funded) to any of the Tier I Depots, negating any relocation costs. We verified with the Army representative author of the Army Tiering concept that LEAD is a Tier II depot.

It is the Air Force's opinion that additional storage over and above that required to meet immediate repair needs, is not necessary. Tactical missiles should be stored at the three Tier I depots.

**** MISSILE STORAGE MILCON: Review of the storage requirement of 1M ft^2 of space, as called for in the BRAC Commission Analyst Notes, found that Hill AFB has over 187K ft^2 of missiles storage space available. This 187K ft^2 was obtained by vacating 62.2K ft^2 utilized for the storage of strategic missiles and 125K ft^2 used to store tactical missiles and other conventional munitions items. Available space is 87K ft^2 greater than previously reported and resulted from a more in-depth study of existing storage requirements. There is an estimated cost of $300K to obtain this space. Strategic missile storage has been programmed for closing and no costs are associated with obtaining this space. The munitions storage space will be realized through demilitarization, attrition due to normal issue, and the movement of material from 30K ft^2 of storage.

With the availability of 187K ft^2 of space at Hill AFB, an additional area of 813K ft^2 is required to meet the estimated 1M ft^2 identified by LEAD. Hill AFB believes the 1M ft^2 to be excessive for several reasons previously explained, 1) strategic requirements to not locate all depot assets at one location, 2) logistical requirements for shipping during a Desert Shield/Storm scenario, and 3) vertical storage of assets in new type igloos. However, to abide by the direction received, Hill is providing cost for the stipulated large storage area.

Acreage for additional storage is available at Tooele AD or UTTR (Oasis), or a combination of these two sites. Construction costs would be $106M (813K ft^2 * $131/ ft^2). Construction of larger facilities of a more modern design, such as those being constructed at Hill AFB, could be expected to save 40% of this construction costs ($66M). This would occur due to better utilization of space with vertical walled units allowing better vertical storage.

The need for construction of an additional 460 igloos at Hawthorne, NV, or McCallister Army Ammunition Plant, OK, for storage of conventional munitions currently stored at LEAD, should not be a factor in the tactical missile workload consolidation study. This requirement is totally independent of and not associated with the 1M ft^2 of space stated as being required for tactical missile storage, and as a result Hill AFB has only calculated cost of obtaining 1M ft^2 of space.

In summary, Hill AFB's position is that the MILCON for tactical missiles storage would be $66M or less, and when the storage requirements are fully identified and analyzed, the existing 187K ft^2 available at Hill AFB plus the designated Tier I storage at Anniston, Tooele, and McCallister, would be fully adequate for all storage requirements. This is especially true from a strategic and logistic point of view. It would not be wise to store all assets at one location, as any disaster could cripple the U.S. posture. In addition, shipment of assets from one location during a Desert Shield/Storm scenario would be a logistics nightmare.

- TIME FRAME: In accordance with DoD and Air Force implementation of the National Environmental Policy Act, an Environmental Assessment (EA) will be completed. Only when the EA results in a finding of significant impact is an environmental impact survey (EIS) required. The workloads recommended for transfer during the first years of the plan include no known new processes, chemicals, waste streams, etc., that would impact our present environmental licensing at Hill AFB. The major systems, Patriot and Hawk, do not transfer until FY 1998-1999 providing more than enough time to complete and respond to any new environmental issues. Therefore, an EA is expected to demonstrate that no significant impact will be found, and an EIS will not be required.

- TRAINING: LEAD estimated training on all 21 systems to be $28.3M, of which $22M was slated for Hawk and Patriot systems, equating to 78% of the total training budget. We believe the $22M training budget for Hawk and Patriot to be excessive.

The Dorn memo continues to drive downsizing at Hill AFB. This action will require the release of direct labor personnel, during the workload transfer schedule, with the skills to support the full scope of DoD tactical missile workload. The Air Force still believes that $17.4M is excessive for all training because of the resident skills base at Hill AFB, but will accept the $17.4M based on data from LEAD.

- INVENTORY TRANSFER: The inventory transfer cost is considered a "wash" for inventory not presently at LEAD. The inventory will either be shipped to Hill AFB or LEAD depending on the decision of the BRAC. The increased inventory documented in this paragraph, from the estimated $50K to the reported $3.1M, appears significant. However, our inventory cost estimates are based on the belief that the Army depots practice good supply discipline and only retain the material required to support the current year requirements. This, coupled with the projected transfer date of the first quarter of FY 1999, provides ample time to reduce the inventory to a minimum before the transfer begins. We would further expect the Army to only order mandatory material requirements for up to six months prior to workload transfer with other parts being held in the item manager's account or forwarded to the new depot. This practice will further reduce the inventory to the point we believe the cost to transfer will be more in-line with our projected $50K for Patriot and a $1.8M total.

- OTHER COSTS:

  - EQUIPMENT TRANSFER: The equipment transfer cost of $7.3M, for the Hawk and Patriot weapon systems appears to be high. The equipment transfer costs for all of the tactical missiles to LEAD is estimated to be $5M. This includes the Maverick Missile System which has more test stations and test sets than the 24 test sets currently used on the Patriot System. We believe a more conservative $2.5M should meet the equipment transfer cost for both Hawk and Patriot.

- SUNK COSTS: Sunk costs are a reality of downsizing throughout DoD. LEAD has identified $25M already spent consolidating tactical missiles. Sunk costs will be associated with any scenario, i.e., the closure of LEAD will result in a loss of funds spent implementing the 93 BRAC recommendation, or failure to obtain optimum utilization of the Hill AFB infrastructure by adding workload will require closure, disposal, or transfer of in-place facilities—a loss to DoD. This is a significant impact to the $1B infrastructure in place at Hill AFB.

- RECURRING COSTS: Even though labor costs are not included in the COBRA model, long term savings based on labor rates should be evaluated. The difficulty in comparing rates between services is due to the differences in the accounting systems, i.e., material, overhead, G&A, etc. However, consistently, Hill AFB labor rates are less than LEAD, ANAD and TOAD. The Depot Maintenance operation Indicator Report identifies Hill AFB average labor rate of $69.27 compared to the LEAD rate of $101.36. The Cost Comparability Handbook (Aug 93) identifies Hill AFB labor rate as $49.38, LEAD as $65.33, and TOAD as $58.31. A comparison using the Cost Comparison Handbook labor rates between Hill AFB and LEAD shows considerable annual savings can be achieved for GCS, launcher, and vehicle repair.

- COSTS NOT INCLUDED:

  - OTHER MILCON: Hill AFB sees the tactical missile consolidation as a civilian workload. However, the Hill AFB infrastructure is in-place to support a large contingent of military personnel. The facilities remain while the assigned contingent has decreased over the past several years. Our military personnel and their family members are provided both on-base and off-base support, including, social activities, child care, Base Exchange, hospital, theater, banking, school, housing, Commissary, Hobby shops, educational opportunities, etc. Our downsizing efforts will result in mothballing approximately 300K ft^2 of administrative area. Other MILCON concerns identified in this section should not be considered.

  - ICS: Based on the decision of the Joint Cross Service Group for Depot Maintenance (JSCG/DM), interim contractor support (ICS) is the responsibility of the owning service and will not be considered in costs to relocate workload. Like the estimated $84.5M attributed to Patriot and Hawk, the 1993 estimate for Maverick ICS was $76.5M, which if considered, would have greatly skewed the original analysis.

  - RELOCATION COSTS: Hill AFB identified 100K ft^2 for tactical missile explosive storage, 70K ft^2 immediately available and an additional 30K ft^2 available in the future. The paper made mention of existing storage of ICBMs at Navajo National Guard Depot, AZ, and possible deep storage of Air Force Munitions. However, all movement would be done through attrition requiring no relocation dollars. ICBMs planned or currently stored at Navajo were already budgeted for by the PEO and igloos would not need modification to accommodate deep storage of Air Force munitions items. An additional 87K ft^2 of explosive storage at Hill AFB would also be freed up with a relocation cost of $300K, for a total 187K ft^2. Hill AFB also has additional storage available for GCS 1.4 storage in excess of 50K ft^2.

- COST AVOIDANCE: Since all of the missile systems have not yet transferred to LEAD, it seems inappropriate to label the difference between the original BRAC 93 appropriation and what has been expended to date as "cost avoidance".

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May 15, 1995

Colonel Michael G. Jones
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Please refer to this number when responding 950515-7

Dear Colonel Jones:

The Defense Base Closure and Realignment Commission is forwarding the attached point paper for comment. It is a response to a visit by Office of the Secretary of Defense and Army personnel to Hill Air Force Base to gather information on the Letterkenny-to-Hill scenario.

Please provide your response no later than 6 June 1995. Thank you for your assistance. I appreciate your time and cooperation.

Sincerely,

Clarence R. Brown, Army Team
for Edward A. Brown III
Army Team Leader

EAB/rmm

Document Separator

UNITED STATES ARMY
THE CHIEF OF STAFF

May 24, 1995

Honorable Diane Feinstein
United States Senate
Washington, DC 20510

Dear Senator Feinstein:

As we discussed by phone yesterday, the Army's position regarding the recent decision by the Defense Base Closure and Realignment Commission to consider the closure of Oakland Army Base remains unchanged. The Army studied the feasibility of closing the port at Oakland and concluded its loss represents an unacceptable risk. Oakland is essential for the deployment of our CONUS-based forces to respond to any national security threats which could emerge in the Pacific.

Although our initial analysis indicated some financial benefit, the resulting operational risk is unacceptable. The Army needs this critical facility to support the rapid deployment of equipment during peace and war. Its closure would leave the Army without a port facility on the west coast.

While it has been difficult for the Army to identify the excess infrastructure necessary for divestiture, we clearly understand the impact of BRAC on our fellow Americans. Our choices for realignment and closure are the right ones and balance requisite infrastructure with the warfighting capability needed to forge the Army into the 21st century.

We will make certain the Commission clearly understands the Army's position on Oakland Army Base. I appreciate your personal interest in and support of the Army.

Sincerely,

Gordon R. Sullivan
General, United States Army

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950605-9

FROM: GEPHARDT, RICHARD	TO: DIXON
TITLE: REP. (MO)	TITLE: CHAIRMAN
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED: ATCOM	

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		X	
				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
X	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

FORWARDING LETTER FROM GSA, IN RESPONSE TO SEN HEFLIN'S ASSERTION THAT THE FEDERAL CENTER IN ST. LOUIS COULD BE SOLD FOR 40 MILLION. LETTER STATES BUILDING WOULD ACTUALLY SELL FOR FAR LESS THAN THIS AMMOUNT.

Due Date: 950607	Routing Date: 950605	Date Originated 950602	Mail Date:

RICHARD A. GEPHARDT
THIRD DISTRICT, MISSOURI
DEMOCRATIC LEADER

Congress of the United States
House of Representatives
Washington, DC 20515–2503

WASHINGTON OFFICE:
1226 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–2503
PHONE: (202) 225–2671

DISTRICT OFFICES:
11140 SOUTH TOWNE SQUARE
SUITE #201
ST. LOUIS, MO 63123
PHONE: (314) 894–3400

888 E. GANNON DR.
P.O. BOX 392
FESTUS, MO 63028
PHONE: (314) 937-6399

June 2, 1995

Please refer to this number when responding 950605-9

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

Dear Chairman Dixon:

I was recently made aware of a letter you received from Sen. Heflin concerning the costs associated with the proposed disestablishment of ATCOM in St. Louis. In his letter, Sen. Heflin asserts that the Federal Center could be sold by the General Services Administration for $40 million.

I asked the GSA to respond to that assertion and have enclosed a copy of their response. As you can see, the $40 million estimate is unrealistic in the event that the facility is not occupied.

As you and your colleagues evaluate alternatives to closing ATCOM, I hope that you will keep this information in mind.

Yours very truly,

Richard A. Gephardt

Richard A. Gephardt

General Services Administration, Region 6
1500 East Bannister Road
Kansas City, MO 64131-3088

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▶ 2

To Hon. R. Gephardt	From Overton
Dept./Agency	Phone (816) 926-7
Fax (202) 225 7452	Fax (816) 926 75

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINIS

JUN - 1 1995

The Honorable Richard A. Gephardt
Minority Leader
House of Representatives
Washington, DC 20515-2503

Dear Minority Leader Gephardt:

Thank you for your letter of May 31, 1995, concerning the marketability of the Federal Center, 4300 Goodfellow Blvd., St. Louis, Missouri.

The Federal Center is currently utilized as an office park. Over 98 percent of the space has been converted to first class office space. The $40 million value referenced in your letter is valid only if the Federal Center were to continue its unique operation as an office complex for Federal agencies.

If Army Aviation and Troop Command (ATCOM) were to vacate the Federal Center, approximately 77 percent of the occupiable space, it would not be feasible or economical to continue to operate the Federal Center for the remaining agencies. Lacking income producing tenants, the value of the Federal Center plummets.

Given its physical location within the St. Louis metropolitan area, this complex is not marketable as an office park. It would more appropriately be placed in the light industrial category. A review of similar commercial properties currently on the market indicates that an "asking" sales price for the Federal Center would range from $10 million to $15 million. Considering current market conditions, it is estimated that an actual sale of the property would net considerably less than $10 million.

The physical configuration of the Federal Center virtually precludes the sale of individual buildings. The likelihood of finding a buyer for 1.275 million square feet of space, located in multiple, multi-story buildings, is not considered good. It is estimated that it could take years to develop a bona-fide buyer. Even then, the actual sale price would be a fraction of the worth of the property.

Additionally, the disposal of excess and surplus real property is governed by numerous laws. The McKinney Act provides for early consideration of the homeless. The Federal Property and Administrative Services Act of 1949, as amended, also facilitates the transfer of surplus real property for various uses at 100% public benefit discount. With the competing interests from local Government agencies, it is most likely that sale of this property would not generate income for the Federal government.

Federal Recycling Program Printed on Recycled Paper

If I can be of further assistance, please feel free to contact me.

Sincerely,

Woody Overton

Glen W. Overton
Regional Administrator (6A)

Document Separator

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950518-22

FROM: JONES, MICHAEL	TO: BROWN, ED
TITLE: DIRECTOR	TITLE: ARMY TEAM LEADER
ORGANIZATION: THE ARMY BASING STUDY	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED:	

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			B,9
				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:

FORWARDING COPY OF LETTER SENT TO GAO BY ARMY REGARDING TARS COMMENTS ON ARMY FAMILY HOUSING SAVINGS IN COBRA,

Due Date:	Routing Date: 950427	Date Originated:	Mail Date:

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
200 ARMY PENTAGON
WASHINGTON DC 20310-0200

REPLY TO
ATTENTION OF

April 27, 1995

Mr. Edward A. Brown III
Defense Base Closure and Realignment Commission
1700 N. Moore St., Suite 1425
Arlington, VA 22209

Dear Mr Brown:

The attached response to a General Accounting Office (GAO) request on Army Family Housing savings in COBRA is provided for your information.

Point of contact for this action is MAJ Fletcher, (703) 693-0077.

MICHAEL G. JONES
COL, GS
Director, The Army Basing Study

Attachment

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DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
200 ARMY PENTAGON
WASHINGTON DC 20310-0200

REPLY TO
ATTENTION OF

DACS-TABS

25 April 1995

MEMORANDUM FOR GENERAL ACCOUNTING OFFICE, ATTN: MR STEVEN DESART

SUBJECT: TABS Comments on Army Family Housing (AFH) Savings in COBRA

1. Per your request, we have reviewed the projected AFH operation savings for: Fort Totten, Fort Hamilton, Fort Buchanan, Charles Melvin Price Support Center, U.S. Army Garrison - Selfridge, and Dugway Proving Ground.

THE BOTTOM LINE ASSESSMENT:

No change in the ROI of any recommendation based upon refinement of the AFH savings in COBRA.

OVERALL IMPRESSION: Although the initial cost analysis provided by the Army may have overestimated savings in a few scenarios, the impact is negligible. Other refinements to the cost analysis could include the known cost avoidance (backlog of maintenance and repair projects) required to fix the AFH units we would keep, which can be millions of dollars.

DISCUSSION: Commission raised the issue that 100% closures of AFH will impact more personnel than the Army tenants stationed at the installation (ASIP units). These other personnel are usually geographically stationed - like recruiters, reserve component, etc, and will be forced to acquire quarters on the economy in the local area after AFH closure. In some cases, other services and other government agencies (Coast Guard) use housing on Army installations. When the housing closes, these "local" tenants will begin receiving BAQ and VHA payments to live off post. COBRA does not automatically calculate the additional BAQ/VHA for tenants that are moved out of housing and but remain in the local area. COBRA does automatically calculate the change in BAQ/VHA costs for tenants in government quarters being moved to another location or being eliminated.

RECOMMENDATION: For installations with ***significant*** local tenants in on post housing , an additional recurring cost will be included in COBRA for VHA and BAQ of personnel currently in housing that are forced to move off post. Recurring cost will be calculated only for **DoD personnel only** currently in AFH that are not relocated or eliminated.

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SUBJECT: TABS Comments on Army Family Housing (AFH) Savings in COBRA

Equation for recurring cost:

Enlisted quarters * ((ENL VHA*12) + ENL BAQ)
+
Officer quarters * ((OFF VHA*12) + OFF BAQ)

** The number of enlisted and officer quarters claimed by the "local" tenants will be determined by (in order of preference):

- written policy or agreement, if applicable
- historic averages (last three years), if available
- current, on site occupancy rates, if available

or

- ASIP numbers for remaining personnel.

*** VHA is from screen 4 , BAQ from standard factors.

IMPACT: Refinement of the COBRA packages for the installations with a significant population of local tenants in onpost housing and 100% AFH closure is necessary. This will increase the recurring costs of the recommendation.

3. CONCLUSION. TABS has performed a sensitivity analysis (attached) which shows no change in the one-time costs or in the Return on Investment years for the recommendations based on the revised AFH savings. This cost refinement would not alter the Army's recommendations on any Command and Control/ Admin installations.

MICHAEL G. JONES
COL, GS
Director, The Army Basing Study

SUBJECT: TABS Comments on Army Family Housing (AFH) Savings in COBRA

Revised COBRA AFH Savings Table

Price Support Center	**Army Submission**	**Revised**
1-Time Costs	$3,578	$3,578
NPV20	-$116,343	-$99,510
ROI	Immed	Immed
% Housing Shutdown	53%	100%
FY 96 AFH costs	$3,466	$1,192
Recurring local BAQ/VHA	$0	$580
Net AFH	-$3,466	-$612 (82% reduction)

Army Garrison - Selfridge	**Army Submission**	**Revised**
1-Time Costs	$5,277	$5,277
NPV20	-$139,651	-$103,78
ROI	Immed	Immed
% Housing Shutdown	100%	100%
FY 96 AFH costs	$6,063	$6,063
Recurring local BAQ/VHA	$0	$2,482
Net AFH	-$6,063	-$3,581 (41% reduction)

Fort Totten	**Army Submission**	**Revised**
1-Time Costs	$3,674	No revision, the original
NPV20	-$16,820	submission provided $2.25 M
ROI	Immed	to renovate housing at Mitchell
% Housing Shutdown	100%	field (Navy) for use by the
FY 96 AFH costs	$855	Army tenants - no recurring costs.
Recurring local BAQ/VHA	$0	
Net AFH	-$855	

Fort Hamilton	**Army Submission**	**Revised**
1-Time Costs	$2,110	No revision, the original
NPV20	-$74,015	submission provided
ROI	Immed	$2,290 in recurring costs
% Housing Shutdown	100%	to pay local VHA/BAQ
FY 96 AFH costs	$7,772	for personnel remaining at
Recurring local BAQ/VHA	$2,290	For Hamilton.
Net AFH	-$5,480	(29% reduction)

SUBJECT: TABS Comments on Army Family Housing (AFH) Savings in COBRA

Revised COBRA AFH Savings Table - Continued

Fort Buchanan	**Army Submission**	**Revised**
1-Time Costs	$74,371	No revision, the original
NPV20	- $45,372	submission provided
ROI	7 years	$3,393 in recurring costs
% Housing Shutdown	100%	to pay local housing allowance
FY 96 AFH costs	$3,699	for personnel remaining at
Recurring local BAQ/VHA	$2,285	For Buchanan.
Net AFH	-$1,414	(62% reduction)

TABS initial analysis for Fort Buchanan used estimated VHA/BAQ rates to approximate the Overseas Housing allowance and the Cost of Living Allowance (COLA) paid in Puerto Rico. A more refined estimate will show only about $1M in recurring costs for the overseas housing allowance versus the $3.393M initially estimated.

Dugway Proving Ground	**Army Submission**	**Revised**
1-Time Costs	$25,406	$9,450*
NPV20	-$306,685	-$296,619
ROI	1 year	Immed
% Housing Shutdown	100%	100%
FY 96 AFH costs	$2,089	$2,089
Recurring local BAQ/VHA	$0	$1,144
Net AFH	-$2,089	-$945(55% reduction)

* 1-Time cost changed due to scenario change other than housing.

Document Separator

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

NOMIC SECURITY

25 MAY 1995

Honorable Alan J. Dixon
Chairman, Defense Base Closure
and Realignment Commission
1700 N. Moore Street, Suite 1425
Arlington, Virginia 22209

Dear Mr. Chairman:

This is in response to your April 27, 1995, letter requesting that the Department of Defense provide responses to questions for the record resulting from the April 17, 1995 hearing. On May 9, 1995, we forwarded an interim response to these questions. Enclosed is the final set of answers.

I trust this information will be helpful, please let me know if there is anything else we can provide.

Sincerely,

Robert L. Meyer
Director
Base Closure

Enclosure

cc: Senate and House Reading Rooms

DEPOT MAINTENANCE

QUESTIONS SUBMITTED TO MR. KLUGH FOR THE RECORD

1. You identified a spreadsheet of a database created by a team of operations research systems analysts that would be provided for the record. Please provide the constraint equations to minimize and maximize the functional military value rankings. In addition, please identify where the flexibility exists in the algorithm assumptions.

ANSWER: For the Joint Cross-Service Group for Depot Maintenance, I directed the creation of a database from the certified data provided by the Military Departments. This data base was similar to a spreadsheet, strictly mechanical, and permitted accuracy cross-checks and rapid access. On the other hand, the Department adopted a linear program, known as the Joint Cross-Service Analysis Tool, or Optimization Model, for use by all cross-Service groups. The best way for me to respond to this question is to provide the model documentation (see **TAB 1**); this should answer all of your specific questions relating to constraints. Flexibility in the model comes from allowing it to move commodity workload from depot to depot in its efforts to optimize on a criteria, i.e., minimize sites, minimize excess capacity, maximize military value, or maximize functional value. It is inflexible in that a commodity workload can not be sent to a depot that was not previously identified as having the capability to perform that type of work. In other words, the model did not add capability over that which had been certified by the Services in an effort to close more facilities. Having said that, it should be pointed out that we created a notional depot for analysis purposes which allowed us to analyze, on an individual basis, any workloads that didn't "fit". This process is fully explained in our process summary which has been provided to your staff.

2. Please provide the core functions by commodity for each Air Force depot, and the co-located weapon system for those commodities.

ANSWER: Core functions by commodity, previously provided for all Services, are provided at **TAB 2**. It is evident from this chart that the Air Force, independent of BRAC actions, is evolving to a center of technical excellence philosophy. For example, landing gear depot maintenance workload is accomplished at Ogden ALC. The majority of the Air Force communications and electronics workload is performed at Warner Robins ALC. Aircraft engine depot maintenance is essentially accomplished at two depots, Oklahoma City ALC and San Antonio ALC. All Air Force blade and vane depot maintenance is performed at Oklahoma City ALC. The majority of bearing work is performed at Oklahoma City ALC.

3. Describe how your Joint Cross Service Group assigned functional values to each of the depots and shipyards?

ANSWER: The Joint Cross-Service Group assigned a functional value to performing maintenance on a particular commodity at a particular location. We looked at measures of merit that were applicable to all commodity groups and then assigned weights to those measures.

- CORE workloads/CORE capabilities - 30 Points
- Unique/peculiar CORE workload, capabilities and capacity - 15 Points
- Unique/peculiar CORE workload test facilities - 15 Points
- Other workloads - 30 Points
- Environmental issues/questions - 10 Points

Specific questions and weightings were developed and applied to each commodity at each activity.

4. When assigning workload, how did the functional value scores impact the positioning of workload?

ANSWER: The Optimization Model looked first to the criteria being optimized, that is :

- Minimize sites
- Minimize excess capacity
- Maximize Military value
- Maximize functional value

then within that criteria, it assigned workload to that location reporting capability and capacity on the basis of the highest functional value.

5. What is the excess capacity by Service, and by depot?

ANSWER: The spreadsheet provided at **TAB 3** and previously provided to your staff, displays excess capacity by commodity, by depot, and by Service. This spreadsheet is based upon capacity minus FY 1999 programmed, or funded core workload. All of the data were certified by the providing Service.

6. Please provide the capacity charts that describe excess capacity with implementation of this BRAC by Service, and by depot?

ANSWER: See spreadsheet at **TAB 3**. See **TAB 4** for supplemental Navy comments.

7. Cross Service Alternative Two proposes the closure of Long Beach and either Pearl Harbor or Portsmouth. Did the Joint Cross Service Group view Pearl Harbor and Portsmouth as equivalent in terms of capability as well as capacity?

ANSWER: In terms of capacity and core workloads they are similar. See **TAB 4** for supplemental Navy comments.

8. In both Alternatives One and Two, specific workload transfers are identified for each commodity group except for sea systems. In that case, the alternative states, "Consolidate as possible within the Department of the Navy." Why was the sea systems commodity area proposal not specific concerning workload distribution?

ANSWER: We felt that the commodity group of "Sea Systems" was unique to Navy and not susceptible to interservicing. We were also aware that there were nuclear and non-nuclear issues involved. We felt we could highlight the excess capacity, give the Navy some flexibility, and still track the results. See **TAB 4** for supplemental Navy comments.

9. What does the DoD BRAC recommendation do to your ability to inter-service depot maintenance work in the future?

ANSWER: It should help our efforts to interservice in the future. In my position as Deputy Under Secretary of Defense (Logistics), I chair the Defense Depot Maintenance Council, or DDMC. Joining me on that council are the Logistics Chiefs from each of the Services. By charter, the DDMC can direct the assignment of depot maintenance workloads. The extensive database developed by the Joint Cross-Service Group provides an excellent baseline. Throughout the BRAC 95 process, I held Defense Depot Maintenance Council interservicing initiatives in abeyance in order not to prejudice the BRAC process.

10. Why did the Joint Cross Service Group initially recommend decentralization of tactical missile maintenance and then later "approve" the Army plan to consolidate at Tobyhanna?

ANSWER: Based upon the certified data available, Tobyhanna did not have the capacity to perform the entire workload if Letterkenny were to close. The Army then submitted a plan realigning Letterkenny under Tobyhanna which provided sufficient capacity and allowed the best use of facilities within a hundred mile radius. This plan will also allow the Army to shed excess overhead.

Did the JCSG consider the centralization of tactical missile maintenance at Hill Air Force Base? If so, what were the findings?

ANSWER: Yes, we specifically looked at consolidating the depot maintenance of tactical missiles at Ogden Air Logistics Center. Based upon the core requirements and the certified maximum potential capacity supplied by the Air Force, Ogden lacked sufficient capacity to accept the core workload. Subsequent review, at the direction of the BRAC Commission indicates Ogden ALC does not currently have sufficient storage capacity, or personnel resources to absorb the tactical missile requirement without substantial investment and hiring.

Was Anniston Army depot considered for missile maintenance consolidation?

ANSWER: Yes, the Joint Cross-Service Analysis Tool, or Optimization Model, considered the consolidation of workloads at all depots indicating the capability to perform that type of work. That depot was then considered for workload based upon the optimized criteria, certified maximum potential capacity, and relative functional value for that commodity. The Data Analysis Team then reviewed the model outputs on a commodity-by-commodity basis to determine if further consolidations of like workloads could be accomplished.

Should the Commission decide not to accept the Department's recommendation relating to tactical missiles, I would encourage the investigation of privatization. Tactical missile workload is conducive to being performed in the private sector. This could be accomplished either by having the original equipment manufacturer perform maintenance on individual systems, or the establishment of a Government-Owned Contractor-Operated cantonment facility at Letterkenny Army Depot.

DEPOT MAINTENANCE

QUESTIONS SUBMITTED TO GENERAL BLUME FOR THE RECORD

1. The Commission staff was recently briefed on a revision to the 1 March DoD recommendation from the Air Force.

a. Please outline for the Commission the revision to the recommendation.

ANSWER: As a normal part of our process, the Air Force conducted site surveys on the implementation of the recommendation regarding the ALCs. During that site survey, we reviewed the details of the recommendation, including specific product line consolidations and the identification of specific buildings for demolition or mothballing. In the site survey, we refined our estimates of personnel reductions and transfers associated with the consolidations, as well as the costs of the actions. These refined numbers were provided to the Commission staff.

The Air Force also identified four areas where a refined approach was better from a cost or mission effectiveness standpoint. Two modifications alter the location where work would be consolidated and two alter the recommendation to fully consolidate workload. These were identified to the Commission staff for their consideration.

b. Would you please explain why the Air Force found it necessary to revise its BRAC recommendation 7 weeks into the process?

ANSWER: Subsequent to submitting its recommendations, the Air Force obtained refined data. This was provided to the Commission staff to ensure the best information was considered.

2. All of the savings from the Air Force's BRAC recommendation to downsize all Air Force depots in place is the result of a 15 % reengineering factor.

a. Have the reengineering studies been performed yet?

ANSWER: No, they have not. Establishing new shop floor layouts for new workload mixes is a time-consuming and expensive process involving substantial industrial engineering resources. The Air Force plans to conduct the majority of the required industrial reengineering using contract industrial engineering support beginning in October 1995. Until that time, advance actions will be taken so the depots are prepared to execute as soon as practical following final approval of the BRAC 95 actions. Additionally, some relatively simple industrial reengineering may be conducted using organic industrial engineers where minor shop floor layout changes are required to accommodate some of the smaller workload consolidations.

b. What is the basis of the 15 % factor?

ANSWER: The 15% industrial reengineering productivity factor is an efficiency factor developed during the AFMC TRC review process. The 15 % is based on the plan to reengineer

all production lines supporting consolidating workloads and processes at gaining sites to the most efficient layouts possible for the new workload mixes. This reengineering will retain only the minimum capacity needed to support the Core workload at a targeted 85 % utilization rate. The consensus of HQ AFMC and ALC senior managers is that the improved industrial processes will yield (on average) a productivity increase of 15%.

c. Do your site surveys confirm that a 15% productivity savings is achievable?

ANSWER: Nothing was revealed during the site surveys that challenged the 15% productivity improvement planning factor. Savings above 15% are expected in many cases, and savings below 15% may occur in some instances. On the whole, the site surveys support the planned savings of approximately 15 percent.

3. The downsizing of ALCs would not breach the BRAC thresholds if actions were to be evenly phased over the next several years. Why did the Air Force choose to use the BRAC process if it could independently accomplish the same result?

ANSWER: Personnel reductions at the depot installations was clearly an item of interest that needed to be addressed within the BRAC process. Moreover, including the ALC actions within the BRAC process provides an opportunity for communities to address their concerns, and for the Commission to compare the Air Force recommendation to the more traditional closure option. Given these advantages of the BRAC process, it appears appropriate to include this in the overall Air Force recommendations.

4. Military value is the most important criterion to be considered when sizing the DoD infrastructure through the base closure process. The Air Force has used a tiering system in place of assigning military values.

a. What was the basis for assigning Kelly and McClellan Air Force Bases to "tier" 3?

ANSWER: First, a misunderstanding evident in the question should be cleared up. There is no "military value" criterion. Instead, the first four criteria are considered when evaluating military value. Rather than an overall value, there are four criteria, including cost and manpower implications, that comprise military value. The initial tiering of bases in the Air Force process is not based solely on the military value criteria, but on all eight criteria and a level playing field scenario. This is consistent with the direction that the recommendations are to be based on all eight criteria, with emphasis given to the first four. The basis for assigning Kelly and McClellan to their tier (as well as all other Air Force bases), was the BCEG's judgment of the relative value of each base's retention based on all eight criteria and the level playing field analysis.

b. What was the basis for assigning the depot at Kelly to "tier" 3?

ANSWER: In order to accommodate the Depot Maintenance Joint Cross-Service Group's request for a single "military value" for the bases, the Air Force provided two values for its depot bases. The first value reflected the tiering for the bases considered by the Joint Cross-Service

Group for Depot Maintenance (JCSG-DM). The second value reflected a tiering by depot asset only, not as a base, and was based on the Criterion I depot operations grade only. This second tiering was not a normal part of the Air Force process, and was accomplished only to assist the JCSG-DM. Kelly AFB received a yellow grade in the Depot Evaluation under Criterion I, and this was lower than the grades for the other depot operations.

c. The Air Force Base Closure Executive Group minutes indicate that the Air Force was studying the closure of Kelly and McClellan for 11 months. Were tier values a significant basis for studying Kelly and McClellan as closure candidates?

ANSWER: The assertion that these two bases were examined for closure for 11 months is unsupported. The identification of Kelly and McClellan as potential closures was not clear until the bases were tiered on September 13, 1994, and the tiering of depot bases was not briefed to the SECAF until November 10, 1994. The SECAF direction subsequent to this meeting to examine Kelly and McClellan for closure was based on their status as lower tier bases. This is the starting point for Air Force focused closure analysis in all categories.

d. How did the low military values of Kelly Air Force Base and McClellan Air Force Base impact the Air Force's final base closure recommendations?

ANSWER: The placement of these two bases in the lower tier meant that they were the first bases examined for potential closure. This did not, in the end, affect the Air Force recommendation since the Air Force chose not to recommend the closure of any depot due to the high one-time costs and relatively low return on the costs incurred.

e. The Air Force's depot downsizing recommendation would result in a "tier" 3 base (lowest ranking) receiving workload from "tier" 1 bases (highest ranking). What is the reason for this?

ANSWER: The tiering process was based on an overall base or depot evaluation. The consolidation, however, was focused on specific commodities. A lower ranking base may have the most cost effective site for consolidation of a specific commodity.

For example, McClellan has been the AF Technology Repair Center (TRC) for the repair and overhaul of aircraft hydraulic components since the early 1970s. Despite the fact that McClellan was ranked in tier 3 compared with the other ALCs overall, it is still by far the most economical center when considering the overhaul and repair of aircraft hydraulic components. McClellan already supports over 90% of this workload and has the most modern facilities and equipment available within the DoD. Accordingly, any other hydraulic component workload currently dispersed at other ALCs was recommended for consolidation at McClellan. This is a logical, economically sound, and fully supportable decision. In addition, once a decision is made not to close a base, it is eligible to receive missions or activities regardless of the origin of the relocating mission.

f. Why was there not a means to measure the value of co-located missions on Air Force Bases?

ANSWER: No base evaluation credits a base with the fact that a mission is located on that base. Instead, all bases including depots are evaluated against their ability to support various missions. The operational evaluation of Criterion I in the Air Force analysis, as well as Criteria II and III, provide an evaluation of this ability.

g. Why did the Air Force only look at the ability to receive different operational missions?

ANSWER: For depots, the ability to receive different operational missions is an important part of these installations, most of which have significant operational missions. The ability to receive and support other missions is an important measure of a base's contribution to the Air Force and was measured also. The ability of depots to receive other depot work was evaluated, particularly in the Joint Cross-Service Group for Depot Maintenance.

5. Secretary Widnall testified that a depot closure is prohibitively expensive. We are interested in understanding the relatively high cost that you estimated for the closure of an Air Force depot.

a. Why does the closure of an Air Force installation result in the elimination of such a low percentage of jobs, particularly compared to the closure of industrial facilities in the other services?

ANSWER: The closure of a depot installation assumes that the mission elements, tenants, and non-Air Force organizations move without reduction to new locations. Since the depot installations have significant portions dedicated to those uses, there is no manpower savings associated with those elements. The Air Force assumes that the workload projected for the closing depot will be transferred to another depot. Since the workload is being transferred the manpower associated with that workload must also be transferred. A six percent overhead savings was assumed based on expert judgment, but most of the manpower will transfer. The other savings achieved in manpower is that associated with the BOS manpower, reduced by BOS manpower increases at receiving locations.

b. Why do 86 percent of the authorized manpower positions have to be moved with the closure of a depot installation?

ANSWER: This answer is identical to the previous question. The closure of a depot installation assumes that the mission elements, tenants, and non-Air Force organizations move without reduction to new locations. Since the depot installations have significant portions dedicated to those uses, there is no manpower savings associated with those elements. The Air Force assumes that the workload projected for the closing depot will be transferred to another depot. Since the workload is being transferred, the manpower associated with that workload must also be transferred. A six percent savings can be assumed based on expert judgment, but most of the manpower will transfer. The other savings achieved in manpower is that associated with the BOS manpower, reduced by BOS manpower increases at receiving locations.

c. What was the projected cost to close McClellan Air Force depot in the 1993 BRAC compared with the cost to close estimate of the 1995 BRAC?

ANSWER:

1993 (Air Force recommendation)	$427.5 million
1995 (closure scenario)	$559 million

d. What factors changed the estimates of '93 vs. '95?

ANSWER: Many factors contributed to the changes in cost estimates of BRAC 1993 and BRAC 1995. New versions of the costing model were used (called COBRA or Cost of Base Realignment Actions), the standard factors used by COBRA were revised, and there were different workload transfers and basing assumptions.

Several updated versions of COBRA have been released since BRAC 1993. Each new version revised the basic algorithms thus impacting the resulting cost estimate. BRAC 1993 estimates were calculated using COBRA version 4.04 and BRAC 1995 estimates used COBRA version 5.08.

The standard factors used by the COBRA model have also changed. The majority of standard factors used for BRAC 1995 were developed by a Joint COBRA team and varied significantly from BRAC 1993. The most significant changes in standard factors include the discount rate (7% in BRAC 1993 versus 2.75% in BRAC 1995), civilians not willing to move (55% versus 6%), and percent of civilians placed in priority place system (30% vs. 60%).

The workload transfers and basing assumptions were also different between BRAC 1993 and BRAC 1995. For example, the Hydraulics Component Repair operation was cantoned at McClellan AFB in BRAC 1993. In contrast, this operation was relocated to Tinker AFB in BRAC 1995. Similar situations existed with other depot and non-depot organizations.

DEPOT MAINTENANCE

QUESTIONS SUBMITTED TO GENERAL SHANE FOR THE RECORD

1. In terms of buildings and acres, Letterkenny is a considerably larger depot than Tobyhanna Army Depot. Did the Army look at possibly closing Tobyhanna Army Depot and transferring the electronics workload to Letterkenny, a facility that is partly focused on electronics and partly focused on ground vehicle maintenance?

ANSWER: Size alone is not a valid measure of comparing one depot against another without having an understanding of the respective missions of each depot. Letterkenny, is in fact "considerably larger" than Tobyhanna. However, Letterkenny is a multi-functional depot having a ground combat vehicle maintenance mission, an ammunition storage mission, a tactical missile consolidation mission, and serves as the host for several large tenant activities. On the other hand, Tobyhanna is a single function depot having only one primary mission - ground communications and electronics. The actual 19,243 acres that make Letterkenny "larger" than the 1,293 acres of Tobyhanna consist of some 12,000 acres of ammunition storage area than includes considerable areas that function as "blast zones" and safety requirements associated with storing high explosives and cannot be used for other missions. Letterkenny is also larger in total buildings, maintenance buildings, and total covered floor space. However, when evaluating "maintenance" covered floor space, Tobyhanna and Letterkenny are approximately the same. When the covered maintenance area is broken down, one finds that Tobyhanna utilizes 23% of its covered floor space as "dedicated" to maintenance while Letterkenny is only 11%. Bigger is not always better when all the data is looked at from a mission perspective.

Tobyhanna is the Army's best rated depot in terms of military value. The Army Stationing Strategy is to have a ground communications and electronics depot, a single ground combat vehicle depot, and a single aviation depot. In the Army analysis, the stationing strategy was complied with and each depot was considered during the evaluation process. Being "partly" focused on electronics does not constitute a communications and electronics mission. The Army has recently done analysis on closing Tobyhanna and moving that mission into Letterkenny as a result of a BRAC Commission request. Our analysis indicates that such a realignment is neither practical nor economical.

2. In determining military value, why did the Army place heavy emphasis on capacity, which is based on the number of work stations to produce a particular workload, and relatively less emphasis on building square footage and expandable acreage?

Were other options considered as an alternative to the Letterkenny / Tobyhanna scenario recommended by DoD? For example, did the Army look at sending all of the tactical missile storage and maintenance workload to Hill Air Force Base and sending the residual conventional ammunition storage mission to other DoD storage locations? This would result in a total base closure, rather than a partial realignment.

ANSWER: The Army determined that capacity is a more accurate method of determining military value than square footage. As with the buildings and acres issue above, bigger is not always better nor more economical since the Army is has approximately 40% excess capacity within its maintenance depots. In the case of Tobyhanna, the Letterkenny workload could be absorbed with a very minimum cost. It makes no sense to expand the capacity of Letterkenny when the Army already has excess depot capacity.

The Joint Cross-Service Group for Depot Maintenance did consider realigning the tactical missile workload to Hill Air Force Base. But the storage requirement for such a move was not available at Hill Air Force Base according to Department of the Air Force certified data. The required construction included a considerable number of ammunition storage bunkers, making the scenario unacceptable.

3. The Army plans to transfer ground vehicle workload from Letterkenny to Anniston, but none of the personnel authorizations would be realigned. How can this work be accomplished at Anniston with no additional people?

ANSWER: The transfer of the workload to Anniston was verified by labor skills required and available personnel at the time transfer would be accomplished. Based on the required skills, Anniston had the identical skills required along with experienced personnel. The transfer of workload would be accomplished at a time when the Anniston workload would be decreasing. Rather than eliminate positions at Anniston and transfer the exact same job skills from Letterkenny, it was determined that it was more economical to eliminate positions at Letterkenny and not assume the added costs associated with personnel movements.

4. Did the Army look at moving the Tobyhanna Depot workload to Letterkenny? If so, what were the results? Do you believe this would be a good idea?

ANSWER: The Army Stationing Strategy requires a single ground communications and electronics depot. Tobyhanna is the number one rated of the Army's four maintenance depots, Letterkenny is rated fourth. In order to assume the mission of Tobyhanna, considerable new construction and renovation would be required. The Army did not consider realigning the Tobyhanna workload to Letterkenny due to the overwhelming advantages of Tobyhanna - military value, technical skills, modernization investments, and the cost of doing business.

Recently, the BRAC Commission Staff has requested that the Army analyze closing Tobyhanna and transferring its workload to Letterkenny. Our analysis shows that it would be costly and not preferable to DoD's recommendation.

DEPOT MAINTENANCE

QUESTIONS SUBMITTED TO MR NEMFAKOS FOR THE RECORD

1. Did the Navy consider consolidating platting operations at Louisville's new $36 million modern platting facility?

ANSWER: No specific scenario was run that consolidated plating operations at NSWC Louisville. Although it is recognized that Louisville has a modern plating facility, the DON analysis focused on entire capability of an installation. It is the goal of DON to reduce excess capacity/infrastructure primarily by the total closure of installations. The plating process is only one of the many depot maintenance functions performed by NSWC Louisville. The final scenario adopted by DON for the closure of Louisville, not only transfers all other depot work to other depot activities, but allows for the plating work currently accomplished at Louisville to be performed at other existing DoD installations. This not only equates to greater savings in operational costs, but provides a significantly more positive environmental impact.

2. Regarding the Naval Air Warfare Center in Indianapolis, could you explain why the Navy gave this installation a 0 in the Military Value category for integrated capabilities?

ANSWER: Within the "Mission Statement" section of the Technical Centers military value matrix, NAWC Indianapolis received a "0" for question #4, "Includes systems integration responsibility", and question #5, "Includes component integration responsibility". Questions within this section of the matrix were based on the activity's literal/official mission statement, as reported in the Military Value data call #5. Since the mission statement for NAWC Indianapolis did not assign responsibility for systems integration or component integration, both of these questions were scored "0".

3. During the Commission's recent visit to the Naval Air Warfare Center in Indianapolis, we were shown the systems design facility for the EP-3 and ES-3 aircraft. We were told by the Naval Air Warfare Center that the cost to relocate those facilities to China Lake would be $30 million. Could you please explain why the Navy only provided $1.17 million for Military Construction at China Lake to accommodate these facilities?

ANSWER: In COBRA analysis, the Navy included $1.17M for military construction at NAWC China Lake precisely as submitted by NAWC Indianapolis in the certified Scenario Development data call.

4. The Navy says that "continuing decreases in force structure eliminates the need to retain the capacity to dry-dock large naval vessels for emergent requirements." How many large-decked ships (CV, CVN, LHA & LHD) are in the Pacific Fleet now? How many less are expected to be in the Pacific Fleet in 2001?

ANSWER: The continuing decrease in force structure describes the fleet's requirement for drydock capacity as it relates to the force structure used as a basis for BRAC-91. Since the '91 round, and through 2001, the number of large-decked ships in the Pacific Fleet will decrease from 14 to 12, including a reduction of 2 CVN/CVs. The Navy has retained two U.S. Navy shipyards in the Pacific theater, capable of handling any of the 12 large-deck ships homeported in that area.

5. How many positions has the Navy historically saved with the closure of a Naval Aviation Depot or comparable industrial activity?

ANSWER: The following represents the positions/billets eliminated based on the closure of 3 Naval Aviation Depots during BRAC-93:

Activity	Positions/Billets Eliminated
NADEP Alameda	764
NADEP Pensacola	1,000
NADEP Norfolk	1,464

UNDERGRADUATE PILOT TRAINING

ITEMS FOR INCLUSION IN THE RECORD

1. Mr. Finch, during your testimony, you stated to Commissioner Robles that you would provide a list of those criteria used by the UPT-Joint Cross-Service Group to constrain the linear programming model from presenting nonsensical results. Please provide these criteria.

ANSWER: In addition to the "Site/Function Constraint Matrix" which limited potential site/functions combinations from the outset of the modeling process, constraints were imposed as the JCSG proceeded with its Optimization Model process. These constraints which were applied in an additive manner are as follows:

1. Flight screening would not be performed/collocated with any other function - based on JCSG military judgment.
2. Primary and advanced NAV/NFO, advanced NFO Strike, and advanced NFO Panel functions would be joint and single-sited - based on DEPSECDEF memo of October 24, 1994.
3. No function would be "spread" or fractionalized smaller than a "notionalized" or smallest squadron (approximately 100 annual production) - JCSG military judgment.
4. Flight screening function limited to the Air Force Academy and Hondo, TX sites - JCSG military judgment.
5. Primary function limited to four sites - JCSG military judgment. (This constraint was later dropped.)
6. Three site closure results (MIN PRIME model run) used as baseline for follow-on Optimization Model runs.
7. Air space and outlying airfield operations capacity from sites closed in MIN PRIME model run were transferred to remaining sites in close proximity for all additional modeling efforts.

2. Mr. Finch, during your testimony, you stated to Commissioner Cornella that Flight Screening was "basically" included as a matter of completeness. For the record, please respond to the following question:

Why did you include Flight Screening, a function not now nor envisioned to be done at UPT bases, but did not include Introduction to Fighter Fundamental (IFF) training, a function that is done at UPT bases, in the scope of your analysis?

ANSWER: The JCSG defined its category scope to include: DoD flight programs which support and facilitate selection and training of pilots, naval flight officers, and navigators to the point of awarding "Wings." Post-"Wings" flying missions such a IFF, the Blue Angels, and a large number of graduate rotary-wing courses were excluded from direct analysis. Non-flying missions at the bases (such as technical training at Sheppard AFB and NAS Meridian) were also excluded. When forwarding alternatives for consideration, the JCSG asked the military departments to quantify any such missions that impacted their capacity.

3. General Blume/Mr. Nemfakos/General Shane, during your testimony, Commissioner Davis asked how much surge capacity exists in each service. Please respond to this question in terms of capacity to recover from temporary situations, such as a period of prolonged bad weather, and also in terms of capacity to accommodate an increase in the Pilot Training Rate in the event of a long-term increase in pilot requirements.

ANSWER: Maj Gen Blume. If Reese AFB closes as recommended by DoD, the Air Force will retain approximately 12 percent surge capacity to recover from temporary situations at the Specialized Undergraduate Pilot Training bases. In addition, bases will have the capability to respond to temporary requirements by lengthening the duty day, increasing sortie density, flying on the weekend, etc. Increases such as these are not sustainable over a sufficient period of time to generate net increases in production. For extended operations such as an increase in the pilot training rate, the Air Force will retain between 7 and 12 percent surge capacity.

Mr. Nemfakos. To ensure the DON has capacity to support future unforeseen increases in pilot/NFO training rates, as part of its configuration analysis the BSEC looked at scenarios where all the FY 2001 pilot and NFO training rates were increased by 10 and 20 percent. (This includes increases in the Air Force training scheduled for Naval air stations.) The results showed that even with the its closure recommendations, the DON could support a 20 percent increase in PTR requirements and still have some excess capacity.

In addition, the capacity analysis was based on a 237-day work year and accounted for down time due to bad weather. If need be, training capacity could be increased at each air station by increasing the operating schedule (e.g., pilots could train on weekends to make up for lost flying time during the week days).

Brig Gen Shane. The ability to recover from temporary situations, such as a period of prolonged bad weather is excellent. Because our flight training facilities are underutilized, our capability to surge is only constrained on the availability of instructor pilots, aircraft, and OMA funding. USAAVNC has the capability to support long term training increases. According to the Undergraduate Pilot Training Joint Cross-Service Group certified data, the Pilot Training Rate could be increased to 2,056 annually with no additional MILCON.

4. General Blume/Mr. Nemfakos/General Shane, during your testimony, Commissioner Robles requested that each Service provide data summarizing the costs to train pilots. Please include in this information the fixed costs for Base Operating Support (BOS), Real Property Management Account (RPMA), Overhead and Personnel at each UPT base, and the variable costs which vary by the number of students and flight hours/sorties flown. These costs should reflect only the portion attributable to UPT for the installations that also host other tenant units.

ANSWER: Maj Gen Blume.

COST ESTIMATE BASED ON FY94 DATA

	Mission Fixed Costs (in $M)	RPM Fixed Costs (in $M)	BOS Fixed Costs (in $M)	Medical* Fixed Costs (in $M)	Total Fixed Costs (in $M)	SUPT Variable Cost Per Graduate
Columbus	$33.5	$4.9	$27.9	$8.5	$74.8	$237,507
Laughlin	$35.3	$5.7	$32.2	$11.0	$84.2	$245,039
Reese	$32.1	$5.5	$31.0	$9.9	$78.5	$244,619
Vance	$33.8	$5.7	$25.4	$4.9	$69.8	$232,394

* Although not specifically asked for, medical fixed costs are also provided. These costs are not included in any other of the fixed costs provided.

Definitions:

Mission Fixed Costs: Open-the-door costs to enter one student. Includes Instructors, school overhead, and maintenance.

RPM Fixed Costs: The upkeep on the facilities that is required whether or not you have students in training (e.g., utilities).

BOS Fixed Costs: Base operating support costs that are required to support the fixed personnel (e.g., transportation, supply, grounds maintenance, chaplains, comptroller).

Medical Fixed Costs: Open-the-door costs to enter one student (e.g., supplies, and equipment to support fixed population).

Variable Cost Per Graduate: The cost of sending one additional student through SUPT. It does not include any fixed costs.

Mr. Nemfakos. The Navy has issued a data call to collect these data. We will forward a response as soon as possible.

Brig Gen Shane.

Estimated costs for Undergraduate Pilot Training
Undergraduate Pilot Training fixed-cost: $45,611,784
Undergraduate Pilot Training variable-cost: $30,599 per student
Undergraduate Pilot Training flying hour variable-cost: $322 per flying hour
Undergraduate Pilot Training actual total cost: $114,745,433 (FY 94)
Undergraduate Pilot Training actual civilian salary proportion: $9,150,860 (8.0%)

Estimated costs for Undergraduate Pilot Training Share of Base Operations
Base Operations fixed cost for Undergraduate Pilot Training: $2,926,,412
Base Operations fixed variable for Undergraduate Pilot Training: $1,009 per student
Base Operations total cost for Undergraduate Pilot Training: $4,985,370
[Base Operations civilian salary proportion: $3,300,315 (66.2%)]
Note: RPMA, overhead and personnel are included in above calculations.

5. Mr. Finch, during your testimony, you stated that in order to achieve uniformity when making comparisons between the services, the UPT-Joint Cross-Service Group drafted rules used by the FAA to measure airfield operations capacity at each UPT base. Please provide the formula that the FAA uses and how these rules were applied by your group.

ANSWER: In collecting runway capacity data, the JCSG data call asked for the sustainable capacity of the air station's main field and each outlying field in terms of the number of flight operations per hour each runway complex can support. To ensure consistency in the responses, the question instructed the air stations to base their capacity calculations on the methodology in the FAA Advisory Circular 150/5060-5 entitled "Airport Capacity and Delay." This methodology accounts for the type and mix of aircraft, the runway and taxiway configurations, and reductions in operations due to weather and times the airfield is closed to flying operations for other reasons. The attached pages at **TAB 5** excerpted from the Circular describe the procedure for determining the weighted hourly capacity for each runway.

6. General Blume, during your testimony, you stated you would provide answers to several questions relating to weather. Please respond to the following questions:

ANSWER: These questions pertain to Joint Cross-Service Group analysis and data and should therefore be directed to the Joint Cross-Service Group.

Why was the percent of time at which the ceiling and visibility are better than 1000 feet and 3 miles given any weight in the analysis when it is 1500 feet and 3 miles that represents a key weather decision factor in conducting Air Force flight training operations?

Mr. Finch: The measures and criterion reflected the JCSG developed consensus decision. The 1000/3 ceiling visibility cutoff represents a key Navy decision factor. Missions were analyzed based on the users. For example, both Military Departments will conduct primary training, so both 1000/3 and 1500/3 were used. In Air Force unique bomber-fighter training, on the other hand, 1500/3 was used while 1000/3 was not.

In tracking weather attrition, factors such as actual attrition experience, cancellations due to forecast icing conditions, and the occurrence of crosswinds out of limits can be used. Why was so much weight placed on crosswinds rather than some of these other factors in the UPT-Joint Cross-Service Group functional value analysis?

Mr. Finch: All weather factors (icing, crosswinds, etc.) were captured by weather attrition inputs. The extra weight given to crosswinds represents a measurement of the frequency of crosswinds, not a measure of "lost sorties." While some crosswind exposure is useful, frequent crosswinds complicate the learning process and can cause last-minute scheduling changes.

The T-38 attrition rate planning factor at Reese is 28 percent compared to 17 percent for the T-1. Since the T-1 factor is currently in use at Reese, why did the UPT-Joint Cross-Service Group use the T-38 instead of the T-1 planning factor in its functional value analysis?

Mr. Finch: In computing the T-1 attrition planning factors, the JCSG used the reported value for Reese AFB and a surrogate, based on existing aircraft, for the other sites. In the final analysis, no Air Force site received points for the T-1 planning factor in the JCSG model. Based on T-37/T-38 attrition planning factor comparisons across sites, there is no reason to believe that Reese AFB would gain an advantage from a T-1 planning factor comparison.

7. Mr. Nemfakos, during your testimony, you stated to Commissioner Davis that you would provide for the record your analysis on Strike Pilot Training Rates. Please provide that general data along with your response to the following specific questions:

Are the flight operations per strike Pilot Training Rate (PTR) at NAS Meridian and NAS Kingsville used in your capacity analysis the same? Please explain any differences.

ANSWER: Yes, the analysis used 1511 daylight flight operations per Strike PTR

What is the current operations per strike Pilot Training Rate at NAS Kingsville? How does this compare with the figure used to determine strike Pilot Training Rate capacity at NAS Kingsville?

ANSWER: NAS Kingsville's data call reported a daylight flight operations requirement for an all T-45 syllabus of 1393 ops. The 1511 ops used in the analysis was derived as follows. Because in FY 2001 not all strike training will be done in T-45 aircraft, we assumed 50 percent of the Strike pilots would go through an all T-45 syllabus and 50 percent would go through a split syllabus consisting of an Intermediate phase in the T-2 aircraft and an Advanced phase in the T-45 aircraft. Based on certified data, the flight ops requirement for this split syllabus was calculated as follows:

Intermediate Phase in T-2 -- 741 (from NAS Meridian' data call)
Advanced Phase in T-45 -- 888 (from NAS Kingsville's data call)
Total: 1,629

Taking a weighted average, this gives

(1393 x .5) + (1629 x .5) = 1511 daylight flight ops per Strike PTR

To what extent was the Navy's determination that a single intermediate/advanced strike UPT base containing sufficient capacity to conduct training to support the strike Pilot Training Rate (PTR) in the future and under surge operations based upon the availability of NAS Corpus Christi as an outlying field?

ANSWER: Under the recommended scenario, the main airfield at NAS Corpus Christi is needed to support the single-siting of Strike training at NAS Kingsville.

What is the maximum strike Pilot Training Rate (PTR) that NAS Kingsville could support with Orange Grove and NAS Corpus Christi available as outlying fields?

ANSWER: Because daylight runway operations is the capacity limiter at training air station, we will show the capacity of this complex to support Strike training in these terms. As explained in response question 6b, the certified data showed that the daylight runway operations per pilot training rate (PTR) for Strike training is 1511 operations. The capacity at NAS Kingsville, OLF Orange Grove, and NAS Corpus Christi (after the proposed runway extensions) is as follows:

NAS Kingsville ------- 237 days x 12.1 hrs/day x 80 ops/hr = 229,416 annual flight ops
OLF Orange Grove -- 237 days x 11.6 hrs/day x 54 ops/hr =148,457 annual flight ops
NAS Corpus Christi -- 237 days x 11.6 hrs/day x 80 ops/hr = 219,936 annual flight ops
Total: 597,806 annual flight ops

Dividing the total annual flight ops by the flight ops required per PTR gives a strike PTR capacity of

597,806/1511 = 396 PTR

The FY 2001 pilot training rate for Strike is 336 pilots. Thus, the recommended scenario provides an excess capacity of

396 - 336 = 60 PTR

which equates to about an 18% surge capability under planned and budgeted operations. Note that the Strike training capacity at this complex will increase as the Navy completes its transition to an all T-45 training syllabus. Once this transition is completed, the capacity at this complex will be

597,806/1393 = 427 PTR

which increases the surge capability to about 28%

To what extent would the strike training capacity of NAS Kingsville be impacted if NAS Corpus Christi was not available?

ANSWER: Without the use of NAS Corpus Christi, NAS Kingsville would need another outlying field to support all Strike training.

8. Mr. Finch, your optimization analysis apparently placed primary emphasis on the installation military value data provided to you by the services, and less emphasis on the functional values developed by the UPT-Joint Cross-Service Group.

Please explain the reasoning for this approach?

ANSWER: Sites have value both with respect to their ability to accommodate activities involving specific functions (e.g., those associated with flight training) and the more general military missions of the Military Departments. For the former, the initial means of representing value for flight training functions was to consider the capacity of sites collectively to carry out all the functions associated with flight training. This was done by introducing a set of constraints that ensured that there was sufficient capacity in the collection of sites that remained open to handle all flight training functions.

Beyond ensuring there was sufficient capacity to perform flight training functions, the Group's methods next considered military value, maximizing the inherent military value of all sites that remained open to carry out general military missions of the Military Departments.

Finally, the Group's method considered the value of sites that remained open to perform flight training functions. Since functional value was already considered implicitly by setting constraints that guaranteed sufficient capacity to carry out all functions, this additional consideration of functional value was given lower priority.

To allow functional value to drive the model is relevant only if we assume functions can be easily moved and are completely interoperable. In practice, this led to nonsensical results during the early, "unconstrained" model runs. For example, Navy Strike training with its attendant costly T-45 infrastructure was spread to four sites. Other functions were swapped between Air Force and Navy sites. Site functional value was also a more narrow look at installation value, as it did not consider collateral missions such as technical training. The Military Departments' inputs encompassed all functions and potential alternative uses of the installation.

9. Mr. Finch, your Joint Cross-Service Group minutes of March 24, 1994, state that the UPT category is largely installation oriented. If the value of a UPT base is best reflected in its functional rather than military value, why didn't you base your alternatives on model output which maximized functional value unconstrained by installation military value?

Since there is a direct correlation between the Joint Cross-Service Group's functional value rating and the Air Force's determination of military value, didn't the use of both functional and military value in the model simply increase the impact of functional value in the result?

ANSWER: Functional and military values are not independent. SECDEF guidelines define the first four BRAC criteria as military value. Criterion one is "mission requirements." This indicates functional value is a significant element of military value. There is also no single

functional value for each base. The JCSG generally analyzed each site for all UPT missions, regardless of whether the site currently supported those missions. The JCSG did not analyze non-UPT missions. Functional value is only a subset of military value.

10. General Blume, since the Air Force relied so heavily on the results of the Joint Cross-Service Group's computer model, did you analyze the model for calculation errors?

ANSWER: The Air Force had representatives on the Joint Cross-Service Group and its Study Team to continuously monitor the process and its output. The Base Closure Executive Group also did an independent capacity analysis to confirm the required infrastructure level.

11. General Blume/Mr. Nemfakos, your Service recommendations used your own BRAC process as well as non-BRAC policy decisions to choose which UPT bases to close or realign. Why didn't your recommendations necessarily reflect the high functional value scores from the UPT-Joint Cross-Service Group?

ANSWER: Maj Gen Blume. The Air Force recommendations do reflect the high functional value scores. The recommendation to close Reese AFB is consistent with the fact Reese had the lowest average functional value.

Mr. Nemfakos: The DON's process did not consider functional value. It used its own documented method for evaluating the military value of its installations.

12. Gen Blume, the average functional value for each Air Force UPT base is shown (the Reese score is adjusted based on your recent memo to us).

Columbus AFB	6.74
Vance AFB	6.67
Randolph AFB	6.53
Laughlin AFB	6.50
Reese AFB	6.22

The Air Force Base Closure Executive Group (BCEG) apparently used the functional values from the UPT-Joint Cross-Service Group. These averages were used to find military value by performing a standard deviation analysis to assign a color "Stop Light" code to Criteria I, "Flying Mission Evaluation." All eight criteria were then considered to derive an overall Air Force ranking: the result was Tier I for Columbus, Laughlin, Randolph, and Vance, and Tier III for Reese.

Why didn't the Air Force simply use the functional value for the training that is actually accomplished at each specific UPT base to determine its score? Would the result have been different?

ANSWER: Functional value is an important part of military value, but is not necessarily the only indicator. For example, Randolph AFB houses a Major Command Headquarters, a Numbered Air Force Headquarters, and the Air Force Military Personnel Center besides having a

flying mission. In the case of UPT bases, average functional value scores, the BCEG "Stop Light" analysis, and professional judgment all indicated Reese AFB is the correct base to close. The Air Force does not believe the results would have been different if functional value were used as an exclusive measure. However, using only functional value would be a narrow analysis and would not comply with Secretary of Defense guidelines. In addition, the Air Force made a conscious effort to fully integrate, where possible, the Joint Group process into its entire 1995 BRAC analysis. For the Laboratory, Test and Evaluation, and Depot subcategories, the Air Force used Joint Group data, the same methodology and, with few exceptions, the same measures of merit to produce the functional portion of the Criterion I grade for those installations. For the Undergraduate Flying Training category, the Air Force used the Joint Group functional values as the basis for its Criterion I grade. These steps ensured that the Air Force analysis was consistent, to the maximum extent possible, with the Joint Group direction on analysis of these functions.

It should be noted that the average functional values were not used to find "military value," but were instead used to determine the Criterion I grade. Military value, under the criteria, consists of the first four criteria.

Finally, the BCEG examined the functional values derived by JCSG-UPT. After discussion, the BCEG agreed to include all activities pertaining to Air Force operations as the basis for the average functional value. Including all potential flying training activities rather than the training actually accomplished provides a better analysis of both current and potential training value.

13. Mr. Finch, did the UPT-Joint Cross-Service Group run any excursions using the Linear Programming Optimization Model, such as the ones shown on below:

a. Examining only Air Force Bases
b. Examining only Naval Air Stations
c. Excluding flight screening
d. Excluding Navy-unique functional areas
e. Excluding Air Force-unique functional areas
f. Changing the weights on various factors, such as airspace.

ANSWER: The Group was sensitive to the potential issue of adjusting the model after the data had been collected. Excursions to evaluate the sensitivity of the model to movement of new functions to new sites given differing minimum site levels was performed. Service specific excursions were not performed, given the joint perspective of the Group's efforts.

What would the results be if these excursions were run?

ANSWER: It would be inappropriate to speculate as to potential results without running the model.

14. Mr. Finch, what were the options you considered for measuring capacity, and why did you choose the methods you did?

ANSWER: Factors of capacity and the methods to measure them were developed over time by the JCSG. The process started with development of the Data Call followed by construction of the Capacity Analysis Matrix and the questions utilized in point distribution for the Measures of Merit. As the process evolved, the JCSG refined its methods of measurement in the framework of sound operational experience and military judgment.

15. Mr. Finch, a separate functional value for the Air Force's post-UPT Introduction to Fighter Fundaments (IFF) training was not included among the 10 functional areas selected for assessing the overall functional value of each UPT-category base.

Even though it is conducted after "Wings" are awarded, IFF is conducted at a UPT base, consumes capacity, and is similar in content to training events contained within the latter stages of the Navy's Strike Training syllabus.

Why didn't the UPT-Joint Cross-Service Group include IFF as an additional functional area?

ANSWER: Post-"Wing" flying missions such as IFF, the Blue Angels, and a large number of graduate rotary-wing courses were excluded from direct JCSG analysis. Non-flying missions collocated at the UPT sites (such a technical training a Sheppard AFB and NAS Meridian) were also excluded. When forwarding alternatives for consideration, the JCSG asked the military departments to quantify any such missions that impacted their capacity.

16. General Blume, did the Air Force consider transferring the Introduction to Fighter Fundamentals training from Columbus AFB to another location such as Luke AFB in order to increase the capacity to do other training at Columbus?

ANSWER: No. The Air Force collocated Introduction to Fighter Fundamentals (IFF) training on the UPT bases in 1993 when it stood up Air Education and Training Command during a major reorganization. This allowed a more seamless training continuum for fighter-bound students, particularly as the Air Force converted from generalized UPT to specialized UPT. Luke AFB also does not have the capacity to absorb this training. Even if Luke could absorb IFF, this would require an additional move for many fighter-bound students whose final formal training units were located elsewhere. To return to a different basing structure would be expensive and counterproductive.

17. Mr. Finch, in the consideration of training airspace for both capacity analysis and functional value, the UPT-Joint Cross-Service Group methodology permitted a base to claim credit for large sectors of airspace so long as any portion of it was within 100 nautical miles of the base. For bases near the Gulf of Mexico, this meant credit for huge over-water sectors.

Both Air Force and Navy UPT programs train predominantly over land. This is to permit such over-land flight training events as ground reference maneuvers and low-level navigation. Over-water training is performed close to shore. Since actual UPT practice precludes the use of large blocks of over-water airspace, doesn't giving credit for such over-water airspace unfairly skew the results in favor of coastal bases?

ANSWER: Over-water airspace has intrinsic value to the Navy and the consensus of the JCSG was to consider it equally with over-land airspace.

18. Mr. Finch, did either the Services or the UPT-Joint Cross-Service Group consider the impact of contracting some UPT functional training areas to outside sources?

ANSWER: No. The JCSG charter was to help size infrastructure, not to make policy decisions.

19. General Blume, does closing Reese AFB leave sufficient capacity in the UPT area to provide for surge capability in pilot training?

ANSWER: Yes. The closure of one Air Force UPT base leaves sufficient capacity to provide for surge capability. However, there is not enough excess capacity to close more than one Air Force UPT base.

20. Mr. Finch, all of your alternatives move the Navy's helicopter training to Fort Rucker. There are several different ways to implement this alternative. For example, the Navy could retain their current helicopter training process and be collocated at Fort Rucker as an Army tenant; or the Navy's pilots could be integrated into the Army training through a consolidation. Did the Joint Cross Service Group consider the issue of consolidation vs. collocation when developing its alternatives?

ANSWER: No. The JCSG was not established to consider policy issues related to undergraduate pilot training. Therefore, its approach was to use existing policies that were applicable to the various functions considered by the Group. In the case of helicopter training, existing policy was, and is, not to consolidate such training for the Army and Navy. Therefore, only alternatives that involved collocating or not collocating this function were considered.

21. Mr. Finch, the Navy responded to your alternatives to close Whiting Field with COBRA analyses that showed a high cost of implementing the move of primary training to Naval Air Station Pensacola and helicopter training to Fort Rucker.

Did the UPT-Joint Cross Service Group look at variations to this scenario, such as the relocation of helicopter training to Fort Rucker with primary training remaining at Whiting Field?

ANSWER: Given the resource requirements, site capacities and functional values, and site military values, the Optimization Model consistently moved the helicopter function to Fort Rucker and closed NAS Whiting Field. The Group did not look at additional variations.

22. Mr. Nemfakos, would moving helicopter training out of Whiting Field help the Navy meet its requirement for outlying fields for primary training?

Does your answer change when considering the transition to any of the Joint Primary Aircraft Training System (JPATS) aircraft?

ANSWER: No, the OLFs used for helicopter training are not configured to support fixed-wing training. JPATS does not change this situation.

23. Mr. Nemfakos, the Navy Base Structure Evaluation Committee (BSEC) record states that the reason for rejecting the movement of helicopter training to Fort Rucker is the high one-time cost and long return on investment.

Did operational concerns also enter into this decision or was it strictly an economic decision?

ANSWER: The decision not to co-locate helicopter training at Fort Rucker was strictly an economic decision -- high one-time costs and a poor return on investment. Operational considerations, however, lead the DON to evaluate a co-location scenario as opposed to a consolidation scenario.

24. General Blume, please summarize the main reasons why the Base Closure Executive Group (BCEG) choose Reese AFB to close?

ANSWER: When all eight criteria were applied to the bases in the UFT category, Reese AFB ranked lowest relative to the other bases in the Undergraduate Flying Training category. In addition, Reese AFB was recommended for closure in each alternative recommended by the DoD Joint Cross-Service Group for UPT.

25. Mr. Nemfakos, please summarize the main reasons why the Base Structure Evaluation Committee (BSEC) chose NAS Meridian to close?

ANSWER: First, the current Force Structure Plan shows a continuing decline in the PTR (particularly in the decline from 11 to 10 carrier air wings) so that Navy strike training could be handled by a single full-strike training base. Second, the consolidation of strike training that follows the closure of NAS Meridian is in the spirit of the policy of the Secretary of Defense that functional pilot training be consolidated. The training conducted at NAS Meridian is similar to that conducted at NAS Kingsville, which has a higher military value, presently houses T-45 assets (the Department of the Navy's new primary strike training aircraft) and its supporting infrastructure, and has ready access to larger amounts of air space, including over-water air space if such is required. Lastly, the net of all costs and savings associated with this recommendation is a savings of $158.8 million. Annual recurring savings after implementation are $33.4 million with an immediate return on investment expected.

26. Mr. Finch, please discuss the process used to analyze a potential NAS Meridian/Columbus AFB complex.

What alternatives or "strawmen" did the UPT-Joint Cross-Service Group consider?

ANSWER: The Group evaluated three alternatives for the NAS Meridian/Columbus AFB complex: 1) A JPATS Primary "Master" site, 2) a Strike/Bomber-Fighter complex with Strike at NAS Meridian and Bomber-Fighter at Columbus AFB, and 3) moving Maritime and Primary/Intermediate NFO/NAV to NAS Meridian to allow creation of a JPATS Primary "Master" site at NAS Pensacola and NAS Whiting Field. The first alternative's up-front costs - building five outlying fields and relocating Columbus AFB's Bomber Fighter function to Laughlin AFB were considered excessive. The second alternative was dropped because it did not result in the net increase of a "base complex," would waste significant investment in the T-45 training system at NAS Kingsville, and it would also require high, up-front cost at NAS Meridian. The third alternative, while not as costly to implement as alternative one, was discounted as the Maritime and Primary/Intermediate NFO/NAV functions could be readily accommodated by those flight training bases not recommended for closure. (JCSG Meeting Minutes of February 23, 1995).

What COBRA runs were performed to assess a potential NAS Meridian/Columbus AFB complex?

ANSWER: None.

What cost advantages were considered (for example, NAS Meridian and Columbus AFB using joint targets and outlying fields and sharing excess capacity during runway maintenance)?

ANSWER: The JCSG considered potential savings in shared or combined facilities from a JPATS site consolidation or formation of a JPATS base complex, but found they could not readily be identified. The Group also agreed that savings, if any, would be well in the future. In reviewing the base complex issue, the Group found no clear or compelling rationale to change the Military Departments' recommendations.

27. Mr. Nemfakos, if the redirect of mine warfare helicopter assets to NAS Corpus Christi is not approved, what impact would that have on the operations per day available for pilot training at Corpus Christi?

How much do other flight operations at Corpus Christi reduce daily operations available for pilot training?

ANSWER: Operating mine warfare helicopters out of NAS Corpus Christi would have a negligible effect on the runway operations available for pilot training. All other flight operations at NAS Corpus Christi, to include the proposed mine warfare helicopter operations, require less than 5 percent of NAS Corpus Christi's pilot training capacity.

28. Mr. Finch, will Joint Primary Aircraft Training System (JPATS) increase or decrease the number of bases required for UPT training?

ANSWER: The answer will depend on the aircraft selected and the evolution of the JPATS training syllabus. For example, some contenders may require longer runways than others. On the other hand, these same aircraft may be able to absorb some flying time from the more costly and more infrastructure-intensive advanced training tracks (i.e., T-45 Strike training).

29. Mr. Finch, what was the impact of Joint Primary Aircraft Training System (JPATS)-related issues on the group's assessment of functional value?

What specific facility and airspace requirements were used to determine Joint Primary Aircraft Training System (JPATS) functional values?

ANSWER: For purposes of the analyses, the Measures of Merit utilized the maximum requirements identified in the source selection process for JPATS (i.e., 5,000 ft runway).

CONGRESSIONAL QUESTIONS SUBMITTED FOR THE RECORD

UNDERGRADUATE PILOT TRAINING

Questions submitted by Congressman Smith:

1. Since the Navy has recommended relocating the Naval Air Technical Training Center (NATTC) from Lakehurst, NJ, to Pensacola, do you envision recreating the Carrier Aircraft Launch and Recovery System (COLASSES) at Pensacola or do you expect to disassemble, package, ship and reinstall those devices that are critical to training pilots for flying off and onto aircraft carriers?

ANSWER: The mission of NATTC Lakehurst Detachment does not include training pilots for flying off and onto aircraft carriers. The NATTC Lakehurst Detachment personnel and equipment support training requirements specific to operations and maintenance of aircraft carrier catapult, launch, and recovery equipment systems. The personnel and equipment necessary to continue supporting this training will be relocated to NAS Pensacola.

2. At what cost do you envision recreating the unique aircraft flight training facility in Pensacola?

ANSWER: NATTC Lakehurst Detachment is not a unique aircraft flight training facility and therefore will not be recreated as such. However, all appropriate costs to relocate NATTC Lakehurst Detachment necessary personnel and equipment that support training requirements specific to operations and maintenance of aircraft carrier catapult, launch, and recovery equipment systems were included in the COBRA analysis for Lakehurst. These costs are calculated automatically by COBRA algorithms from various input data and appear as part of the

aggregate one-time costs for NAWC AC Lakehurst, NJ plus the one-time costs for NAS Pensacola, FL. The exact cost will be determined as part of the implementation planning and budgeting process; however, it would be expected that the final cost would be of a similar magnitude.

3. Do facilities exist at Pensacola for the housing of the Lakehurst NATTC students?

ANSWER: Yes. BRAC 93 moved average onboard of 5004 students to NAS Pensacola. BRAC 95 adds the relocation of aviation students from both NTTC Meridian and Lakehurst, a total of 162 additional students. Barracks space was sized under BRAC 93 to accommodate the planned force structure through the end of the century. The FY 2001 average onboard for aviation students, including Meridian and Lakehurst, is 4226. The Navy is under contract to build BEQ space for 4924 beds. This number includes planned onboard, transient students and a surge capability. In view of this, the BSEC made a determination that no additional BEQ construction was required.

4. What type of delay or disruptions are anticipated or planned for in the training of these aircraft carrier student pilots while the training facility is disassembled, moved and recreated in Pensacola?

ANSWER: NATTC Lakehurst Detachment does not train aircraft carrier student pilots.

Questions submitted by Senators Shelby and Heflin and Congressman Everett:

1. In November of 1994, the Joint Cross-Service Group on Undergraduate Pilot Training submitted three different alternatives for consideration by the military departments and Secretary Perry. According to documents submitted to the BRAC, each alternative reduced excess capacity while maintaining high military value. Each of the three alternatives consistently recommended consolidating all military undergraduate helicopter pilot training at Fort Rucker.

However, these recommendations were not adhered to in there entirety. Secretary Perry chose not to consolidate UHPT at Fort Rucker as recommended due to high MILCON costs associated with closing Whiting NAS. He then directed consolidating all Navy initial fixed-wing training at Whiting NAS.

a. Why is it that consolidation of UHPT at Ft. Rucker was not adopted?

ANSWER: **Mr. Nemfakos.** While the recommendations forwarded by the UPT Joint Cross-Service Group called for moving the DON's Advanced Helicopter training to Fort Rucker, they said nothing about consolidating UHPT. Because of operational differences in training Navy and Army helicopter pilots, in evaluating these proposals, the DON only considered the co-location of UHPT.

b. Since the Navy is moving all of its initial fixed-wing training to Whiting NAS, wouldn't limited space be freed-up if UHPT was moved to Ft. Rucker?

ANSWER: Mr. Nemfakos. Moving the DON's Advanced Helicopter training to Fort Rucker would free-up space at NAS Whiting Field for fixed-wing training. However, because there is no issue of limited space at NAS Whiting Field for fixed-wing training, this additional space would be of little value.

c. From an efficiency standpoint, doesn't it make sense to have all initial rotary-wing training dedicated at one location?

ANSWER: Mr. Nemfakos. It would make sense to have all initial rotary wing training at one location if both the Navy and Army had the same training syllabi, same trainers, and identical aircraft. They do not. The DON has unique training requirements which are driven by its operational missions (i.e., a sea-based environment). Because of this, a consolidation of UHPT training would still require separate training tracks for Navy and Army pilots, and therefore, only create costs.

2. On March 30, 1993 General Colin Powell stated at the House Armed Services Committee Army Posture Hearing that, "I believe the proper place to do the centralization (of UHPT) and where it can be done very well is at Fort Rucker, Alabama." He went on to say, "I am committed to push this as hard as possible because there are real savings here and this is where we ought to find the savings."

The cost to transfer the UHPT operation at Whiting Field to Fort Rucker is less than $18 million dollars. In 1992 the DoD IG reported that relocation of UHPT to Fort Rucker would save at least $79 million dollars over 5 years.

a. Is this savings estimate still valid today?

ANSWER: Mr. Nemfakos. It should be noted that the Assistant Secretary of Defense (Force Management and Personnel) and the Department of the Navy nonconcurred with the portion of the 1992 DoD IG audit report in which were presented the savings estimate cited above, believing that the audit analysis attempted to compare dissimilar programs and also questioning the estimated monetary benefits from relocation.

In considering the UPT JCSG alternatives during the 1995 base realignment and closure process, the BSEC used only data, certified to be accurate and complete, contained in our 1995 Base Structure Data Base, and information provided and verified by the other Military Departments. Based on our analysis of this certified data, the total estimated one-time cost to implement the "non-JPATS' alternative is $155.7 million with an annual recurring savings after implementation of $13 million and a return on investment expected in 14 years. The net present value of the costs and savings over 20 years for this scenario is a savings of $9 million. The total estimated one-time cost to implement the "JPATS' alternative is $159 million with an annual recurring savings after implementation of $13 million and a return on investment expected in 15

years. The net present value of the costs and savings over 20 years for this scenario is a savings of $7 million.

3. In a proposal to the Roles & Missions Commission, the Army has stated that by consolidating all primary DoD rotary-wing training, integration and standardization among the services would be enhanced to truly support jointness. Each of the services would continue to provide advanced training for their own unique aspects of rotary-wing aviation.

The Army has the capacity to train all of DoD's primary helicopter pilot requirements without any need for expansion or new construction.

a. From an efficiency and interoperability standpoint, doesn't it make sense for all introductory helicopter pilot training to be conducted by the Army?

ANSWER: Mr. Nemfakos. There is a fundamental difference in how the Army and the naval services desire to train their pilots from an operational perspective; each has its own set of validated requirements that drive its training program, the location for the training, and efficiencies derived. The Navy, Marine Corps, and Coast Guard training requirements include fixed-wing training for all students, emphasis on basic and radio instrument training, situational awareness/unusual attitude/aerobatic training and shipboard landing training. We use aircraft systems as well as simulators and ground support systems that are different from those used by the Army in support of this specialized training. Then too, we believe that the operational environment in which our helicopter pilots will eventually be required to fly validates and mandates our current approach to UHPT. For example, the absolute necessity for aviator competence in over water flight, where aircraft performance and navigational techniques employed differ significantly from those over land, carries unique training demands. And, especially for Marine helicopter pilots, replacement of the aging CH-46 fleet with V-22 aircraft that feature in-flight transitions between rotary and fixed-wing modes will spawn a completely different dynamic for which they must be trained. In contrast, Army requirements and training are oriented toward the day/night VMC, ground contact environment that supports the Army mission in the field.

What makes the most sense for all the Services is to adhere to training programs that best prepare pilots to function in the respective operational environments in which they will be employed. Different requirements produce efficiencies unique to the specific training program at each base (NAS Whiting Field and Fort Rucker). It should be noted that intent of the Secretary of Defense in establishing a JCSG for UPT was not for it to examine the UPT programs of the Services with an eye toward consolidation, but to assist the Military Departments in identifying asset sharing opportunities. To what extent "jointness" is served by consolidation of UHPT, whether it should be, and which Service ought to conduct consolidated UHPT for all are issues more appropriately addressed outside the base realignment and closure process.

4. During the BRAC 95 Navy hearing earlier this year, General Mundy commented that in the 1970's the Army was training Marine helicopter pilots, and that this arrangement worked very well.

a. Is there any reason why the Marine Corps couldn't return to this arrangement?

ANSWER: Mr. Nemfakos. The Department of the Navy does not endorse Army UHPT for Marine pilots, because it does not meet the training requirements for service with the Fleet and Fleet Marine Forces. During the Vietnam War, the Marine Corps experienced a severe shortage of pilots, and following the direction of the Secretary of Defense, accepted helicopter pilots who had been trained by the Army. To meet Marine Corps requirements those Army-trained pilots, whose training was complete by Army requirements, required an additional 70 to 75 hours of flight training that was provided in Marine Corps helicopter training groups. General Mundy's comment during the Commission's hearing on March 6, 1995, did not indicate his willingness to change the training syllabus for Marine Corps helicopter pilots, but was offered in rebuttal to suggestions that our current resistance to UHPT consolidation is fueled in whole or in part by interservice rivalry.

5. In 1992, the JCS report on Roles & Missions recommended consolidation of all primary helicopter training with the Army. A team led by the Navy was tasked by Secretary of Defense Aspin to review this recommendation. Their findings concluded that consolidation would need to be put on hold until primary training for both fixed wing and rotary wing could be evaluated together, the service and operating costs of the new TH-67 trainer had been determined, and that the decision would be made with the context of a base closure round.

a. Each of these points has been satisfied, yet DoD only adopted the fixed-wing portion of the Cross-Service Group recommendation. Why was rotary-wing training ignored?

ANSWER: Mr. Nemfakos. The 1992 JCS Report on Roles & Missions, signed by General Colin Powell in February 1993, did not recommend consolidation of primary helicopter training. Instead, it stated *"If it is cost effective, Navy, Marine Corps and Coast Guard helicopter training will be moved from Pensacola to Ft Rucker."* A joint working group, led by the Navy with assistance from the Army, recommended *"retaining existing Navy helicopter training at Whiting Field and continuing use of the T-34C for primary training and track selection at least through JPATS introduction. This proven training format is presently the least costly approach to producing Navy helicopter pilots that meet service requirements."* The study further recommended that *"All services reevaluate each of the options presented in this study shortly after the following events occur: JPATS source selection is complete and acquisition/operating costs are identified. Final force levels are established and this flight training requirements determined. Army receives TH-67 deliveries and actual inventory and operating costs are identified."* The study was forwarded with concurrence from the Army.

Rotary-wing training was considered on an equal basis with all other types of UPT in both the Department of the Navy's analysis and that conducted by the UPT JCSG. The rationale for the Department of the Navy's rejection of the UPT JCSG alternative to close NAS Whiting Field is explained in response to question 1.

6. Earlier this year, the Navy testified before the BRAC 95 commission that the consolidation of Navy helicopter training with the Army was not feasible because it was a "people" issue, or a quality of life issue and that Navy Pilots fly in more extreme weather conditions at sea than the Army does. If that in fact is the case, why does the Pentagon continue to request Army helicopters and pilots to support naval missions?

A number of Army missions in support of Naval operations:

1983: Operation Urgent Fury
*Shipboard operations involving the Army's 18th Airborne Corps: UH-60's, OH-58A/C's, AH-1's

1987: Operation Prime Chance
*Shipboard and overwater operations involving the Army's 4/17th CAV (now 4/2) with OH-58D's
*valid CONOPS mission today

1994: Operation Uphold Democracy - Haiti
*10th Mountain Division operated from the USS Eisenhower
*OH-58D's had extensive missions prior to invasion
*UH-60's, CH-47's, OH-58A/C's and AH-I's transported troops and equipment to the AO for several days, followed by command & control missions

Each Army Aviation unit has a task for shipboard operations incorporated in their mission essential list of tasks. The Army trains for shipboard operations and performs shipboard operations.

ANSWER: Mr. Nemfakos. As mentioned in response to question 1, training for Army helicopter pilots and naval aviators is designed to prepare them for two significantly different operational environments. The record of employment of Army helicopters shows that the Army does operate from Navy ships on certain occasions and under visual meteorological (VMC) weather conditions. However, Army helicopter pilots are not trained for, and do not operate during, degraded weather conditions. In contrast, every Navy pilot is trained to operate from large and small deck ships under all weather conditions. In each of the cases cited above, Army helicopters were required due to unique mission circumstances and operated under favorable weather conditions as directed by senior Defense Department officials.

7. In 1992, MGen. Dave Robbins, then-Commander of the Army Aviation Center, noted that one of the main reasons the Navy was opposed to consolidating this training with the Army was because the Navy used initial fixed-wing training as a "cutting" tool for students.

a. Do you believe this to be the case, and is there any legitimate reason why the Navy needs this extra "cutting" tool?

b. Could the Navy use the Army's training syllabus that places student pilots directly into the rotary wing pipeline?

ANSWER: Mr. Nemfakos. The Navy practice of using fixed-wing aircraft in rotary-wing pilot track selection and training was validated by a 1994 Center for Naval Analysis study which concluded that *"Splitting the current Navy primary into two separate tracks, rotary primary and fixed-wing primary, could increase attrition if current standards are maintained. Attrition would be higher in each track than in the present unified primary and thus would be higher overall."* Increasing attrition will increase the cost of training and require increased accessions. In addition, the study forwards the following training considerations:

"The motor skills and learned responses needed to fly helicopters and fixed-wing airplanes in forward flight are almost exactly the same... These skills are transferable."

"Flying helicopters in hover mode is different from flying them in forward flight mode. From a training standpoint, it is sensible to first teach rotary-wing pilots forward flight in a fixed-wing trainer. Student pilots can then move to helicopters where they acquire specialized flight skills."

"Some flight training, particularly navigation and instrument flying, involves skills that are not specific to a particular type of aircraft."

The Air Force also supports the concept of undergraduate, primary fixed-wing training for its helicopter pilots. In December 1992 the Assistant Secretary of the Air Force stated *"...fixed-wing training before rotary-wing training produces a better trained helicopter pilot for less money."*

Based on the benefits of fixed-wing primary training, using the Army's curriculum would not meet Navy, Marine Corps and Coast Guard requirements.

8. According to the DoD IG, "Relocating the Navy's primary helicopter training to Fort Rucker would relieve ground and air traffic congestion at Whiting Field NAS."

a. Is there a problem with congestion at Whiting Field, both in the air and on the ground? If so, would relocation of the Navy's Undergraduate Helicopter Pilot Training program free-up space at Whiting Field?

b. How does Fort Rucker compare with Whiting with regard to available space?

c. Since the Army already owns nearly 80% of all DoD helicopters, does Fort Rucker have the capacity to train all of DoD's primary helicopter pilot requirements?

ANSWER: Mr. Nemfakos. There is no ground or air congestion at NAS Whiting Field. As previously stated, fixed wing (T-34C) aircraft normally conduct training operations at altitudes above 1500 feet and rotary wing (TH-57B/C) training aircraft operate in the airspace structure

below 1500 feet. Commercial airliners overfly training airspace at altitudes above 24,000 feet. Navy fixed-wing aircraft conduct landing operations at exclusive fixed-wing airfields, which are specifically designed to train naval aviators to land day or night, in fair or foul weather, and aboard the confined landing areas of our ships at sea. These airfields are located within ten miles of home field, enhancing training efficiency and lowering cost per completed student sortie. NAS Whiting, in effect, is two airfields for the price of one. There are no course rule conflicts between fixed-wing and rotary-wing aircraft operating at these two fields. Operations in joint-use areas are normally conducted using air traffic control procedures and/or radar monitoring. Additionally, helicopters, by design, can operate at very slow airspeeds. As a result, near mid-air collisions involving Navy helicopters are virtually non-existent. In contrast, increased congestion at Fort Rucker would result from consolidating training there.

Fort Rucker is larger than NAS Whiting Field. However, NAS Whiting Field meets all present and future Navy requirements for primary and helicopter training and includes sufficient maritime operating areas for the Helicopter Landing Trainer ship. Additionally, the area around Fort Rucker has a much greater concentration of noise sensitive areas than does NAS Whiting Field.

Fort Rucker requires significant facilities MILCON, extensive rehabilitation and upgrade of existing structures and, equally important, extensive quality of life improvements to support consolidated training. Facilities meeting the Navy's requirements for both mission and quality of life are currently available and in use at NAS Whiting Field.

Brig Gen Shane. Yes. According to Undergraduate Pilot Training Joint Cross- Service Group certified data, the total DoD throughput in the near future is 1,481. This training rate would only engage 72% of Fort Rucker's present capacity for undergraduate helicopter pilot training.

MEDICAL JOINT CROSS-SERVICE GROUP

PROCESS

Questions submitted to Dr. Edward Martin

1. All but one of the 16 Joint Cross Service Group alternatives describe realignment of an acute care hospital to an outpatient clinic.

Why were so many of the Joint Cross Service Group's alternatives realignments rather than closures?

ANSWER: The Joint Cross Service Group (JCSG) did not attempt to eliminate a medical presence unless the medical facility was the host unit or the installation closed and there was not a significant active duty population projected to remain in the area. If a significant active duty population does remain, then a minimum of an ambulatory clinic will be required. This was the reason most of the proposed alternatives that the JCSG developed called for realignment to clinic status.

Is realignment to a clinic a cost effective way to eliminate excess capacity?

ANSWER: Yes, if it is clear that the hospital capability is not required. We parallel the civilian health care industry's move toward increased use of ambulatory service clinics instead of inpatient hospitals. The most significant difference in a super clinic and a small hospital is the requirement NOT to maintain a 24 hour blood bank, 24 hour nursing care and 24 hour ancillary services, such as pharmacy, laboratory and radiology. This is especially cost effective at locations with small inpatient services, and adequate civilian facilities in the immediate communities.

Would it be more cost effective to close rather than realign hospitals, especially in areas that have additional military hospitals or substantial civilian capacity?

ANSWER: The "733 Study" states that "on average, MTFs appear to provide a given amount of care at significantly less cost than is the case in the private sector." Aside from this, however, there are many other issues which mandate a medical presence on an installation other than the cost effectiveness of the medical care. Our rightsizing initiatives take into account factors such as readiness, operational medicine in support of a flying or other mission, lost time from training, TRICARE, etc.

2. What exactly did the Joint Cross Service Group have in mind when it used the word "clinic?"

ANSWER: The simplest definition of a "clinic" is a military treatment facility without inpatient services. In its April 15, 1995 Report to the BRAC 95 Review Group, the BRAC 95 Joint Cross-Service Group for MTFs and GME defined a clinic as "An outpatient treatment facility that has a

commanding officer, receives funds directly from the Service headquarters, and provides care to active duty and other beneficiaries."

It is expected that the medical service plans developed for each realignment location will specify the services and personnel required to best support the remaining beneficiary population. In some cases that may be a "super clinic" in which there is significant capability to provide comprehensive ambulatory services to include same day surgery, laboratory, pharmacy and radiology services. A super clinic might also often include the capability for overnight care for active duty personnel who cannot return to the billets.

3. Who has the final say as to what is included in a clinic, and who decides how many people it takes to operate one?

ANSWER: The Military Departments have responsibility for providing medical and dental care for their personnel and allocation of staffing to provide those services. This is done by the medical command or line authority responsible for the military treatment facility. The responsible command takes many factors, including operational medicine, special base concerns, and local circumstances into consideration as they make these determinations.

TRICARE, the Department's regionalized managed care plan brings together the health care delivery system of each of the military services, as well as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), in a cooperative and supportive manner to better serve military patients and to better use the resources available to military medicine. The organization of TRICARE includes twelve regions, each administered by a lead agent, who is a commander of one of the military medical centers located within the region. These lead agents have developed, and are in the process of implementing, in collaboration with all the military treatment facility commanders in the region, integrated plans for the delivery of health care to beneficiaries residing in the region. This will shape the level of service and staffing found in each facility.

4. Given that direct care services in military hospitals are essentially free to beneficiaries, while services received under CHAMPUS involve co-payments and deductibles, do you believe it is reasonable to conclude that demand for services may diminish when direct care services are reduced?

ANSWER: It is possible that the number of visits may decrease slightly, but there probably would not be a corresponding decrease in the intensity of services. Various DoD studies, including the "733 study", found an "induced-demand" effect given free MTF care in lieu of CHAMPUS; however, this applied mostly to routine outpatient care and not specialty care.

PRIOR ROUND AND NON-BRAC ACTIONS

5. Please describe how reductions in the medical area fit into the larger, DOD-wide drawdown context?

ANSWER: The Department of Defense is changing and so is its medical support. Assuming all BRAC and other DHP programming actions are implemented, the Department will have reduced our infrastructure by 59 hospitals and 12,000 beds worldwide since 1988,. This is a 35% reduction in hospitals and a 42% reduction in bed capacity. 17 facilities overseas were closed and 42 inpatient facilities within CONUS have been closed or realigned. 25 of those inpatient facilities have occurred due to BRAC 88, 91, and 93.

6. Do past BRAC actions and the current set of recommendations keep pace with changes in the rest of the military or are medical assets drawing down at a faster or slower pace?

ANSWER: Medical infrastructure reductions parallel similar changes occurring elsewhere in the Department. Overall active duty strength has decreased approximately 30% with a corresponding 35% reduction in hospitals and a 42% reduction in bed capacity.

7. In meetings with Commission staff, you described a number of hospital realignment actions taking place outside of the BRAC process.

Please specify what the Department is doing to eliminate excess inpatient capacity beyond the recommendations sent to this Commission. Please include name of hospital, details of the action, and the time frame during which the action is to occur.

ANSWER: Since the end of the Cold War, the Department has aggressively sought to reduce excess infrastructure. Over 58 hospitals will have closed or realigned. The Defense Health Program has also experienced approximately 12,000 normal bed reduction during this period. These reductions account for a 43% decrease in beds and a 35% decrease in number of inpatient facilities since 1988.

Within the continental United States, 42 hospitals will have closed by the end of BRAC 95, assuming the current recommendations are accepted. These actions were accomplished by the cumulative base realignment and closure rounds and the Defense Health Program initiatives. These initiatives include, but are not limited to the following type actions:

- Small Hospital Study
- Realignment of hospitals to ambulatory care centers
- Modification of emergency room services
- Evaluation of alternative staffing options and delivery models
- Reshaping the medical force to focus toward managed care and shift to ambulatory surgery
- Joint staffing

- Sharing agreements with the Department of Veterans Affairs

Discontinuation of inpatient services:

- Naval Station, Adak, Alaska
- Naval Home, Gulfport, Mississippi
- McConnell Air Force Base, Kansas
- Kirtland Air Force Base, New Mexico (resource sharing with DVA)
- Malstrom AFB, Montana
- Naval Hospital, Newport, Rhode Island
- Grissom Air Force Base, Indiana
- Reese Air Force Base, Texas
- McGuire Air Force Base, New Jersey

Defense Programming Action is slated to terminate inpatient services in the following Navy hospitals:

- Naval Hospital Charleston, South Carolina
- Naval Hospital Patuxent River, Maryland
- Naval Hospital Millington, Tennessee
- Naval Hospital Corpus Christi, Texas
- Naval Hospital Groton Connecticut

Discontinuation of emergency room services:

Emergency room services have been modified at 18 Air Force bases (level III to level IV emergency services)

- Seymour Johnson Air Force Base, North Carolina
- Griffiss Air Force Base, Indiana
- Sawyer Air Force Base, Michigan
- Moody Air Force Base, Georgia
- Cannon Air Force Base, New Mexico
- Holloman Air Force Base, New Mexico
- Castle Air Force Base, California
- Beale Air Force Base, California
- Little Rock Air Force Base, Arkansas
- Whiteman Air Force Base, Missouri
- Plattsburgh Air Force Base, New York
- Columbus Air Force Base, Ohio
- Laughlin Air Force Base, Texas
- Tyndall Air Force Base, Florida
- Reese Air Force Base, Texas
- McGuire Air Force Base, New Jersey
- Grand Forks Air Force Base, North Dakota
- Maxwell Air Force Base, Alabama

The Air Force is evaluating two other facilities.

Termination of Obstetric and nursery Services:

- March Air Force Base, California
- McClellan Air Force Base, California
- Beale Air Force Base, California
- Fairchild Air Force Base, Washington
- The Air Force is evaluating an additional eight facilities.

In particular, please describe current or planned actions for realignment, consolidation, or other "right-sizing" at the following facilities:

ANSWER:

-- **Blanchfield Army Community Hospital, Fort Campbell, Kentucky**
-- **Ireland Army Community Hospital, Fort Knox, Kentucky**

Ireland Army Community Hospital is consolidating small outlying clinics and realigning internally to focus on product line management.

-- **Madigan Army Medical Center, Fort Lewis, Washington**
-- **Naval Hospital Bremerton, Washington**
-- **Naval Hospital Oak Harbor, Washington**

These three facilities are all in DoD Health Service Region 11 which recently began implementation of TRICARE, our regionalized managed care program for the Department of Defense. Madigan Army Medical Center (MAMC) is the lead agent for this area and has developed, and is in the process of implementing, in collaboration with all the military treatment facility commanders in this region, integrated plans for the delivery of health care to beneficiaries residing within the region. TRICARE brings together the health care delivery systems of each of the military services, as well as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), in a cooperative and supportive effort to better serve military patients and to better use the resources available to military medicine.

The Puget Sound Federal Health Council was established three years ago. It includes representatives from the Military Departments, Veterans Administration, Coast Guard and University of Washington. The council fosters resource sharing initiatives, such as:

- consolidation of laboratory functions so as to obtain bulk rates on supplies and the designation of MAMC as the sole site for certain tests
- regionalization of the pharmacy to maximize prime vendor efforts
- transportation sharing to enhance medical evacuation between the facilities.

While Madigan Army Medical Center (MAMC) has no current plans to reduce beds or service from their present levels, these issues are, and have been, under constant review. As a result of utilization reviews and implementation of improved pre-admission process for surgical candidates, MAMC has reduced bed capacity to better match care requirements. Changes in services are also anticipated at a number of outlying clinics in response to BRAC initiatives now under study.

The Navy is realigning nine officer and seven enlisted billets to Naval Hospital, Bremerton, Washington to meet anticipated increase of over 9,100 active duty and their family members. There is a BRAC military construction project scheduled for FY 98 for ambulatory care additions.

- **Walter Reed Army Medical Center, DC**
- **Dewitt Army Community Hospital, Fort Belvoir, Virginia**
- **National Navy Medical Center, Maryland**
- **Malcolm Grow USAF Medical Center, Andrews AFB, Maryland**

ASD(Health Affairs) Medical Program Guidance, FY 1997 - 2001, requires the Services "to integrate, right size and eliminate unnecessary duplication in the National Capital Region." The medical treatment facilities in this area are aggressively working to pursue graduate medical education consolidation as well as clinical services realignment/integration. This is a maturing initiative with the two most mature actions being the OB/GYN/NICU realignment between Walter Reed Army Medical Center (WRAMC) and the National Navy Medical Center (NNMC) and mental health initiatives that involve all three medical centers in the national capital area. The OB/GYN/NICU initiative will permit concentration of resources for accommodation of larger beneficiary workloads (WRAMC will provide specialty gynecological services; NNMC will be responsible for neonatal ICU and problem obstetric cases). A similar initiative to consolidate and eliminate redundant mental health services within the region is expected to result in a 30% - 40% reduction in inpatient beds in the national capital area with significantly reduced outpatient CHAMPUS costs as well.

By October 1, 1995 WRAMC will have integrated all the Army medical assets within this area to provide command and control of a cost effective, multidisciplinary, customer focused health care network. This will allow appropriate shifting, consolidation, and efficiencies. DeWitt Army Community Hospital is in the middle of a major primary care initiative aimed at recapture of the primary care base in Northern Virginia and involves major realignments within the hospital and between outlying clinics to include PRIMUS clinics.

Malcolm Grow USAF Medical Center has decreased inpatient operating beds by 31% in the last two years.

- **McDonald Army Community Hospital, Fort Eustis, Virginia**
- **Naval Hospital Portsmouth, Virginia**
- **1st Medical Group, Langley AFB, Virginia**

The military services have a long tradition of cooperation and collaboration in the Tidewater area as evidenced by the many tri-service health care initiatives in this area in recent years. The Navy Medical Center, Portsmouth, Virginia is the Lead Agent for DoD Health Service Region II which includes all three facilities. Recent initiatives in this area include:

- the establishment of voice and data communication networks to allow joint utilization of medical resources
- integration of major information management systems to create enrollment, health care finder and provider networks
- establishment of a patient service center
- increased use of inpatient military resources and better, smarter, utilization of assets in the civilian community is resulting in a decline in both outpatient visits and hospital admissions.

The Navy is evaluating current staffing in this area and may realign some manpower resources into their Branch Clinic at Oceana. The 1st Medical Group at Langley AFB has decreased inpatient operating beds by 20% in the last two years and has developed resource sharing agreements in ENT and neonatology. In addition they have developed an oxygen contract buy-in with the Hampton VA Medical Center. McDonald Army Community Hospital will have a "TriPrime Clinic" open in January 1996 in a continuing effort to develop their primary care network.

-- **Munson Army Community Hospital, Fort Leavenworth, Kansas**
-- **Irwin Army Community Hospital, Fort Riley, Kansas**
-- **351st Medical Group, Whiteman AFB, Missouri**

The distance between these facilities, and their relative size and mission, diminish many of the opportunities for effective resource sharing between them. Individually however they have all incorporated managed care principles into their operations which contribute to efficiency and right-sizing at their own facilities. For example, Irwin ACH at Fort Riley, Kansas has combined its pediatric and medical/surgical wards into one in an effort to better utilize available health care resources for the community they serve.

-- **Womack Army Community Hospital, Fort Bragg, North Carolina**
-- **Naval Hospital Cherry Point, North Carolina**
-- **Naval Hospital Camp Lejeune, North Carolina**
-- **4th Medical Group, Seymour Johnson AFB, NC**

These facilities are part of DoD Health Services Region Two; the Lead Agent being the Navy Medical Center, Portsmouth, Virginia. A managed care organization, Eastern Carolina Coordinated Care, has been established to maximize referrals to the MTFs through the TRICARE Service Center that assists in locating appointments for beneficiaries with preferred and participating providers.

Womack Army Medical Center continues to develop its primary care initiative, started in January 1992, with the objective of developing a primary care network that would be capable of offering managed care enrollment to 80% of the eligible population in preparation for the transition to TRICARE. The 4th Medical Group at Seymour Johnson AFB modified emergency medicine services from level III to level IV in 1993.

- **Naval Hospital Camp Pendleton, California**
- **Naval Hospital San Diego, California**

These facilities are part of DoD Health Services Region Nine; the Lead Agent being the Navy Medical Center, San Diego, California. San Diego is just entering its implementation of region-wide resource sharing. They have a long standing association with the Naval Hospital Camp Pendleton to assist in graduate medical training. Some general surgical residents from the Naval Medical Center, San Diego obtain their obstetrics training at Pendleton and transitional inters perform their family practice rotation there. In addition family practice residents from Camp Pendleton rotate through the medical center for specialty training not available at their facility. In addition, NMC San Diego routinely provides specialty physicians to NH Camp Pendleton, in particular pediatric support and orthopedic support assist in reducing CHAMPUS and supplemental care expenditures.

- **Evans Army Community Hospital, Fort Carson, Colorado**
- **USAF Academy Hospital, Colorado**

ASD(Health Affairs) Medical Program Guidance, FY 1997 - 2001, requires the Services "to integrate, right size and eliminate unnecessary duplication at... Ft. Carson Army Community Hospital/Air Force Academy Hospital." The two facilities have formed the Pikes Peak Area Initiative in a proactive effort to improve cooperation and collaboration between their facilities. Resource sharing in urology and ENT is underway. Evans ACH has reduced inpatient beds from 110 to 85 and combined medical and surgical wards.

- **Bliss Army Community Hospital, Fort Huachuca, Arizona**
- **355th Medical Group, Davis-Monthan AFB, Arizona**

These facilities are part of DoD Health Services Region Seven; the Lead Agent being William Beaumont Army Medical Center (WBAMC), Texas. Their is a joint Davis-Monthan/WBAMC preferred provider network that covers all specialties. Referral workload is sent to William Beaumont and Wilford Hall Medical Center. The Air Force also used the Navy Clinic, Yuma, AZ for orthopedic cases. The Air Force hospital has decreased inpatient operating beds by 14% in the last two years.

- **Naval Hospital Pensacola, Florida**
- **646th Medical Group, Eglin AFB, Florida**
- **325th Medical Group, Tyndall AFB, Florida**
- **Keesler USAF Medical Center, Keesler AFB, Mississippi**

These facilities are all part of DoD Health Services Region Four; the Lead Agent being Keesler USAF Medical Center. The lead agent is exploring the idea of locating a tri-service alcohol rehabilitation program at Pensacola Naval Hospital for all the southeast. A region-wide reference laboratory service, for all beneficiaries in this area is also being pursued.

Pensacola NH and Keesler USAF Medical Center have agreements regarding several training programs and reciprocal medical board processing. Pensacola NH and the 646th Medical Group at Eglin AFB have combined efforts in procuring some highly specialized diagnostic equipment for their facilities. In addition Eglin cares for Pensacola's inpatient psychiatric patients in exchange for Pensacola taking Eglin's outpatient alcohol rehabilitation patients. Tyndall AFB refers all specialty required work to Keesler.

Other right-sizing initiatives have resulted in the 646th Medical Group decreasing inpatient operating beds by 19% in the last two years while Keesler has decreased beds by 8% in this same period.

- **Martin Army Community Hospital, Fort Benning, Georgia**
- **Lyster Army Community Hospital, Fort Rucker, Alabama**
- **502nd Medical Group, Maxwell AFB, Alabama**
- **653rd Medical Group, Robins AFB, Georgia**

The relative distance between these facilities limits many types of right-sizing opportunities although they do share assets. Robbins AFB is exploring possible sharing agreements with the Veterans Administration medical center in the area and with a local civilian medical facility. There has been a 50% decrease in operating beds at Maxwelll AFB in the last two years.

- **Reyonlds Army Community Hospital, Fort Sill, Oklahoma**
- **97th Medical group, Altus AFB, Oklahoma**
- **654th Medical Group, Tinker AFB, Oklahoma**
- **396th Medical Group, Sheppard AFB, Texas**

Reynolds Army Community Hospital has several initiatives to maximize assets. Resource sharing agreement with the adjacent VA outpatient clinic has been completed. Reynolds anticipates completion later this year of resource sharing agreements with two nearby Air Force facilities through their "Friends and Neighbors" program that promotes cost avoidance in such areas as orthopedics, general surgery, neurology, and dermatology. Their outlying family practice facilities have been consolidated in the main hospital facility thereby allowing turn in of excess buildings. Other consolidations of wards, clinics and staff have also occurred.

Tinker AFB, OK provides orthopedic surgeons to assist McDonnell AFB, KS. A proposal to covert the emergency room at Tinker AFB into a 24 hour acute care clinic is currently being developed. Sheppard AFB provides monthly manning assistance to Altus, Tinker, and Reese AFBs in such areas as ENT, audiology, orthopedics and podiatry. Other such cross-

sharing of assets in frequent between these facilities. Inpatient beds at Altus AFB have declined by 53% in the last two years and 29% at Tinker AFB.

- **Moncrief Army Community Hospital, Fort Stewart, Georgia**
- **363rd Medical Group, Shaw AFB, South Carolina**

Inpatient operating beds have decreased 17% in the last two years at Shaw AFB and the Special Care Inpatient Nursing Unit is being evaluated for closure. Air Force ophthalmologists care for Army beneficiaries at Moncrief Army Community Hospital. Army radiologists read mammography films for Shaw AFB and the Air Force provides gynecological care to Army beneficiaries at SHAW AFB.

- **Winn Army Community Hospital, Fort Stewart, Georgia**
- **Naval Hospital Beaufort, South Carolina**

No formal agreements or programs are in place though they share assets on a frequent basis. 66 miles separate the facilities making routine sharing difficult.

In regards to planned actions, please be specific about the status of those plans in Defense Health Program budgeting.

ANSWER: ASD(Health Affairs) Medical Program Guidance, FY 1997 - 2001, requires the Services "to integrate, right size and eliminate unnecessary duplication at Ft. Carson Army Community Hospital/Air Force Academy, at Brooke Army Medical Center/Wilford Hall USAF Medical Center, and in the National Capital Region."

In addition the programming guidance addresses graduate medical education: " The components shall integrate remaining duplicate training GME programs in the National Capital Region and San Antonio, Texas not later than FY 1998."

Also, please describe in detail the status of current plans to convert Naval Hospital Charleston, SC; Naval Hospital Patuxent River, MD; 9th Medical Group, Beale AFB, CA; 323rd FTW Hospital, Mather AFB, CA; and 438th Medical Group, Fort Dix, NJ into outpatient clinics.

ANSWER:
Navy hospitals

A "quick analysis" of these five facilities was performed in April 1994 and it was determined that ambulatory health care centers were viable alternatives at these sites. As a result of this "rightsizing," Navy could optimize manpower and fiscal resources by transferring end strength from these facilities to OCONUS and Fleet units, and by off-setting very expensive contracts in Navy MTFs. The contractual and MILCON savings realized by this action equate to over $270 million dollars across the FYDP.

A complete analysis of each facility is currently in progress by BUMED. It is anticipated that this detailed analysis will be completed later this summer. If the analysis supports the earlier review, then the projected transition date should coincide with t he implementation plan for realignment.

Change in service dates, now projected, are as follows:

Naval Hospital, Millington	Nov 96
Naval Hospital, Groton	Nov 97
Naval Hospital, Patuxent River	Nov 97
Naval Hospital, Corpus Christi	Nov 96
Naval Hospital, Charleston	Nov 97

Naval Hospital, Charleston

As a result of BRAC actions closing Naval Base Charleston and the decommissioning of many associated fleet units and the migration of many others, it became necessary to right-size the Naval Hospital, Charleston to support remaining active duty members and their families.

Naval Hospital, Charleston reduced operating beds from 130 to 90 in December 1992. As of October 1995, it is projected that approximately 29,000 active duty and family members will remain in the Charleston catchment area. Historic utilization rates project an average daily inpatient census of between 35 and 37 for that remaining population and the decision was made to further reduce operating beds to 40 effective 1 October 1995. As a result, external partnerships for routine inpatient obstetric service and inpatient psychiatric services were initiated and are in place.

The result of BRAC 95 and other fleet and operational movements is being carefully monitored to determine if it will be necessary to increase operating beds or, with the arrival of TRICARE in May 1997, to further decrease or eliminate inpatient beds. The plan would use contracts and partnerships for the limited number of active duty inpatient beds required and rightsize the Naval Hospital to an ambulatory care center later in 1997.

Air Force Hospitals

9th Medical Group, Beale AFB -- A change from hospital to clinic status is currently being evaluated. Obstetrical services closed in 1994 and inpatient operating beds have decreased 17% in the last two years.

323rd FTW Hospital, McClellan AFB -- Obstetrical services closed in 1994. Inpatient operating beds have declined 17% in the last two years.

438th Medical Group, Ft Dix -- This facility was reduced to clinic status from an inpatient facility on 1 January 1995.

Why isn't the Department doing these actions through the BRAC process?

ANSWER: Our purpose during BRAC 95 was to evaluate cross Service opportunities for Single Service asset sharing, decrease excess capacity, and reduce duplication within the Military Health Service System (MHSS). The alternatives submitted by the Joint Cross-Service Group on Military Treatment Facilities have been largely accomplished through the BRAC process and other ongoing management initiatives. I understand and support the rationale the Services have provided for maintaining most of the remaining facilities that were provided for their consideration.

The MHSS is sensitive to structuring itself to the needs of the world-wide community it serves, and has been aggressively addressing this issue outside the BRAC process. Additional rightsizing initiatives, such as the planned integration of Wilford Hall USAF Medical Center and Brooke Army Medical Center and the integration of Evans Army Community Hospital and the USAF Academy Hospital, will be addressed thorough future Defense program and budget review processes.

Our goal is to reduce unneeded infrastructure thus allowing us to use our resources for more critical requirements. The Services have taken different approaches to how to accomplish this. We are concerned with the results, not the process the Military Departments have taken to achieve them. Our cumulative record of infrastructure reductions since the end of the Cold War demonstrate the success of our efforts.

Given the frequency with which budgets can and do change, what assurances do you and the Commission have that these actions are really going to take place?

ANSWER: The ASD(Health Affairs) has been the program manager for the Department's health resources since 1991. As a consequence, we have worked on a joint basis for several years and will continue to develop and implement programs and systems that facilitate effective and efficient use of resources.

Do you believe it would be beneficial for the Commission to add any or all of the actions you describe to its list of actions to consider?

ANSWER: I don't think this is necessary. We are confident that the rightsizing initiatives now underway and planned can achieve the management goals we have established.

8. San Antonio, Texas is home to two large military medical centers and a large number of civilian hospitals. This appears to be an example of an opportunity to eliminate a substantial portion of excess capacity, and, indeed, the Air Force facility, Wilford Hall, was on the Joint Cross Service Group list of realignment alternatives. Yet neither facility is on the DOD list.

Why?

Why did the Air Force choose not to realign Wilford Hall to either a clinic, as the Joint Cross Service Group alternative suggests, or a community hospital?

Is there a plan to realign and consolidate services at Wilford Hall and Brooke Army Medical Center? If so, what is its status?

Are you comfortable with the Army and Air Force plans to enact such an alternative through the budget process? If not, do you feel that Commission action could better ensure that the necessary realignment takes place?

Given the unique aspects within both the Brooke Army Medical Center and Wilford Hall, would you envision any actual infrastructure operating efficiencies by a consolidation? Would you actually be able to close a facility by consolidation?

ANSWER: The Joint-Cross Service Group for Medical Treatment Facilities analysis did provide an alternative for consideration by the Air Force that realigned Willford Hall Medical Center (WHMC) to a clinic. This option was based on computer modeling that consolidated the acute and medical center inpatient care requirements in San Antonio at Brooke Army Medical Center and converted Willford Hall to an ambulatory care facility. The alternative was based on quantitative modeling results that suggest the reduced beds are not needed for wartime demand nor to meet the projected peacetime direct care inpatient requirements.

The Air Force evaluated, and strongly rejected, this alternative based on consideration of several additional factors that were not included in the model. Wilford Hall Medical Center is the premier Air Force medical facility and is known internationally for its specialty medical services and graduate medical education teaching program. It is the largest, single contributor to their readiness capability, houses 34% of their GME training programs of which 27 are unique to WHMC, and accounts for 41% of the total physician training man-years, is the only designated Specialty Treatment Center in the Air Force, as well as its only operating Level 1 Trauma Center. The Air Force believed that any decrease in capability along the lines of the two options indicated will impact negatively on both their wartime readiness mission and operational healthcare costs.

The Department fully agreed with the Air Force's assessment. We are currently developing a plan for consolidating health services throughout DoD Health Service Region VI that includes most of Texas, Oklahoma, Louisiana and Arkansas. One aspect of this is the integration Wilford Hall USAF Medical Center and Brooke Army Medical Center so as to eliminate any nonessential duplication of services in the San Antonio area. Integration of graduate medical education programs between these two facilities is already underway.

I believe this can, and will, be achieved by the management initiatives now planned and underway. It is expected there will be considerable operating efficiencies gained through these actions. I don't think action by the Defense Base Closure and Realignment Commission is necessary. We are confident that the rightsizing initiatives now underway and planned can achieve the management goals we have established.

REQUIREMENTS

9. The Commission staff understands that there is some disagreement within the Department in the area of wartime readiness requirements for hospital beds.

However, do even the highest estimates of required wartime beds exceed the current inventory of over 20,000 mobilization beds?

ANSWER: The General Accounting Office's report on DoD's 1995 process and recommendations for closure and realignment states, " several key variables that greatly affect the wartime demand for medical care are still in debate. And, while the cross-service group's analysis and other studies indicate some excess capacity in medical facilities will remain after BRAC 1995, it is unclear that there is consensus on wartime requirements and therefore on how much excess capacity exists DoD-wide."

Overall active duty strength has decreased approximately 30% with a corresponding 35% reduction in hospitals and a 42% reduction in bed capacity. For BRAC 95, our wartime requirements were based on the most current Defense Planning Guidance, which was approximately 10,000 beds. Our modeling of the MHSS required that any alternative solution retain the aggregate number of wartime beds to meet the MHSS system wide and Service specific bed requirements. We also defined requirements based on FY 94 direct care inpatient rates for active duty members, retired personnel, and their family members. The rates were applied to the projected 2001 populations associated with each catchment area and resulted in a bed requirement for each MTF. This requirement could be met by either the direct care system or civilian sector resources. Our model ensured enough beds were retained in the aggregate MHSS to meet the non-wartime requirement.

Tertiary care demand was also based on FY 94 direct care rates for our GME facilities. Demand was generated based on populations east and west of the Mississippi. Our model then found the "best fit" of our MHSS resources to meet the requirements.

SERVICES' RESPONSES TO JOINT CROSS SERVICE GROUP ALTERNATIVES

10. Eleven of the sixteen alternatives provided to the Services by the Joint Cross Service Group were not accepted.

Are you satisfied that the DOD list goes as far as it should in reducing medical infrastructure?

Do the eleven rejected alternatives represent missed opportunities?

ANSWER: There is probably some excess capacity still in our system. I don't at all consider these "missed opportunities." The alternatives submitted by the Joint Cross-Service Group on Military Treatment Facilities have been largely accomplished through the BRAC process and

other ongoing management initiatives. I understand and support the rationale the Services have provided for maintaining most of the remaining facilities that were provided for their consideration. Additional rightsizing initiatives will be addressed thorough future Defense program and budget review processes.

TESTIMONY BEFORE THE COMMISSION

11. In testimony before the Commission on April 17, 1995, you stated that there is a significant change in how DoD delivers care to eligible beneficiaries within its facilities. Specifically, you stated that the Air Force has stopped doing emergency services in 11 hospitals and closed 17 others. In addition, you testified that the Navy is in the final process of making judgment about downsizing five hospitals to clinics.

Please provide for the record the details upon which your statements were based. At a minimum, please include the locations of affected hospitals, the date the change became or will become effective, and what other plans your office may have to continue the significant changes in how DoD delivers care.

ANSWER: See question 7 above for the response.

Questions Submitted for General Shane

1. How did the Army define "clinic" for the Fort Lee and Fort Meade realignments and what was the basis for the size of the staff reductions in the recommendations for these two hospitals?

ANSWER: Both Kenner and Kimbrough General Community Hospitals perform same day surgery and would therefore normally generate a one day admission even without "inpatient services." Kenner and Kimbrough Army Community Hospitals did not receive a listing of what services to provide to qualify as a clinic. US Army Medical Command expectation is that the Medical Service Action Plan developed by Kenner and Kimbrough staffs will describe the services they think best for the community and the amount support staff. The staff reductions were developed using a manpower staffing assessment model (Benchmark). This methodology determined manpower requirements at 25 Army medical treatment facilities (MTF). By the end of CY 95, 100 percent of the Army MTFs will have been assessed using the Benchmark Requirements Determination Process. The Army Personnel Proponency Directorate (APPD) uses the model to detmine AMEDD Program Objective Memorandum manpower requirements.

2. In developing the cost savings estimates for the two Army hospital realignment actions, what assumptions did the Army make about both inpatient and outpatient CHAMPUS cost increases?

ANSWER: Trade-off factors developed and validated by DoD project the civilian sector utilization when a MTF is realigned. Active duty family members' care would shift to outside sources at a ratio of 1:1. Beneficiaries other than active duty family members would seek care

from outside sources at a rate of 1:2.8 MTF dispositions and outpatient visits All scenarios depicting the elimination of inpatient services at any MTF assume that sufficient personnel and funding resources remain to provide outpatient, diagnostic, ancillary, and referral services commensurate with the remaining mission.

The elimination of inpatient services would result in a 100 percent reduction in personnel supporting the inpatient services. A portion of these personnel would transfer with associated funding to other MTFs to provide the inpatient care formerly performed or subsequently referred by the realigning MTFs.

For Fort Lee, the costing assumes that the fiscal year 1994 dispositions would transfer to outside sources at the tradeoff factor rates shown above.

For Fort Meade, the costing assumes 85 percent of the fiscal year 1994 dispositions would transfer to Walter Reed Army Medical Center (WRAMC); the remaining 15 percent would live a significant distance outside the WRAMC catchment are to warrant their seeking care through CHAMPUS; i.e., the CHAMPUS deductible/copay would be less the cost/inconvenience of traveling to WRAMC.

3. Please explain why the Army accepted some of the Joint Cross Service Group alternatives but not others?

ANSWER: The Army accepted some JCSG alternatives and not others for operational and financial reasons. DeWitt Army Community Hospital (DACH), Fort Belvoir, VA, is a keystone to the Northern Virginia Primary Care Initiative that provides the area beneficiaries with scarce primary care services so vital to a successful managed care program. The closure or downsizing of DACH to a clinic would not have only jeopardized the primary care initiative (for which DACH received the Vice President's Reinventing Government Award), but might have caused ASD (HA) to loss valuable Congressional support for DoD's TRICARE program. The DACH averages about 42,000 outpatient visits per month, which is greater than the outpatient contribution of Malcom Grow Medical Center (39,000 monthly). Additionally, the realignment of DACH never had a return on investment which was primarily caused by the high increase to the recurring CHAMPUS cost of $23.6 M/year.

Downsizing or closure of Lyster Army Community Hospital (LACH), Fort Rucker, AL, would impact readiness by reducing specialized medical support for the Army Aviation School. The closure or downsizing of LACH to a clinic would force active duty patients (flight students and cadre) to on-post care in Dothan, AL about 45 minutes away. The lack of on-post care would result in high levels of pilot "downtime." Additionally, the realignment scenario never had a return on investment.

Questions Submitted for Major General Blume

1. Based on documents provided to the Commission and discussions between the Commission staff and DoD representatives, it is understood that both the Army and the Navy performed

COBRA analyses for all of the Joint Cross Service Group alternatives, but that the Air Force did not perform any.

Is this correct? If so, why didn't the Air Force do the analyses needed to determine such an important aspect of the feasibility of the alternatives?

ANSWER: Yes, this is correct. The Air Force performed no COBRA analyses on the JCSG alternatives because any list provided by the model at that time was premature. The initial results provided by the model in December did not incorporate (remove) the Services' proposed bases for closure and realignment before it was run. Medical facilities at installations which should have been removed from the model included those at Reese and Kirtland AFBs; Army facilities at Fort McClellan, Fort Ritchie, and Fitzsimmons AMC; and Navy installations at Long Beach, and centers in Kentucky, Indiana, Maryland, New Jersey, and Pennsylvania.

Also, and just as important, the model used by the JCSG needed improvements and enhancements in order to provide an accurate list of alternatives for further discussion. Some of these included correcting the excessive flow of GME beds to OCONUS, disallowing binary constraints to keep a facility open at medical center level, and verifying that MTF data accurately reflected reality.

Did the Air Force actively participate in the Joint Cross Service Group effort?

ANSWER: Yes, officers from the Air Force Surgeon General's office participated in the Joint Cross Service Group effort; however, this involvement should not be interpreted as Air Force endorsement of the final results. The alternatives produced by the Joint Cross-Service Group would require review against the total Air Force installation BRAC evaluation and recommendations.

If the Air Force wasn't going to consider the Joint Cross Service Group alternatives, why did the Joint Cross Service Group bother to consider Air Force Hospitals at all?

ANSWER: The Air Force would have considered the Group's alternatives if the model had incorporated each of the Services' proposed bases for closure and realignment made in this round. But, since these alternatives were based on the current base structure and did not factor in the Services' BRAC 95 recommended closures and realignments, it was considered premature to pursue any action on this list of alternatives. Improving and enhancing the model, then returning it with the '95 BRAC basis included, would have certainly provided a worthwhile bases from which to discuss potential rightsizing actions and how best to meet the needs of our beneficiary population.

Additionally, and for your consideration, the Air Force prefers to facilitate medical mission changes programmatically rather than through the BRAC process in order to maintain a degree of flexibility in sculpting its future medical force. Flexibility is important in implementing TRICARE initiatives and delivery of health care to all beneficiaries. The Air Force advocates aggressive efforts in rightsizing its medical facilities based on its readiness

mission, along with TRICARE, through a strategic resourcing methodology. This methodology forges the results of a population-based, demand projection, business-case analysis with capitated-based resource allocation and incorporates best business practices to culminate in the most effective and efficient use of health care resources. Using these tools will methodically and purposely eliminate duplication of services and provide for an optimum product-line and personnel mix.

Question Submitted for Mr. Nemfakos

1. Please explain why the Navy did not accept either of the two Naval Hospital realignment alternatives on the Joint Cross Service Group list?

ANSWER: The alternative to realign Naval Hospital Beaufort to a clinic is not a feasible alternative. Navy Medicine has an obligation to support the operational requirements of the Fleet and Fleet Marine Force. Analysis showed the local civilian health care infrastructure has insufficient accredited inpatient and critical care capability to support the Marine Corps training operations at Parris Island and the Marine Corps Air Station at Beaufort. Naval Hospital Beaufort is the only hospital in the area with adequate inpatient and critical care capability to support any significant operational mishap. Therefore, realigning Naval Hospital Beaufort to an outpatient clinic would require the transfer of military medical personnel to a nearby Military Treatment Facility to meet inpatient care needs of the active duty population in the Beaufort area. Since there will be no savings associated with the elimination of military end strength and there will be increased CHAMPUS costs in the Beaufort area with the loss of military inpatient care capability, this alternative produces no savings for the Department of the Navy.

Although the alternative to realign Naval Hospital Corpus Christi to a clinic was cost effective, it is not feasible due to the personnel demographics of the area. The Naval Hospital Corpus Christi will provide care for the mine warfare helicopter assets relocating to Naval Air Facility Corpus Christi in support of the Mine Warfare Center of Excellence and for the strike training units being consolidated at Kingsville-Corpus Christi. Consequently, while the 1995 actions eliminate from Naval Air Station Corpus Christi the students who traditionally do not have their dependents with them during flight training, they bring in active duty members with their dependents who will all require medical care.

LABORATORY AND TEST AND EVALUATION

LABORATORY

QUESTIONS FOR THE RECORD

1. Dr. Dorman, please explain the context in which your group proposed the closing of Rome Lab and the alternative for cross service collocation of common Command, Control, Communications, Computers, and Intelligence (C4I) activities at Fort Monmouth.

ANSWER: The Laboratory Joint Cross Service Group actually proposed the collocation of most common C4I activities (acquisition, R&D, in service engineering and procurement). During our analysis it became evident that Ft. Monmouth was the only installation with the capacity to accommodate C4I activities from all three services. We realized that such a proposal, in spite of its inherent contribution to joint warfighting and quality, might not prove cost effective or might conflict with service unique goals. Therefore, we identified four elements of C4I consolidation that made sense from a functional and technical perspective:

a. Realign C4I functions of the Space and Naval Warfare Systems Command (SPAWAR; appropriate portions of Codes 00, 05 and staff, 01, 02, and 10; the PEO for Space, Communications and Sensors; and PDs 50 and 60 [to be PD 70]) to Fort Monmouth, NJ (collocate with U.S. Army Communications and Electronics Command [CECOM]), or to Hanscom AFB, MA (collocate with U.S. Air Force Electronic Systems Command [ESC]).

b. Realign ESC, Hanscom AFB, MA to Ft. Monmouth, NJ (collocate with CECOM and potentially SPAWAR at Ft. Monmouth).

c. Realign Rome Laboratory, Griffiss AFB, NY to a combination of Naval Command, Control, and Ocean Systems Center RDT&E Division (NRaD), San Diego, CA; Communications RDEC, Ft. Monmouth, NJ; Topographic Engineering Center, Ft Belvoir, VA; and Wright Laboratory, Wright-Patterson AFB, OH.

d. Realign Rome Laboratory, Hanscom AFB, MA to NRaD, San Diego, CA; or to CECOM Communications RDEC, Ft Monmouth, NJ (or to Rome Laboratory, Griffiss AFB, NY, if it remains in place).

We used the word realign rather than close in these alternatives because each Military Department could elect to maintain other, service unique, functions at these bases.

2. Dr. Dorman, what organizations and how many personnel would have been located at Fort Monmouth under this alternative?

ANSWER: Our analysis was based on the certified data provided by the MILDEPs, and the following assumptions:

- attrition and force structure reductions will reduce the current fiscal year workforce by at least an additional 20% over the implementation period. (this is less than the "FR-20%" used for detailed analyses of Common Support Functions)
- Selected support functions (non-S&T; e.g. legal, contracting support) could be reduced an additional 10 to 20 percent.
- Base Operations Support (BOS) would not move.

The functions/organizations and personnel which could collocate at Fort Monmouth under these assumptions are:

Organization	Personnel
SPAWAR (appropriate functions)	800
ESC, Hanscom	1,500
Rome, Hanscom	80
Rome, Griffiss	680

We believe these numbers are conservative. They account only for Full Time Equivalent (FTE) reductions comparable to those assumed for our detailed analyses of Common Support Functions. Additional savings should be achievable (i.e. less people moved) as a result of programmatic and technical commonalties identified during detailed implementation planning.

Our data indicated that Fort Monmouth could accommodate 1,085 workyears with little or no modification, and an additional 2,200 with renovation and conversion of existing facilities.

3. Dr. Dorman, as you know, Rome was designated as one of the Air Force's four Tier I laboratories. As Director of Defense Research and Engineering, are you concerned that closing the lab and moving some of its C4I functions to Fort Monmouth and the others to Hanscom Air Force Base will have a major impact on the DoD's and the Services' ability to conduct current and further C4I research and development?

ANSWER: No, I think that collocating common C4I work among the services will strengthen our warfighting capability by improving interoperability as well as help avoid unnecessary and costly duplication of research staffs and projects. Much of the work in C4I is done by industry. I am more concerned that the services will be left with excessive infrastructure after this round of base closures. As funding declines this infrastructure will consume resources which would better serve our national defense by sustaining and leveraging the private sector.

The Laboratory Joint Cross-Service Group actually recommended the collocation of most common C4I functions from all services as described in my answer to an earlier question (#1). The services found the cost of this alternative prohibitive based on COBRA analyses.

4. Dr. Dorman, does it make sense to split Rome Lab's C3I functions between two military installations?

ANSWER: Yes. The Laboratory Joint Cross-Service Group actually recommended that the Air Force could place appropriate functions of Rome Lab at a combination of Naval Command, Control, and Ocean Systems Center RDT&E Division (NRaD), San Diego, CA; Communications RDEC, Ft. Monmouth, NJ; Topographic Engineering Center, Ft Belvoir, VA; and Wright Laboratory, Wright-Patterson AFB, OH.

These other locations do science and technology similar to that done at Rome, with greater "center of mass" in their areas of expertise. As stated in the previous question (#3), I think that collocating common C4I work among the services would strengthen our warfighting capability by improving interoperability and would help avoid unnecessary and costly duplication of research staffs and projects.

The question is whether to collocate common C4I functions at functional "centers of excellence", if you will, versus collocating C4I functions within each service. I happen to believe that the Department can improve joint warfighting capability as well as reduce infrastructure by doing the former.

5. General Blume, how did the Air Force determine the cost and savings of the Rome Laboratory recommendation? Did anyone from the Air Force involved in the decision to close the lab and realign its functions visit the lab before the recommendation was made to: (1) discuss these actions with the lab's managers, (2) evaluate the impact of these actions on the lab's current and future C4I work, (3) determine the Lab's requirements at the receiving locations, and (4) determine what had to be moved to the new location and at what cost?

ANSWER: The costs and savings associated with the Rome Lab recommendation were developed using COBRA based on certified data, originated at Rome Lab, that went through the Air Force Internal Control Plan process. Additionally, a preliminary site survey was conducted in January 1995 by AF/CE and RT personnel. The proposed actions were discussed with the Rome Lab Commander prior to the recommendation being finalized. The allocation of the Rome Lab activities were developed in discussions with the SECAF, AF/CV and the BCEG based on the impact to future C4I work.

6. Major General Blume, during the Commission's visit of Brooks, the San Antonio community presented a plan to establish a cantonment area, close Brooks, and preserve the functions of the Human Systems Center, that is, Armstrong Laboratory, the School of Aerospace Medicine, and other related activities.

Had the Air Force considered this option previously?

How does the Air Force plan to eliminate excess capacity at Wright-Patterson Air Force Base should the San Antonio community proposal be adopted?

ANSWER: The Air Force did not consider this option previously. The Air Force seeks to reduce infrastructure prudently. In the case of Brooks AFB, closure is the preferred approach. We are only now looking at a Brooks AFB cantonment option at the request of the Commission. This option does not represent the Air Force position. The Air Force has not developed any plans on eliminating excess capacity at Wright-Patterson AFB should the San Antonio community proposal be adopted by the Commission.

7. Major General Blume and Dr. Dorman, the current DoD recommendations dictate that the Aircrew Training Research Division of Armstrong Laboratory remain as a stand-alone facility at the closed Williams Air Force Base.

Nearby Luke Air Force Base already conducts the majority of the fighter weapons training for the Air Force, and has a long history of cooperation with Williams.

How strongly did the Air Force consider moving this unique and necessary function from Williams Air Force Base to Luke Air Force Base? Have any COBRA runs performed?

If so, could they be provided to the Commission as soon as possible?

ANSWER: **Maj Gen Blume**. The Air Force gave due consideration to moving this unique and necessary function from Mesa, AZ (formerly, Williams AFB) to Luke AFB among several other options. COBRA runs for this option were accomplished and the COBRA run presented to the BCEG has been attached at **TAB 6**. The recommendation to retain the Division at it's current location continues to take advantage of the considerable resources of Luke AFB but avoids the expenses and disruption associated with the movement of this small, largely civilian operation to Luke AFB.

Dr. Dorman. I cannot answer for the Air Force. As you know, a previous BRAC decision directed the collocation of the Air Crew Training Research Division with similar work of the Army and Navy at Orlando. This was a case where the MILDEPS had agreed to collocate. We did include Williams AFB in our analysis of Training Systems S&T, and found no rationale for recommending a change to the BRAC '91 decision. The Laboratory Joint Cross Service Group's recommended alternative stated:

> 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, and academia.

8. As indicated during the hearing, Dr. Dorman agreed to provide, for the record, what the impact on excess capacity would have been had the Laboratory Joint Cross Service Group's four alternatives been accepted by the separate services within the Department of Defense. Please provide this information for the record.

ANSWER: I must preface this answer by noting that neither lab capacity nor lab requirement are absolute. Capacity consists primarily of current available laboratory workspace, but facilities which could be converted to laboratory workspace and buildable acreage might also be considered when developing closure alternatives. Requirement can be met by both in-house and outsourced work, and is influenced by force structure limits.

Given these caveats, our approach to calculating Excess Capacity (EC) was quite simple. EC was defined as the difference between Functional Capacity (FC) and the projected laboratory workload in the year 2001 (i.e. the goal was to size the infrastructure to meet the workforce projected out to the year when implementation of BRAC '95 recommendations would be complete). FC was defined as the peak workload performed at a laboratory between fiscal years '86 and '93. The laboratories could only certify workload projections or Functional Requirement (FR) through the POM years (at the time of the data call this extended through FY 97). In order to project workload requirement out to FY2001, the LJCSG reduced the FY97 projections from the laboratories by an additional 20%. This 20%, agreed to by all parties, was based on civilian personnel reductions for fiscal years '98 through '01 mandated by the Under Secretary of Defense for Personnel and Readiness. Using these definitions, excess lab capacity is over 47,000 workyears.

The four alternatives provided opportunities for the services to remove a significant portion of the excess capacity by closing installations and filling excess capacity space at receiving sites. If we assume that all recommended moves take advantage of existing or renovated laboratory workspace (as opposed to building new facilities) these four alternatives would remove over 12,000 workyears of excess capacity from the labs. The actual reduction would be somewhat less because some new facilities would have to be built.

The Secretary of Defense's recommendations remove capacity: approximately 4,826 workyears from Air Force (Brooks AFB and Rome Lab; 2,300 from laboratory activities), approximately 4,700 workyears from the Army (ATCOM; 462 from laboratory activities), and over 13,000 workyears from the Navy (17 activities; all laboratory), by closing installations. Not all this capacity will be eliminated due to rehab and new RDT&E military construction at receiving sites: approximately $81 million-Air Force, $24 million-Army, $29 million-Navy.

TEST AND EVALUATION

QUESTIONS FOR THE RECORD

1. Major General Blume, the Joint Cross Service Group stated "electronic combat Test and Evaluation capability at Eglin and China Lake have approximately 85% overlap." One alternative suggested was to move China Lake test assets to Eglin.

Why is the Air Force, in light of this alternative, proposing to move Electronic Combat Testing from Eglin Air Force Base to Nellis Air Force Base?

ANSWER: Analysis showed potential for further consolidation in Electronic Combat (EC). The Air Force pursued this avenue further to include EC open-air range (OAR) consolidation. Since the T&E JCSG had already agreed that the Nellis complex should be filled to capacity before other ranges, the Air Force evaluated realigning the workload from Eglin to Nellis. The results showed this to be a cost-effective relocation.

What will be the cost for the relocation of the Electronics Combat Testing to Nellis Air Force Base?

ANSWER: Current cost is $6.1 million for the relocation of the Electromagnetic Test Environment (EMTE), consisting of 15 threat simulator systems and two EC pod systems. The nine additional threat simulator systems is a product of the site survey conducted by the losing command, HQ AFMC. The current net present value of the costs and savings over 20 years is a savings of $42.1 million.

Will there be a scheduled delay and a negative impact on programs from this proposed move of Electronic Combat Testing to Nellis Air Force Base?

ANSWER: We expect some increase in TDY for collocated units at Eglin to accomplish T&E requiring the full EC OAR capabilities. However, this will be mitigated by leaving EC systems at Eglin to support routine training and armament/weapons. At the same time, there should be less TDY required by units located out West that currently use EMTE at Eglin since they will be able to use Nellis Complex. Even when possible TDY costs for collocated units at Eglin are considered, the realignment provides significant cost savings. Because such a high percentage of the capabilities of the Eglin EC OAR already exists at the Nellis Range Complex, we expect minimal program delays. In addition, the transition plan will ensure that the customer is put first so as to minimize such delays, etc.

Mr. Nemfakos, did the Navy consider the alternative to move China Lake T&E missions primarily to Eglin?

ANSWER: Yes. The Department of the Navy (DoN) considered all recommendations made by the T&E Joint Cross-service Group. Specifically, the movement of T&E functions to Eglin was considered. However, since the China Lake ranges and facilities are used for many other

functions beyond those defined by the T&E JCSG, and since China Lake could not be closed because of its importance to the DoN, the functions remained in place.

2. General Blume, why did the Air Force not implement any of the core alternatives presented by the Joint Cross-Service Group?

ANSWER: The core alternatives were not presented by the T&E JCSG. They were separately proposed by the co-chairs of the JCSG. These alternatives had not been developed jointly and there was no analysis of certified data provided to support them. The Air Force requested the analysis, but none was provided. Without such an analytical basis, the Air Force did not think it appropriate to consider these alternatives. Subsequently, the Air Force completed the T&E JCSG Analysis Plan for the "core" T&E activities, using T&E JCSG certified data and results, which showed only three of the seven proposed alternatives were supported by analysis of certified data.

3. Mr. Nemfakos, why did the Navy not implement any of the core alternatives presented by the Joint Cross-Service Group?

ANSWER: The DoN provided to the Departments of the Army and the Air Force all necessary data to perform timely analyses on core recommendations where Navy sites were losing activities. No further action was requested by the other services. The DoN responded with appropriate information to requests from other services where Navy would be the gaining activity. Analysis on losing sites were to be performed by the losing service. The three "core" DoN sites have the highest Military Value of all DoN technical centers and remain open because of their importance to the DoN.

4. Mr. Nemfakos, did the Navy consider moving the test activities from Pt. Mugu to China Lake or Eglin Air Force Base to eliminate excess test infrastructure?

Would this be the prudent course to follow considering the excess capacity identified by the Joint Cross-Service Group?

ANSWER: Pt. Mugu was already consolidated into China Lake by BRAC-91. While physically separate, the missions of these activities are interdependent, and both the sea range at Point Mugu and the land ranges at China Lake required by the Department. Since the sea range is required for fleet exercises and other functions beyond those defined by the T&E JCSG no workload transfer to Eglin was considered.

5. General Blume, The Joint Cross-Service Group recommended the Air Force Electronic Warfare Evaluation Simulator Activity (AFEWES) at Fort Worth, Texas, and the Real-Time Digitally Controlled Analyzer Processor Activity (REDCAP) at Buffalo, New York (Electronic Combat test simulation systems) be moved to Patuxent River or to Edwards Air Force Base.

The Air Force recommended to move these activities to Edwards Air Force Base. Why?

ANSWER: Realignment of these facilities to Edwards AFB was shown to be more economically feasible then to Patuxent River. For AFEWES, the COBRA analysis showed a return of investment (ROI) period of only 13 years for Edwards vs. 18 years for Pax River. For REDCAP, the ROI for Edwards was only 4 years vs. 6 years for Pax River. Consolidation at Edwards also provides the capability to test bomber-sized aircraft, in addition to fighter-sized aircraft, which is the only capability at Pax River.

Please provide specific information on the methodology the Air Force used for determining projected workloads at the AFEWES and the REDCAP facilities.

ANSWER: The Air Force adopted and used workload projections which had been made by the T&E JCSG in accordance with a jointly developed and approved analysis plan using certified historical workload data submitted by the Services. The JCSG algorithm multiplied the average workload in FY92 and 93 by a workload projection factor. The workload projection factor (0.72) was computed by the OSD comptroller based on the FY95 FYDP.

6. Mr. Coyle, the Joint Cross Service Group on Test and Evaluation put forth the alternative to consolidate Armament/Weapons testing at Eglin Air Force Base eliminating these missions at China Lake and Point Mugu.

Do you still support this alternative?

ANSWER: After reviewing the initial recommendations of the working group that supported the Joint Cross Service Group on Test and Evaluation (JCSG/T&E), we (the JCSG/T&E Co-Chairs) identified several alternatives that appeared to have the potential for further reducing excess capacity. These alternatives were identified without consideration of the potential cost of implementation. The alternative described in Question 6 above was one possible scenario that we identified for reducing excess capacity, principally in Armament/Weapons testing. That scenario was matched with a "counter alternative" scenario to relocate the testing and evaluation workload from Eglin AFB primarily to China Lake and other core sites. These scenarios were identified because the co-Chairmen of the JCSG felt that a significant level of excess capacity continued to exist, and that it was important that the services look at these additional scenarios to determine the cost and benefits of undertaking the added scenarios. Neither scenario was supported as a preferred scenario by the JCSG/T&E -- in fact it was not a foregone conclusion that either scenario would be more cost effective than the status quo even with its excess capacity. Nevertheless, we believed that, because the scenarios offered the potential for significant reductions to excess capacity, they deserved to be more fully analyzed by the services during the analysis and formulation (including costs) of their BRAC recommendations.

7. Mr. Coyle, since you suggested an alternative to consolidate testing at the Eglin Air Force Base Test Range, does the proposed movement by the Air Force of the Electromagnetic Test Environment effort to Nellis Air Force Base eliminate the opportunity to consolidate DoD electronic combat testing?

ANSWER: The Air Force proposal does not eliminate the opportunity to consolidate DoD electronic combat testing. On the contrary, this proposed realignment enhances consolidation of Electronic Combat (EC) testing and training, at Nellis Air Force Base.

As mentioned in response to question 6, the Test and Evaluation Joint Cross-Service Group did not recommend consolidation of testing at Eglin AFB. Rather, we recommended it as one possible scenario worthy of analysis. Electronic combat (EC) testing currently occurs at both Eglin AFB and Nellis AFB (as well as at other locations), and the Air Force recommendation to move the EMTE to Nellis AFB does in fact result in consolidation of EC testing.

8. Mr. Burt, as you indicated during testimony, you agreed to provide, for the record, the percent of excess Test and Evaluation capacity that could be eliminated had the alternatives put forward by the Joint Cross Service Group been adopted. Please provide this information for the record.

ANSWER: The following tables reflect the percentage of excess capacity, by Functional Area and Test Facility Category, under two conditions:

"Baseline" reflects the total excess capacity of existing core and non-core sites prior to any closure or realignment. (Figure 1 at **TAB 7**.)

"Non-Core Realignment" reflects the excess capacity levels which would have resulted from realignment of all the non-core workload to core activities. (Figure 2 at **TAB 7**.)

Four of these non-core sites were included in the Secretary of Defense Recommendations to the Commission: Indianapolis, Warminster, REDCAP, and AFEWES. These represented a reduction of about 49,000 hours of excess capacity from the baseline.

The amount of excess capacity which would have resulted from adoption of one or more of the core alternatives identified by the JCSG co-Chairmen would be dependent on the specific alternative(s) chosen. However, it was not intended that excess capacity in any category be reduced below the level of 25 percent in order to accommodate workload peaks and surge requirements.

LABS, TEST AND EVALUATION
Questions submitted by Representative Smith

1. In studying the catapult and arresting gear testing for aircraft carriers that is performed at Lakehurst, New Jersey, it seems that the Navy concluded that this mission cannot be done today at any other military facility in the world. Having reached that conclusion, why did the Navy decide to move the prototyping and manufacturing of the catapult and arresting gear devices nearly 1,000 miles away to Jacksonville, Florida?

ANSWER: Capacity excess to the planned Force structure requirements exists within the Naval Aviation infrastructure. Critical and unique to carrier aviation is the requirement for Aircraft Launch and Recovery Equipment (ALRE). Initially the Navy considered consolidating the NAWC Lakehurst ALRE capability with existing ALRE capability at NAWC Patuxent River; however, the technical community expressed concern with using the capabilities at NAWC Patuxent River which did not have as extensive testing capabilities and instrumentation. They suggested an enclave be left as a detachment of the parent command at Patuxent River. Based on these technical concerns and the higher costs of replication, a small cantonment was established. The recommendation retains at Lakehurst the critical ALRE engineers with ALRE equipment and testing functions. It does; however, relocate Support equipment full life cycle acquisition functions to NAWC Patuxent River further consolidating Naval Aviation RDT&E and Acquisition and eliminating excess capacity. The Manufacturing and Prototyping functions are transferred to NADEP Jacksonville and consolidated with critical aviation industrial capability, while reducing excess capacity and maintaining critical mass in this functional area.

2. Is it possible that the Navy underestimated the obvious industrial, economic, and performance advantages of manufacturing and prototyping these items where they are tested, as is done today?

ANSWER: The total Naval Aviation infrastructure and requirements were considered. Although some industrial, economic, and performance advantages may be lost by separating ALRE manufacturing and prototyping from the site where they are tested, industrial, economic, and performance advantages are gained by collocating ALRE manufacturing and prototyping within an aviation depot. The closure of NAWC Lakehurst will create efficiencies through the elimination of command and support structure and consolidation of critical aviation functions, and more fully utilizes the capacity and capabilities of major aviation depot activities. The estimated one-time cost to implement this recommendation is $96.9 million, with annual recurring savings after implementation of $37.2 million and a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $358.7 million.

3. One of the alternative recommendations of the Laboratory Cross Service Group was to consolidate the Fixed Flight Subsystems ED work and the Fixed Flight Subsystems ISE work (now done at 9 separate bases) at the Naval Air Warfare Center at Lakehurst. Why were these recommendations made? And why were they not thoroughly explored?

ANSWER: The Laboratory Joint Cross-Service Group (LJCSG) was tasked to provide alternatives to the Military Departments to assist them in their analyses of Common Support Functions (CSFs). Laboratories typically are parts of larger installations, and CSFs represent only a portion of most labs' responsibilities. Therefore, the initial LJCSG recommendations had to be considered by the Military Departments in light of total installation activity (the alternative you reference was among those in this initial set). The LJCSG recognized that only a more macro approach would identify opportunities to eliminate infrastructure through cross-servicing and thus focused efforts on those areas where cross-servicing could be of most benefit. The LJCSG identified a priority set of alternatives for Military Department consideration. It was the intent of the LJCSG that the Military Departments place priority consideration on this set of macro alternatives. These alternatives included the Air Vehicles CSFs. Specifically, the priority alternative concerning Air Vehicles stated:

> Air Vehicles: Both Laboratory and T&E JCSG alternatives retained considerable excess capacity for RDT&E of Air Vehicles. The Military Departments should analyze the consolidation of those laboratory activities and support functions that they are otherwise considering for realignment or closure, on core T&E installations at Edwards Air Force Base (AFB), CA or Naval Air Warfare Center (NAWC), Patuxent River, MD (Fixed Wing Avionics, Flight Subsystems, and Structures); Arnold Engineering Development Center, TN (Propulsion); and Yuma Proving Ground, AZ (Rotary Wing support functions).

This alternative took into consideration the similarity of lab and developmental Test and Evaluation functions and facilities. Further, it recognized that lab functions can often be moved to T&E sites, while the open air range capacity, critical to T&E functions, cannot be moved to lab sites.

Questions submitted by Representative Scarborough

1. The Board of Directors Report of February 1994 addressed the question of consolidating DoD Electronic Combat (EC) Open Air Ranges from three (Eglin, China Lake, and the Nellis complex) to two. The report cited clear financial and capability reasons for closing China Lake's EC open air range and leaving Eglin to complement the Nellis complex. In November 1994, T&E Joint Cross Service Group (JCSG) optimization model output results based upon JCSG-developed functional values, projected workload, and capabilities identified closing China Lake as the DoD alternative to analyze. Similar opportunities appear to exist in Armament/Weapons T&E. These JCSG results were developed by the most knowledgeable individuals in DoD on the T&E issue. It appears that cross-servicing alternatives involving these "core" T&E activities were ground ruled out. Why didn't DoD analyze these cross-service opportunities?

ANSWER: The Board of Directors Report referred to did not constitute certified data for purposes of BRAC, and therefore was not addressed by the JCSG for T&E.

After reviewing the initial recommendations of the working group that supported the Joint Cross Service Group on Test and Evaluation (JCSG/T&E), we (the JCSG/T&E Co-Chairs)

identified several alternatives that appeared to have the potential for further reducing excess capacity. These alternatives were identified without consideration of the potential cost of implementation. This alternative was one possible scenario that we identified for reducing excess capacity. That scenario was matched with an alternative scenario to relocate the testing and evaluation workload from Eglin AFB primarily to China Lake and other core sites. These scenarios were identified because the co-Chairmen of the JCSG felt that a significant level of excess capacity continued to exist, and that it was important that the services look at these additional scenarios to determine the cost and benefits of undertaking the added scenarios. Neither scenario was supported as a preferred scenario by the JCSG/T&E -- in fact it was not a foregone conclusion that either scenario would be more cost effective than the status quo even with its excess capacity. Nevertheless, we believed that, because the scenarios offered the potential for significant reductions to excess capacity, they deserved to be more fully analyzed by the services during the analysis and formulation (including costs) of their BRAC recommendations.

Cross-servicing alternatives for core sites were not, in fact, ground ruled out. Rather, the optimization modelling process was bounded by a number of "policy imperatives" established by the JCSG for T&E, one of which required the process to "Realign / consolidate capabilities, where cost effective, into existing Major Range and Test Facility Base (MRTFB) Activities with open air ranges." Following the formulation of the JCSG's non-core site recommendations, the T&E JCSG co-Chairmen deemed it appropriate to consider still additional reductions in open air range excess capacity, and a series of core site alternatives was developed. One of these was the realignment of all the T&E missions from China Lake to Eglin, while another alternative was the realignment of Eglin's T&E workload primarily to China Lake or other core sites. These alternatives were provided to the Services for consideration in their respective BRAC processes.

2. The 1995 Defense Authorization bill prohibited DoD from spending any money to move Electronic Combat equipment from the Elgin range until DoD delivered an Electronic Combat Master Plan to the Congress. Considering this direction and the JCSG-cited superiority of the Eglin Electromagnetic Test Environment (EMTE) to all other DoD ranges evaluated, why has the Air Force chosen to dismantle the Eglin EMTE and replicate it in the Nellis complex, essentially eliminating forever the opportunity to consolidate DoD EC testing and realize the significant savings the JCSG identified?

ANSWER: The JCSG process did not judge the Eglin Electromagnetic Test Environment (EMTE) as "superior" to all other open air ranges. Neither did it identify significant savings to be realized by consolidating Electronic Combat (EC) testing at Eglin AFB. Eglin achieved a higher activity-level functional value for its overall (i.e. EMTE plus other facilities) capabilities to support EC testing workload. The optimization model was then used to realign workload from non-core sites to MRTFB facilities. Further, as addressed in Question 1, the JCSG co-Chairmen did identify a set of core site scenarios, including the consolidation of testing workload from China Lake primarily to Eglin AFB, as well an as an alternative of realigning testing workload from Eglin primarily to China Lake. These were provided to the military departments for consideration during their processes.

The BRAC 95 recommendation to consolidate certain Electronic Combat test and evaluation activities, including realignment at Eglin AFB, were made pursuant to the requirements of the Defense Base Closure and Realignment Act of 1990, Section 2903. These recommendations, and the consequent elimination of underutilized infrastructure, are expected to generate a relatively high return on the front-end investment needed to implement the recommendations. Including this recommendation in the Secretary of Defense's recommendations to the Base Closure and Realignment Commission does not in itself involve the expenditure of FY95 or prior year funds for the relocation of equipment, and is therefore in compliance with the language of the "Report of the Committee on Armed Services, House of Representatives, National Authorization Act for Fiscal Year 1995." Further, the Department believes that making cost-effective recommendations is consistent with the FY1995 Appropriations Committee Report language requesting the Department to justify any Electronic Combat test facility consolidations on economic grounds.

Questions submitted by Representative Farr

1. As the person responsible for operational testing in DoD, you state in your February 10, 1995 memorandum to the Assistant Secretary of Defense for Economic Security (Economic Reinvestment & BRAC) that the recommendation to realign Fort Hunter Liggett is a "showstopper." Please explain.

ANSWER: To quote from our February 10, 1995 memorandum, our recommendation was that the "Army withdraw (its) proposal to move its test battalion from Fort Hunter-Liggett to Fort Bliss." Perhaps our use of the word "showstopper" was not the best choice. In the theater, a showstopper is applause that is so extended that it stops the show. This was not our meaning. Our memorandum was to convey our feeling that Fort Hunter-Liggett is an especially valuable asset, and that its inclusion on the BRAC list should not be recommended to the Secretary of Defense. Subsequent to our February 10 memorandum, I discussed my concerns with the Army. The Army expressed their view that the operational considerations raised by DOT&E were, in fact, considered in the Army's test planning. In addition, they pointed out that the size of the TEC mission is small and could be realized in the future outside of the BRAC process should the need arise. The recommendation also retains the land at Hunter-Liggett under Army control should the need arise to resume major testing there. I told the Army that I remained skeptical and concerned about the implications of this realignment for future Army testing capability.

2. We understand that there are conditions at Fort Hunter Liggett which enhance it as a site for performing operational testing. These include: a varied terrain, isolation, no artificial light contamination and no radio frequency interference. Do these conditions exist at Fort Bliss? If not, could they be created?

ANSWER: Fort Bliss does not have the quality of terrain, weather, foliage, lack of artificial light contamination, and freedom from radio frequency interference as Fort Hunter-Liggett provide a more realistic environment for Operational Test and Evaluation than that available at Fort Bliss. It would be impractical to "create" these features at Fort Bliss. Instead the testing capabilities from other Army test assets would be used in combination to approximate the

capabilities at Fort Hunter-Liggett. Also the Army proposal provides for future use of Fort Hunter-Liggett when required.

3. From a military value standpoint, is the "laser-safe bowl" (which allows for non-eye safe laser testing in an instrumented valley) at Fort Hunter Liggett a critical component of operational testing?

ANSWER: Yes, modern testing of military systems often involves firing lasers instead of actual bullets or missiles. These laser firings are "paired" with laser receptors on the intended targets to determine if a hit has taken place. Of course, this must be done with the utmost personnel safety. The natural bowl at Fort Hunter-Liggett provides an ideal setting for such tests. Laser firings are conducted at other DoD test ranges but with concomitant restrictions where natural protection is unavailable.

4. Do you think the instrumentation suite (used to monitor and record every player's activity during a test) could be duplicated at Fort Bliss? If so, would it be as effective?

ANSWER: For the right amount of money, the instrumentation at Fort Hunter-Liggett could be duplicated at Fort Bliss. If as good a job were done as has been done at Fort Hunter-Liggett, it could be as effective at Fort Bliss.

5. From a military value standpoint, is Fort Hunter Liggett essential to operational testing to DoD?

ANSWER: Military value was evaluated by the Services, not by the Joint Cross Service Groups (JCSG). Military value -- as determined by the Services -- was considered along with functional values -- determined by the JCSG's -- in the final Service recommendations. Recognizing the special value of Fort Hunter-Liggett, the Army has proposed to continue to test at Fort Hunter-Liggett on a campaign basis. My concern is that moving the test command to Fort Bliss could become a de facto closing from a testing point of view.

Just four years ago, in 1991, the Army consolidated testing activities at Fort Hunter-Liggett because of the higher costs of campaign-style operation. Accordingly, once having moved to Fort Bliss, the Army may find that it is too expensive to return to Fort Hunter-Liggett on a campaign basis.

Questions submitted by Representative Hansen (to Dr. Coyle)

1. Can you explain to the commission your position on the Army's recommendation to realign biological and chemical test and evaluation missions from Dugway Proving Grounds as outlined in the memorandum you signed dated February 10, 1995, to the Assistant Secretary of Defense for Economic Security.

ANSWER: I believe that Dugway is a national asset, in that it is the one place where we currently can conduct comprehensive test and evaluation of chem/bio related items. The Army proposal is to retain this test capability at Dugway.

2. From a military value standpoint, do you feel it is essential to keep chemical, biological, and smoke/obscurant testing at Dugway Proving Grounds rather than moving these missions to Yuma Proving Ground or Aberdeen Maryland?

ANSWER: Military value is a service determination. Nevertheless, as stated in my previous response, I believe Dugway represents a national asset from a chem/bioT&E perspective. The Army recommendations retain this capability at Dugway.

3. Can you outline for the Commission the unique features of Dugway Proving Ground which cannot be replicated elsewhere?

ANSWER: Dugway Proving Ground is the only location where we currently can perform open air Chem/Bio simulant testing. No other DoD location has this mission.

4. In your memo dated February 10, 1995, you indicated that since Dugway conducted chem/bio testing for all of the services, that each of the services would have to sign-off and agree that their services' testing needs could still be met under the Army's recommendation for Dugway. To your knowledge, did the Department of Defense or the Army check with the other services prior to the final recommendation coming forward from the Army?

ANSWER: To the best of my knowledge, they have not. The Army BRAC operated within what they believe to be their authority as a Military Department and the public law regarding the BRAC process. The Army proposal retains the test capability at Dugway for all the Services.

Questions submitted by Senators Mikulski and Sarbanes and Representative Wynn (To Dr. Coyle)

1. During testimony before the Commission on March 1, General Shalikashvili expressed concerns about how the proposed closure of the Naval Surface Warfare Center at White Oak, Maryland, would affect the hypervelocity wind tunnel located there. Do you have similar concerns?

ANSWER: Yes, I do. I have recommended that the wind tunnel facility and a few other relatively unique capabilities at White Oak (e.g., the nuclear effects facility) should be considered to remain available to the DoD.

2. Is it your view that this wind tunnel must continue to stay in operation, either by the Navy, or some other agency, at White Oak or some other location.

ANSWER: We are interested in continued access to the facilities, but the location and ownership should be further considered by the BRAC. Our interest goes to the importance of the capability and how to retain it.

3. Just to clarify, the certified data call responses indicate that the US government has no other wind tunnel with the capabilities of the one at White Oak. Is this the case?

ANSWER: The T&E JCSG data call did not request data on all government wind tunnels. Our data call requested data on T&E facilities in three functional areas which were deemed to be common to the three Services. In their certified data submission, White Oak stated that "The combination of Mach number and altitude simulation, long run-times (0.25 to 15 seconds), and large size (5 foot diameter test section) make this facility unique and critical to the nation. There is no Navy, DoD, NASA or industry facility, existing or planned, which can approach Tunnel 9's capability." Considering all the information we have, both certified and uncertified, we have no basis for questioning that statement.

Additional Questions submitted by Senators Mikulski and Sarbanes

4. Were the hypervelocity wind tunnel and the nuclear weapons effects simulation facility at NSWC White Oak considered by the Test and Evaluation or Laboratory Joint Cross Service Groups?

ANSWER: The Laboratory Joint Cross Service Group did not consider these facilities. These facilities were also not considered by the JCSG for T&E as the certified data indicated that the amount of T&E workload performed was less than 5 percent which qualified as an exclusion from our process. Further, there was no duplication of capabilities apparent, based on certified data provided by the services. Consequently, the facilities were regarded as outside the scope of the JCSG (T&E) -- but within the scope of the Navy BRAC process.

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ASSISTANT SECRETARY OF DEFENSE

3300 DEFENSE PENTAGON
WASHINGTON DC 20301-3300

ECONOMIC
SECURITY

November 23, 1994

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
DIRECTOR, OPERATIONAL TEST AND EVALUATION
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: 1995 Base Realignments and Closures (BRAC 95) -- Policy Memorandum Two -- Joint Cross-Service Group Functional Analysis Process

This memorandum summarizes the process, involving both Joint Cross-Service Groups (JCSGs) and the individual Military Departments, for developing BRAC alternatives in situations involving such common support functions as labs, depots, test & evaluation, undergraduate pilot training and medical facilities.

JCSGs will determine a functional value for each of the common support functions at each activity within their jurisdiction. These functional values will be independent of the military value of any installation, which is separately determined by the Military Departments. The assessments of functional value and assessments of functional capacity and requirements, using certified data, will then be incorporated into JCSG analyses of possible functional closure or realignment alternatives. The JCSG's (which include representatives from the Military Departments) will use their expertise and judgment to develop these functional closure or realignment alternatives.

To assist them as an analytic tool in this process, the JCSGs will use a linear programming optimization model (documentation attached) to the maximum extent possible. The model provides a basis for further analysis and the application of judgment in developing functional alternatives. While the model has value in assessing alternatives for relocations and consolidations of common support functions, it cannot by itself make recommendations regarding closures or realignments of installations. Those can be made only by the Military Departments or the BRAC 95 Review Group, reflecting judgment concerning the military value of installations, based on the final criteria and the six-year force structure plan.

Each JCSG is currently supported in its evaluations by a Joint Cross-Service Working Group (JCSWG), variously referred to as "sub-groups", "study teams" or "technical and support groups." JCSWGs will adapt the linear programming (optimization) model to assist each JCSG in its analysis and aid in developing alternatives. All JCSGs will be supported by a single Tri-Department BRAC Group consisting of representatives from each Military Department, which will execute runs of the linear programming (optimization) model, using certified data, according to the objective functions and policy imperatives provided by the JCSGs and the management controls required by the internal control plan. JCSG alternatives can be derived from any number of combinations of objective functions and policy imperatives as long as they have been previously approved by the Chairman of the BRAC 95 Steering Group.

The Military Departments will conduct their individual BRAC processes in parallel with the JCSG analyses, to determine the relative military value of their installations. JCSG products such as functional value may be used to assist in determining installation military value. If it is useful to a JCSG in developing its alternatives for analysis, a JCSG may solicit the guidance of the Military Departments concerning the military value of installations. It must be recognized that any such guidance must necessarily be preliminary and will not constitute a final determination of military value or of suitability for closure or realignment.

The JCSGs and the Military Departments will then review the sets of optimization model outputs. Working together, the JCSGs and the Military Departments will apply their collective judgment to develop feasible functional alternatives to facilitate cross-service actions that will strive to maximize infrastructure (overhead) reductions at minimal cost. This cooperative work by the JCSGs and the Military Departments should be completed in time for the BRAC 95 Review Group to consider any issues that may be appropriate and to leave sufficient time for the Military Departments to formulate their recommendations. The JCSGs and Military Departments will continue to interact during November and December as the Military Departments consider cross-service alternatives in their respective BRAC analytical processes.

The Military Departments will present their recommendations for closure and realignment to the Secretary of Defense no later than mid-February, 1995. The Military Departments will provide the Secretary of Defense a status report, to include all preliminary closure and realignment candidates, by January 3, 1995. The Office of the Assistant Secretary of Defense for Economic Security will staff the Military Department recommendations within the Office of the Secretary of Defense. The BRAC 95 Review Group or OSD principals may solicit the opinion of or task the JCSG's during this period, if and as appropriate.

The process described above involves appropriate interaction between JCSG and Military Department analyses and permits consideration of joint functional alternatives to be incorporated within the existing BRAC process of the Military Departments. If you have questions concerning the process, please contact Mr. Robert Bayer, Deputy Assistant Secretary of Defense for Installations, 703-697-1771.

Joshua Gotbaum

Attachment

Executive Summary

Background

The Deputy Secretary of Defense established policy for the Department of Defense 1995 base realignment and closure (BRAC 95) process with strong emphasis on cross-service opportunities. This document describes operations and capabilities of the common analytical tool to assist Joint Cross-Service Groups (users) in the development of cross-service alternatives as part of the BRAC process.

Analytical Tool

A standard tool often used to develop optimal solutions to complex allocation problems is the mixed-integer, linear program (MILP). The cross-service analysis of allocations of common support functional requirements to Military Department sites and activities is a complex allocation problem.

The MILP formulation described in this document can be used to develop cross-service functional alternatives. The data elements required for this tool are derived from the certified data available to the user. Policy imperatives and other constraints and considerations can be incorporated into the model to allow the tailoring of formulations to accommodate functional attributes and perspectives.

The tool provides the capability to vary the objective function for a formulation in order to obtain families of solutions. A solution defines a set of functional allocations and identification of sites or activities where cross-service functional workload could be assigned. An objective function that combines military value of sites and activities with functional values is discussed in this document. This particular objective function will tend to consolidate common support functions into high military value sites or activities. At the same time, this objective function will assign common support functions to sites having high functional values. The weighting between these two goals can be parameterized to obtain families of solutions for further consideration.

Second and third best alternatives for a given formulation can be obtained using methods described in this document. These alternatives may be considered as additions to the set for further review.

Other objective functions that the user may wish to consider in addition to the one mentioned above, include minimizing excess functional capacity, minimizing the total number of sites performing cross-service functions, and maximizing the sum of functional values. This tool will also allow the user to explore the sensitivity of the optimal solution for a given formulation to particular model inputs.

The MILP formulation described provides the basic analytical tool to generate cross-service functional alternatives.

Contents

Section		Page
	Executive Summary	1
	User's Guide Organization	3
1	Analytical Methodology Overview	3
2	Data Elements	5
3	Optimization Formulations	5
4	Optimization Examples	10
5	Generating Alternatives	12
6	Optimization Software	13

Appendix		
A	AMPL Model Input File	A-1
B	AMPL Data Input File	B-1

User's Guide Organization

This user's guide provides an overview of the analytical methodology in the next section. That section describes the products of the methodology and discusses terminology relating to what a *site or activity* is relative to a *function*.

Section 2 describes the basic data elements that are used in the methodology. Section 2 also discusses data elements in terms of what these elements are meant to represent.

The different optimization problem formulations that the user may choose to use to explore alternatives are discussed in section 3. These include finding a small set of high military value sites or activities that can perform the functional requirement, minimizing excess capacity, and minimizing the number of sites. All of these formulations are parameterized in such a way that the user can explore trade-offs between different factors, such as military value or excess capacity, and assignments of functional requirement based upon functional value. This section also discusses the incorporation of policy imperatives in the optimization problem formulations.

Section 4 demonstrates the application of each of these formulations to a notional set of data. Section 5 describes the methodology for obtaining the second and third best solutions to a given formulation. Finally, section 6 identifies the commercial software product that was used to solve the optimization example problems. Input files for this solver are included in the appendices.

1. Analytical Methodology Overview

The optimization formulations described in this document require a set of data elements as inputs. All of the formulations require a functional value and functional capacity for each site capable of performing that specific cross-service function. The DoD requirement for each cross-service function is needed. Some of the formulations will also require the military values for each site.

A preliminary formulation that allocates cross-service functional requirements based upon functional capacities and functional value will be conducted. The objective function of this formulation will assign the DoD requirement for each cross-service function to sites or activities having the highest functional value for each function. These assignments will only be constrained by the functional capacities at each site. This analysis will not require the military values for the sites.

The primary formulations optimize the assignment of cross-service functions based upon military values of sites, functional values, and capacities. These formulations are very flexible in that multiple objective functions and policy imperatives modeled as constraints may be used to explore different solutions.

A standard resource allocation tool comprises the core of this analytical approach. A standard tool used to find optimal solutions to complex allocation problems is the mixed-integer, linear program (MILP). Allocation of common support functional requirements to military department sites and activities subject to constraints is a complex allocation problem.

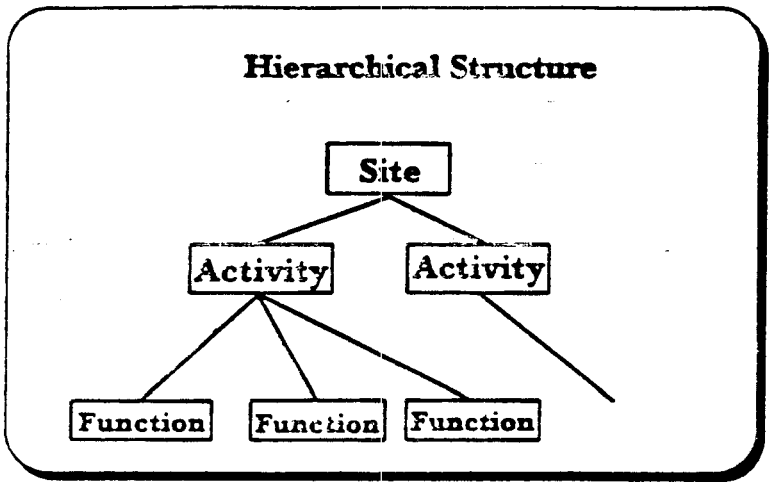
Process Products

The following table lists the various products of the analytical approach defined in this document.

Process products	Description
Capacity analyses	Develop methodology to measure the capacity of a site or activity to perform a function. Use data call responses to calculate capacities.
Requirements analyses	For each function, develop methodology to estimate the out-year DoD requirement to perform the function. Calculate the required capacity and identify excess capacity reduction goals.
Functional value (FV) assessments	Develop measures and weights for assessing the value of performing a function at a site or an activity based upon data call responses. Provide FV for all appropriate functions and site/activity combinations.
Optimize functional requirement allocations (preliminary formulation)	Find the best allocation of functional requirements to sites or activities based solely upon functional capacities and functional values.
Optimize allocations of functional requirements to high military value sites or activities (primary formulations)	Develop solutions based upon the first three products, above, and policy imperatives. Solutions will be developed using the optimization formulations described later in this document as a tool to explore alternatives.

Hierarchical Structure

The Office of the Secretary of Defense (OSD), the departments, and other groups all use different terms to describe the various components of infrastructure that are to be considered by the users. In this document a ***site*** refers to an installation, base, or station. An ***activity*** refers to a component of the site such as depot or test facility residing on the site. A site may have one or more activities. A ***function*** is the capability to perform a particular support action or produce a particular commodity. A common support function is a function. An activity includes a collection of functions. For example, a depot (an activity) may repair engines and airframes. These would be two functions performed at this activity. A function may be further broken down into subfunctions or facilities required to perform functions, but the approach described here does not consider the subfunctions or facilities. Subfunctions or facilities can be incorporated into the process described here if the appropriate data is available. The following diagram illustrates this hierarchical structure.



2. Data Elements

The analytical approach assumes that the following data will be available for all of the sites and functions:

Data Elements	Description
mv_s	Military value of site s expressed as 3 (high), 2 (medium), or 1 (low).
fv_{sf}	Functional value for performing function f at site/activity s expressed as a number from 0 (low) to 100 (high).
cap_{sf}	Capacity of site/activity s to perform function f.
req_f	The total DoD requirement or goal to perform function f.

The military value of a site, mv_s, should measure the overall value of the site.

The fv_{sf} functional value for performing function f at site (or activity) s measures the capability and quality of performing work of type f at site (or activity) s. Capacity to perform a specialized subfunction that is not one of the functions called out in the formulation can be considered in calculating functional value.

3. Optimization Formulations

The mixed integer linear programming (MILP) model formulations, that are described below, serve as the basic analytical tools to assist users in the development of cross-service alternatives, allow for modification of formulations, and incorporation of policy imperatives.[1]

[1]A *policy imperative* is a statement that restricts the solutions that are acceptable and that can be modeled as a constraint in the formulation. An example of a policy imperative is included in one of the examples.

Preliminary Formulation.

The preliminary formulation of the optimization problem will be solved once the initial data (fv_{sf}, cap_{sf}, req_f) are available. This formulation, called **MAXFV** will maximize the functional values weighted by the assigned workload and normalized by the functional requirement. No constraints other than the functional capacities at each site and the requirement to meet the DoD requirement for each cross-service function are included in this formulation. This solution will serve as a baseline of what is possible if no other factors, such as military values of sites or costs, are considered.

For each function, this formulation will load as much of the functional DoD requirement as it can into the site or activity having the highest functional value for that function. If that site or activity does not have the capacity to accommodate the full requirement, the site or activity having the next highest functional value will be allocated any remaining requirement up to its capacity, and so on.

The mathematical description of this formulation follows:

$$\underset{l_{sf}}{Maximize}\ \Sigma_{s\in S}\Sigma_{f\in F}\, l_{sf}\times fv_{sf}/req_f$$

subject to :

$\Sigma_{s\in S}\, l_{sf} = req_f$: for all functions $f \in F$,

$l_{sf} \le k_{sf}\times cap_{sf}$: for all sites $s \in S$ and $f \in F$,

$o_s \le \Sigma_{f\in F}\, k_{sf}$: for all sites $s \in S$,

$k_{sf} \le o_s$: for all sites $s \in S$ and $f \in F$,

$k_{sf} \le \frac{l_{sf}}{\alpha\times cap_{sf}}$: for all functions $f \in F$ and sites $s \in S$,

$0 \le o_s \le 1$, *integer* : for all sites $s \in S$,

$0 \le k_{sf} \le 1$, *integer* : for all sites $s \in S$ and functions $f \in F$;

where

$S =$ The set of all sites under consideration by joint cross-service groups;

$F =$ The set of all functions under consideration by joint cross-service groups;

$o_s =$ 1 if any functional requirement is assigned to the site, and 0 otherwise;

$\alpha =$ 0.01. No assignment of less than one percent of capacity will be allowed.

Decision variable

$l_{sf} =$ amount of the DoD requirement for function f to be assigned to site s.

$k_{sf} =$ 1 if any amount of function f is assigned to site s, 0 otherwise.

The o_s variables are included in this formulation only to keep count of the number of sites that actually have some functional requirement assigned to them. Their inclusion in the model does not affect the assignment of the functional requirement to sites or activities. The two constraints involving the o_s variables are used to ensure that these variables are set to the correct values.

The k_{sf} variables that are structural variables that indicate whether or not any functional workload of type f has been assigned to site s. The α parameter can be used to prevent small functional workload assignments. If α is set to 0.01, then the minimum workload assignment of a function to a site, given that any functional workload for this function is made to this site, would be one percent of that site's capacity to perform that function. The α parameter may be adjusted as required to meet the requirements of the particular user.

Primary Formulations

These formulations explore potential cross-service functional alternatives. The basic formulation is shown below. Specification of the objective function, $f(o_s, l_{tg}, k_{wh})$, will create a different optimization problem.

$$\underset{o_s, l_{tg}, k_{wh}}{Minimize}\ f(o_s, l_{tg}, k_{wh})$$

subject to

$\Sigma_{s \in S}\, l_{sf} = req_f$: for all functions $f \in F$,

$o_s \leq \Sigma_{f \in F}\, k_{sf}$: for all sites $s \in S$,

$0 \leq l_{sf} \leq k_{sf} \times cap_{sf}$: for all functions $f \in F$ and sites $s \in S$,

$k_{sf} \leq o_s$: for all sites $s \in S$ and $f \in F$,

$k_{sf} \leq \frac{l_{sf}}{\alpha \times cap_{sf}}$: for all functions $f \in F$ and sites $s \in S$,

$0 \leq o_s \leq 1$, *integer* : for all sites $s \in S$,

$0 \leq k_{sf} \leq 1$, *integer* : for all sites $s \in S$ and functions $f \in F$,

where

$S =$ The set of all sites under consideration by joint cross-service groups;

$F =$ The set of all functions under consideration by joint cross-service groups;

$\alpha =$ 0.01. No assignment of less than one percent of capacity will be allowed.

Decision variables

$o_s =$ 1 if any cross-service functional requirements are assigned to the site or activity, 0 otherwise;

$l_{sf} =$ amount of the DoD requirement for function f to be assigned to site or activity s.

$k_{sf} =$ 1 if any DoD requirement for function f is to be assigned to site s, 0 otherwise.

Three different optimization formulations that vary only in the specification of the objective function are discussed next.

The MINNMV Formulation. This formulation will find a small number of sites having the highest military value that can accommodate the DoD required workload. In addition, it will assign the DoD requirement for each cross-service function to the retained sites (or activities) having the highest functional value for that function. The purpose of this formulation is to assign, to the extent possible, the cross-service functional requirements to sites or activities having high military value and high functional values. The rationale for this approach is that sites having high military value are the ones most likely to be retained by the military departments. The objective function for this formulation is as follows:

$$\underset{o_s, l_{tg}}{Minimize}\ f(o_s, l_{tg}, k_{uh}) = \left(\frac{w}{u_1}\right) \times \Sigma_{s \in S}\, o_s \times nmv_s - \left(\frac{100-w}{u_2}\right) \times \Sigma_{t \in S} \Sigma_{g \in F}\, l_{tg} \times fv_{tg}/req_g$$

where

$0 \le w \le 100$	Weight parameter used to vary the emphasis between military value and functional value,
$u_1 \ge 0, u_2 \ge 0$	$u_1 = \Sigma_{s \in S}(4 - mv_s),\ u_2 = \Sigma_{f \in F} \max_{s \in S} fv_{sf}$
$nmv_s =$	$4 - mv_s$.

This formulation will be referred to as the **MINNMV** model since it minimizes the sum of $4 - mv_s$ for retained sites or activities. Site or activities having a high military value (3) will have 1 as their value. Site or activities with low military value (1) will have 3 as their value.

The parameters u_1 and u_2 are used to scale the two components of the objective function. Scaling the components of the objective function enhances the ability of the solver to find a solution. Apart from the weight parameters, these scaling parameters will scale the components of the objective function to values near 1.0 .

The weight parameter, w, can be varied to change the emphasis the formulation gives to military value versus functional value. If $w = 0$, this formulation matches the preliminary formulation (**MAXFV**) as site military value would have zero weight. Conversely, if w is set to a large value ($w = 99$), functional value would have little weight. The **MAXFV** and **MINNMV** formulations are the same formulation, only differing in the parameter w . Varying w in the formulation allows the model to be used to create a family of solutions. These points are illustrated by an example in the next section.

The component of the objective function that addresses military value of sites, $\Sigma_{s \in S}\, o_s \times nmv_s = \Sigma_{s \in S}\, o_s \times (4 - mv_s)$, affects the optimal solution as follows. (For this discussion we will ignore the functional value component of the objective function, $-\Sigma_{t \in S} \Sigma_{g \in F}\, l_{tg} \times fv_{tg}/req_g$.) If there were no constraints in the formulation, i.e., satisfy the DoD requirement, the minimum value of the objective function would be achieved by setting

$o_s = 0$ for all sites since $4 - mv_s \geq 1$ for all sites. Given that some sites have to be open, all else being equal, it is better to open a site with $mv_s = 3$ because it increases the objective function by the least amount.

The MINXCAP Formulation. If the parameter w is set to a large value ($w = 99$), this problem formulation will find the set of retained sites having the smallest total functional capacity but still able to perform the DoD functional requirement. Depending on w, functional assignments are also optimized. The objective function for this formulation is:

$$\underset{o_s, l_{tg}, k_{uh}}{Minimize}\ f(o_s, l_{tg}, k_{uh}) = \left(\frac{w}{u_1}\right) \times \Sigma_{s \in S}\, o_s \times (\Sigma_{f \in F}\, cap_{sf}/req_f) - \left(\frac{100-w}{u_2}\right) \times \Sigma_{t \in S} \Sigma_{g \in F}\, l_{tg} \times fv_{tg}/req_g$$

If $w = 0$, this formulation, like the **MINNMV** formulation, is also equivalent to the **MAXFV** formulation. If w is set to a large value, excess capacity is reduced as much as possible without regard to functional values. As in the **MINNMV** formulation, u_1 and u_2 are used to scale the components of the objective function. For this formulation $u_1 = \Sigma_{s \in S} \Sigma_{f \in F}\, cap_{sf}/req_f$. The other scale parameter u_2 is set to the same value for all formulations.

The MINSITES Formulation. This formulation, depending on the value of w, will find the minimum-sized set of site or activities that can perform the DoD functional requirement. As in the previous formulations, if $w = 0$, this formulation is also equivalent to **MAXFV**. The objective function for this formulation is given by:

$$\underset{o_s, l_{tg}, k_{uh}}{Minimize}\ f(o_s, l_{tg}, k_{uh}) = \left(\frac{w}{u_1}\right) \times \Sigma_{s \in S}\, o_s - \left(\frac{100-w}{u_2}\right) \times \Sigma_{t \in S} \Sigma_{g \in F}\, l_{tg} \times fv_{tg}/req_g$$

If w is set to a large value, the cross-service functional workload is assigned to the smallest possible number of sites regardless of functional values. For this formulation $u_1 = |S|$, the number of sites in the set S.

The MAXSFV formulation. This formulation maximizes the sum of the functional values for all of the retained sites. The objective function for this formulation is given by:

$$\underset{o_s, l_{tg}, k_{uh}}{Maximize}\ f(o_s, l_{tg}, k_{uh}) = \left(\frac{w}{u_1}\right) \times \Sigma_{s \in S}(o_s \times \Sigma_{f \in F}\, fv_{sf}) + \left(\frac{100-w}{u_2}\right) \times \Sigma_{t \in S} \Sigma_{g \in F}\, l_{tg} \times fv_{tg}/req_g$$

For this formulation $u_1 = \Sigma_{f \in F} \Sigma_{s \in S}\, fv_{sf}$. If the number of sites to be retained is not constrained, all of the sites will be retained in the solution since the objective function is maximized when $o_s = 1$ for all sites. Obtaining meaningful results with this formulation, therefore, requires a constraint on the number of sites retained.

Policy Imperatives

A policy imperative is any statement that can be formulated as a constraint in the model. The model described here is very flexible in its capacity to handle imperatives. Examples of imperatives that can be modeled include:

- assigning functions in groups,
- increasing the average DoD military value of the sites assigned any cross-service functional workload,
- requiring the weighted functional value for a given common support function to be at least as great as some value,
- limiting the number of sites that have any cross-service functional workload assigned to them,
- requiring that each department's average military value is not allowed to go below some level,
- requiring a certain number of sites in a geographic area to remain open, and
- requiring the distribution of functional workload to follow a certain pattern, e.g., in one department, in one location, or on both coasts.

This is not an exhaustive list of the possibilities for policy imperatives. An example of a policy imperative added to the **MINNMV** formulation is given in the following section.

Consistent Alternatives

The functional data and constraints from all of the users may be combined into a single formulation. In the event that two users obtain solutions that are inconsistent (e.g., the solutions have a site or activity receiving cross-service functional workload in one, and losing all of its cross-service functional workload in the other) this capability can be used to resolve the inconsistency.

4. Optimization Examples

The following examples use representative, notional data to demonstrate the formulations. Three different departments, X, Y, and Z, each have 5 sites (A, B, C, D, and E). Six functions are considered: air vehicles, munitions, electronic combat, fixed-wing avionics, conventional missiles and rockets, and satellites. Table 1 shows the basic data for these sites. Table 1 also shows the DoD requirement by function and the percent of excess capacity. Percent excess capacity is calculated as

$$100 \times \left(\frac{\sum_{s \in S} cap_{sf}}{req_f} - 1 \right).$$

Preliminary Formulation (MAXFV).

Results for the **MAXFV** formulation are shown in table 2. If there is no functional requirement assigned to a site, the capacity for that function is shown as zero at that site even if the site has requirements for other functions assigned. Notice that, for this solution, *all sites have some cross-service functional workload assigned.*

The column in table 2 labeled *Wgt FV* shows the weighted functional value for each function. Wgt FV for function $f \in F = \frac{\sum_{s \in S} fv_{sf} \times req_{sf}}{\sum_{s \in S} req_{sf}}$. Wgt FV is an indicator of the quality of the cross-service allocation of the functional requirement across all sites and activities. The average FV, the weighted average FV, and the weighted percent excess capacity are also shown in the table. These three numbers are gross measures of the quality of the solution.

Primary Formulation (MINNMV).

Table 3 shows the data for the optimal solution to the **MINNMV** formulation with $w = 99$. The number of sites having cross-service functional workload assigned has been reduced from 15 to six. Excess capacity is greatly reduced. The weighted percent excess capacity is only 31 percent compared to 60 for the **MAXFV** formulation. The DoD military value average is increased by 28.8 percent. The military value averages for the two departments with any sites retained have both been increased. The weighted functional value scores are not as good as the scores obtained from the **MAXFV** formulation. The average FV score is almost 14 points lower than for the **MAXFV** formulation.

Primary Formulation (MINNMV) with Policy Imperative

As an example of a policy imperative, consider the following. Suppose the user responsible for the missile function determines that only two sites should perform the conventional missiles and rockets function. The optimal solution to the original **MINNMV** formulation assigned the missile function to four different sites. Modifying the **MINNMV** formulation such that only two sites are allowed to perform the missile function results in the solution shown in table 4. The optimal solution still requires only six sites to perform the cross-service functions, but the sites are different. Only four of the sites are common to both solutions. Since the model has an additional constraint, the average military value has decreased compared to the original **MINNMV** formulation.

Parameterization of the MINNMV Formulation

Table 5 summarizes the results of varying the parameter w in the **MINNMV** formulation over the values 0, 2, 3, 5, 10, 20, 30, 40, 60, and 99 . As is to be expected, the number of sites and activities with cross-service functional workload assigned and weighted functional value decrease as w increases. The average military value generally increases as w increases. Though these results pertain only to this particular example, they clearly illustrate qualitative differences between the **MAXFV** and **MINNMV** formulations. The optimal solutions to the formulation do not change as w varies over the range of 60 to 99.

This example illustrates how the parameter w can be used to generate a family of cross-service functional solutions. For instance, a user with table 5 before him could decide that from this family of solutions, the solution obtained by setting $w = 20$ is worth exploring further since the weighted functional values are very close to the best values obtained in the **MAXFV** formulation and the weighted average percent excess capacity has been reduced from 60 to 17 percent. Table 6 displays the full output from this formulation.

Figure 1 displays this information in graphical form. The figure shows the sharp decrease in the average functional value for conventional missiles and rockets when w is changed from 20 to 30. The figure also displays the increase in average military value that is achieved by using the **MINNMV** formulation.

Primary Formulation (MINXCAP)

Table 7 shows the output of the **MINXCAP** formulation with $w = 99$. As would be expected, this formulation produces a solution that greatly reduces excess capacity, but the weighted functional values have suffered. The weighted average percent excess capacity has been reduced to almost 6 percent.

Primary Formulation (MINSITES)

The results of using the **MINSITES** formulation with $w = 99$ are given in table 8. The optimal solution retains only six sites. The sites are different than the sites retained in the **MINNMV** solution.

Primary Formulation (MAXSFV)

The results of using the MAXSFV formulation with the number of retained sites constrained to be no more than six are displayed in table 9.

Summary of Formulation Results

The following table summarizes the basic statistics for the five formulations.

Statistics	MAXFV	MINNMV	MINXCAP	MINSITES	MAXSFV
Sites retained	15	6	7	6	6
Weighted avg. percent excess capacity	60.37	31.39	6.11	12.14	24.1
Weighted average FV	84.7	73.9	74.2	76.5	62.9
Average military value	2.2	2.83	2	2.67	2.67

5. Generating Alternatives

Alternative solutions, in terms of the retained sites or activities, may be obtained by excluding a set of retained or open sites from a formulation. For example, the optimal solution obtained from the **MINNMV** formulation (see table 3) retains sites XA, XC, XD, ZA, ZB, and ZD. To find another optimal solution with the same objective function value or the next best solution, we define the set $\Delta_1 = \{XA, XC, XD, ZA, ZB, ZD\}$ and add the following constraints to the **MINNMV** formulation:

$\Sigma_{s \in \Delta_1} o_s \leq |\Delta_1| - \alpha$ (condition 1)

$\Sigma_{s \in S-\Delta_1} o_s \geq \beta$ (condition 2)

$\alpha + \beta \geq 1$

$\alpha = 0, 1$ and $\beta = 0, 1$.

A solution that satisfies either condition 1 ($\alpha = 1$) or condition 2 ($\beta = 1$) will be different from the original optimal solution. The formulation given above guarantees that at least one of these two conditions will hold at the optimal solution. The second best solution to the MINNMV formulation is given in table 10. The second-best solution retains sites XC, XD, YC, ZA, ZB, ZD. This solution actually has weighted functional values that are superior to those of the original optimal solution for some of the functions. Comparing values in tables 3 and 10, it would be difficult to argue that the optimal solution is clearly superior to the solution given in table 10.

If we define the set $\Delta_2 = \{XC, XD, YC, ZA, ZB, ZD\}$, then the following formulation can be used to find the third best solution:

$\Sigma_{s \in \Delta_1 \cap \Delta_2} o_s \leq |\Delta_1 \cap \Delta_2| - \alpha$ (condition 1)

$\Sigma_{s \in \Delta_1 \cap \Delta_2} o_s \geq \beta$ (condition 2)

$\left.\begin{array}{l} \Sigma_{s \in \Delta_1 - \Delta_2} o_s \geq \gamma \\ \Sigma_{s \in \Delta_2 - \Delta_1} o_s \geq \gamma \end{array}\right\rangle$ (condition 3)

$\alpha + \beta + \gamma \geq 1$

$\alpha = 0, 1$, $\beta = 0, 1$, and $\gamma = 0, 1$.

Any solution that satisfies any one of the three conditions will be different from the first two solutions. Table 11 shows the third best solution. Comparing table 11 to tables 3 and 10 results in a less compelling case for the strength of the third best alternative. Based upon this type of comparison, the first two solutions would be subjected to further analysis before selecting one as a recommendation.

6. Optimization Software

The solutions to these optimization problems were obtained using the commercially-available, IBM Optimization Subroutine Library (OSL)[2] interfaced with AMPL[3]. The text file describing these formulations in the AMPL format is contained in appendix A. Note that all of the different objective functions are defined in this single text file. This file contains the code required to generate the second and third best alternatives. The AMPL-format data file for the

[2] *Optimization with OSL* by Ming S. Hung, Walter O. Rom, and Allan D. Waren, published by The Scientific Press.

[3] *AMPL: A Modeling Language for Mathematical Programming* by Robert Fourer, David M. Gay, and Brian Kernighan, published by The Scientific Press, 1993.

example is given in appendix B. These files are processed by the AMPL/OSL package to produce the outputs discussed in the examples section of this document.

Table 1. Joint Cross-Service Analysis Example
Basic Data

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Totals
Capacities																
Air vehicles	450	7000	2500	0	0	5000	500	0	0	0	3000	1200	0	2857	0	22,507
Munitions	850	200	4500	0	0	300	0	2000	0	0	1000	0	1000	0	0	9,850
Electronic combat	3000	0	0	0	0	1000	0	0	0	0	2000	0	0	1543	20	7,563
Fixed-wing avionics	0	0	250	3500	0	0	0	400	3500	0	1000	4000	0	2000	500	15,150
Conv. missiles/rockets	0	0	200	0	3000	0	0	200	100	2000	3000	700	200	300	200	9,900
Satelites	0	0	300	4000	0	0	0	500	0	0	250	50	0	300	2200	7,600
Function FV Scores																
Air vehicles	50	70	68	0	0	57	72	0	0	0	81	92	0	66	0	
Munitions	88	71	58	0	0	54	0	88	0	0	72	0	75	0	0	
Electronic combat	67	0	0	0	0	91	0	0	0	0	52	0	0	78	77	
Fixed-wing avionics	0	0	92	94	0	0	0	78	69	0	72	93	0	66	71	
Conv. missiles/rockets	0	0	62	0	89	0	0	59	93	92	56	59	50	65	91	
Satelites	0	0	71	58	0	0	0	64	0	0	85	61	0	73	93	
Department Military Value	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1	

Function	DoD req.	Pct. excess
Air vehicles	9,463	137.8
Munitions	5,503	79.0
Electronic combat	3,234	133.9
Fixed-wing avionics	3,775	301.3
Conv. missiles/rockets	3,743	164.5
Satelites	2,480	206.5

Table 2. MAXFV Model Output

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	7000	0	0	0	0	500	0	0	0	3000	1200	0	2857	0	14557	53.8
Munitions	850	200	4500	0	0	0	0	2000	0	0	1000	0	1000	0	0	9550	73.5
Electronic combat	3000	0	0	0	0	1000	0	0	0	0	0	0	0	1543	20	5563	72.0
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	4000	0	0	0	7500	98.7
Conv. missiles/rockets	0	0	0	0	3000	0	0	0	100	2000	0	0	0	0	200	5300	41.6
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	300	2200	2750	10.9
																Wgt. avg.	60.37
Workload assigned																Totals	
Air vehicles	0	1906	0	0	0	0	500	0	0	0	3000	1200	0	2857	0	9463	
Munitions	850	200	453	0	0	0	0	2000	0	0	1000	0	1000	0	0	5503	
Electronic combat	671	0	0	0	0	1000	0	0	0	0	0	0	0	1543	20	3234	
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	275	0	0	0	3775	
Conv. missiles/rockets	0	0	0	0	1443	0	0	0	100	2000	0	0	0	0	200	3743	
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	30	2200	2480	
Department avg. MV			2.4					1.8					2.4				
Percent change			-0.0					0.0					-0.0				
DoD average MV								2.20									
Percent change								0.0									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	81.2
Munitions	79.6
Electronic combat	79.7
Fixed-wing avionics	93.9
Conv. missiles/rockets	90.8
Satelites	92.0
Average FV	86.2
Weighted avg. FV	84.7

Table 3. MINNMV Model Output

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	0	1	1	0	0	0	0	0	0	1	1	0	1	0	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	0	2500	0	0	0	0	0	0	0	3000	1200	0	2857	0	9557	1.0
Munitions	850	0	4500	0	0	0	0	0	0	0	1000	0	0	0	0	6350	15.4
Electronic combat	3000	0	0	0	0	0	0	0	0	0	0	0	0	1543	0	4543	40.5
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	4000	0	0	0	7500	98.7
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	3000	700	0	300	0	4200	12.2
Satelites	0	0	300	4000	0	0	0	0	0	0	250	50	0	300	0	4900	97.6
																Wgt. avg.	31.39
Workload assigned																Totals	
Air vehicles	0	0	2406	0	0	0	0	0	0	0	3000	1200	0	2857	0	9463	
Munitions	850	0	3653	0	0	0	0	0	0	0	1000	0	0	0	0	5503	
Electronic combat	1691	0	0	0	0	0	0	0	0	0	0	0	0	1543	0	3234	
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	275	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	2543	700	0	300	0	3743	
Satelites	0	0	300	1580	0	0	0	0	0	0	250	50	0	300	0	2480	
Department avg. MV			2.7					0.0					3.0				
Percent change			11.1					-100.0					25.0				
DoD average MV								2.83									
Percent change								28.8									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	80.6
Munitions	65.2
Electronic combat	72.2
Fixed-wing avionics	93.9
Conv. missiles/rockets	57.6
Satelites	64.2
Average FV	72.3
Weighted avg. FV	73.9

Table 4. MINNMV Model with Policy Imerative Output

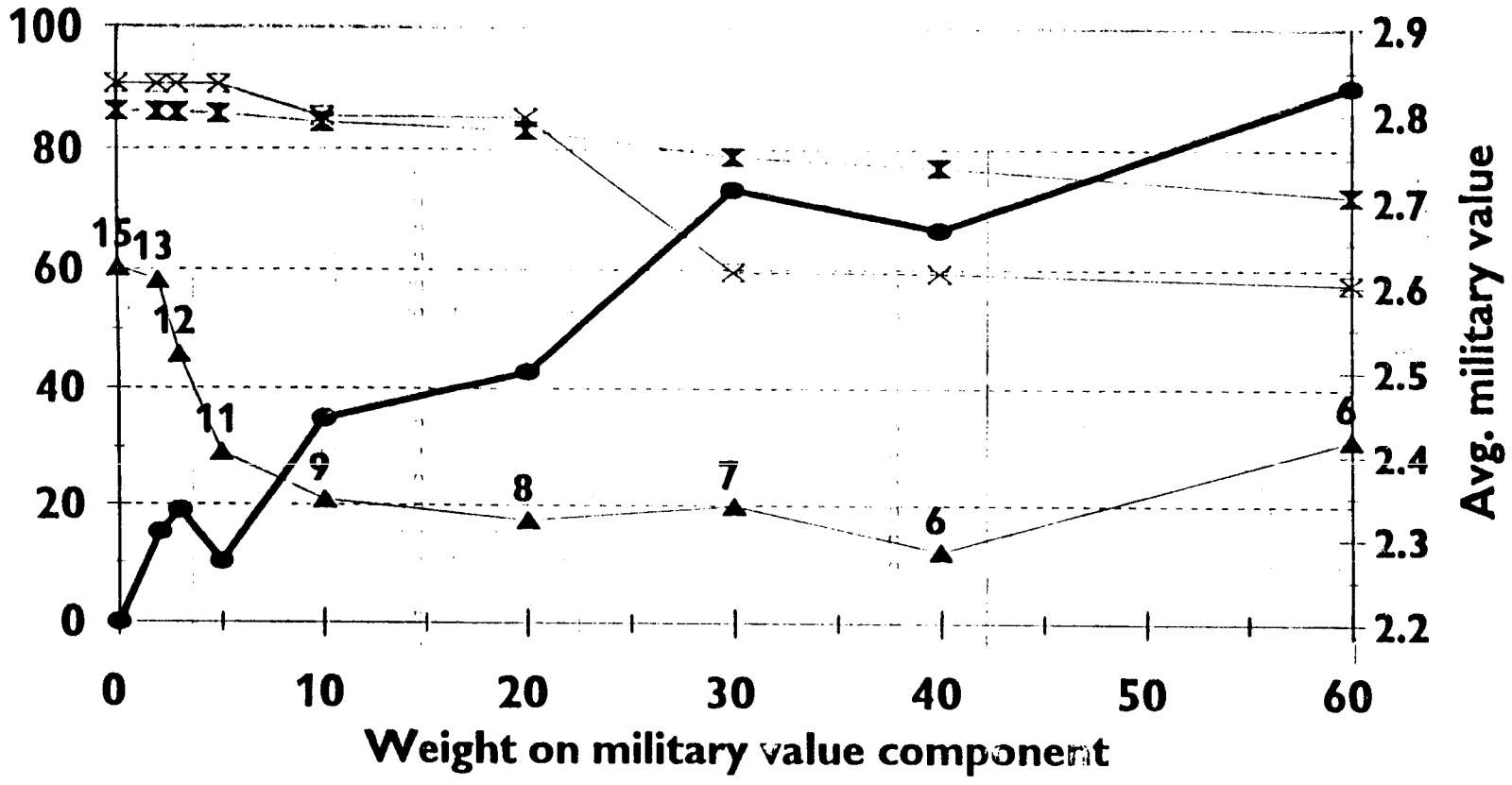
Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	7000	0	0	0	0	0	0	0	0	3000	0	0	2857	0	12857	35.9
Munitions	0	200	4500	0	0	0	0	0	0	0	1000	0	0	0	0	5700	3.6
Electronic combat	0	0	0	0	0	0	0	0	0	0	2000	0	0	1543	0	3543	9.6
Fixed-wing avionics	0	0	250	3500	0	0	0	0	0	0	1000	0	0	0	0	4750	25.8
Conv. missiles/rockets	0	0	0	0	3000	0	0	0	0	0	3000	0	0	0	0	6000	60.3
Satelites	0	0	300	4000	0	0	0	0	0	0	250	0	0	300	0	4850	95.6
																Wgt. avg.	33.70
Workload assigned																Totals	
Air vehicles	0	3606	0	0	0	0	0	0	0	0	3000	0	0	2857	0	9463	
Munitions	0	200	4303	0	0	0	0	0	0	0	1000	0	0	0	0	5503	
Electronic combat	0	0	0	0	0	0	0	0	0	0	1691	0	0	1543	0	3234	
Fixed-wing avionics	0	0	250	3500	0	0	0	0	0	0	25	0	0	0	0	3775	
Conv. missiles/rockets	0	0	0	0	3000	0	0	0	0	0	743	0	0	0	0	3743	
Satelites	0	0	300	1630	0	0	0	0	0	0	250	0	0	300	0	2480	
Department avg. MV			2.3					0.0					3.0				
Percent change			-8.3					-100.0					25.0				
DoD average MV								2.50									
Percent change								13.6									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	78.3
Munitions	61.0
Electronic combat	64.4
Fixed-wing avionics	93.7
Conv. missiles/rockets	82.4
Satelites	64.1
Average FV	74.0
Weighted avg. FV	74.7

Table 5. Parameterization of the MINNMV Model

	Percent of weight on FV									
	0 MAXFV	2	3	5	10	20	30	40	60	99 MINNMV
Sites/activities open	15	13	12	11	9	8	7	6	6	6
Percent excess										
Air vehicles	53.8	48.5	48.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Munitions	73.5	73.5	73.5	69.9	51.7	51.7	51.7	15.4	15.4	15.4
Electronic combat	72.0	72.0	72.0	72.0	72.0	41.1	41.1	41.1	40.5	40.5
Fixed-wing avionics	98.7	98.7	6.0	6.0	6.0	6.0	6.0	6.0	98.7	98.7
Conv. missiles/rockets	41.6	38.9	38.9	38.9	4.2	4.2	22.9	17.6	12.2	12.2
Satelites	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	97.6	97.6
Wgt. avg. % excess	**60.37**	**58.24**	**45.83**	**29.16**	**21.00**	**17.46**	**19.94**	**12.14**	**31.39**	**31.39**
Weighted FV										
Air vehicles	81.2	81.1	81.1	80.6	80.6	80.6	80.6	80.6	80.6	80.6
Munitions	79.6	79.6	79.6	79.2	76.1	76.1	76.1	65.2	65.2	65.2
Electronic combat	79.7	79.7	79.7	79.7	79.7	72.3	72.3	72.3	72.2	72.2
Fixed-wing avionics	93.9	93.9	93.0	93.0	93.0	93.0	93.0	93.0	93.9	93.9
Conv. missiles/rockets	90.8	90.7	90.7	90.7	85.4	85.4	59.6	59.5	57.6	57.6
Satelites	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	84.2	84.2
Average FV	**86.2**	**86.2**	**86.0**	**85.9**	**84.5**	**83.2**	**78.9**	**77.1**	**72.3**	**72.3**
Weighted avg. FV	**84.7**	**84.6**	**84.5**	**84.2**	**82.9**	**82.1**	**78.6**	**76.5**	**73.9**	**73.9**
DoD average MV	**2.20**	**2.31**	**2.33**	**2.27**	**2.44**	**2.50**	**2.71**	**2.67**	**2.83**	**2.83**

Figure 1. Parameterization of MINNMV



Number of sites open are shown as labels on the excess capacity plot.

Avg. percent excess capacity — Average military value

Average FV — Missile/rocket FV

Table 6. MINNMV Model Output with Weight = 20

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	0	1	0	1	0	0	1	0	0	1	1	0	1	1	8	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	0	2500	0	0	0	0	0	0	0	3000	1200	0	2857	0	9557	1.0
Munitions	850	0	4500	0	0	0	0	2000	0	0	1000	0	0	0	0	8350	51.7
Electronic combat	3000	0	0	0	0	0	0	0	0	0	0	0	0	1543	20	4563	41.1
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	4000	0	0	0	4000	6.0
Conv. missiles/rockets	0	0	200	0	3000	0	0	200	0	0	0	0	0	300	200	3900	4.2
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	300	2200	2750	10.9
																Wgt. avg.	17.46
Workload assigned																Totals	
Air vehicles	0	0	2406	0	0	0	0	0	0	0	3000	1200	0	2857	0	9463	
Munitions	850	0	1653	0	0	0	0	2000	0	0	1000	0	0	0	0	5503	
Electronic combat	1671	0	0	0	0	0	0	0	0	0	0	0	0	1543	20	3234	
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	3775	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	3000	0	0	43	0	0	0	0	0	300	200	3743	
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	30	2200	2480	
Department avg. MV			2.3					3.0					2.5				
Percent change			-2.8					66.7					4.2				
DoD average MV								2.50									
Percent change								13.6									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	80.6
Munitions	76.1
Electronic combat	72.3
Fixed-wing avionics	93.0
Conv. missiles/rockets	85.4
Satelites	92.0
Average FV	83.2
Weighted avg. FV	82.1

Table 7. MINXCAP Model Output

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	0	1	0	1	1	1	0	0	0	0	1	0	0	1	7	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	450	0	2500	0	0	5000	500	0	0	0	0	1200	0	0	0	9650	2.0
Munitions	850	0	4500	0	0	300	0	0	0	0	0	0	0	0	0	5650	2.7
Electronic combat	3000	0	0	0	0	1000	0	0	0	0	0	0	0	0	20	4020	24.3
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	4000	0	0	0	4000	6.0
Conv. missiles/rockets	0	0	200	0	3000	0	0	0	0	0	0	700	0	0	200	4100	9.5
Satelites	0	0	300	0	0	0	0	0	0	0	0	0	0	0	2200	2500	0.8
																Wgt. avg.	6.11
Workload assigned																Totals	
Air vehicles	263	0	2500	0	0	5000	500	0	0	0	0	1200	0	0	0	9463	
Munitions	850	0	4500	0	0	153	0	0	0	0	0	0	0	0	0	5503	
Electronic combat	2214	0	0	0	0	1000	0	0	0	0	0	0	0	0	20	3234	
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	3775	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	3000	0	0	0	0	0	0	343	0	0	200	3743	
Satelites	0	0	280	0	0	0	0	0	0	0	0	0	0	0	2200	2480	
Department avg. MV			2.3					1.5					2.0				
Percent change			-2.6					-16.7					-16.7				
DoD average MV								2.00									
Percent change								-9.1									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	64.9
Munitions	62.5
Electronic combat	74.5
Fixed-wing avionics	93.0
Conv. missiles/rockets	84.9
Satelites	90.5
Average FV	78.4
Weighted avg. FV	74.2

Table 8. MINSITES Model Output

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	0	1	0	0	0	0	0	0	0	1	1	0	1	1	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	0	2500	0	0	0	0	0	0	0	3000	1200	0	2857	0	9557	1.0
Munitions	850	0	4500	0	0	0	0	0	0	0	1000	0	0	0	0	6350	15.4
Electronic combat	3000	0	0	0	0	0	0	0	0	0	0	0	0	1543	20	4563	41.1
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	4000	0	0	0	4000	6.0
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	3000	700	0	300	200	4400	17.6
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	300	2200	2750	10.9
																Wgt. avg.	12.14
Workload assigned																Totals	
Air vehicles	0	0	2406	0	0	0	0	0	0	0	3000	1200	0	2857	0	9463	
Munitions	850	0	3653	0	0	0	0	0	0	0	1000	0	0	0	0	5503	
Electronic combat	1671	0	0	0	0	0	0	0	0	0	0	0	0	1543	20	3234	
Fixed-wing avionics	0	0	0	0	0	0	0	0	0	0	0	3775	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	2343	700	0	300	200	3743	
Satelites	0	0	0	0	0	0	0	0	0	0	250	0	0	30	2200	2480	
Department avg. MV			3.0					0.0					2.5				
Percent change			25.0					-100.0					4.2				
DoD average MV								2.67									
Percent change								21.2									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	80.6
Munitions	65.2
Electronic combat	72.3
Fixed-wing avionics	93.0
Conv. missiles/rockets	59.5
Satelites	92.0
Average FV	77.1
Weighted avg. FV	76.5

Table 9. MAXSFV Model Output

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	0	2500	0	0	5000	0	0	0	0	3000	0	0	0	0	10500	11.0
Munitions	0	0	4500	0	0	300	0	0	0	0	1000	0	0	0	0	5800	5.4
Electronic combat	0	0	0	0	0	0	0	0	0	0	2000	0	0	1543	0	3543	9.6
Fixed-wing avionics	0	0	250	0	0	0	0	0	0	0	1000	4000	0	2000	0	7250	92.1
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	3000	700	0	0	0	3900	4.2
Satelites	0	0	0	4000	0	0	0	0	0	0	0	0	0	0	0	4000	61.3
																Wgt. avg.	24.10
Workload assigned																Totals	
Air vehicles	0	0	2500	0	0	5000	0	0	0	0	1963	0	0	0	0	9463	
Munitions	0	0	4500	0	0	300	0	0	0	0	703	0	0	0	0	5503	
Electronic combat	0	0	0	0	0	0	0	0	0	0	2000	0	0	1234	0	3234	
Fixed-wing avionics	0	0	250	0	0	0	0	0	0	0	1000	525	0	2000	0	3775	
Conv. missiles/rockets	0	0	43	0	0	0	0	0	0	0	3000	700	0	0	0	3743	
Satelites	0	0	0	2480	0	0	0	0	0	0	0	0	0	0	0	2480	
Department avg. MV			2.5					2.0					3.0				
Percent change			4.2					11.1					25.0				
DoD average MV								2.67									
Percent change								21.2									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	64.9
Munitions	59.6
Electronic combat	61.9
Fixed-wing avionics	73.1
Conv. missiles/rockets	56.6
Satelites	58.0
Average FV	62.3
Weighted avg. FV	62.9

Table 10. MINNMV Model Output: Alternative 1

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	0	2500	0	0	0	0	0	0	0	3000	1200	0	2857	0	9557	1.0
Munitions	0	0	4500	0	0	0	0	2000	0	0	1000	0	0	0	0	7500	36.3
Electronic combat	0	0	0	0	0	0	0	0	0	0	2000	0	0	1543	0	3543	9.6
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	4000	0	0	0	7500	98.7
Conv. missiles/rockets	0	0	200	0	0	0	0	200	0	0	3000	700	0	300	0	4400	17.6
Satelites	0	0	300	4000	0	0	0	500	0	0	250	50	0	300	0	5400	117.7
																Wgt. avg.	34.41
Workload assigned																Totals	
Air vehicles	0	0	2406	0	0	0	0	0	0	0	3000	1200	0	2857	0	9463	
Munitions	0	0	2503	0	0	0	0	2000	0	0	1000	0	0	0	0	5503	
Electronic combat	0	0	0	0	0	0	0	0	0	0	1691	0	0	1543	0	3234	
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	275	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	0	0	0	200	0	0	2343	700	0	300	0	3743	
Satelites	0	0	300	1080	0	0	0	500	0	0	250	50	0	300	0	2480	
Department avg. MV			2.5					3.0					3.0				
Percent change			4.2					66.7					25.0				
DoD average MV								2.83									
Percent change								28.8									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	80.6
Munitions	71.4
Electronic combat	64.4
Fixed-wing avionics	93.9
Conv. missiles/rockets	57.8
Satelites	65.4
Average FV	72.3
Weighted avg. FV	74.4

Table 11. MINNMV Model Output: Alternative 2

Function	Department X A	X B	X C	X D	X E	Y A	Y B	Y C	Y D	Y E	Z A	Z B	Z C	Z D	Z E	Retained totals	Percent excess
Retain=1, Close=0	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	6	
Department Mil. Val.	3	3	3	2	1	2	1	3	2	1	3	3	2	3	1		
Capacities																	
Air vehicles	0	7000	0	0	0	0	0	0	0	0	3000	1200	0	0	0	11200	18.4
Munitions	850	200	4500	0	0	0	0	0	0	0	1000	0	0	0	0	6550	19.0
Electronic combat	3000	0	0	0	0	0	0	0	0	0	2000	0	0	0	0	5000	54.6
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	4000	0	0	0	7500	98.7
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	3000	700	0	0	0	3900	4.2
Satelites	0	0	300	4000	0	0	0	0	0	0	250	50	0	0	0	4600	85.5
																Wgt. avg.	37.42
Workload assigned																Totals	
Air vehicles	0	5263	0	0	0	0	0	0	0	0	3000	1200	0	0	0	9463	
Munitions	850	200	3453	0	0	0	0	0	0	0	1000	0	0	0	0	5503	
Electronic combat	3000	0	0	0	0	0	0	0	0	0	234	0	0	0	0	3234	
Fixed-wing avionics	0	0	0	3500	0	0	0	0	0	0	0	275	0	0	0	3775	
Conv. missiles/rockets	0	0	200	0	0	0	0	0	0	0	2843	700	0	0	0	3743	
Satelites	0	0	300	1880	0	0	0	0	0	0	250	50	0	0	0	2480	
Department avg. MV			2.8					0.0					3.0				
Percent change			14.6					-100.0					25.0				
DoD average MV								2.83									
Percent change								28.8									

DoD weighted FVs	
Function	Wgt FV
Air vehicles	76.3
Munitions	65.7
Electronic combat	65.9
Fixed-wing avionics	93.9
Conv. missiles/rockets	56.9
Satelites	62.4
Average FV	70.2
Weighted avg. FV	71.6

Appendix A

AMPL Model Input File

```
# JCSG Model Example

# Ronald H. Nickel, Ph.D.
# LTC Roy Rice, USAF

# 8-3-94

set X_sites;          # The set of Department X sites.
set Y_sites;          # The set of Department Y sites.
set Z_sites;          # The set of Department Z sites.

set SITE := X_sites union {Y_sites union Z_sites};
            # The set of all labs and T&E sites.

set EXCLD1 within SITE default {};  # A solution to be excluded.

set EXCLD2 within SITE default {};  # A solution to be excluded.

set EXCLD_INTER := if card(EXCLD2) > 0 then (EXCLD1 inter EXCLD2)
                        else EXCLD1;

set EXCLD_1DIFF2 := EXCLD1 diff EXCLD2;   # Sites in EXCLD1 but not
                                          # in EXCLD2.

set EXCLD_2DIFF1 := EXCLD2 diff EXCLD1;   # Sites in EXCLD2 but not
                                          # in EXCLD1.

set EXCLD_COMPLEMENT := SITE diff (EXCLD1 union EXCLD2);
                # The set of sites not in EXCLD1 or EXCLD2.

param excld_num := max(0,card(EXCLD_INTER)-1);

set FUNC;        # The set of functions.

set SITE_CAP within {SITE, FUNC} ;  # The set of site/function
                        # combinations that are
                        # meaningful.

param CAPAC {SITE_CAP}; # The functional capacity at each site for each
                # meaningful site/function combination.

param no_func := card(FUNC);    # The number of function types.

# Define the set performing missile functions.

set MISSLE_FUNC within {FUNC};

param missile_sites >= 0, default 15;
            # Number of sites allowed to perform the
            # missile function.  Used in the policy
            # imperative example (missile_sites = 3).

param max_sites >= 0, default card(SITE);
            # Number of open sites allowed in the
            # solution.

param REQ {FUNC};   # The DoD requirement for each function.
```

```
param MV {SITE};     # Military value for each site.

param NMV {s in SITE} := 4 - MV[s]; # Negative MV scoring.

param FV {SITE_CAP} >= 0.0; # Functional value by site and function.

param min_assign default 0.001; # Cannot assign less than
                                # min_assign * CAPAC[s,f] of
                                # function f to site s.

#
# Calculate upper bounds for the objective function components.
#

param MINNMV_UB := sum {s in SITE} NMV[s];

param MINSITES_UB := card(SITE);

param MINXCAP_UB := sum {(s,f) in SITE_CAP} CAPAC[s,f]/REQ[f];

param MAXSFV_UB := sum {(s,f) in SITE_CAP} FV[s,f];

param MAXFV_UB := sum {f in FUNC} max {(s,f) in SITE_CAP} FV[s,f];

#
# Use WGT_PCT to weight the functional value and non-functional value
# components of the objective functions.
#

param WGT_PCT >= 0, <= 100, default 99; # Percent of weight to put on
        # non-functional-value portion of the objective function.

param WGT1 := WGT_PCT;  # Weight for non-FV portion of the objective
                # functions.

param WGT2 := 100-WGT1; # Weight for FV portion of the objective functions.

#
# Decision variables
#

var OPEN {SITE} binary >= 0;     # Open or closed decision variable for
                # each site.

var SITE_LOAD {(s,f) in SITE_CAP} >= 0.0, <= CAPAC[s,f];
            # Amount of the requirement for function f to
            # be assigned to site s . Amount assigned
            # is limited by capacity of site s to perform
            # function f.

var SITE_FUNC {(s,f) in SITE_CAP} binary;
            # 1 if any assignment of workload for function
            # f is made to site s; 0 otherwise.

# The following variables, ALPHA, BETA,and GAMMA, are used to find
# alternative solutions.
```

```
var ALPHA binary; # At least one site from the intersection is excluded
                  # from the solution.

var BETA binary;  # At least one site from the complement of the union
                  # is included is included in the solution.

var GAMMA binary; # At least one site from
                  #   EXCLD1 - (EXCLD1 intersect EXCLD2)
                  # and at least one site from
                  #   EXCLD2 - (EXCLD1 intersect EXCLD2)
                  # are included in the solution.

#
# Objective Functions.
#

# Minimize total open site negative military value and
# maximize the normalized FV-weighted assignment of functional workload
# to sites.

minimize MINNMV:
    (WGT1/MINNMV_UB) * sum {s in SITE} OPEN[s]*NMV[s]
    - (WGT2/MAXFV_UB) * sum {(t,g) in SITE_CAP} FV[t,g]
    * (SITE_LOAD[t,g]/REQ[g]);

# Minimize the number of open sites and maximize the normalized
# FV-weighted assignment of functional workload to sites.

minimize MINSITES:
    (WGT1/MINSITES_UB) * sum {s in SITE} OPEN[s]
    - (WGT2/MAXFV_UB) * sum {(t,g) in SITE_CAP} FV[t,g]
    * (SITE_LOAD[t,g]/REQ[g]);

# Minimize total capacity and maximize the normalized FV-weighted
# assignment of functional workload to sites.

minimize MINXCAP:
    (WGT1/MINXCAP_UB) * sum {s in SITE}  OPEN[s] *
        (sum {(s,f) in SITE_CAP} CAPAC[s,f]/REQ[f])
    - (WGT2/MAXFV_UB) * sum {(t,g) in SITE_CAP} FV[t,g]
    * (SITE_LOAD[t,g]/REQ[g]);

# Maximize functional value without workload assignment weightings
# and maximize the normalized FV-weighted assignment of functional
# workload to sites.

maximize MAXSFV:
    (WGT1/MAXSFV_UB) * sum {(s,f) in SITE_CAP} FV[s,f]
    - (WGT2/MAXFV_UB) * sum {(t,g) in SITE_CAP} FV[t,g]
    * (SITE_LOAD[t,g]/REQ[g]);

#
# Constraints
#

# The requirement for each function has to be met.
```

```
subject to func_assgn {f in FUNC}:
    sum {(s,f) in SITE_CAP} SITE_LOAD[s,f] = REQ[f];

# Cannot assign functional workload to a site unless
# the site is open for assignment of that function.

subject to func_open {(s,f) in SITE_CAP}:
    SITE_LOAD[s,f] <= SITE_FUNC[s,f]*CAPAC[s,f];

# Sites with no functional requirement assigned
# are closed.

subject to site_closed {s in SITE}:
    OPEN[s] <= sum {(s,f) in SITE_CAP} SITE_FUNC[s,f];

# Allocation of functional requirements cannot be made
# to sites that are not open.

subject to site_open {s in SITE}:
    sum {(s,f) in SITE_CAP} SITE_FUNC[s,f] <= OPEN[s] * no_func;

# SITE_FUNC variables are set to 0 if little or no functional
# workload is assigned to a site.

subject to site_func_0 {(s,f) in SITE_CAP}:
    SITE_FUNC[s,f] <= SITE_LOAD[s,f]/(min_assign * CAPAC[s,f]);

# This constraint is an example of a policy imperative.
# Constrain the number of sites doing munitions work.
# This constraint only constrains the model if
#
#   missile_sites < card(SITE).

subject to missile_2 {f in MISSLE_FUNC}:
    sum {(s,f) in SITE_CAP} SITE_FUNC[s,f] <= missile_sites;

# This constraint is used to constrain the number of
# open sites in a solution.  max_sites has a default
# value equal to card(SITE), i.e., it does not constrain
# the solution unless max_sites is set to a lower value.

subject to no_sites:
    sum {s in SITE} OPEN[s] <= max_sites;

#
# Exclude solutions defined by the sets EXCLD1 and EXCLD2.
#

subject to alt_opt_cond_1:
    sum {s in EXCLD_INTER} OPEN[s] <= excld_num + 1 - ALPHA;

subject to alt_opt_cond_2:
   sum {s in EXCLD_COMPLEMENT} OPEN[s] >= BETA;

subject to alt_opt_cond_3a:
   sum {s in EXCLD_1DIFF2} OPEN[s] >= GAMMA;
```

```
subject to alt_opt_cond_3b:
   sum {s in EXCLD_2DIFF1} OPEN[s] >= GAMMA;

subject to alt_opt_cond_123:
   ALPHA + BETA + GAMMA >= 1;
```

Appendix B

AMPL Data Input File

```
# Data file for JCSG optimization examples.

# Ron NIckel
# 7-6-94

set X_sites :=
    X_A
    X_B
    X_C
    X_D
    X_E;

set Y_sites :=
    Y_A
    Y_B
    Y_C
    Y_D
    Y_E;

set Z_sites :=
    Z_A
    Z_B
    Z_C
    Z_D
    Z_E;

set EXCLD1 := X_A X_C X_D Z_A Z_B Z_D;

set EXCLD2 := X_C X_D Y_C Z_A Z_B Z_D;

set FUNC :=
    Air_Veh
    Mun
    E_Cmbt
    Avion
    Mis
    Sat;

set SITE_CAP :  Air_Veh Mun     E_Cmbt  Avion   Mis     Sat :=
        X_A             +               +       +               -       -
        X_B             +               +       -               -       -
        X_C             +               +       -               +       +
        X_D             -               -       -               +       -
        X_E             -               -       -               -       +
        Y_A             +               +       +               -       -
        Y_B             +               -       -               -       -
        Y_C             -               +       -               +       +
        Y_D             -               -       -               +       +
        Y_E             -               -       -               -       +
        Z_A             +               +       +               +       +
        Z_B             +               -       -               +       +
        Z_C             -               +       -               -       +
        Z_D             +               -       +               +       +
        Z_E             -               -       +               +       +

# Used to model the policy imperative.
```

```
param CAPAC:    Air_Veh Mun     E_Cmbt  Avion   Mis     Sat :=
        X_A     450             850     3000            .       .       .
        X_B     7000            200     .               .       .       .
        X_C     2500            4500    .               250     200     300
        X_D     .               .       .               3500    .       4000
        X_E     .               .       .               .       3000    .
        Y_A     5000            300     1000            .       .       .
        Y_B     500             .       .               .       .       .
        Y_C     .               2000    .               400     200     500
        Y_D     .               .       .               3500    100     .
        Y_E     .               .       .               .       2000    .
        Z_A     3000            1000    2000            1000    3000    250
        Z_B     1200            .       .               4000    700     50
        Z_C     .               1000    .               .       200     .
        Z_D     2857            .       1543            2000    300     300
        Z_E     .               .       20              500     200     2200;

param FV:       Air_Veh Mun     E_Cmbt  Avion   Mis     Sat :=
    X_A     50              88      67              .       .       .
    X_B     70              71      .               .       .       .
    X_C     68              58      .               92      62      71
    X_D     .               .       .               94      .       58
    X_E     .               .       .               .       89      .
    Y_A     57              54      91              .       .       .
    Y_B     72              .       .               .       .       .
    Y_C     .               88      .               78      59      64
    Y_D     .               .       .               69      93      .
    Y_E     .               .       .               .       92      .
    Z_A     81              72      52              72      56      85
    Z_B     92              .       .               93      59      61
    Z_C     .               75      .               .       50      .
    Z_D     86              .       78              66      65      73
    Z_E     .               .       77              71      91      93;

param REQ :=
    Air_Veh 9463
    Mun             5503
    E_Cmbt  3234
    Avion           3775
    Mis             3743
    Sat             2480;

# Banded military values for each site.
# 3 is good, 1 is bad.

param MV :=
    X_A     3
    X_B     3
    X_C     3
    X_D     2
    X_E     1
    Y_A     2
    Y_B     1
    Y_C     3
    Y_D     2
```

```
Y_E     1
Z_A     3
Z_B     3
Z_C     2
Z_D     3
Z_E     1;
```

2

13:23 4/26/95

Workload - Certified Data

Commodity Group	ANAD	CCAD	LEAD	NAAD	TOAD	Army	ALC-OC	ALC-OG	ALC-SA	ALC-SM	ALC-WR	AMARC	Air Force	MCLB-A	MCLB-B	Marines	NAD-CH	NAD-JX	NAD-NI	NSY-LB	NSY-NF	NSY-PH	NSY-PM	NSY-PS	NSW-CR	NSW-LO	NUW-KP	Navy	TOTAL
1A Air Frames - Rotary		1 871 000				1 871 000											196 442											196 442	2 067 442
1B Air Frames - VSTOL																	19 112											19 112	19,112
1C1 Air Frames-Tr/Tk/Bmb							2,023,204	543 465	621 402	441,201	1,348 984		5 178,256																5,178 266
1C2 Air Frames - C-6&C8							512 342						512 342																$12,342
1C3 Air Frames - J Cbt								680 933		906 983	1,267,168		2 854 685				364 560	356 644	424 219									1,145 422	4 010 106
1C4 AirFrames - Adm/Trng									92				92																92
1D Air Frames - Other																	131 744	465 488	482 370									1 079 602	1 079 602
1 Aircraft Airframes		1 871,000				1,871,000	2,535,546	1,224,398	621,494	1,347,794	2,616,153		8,165,385				711,858	822,132	906,589									2,440 577	12,086,962
2A Comp - Dynamic Comp		861 000				861 000											90 882		31 550									122 432	983 432
2B Comp - Acft Struct		32 000				32 000	333,754	241 310	18 200	156 983	476,571		1,227,798				27 519	51 929	36 729									116 177	1,375 975
2C Comp - Hydraulic/Pneu		114 000				114 000	181 160	13 296	2 979	356 703	133		554 271				38 565	20 198	23 738									82 501	750 772
2D Comp - Instruments		18 000				18,000	263,920	124 280	4 965	192 664	299,296		885 123				10 849	5 675	88 510									105 033	1 008 156
2E Comp - Landing Gear		11 000				11,000		487 904	4 164		904		492 972				8 572	35 549	25 253									69 374	573 346
2F Comp - Avn Ordnance		1 000				1 000		104,219			607		104 826				249	21 438	2 770									24 457	130,283
2G Comp - Avionics/Elec		7 000			271 000		82 619	429 591	30 506	333,938	1,279,888		2 166 541				6 149	95 782	157 288						222 500			482 187	2 926 728
2H Comp - APUs		6,000				6 000		28 636	102 322				131 158				72 474											72 474	208 632
2I Comp - Other		22 000				22 000	131,260	180 260	93 138		279 962		684 620				218 208	87 473	138 914									454 595	1 161,215
2 Aircraft Comp		1,071,000			271,000	1,342,000	1,000,713	1,609,704	267,274	1,040,308	2,337,362		6,247,360				473 465	328,943	504,733						222,500			1,529,236	5,118,596
3A Engines - Aircraft		206,000				206 000	2 307,835	102 409	2 625 971				5 036 015				261 412	370 628										632 040	5 874 055
3B Engines - Ship																			98 380									98 380	98 380
3C Engines - Tank	207 000					207 000																							207 000
3D Engines - Blade/Vnes							78 396						78 396				29 300											29 300	106 696
3 Engines (Gas Turb)	207,000	206,000				413,000	2,384,021	102,409	2,626,971				5,112,411				290,712	370,628	98,380									759,720	6,285,131
4A Missiles - Strategic								673 626	57 467				731 093																731 093
4B Missiles - Tact/MLRS			523 000	49,000	68 000	640 000		180 915			13,146		194 061												37,500			37 500	871 856
4 Missiles & Comp			523,000	49,000	68,000	640,000		854,541	57,467		13,146		925,153												37,500			37,500	1,602,953
5A Amphibians - Vehicle														114,300	140 800	255 100													255 100
5B Amphibians - Cmpnnts														12 100	3 800	15 900													15 900
5 Amphibians														126,400	144,600	271,000													271,000
6A Grnd Cbt Veh - S&Prp			416 000			416 000																							416 000
6B Grnd Cbt Veh - Tanks	1,058,000		1	1,142,000		2 200 000								37,300	16,800	54 100													2,254 100
6C Grnd Cbt Veh - Towed			42 000			42 000									74,700	74 700													116,700
6D Grnd Cbt Veh - Comp				108,000		108,000								12,300	1,800	14 100													120 100
6 Grnd Cbt Vehicles	1,058,000		458,000	1,248,000		2,764,000								49,600	93,300	142,900													3,906,900
7A Comms - Radar					79 000	79 000				430,410	1,125		431,535	29,700	41,400	71 100				13,208	7,340	7,488						27,888	609,670
7B Comms - Radio					667 000	667 000				177,186	31		177,187	109,200	63,300	172 500				9,888		10,483		9,000				29,488	1,046 167
7C Comms - Wire					118 000	118,000				118,262	48		118,329	9,100	100	9,200													245,529
7D Comms - EW					371 000	271,000														59,888		340,378						400,308	771 308
7E Comms - Nav Aids					8 000	8,000				184,644	108		184,748							4,438		16,933	66,979	36,034	[illegible]			125,226	297,977
7F Comms - EOp/NVs										109,118	63		109,178		76,200	76,200				370			34,718	45,042	107,500			187,629	373,308
7G Comms - Satellite										32,271			32,271							370								370	32,641
7H Comms - Crypto					168 000	168,000																							168,000
7 Comm & Electr					1,411,000	1,411,000				1,031,279	1,375		1,033,346	148,000	181,000	329,000				67,316	7,340	375,278	101,699	90,884	162,[illegible]			776,[illegible]	3,549,[illegible]
8 Automotive/Const				17,000		17 000								154 700	109 300	264 000													281 000
8 Auto/Const Equip				17,000		17,000								154,700	109,300	264,000													281,000
9A Tact Veh - Automotive														322 000	297 000	619 000													619 000
9B Tact Veh - Cmpnnts														11 900	2 400	14 300													14 300
9 Tactical Vehicles														333,600	299,400	633,000													633,000
10A GP - Grnd Spt Eq																													0
10B GP - Small Arms	232 000					232 000								246 600	2 800	249 400													481 400
10C GP - Munitions/Ord									1,620				1,620																1,620
10D GP - Grnd Generators										61,624			61,624																61,624
10E GP - Other								119,718					119,718	1,300		1,300													121,018
10 Grnd Gen Purp Items	232,000					232,000		119,718	1,620	61,624			182,962	248,200	2,800	250,700													665,662
11A Sea Sys - Ships															6,000	6,000				2,426,408	6,263,532	2,322,044	2,879,830	8,314,886	6,613			22,341,304	22,348,304
11B Sea Sys - Wpns Sys																				265,471	136,666	129,186			800,230	1,289,240	733,988	2,790,788	2,790,788
11C Sea Sys - Ship Spt																					861,873	107,457	9,083	458,866				1,436,279	1,436,279
11D Sea Sys - Shipyd Spt																				431,088	483,600	181,326	86,020	447,964				1,650,000	1,650,000
11E Sea Sys - Ship Dsgn																					1,234,000		19,829	991,786				2,245,614	2,245,614
11 Sea Systems															6,000	6,000				3,122,[illegible]	8,998,001	2,780,000	3,003,961	10,114,401	803,[illegible]	1,289,240	733,[illegible]	30,300,[illegible]	30,391,[illegible]
12A Software - Tact Sys					8,000	8,000	325,416	652,524	14,176	210,726	888,197		2,091,040																2,099,040
12B Software - Spt Equip							298,840	841,351	184,881	153,688	992,131		1,470,879																1,470,879
12 Software					8,000	8,000	623,[illegible]	893,875	199,[illegible]	364,[illegible]	1,[illegible]		3,561,[illegible]																3,569,[illegible]
13A Spec Int - Bearings		34,000				34,000	18,202	4,818					20,020						26,446	6,715								33 161	67 161
13B Spec Int - Cellbrstn																			40,000									40 000	40 000
13C Spec Int - TMDE					43,000	43,000	30		409,830				409,860				81,700	87,720	98 020	1,318		85,039		45,458				297,755	850,715
13 Spec Internal Items		34,000			43,000	77,000	18,232	4,818	409,830				429,880				81,700	87,720	162,466	[illegible]		85,039		45,463				448,916	967,911
14 Other Commodity										300		109,833	109,331		900	900	104,855	136,140	308,262									549,257	658,588
14 Other Commodity										300		109,833	109,331		900	900	104,855	136,140	308,262									549,257	658,588
15 Assoc Fabric/Manufct					512 000	512,000	98,896	75,849	119,879	354,279	314,861		961,806				45 400	483 904	495 500			31 491		448 604				1,504 919	2,978 725
15 Assoc Fabric/Mfg					512,000	512,000	98,896	75,849	119,879	354,279	314,861		961,806				45,400	483,904	495,500			31,491		448,604				1,504,919	2,978,725
16A Fit Spt - Prod Spt																	503,244	733,359	588 018									1 824 622	1,824 622
16B Fit Spt - Voyage Rpr																		122,700	98,000									220,700	220,700
16C Fit Spt - Cust Svc																		7,866	170,812									178,678	178,678
16 Fleet Support																	503,244	863,914	856,832									2,223,[illegible]	2,223,[illegible]
TOTAL	1,497,000	3,183,000	981,000	1,323,000	2,304,000	9,287,000	8,968,340	4,886,412	4,462,090	4,238,610	6,763,218	109,833	27,119,503	1,000,000	636,000	1,[illegible]	2,211,334	3,082,560	3,332,774	3,[illegible]	9,916,891	3,211,793	3,196,656	10,680,634	679,[illegible]	1,289,240	733,988	48,512,037	78,918,940

ATTACHMENT 2

3

13 29 4/26/95

Excess Capacity (DLH)
Certified Data

Commodity Group	AMAD	CCAD	LEAD	NRAD	TOAD	Army
1A A-Frames - Rotary		50 000				50 000
1B A-Frames - VSTOL						
1C1 A-Frames Tn/Tk/Bmb						
1C2 A-Frames - Cmd&Ctr						
1C3 A-Frames - Lt Ctr						
1C4 A-Frames - Adm Trng						
1D A-Frames - Other						
1 Aircraft Airframes		50 000				50 000
2A Comp - Dynamic Comp		535 000				535 000
2B Comp - Acft Struct		2 000				2 000
2C Comp - Hydraulic/Pneu		5 000				5 000
2D Comp - Instruments		17 000				17 000
2E Comp - Landing Gear		4 000				4 000
2F Comp - Avn Ordnance				80 000		80 000
2G Comp - Avionics/Elec		5 000			119 000	124 000
2H Comp - APUs		2 000				2 000
2I Comp - Other		27 000				27 000
2 Aircraft Comp		597 000		80 000	119 000	796 000
3A Engines - Aircraft		164 000				164 000
3B Engines - Ship						
3C Engines - Tank	109 055					109 055
3D Engines - Blade/Vnes						
3 Engines (Gas Turb)	109 055	164 000				273 055
4A Missiles - Strategic						
4B Missiles - Tact/AL/RS	86 794		948 346	208 000	34 000	1 273 140
4 Missiles & Comp	86 794		948 346	208 000	34 000	1 273 140
5A Amphibians - Vehicle						
5B Amphibians - Components						
5 Amphibians						
6A Grd Cbt Veh - S/Prp			453 364			453 364
6B Grd Cbt Veh - Tanks	1 422 829			1 068 000		2 490 829
6C Grd Cbt Veh - Towed			43 918			43 918
6D Grd Cbt Veh - Comp				19 000		19 000
6 Grd Cbt Vehicles	1,422,829		497,282	1,086,000		3,008,131
7A Comms - Radar					31 000	31 000
7B Comms - Radio					300 000	300 000
7C Comms - Wire					199 000	199 000
7D Comms - EW					220 000	220 000
7E Comms - Nav Aids					11 000	11 000
7F Comms - ETOp/NtVis					8 000	8 000
7G Comms - Satellite					242 000	242 000
7H Comms - Crypto					169 000	169 000
7 Comm & Elect					1,180,000	1,180,000
8 Automotive/Const				86 000		86 000
8 Auto/Const Equip				86 000		86 000
9A Tact Veh - Automotive				276 000		276 000
9B Tact Veh - Components				123 000		123 000
9 Tactical Vehicles				399 000		399 000
10A GP Grnd Spt Eq						
10B GP - Small Arms	46 798					46 798
10C GP - Munitions/Ord	9 000		22 246			31 246
10D GP - Grnd Generators			22 247			22 247
10E GP -Other	20 000		13 242	88 000	303 000	424 242
10 Grnd Gen Purp Items	77,798		57,535	88,000	303,000	526,534
11A Sea Sys - Ships						
11B Sea Sys - Wpns Sys						
11C Sea Sys - Ship Spt						
11D Sea Sys - ShipYd Spt						
11E Sea Sys - Ship Dsgn						
11 Sea Systems						
12A Software - Tact Sys					3 000	3 000
12B Software - Spt Equip						
12 Software					3,000	3,000
13A Spec Int - Bearings		16 000				16 000
13B Spec Int - Calibrsn	3 000			9 000		19 000
13C Spec Int - TMDE					109 000	109 000
13 Spec Interest Items	3,000	16,000		9,000	109,000	136,000
14 Other Commodity					127 000	127 000
14 Other Commodity					127,000	127,000
15 Assoc Fabrc/Manufct					362 000	362 000
15 Assoc Fabrc/Mfg					362,000	362,000
16A Fn Spt - Prod Spt						
16B Fn Spt - Voyage Rpr						
16C Fn Spt - Cust Svc						
16 Fnct Support						
TOTAL	1,700,476	827,000	1,004,481	1,910,000	2,207,000	8,271,000

Commodity Group	ALC-OC	ALC-OO	ALC-SA	ALC-SM	ALC-WR	AMARC	Air Force
1A A-Frames - Rotary							
1B A-Frames - VSTOL							
1C1 A-Frames Tn/Tk/Bmb	255 878	73 984	752 088	377 707	754 980		2 096 667
1C2 A-Frames - Cmd&Ctr	-223 563						-223 563
1C3 A-Frames - Lt Ctr		889 892		553,049	-183,304		1,059 637
1C4 A-Frames - Adm Trng			13				13
1D A-Frames - Other							
1 Aircraft Airframes	32,315	616,908	752,099	930,756	571,676		2,902,753
2A Comp - Dynamic Comp							
2B Comp - Acft Struct	99 854	70 143	71 241	72 218	179 908		493 362
2C Comp - Hydraulic/Pneu	96 571	28 129	546	135 143	40		260 429
2D Comp - Instruments	38 478	87 493	7 531	88 679	112 860		240 207
2E Comp - Landing Gear		540 042	4 133		343		544 518
2F Comp - Avn Ordnance	1 171	314 631			230		316 032
2G Comp - Avionics/Elec	126 878	81 314	88 788	123 084	483 188		880 006
2H Comp - APUs		60 181	185 754				245 935
2I Comp - Other	483 183	312 234	194 538		107 877		1,077 810
2 Aircraft Comp	710,955	1,474,137	530,989	419,124	884,542		4,029,273
3A Engines - Aircraft	190 877	-1 148	2 374 847				2 562 576
3B Engines - Ship							
3C Engines - Tank							
3D Engines - Blade/Vnes	79 571						79 571
3 Engines (Gas Turb)	267,448	-1,148	2,374,847				2,641,147
4A Missiles - Strategic		72 020	51 267				123 287
4B Missiles - Tact/AL/RS		388 292			4 861		393 153
4 Missiles & Comp		460,312	51,267		4,861		516,440
5A Amphibians - Vehicle							
5B Amphibians - Components							
5 Amphibians							
6A Grd Cbt Veh - S/Prp							
6B Grd Cbt Veh - Tanks							
6C Grd Cbt Veh - Towed							
6D Grd Cbt Veh - Comp							
6 Grd Cbt Vehicles							
7A Comms - Radar				271 899	425		272 424
7B Comms - Radio				183 150	12		183 162
7C Comms - Wire				95 251	17		95 268
7D Comms - EW							
7E Comms - Nav Aids				114 410	40		114 450
7F Comms - ETOp/NtVis				71 019	24		71 043
7G Comms - Satellite				140 545			140 545
7H Comms - Crypto							
7 Comm & Elect				886,274	518		886,792
8 Automotive/Const							
8 Auto/Const Equip							
9A Tact Veh - Automotive							
9B Tact Veh - Components							
9 Tactical Vehicles							
10A GP Grnd Spt Eq							
10B GP - Small Arms							
10C GP - Munitions/Ord			1 383				1 383
10D GP - Grnd Generators				39 257			39 257
10E GP -Other		-10 923		61 368			44 462
10 Grnd Gen Purp Items		-10,923	1,383	100,642			90,102
11A Sea Sys - Ships							
11B Sea Sys - Wpns Sys							
11C Sea Sys - Ship Spt							
11D Sea Sys - ShipYd Spt							
11E Sea Sys - Ship Dsgn							
11 Sea Systems							
12A Software - Tact Sys	-61 348	100 331	9 082	190 735	-92 993		118 803
12B Software - Spt Equip	180 918	71 630	82 533	144 814	-81 820		383 975
12 Software	119,570	171,963	91,615	335,549	-174,821		502,774
13A Spec Int - Bearings	-5 672	15 127					9 455
13B Spec Int - Calibrsn							
13C Spec Int - TMDE	3 444		275 005				278 449
13 Spec Interest Items	-2,228	15,127	275,005				287,904
14 Other Commodity				38 673		708 823	747 496
14 Other Commodity				38,673		708,823	747,496
15 Assoc Fabrc/Manufct	86 463	-2 205	297 140	158 566	116 864		656 830
15 Assoc Fabrc/Mfg	86,463	-2,205	297,140	158,566	116,864		656,830
16A Fn Spt - Prod Spt							
16B Fn Spt - Voyage Rpr							
16C Fn Spt - Cust Svc							
16 Fnct Support							
TOTAL	1,192,323	2,719,591	4,348,845	2,877,636	1,423,940	708,823	13,193,000

Commodity Group	MCLB-A	MCLB-B	Marines
1A A-Frames - Rotary			
1B A-Frames - VSTOL			
1C1 A-Frames Tn/Tk/Bmb			
1C2 A-Frames - Cmd&Ctr			
1C3 A-Frames - Lt Ctr			
1C4 A-Frames - Adm Trng			
1D A-Frames - Other			
1 Aircraft Airframes			
2A Comp - Dynamic Comp			
2B Comp - Acft Struct			
2C Comp - Hydraulic/Pneu			
2D Comp - Instruments			
2E Comp - Landing Gear			
2F Comp - Avn Ordnance			
2G Comp - Avionics/Elec			
2H Comp - APUs			
2I Comp - Other			
2 Aircraft Comp			
3A Engines - Aircraft			
3B Engines - Ship			
3C Engines - Tank			
3D Engines - Blade/Vnes			
3 Engines (Gas Turb)			
4A Missiles - Strategic			
4B Missiles - Tact/AL/RS		14 400	14 400
4 Missiles & Comp		14,400	14,400
5A Amphibians - Vehicle	16 800	48 200	64 800
5B Amphibians - Components	1 800	1 200	3 000
5 Amphibians	18,600	49,400	67,800
6A Grd Cbt Veh - S/Prp			
6B Grd Cbt Veh - Tanks	5 400	2 200	7 600
6C Grd Cbt Veh - Towed		14 000	14 000
6D Grd Cbt Veh - Comp	1 800	200	2 000
6 Grd Cbt Vehicles	7,200	16,400	23,600
7A Comms - Radar	4 300	5 700	10 000
7B Comms - Radio	15 900	7 500	23 400
7C Comms - Wire	1 300		1 300
7D Comms - EW			
7E Comms - Nav Aids			
7F Comms - ETOp/NtVis		10 300	10 300
7G Comms - Satellite			
7H Comms - Crypto			
7 Comm & Elect	21,500	23,500	45,000
8 Automotive/Const	22 500	43 900	66 400
8 Auto/Const Equip	22,500	43,900	66,400
9A Tact Veh - Automotive	46 800	35 700	82 500
9B Tact Veh - Components	1 700	300	2 000
9 Tactical Vehicles	48,500	36,000	84,500
10A GP Grnd Spt Eq		4 800	4 800
10B GP - Small Arms	35 900	400	36 300
10C GP - Munitions/Ord		200	200
10D GP - Grnd Generators		1 700	1 700
10E GP -Other	-1 300	5 900	4 600
10 Grnd Gen Purp Items	34,600	13,000	47,600
11A Sea Sys - Ships		400	400
11B Sea Sys - Wpns Sys			
11C Sea Sys - Ship Spt			
11D Sea Sys - ShipYd Spt			
11E Sea Sys - Ship Dsgn			
11 Sea Systems		400	400
12A Software - Tact Sys			
12B Software - Spt Equip			
12 Software			
13A Spec Int - Bearings			
13B Spec Int - Calibrsn			
13C Spec Int - TMDE			
13 Spec Interest Items			
14 Other Commodity	1 800	4 000	5 800
14 Other Commodity	1,800	4,000	5,800
15 Assoc Fabrc/Manufct			
15 Assoc Fabrc/Mfg			
16A Fn Spt - Prod Spt			
16B Fn Spt - Voyage Rpr			
16C Fn Spt - Cust Svc			
16 Fnct Support			
TOTAL	154,500	201,500	356,300

Commodity Group	NAD-CH	NAD-JX	NAD-NL	NSY-LB	NSY-NF	NSY-PH	NSY-PM	NSY-PS	NSW-CR	NSW-LO	NUW-KP	Navy	TOTAL
1A A-Frames - Rotary	269 970											269 970	319 970
1B A-Frames - VSTOL	1 422											1 422	1 422
1C1 A-Frames Tn/Tk/Bmb													2 096 667
1C2 A-Frames - Cmd&Ctr													-223 563
1C3 A-Frames - Lt Ctr	235 332	304 374	321 211									880 917	1 920 454
1C4 A-Frames - Adm Trng			73 695									73 695	73 708
1D A-Frames - Other	115 190	549 088	388 888									1,052 178	1 052 178
1 Aircraft Airframes	621,914	853,462	783,804									2,258,080	5,210,833
2A Comp - Dynamic Comp	19 050		5 291									23 341	558 341
2B Comp - Acft Struct	98	1 354	4 145									5 597	470 959
2C Comp - Hydraulic/Pneu	5 929	7 085	3 910									16 923	272 352
2D Comp - Instruments	1 314	2 627	10 889									14 830	272 037
2E Comp - Landing Gear	902	170	2 138									3 210	551 728
2F Comp - Avn Ordnance	2 439	2 991	857									5 887	401 919
2G Comp - Avionics/Elec	2 983	9 277	4 303						58 314			75 553	1 079 561
2H Comp - APUs	56 403											56 403	304 338
2I Comp - Other	186 834	38 828	20 007									245 469	1 360 279
2 Aircraft Comp	274,631	61,729	51,540						58,314			447,213	5,371,484
3A Engines - Aircraft	96 910	57 378										154 288	2 880 864
3B Engines - Ship			5 193									5 193	5 193
3C Engines - Tank													109 055
3D Engines - Blade/Vnes	2 179											2 179	81 750
3 Engines (Gas Turb)	99,089	57,378	5,193									161,660	3,078,862
4A Missiles - Strategic									22 193			22 193	145 480
4B Missiles - Tact/AL/RS													1 680 793
4 Missiles & Comp									22,193			22,193	1,826,273
5A Amphibians - Vehicle													64 800
5B Amphibians - Components													3 000
5 Amphibians													67,800
6A Grd Cbt Veh - S/Prp													453 364
6B Grd Cbt Veh - Tanks													2 498 429
6C Grd Cbt Veh - Towed													57 918
6D Grd Cbt Veh - Comp													20 000
6 Grd Cbt Vehicles													3,029,731
7A Comms - Radar				61 98	-1,518	5 411						65 757	379 181
7B Comms - Radio				90 614		7 578		1 208				99 400	615 022
7C Comms - Wire													289 568
7D Comms - EW				303 865		246 015						549 701	769 701
7E Comms - Nav Aids				22 490		13 236	13 083	5 072	26 484			80 342	205 792
7F Comms - ETOp/NtVis				1 872			876	6 341	48 200			57 392	143 735
7G Comms - Satellite				1 875								1 875	384 420
7H Comms - Crypto													169 000
7 Comm & Elect				442,603	-1,518	271,243	13,959	12,621	74,684			814,537	2,864,419
8 Automotive/Const													132 400
8 Auto/Const Equip													132 400
9A Tact Veh - Automotive													358 500
9B Tact Veh - Components													125 000
9 Tactical Vehicles													483,500
10A GP Grnd Spt Eq													4 800
10B GP - Small Arms													85 098
10C GP - Munitions/Ord													32 829
10D GP - Grnd Generators													63 204
10E GP -Other													473 405
10 Grnd Gen Purp Items													659,336
11A Sea Sys - Ships				520 350	3 042 888	1,678,317	3,143 587	2,224,955	11,488			10 629 271	10 629 671
11B Sea Sys - Wpns Sys				98 490	65 884	63,391			123,714	527,973	275 851	1 149 953	1,149 953
11C Sea Sys - Ship Spt					-170 583	77,867	20 972	72,188				244	244
11D Sea Sys - ShipYd Spt				802 380	-146 391	138 285	-9 000	88 024				872 356	872 356
11E Sea Sys - Ship Dsgn					-356 088		9 293	80 324				-156 468	-156 468
11 Sea Systems				1,401,120	2,836,304	1,957,860	3,172,742	2,463,491	135,089	527,973	275,851	12,188,380	12,104,756
12A Software - Tact Sys													120 863
12B Software - Spt Equip													383 971
12 Software													504,834
13A Spec Int - Bearings			16	45 73								45 752	69 207
13B Spec Int - Calibrsn			654									654	13 654
13C Spec Int - TMDE	10 379	10 880	26 124	5 812		39 791		6 849				104 395	508 044
13 Spec Interest Items	10,379	10,880	26,794	49,264		39,791		6,849				140,801	590,905
14 Other Commodity	16 484	119,414	56 990						4 988			196 876	1,074 972
14 Other Commodity	16,484	119,414	56,990						4,988			196,876	1,074,972
15 Assoc Fabrc/Manufct	4 022	73,728	5 501			22,733		88 450				174,434	1,171,864
15 Assoc Fabrc/Mfg	4,022	73,728	5,501			22,733		88,450				174,434	1,171,864
16A Fn Spt - Prod Spt	384 456	914,641	526 881									1,825 998	1,825 998
16B Fn Spt - Voyage Rpr		11 849	1 121									13 070	13 070
16C Fn Spt - Cust Svc	4 901	4,746	27 454									37 001	37 001
16 Fnct Support	389,357	931,236	555,456									1,876,069	1,876,069
TOTAL	1,415,773	2,111,866	1,484,792	1,898,787	2,836,530	2,321,866	3,186,771	2,581,430	295,279	527,973	275,851	18,289,891	49,190,139

ATTACHMENT 3

4

DEPOT MAINTENANCE

SUPPLEMENTAL INFORMATION PROVIDED BY THE DEPARTMENT OF THE NAVY

6. Please provide the capacity charts that describe excess capacity with implementation of this BRAC by service, and by depot?

Supplemental Answer:

The excess capacity remaining at NADEP Jacksonville was not determined at this time due to three specific factors. These factors preclude a simple arithmetic determination of remaining excess capacity.

a) After the Joint Cross Service Group-Depot Maintenance data base was locked, two additional sources of core workload were identified: 30,000 DLMHs of F-117 F404 engine workload interserviced from the Air Force; and 48,000 DLMHs of mobile causeways and side warping tugs workload supporting the Maritime Prepositioned Ship (MPS) Program from NAVSEA.

b) The mix of workload being transferred from NAWC Lakehurst, approximately 316,000 DLMHs, consumes the most excess. However, the aircraft launch and recovery, manufacturing and overhaul equipment occupies a greater amount of space with significantly fewer available work positions than the aircraft, engine, and component workload that it replaces. Therefore, a significant amount of additional capacity will be eliminated over and above the additional workload received. The precise impacts will not be determined until specific implementation planning is finalized.

c) Finally, two large hangers included in NADEP Jacksonville's initial capacity calculations are not required and are being returned to the host air station, another divestiture of excess capacity.

7. Cross Service Alternative Two proposes the closure of Naval Shipyards Long Beach and either Pearl Harbor or Portsmouth. Did the Joint Cross Service Group view Pearl Harbor and Portsmouth as equivalent in terms of capability as well as capacity?

No. The JCSG-DM did not have visibility into the capabilities of individual shipyards. All Category #11.a (Sea Systems-Ships) workload was grouped together with no breakout as to ship type, dry dock capability, nuclear versus non-nuclear capability, etc. This alternative, DM2, was generated by the optimization model to minimize excess capacity, and these two shipyards had similar capacity indexes.

8. In both alternatives DM1 and DM2, specific workload transfers are identified for each commodity group except for sea systems. In that case, the alternative states, "Consolidate as possible within the Department of the Navy." Why was the sea systems commodity area proposal not specific concerning workload distribution?

These sea systems commodity areas, unique to the Department of the Navy, offered no interservicing potential. The JCSG-DM was aware that significant differences existed between the individual shipyards, for example, ship type, drydock capability, strategic location, nuclear versus non-nuclear capability, etc., which were beyond the level of detail of the Joint analyses. The JCSG-DM determined that the Department of the Navy was in the best position to reallocate that workload in the most efficient manner based on their future force structure and operational requirements.

5

CHAPTER 3. AIRPORT CAPACITY AND AIRCRAFT DELAY CALCULATIONS

3-1. GENERAL. This chapter contains instructions for calculating hourly capacity, ASV, and aircraft delay for a wide range of runway-use configurations and operational alternatives.

a. Capacity Calculations.

(1) Hourly capacity of the runway component.
(2) Hourly capacity of the taxiway component.
(3) Hourly capacity of gate group components.
(4) Airport hourly capacity.
(5) ASV.

b. Delay Calculations.

(1) Hourly delay.
(2) Daily delay.
(3) Annual delay.

Figure 3-1 provides a checklist of the data required for these calculations. Appendix 2 contains examples of these calculations.

3-2. HOURLY CAPACITY OF THE RUNWAY COMPONENT. Except for situations involving FVC conditions, an absence of radar coverage or ILS, and airports with parallel runways when one runway is limited to use by small aircraft (all of which are covered in chapter 4), calculate the runway component hourly capacity as follows:

a. Select the runway-use configuration in figure 3-2 which best represents the use of the airport during the hour of interest. To adjust for staggered thresholds, see paragraph 4-6.

b. Identify from figure 3-2 the figure number for capacity (for C^*, T, and E).

c. Determine the percentage of Class C and D aircraft operating on the runway component and calculate the mix index.

d. Determine percent arrivals (PA).

e. Determine hourly capacity base (C^*).

f. Determine the percentage of touch and go operations during VFR operations and determine the touch and go factor (T). During IFR operations, T will be 1.00.

g. Determine the location of exit taxiways (measured from the threshold at the approach end of the runway) and determine the exit factor (E).

h. Calculate the hourly capacity of the runway component by the following equation:

$$\text{Hourly capacity of the runway component} = C^* \cdot T \cdot E$$

c. Calculate the component quotients by dividing each components capacity by its demand ratio.

d. Identify the airport hourly capacity, i.e., the lowest quotient calculated in c above.

3-6. ANNUAL SERVICE VOLUME (ASV). Calculate the ASV as follows:

a. Calculate the weighted hourly capacity (C_w) for the runway component as follows:

(1) Identify the different runway-use configurations used over the course of a year.

(2) Determine the percent of time each runway-use configuration is in use (P_1 through P_n). Include those times when the hourly capacity is zero, i.e., the weather conditions are below airport minimums or the airport is closed for other reasons. If a runway-use configuration is used less than 2 percent of the time, that time may be credited to another runway-use configuration.

(3) Calculate the hourly capacity for each runway-use configuration (C_1 through C_n). See section 3-2.

(4) Identify the runway-use configuration that provides the maximum capacity. Generally, this configuration is also the configuration most frequently used.

(5) Divide the hourly capacity of each runway-use configuration by the hourly capacity of the runway-use configuration that provides the maximum capacity.

(6) Determine the ASV weighting factor (W_1 through W_n) for each runway-use configuration from Table 3-1.

Table 3-1. ASV Weighting Factors

Percent of Maximum Capacity	Weighting Factors			
	VFR	IFR		
		Mix Index (0-20)	Mix Index (21-50)	Mix Index (51-180)
91+	1	1	1	1
81-90	5	1	3	5
66-80	15	2	8	15
51-65	20	3	12	20
0-50	25	4	16	25

(7) Calculate the weighted hourly capacity (C_w) of the runway component by the following equation:

$$C_w = \frac{(P_1 \cdot C_1 \cdot W_1) + (P_2 \cdot C_2 \cdot W_2) + \ldots + (P_n \cdot C_n \cdot W_n)}{(P_1 \cdot W_1) + (P_2 \cdot W_2) + \ldots + (P_n \cdot W_n)}$$

variable of interest

b. Calculate the ratio of annual demand to average daily demand during the peak month (D). Typical annual demand to average daily demand ratios are provided in table 3-2.

c. Calculate the ratio of average daily demand to average peak hour demand during the peak month (H). Typical average daily to average peak hour demand ratios are provided in table 3-2.

Table 3-2. Typical Demand Ratios

Mix Index	Daily (D)	Hourly (H)
0-20	320-310	7-11
21-50	300-320	10-13
51-180	310-350	11-15

d. Calculate ASV by the following equation:

$$ASV = C_w \cdot D \cdot H$$

3-7. HOURLY DELAY TO AIRCRAFT ON THE RUNWAY COMPONENT. Hourly delay calculations described in this paragraph apply to those hours when the hourly demand does not exceed the hourly capacity of the runway component. For those hours when the hourly demand exceeds the hourly capacity of the runway component, paragraph 3-9 calculations apply. Calculate hourly delay as follows:

a. Calculate the hourly capacity of the runway component for the specific hour of interest.

b. Identify from figure 3-2 the figure number for delay (for the arrival delay index (ADI) and the departure delay index (DDI)).

c. Identify the hourly demand (HD) and the peak 15 minute demand (Q) on the runway component.

d. Calculate the ratio of hourly demand to hourly capacity (D/C).

e. Determine the arrival delay index (ADI) and departure delay index (DDI).

EXAMPLE 5. Determine the ASV of the example airport assuming there are 219,750 annual operations, 690 average day operations and 30 peak hour operations.

SOLUTION: The work sheet on page 12 illustrates one method of recording data.

1. Calculate C_r.

a. Runway-use Configuration. Identify the different runway-use conditions used over the course of a year and the mix index for each use. Enter in columns 1 through 4.

b. Percent of Use (P). Identify the percent of the time each configuration is used and enter in column 5. The figures shown on the work sheet in column 5 are hypothetical.

c. Runway Hourly Capacity (C). Calculate the hourly capacities of operating conditions as in example 1 and enter in column 6. Example 1 data are used for operating conditions 1 and 2.

d. Maximum Capacity Configuration. Identify the runway-use configuration that provides the maximum capacity.

e. Percent of Maximum Capacity. Divide the hourly capacity of each runway-use configuration by the capacity of the configuration that provides the maximum capacity and enter in column 7.

Operating condition	1	89/89	= 100
" "	2	51/89	= 57
" "	3	62/89	= 70
" "	4	52/89	= 58
" "	5	59/89	= 66
" "	6	46/89	= 52

f. ASV Weighting Factor (W). From Table 3-1, identify the weighting factor (W) for each operating condition and enter in column 8.

Table 3-1. ASV Weighting Factors

Percent of Maximum Capacity	Weighting Factors			
	VFR	IFR		
		Mix Index (0-20)	Mix Index (21-40)	Mix Index (41-100)
91+	1	1	1	1
81-90	5	1	3	5
66-80	15	2	8	15
51-65	30	3	12	30
0-50	35	4	16	35

Figure A2-5. Annual service volume

Operating Condition No.	Method	Day-peak Distance	Mix Index	Percent of Year (%)	Hourly Capacity (C)	Percent Maximum Capacity	Weighting Factor (W)
1	VFR		62	73	39	100	1
2	IFR		91	3	31	57	20
3	VFR		62	5	52	70	15
4	IFR		91	3	32	58	20
5	VFR		62	4	59	66	15
6	IFR		91	4	46	52	20
7	IFR	Below Maximum		3		-	25

Work sheet for ASV factors.

g. Weighted Hourly Capacity (C_w). Calculate the weighted hourly capacity using the following equation:

$$C_w = \frac{(P_1C_1W_1) + (P_2C_2W_2) + \cdots (P_nC_nW_n)}{(P_1W_1) + (P_2W_2) + \cdots (P_nW_n)}$$

$$C_w = \frac{(.74 \cdot 89 \cdot 1) + (.05 \cdot 51 \cdot 20) + (.05 \cdot 62 \cdot 15) + (.05 \cdot 52 \cdot 20) + (.04 \cdot 59 \cdot 15) +}{(.74 \cdot 1) + (.05 \cdot 20) + (.05 \cdot 15) + (.05 \cdot 20) + (.04 \cdot 15) +}$$

$$\frac{(.04 \cdot 46 \cdot 20) + (.03 \cdot 0 \cdot 25)}{(.04 \cdot 29) + (.03 \cdot 25)}$$

$$C_w = \frac{287.56}{5.64} \text{ or 51 operations per hour.}$$ ⟸ Variable of interest

2. Daily Demand Ratio (D). Calculate D using the equation:

$$D = \frac{\text{Annual}}{\text{Average Day-peak month}} = \frac{219,750}{690} = 318$$

3. Hourly Demand Ratio (H). Calculate H from the equation:

$$H = \frac{\text{Average Day-peak month}}{\text{Average Peak Hour-peak month}} = \frac{690}{50} = 14$$

4. Calculate ASV. ASV is calculated from the equation $ASV = C_w \cdot D \cdot H$

$$ASV = 51 \cdot 318 \cdot 14 = 227,052 \text{ operations per year.}$$

5. Conclusion. ASV is an indicator of the annual operational capability of an airport adjusted for differences in hourly capacities which occur over the course of a year. In this example, the airport theoretically could have accommodated and additional 7,302 operations during the year.

Figure A2-5. Annual service volume (cont.)

f. Demand. Demand is the magnitude of aircraft operations to be accommodated in a specified time period.

g. Gate. A gate is an aircraft parking position used by a single aircraft loading or unloading passengers, mail, cargo, etc. A parking position which is regularly used by two aircraft at the same time is two gates for capacity calculations.

(1) Gate type is the size of the gate. A Type 1 gate is capable of accommodating all aircraft, including widebodies such as the A-300, B-747, B-767, DC-10, L-1011. A Type 2 gate will accommodate only non-widebodied aircraft.

(2) Gate mix is the percent of non-widebodied aircraft accommodated by the gate group.

(3) Gate occupancy time is the length of time required to cycle an aircraft through the gate.

h. Mix Index. Mix index is a mathematical expression. It is the percent of Class C aircraft plus 3 times the percent of Class D aircraft, and is written: %(C+3D).

i. Percent Arrivals (PA). The percent of arrivals is the ratio of arrivals to total operations and is computed as follows:

$$\text{Percent arrivals} = \frac{A+\frac{1}{2}(T\&G)}{A+DA+(T\&G)} \times 100, \text{ where}$$

A = number of arriving aircraft in the hour
DA = number of departing aircraft in the hour
T&G = number of touch and go's in the hour

j. Percent Touch and Go's. The percent touch and go's is the ratio of landings with an immediate takeoff to total operations and is computed as follows:

$$\text{Percent touch and go's} = \frac{(T\&G)}{A+DA+(T\&G)} \times 100, \text{ where}$$

A = number of arriving aircraft in the hour
DA = number of departing aircraft in the hour
T&G = number of touch and go's in the hour

Touch and go operations are normally associated with flight training. The number of these operations usually decreases as the number of air carrier operations increase, as demand for service approaches runway capacity, or as weather conditions deteriorate.

k. Runway-use Configuration. Runway-use configuration is the number, location, and orientation of the active runway(s), the type and direction of operations, and the flight rules in effect at a particular time.

6

COBRA REALIGNMENT SUMMARY (COBRA v5.04) - Page 1/2
Data As Of 09:24 12/29/1994. Report Created 11:30 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Factr File : C:\COBRA504\NEWDOD1.SFF

Starting Year : 1996
Final Year : 2001
DOI Year : 2012 (11 Years)

NPV in 2015($K): -2.591
1-Time Cost($K): 15.357

Net Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3.351	1.748	2.331	3.205	1.603	2.331	14.570	0
Person	0	-23	-45	-43	-41	-40	-192	-40
Overhd	11	-123	-345	-524	-783	-1.118	-2.883	-1.379
Moving	30	89	152	182	152	32	638	0
Missio	0	0	0	0	0	0	0	0
Other	0	2	3	4	3	3	15	0
TOTAL	3.393	1.693	2.096	3.824	933	1.208	12.148	-1.419

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	0	0	0	0	0	0	0
Enl	0	0	0	0	0	0	0
Civ	0	1	0	0	0	0	1
TOT	0	1	0	0	0	0	1
POSITIONS REALIGNED							
Off	0	0	1	1	1	2	5
Enl	0	1	2	3	2	2	10
Stu	0	0	0	0	0	0	0
Civ	1	2	5	6	5	4	23
TOT	1	3	8	10	8	8	38

Summary:

CE MILCON numbers used -- 12/29/94
Mesa screen 4 calculated based on Brooks AFB.
No PE data available -- standard 6% cut applied
Used MAJCON unique/moving costs -- no recurring costs for Luke

COBRA REALIGNMENT SUMMARY (COBRA v5.04) - Page 2/2
Data As Of 99:21 12/29/1994. Report Created 21:38 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Factrs File : C:\COBRA504\NEWDCD1.SFF

Costs ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	3.351	1.748	2.331	3.201	1.603	2.331	14.570	0
Person	8	0	1	3	5	7	17	7
Overhd	11	35	55	70	97	117	394	86
Moving	30	89	152	182	152	32	638	0
Missio	0	0	0	0	0	0	0	0
Other	0	2	3	4	3	3	15	0
TOTAL	3.393	1.875	2.543	3.474	1.860	2.490	15.634	94

Savings ($K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	0	0	0	0	0	0	0	0
Person	0	23	47	47	47	47	210	47
Overhd	0	158	400	603	880	1.235	3.276	1.467
Moving	0	0	0	0	0	0	0	0
Missio	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	182	446	649	927	1.282	3.486	1.514

TOTAL ONE-TIME COST REPORT (COBRA v5.04) - Page 1/3
Date As Of 09:24 12/29/1994. Report Created 11:30 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Fctrs File : C:\COBRA504\MEMDCD1.STF

(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	14,570,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		14,570,000
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	33,867	
Mothball / Shutdown	100,000	
Total - Overhead		133,867
Moving		
Civilian Moving	0	
Civilian PPS	28,800	
Military Moving	0	
Freight	9,509	
One-Time Moving Costs	600,000	
Total - Moving		638,309
Other		
HAP / RSE	840	
Environmental Mitigation Costs	0	
One-Time Unique Costs	14,000	
Total - Other		14,840
Total One-Time Costs		15,357,016
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		15,357,016

ONE-TIME COST REPORT (COBRA v5.04) - Page 2/3
Data As Of 09.24 12/29/1994. Report Created 11:34 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Fctrs File : C:\COBRA504\NEWCOD1.SFF

Base: WILLIAMS, TX
(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	33.867	
Mothball / Shutdown	100.000	
Total - Overhead		133.867
Moving		
Civilian Moving	0	
Civilian PPS	28.800	
Military Moving	0	
Freight	9.509	
One-Time Moving Costs	600.000	
Total - Moving		638.309
Other		
MAP / RSE	840	
Environmental Mitigation Costs	0	
One-Time Unique Costs	14.000	
Total - Other		14.840
Total One-Time Costs		787.016
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		787.016

ONE-TIME COST REPORT (COBRA v5.04) - Page 3/3
Data As Of 09:24 12/29/1994. Report Created 11:38 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Fctrs File : C:\COBRA504\NEWDOD1.SFF

Base: LUKE, AZ
(All values in Dollars)

Category	Cost	Sub-Total
Construction		
Military Construction	14,570,000	
Family Housing Construction	0	
Information Management Account	0	
Land Purchases	0	
Total - Construction		14,570,000
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 FPS	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		14,570,000
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		14,570,000

INPUT DATA REPORT (COBRA v5.04)
Data As Of 09:24 12/29/1994. Report Created 11:39 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESANAJ\MESA-LUK.CBR
Std Fctrs File : C:\COBRA504\NEWDOD1.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: No

Base Name	Strategy:
WILLIAMS, TX	Closes in FY 2001
LUKE, AZ	Realignment

Summary:

CZ MILCON numbers used -- 12/29/94
Mesa screen 4 calculated based on Brooks AFB.
No PE data available -- standard 6% cut applied.
Used MAJCON unique/moving costs -- no recurring costs for Luke

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
WILLIAMS, TX	LUKE, AZ	49 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from WILLIAMS, TX to LUKE, AZ

	1996	1997	1998	1999	2000	2001
Officer Positions:	0	0	1	1	1	2
Enlisted Positions:	0	1	2	3	2	2
Civilian Positions:	1	2	5	6	5	4
Student Positions:	0	0	0	0	0	0
Misen 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: WILLIAMS, TX

Total Officer Employees:	5	PPMA Non-Payroll ($K/Year):	157
Total Enlisted Employees:	10	Communications ($K/Year):	2
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	103
Total Civilian Employees:	24	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	0.0%	Family Housing ($K/Year):	1,205
Civilians Not Willing To Move:	10.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	80	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	106	Activity Code:	9
Enlisted VHA ($/Month):	80		
Per Diem Rate ($/Day):	97	Homeowner Assistance Program:	Yes
Freight Cost ($/Ton/Mile):	0.10	Unique Activity Information:	No

INPUT DATA REPORT (COBRA v5.04) - Page 2
Date As Of 09.24 12/29/1994. Report Created 11:38 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Factrs File : C:\COBRA504\NEWDOD1.STF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: LUKE, AZ

Total Officer Employees:	647	RPMA Non-Payroll ($K/Year):	3.459
Total Enlisted Employees:	3.039	Communications ($K/Year):	1.458
Total Student Employees:	0	BOS Non-Payroll ($K/Year):	11.722
Total Civilian Employees:	1.146	BOS Payroll ($K/Year):	0
Mil Families Living On Base:	23.0%	Family Housing ($K/Year):	4.950
Civilians Not Willing To Move:	10.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat ($/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat ($/Visit):	0
Total Base Facilities(KSF):	4.273	CHAMPUS Shift to Medicare:	20.9%
Officer VHA ($/Month):	177	Activity Code:	52
Enlisted VHA ($/Month):	126		
Per Diem Rate ($/Day):	108	Homeowner Assistance Program:	No
Freight Cost ($/Ton/Mile):	0.10	Unique Activity Information:	No

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: WILLIAMS, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost ($K):	0	1	3	4	3	3
1-Time Unique Save ($K):	0	0	0	0	0	0
1-Time Moving Cost ($K):	30	60	150	180	150	30
1-Time Moving Save ($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):	80	Perc Family Housing ShutDown:				100.0%

Name: LUKE, AZ

	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%

INPUT DATA REPORT (COBRA v5.04) - Page 3
Date As Of 09:24 12/29/1994. Report Created 11:09 12/29/1994

Department : Air Force
Option Package : Mesa to Luke
Scenario File : C:\COBRA504\LABS\MESA\MESAMAJ\MESA-LUK.CBR
Std Fctrs File : C:\COBRA504\NEWDOD1.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: WILLIAMS, TX

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	0	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	-1	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: LUKE, AZ

Description	Categ	New MilCon	Rehab MilCon	Total Cost($K)
AFMC MILCON	OTHER	64.042	0	14.570

Assumed all new construction -- possible reduction available

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	76.00%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	66.00%	Priority Placement Service:	50.00%
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 PIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	0.00%
SF File Desc:		RSE Homeowner Receiving Rate:	0.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

PPMA 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.PFT/ROI:	2.75%
Avg Family Quarters(SF):	1.328.00	Inflation Rate for NPV.PFT/ROI:	0.00%

APPDET.PFT Inflation Rates:
1996: 0.00% 1997: 2.90% 1998: 3.00% 1999: 3.00% 2000: 3.00% 2001: 3.00%

INPUT DATA REPORT (COBRA v5.04) - Page 4
Data As Of 09.24 12/29/1994. Report Created 11:38 12/29/1994

Department : Air Force
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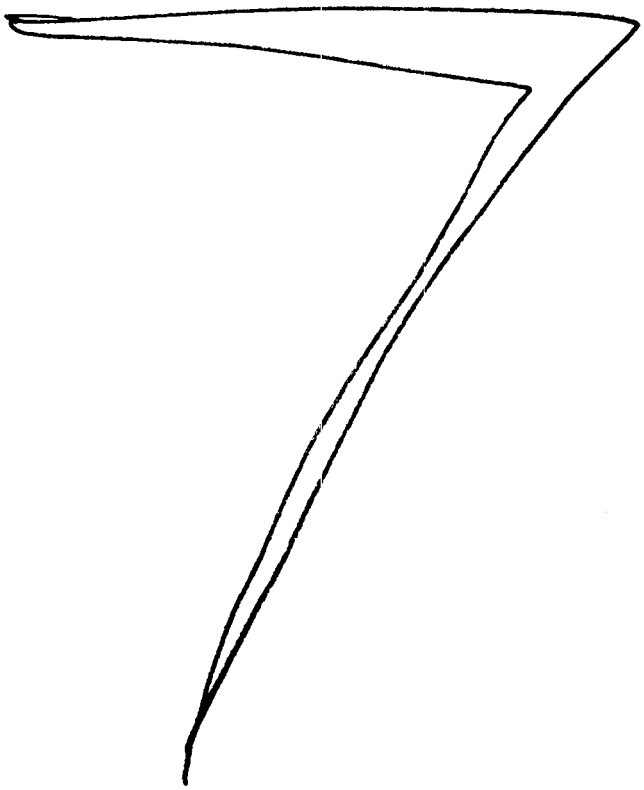
Std Fctrs File : C:\COBRA504\NEWDOD1.SFF

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Persons(Lb):	710	Equip Pack & Crate($/Ton):	284.00
HHG Per Off Family (Lb):	14,590.00	Mil Light Vehicle($/Mile):	0.43
HHG Per Enl Family (Lb):	9,909.00	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	OTHER	(SF)	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	(EA)	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			



T&E Activity Profile
Non Core Sites Realigned
Workload, Capacity, Excess Capacity
by
Functional Area & Test Facility Category

AIR VEHICLES SUMMARY Core and Non-Core Sites				
TFC	Workload	Capacity	Rev Excess	Percent Excess
DMS Total	1,273	1,987	714	36%
HITL Total	114,171	163,371	49,200	30%
IL Total	81,806	123,879	42,073	34%
ISTF Total	9,674	16,087	6,413	40%
MF-A Total	2,631	6,155	3,524	57%
MF-C Total	1,136	2,091	955	46%
MF-E Total	23,158	28,420	5,262	19%
MF-EM Total	943	943	0	0%
MF-G Total	30,719	47,487	16,768	35%
MF-P Total	25,854	37,155	11,301	30%
MF-ST Total	170	614	444	72%
OAR Total	27,578	39,704	* 12126	31%
AV Total	*319,113*	*467,893*	*148,780*	*32%*

* Total closure of Non-Core capacity would have reduced excess cap to 11,507. However, addtl. cap. of 619 was added to accomodate relocated wkld - -resulting in a final excess of 12,126

ARMAMENT / WEAPONS SUMMARY Core and Non-Core Sites				
TFC	Workload	Capacity	Rev Excess	Percent Excess
DMS Total	55,305	93,574	38,269	41%
HITL Total	52,667	76,680	24,013	31%
IL Total	13,368	26,854	13,486	50%
ISTF Total	792	1,374	582	42%
MF-E Total	56,129	125,973	69,844	55%
MF-EM Total	2,096	2,615	519	20%
MF-G Total	44,228	56,007	11,779	21%
MF-GO Total	14,296	25,124	10,828	43%
MF-P Total	6,801	15,312	8,511	56%
MF-ST Total	2,608	5,944	3,336	56%
OAR Total	31,742	67,669	35,927	53%
AW Total	*280,032*	*497,126*	*217,094*	*44%*

ELECTRONIC COMBAT SUMMARY Core and Non-Core Sites				
TFC	Workload	Capacity	Rev Excess	Percent Excess
DM&S Total	246	1,010	764	76%
HITL Total	2,833	420	** -2413	0%
IL Total	5,317	8,434	3,117	37%
ISTF Total	3,604	6,752	3,148	47%
MF-C Total	298	1,226	928	76%
MF-E Total	2,174	5,431	3,257	60%
MF-EM Total	4,929	4,929	0	0%
MF-G Total	1,728	2,400	672	28%
MF-RCS Total	6,674	13,763	7,089	52%
MF-Sig Total	826	1,516	690	46%
OAR Total	2,771	5,860	3,089	53%
EC Total	*31,400*	*51,741*	*20,341*	*39%*

** The JCSG analysis assumed the excess HITL wkld could be accomplished using the ISTF excess capacity of 3,148 hours.

Test Facility Category Legend

DMS	Digital Modelling/Simulation
HITL	Hardware-in-the-Loop
IL	Integration Lab
ISTF	Installed System Test Facility
MF	Measurement Facility (various)
MF-A	Avionics & A/C Subsystems
MF-C	Comm/Nav/Antenna
MF-E	Environmental
MF-EM	Electro Magnetic Env Effects
MF-G	Guidance/Seeker/Sensor/Sig
MF-GO	Guns/Ordnance/Warheads
MF-P	Propulsion
MF-ST	Sled Tracks
MF-RCS	Radar Cross Section
MF-Sig	Signature
OAR	Open Air Range

Document Separator

REGIONAL HEARING ISSUE SUMMARY

OAKLAND ARMY BASE, CA

SAN FRANCISCO, CA / MAY 25, 1995

- Issue # 1: Oakland Army Base is the sole Army-owned military ocean terminal on the West Coast. The facility offers security, flexibility and the ability to handle outsized/overweight materiel to Service deployments unavailable in commercial port facilities. Further, staging/temporary storage is extremely limited at the Port of Oakland. Oakland provides a critical power projection capability during any regional contingency operation.

- Issue # 2: The Port of Oakland is operating near capacity. Willingness of commercial operators to guarantee priority access to military cargo in less than 12 days is problematic.

- Issue # 3: Closure of Oakland Army Base would cause additional economic hardship to a Bay area already heavily hit by previous Base Closure and Realignment rounds and military downsizing initiatives.

Document Separator

TO: TEAM LEADS. - COAST GUARD IMPACTS
Ben 5/31/95

Plans, Policy and Evaluation Division
U. S. Coast Guard Headquarters
2100 2nd Street, SW
Washington, DC 20593-0001

Office Number: (202) 267-2355
Fax Number: (202) 267-4401

Date: 31 May 95

To: Mr. Ben Borden

Office/Routing Symbol:

Work Phone:

Fax Phone: 703-696-~~0504~~ 0550

From: Ms. Kathy Scott
202-267-2360

Comments: Attached is an advance draft copy of letter for Commandant's signature. Enclosure provides matrix of direct impacts on CG due to BRAC '95.

Number of pages to follow this cover sheet: 6

This fax machine is "UNATTENDED"
and receives automatically 24 hours a day.
Please let me know that you are sending a document.

U.S. Department of Transportation

United States Coast Guard

Commandant
U. S. Coast Guard

2100 Second St., S.W.
Washington, DC 20593-0001
Staff Symbol: G-CPP
Phone: (202) 267-2355

DRAFT

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

Dear Mr. Chairman:

The Coast Guard has reviewed the list of recommended base closures and realignments provided by the Secretary of Defense and the 35 recently added by the Commission. I have enclosed a matrix portraying those facilities which will have direct impacts on Coast Guard operations should they close or realign.

The eight Department of Defense facilities identified in the matrix will directly impact our operations in terms of forcing the relocation of a Coast Guard tenant command or terminating established relationships in direct support of Coast Guard field operations. We have identified numerous other facilities that will indirectly affect the Coast Guard in terms of loss of traditional military support provided among services. Examples of these indirect affects include the potential closure of Navy Public Works Center Guam which supplies shoreside services to Coast Guard vessels and waterfront maintenance; the potential closure of Navy Fleet and Industrial Supply Center which frequently provides supplies, equipment and repair parts for Coast Guard vessels; and the potential closure of Naval Shipyard Long Beach which provides direct, high quality ship repair services and family support services to the Coast Guard.

As the federal government continues to streamline operations to meet the needs of its customers, the Coast Guard's motto remains Semper Paratus, always ready. I ask that you consider the Coast Guard in your recommendations to the President. Should you have questions, my point of contact is Captain Blain Brinson, who may be reached at (202) 267-2355.

Sincerely,

Enclosure

DRAFT

IMPACT OF DOD FACILITY CLOSURES/REALIGNMENTS

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
NAVAL AIR FACILITY ADAK, AL (Closure)	LORAN STATION (LORSTA) ATTU AIR STATION (AIRSTA) KODIAK ADAK LORAN MONITOR COMMUNICATION STATION KODIAK	Closure of this facility will have a major impact on CG operations in the North Pacific. Loss of use of this facility will impair our ability to perform maritime law enforcement and safety and security missions. Adak currently provides both cutter and aircraft support for CG ops. Loss of this facility will result in decreased aircraft on-scene time and delay of medical evacuation patients. It will result in fewer on-scene cutter days for law enforcement patrols. Loss of Loran monitoring station at Adak may force a relocation of the site at great cost. CG cutters also use Adak for JP-5 refueling. They could potentially switch to diesel fuel available at Dutch Harbor, but with negative impacts. Naval Security Group Adak currently supports COMMSTA Kodiak remote MF and HF transceivers and receivers. Its closure will terminate the Inter-service Support Agreement (ISSA). Other support alternatives are being investigated.
CHARLES MELVIN PRICE SUPPORT CENTER, IL (Closure)	NAVAL ENGINEERING SUPPORT UNIT (NESU) ST. LOUIS ELECTRONICS MAINTENANCE DETACHMENT (EMD) ST. LOUIS MARINE SAFETY OFFICE (MSO) ST. LOUIS	NESU & EMD St. Louis are existing tenants of this facility. MSO St. Louis currently maintains their small boats and pollution responses equipment in a building at the Support Center. A planning proposal for a new Base St. Louis at this site has been approved. Anticipate closure will lead to a Title 10 transfer of 22 acres to the CG for the new base. Impact on NESU and EMD St. Louis is unknown. Charles Melvin Price Support Center also provides an exchange, commissary, gym, golf course and club house that are used by CG personnel. The Army Depot at Granite City will remain active, providing

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
CHARLES MELVIN PRICE SUPPORT CENTER cont.		commissary/exchange services to CG personnel. CG Auxiliary would be directly impacted by closure of this facility. The Support Center houses the Auxiliary's National Supply Center (ANSC). The ANSC is the storage and distribution center for Auxiliary pubs, awards, member course, etc. The ANSC is operated under contract, with CG managing the contract and overseeing operations. The Auxiliary may be forced to lease the same space, most likely at an increased cost, or move the location, requiring transportation of inventory and development of a new contract. The CG District 2 armory is currently in shared Army space. A new armory is included within the scope of the new Base St. Louis design. There may be an opportunity for future consolidation of the NESU, EMD, and MSO at the new base site.
SELFRIDGE ARMY GARRISON, MI (Closure)	AIRSTA DETROIT GROUP/BASE DETROIT MSO DETROIT STATION BELLE ISLAND STATION PORT HURON STATION ST. CLAIR SHORES AIDS TO NAVIGATION TEAM (ANT) DETROIT CG CUTTER (CGC) BRISTOL BAY	Airsta Detroit is a tenant command of this facility. It is unlikely that the Airsta will have to relocate as the airfield property is under the custody of the Michigan Air National Guard (ANG). Operational services are supported by an ISSA between the Air Station and Michigan ANG. With a total closure of this base, CG may lose commissary, exchange, medical, and child care services. Fire fighting services and Airfield Crash and Rescue are 50% funded by the Army and 50% by the 127th Fighter Wing of Michigan ANG. If the ANG is unable to absorb 100% funding, a significant cutback in the airfield support could occur or CG might have to provide additional funds to continue support of this service. CG occupies 116 of 745 Army housing units. The Army has no plans to continue to run this housing. Closure could mean expanding our leased housing for eligible members.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
SENECA ARMY DEPOT, NY (Closure)	LORSTA SENECA	Staffing at LORSTA Seneca is programmed to decrease from 20 personnel to 4 with the completion of a LORAN consolidated control project 7/97. The nature of LORAN operations makes movement of the LORAN facility impossible and the option to acquire the property has been explored locally. The effect of closure of Seneca housing, 32 units, would minimally impact the CG. Additional minor concerns include the transfer of LORSTA water and sewer currently provided by Seneca Army Depot, to Seneca County. The Army also manages a profitable MWR recreational travel camp, used by Active Duty Military and retirees as vacation cottages. The depot also provides telephone services to LORSTA Seneca.
NAS SOUTH WEYMOUTH, MA (Closure)	SOUTH WEYMOUTH BUOY DEPOT STATION SCITUATE CG DISTRICT 1	South Weymouth Buoy Depot is a tenant command of this facility. The CG does not own or lease, just has use of the site. The ISSA with the Navy states that an additional 6 acres could be made available to the CG if the NAS ever closed. The NAS Fire Department provides protection and safety inspections for the Depot. We may be able to rely on the local Fire Department to provide protection services. We currently lease 50 housing units from the Navy for CG families in the Boston area. The housing is poor and considered to be a maintenance burden; however, other housing options are limited. The NAS housing may be unnecessary for Boston-area members; District 1 needs to address this in the future. The Navy exchange may close; may be feasible for CG Exchange System to take over if a CG presence remains. The CG may see a significant decrease in the established ISSA with the Navy at Airsta Cape Cod. The CG provides the Navy use of 95 units of housing at Cape Cod.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
NAS SOUTH WEYMOUTH, MA cont.		The NAS South Weymouth closure may reduce the Navy need for housing by as much as 80 units. The CG will still own these units, but not receive maintenance funding. Loss of commissary and exchange facilities will impact drilling reservists in the area. Closure of the clinic will have a minor affect on CG personnel at Station Scituate. D1 field operations will be impacted to a limited degree if the NAS closes: D1 provides semi-annual intelligence briefings to the P-3 squadron at South Weymouth, who in turn provide Target of Interest information to the district during/after flights. The squadron has also been an additional reconaissance asset during AMIO operations.
NAS CORPUS CHRISTI, TX (Realignment)	AIRSTA CORPUS CHRISTI	AIRSTA Corpus Christi is a tenant command of this facility. The Navy may desire to relocate several tenants to maximize space utilization. At one time, NAS expressed an intent to use the CG hangar for the USN minesweeper helos. If that occured, the Navy has indicated they would provide CG with another location on base and would attempt to assist with move/remodeling costs. The latest BRAC developments/ recommendations make it likely that CG will retain its current location in Hangar 41.
MCCLELLAN AFB, CA (Closure)	AIRSTA SACRAMENTO	AIRSTA Sacramento is a tenant command of this facility. Closure of the AFB would force relocation of CG airsta. The CG does not desire to become an airfield landlord. The Air Force currently provides interservice support such as airfield, control tower, crash and fire, weather office, and civil engineering support. They also provide family support services such as housing, medical, dental, exchange, commissary, etc. Airsta Sacramento also receives courier service, communications support and is a local user of the Air Force Classified Material System account. The CG has

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
		local radio transceivers and antennae installed in the Air Force hangar, such as VHF and HF.
NAS POINT MUGU, CA	CG DISTRICT 11	The CG has a National Distress System VHF-FM High Level Site at Point Mugu. The Navy provides the control circuits, power and emergency power to the site.
BAYONNE MILITARY OCEAN TERMINAL, NJ (Closure)		This site is being considered as a proposed location for several NY area commands. Closure of this facility will probably make Army barracks unavailable for CG cutters tentatively planned to homeport there as part of the Streamlining proposals.
FORT DIX, NJ (Realignment)	ATLANTIC STRIKE TEAM	Atlantic Strike Team is a tenant command of this facility. FY95 AC&I project to construct equipment facility with construction award anticipated 3/30/95. No impact anticipated.

✓ Correct. SJB.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
EGLIN AFB, FL (Realignment)	LORAN MONITORING SITE STA DESTIN FT WALTON NATIONAL DISTRESS SYSTEM CAPE SAN BLAS NATIONAL DISTRESS SYSTEM	STA Destin, FT Walton NDS, Cape San Blas NDS all located on Army property but managed by Eglin (utilities, tower, equipment hut, etc) Impact unknown.
NSWC CRANE DIVISION DETACHMENT, KY (Closure)	CGYD MLCLANT MLCPAC	This closure will have a major impact on field support of the MK75 gun, MK15 CIWS and MK36 SRBOC. This center provides technical and parts assistance, overhauls and defines maintenance procedures for these weapon systems. The Navy may continue to support the MK15 CIWS and MK36 SRBOC, but is removing the MK75 from its inventory. CG YARD may be able to fill this gap.
NUWC NEWPORT DIVISION NEW LONDON DETACHMENT NEW LONDON, CT (Closure)	CGC EAGLE CGC REDWOOD STA NEW LONDON	CGC EAGLE currently moors at Pier 7 when in homeport. SECDOD recommendation is for Pier 7 to remain open. This pier also provides a homeport for the CGC REDWOOD. Anticipate STA New London will acquire its current site and will retain access to Pier 7.
NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER, IN-SERVICE ENGINEERING CENTER EAST COAST DETACHMENT, NORFOLK, VA (Realignment)	G-T MLCLANT MLCPAC	Headquarters, Headquarters units, and MLCs contract with NISE East for electronics engineering support. Unclear from the recommendations as to what functions may be deleted. Major moves of personnel/equipment may result in project elimination or delays.
FORT HAMILTON, NY (Realignment)		May affect USCG personnel remaining in NY area if GI relocates and commissary/exchange close. Other potential impacts unknown.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
NAVAL SHIPYARD LONG BEACH, CA (Closure)	SUPRTCEN SAN PEDRO	The shipyard and SIMA provide direct, high quality ship repair services to local CG. Service connectivity for the RAPIDS program and the Defense Switched Network at CGD11 are provided by the Naval Shipyard. Alternate service points will have to be identified. This closure will also impact support services for the CG, i.e., a Family Support Center, commissary, exchange, barber shop, pharmacy, medical services, child care. CGD11 Response Advisory Team houses our Vessel of Opportunity Skilling System at the Shipyard. SUPRTCEN San Pedro uses the Navy clinic for some x-ray and laboratory services. Because of the distance of San Pedro from any other federal direct care inpatient or specialty service provider, the CG may have to contract for or obtain an MOU with the Dept. of Veterans Affairs for many of these services. Closure may also eliminate berthing/ messing opportunities for reservists augmenting CG commands in the area. PSU 311 is in the process of being established using a warehouse on the shipyard. They are currently setting up temporary storage facilities and will probably require additional warehouse cost if they have to relocate.
~~MCCLELLAN AFB, CA (Realignment)~~	~~AIRSTA SACRAMENTO~~ See Previous Impact on McClellan	~~McClellan is slated for realignment. Currently 29 CG families reside there in Air Force housing. If the realignment results in more AF families at McClellan, the CG may see a reduction in government owned housing opportunities. Consolidation of workloads at McClellan should not impact CG operations at Airsta Sacramento as long as the runway remains operational and the current support provided by the Air Force continues.~~

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
EAST FORT BAKER, CA (Closure)	STA GOLDEN GATE	The Fort has some limited housing, currently used by a few CG families. Recent degradation in maintenance has already influenced a decision to vacate.
RIO VISTA ARMY RESERVE (Closure)	STA RIO VISTA	This facility is adjacent to Station Rio Vista. Do not anticipate any impact due to closure.
MOFFET FEDERAL AIRFIELD AGS, CA (Closure)	AIRSTA SACRAMENTO	The 129th Air National Guard Air Rescue Squadron is located at this facility. Occasionally, this squadron flies long range SAR for the CG and maintains long range SAR guard when CG C-130's are down. SECDOD recommendation is for Squadron to relocate to McClellan AFB which should facilitate an improved working relationship between Airsta Sacramento and the Squadron.
NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER, IN-SERVICE ENGINEERING WEST COAST DIVISION, SAN DIEGO, CA (Closure)	G-T MLCLANT MLCPAC	Headquarters, Headquarters units, and MLCs contract with NISE West for electronics engineering support. Unclear from the recommendations as to what functions may be deleted. Major moves of personnel/equipment may result in project elimination or delays.
ROBINS AFB, GA (Realignment) the	AR&SC ELIZABETH CITY	AR&SC receives complete Air Force support for repair of CG C-130's through ISSA agreements. AR&SC does not have the facilities to repair C-130's. Impact on ISSA's unknown.
KELLY AFB, TX (Realignment)	AR&SC ELIZABETH CITY	AR&SC receives complete Air Force support for repair of CG C-130's through ISSA agreements. ARSC does not have the facilities to repair the C-130's. Impact on ISSA's unknown.
HILL AFB, UT (Realignment) AVIATION TROOP COMMAND, MO	AR&SC ELIZABETH CITY (Closure)	These facilities provide ISSA support to AR&SC. They do depot level preventive maintenance on our C-130's and H60s.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
NAVAL MANAGEMENT SYSTEMS SUPPORT OFFICE, CHESAPEAKE, VA (Closure)		This facility provides In-Service Engineering Agent (ISEA) services for the Microcomputer Organizational Maintenance Management Systems. This system allows for an electronic link to the USN Maintenance Data System. We currently have a MIPR in place with them to perform this function for us.
NAVAL SEA SYSTEM COMMAND, ARLINGTON, VA (Realignment)	G-ODO	All NAVORD equipment program managers are located here. We deal directly with all applicable program managers on ordnance matters. Impact unknown.
BROOKS AFB, TX (Closure)	GRU GALVESTON GRU CORPUS CHRISTI AIRSTA CORPUS CHRISTI	Loss of commissary/exchange facilities will impact active duty and reserve personnel in CGD8.
BERGSTROM AFB, TX (Closure)	GRU GALVESTON GRU CORPUS CHRISTI AIRSTA CORPUS CHRISTI	Loss of commissary/exchange facilities will impact active duty and reserve personnel in CGD8.
DEFENSE DISTRIBUTION DEPOT RED RIVER, TX (Closure)	GRU GALVESTON GRU CORPUS CHRISTI AIRSTA CORPUS CHRISTI	Loss of support services will impact reserve personnel in CGD8.
RED RIVER ARMY DEPOT, TX (Closure)	GRU GALVESTON GRU CORPUS CHRISTI AIRSTA CORPUS CHRISTI	Loss of support services will impact reserve personnel in CGD8.
NAS BARBERS POINT, HI (Change to previous BRAC)	CGAS BARBERS POINT	Navy housing may continue to be available to the CG; the BRAC '95 SECDOD recommendation retains it for multi-service use. Positive impact to CG.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
FORT GREELY, AL (Realignment)	LORSTA TOK	LORSTA Tok personnel use the commissary and exchange at Ft Greely. Ft Greely closure will not impair LORAN operations. The Army metrology lab at Greeley repairs and calibrates all electronics equipment on inventory at LORSTA TOK. If the lab were to close as part of this realignment, the CG would have to pay for this service or purchase $25K worth of calibrating equipment.
SHIP REPAIR FACILITY, GUAM (Closure)	MARSEC MSO GUAM CGC BASSWOOD CGC GALVESTON ISLAND	Closure of this facility could lead to eventual closure of the naval station clinic and hospital, the primary source of medical care for the 116 CG personnel and their dependents in Naval housing. Vessel maintenance and repair assistance has been provided at this facility, as well as dry dock capability. Additional cutter transit time will be required for this type of maintenance. In addition, the Navy metrology lab repairs and calibrates all electronics equipment on inventory at MARSEC Guam. If the lab closes, the cost for this work would increase by an estimated $5K per year.
NAVAL ACTIVITIES GUAM (Realignment)	MARSEC MSO GUAM CGC GALVESTON ISLAND CGC BASSWOOD	Naval Activities Guam supports active duty and reserve CG on Guam in many ways as tenant activities. ISSA's are in place with the Navy Public Works Center for general, electrical, water/sewer and housing support, as well as telephone services for our buildings, offices and grounds on NAVACT. MARSEC, MSO and the 2 cutters are located on CG property within NAVACTS. CG units are directly supported by almost every department of NAVACTS. The Navy provides security, training spaces, MWR services, food services, consolidated bachelor quarters, portion operations, commercial travel, fire department response, legal services, etc.

DOD INSTALLATION	AFFECTED CG UNITS	IMPACT
GREATER PITTSBURGH IAP AIR RESERVE STATION, PA (Closure)	MSO PITTSBURGH	Closure of this facility will impact Reserve personnel who stay at this facility when drilling. Costs of Reserve drills will escalate in the Pittsburgh area because of high costs associated with temporary lodging.
SPACE AND NAVAL WARFARE SYSTEMS COMMAND ARLINGTON, VA (Change to previous BRAC)		Relocation of this command to San Diego will make it difficult to participate in Navy electronic systems programs affecting CG, e.g. Defense Message System, high speed fleet broadcast, NTCS-A/JMCIS, NAVMAC-II.
FITZSIMONS ARMY MEDICAL CENTER, CO (Closure)		Primary impact on health care services will be the relocation of the Optical Fabrication Laboratory to Ft Sam Houston, TX. This laboratory provides military eyeware support to CG personnel west of the Mississippi River. Loss of service may only be temporary during transfer to Texas.
FORT BUCHANAN, PR (Realignment)	CG BASE SAN JUAN	Closure of the family housing units and conversion to a primary reserve unit will affect health care provided by the Army clinic primarily for CG dependents.
NAVAL AIR STATION ALAMEDA, CA (Change to previous BRAC)	PACAREA	PACAREA (Pi) presently picks up Defense Courier Service material at NAS Alameda. A new delivery system will need to be developed to take care of delivery of classified material in a timely manner. PACAREA (Pi) provides over the counter Sensitive Compartmented Information traffic service to local Navy ships and CG units. When NAS closes, PACAREA anticipates losing the assigned Navy billets that assist the staffing for this service.
OAKLAND ARMY BASE, CA	CG PACIFIC AREA	Anticipate telephone circuit (secure and non-secure impacts.

Document Separator

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950503-16

FROM: WIDNALL, SHEILA	TO: DIXON
TITLE: SEC OF AIR FORCE	TITLE: CHAIRMAN
ORGANIZATION: DEPT OF THE AIR FORCE	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED:	

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:

OFFERING HER COMMENTS REGARDING GAO ASSESSMENT OF AIR FORCE RECOMMENDATIONS.

Due Date:	Routing Date: 950503	Date Originated 950502	Mail Date:

SECRETARY OF THE AIR FORCE
WASHINGTON

MAY 2 1995

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

Dear Mr. Chairman:

I was concerned to hear of both the content and temper of the remarks by the General Accounting Office during the Commission hearing on April 17th. Although some of the technical points raised by the GAO in their report are valid, it appears they have overstated their case. I do not wish to offer a point-by-point rebuttal, but I will offer some general observations about the GAO assessment.

Contrary to the repeated assertions of GAO officials, the Air Force process, deliberations, and rationale are very well documented. First, minutes of the Base Closure Executive Group capture not only its deliberations, but also a synopsis of my decisions and my rationale.

The GAO's assertion of a lack of documentation relates to the voting of the Executive Group members on the placement of bases into tiers within categories. This tiering process follows a very detailed analysis of each base within a category using a combination of mathematical and statistical calculations. Specific measures or statistical analyses were applied to a large number of subelements under five (Criteria I, II, III, VII, and VIII) of the eight DoD criteria and then rolled up mathematically to a single grade for each criterion using specific weights or standard deviation methodology. In addition, for each base within a category mathematical calculations were used to establish the financial aspects and economic impact under Criteria IV, V, and VI. Using this information, the thirteen individual members of the Executive Group, representing years of experience in a wide range of functional areas, applied their judgment in voting. This tiering is not, of course, the end of analysis, but the beginning, as it serves to focus detailed analysis of individual bases. While the GAO prefers a mathematical ranking of bases, it recognizes the importance of applying military judgment to that ranking. This is exactly what the Air Force did.

The other deficiencies noted by the GAO related to Kirtland AFB and the depot down-sizing recommendation are, as you know, being addressed with your staff. I understand that your staff was provided updated information on the Technical Repair Center consolidations. Our site survey teams are refining the cost data, and this refined information will be provided as soon as our internal process is complete.

It is my firm conviction that the Air Force process is sound, fair, and well-documented. I and my staff are ready to provide any information needed to support your important review.

Sincerely,

Sheila E. Widnall

Sheila E. Widnall

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950329-4

FROM: WIDNALL, SHEILA E.	TO: DIXON
TITLE: SEC OF THE AIRFORCE	TITLE: CHAIRMAN
ORGANIZATION: DEPT OF THE AIRFORCE	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED:	

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	✓		30
				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				TONI FORKIN	✓		

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:

RESPONSES TO THE "QUESTIONS FOR THE RECORD" FROM THE MARCH 6 HEARING

Due Date:	Routing Date: 950329	Date Originated: 950328	Mail Date:

SECRETARY OF THE AIR FORCE
WASHINGTON

28 MAR 1995

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

Please refer to this number when responding 950329-4

Dear Chairman Dixon:

It was my pleasure to provide testimony concerning the Air Force portion of the Secretary of Defense's 1995 base closure and realignment recommendations to the Commission. By letter dated March 9, 1995, you provided a number of additional questions to be answered for the record. The responses to those questions are attached.

You will note in some cases that I have referred questions to the Department of Defense for response. I did so only where I believed that the answer required their perspective, or called for an explanation of a Joint Cross-Service Group decision. I trust this will not excessively inconvenience your staff.

We remain prepared to support any further requests you may have.

Sincerely,

Sheila Widnall

Attachment

General

Page 1, Question 1: Secretary Widnall, will the Air Force have excess capacity in any major categories or installation groupings if the Secretary of Defense recommendations are accepted by this Commission? Please elaborate.

Answer: In our operations categories, we have intentionally retained some reserve capacity to accommodate future contingencies, including the potential return of forces currently based overseas. If one were to examine only aircraft parking capability, one could conclude there is excess infrastructure. However, my examination of a number of base closure and realignment scenarios in the operations categories raised significant operational or logistical support concerns and convinced me that no recommendations beyond those I have made would be operationally sound. In the depot category, the BRAC actions recommended, coupled with the efforts to downsize, reduce to core, and contract out, will bring our installations down to the size necessary to support our needs. Additionally, our support structure recommendations were accomplished in a manner that was fiscally prudent and represents a sound investment strategy in the BRAC process.

Page 1, Question 2: Secretary Widnall, have you provided to the commission all of the information that you used during your decision-making process? If not, would you please provided it within the next five days?.

Answer: Yes, all information used in the Air Force decision-making process has been provided.

Page 1, Question 3: Secretary Widnall, some communities have expressed concern about inconsistent levels of cooperation from local base commanders in preparing their rebuttals to DoD proposals.

What guidance did the Air Force give base commanders regarding cooperation with local communities during the BRAC process?

Answer: Air Force Public Affairs sent a message to all commanders and public affairs officers on base realignment and closure issues. That message is attached.

PENTAGON
OPERATIONS DIRECTORATE

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TO ALMAJCOM-FOA//CC//PA
AIG 9333//CC//PA

UNCLAS ALMAJCOM-FOA 0170/94 SECTION 01 OF 03
SUBJECT: GUIDANCE FOR COMMANDERS AND PUBLIC AFFAIRS OFFICERS ON BASE REALIGNMENT AND CLOSURE (BRAC) ISSUES
1. THE PUBLIC IS INCREASINGLY INTERESTED IN THE BRAC PROCESS AND HOW IT WILL AFFECT THEIR LOCAL AIR FORCE INSTALLATIONS. THIS MESSAGE GIVES GUIDANCE TO COMMANDERS AND PUBLIC AFFAIRS OFFICERS ON RESPONDING TO INQUIRIES FROM BOTH THE INTERNAL AND EXTERNAL PUBLICS.
2. THIS MESSAGE IS IN FOUR PARTS: I. COMMUNITY "SAVE THE BASE" GROUPS; II. PUBLIC AFFAIRS STRATEGIES; III. 1995 BASE CLOSURE QUESTIONNAIRES; AND IV. MEDIA INTEREST AND QUESTIONS AND ANSWERS.
PART I: COMMUNITY "SAVE THE BASE" GROUPS
3. MANY COMMUNITIES WHO ARE ACTIVELY INTERESTED IN THE WELFARE OF THEIR LOCAL AIR FORCE INSTALLATIONS HAVE FORMED GROUPS IN ANTICIPATION OF POTENTIAL BRAC ACTIONS IN THE UPCOMING ROUND (BRAC 95). THE OBJECTIVES OF THESE "SAVE THE BASE" GROUPS (OFTEN SUB COMMITTEES OF THE LOCAL CHAMBER OF COMMERCE) USUALLY INCLUDE:
A. LOBBYING LOCAL, STATE, FEDERAL, AND AIR FORCE OFFICIALS TO ATTEMPT TO IMPROVE THEIR BASE'S CURRENT STATUS OR OBTAIN "NEW" MISSIONS.
B. UPGRADING COMMUNITY RESOURCES THEY BELIEVE COULD AFFECT BASE CLOSURE ANALYSIS.
C. KEEPING THEIR COMMUNITIES INFORMED OF THEIR EFFORTS THROUGH THE LOCAL MEDIA, THEREBY MAINTAINING PUBLIC ATTENTION ON BRAC ISSUES.
D. FUND-RAISING.
E. SEEKING ACCESS TO BASE DATA AND DOCUMENTS (SEE PARTS III AND IV).
4. DO NOT BECOME ADVOCATES FOR KEEPING YOUR BASE OPEN, PROMOTING CLOSURE, OR OFFERING ALTERNATIVE USE OPTIONS; AVOID ANY ACTIONS WHICH GIVE THE PERCEPTION OF SUCH ROLES. BRAC PUBLIC LAW STIPULATES THAT SECDEF MAKES CLOSURE AND REALIGNMENT RECOMMENDATIONS AT A PRESCRIBED TIME TO THE BRAC COMMISSION (BRACC).
5. DOD REGULATIONS AND BRAC PUBLIC LAW GOVERN THE EXTENT TO WHICH MILITARY AND CIVILIAN EMPLOYEES CAN PARTICIPATE IN "SAVE THE BASE" GROUP ACTIVITIES AND HOW DOD FACILITIES AND RESOURCES MAY BE USED. SEE DOD STANDARDS OF CONDUCT REGULATIONS (DOD 5500.7-R) AND YOUR LOCAL STAFF JUDGE ADVOCATE FOR FURTHER GUIDANCE. THE FOLLOWING SPECIFIC GUIDANCE IS APPLICABLE:
A. COMMANDERS MUST NOT HOST OR ORGANIZE MEETINGS, SEND INVITATIONS, OR ASSIGN MILITARY PERSONNEL OR CIVILIAN EMPLOYEES AS GROUP MEMBERS. HOWEVER, COMMANDERS AND PUBLIC AFFAIRS REPRESENTATIVES MAY OBSERVE GROUP MEETINGS AS LONG AS THEY DO NOT HOLD OFFICIAL MEMBERSHIP OR ACTIVELY PARTICIPATE IN THE GROUP. CIVILIAN EMPLOYEES MAY PARTICIPATE IN GROUP ACTIVITIES IF THEIR PARTICIPATION IS VOLUNTARY AND IS DURING OFF-DUTY HOURS OR LEAVE TIME.
B. COMMANDERS SHOULD NOT AUTHORIZE FUND-RAISING EVENTS ON BASE (EXAMPLE: "SAVE THE BASE" CAMPAIGN DINNERS). AFR 11-32, CHAPTER 4, PROVIDES THAT OFF-THE-JOB FUND-RAISING SOLICITATIONS ARE AT THE COMMANDER'S DISCRETION. COMMANDERS MUST REFRAIN FROM ANY OFFICIAL SUPPORT OF SUCH ACTIVITIES AND SHOULD DENY ANY DISCRETIONARY USE OF

*** AF SECTION MESSAGE ***
WHEN RECEIVING A SARAH-LITE PACKAGE FROM THE PTC, YOU MUST EXCHANGE A 3.5" OR 5.25" HIGH DENSITY FLOPPY DISK. IF YOUR SYSTEM USES DOUBLE DENSITY DISK THEN ONLY THE 3.5" DOUBLE DENSITY DISK WILL BE ACCEPTED.

** LOCAL DISTRO 14
ACTION CC(1) (A,F)
INFO AFCOS(1) HQ AFBCA(1) CMS(1) DP(1) 7CG(2) AFSAA(1)
PA(1) AFAA(1) AFPEO(2) AFRBA(1) AFCAA(1)

MCN=94111/31137 TOR=94111/1758Z TAD=94111/1870Z CDSN=MAN472

PENTAGON
OPERATIONS DIRECTORATE

THE BASE FOR SUCH PURPOSES.
C. GENERALLY, BOTH MILITARY AND CIVILIAN PERSONNEL MAY PARTICIPATE IN PRIVATE FUND-RAISING IF THEY ARE VOLUNTEERS, OFF DUTY, NOT IN UNIFORM, AND ARE NOT ACTING IN AN OFFICIAL CAPACITY.
6. COOPERATE WITH "SAVE THE BASE" GROUPS IN PROVIDING INFORMATION ABOUT THE BRAC PROCESS. IF ASKED, FEEL FREE TO PROVIDE MISSION BRIEFINGS AND BASE TOURS AT YOUR BASE TO ENHANCE THE INFORMATION FLOW. HOWEVER, DO NOT TAKE LOCAL GROUPS TO OTHER BASES FOR THE PURPOSE OF COMPILING BRAC-RELATED DATA. (NOTE: SAF/PAM WILL PROVIDE A BRAC PROCESS INFORMATION GUIDE FOR YOUR USE. LOCAL BRIEFINGS ON THE BRAC PROCESS WILL BE RESTRICTED TO THAT GUIDE; DEVIATIONS MUST BE REVIEWED AND APPROVED BY SAF/PAM.)
7. IN SUM: COOPERATE WITH "SAVE THE BASE" GROUPS BY PROVIDING PUBLICLY AVAILABLE INFORMATION BUT DO NOT TAKE A LEADERSHIP ROLE OR ACTIVELY SUPPORT THEIR OBJECTIVES.
PART II: PUBLIC AFFAIRS STRATEGIES
8. KEY MESSAGES:
A. CUTS IN DEFENSE SPENDING AND DRAMATIC CHANGES IN THE INTERNATIONAL SECURITY ENVIRONMENT HAVE NECESSITATED FORCE STRUCTURE REDUCTIONS THAT DICTATE CLOSING MILITARY INSTALLATIONS.
B. AIR FORCE LEADERS VALUE AND APPRECIATE THE COMMUNITY SUPPORT FOR OUR BASES OVER THE YEARS AND REGRET ANY NEGATIVE IMPACT RESULTING FROM CLOSURE OR REALIGNMENT ACTIONS.
C. ALL MILITARY INSTALLATIONS MEETING THE CRITERIA DEFINED IN BRAC LAW ARE CONSIDERED FOR CLOSURE/REALIGNMENT.
D. THE AIR FORCE BASE CLOSURE AND REALIGNMENT PROCESS IS ACCOMPLISHED IN STRICT ACCORDANCE WITH AN INTERNAL CONTROL PLAN DEVELOPED TO COMPLY WITH ALL OF THE APPLICABLE PROVISIONS OF PUBLIC LAW.
E. THE AIR FORCE AUDIT AGENCY ASSISTS IN VALIDATING THE PROCESS AND THE DATA BASE USED IN THE ANALYSIS. THE GENERAL ACCOUNTING OFFICE AUDITS THE PROCESS AND REPORTS TO THE CONGRESS AND THE BRACC. THE RESULTS OF THE AIR FORCE ANALYSIS ARE SUBMITTED TO SECDEF. SECDEF USES SERVICE INPUTS TO MAKE RECOMMENDATIONS TO THE BRACC.
9. TARGET AUDIENCES:
A. THE ENTIRE AIR FORCE COMMUNITY (ACTIVE DUTY, GUARD, AND RESERVE), INCLUDING FAMILIES, CIVILIAN EMPLOYEES, AND CONTRACTORS.
B. NATIONAL, REGIONAL, AND LOCAL MEDIA (PARTICULARLY IN AREAS NEAR AIR FORCE INSTALLATIONS).
C. LEADERS AND CITIZENS IN COMMUNITIES NEAR AIR FORCE INSTALLATIONS.
D. THE AMERICAN PUBLIC.
10. TACTICS FOR INTERNAL PUBLIC:
A. COMMANDERS AND PUBLIC AFFAIRS OFFICERS SHOULD BE THOROUGHLY FAMILIAR WITH BRAC PROCEDURES AND THE SEQUENCE OF EVENTS OF THE PROCESS. USE THE PROCESS INFORMATION GUIDE DEVELOPED BY SAF/PAM TO PROMOTE A STANDARDIZED RESPONSE TO QUESTIONS.
B. SINCE INTERNAL INTEREST IN BRAC ISSUES IS PRESUMED TO BE HIGH, PUBLIC AFFAIRS OFFICERS NEED TO RESPOND TO A DEMAND FOR INFORMATION THROUGH PUBLISHING DOD NEWS SERVICE AND AFNEWS ARTICLES IN BASE NEWSPAPERS.
C. CAUTION BASE PERSONNEL THEY MUST NOT SPECULATE ON THE OUTCOME OF BRAC 95.
D. SAF/PAM WILL SEND ELECTRONIC MESSAGES TO COMMANDERS AND PUBLIC AFFAIRS OFFICERS BASED ON INFORMATION FROM OATSD/PA.
11. TACTICS FOR EXTERNAL PUBLIC:
A. BE CAUTIOUS IN YOUR STATEMENTS TO NEWS MEDIA AND COMMUNITY LEADERS. YOU WILL LIKELY BE PRESSED FOR COMMENTS ABOUT THE FUTURE OF YOUR BASE, BUT SUCH COMMENTS WOULD BE SPECULATIVE AND INAPPROPRIATE. HOWEVER, YOU MAY DISCUSS THE PROCEDURES AND CRITERIA USED BY THE AIR FORCE, DOD, AND THE BRACC IN MAKING THEIR RECOMMENDATIONS (SEE THE PROCESS GUIDE). BE CAREFUL NOT TO PREDICT THE OUTCOME OF ANY OF ANY OF THESE ACTIVITIES.
B. AT THE NATIONAL AND REGIONAL LEVELS, REFER QUERIES ON BRAC 95 TO OATSD/PA (THRU MAJCOM/PA AND SAF/PA).

C. AT THE LOCAL LEVEL, LIMIT RESPONSES TO MEDIA QUERIES TO THE KEY
BT
UNCLAS ALMAJCOM-FOA 0170/94 SECTION 02 OF 03
MESSAGES ABOVE. DO NOT COMMENT ON THE FUTURE STATUS OF ANY
INSTALLATION BEFORE THE RECOMMENDATIONS BECOME FINAL.
PART III: 1995 BASE CLOSURE QUESTIONNAIRES
12. THE 1995 BASE CLOSURE QUESTIONNAIRE (WHETHER BLANK OR
COMPLETED), ALL QUESTIONNAIRE DATA AND ANSWERS, AND ANY OTHER
INFORMATION REQUESTED BY AND PROVIDED TO THE BASE CLOSURE EXECUTIVE
GROUP (BCEG) TO DETERMINE BASE CLOSURE AND REALIGNMENT
RECOMMENDATIONS BECOME BCEG RECORDS AND MUST BE MARKED "FOR OFFICIAL
USE ONLY." IAW DOD POLICY, THIS INFORMATION IS NOT RELEASABLE UNDER
THE FOIA OR OTHERWISE TO THE PUBLIC WHEN THE DELIBERATIVE, PRE-
DECISIONAL PROCESS IS UNDERWAY. ONCE DOD RECOMMENDATIONS ARE
PROVIDED TO THE BRACC (NLT 1 MAR 95), ALL NON-CLASSIFIED DATA USED IN
THE PROCESS MAY BE RELEASABLE TO THE PUBLIC.
13. THIS RESTRICTION ON RELEASING BASE CLOSURE INFORMATION DOES NOT
PROHIBIT INSTALLATIONS FROM OBTAINING DATA FROM THE LOCAL COMMUNITY
WHEN THE LOCAL COMMUNITY IS THE ONLY SOURCE OF INFORMATION (EXAMPLES:
PUPIL-TO-TEACHER RATIO, CRIME STATISTICS, ETC.).
IT DOES, HOWEVER, PROHIBIT INSTALLATIONS FROM GIVING THE
QUESTIONNAIRE TO THE LOCAL COMMUNITY. ONLY DESIGNATED DOD PERSONNEL
MAY ANSWER THE QUESTIONNAIRE.
14. HANDLE REQUESTS FOR INFORMATION NOT ASSOCIATED WITH THE CLOSURE
PROCESS IAW THE FOIA AND PUBLIC AFFAIRS GUIDANCE. HOWEVER,
COORDINATE THESE REQUESTS THROUGH BOTH PUBLIC AFFAIRS AND THE BASE
CLOSURE POC TO ENSURE THAT THE REQUESTED INFORMATION IS NOT
SIMILAR TO OR THE SAME AS INFORMATION PROVIDED TO THE BRAC 95
QUESTIONNAIRE. IF THE REQUESTED INFORMATION IS RELEASABLE AND TRACKS
WITH THE BRAC 95 QUESTIONNAIRE, MAKE SURE THE INFORMATION PROVIDED TO
THE PUBLIC IS SUBSTANTIVELY THE SAME AS THAT PROVIDED ON THE BRAC 95
QUESTIONNAIRE. INCLUDE THE BASE FOIA OFFICE IF A RECORDS REQUEST IS
INVOLVED.
PART IV: MEDIA INTEREST AND QUESTIONS AND ANSWERS
15. AS COMMUNITY LEADERS HAVE BECOME INCREASINGLY INTERESTED IN THE
BRAC PROCESS, THERE HAS BEEN AN INCREASE IN QUERIES REGARDING THE
PROCESS AND THE POTENTIAL FOR LOCAL IMPACT FROM MEDIA
REPRESENTATIVES.
A. THE PERCEPTION EXISTS THAT BRAC 95 WILL BE THE MOST DRAMATIC
ROUND YET, AND REPORTERS ARE PROCEEDING ACCORDINGLY. THE FACT THAT
SOME COMMUNITY LEADERS ARE VISITING SENIOR PENTAGON OFFICIALS AND
OTHER COMMUNITIES, AND ARE OFFERING SUBSTANTIAL MONETARY INVESTMENTS
FOR LOCAL BASES, HAS FURTHER PIQUED MEDIA INTEREST. THE MEDIA ARE
VERY INTERESTED IN GETTING AIR FORCE REPRESENTATIVES TO SPECULATE ON
THE POSSIBILITY OF LOCAL BASE CLOSINGS.
B. UNDER NO CIRCUMSTANCES SHOULD AIR FORCE REPRESENTATIVES SPECULATE
OR RANK THEIR BASES AGAINST OTHER INSTALLATIONS. BASE CLOSING IS A
VERY EMOTIONAL ISSUE FOR COMMUNITIES TO DEAL WITH, AND REGARDLESS OF
THE CLOSE RELATIONSHIP BASES DEVELOP WITH THEIR LOCAL COMMUNITIES,
THE MILITARY MUST REMAIN NEUTRAL IN THIS ENTIRE PROCESS.
16. PUBLIC AFFAIRS OFFICERS MUST TAKE THE LEAD IN PROVIDING FACTUAL,
ACCURATE, AND NON-SPECULATIVE INFORMATION TO ENSURE THE BASE CLOSURE
AND REALIGNMENT PROCESS WILL PROCEED ACCORDING TO STATED LAWS. THE
FOLLOWING QUESTIONS AND ANSWERS ARE DESIGNED TO HELP YOU ANSWER
QUERIES AND REMAIN NEUTRAL IN YOUR DEALINGS WITH THE MEDIA AND
COMMUNITY LEADERS.
17. Q: HOW MANY AIR FORCE BASES WILL BE CLOSED IN BRAC 95?
A: THERE IS NO TARGET NUMBER OR QUOTA OF BASES TO BE CLOSED.
HOWEVER, THE DEPUTY SECRETARY OF DEFENSE ESTABLISHED A GOAL OF A 15%
REDUCTION OF THE DOD-WIDE PHYSICAL PLANT FOR BRAC 95. THIS GOAL DOES
NOT TRANSLATE INTO A NUMBER OR QUOTA OF BASES TO BE CLOSED. SECDEF'S
CLOSURE RECOMMENDATIONS WILL BE BASED ON THE FORCE STRUCTURE PLAN AND
THE CLOSURE CRITERIA. UNDER THE LAW, EVERY BASE MEETING THE CRITERIA
IN THE LAW MUST BE CONSIDERED FOR CLOSURE OR REALIGNMENT.
18. Q: HOW WILL THE CURRENT COURT CASES CHALLENGING THE PROCESS

AFFECT BRAC 95?
A: WE CANNOT COMMENT ON CASES UNTIL THE JUDICIAL PROCESS (INCLUDING ANY APPEALS) IS COMPLETE.
19. Q: IF THE MILITARY SAYS THERE ARE NO LONGER ANY "BAD BASES," THEN WHY ARE WE STILL CLOSING INSTALLATIONS?
A: THE INFRASTRUCTURE IN PLACE WAS DESIGNED TO SUPPORT A MUCH LARGER MILITARY FORCE. WITH THE DRAWDOWN, WE NEED TO CONSOLIDATE OUR FORCES AND OPERATE MORE EFFICIENTLY. BASE CLOSINGS AND REALIGNMENTS ARE NECESSARY TO ENSURE OUR FORCES ARE LOCATED WHERE WE NEED THEM AND IN FACILITIES THAT WILL SUPPORT THEM.
20. Q: WHEN WILL WE KNOW WHICH BASES WILL BE CLOSED?
A: THE DOD RECOMMENDATIONS WILL BE PROVIDED TO THE BRACC NLT 1 MAR 95. THE COMMISSION IS SCHEDULED TO START ITS REVIEW IN MARCH 1995.
21. Q: WHO WILL SIT ON THE BRAC COMMISSION THIS YEAR?
A: COMMISSIONERS WILL BE NOMINATED BY THE PRESIDENT NLT 3 JAN 95.
22. Q: HOW ARE BRAC COMMISSIONERS SELECTED?
A: THEY ARE APPOINTED BY THE PRESIDENT WITH ADVICE AND CONSENT OF THE SENATE, AND IN CONSULTATION WITH CONGRESSIONAL LEADERSHIP.
23. Q: IF A BASE SCORED POORLY IN SEVERAL AREAS IN THE LAST ROUND, HOW WILL THAT AFFECT ITS CHANCES FOR CLOSURE IN THE 1995 ROUND?
A: EVERY BASE BEGINS THE PROCESS WITH A CLEAN SLATE. THE DATA USED FOR EVALUATION IN THE 1995 ROUND IS CURRENTLY BEING COLLECTED. THERE HAVE BEEN NUMEROUS CHANGES IN FORCE STRUCTURE, INFRASTRUCTURE, AND PERSONNEL SINCE THE PREVIOUS ROUND, SO USING DATA FROM THE 1993 OR 1991 ROUND WOULD NOT PROVIDE A FACTUAL PICTURE FOR BRAC 95.
24. Q: WHICH BASES WILL BE EVALUATED DURING BRAC 95?
A: ALL BASES WITH AT LEAST 300 DIRECT-HIRE CIVILIAN AUTHORIZATIONS MUST BE EVALUATED AND HAVE BEEN ASKED TO SUBMIT REPLIES TO A STANDARDIZED QUESTIONNAIRE, WHICH FORMS THE MASTER DATA BASE. (BASES WITH LESS THAN 300 DIRECT-HIRE CIVILIAN AUTHORIZATIONS MAY ALSO BE INCLUDED.)
25. Q: HOW IS THE QUESTIONNAIRE USED?
A: THE COMPLETED QUESTIONNAIRE GOES THROUGH THE MAJCOM TO THE BASE CLOSURE EXECUTIVE GROUP (BCEG). THE BCEG USES THE RESPONSES TO THE QUESTIONS TO EVALUATE EACH BASE IN LIGHT OF THE SELECTION CRITERIA AND FORWARDS ITS ANALYSIS TO SECAF, WHO THEN DEVELOPS THE AIR FORCE'S RECOMMENDATION FOR SUBMISSION TO DOD. THE BRACC USES ALL THIS INFORMATION TO HELP IN MAKING ITS RECOMMENDATIONS TO CONGRESS AND THE PRESIDENT.
26. Q: WHO IS ON THE BCEG?
A: THE BCEG IS MADE UP OF APPROXIMATELY 12 AIR FORCE GENERAL OFFICERS AND SENIOR EXECUTIVE SERVICE CIVILIANS FROM A VARIETY OF FUNCTIONAL AREAS. SECAF SELECTS THE BCEG MEMBERS.
27. Q: WHAT IS THE NATURE OF QUESTIONS ON THE QUESTIONNAIRE?
A: THE BASIC QUESTIONNAIRE IS DESIGNED TO COLLECT DATA TO SUPPORT EVALUATION OF EACH OF THE DOD CRITERIA. AS A RESULT, QUESTIONNAIRE TOPICS RANGE FROM OPERATIONAL EFFECTIVENESS TO BASE CAPACITY AND INFRASTRUCTURE. THE COMMUNITY'S ABILITY TO PROVIDE SUPPORTING SERVICES AS WELL AS ENVIRONMENTAL AND ECONOMIC CONSIDERATIONS ARE ALSO TOPIC AREAS.
28. Q: HOW LONG DO BASES HAVE TO COMPLETE THE QUESTIONNAIRE?
A: INPUTS ARE DUE TO HQ USAF FROM THE BASES VIA THE MAJCOMS IN EARLY
BT
UNCLAS ALMAJCOM-FOA 0170/94 FINAL SECTION OF 03
MAY 1994. HOWEVER, SUPPLEMENTAL DATA MAY BE GATHERED THROUGH THE SUMMER AND FALL.
29. Q: HOW IS THE INFORMATION DETERMINED TO BE CORRECT?
A: THE AIR FORCE INTERNAL CONTROL PLAN PROVIDES A SERIES OF STEPS FOR ENSURING ACCURATE DATA IS PROVIDED. THE DATA IS REVIEWED AT BASE, MAJCOM, AND AIR STAFF LEVELS. AT EACH STEP, OFFICIALS ARE REQUIRED TO CERTIFY THAT THE INFORMATION IS ACCURATE AND COMPLETE TO THE BEST OF THEIR KNOWLEDGE. THE PROCESS IS DESIGNED TO BE DELIBERATE, AUDITABLE, AND ACCOUNTABLE.
30. Q: WHY IS THE QUESTIONNAIRE NOT RELEASABLE?
A: OSD HAS DIRECTED THAT THE DATA AND ANALYSES USED TO EVALUATE

PENTAGON
OPERATIONS DIRECTORATE

MILITARY INSTALLATIONS FOR CLOSURE AND REALIGNMENT NOT BE RELEASED UNTIL AFTER DOD HAS FORWARDED ITS RECOMMENDATIONS TO THE BRACC (REFERENCE SOURCE DOCUMENT). WE DO NOT RELEASE THE QUESTIONS OR ANSWERS BECAUSE THEY ARE PART OF AN INTERNAL DELIBERATIVE PROCESS AND DISCLOSURE COULD ADVERSELY AFFECT THAT PROCESS.
31. Q: CAN THE QUESTIONNAIRE BE REQUESTED THROUGH FOIA?
A: YES. THE QUESTIONNAIRE WILL BE FULLY RELEASABLE AFTER DOD HAS FORWARDED RECOMMENDATIONS TO THE BRACC. SEND ALL QUESTIONNAIRE FOIA REQUESTS TO SAF/AAIS.
32. Q: WHY CAN'T THE LOCAL COMMUNITY GIVE INPUTS?
A: THE COMMUNITY CAN GIVE INPUTS, BUT NOT THROUGH THE OFFICIAL AIR FORCE QUESTIONNAIRE. THE OFFICIAL QUESTIONNAIRE WILL BE USED BY THE AIR FORCE IN ITS DELIBERATION; THEREFORE, ONLY DESIGNATED DOD PERSONNEL CAN PROVIDE INPUTS TO THE QUESTIONNAIRE.
33. Q: WHAT IS THE PROCESS FOR THE LOCAL COMMUNITY TO GIVE INPUT?
A: LOCAL COMMUNITIES CAN BE HEARD THROUGH LOCAL GOVERNMENT REPRESENTATIVES AND BEFORE THE BRACC. AFTER THE DOD PHASE OF THE BASE CLOSURE PROCESS IS COMPLETE, THE BRACC MEETS WITH COMMUNITY REPRESENTATIVES, HOLDS REGIONAL HEARINGS, VISITS MILITARY FACILITIES, AND HEARS FROM EXPERT WITNESSES, INCLUDING CONGRESS. HEARINGS, DELIBERATIONS, AND RECORDS ARE OPEN TO THE PUBLIC. THE BRACC ALSO RECEIVES LETTERS FROM CONCERNED CITIZENS.
34. Q: DOES IT BENEFIT THE LOCAL COMMUNITY TO SEND A DELEGATION TO MEET WITH SENIOR AIR FORCE OFFICIALS LIKE SECAF OR CSAF?
A: SUCH VISITS ARE OF LIMITED VALUE SINCE THE SERVICE RECOMMENDATIONS TO SECDEF ARE BASED ON THE OBJECTIVE EVALUATION OF MISSION NEEDS AND THE SELECTION CRITERIA. HOWEVER, THE AIR FORCE DOES ENDORSE COMMUNITY UNDERSTANDING OF THE PROCESS. IN THAT REGARD, THE AIR FORCE WILL ADDRESS COMMUNITY BRAC PROCESS INQUIRIES.
35. Q: DOES IT BENEFIT THE LOCAL COMMUNITY TO "PUT THEIR MONEY WHERE THEIR BASE IS;" THAT IS, OFFERING TO INVEST LARGE AMOUNTS OF MONEY TO BUILD NEW RUNWAYS, MOVE HOUSING AREAS, BUY LAND, ETC.?
A: COMMUNITY OFFERS THAT MUST BE APPROVED/ENDORSED BY THE AIR FORCE WILL BE DENIED. HOWEVER, LOCAL COMMUNITIES ARE FREE TO PURSUE ACTIONS NOT REQUIRING AIR FORCE APPROVAL AT THEIR DISCRETION. (EXAMPLE: THE CONDEMNATION OF HOUSING IN THE VICINITY OF A MILITARY INSTALLATION IN ORDER TO REDUCE ENCROACHMENT.)
36. Q: WHAT IS THE CAPACITY ANALYSIS SURVEY?
A: THIS IS A SURVEY OF ALL AIR FORCE BASES TO DETERMINE WHAT LEVEL OF CAPACITY IS AVAILABLE AND WHAT IS CURRENTLY BEING USED. THE CAPACITY ANALYSIS INVOLVES LOOKING AT TWO MAJOR AREAS: OPERATIONAL CAPABILITIES AND FACILITIES. THE INFORMATION OBTAINED WILL BE USED IN VALIDATING AIR FORCE EXCESS CAPACITY AND IN DETERMINING BASE CLOSURE AND REALIGNMENT RECOMMENDATIONS.
37. Q: DOES THE EXISTENCE OF EXCESS CAPACITY AT A BASE MEAN IT WILL CLOSE?
A: NO, ALL OF OUR BASES HAVE EXCESS CAPACITY TO A DEGREE; HOWEVER, WE DO NOT PLAN TO OPERATE OUR INSTALLATIONS AND FACILITIES AT 100%. IF WE DID, WE WOULD NOT HAVE THE FLEXIBILITY REQUIRED TO SUPPORT MINOR MOVEMENTS OF DOD FORCE STRUCTURE, MISSION, AND/OR PERSONNEL. THEREFORE, EXCESS CAPACITY ALONE WILL NOT DRIVE A CLOSURE RECOMMENDATION. HOWEVER, EXCESS CAPACITY CAN RESULT IN REALIGNMENTS TO REDUCE THE EXCESS OR NO ACTION.
38. Q: WHEN IS THE CAPACITY ANALYSIS SURVEY TO BE COMPLETED?
A: THE BASES HAVE MADE THEIR INPUTS AND IT IS BEING PROCESSED BY MAJCOMS AT THIS TIME. RESULTS WERE DUE TO HQ USAF BY 15 APR 94.
39. Q: WILL THE CAPACITY ANALYSIS SURVEY BE RELEASED TO THE PUBLIC?
A: IT WILL BE AVAILABLE WHEN THE DOD RECOMMENDATIONS ARE FORWARDED TO THE BRACC, NLT 1 MAR 95. (NOTE: THIS SURVEY IS ALWAYS CONSIDERED "FOR OFFICIAL USE ONLY.")
40. THIS MESSAGE HAS BEEN COORDINATED WITH SAF/MI, SAF/GC, AF/JA, AND AF/XO. PUBLIC AFFAIRS POC FOR BASE CLOSURE ISSUES IS MAJOR MARY FELTAULT, SAF/PAM, DSN 225-0640. POC FOR THE BASE CLOSURE QUESTIONNAIRE IS LT COL JOHN PLUMMER, AF/XOOR, DSN 225-6766. POC FOR FOIA QUESTIONS IS MS. ANNE TURNER, SAF/AAIQ, DSN 227-3491.

PENTAGON
OPERATIONS DIRECTORATE

BT

<u>Page 1, Question 4:</u> <u>Secretary Widnall</u>, which of your recommendations are a direct result of alternatives presented by the Joint Cross-Service Groups? Please explain the use of information by Joint Cross-Service Groups. Please furnish Cost of Base Realignment Action (COBRA) analyses for the cross-service groups scenario alternatives in accordance with the 1995 Base Realignments and Closures (BRAC) Policy Memorandum Three dated December 29, 1994.

<u>Answer:</u> The recommendation to close Rome Lab, and some of the distribution of activities to Hanscom AFB and Fort Monmouth, resulted from a Laboratory Joint Group alternative. The retention of the Phillips Lab portion of Kirtland AFB is consistent with the Laboratory Joint Group. The REDCAP and AFEWES actions are the result of alternatives developed by the T&E Joint Group. The recommended closure of Reese AFB is consistent with the UPT Joint Group's evaluation and alternatives.

The Air Force fully integrated the Joint Group process into its 1995 BRAC analysis. For the Laboratory, Test and Evaluation, and Depot subcategories, the Air Force used Joint Group data, the same methodology and, with few exceptions, the same measures of merit to produce the functional portion of the Criterion I grade for those installations. For the Undergraduate Flying Training category, the Air Force used the Joint Group functional values as the basis for its Criterion I grade. These steps ensured that the Air Force analysis was consistent, to the maximum extent possible, with the Joint Group direction on analysis of these functions.

The Air Force also analyzed Joint Group alternatives, examined the capacity and capability appropriateness of alternatives, and participated in COBRA analysis where an Air Force installation was either the losing or gaining installation in the alternative. The Air Force provided its analysis to the Joint Groups as appropriate, with a clear communication of the prospects for implementation of the alternatives.

COBRA information is in a notebook titled "Department of the Air Force Joint Cross-Service Groups COBRA Run Summaries" which has already been provided.

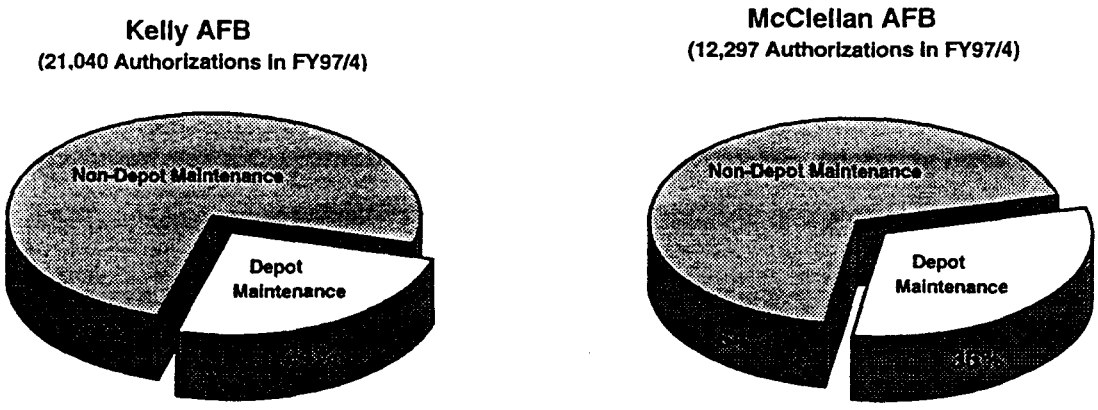
Depots

<u>Page 2, Question 1</u>: Secretary Widnall, Deputy Secretary Deutch presented an Air Force Depot Proposal Chart at his February 28th press conference which suggested, at least in the case of the Air Force, that it is more cost effective to consolidate or downsize depots than it is to close them. According to that chart, consolidation as opposed to a two depot closure, would reduce one-time costs by $924 million, while increasing the net present value by another $292 million.

Please explain how the consolidation option, which retains 18 million more square feet and 763 more people than the closure option, can produce these savings?

<u>Answer:</u> Significant costs can be avoided by consolidating rather than closing depots. Large cost avoidances include personnel and equipment transfers, MILCON requirements, and other one-time unique costs associated with a closure. A dual closure option closed the entire installation and all depot maintenance and non-depot maintenance personnel authorizations at Kelly and McClellan AFBs were transferred to new installations, cantoned, or eliminated. Although we examined a dual closure option, we identified excess capacity in our depots of only 1.5 depot equivalents. It is important to note the number of non-depot maintenance personnel authorizations at each site is significant and would have a dramatic impact on cost to close. The following chart identifies the number of depot maintenance and non-depot maintenance authorizations at Kelly and McClellan AFBs.

Comparison of Depot Maintenance vs. Non-Depot Maintenance Authorizations at Kelly and McClellan AFBs



The consolidation option assumed the installation remains open and impacted primarily the depot maintenance activities and associated personnel. Since the Air Force selected for consolidation the commodities/processes which produced the most benefits, costs were low and savings were high. As a result, large MILCON requirements for the tenant population, military family housing, and renovation/new administrative space were avoided.

The savings noted in this question refer to the net present value of each option in the year 2015. The consolidation option has one-time costs of $183M and produces annual savings of approximately $89M. The dual closure option has one-time costs of $1200M and annual savings of approximately $163M. Although the annual savings of the consolidation option is approximately one-half that of the closure option, it produces a higher net present value during this period because the one-time costs to implement this option are significantly less than the one-time cost to implement the dual closure scenario.

<u>Page 2, Question 2:</u> Secretary Widnall, the Air Force option would consolidate similar workloads to the least number of sites as does the cross service alternative of closing two Air Logistics Centers. Both options would require some personnel to transfer from one location to another.

Why does the Air Force downsize option involve realignment of 251 civilian personnel, compared to almost 19,000 personnel who would be realigned if two Air Logistics Centers were closed?

<u>Answer:</u> The dual closure option closed both Kelly AFB and McClellan AFBs in their entirety. This approach required the transfer, cantonment, or elimination of all personnel authorizations at these installations and resulted in the transfer of nearly 19,000 personnel authorizations. The Kelly/Lackland cantonment accounts for approximately 5300 transfers. It should be noted that there are no costs associated with these transfers since the COBRA model considers all moves under 50 miles to be "no cost" transfers.

The downsizing option assumed that the installation remained open and involved only depot maintenance personnel and their associated BOS tail. Since the installation remained open, there was no requirement to move the people. Furthermore, it was assumed the personnel could be retrained rather than transferred to a new location if a workload was realigned. Personnel authorizations were transferred only when a location was a net workload gainer. For example, a depot may lose 100 authorizations as a result of workloads realigned to new sites and gain 110 authorizations as a result of workload realigned in. This scenario would result in a net gain of 10 authorizations and would require the transfer of 10 authorizations.

<u>Page 2, Question 3</u>: Secretary Widnall, during the DOD hearing last week, Secretary Perry presented a chart which compared the costs and savings of down-sizing and retaining all five Air Logistics Centers to the costs of closing two of these centers. Nearly two-thirds of the savings under the "downsizing" alternative came from "non-BRAC actions."

What are these "non-BRAC actions" and why are they included in this analysis?

Answer: The "non-BRAC actions" reflect the impact of force structure reductions, downsizing to core, contracting out, and other non-BRAC initiatives. The chart portrayed the real effort, both BRAC and non-BRAC, that the Air Force brought to bear on the issue of reducing depot infrastructure.

<u>Page 2, Question 3b</u>: Would these "non-BRAC actions" be realized even if one or two Air Logistics Centers were closed?

<u>Answer:</u> No. The movement of workload into remaining Air Logistics Centers would preclude many of these actions.

<u>Page 2, Question 3c:</u> What are the total savings that these "non BRAC actions" would provide if the Air Force closes one or two Air Logistics Centers?

<u>Answer:</u> Some savings would be achieved, but these savings would be substantially reduced because the infrastructure eliminated by these actions may either be eliminated by the closure, or may be required for receiving work from closed Air Logistics Center bases. These savings have not been calculated. The savings should not be added directly to a depot closure calculation.

Page 3, Question 3d: How would the alternatives compare if you remove the "non-BRAC actions" from the downsizing alternative and then compare that alternative to closing only the one air logistics center that provides the greatest savings?

Answer: The financial aspects of the recommended downsizing option, with no consideration of non-BRAC actions, are as follows:

One-time costs	Annual savings	20 Yr NPV	ROI	Personnel
$183 M	$89 M	($991.2 M)	2	1905

The financial aspects of the options for closure of either Kelly or McClellan alone are as follows:

	One-time costs	Annual savings	20 Yr NPV	ROI	Personnel
Kelly AFB	$545 M	$74 M	($341 M)	7	120[illegible]
McClellan AFB	$559 M	$89 M	($487 M)	6	1500

Page 3, Question 4: Secretary Widnall, the chart also shows that the one time cost to close Air Logistics Centers at San Antonio and Sacramento are approximately $1.1 billion. Cost of Base Realignment Actions analysis in support of these recommendations reflect that the estimate includes about $249 million in construction costs, $330 million in personnel moving costs, and approximately $257 million in "unique" one time costs.

Please explain in as much detail as possible why the Air Force would need to spend $249 million for construction, when excess capacity already exists at all Air Logistics Centers. (It was indicated during the hearing that an insert for the record detailing the construction requirements would be provided).

Answer: A large percentage of the total MILCON costs are associated with tenant requirements, renovation/new administrative space, and military family housing. Refer to the following tables for specific projects and costs.

MILCON Requirements for Kelly Closure

Losing Base	Gaining Base	Organization	Description	Cost ($M)
Kelly	Lackland	Multiple (cantonment)	Utilities	1.5
Kelly	Lackland	Multiple (cantonment)	Fences, Security, Roads	0.3
Kelly	Hill	Air Logistics Center	Cold Storage Facility	0.5
Kelly	Tinker	Air Logistics Center	Bldg 214 GTE Test Facility	0.7
Kelly	Tinker	Air Logistics Center	Fuel/Air Facility	1.1
Kelly	Tinker	Air Logistics Center	Bldg 3902 Fuel Test	1.7
Kelly	Tinker	Air Logistics Center	Bldg 3703 Fuel Test	5.0
Kelly	Tinker	Air Logistics Center	C-5 Repair Facilities	52.1
Kelly	Tinker	Air Logistics Center	Renovate Engine Test Cells	8.7
Kelly	Tinker	Multiple	New/Renovate Admin Space	19.9
Kelly	Tinker	Air Logistics Center	93 new MFH Units	12.1
			Kelly Total	**104.6**

Continued Next Page

MILCON Requirements for McClellan Closure

Losing Base	Gaining Base	Organization	Description	Cost ($M)
McClellan	Tinker	Air Logistics Center	New A/C Maintenance Dock	0.3
McClellan	Tinker	Air Logistics Center	Hydraulics Reconfiguration	1.0
McClellan	Tinker	Special Mission	SCIF and Secure Storage	15.4
McClellan	Tinker	Air Logistics Center	Instruments	0.5
McClellan	Tinker	Air Logistics Center	New/Renovate Admin Space	3.3
McClellan	Offutt	AFTAC	Renovate Facilities	4.4
McClellan	Offutt	AFTAC	Airman Dormitory	1.7
McClellan	Hill	Air Logistics Center	3&6 Story Tower	1.5
McClellan	Hill	Air Logistics Center	40,000 sf High Bay	8.2
McClellan	Hill	Air Logistics Center	Renovate Bldg 100C	0.1
McClellan	Hill	Air Logistics Center	Renovate Bldg 5N	1.5
McClellan	Hill	Air Logistics Center	Construct Test Platform	0.4
McClellan	Hill	Air Logistics Center	Tower Supports	0.2
McClellan	Hill	Air Logistics Center	Renovate Bldg 265	1.3
McClellan	Hill	Air Logistics Center	Construct Test Cells	0.3
McClellan	Hill	Air Logistics Center	Renovate Bldg 11	1.0
McClellan	Hill	Air Logistics Center	New/Renovate Admin Space	9.5
McClellan	Moffett	US Coast Guard	Beddown 4 C-130 Aircraft	22.1
McClellan	Travis	Multiple	Dormitory	1.3
McClellan	Travis	Det 42	Secure Facilities	23.5
			McClellan Total	**97.5**

MILCON Requirements for Dual Closure

(Close Kelly and McClellan AFBs Simultaneously)

Losing Base	Gaining Base	Organization	Description	Cost $(M)
Dual Closure	Tinker	Air Logistics Center	TTB Hangar	12.6
Dual Closure	Tinker	Air Logistics Center	Add'l Admin MILCON	8.8
Dual Closure	Tinker	Air Logistics Center	Add'l 90 MFH Units	11.7
Dual Closure	Hill	Air Logistics Center	Add'l Admin MILCON	10.7
			MILCON For Kelly Closure	104.6
			MILCON for McClellan Closure	97.5
			Dual Closure Total	**245.9**

<u>Page 3, Question 4a</u>: The $330 million cost estimate to accommodate personnel movements would apparently move almost 19,000 civilian and 6,600 military personnel. Considering that the five Air Logistics Centers will employ only 27,000 civilians, is it really necessary to relocate 19,000 (67%) civilians to accommodate two aviation logistics center closures. (Mr. Beach indicated he also questioned this percentage and would provide an insert for the record on this point.)

<u>Answer:</u> When the closure of the Air Logistics Center bases are considered, a total base closure is the scenario. There are more than 79,000 civilian and military positions in five Air Logistic Centers. The two depot closure option involved 28,664 military and civilian position. (17,660 at Kelly, and 11,004 at McClellan) From that number, 2,683 positions were eliminated as a result of base operating support and consolidation efficiencies. The remaining positions were moved. Approximately 5,300 positions moved to Lackland, at no cost because of the 50 mile limit on costed moves. The remainder were moved to other Air Force installations, the majority of which were Air Logistic Centers, and were transferred with the relocated workload.

<u>Page 3, Question 4b</u>: Why is the cost of moving 6600 military personnel included as a cost to close the Air Logistics Centers when nearly all depot personnel are civilian employees. Please provide details used in calculating costs.

Answer: Although most depot personnel are civilians, there are other AF or DOD tenants on the installation that must be transferred if the entire installation is closed. The Kelly/Lackland cantonment accounts for approximately 3300 military personnel transfers. There are no costs associated with these transfers since the COBRA model considers all moves under 50 miles to be "no cost" transfers. The remainder move to other military installations, at a cost in the scenario of approximately $15 Million.

Page 3, Question 4c: Please explain in as much detail as possible what is meant by "one-time unique closing costs?" Please itemize the one time unique costs.

Answer: The COBRA model is well suited to estimate the cost of operational units but does not capture all costs associated with closing a depot. As a result, a number of "one-time unique costs" are computed off-line and entered into COBRA. These costs generally include production transition costs, environmental studies, line rearrangement costs, and Base Conversion Agency overhead. Production transition costs reflect the cost of overtime, contractor support, and temporary hires necessary to support depot requirements during the transition period. Environmental studies reflect those studies needed to determine disposal/reuse potential for closure and realignment actions. Line rearrangement costs result when a product line must be changed either to accommodate more workload or moved to a new building/installation. If an installation is closed, the Base Conversion Agency (BCA) establishes an office during the closure period. This cost represents the estimated cost for the BCA. Refer to the following table for one-time unique costs used in the COBRA model for each option.

One-Time Unique Costs for Dual Closure Option

Category	Cost ($M)
Production Transition Costs	112.7
Environmental Studies	6.9
Civilian Terminal Leave	15.1
Rearrangement Costs	41.0
Base Conversion Agency	60.0
Shutdown Neutron Radiography Facility	2[illegible].0
Total	**255.7**

One-Time Unique Costs for Consolidation Option

Category	Cost ($M)
Retraining Costs	9.0
Productivity Losses	14.9
Facility Demolition Costs	25.9
Total	**49.8***

* Varies slightly from COBRA report due to inputs associated with facility demolition costs.

The consolidation option also includes $44.1 million for rearrangement costs. Unlike the closure option, these costs are reflected in the MILCON category.

Page 3, Question 5: Secretary Widnall, your alternative to downsizing was the closure of two depots. Did you examine the alternative to close one depot?

Answer: Each Air Logistics Center installation was examined for the same eight criteria by which all Air Force installations were examined. This analysis led to each installation being placed in one of three tiers. Based upon the tiering of all five installations, we examined three closure options: Kelly only, McClellan only, and both installations together. We identified, however, an excess capacity of only 1.5 depot equivalents in our process.

<u>Page 4, Question 6:</u> Secretary Widnall, in testimony last week, Mr. Gotbaum indicated that the Depot Joint Cross-Service Group calculated capacity of depots based on a 40-hour work week, or just one shift per activity. This is a very conservative way of measuring capacity since people work more than one shift in times of crisis. Using only one shift, how much excess capacity does the Air Force have?

Answer: The Air Force calculated an excess capacity of approximately one-and-one-half depots of excess capacity. The Air Force peacetime CORE requirement is calculated based upon a 40 hour, single shift workweek. This CORE peacetime requirement is necessary to ensure sufficient personnel, facilities, and resources, are available to support JCS wartime scenarios as required by Title 10. The wartime requirement will be greater than that experienced in peacetime. This will be met by surging our peacetime capability (through increased shift operations). The CORE determination is an approved DOD methodology used by all services.

<u>Page 4, Question 6a</u>: If you used one and one half or two shifts, how much excess capacity does the Air Force have?

<u>Answer:</u> For given workloads, the number of shifts required is a function of the amount of work, facilities, and personnel available. The Air Force currently utilizes multi-shift operations at its depots for given workloads.

It is important to understand that excess capacity is not solely based upon single/multi-shift utilization. The Air Force must be able to support its wartime requirements and other statutory requirements. The Air Force must maintain sufficient capacity in peacetime to surge to meet our wartime requirement. Excess capacity can be determined after meeting our peacetime, wartime, and statutory capacity requirements. The Air Force must also comply with the law which requires that no more than 40 percent of our appropriated funds be obligated for the performance of depot level maintenance by non-Government employees.

<u>Page 4, Question 7</u>: Secretary Widnall, in May 1994 the Deputy Secretary of Defense stated "...depot maintenance capabilities will comprise only the *minimum facilities, equipment, and skill personnel necessary* to ensure a ready and controlled source of required competence.

Will the Air Force base closure list result in the minimum number of facilities to ensure readiness and sustainability?

Answer: The Air Force proposal (BRAC and non-BRAC) reduces excess depot capacity across all depots. The recommended realignments will consolidate production lines and move workloads to a minimum number of locations, allowing the reduction of personnel, infrastructure, and other costs. The net effect of the realignments along with other downsizing actions reduce Air Force capacity from 39.5 million hours to 30.7 million hours. These actions will reduce excess capacity and enhance efficiencies. As a result of all Air Force actions, depot maintenance capabilities will comprise the minimum necessary resources to accomplish the workload.

Product Centers and Laboratories

Page 4, Question 1: Secretary Widnall, an April 1994 Defense Science Board (DSB) report states that the Defense Laboratory System is an "obsolescent artifact of the Cold War that has not kept pace with the shrinking military force structure and changing patterns of technology advancement generation." The DSB recommended a 20 percent cut in the laboratories' Civil Service personnel, in addition to the 4 percent per annum cut directed by Defense Policy Guidance 1995-99. These cuts will result in a 35 percent reduction by the end of the century. Have you recommended base closures or realignments as a result of these personnel reductions?

Answer: The recommended closure of Brooks AFB and relocation of the Human Systems Center and the closure of Rome Lab will bring total personnel down to the level the Air Force will need to effectively operate in this area. The closures and realignments were recommended as a result of an analysis of force structure and the eight selection criteria.

Page 5, Question 2: Secretary Widnall, your recommendation to close Brooks Air Force Base, Texas, involved closing all activities and facilities, including family housing. We understand that there is a large waiting list for family housing at nearby Lackland Air Force Base.

Why did your recommendation not include the retention of family housing at Brooks to help satisfy Air Force family housing requirements in the San Antonio metropolitan area? (Major General Blume agreed to revisit this issue and to provide an insert for the record.)

Answer: Brooks AFB Family Housing was not recommended for retention so that Brooks AFB could be recommended for total closure. The Air Force receives most benefit from the total closure of an installation and the elimination of its entire base operating support. However, in response to the question from the Commission, AETC and AFMC are evaluating the possibility of transferring the responsibility for Brooks base housing to Kelly AFB or Lackland AFB. The Air Force will provide a position on this issue in the near future.

Page 5, Question 3: Secretary Widnall, we recently received a copy of a memorandum dated February 15, 1995, from the Deputy Assistant Secretary of the Army (Installations and Housing) to the Principal Deputy Assistant Secretary of the Air Force (Installations) expressing interest in the U.S. Army Reserve Command acquiring approximately 57 acres and 13 permanent buildings at Brooks AFB--should it become available from the Air Force (see attachment). Transfer of this Air Force property would allow the Army Reserve to (1) eliminate a costly lease, (2) reduce the need for newly programmed military construction, and (3) provides facilities necessary to enhance unit readiness at a significant savings to the Department of Defense. According to Army officials, the Army Reserve would be able to cancel a lease with an annual cost saving of $218,655 and a fiscal year 1999 military construction project with an estimated cost saving of $11.4 million.

Was this request discussed and resolved during deliberations by either the BRAC 95 Steering Group or BRAC 95 Review Group, which were established to consider such inter-service needs? If not, why not? (During the hearing, testimony indicated a record reply was in order.)

Answer: This question was not discussed during any deliberation of the Review or Steering Group. Moreover, this request was not discussed by the Air Force Base Closure Executive Group nor presented to the Secretary of the Air Force for consideration. This type of request seems most appropriate for consideration during the screening period associated with base closures after those closures are approved. During the screening period, conducted immediately following closure approval, DoD organizations have priority to request real property.

<u>Page 5, Question 4:</u> <u>Secretary Widnall</u>, an alternative was received by the Laboratory Joint Cross-Service Group to consolidate the lab at Brooks Air Force Base to a Naval Installation in Orlando, Florida. Instead, the Air Force chose to relocate the lab to Wright-Patterson Air Force Base.

What was the Air Force's rationale for this action?

<u>Answer:</u> The rationale for the Air Force decision regarding the Brooks AFB receiver was (1) cost, (2) use of available capacity, and (3) consolidation of related activities. Specifically, because the LJCSG proposed relocation of part of Brooks AFB activities was to leased space, the LJCSG alternative would not use available DoD capacity and would be more costly than using existing Air Force capacity at Wright-Patterson AFB. Additionally, since the primary customer for the products and services of the Human Systems Center and Armstrong Lab are the activities at Wright-Patterson AFB (e.g., ASC and WL), the collocation made sense from a synergistic perspective.

<u>Page 5 Question 4a:</u> Why did the Air Force reject the alternative submitted by the Joint Cross-Service Group?

<u>Answer:</u> The Air Force did not reject the alternative submitted by the Lab Joint Group. Instead, the alternative was considered as one option, along with options involving Air Force sites as the consolidation receivers. For reasons of costs and compatibility, the Air Force option was selected. The Air Force's analysis of this alternative was consistent with the principle that Joint Group alternatives are provided for Service consideration, in parallel with broader Service considerations.

Test and Evaluation

<u>Page 6, Question 1:</u> <u>General Fogleman</u>, several studies have pointed out that great opportunities for reduction in the test and evaluation infrastructure exist in testing of high performance aircraft, test support aircraft, and electronic warfare testing. Do you believe the Air Force and Navy should combine activities such as Patuxent River Naval Air Test Center with China Lake Naval Weapons Center and Edwards Air Force Base?

<u>Answer:</u> No. Analysis of certified data indicates that both Air Force Flight Test Center at Edwards AFB and Naval Air Weapons Center, Patuxent River, are needed to support Air Vehicle Fixed-Wing T&E. We recognize the unique capabilities of many of the Test and Evaluation ranges, particularly relating to geographic or topographical characteristics. There are testing advantages to keeping a diversity of environments, e.g., water, beach, desert, and forest areas; low temperature, high temperature; and humid and arid areas. The Air Force has, over a long period of time, consolidated its Electronic Combat, Air Vehicle, and Armament/Weapons test activities into only a few locations. The resulting locations, such as Eglin AFB and Edwards AFB, represent full-service capabilities over the full life-cycle of components.

Page 6, Question 2: Secretary Widnall, regarding the realignment recommendation that would relocate electronic warfare capability from Eglin Air Force Base to Nellis Air Force Base, did the Air Force consider an alternate proposal by the Test and Evaluation Joint Cross Service Group that would have transferred certain Eglin missions to China Lake Naval Weapons Center?

Answer: No. The Test & Evaluation Joint Cross-Service Group (JCSG-TE) chose to exclude "core" activities from its analysis for closure and realignment, limiting these activities to receiver status only. As a result, there was no JCSG-TE alternative to transfer any Eglin missions to China Lake. Some additional "core" activity options were presented by the JCSG-TE co-chairs. The Air Force did not analyze these options as no supporting analysis was provided. Our Air Force internal analysis, using Joint Group data and the Joint Group analysis plan on core activities, demonstrated that relocation of Air Force Development Test Center (AFDTC) to NAWC (China Lake) from Eglin was not viable in terms of cost or capability. Further, relocation of only one portion of the Eglin AFB capabilities presented no benefits, and disrupted a consolidated, full-service test center.

Undergraduate Pilot Training

Page 6, Question 1: General Fogleman, what was the impact, if any, of basing considerations of the Joint Primary Aircraft Training System on your BRAC 95 basing decisions? Will the final selection of a jet or prop Joint Primary Aircraft Training System aircraft affect your basing decisions? What Joint Primary Aircraft Training System selection criteria, such as range, airspace, and cross-wind limitations, were or were not considered as factors in your basing decision and why? This criteria is relevant, since Reese AFB, Texas was downgraded in these areas. Absent a decision on which JPAT aircraft candidate will be selected until this summer, and recognizing that the planned introduction of the JPAT into the Service's Pilot Training programs will not occur until 2001 and stretch over a decade, how much weight did JPAT considerations carry in your decision-making during this round?

Answer: The specific evaluation of the training capabilities of the pilot training installations was conducted by the Joint Group for Undergraduate Pilot Training. I have referred your questions to that Group. The Air Force accepted the functional values provided by the Joint Group and used an average of the Joint Group functional values for each installation as the basis for its Criterion I grading. In the evaluation of the other criteria, JPATS-related issues were not a factor.

Page 7, Question 2: General Fogleman, the Air Force selected Reese AFB, Texas as its first Specialized Undergraduate Pilot Training site, introduced the T-1 training aircraft there, and initiated the consolidation of Undergraduate Pilot Training with the Navy in a joint program there as well. Based on these decisions, many are of the impression that the Air Force places a high value on Reese AFB. Why has the Air Force now rated Reese so low in comparison to the other Undergraduate Pilot Training category bases?

Answer: The 1995 BRAC process included a Joint Cross-Service Group for Undergraduate Pilot Training (JCSG-UPT) to evaluate the functional effectiveness of each UPT base to perform pilot training. The Air Force accepted the functional values derived by the JCSG-UPT as the basis for its Criterion I grading. All eight criteria were then examined to produce the tiering of Undergraduate Flying Training bases.

Reese AFB is a highly valuable pilot training base, as are all the Air Force pilot training bases. The selection for closure of any Air Force flying training will involve closure of an excellent installation. Nonetheless, using the evaluations of the Joint Group and the Air Force analysis provides a reliable means of retaining the most capable installations.

<u>Page 7, Question 2b:</u> Please explain the Air Force rationale for recommending the closing of Reese and transferring all of its aircraft, in particular, the newly introduced T-1 aircraft, along with the Joint Training Program, to Vance, Laughlin, and Columbus, when these bases have yet to transition to these programs, as opposed to leaving these assets in-place at Reese, and simply closing one of these other bases, and avoiding the need for these transfers altogether.

<u>Answer:</u> The costs of relocating all missions, aircraft, and personnel were included in the final COBRA analyses of Air Force recommendations. Those costs were not sufficient to warrant the selection for closure of a base other than Reese AFB. It should be noted that T-1 training is currently being performed at Randolph, Reese, and Laughlin AFBs. It will also be performed at Vance AFB this fall, and Columbus AFB in the spring of 1996. Each of these bases is fully capable and will to a great extent participate in the Joint Training Program.

Large Aircraft And Missile Systems

Page 8, Question 1a: General Fogleman, with the transfer of aircraft from Malmstrom Air Force Base, Montana to MacDill Air Force Base, Florida, is the Air Force reopening a closed base and adding infrastructure to the inventory?

Answer: The Air Force is not recommending that a closed base be reopened. MacDill AFB was not recommended for closure, but was realigned and provides the entire support for the two Unified Commands located there. The Air Force did recommend retention of the airfield as an active duty Air Force airfield, rather than transferring control to the Department of Commerce or other non-DoD agency.

The requirement for the Air Force to provide support for recently-validated Unified Command requirements substantially increases Air Force costs of airfield operations. There is no benefit to transferring the airfield if the Air Force must contribute approximately 95 percent of the airfield's operating costs. The proposed retention provides an opportunity to receive limited, compatible force structure. Closing the airfield at Malmstrom AFB removes infrastructure, and personnel overhead, roughly equal to that gained by the MacDill airfield action. In addition, placing tanker assets on MacDill airfield reduces a tanker shortage in the Southeastern United States. Both actions taken together provide a cost-effective means of providing necessary support to the Unified Commands and solving an operational issue, without increasing Air Force infrastructure. Each of these actions is exclusive and may be accomplished independently.

<u>Page 8, Question 1b:</u> Savings estimates from the previous BRAC recommendations will not be realized as a result of the new recommendation. Has this been taken into account in estimating the current savings?

<u>Answer:</u> Yes, the manpower authorizations associated with the closure of the airfield at Malmstrom AFB will be used to establish Air Force operations on the airfield at MacDill AFB. If those manpower authorizations were not used, there would be a cost for the Air Force to run the airfield. Those costs, however, would be substantially the same as the Air Force costs that will be incurred to support the airfield if transferred to the Department of Commerce.

<u>Page 8, Question 1c:</u> How will additional cost savings be achieved by this action, as the current recommendation indicates?

<u>Answer:</u> The primary savings come from the fact that the Air Force will be paying for the operation of one airfield, MacDill (which it must now continue to operate to satisfy the recently validated Unified Command requirements), versus the current situation of operating two airfields, MacDill and Malmstrom.

<u>Page 8 Question 1d:</u> Why is the base being opened as an active component installation rather than a Reserve installation as recommended in 1993?

<u>Answer:</u> The 1993 recommendation was to temporarily operate the airfield until conversion to a civil airport. The AFRES unit which was to have operated the airfield was directed by the 1993 Commission to remain in a cantonment at Homestead AFB.

The 1995 recommendation reflects current force structure, operational considerations, and the 1993 Commission direction regarding the AFRES unit at Homestead ARB. . A scenario was considered which involved movement of an AFRES unit to the airfield, but the movement of the Malmstrom unit was considered more cost-effective, given the recommendation to close the Malmstrom airfield. Materials that document this decision were supplied to the Commission as part of the initial Air Force data submission.

Small Aircraft Bases

<u>Page 8, Question 1a:</u> <u>Secretary Widnall</u>, the Air Force has reduced its fighter aircraft force from 36 fighter wings at the end of the Cold War to the 20 wings now projected in your current Force Structure Plan. Simultaneously, it has reconfigured the size of the typical fighter wing from 72 to 54 aircraft, and the typical squadron from 24 to 18 aircraft. Similarly, the size of reserve units has also decreased. What was the Air Force's rationale for these smaller units?

<u>Answer:</u> In the past five years, the Air Force has structurally reorganized to achieve the deployment and employment flexibility and global forward presence necessary to deter or respond to aggression by any emerging threats in the Post Cold War era. As outlined in the Bottom Up Review, increases in reliability and maintainability of newer weapons systems, coupled with improved accuracy and lethality of precision weapons, allow us to field combat firepower of yesterday with fewer combat aircraft per wing. The higher number of smaller squadrons provides a 33 percent greater deployment and employment flexibility. Additionally, decreasing the squadron size helped mitigate the increased span of command and control for the squadron commander associated with integrating the flight line maintenance functions organically within the fighter squadrons. The additional manpower associated with more smaller squadrons was more than offset by the savings associated with restructuring maintenance within the flying squadrons and reorganizing our logistics from a three- to a two-level maintenance structure.

<u>Page 8, Question 1b:</u> In light of the excess capacity at fighter bases that results from smaller wings, would it be feasible to increase the number of squadrons assigned to a fighter wing, or the number of fighter wings assigned to a base?

<u>Answer:</u> When discussing excess capacity at fighter bases several factors beyond base facilities infrastructure must be considered. As we have modernized our forces, our peacetime as well as our wartime operations tempo (sorties per training day) have increased noticeably. This has increased the number of aircraft movements (takeoffs, landings, and practice approaches) per aircraft as well as the demand on our special use training airspace and ranges. These, as opposed to base facility infrastructure, are the factors that generally tend to limit the amount of aircraft that can be assigned to a particular base. Additionally, as we have downsized our force structure, we have also fielded weapons systems and munitions with increased target acquisition and delivery ranges which require larger volumes of airspace to meet effective training. Many of our fighter bases are currently operating at, or above, historical high water marks for PAA aircraft. Other fighter bases now support Composite Wing bases operating significant numbers of other types of aircraft. The imperative to maintain engine and avionic compatibility at the wing and base level to the maximum extent possible constrains force structure realignment opportunities. Finally, some reserve capacity in the small aircraft base category is desirable to provide the flexibility to return forces from overseas should future national policy so dictate. In short, the Air Force looked at the capacity of our small aircraft bases and concluded that, considering all the above factors, there was no operationally sound opportunity to achieve a base closure recommendation.

<u>Page 8, Question 1c:</u> Is it reasonable to assume if the fighter wing structure is realigned to 72 aircraft that more bases could be closed?

<u>Answer:</u> There are many factors that mitigate realigning our fighter wings to 72 aircraft. The Air Force organizes its forces to efficiently meet National Security imperatives, provide overseas forward presence, and preserve readiness of the force. Our overseas forward presence is dictated by and tailored to meet multiple bi- and multi-lateral international security arrangements. Additionally, the Air Force has tailored three CONUS Composite Wings to meet specific missionized rapid reaction response requirements. The wings, designed to meet specific requirements, are critical elements of our Post-Cold War era Air Force. Several of our small aircraft bases are operating at or above their historical high water mark for operations tempo. Four of our small aircraft bases are operating at approximately 75 percent of their operations tempo high water mark. Of these, two are F-15 bases and two are F-16 bases. The Air Force reviewed realignment options which would allow the recommendation for a base closure. All these options provided either mixed aircraft beddowns with logistical concerns or beddowns which significantly exceeded operations tempo capacity at one or more receiving bases.

<u>Page 9, Question 1d:</u> Was the wing size taken into consideration during the Air Force analysis of closure and recommendations?

<u>Answer:</u> The wing size was taken into consideration during the Air Force base closure deliberative process. Many of our wings have aircraft PAA in addition to that which is accounted for in the FWE force but that nonetheless contribute to the operations tempo at the base. For example, Seymour-Johnson AFB has 36 PAA TF-coded F-15Es and Shaw AFB and Davis-Monthan AFB have OA-10 aircraft embedded in A/OA-10 squadrons. The total flying force structure assigned to a base must be used in determining excess capacity available. After complete analysis, the Air Force stands by its recommendation to retain all its small aircraft bases.

Page 9, Question 2: General Fogleman, the current Force Structure Plan reduces the fighter aircraft inventory by six Fighter Wing Equivalents from 26 to 20 wings. During this drawdown, the Air Force has recommended closure of one small aircraft base, Homestead Air Force Base, in 1993. Can you explain why the Air Force has been unable to identify any additional small aircraft bases for closure despite this significant reduction in fighter aircraft? (This was discussed but a record response would amplify this issue.)

Answer: This answer was not provided by General Fogleman, due to his disqualification from participation in Air Force considerations of the Small Aircraft subcategory. The reduction from the Base Force of 26.5 Fighter Wing Equivalents to the Bottom Up Review Force of 20 Fighter Wing Equivalents (FWEs) was accomplished by reducing the Active Component from 15.25 FWEs to 13 FWEs and the Reserve Component from 13.25 to 7 FWEs. In the Active Component reduction of 2.25 FWEs from the Base Force to the BUR Force, 1.0 FWE was reduced in Europe and 0.17 FWEs were reduced in the Pacific. The resulting CONUS Active Component reduction from the Base Force was slightly more than 1 FWE. In 1993, the Air Force recommended Homestead AFB, Florida for closure. The 1993 Commission included Homestead AFB in their closure recommendation to the President and it was subsequently approved for closure. Additionally, the Air Force has, subsequent to the Base Force, formed three missionized Composite Wings and collocated some TF-coded fighters and A/OA-10s not counted in the FWE force structure on fighter bases. This has resulted in near high water mark operations tempo at many of our small aircraft bases. As stressed previously, the Air Force analyzed closure scenarios for each small aircraft base in the bottom and middle tiers. No operationally sound or cost-effective option was revealed. The record of this analysis is contained in the minutes of the Base Closure Executive Group.

Hospital Issues

<u>Page 10, Question 1:</u> <u>Secretary Widnall</u>, during Mr. Boatright's testimony, he indicated that the Air Force does not agree with the hospital bed requirement figure used by the Hospital Joint Cross Service Group.

What is the correct figure for the Air Force's requirement for hospital beds in the United States?

<u>Answer:</u> The Air Force's operating bed requirement for peacetime support in the United States is 2255. This figure is based on workload demand and reflects a percentage of the average daily patient load at our medical facilities.

6 PAGES

Page 10, Question 1a: **Does this requirement figure take into consideration the capacities of the Army and Navy, as well as the contingency beds provided by the Department of Veterans Affairs and the National Disaster Medical System (NDMS).**

Answer: No. Wartime, contingency operations and disaster casualty requirements include but exceed this baseline number. Expansion bed missions are in addition to this number. The number, therefore, is limited to Air Force, peacetime inpatient workload only and does not account for Army, Navy, Department of Veteran's Affairs or NDMS beds availability.

Page 10, Question 2:. Secretary Widnall, Mr Boatright also stated that the Air Force believes that hospital closure and realignment decisions are premature at this point and that they should follow this round of base closures and realignments.

Why didn't the Air Force develop a list of hospital closures and realignments that is predicated on the acceptance of the rest of the Air Force BRAC list?

Answer: Recommendation on the closure of medical treatment facilities are integral to the Air Force recommendations. However, not only Air Force but all DoD closures and realignments must be considered in order to develop a list such as that proposed by the Medical Joint Group. Mission transfers, with the associated personnel moves, will impact the health care delivery systems in all regions where a realignment or mission change associated with BRAC occurs. The Air Force has aggressively been sizing the Medical Service separate from the BRAC actions. During the period FY 94-96, the following actions have been or are planned to occur: Three hospitals have been downsized to clinics, 4 more are being evaluated, and 18 emergency rooms are being modified. Three obstetrics services have been closed, 1 is awaiting approval to close and 8 are being evaluated for closure. Strategic Resourcing has reduced manpower requirements by 10 percent and 1,050 operating beds have been reduced. Joint staffing has been initiated at 5 MTFs and is being considered at 2 more. AFMS Medical Force Review has been initiated to identify the baseline medical readiness needs with an estimated completion date of May 95. Finally, the Strategic Resourcing process, initiated for the first time in Dec 94, is designed to size our medical facilities based on the most economical source of care for our total beneficiary population. This process will continue to drive proper sizing of the AFMS into the next century. The vast majority of proposed actions can be accomplished without resort to BRAC.

Page 10, Question 3: **Secretary Widnall, Mr. Boatright testified that hospitals can be closed and realigned outside of the BRAC process.**

While this is likely to be true for small and medium hospitals, is it true for large hospitals?

Answer: Closing or realigning even large hospitals would likely not break the BRAC thresholds. In addition, since only portions of those hospitals would be relocated, there is even less likelihood that a BRAC threshold would be broken.

<u>Page 10, Question 3a:</u> Does the Air Force intend to address the potential cost effectiveness of realigning large hospitals, such as the three medical centers identified by the joint cross service group?

<u>Answer:</u> Yes, but not through the BRAC process. Strategic Resourcing is being developed to address present and future resource requirements of the total AFMS. This process considers the total MILPERS and Direct Care dollars (O&M, CHAMPUS) required to operate a medical facility in each catchment area. The decision process will include a cost comparison of the sources of care, quality considerations, and access impacts. The goal of the entire process is to ensure that the most cost effective source of high quality, appropriate access to care is provided to our beneficiary population. Since medical facilities are being closed at bases being closed or realigned under BRAC, the Air Force is realizing a substantial reduction in medical facilities. Through Strategic Resourcing the remaining medical facilities will be rightsized based on cost effectiveness.

Page 10, Question 4: Secretary Widnall, how did the Air Force consider the medical needs of the active duty personnel, retirees, and their family members remaining in the area of hospitals to be closed?

Answer: Statutory requirements dictate that a joint services working group shall solicit the views of persons adversely affected by installation closures and realignments on the issue of suitable substitutes for furnishing health care. In most cases, no hospital or clinic will remain after the closure or major realignment of an installation.

Economic Impact

Page 11, Question 1: Secretary Widnall, how did you assess the impact of your closure and realignment recommendations on existing and potential receiving communities' infrastructure? Please elaborate. What factors were considered?

Answer: As a general rule, AF active installations are located adjacent to communities that provide outstanding support. In rating community support, we were faced with the difficult task of distinguishing the best of the best. Nevertheless, we approached the evaluation of community support in a very systematic fashion. We adopted essentially the same process and factors for BRAC-95 as used for BRAC-93 to evaluate the ability of both the existing and potential receiving communities' infrastructure to support forces, mission and people. In evaluating Criterion VII, the AF Base Closure Executive Group(BCEG) assessed a number of factors. Nine factors--referred to as subelements--were evaluated: Availability of Housing, Transportation, Shopping, and Recreation; Quality of Education and Medical Services; Proximity to Metro Area; Likelihood of Obtaining Employment and Local Crime Rates. Questions and corresponding grading elements (or goalposts) were developed by the BCEG to assess a community's capability to meet AF needs relative to the nine subelements. The BCEG used an objective, color coded rating scale in order to quantify specific data points relative to the established criterion; "green" represented the highest capability, yellow less so, and red the lowest. Weights were assigned and an overall score was mathematically derived for each installation. Of the 43 active bases evaluated, 18 received ratings of G-; 16-Y+; and 9-Y. The overall Criterion VII grades were considered by the BCEG in the tiering process, and were reviewed by the Secretary of the Air Force.

Environmental Impact

Page 11, Question 1: Secretary Widnall, according to DoD Guidance, "environmental restoration costs at closing bases are not to be considered in cost of closure calculations."

Were any bases not recommended for closure or realignment due to unique contamination problems? Please elaborate.

Answer: Environmental restoration costs at Air Force bases were not considered in closure cost calculations. There were no unique contamination problems which caused any base to be excluded from closure or realignment consideration or recommendation.

Page 11, Question 2: Secretary Widnall, did the overall cost of environmental restoration at all bases affect the size of the list presented to the Commission?

Answer: The Air Force has a legal obligation for environmental restoration regardless of whether a base is closed, realigned or remains open. The overall cost of environment and restoration did not affect the decision to recommend a base for closure or realignment. In the case of depot installations, although the recommendation to consider a downsizing option was based only on COBRA-related expenses, a further analysis of the impact of environmental restoration expenses at depot installations further supported the wisdom of the downsizing approach.

Page 11, Question 3: Secretary Widnall, DoD policy also states that "unique contamination problems requiring environmental restoration will be considered as a potential limitation on near-term community reuse." Were any installations eliminated from closure consideration due to unique contamination problems? If so please elaborate.

Answer: No.

Page 11, Question 4a: Secretary Widnall, in making closure and realignment decisions, what role did environmental compliance play in your analysis?

Answer: Environmental compliance was considered in the overall analysis. Compliance costs were factored into the COBRA model. Compliance costs in COBRA may be savings associated with a closure, or may be costs incurred at a receiving location.

To the extent that air quality concerns are viewed as environmental compliance issues, there was considerable attention given. Air Quality was a Criterion II subelement, and included analysis of attainment status, current restrictions, and restrictions on future growth.

Air Quality issues were also considered when selecting potential receiver bases in closure scenarios. Receivers that held the prospect of difficulty in achieving a positive conformity determination were generally not used in the scenarios.

<u>Page 12, Question 4b:</u> Did the fact that a base's expansion potential is limited by environmental restrictions play a major role in the analysis?

<u>Answer:</u> Expansion potential (capacity) was looked at to determine if any environmental issue (e.g., threatened or endangered species, unique habitat, etc.) could constrain the existing or future mission. Although there are identified constraints on some Air Force installations, in no instance did these constraints impact on a decision to close or realign and installation. Constraints were considered in the evaluation of Criteria VIII grading, as well as the Air Quality portion of Criterion II.

Page 12, Question 4c: Were bases in Clean Air Act or other non-attainment areas viewed differently from those in attainment areas?

Answer: The attainment status of the area in which an installation is located formed a portion of the Criterion II grade for that installation. In addition, air quality issues were considered in selecting receivers when developing potential closure scenarios for analysis.

Bases in nonattainment areas received further analysis to determine the affect on capacity. The Clean Air Act Amendments mandate that when the Federal government proposes any action in an area designated by the Environmental Protection Agency (EPA) as nonattainment, with reference to National Ambient Air Quality Standards, it must document that the impact of those actions conform to the purpose of the applicable State or Federal implementation plan. Force structure moves are considered Federal actions, whether resulting from a base closure or realignment.

The conformity analysis examines the impacts of foreseeable direct and indirect emissions created only from the proposed action. It must also demonstrate, by EPA standards, that the Federal action will not cause or contribute to new violations of any national air quality standard in the nonattainment area, nor increase the frequency or severity of an existing violation. The impact of the action is determined with respect to the nonattainment status of the entire air quality district, not just its immediate vicinity.

The necessity of a conformity analysis alone does not bar a Federal action. Conformity may be shown after analysis, or the emissions associated with the action may be viewed as de minimis. Even where the action by itself might violate conformity, mitigation measures may be implemented which, when coupled with the action, will achieve positive conformity.

When considering receivers for closure scenarios, the BCEG reviewed conformity issues. If a base appeared to be unable to accept a mission due to conformity issues, other receivers were selected for the closure scenarios.

Page 12, Question 5a: Secretary Widnall, how many installations recommended for closure in this or prior rounds are expected to have substantial portions of land placed into caretaker status due to unique contamination problems?

Answer: At the twenty-seven Air Force bases closed under the 1988 and 1990 BRAC Realignment and Closure Laws, we have 80,409 acres available for reuse. While cleanup activities are required on 36,703 of these acres, there are no "unique" contamination problems preventing us from transferring these acres when remedial actions are in-place. Right now, most of these remedies will be in-place by end of FY 97 for BRAC '88 bases, by end of FY 99 for BRAC '91 bases, and by end of FY 2001 for BRAC 93 bases. This will "free up" most of the property on the 27 installations for transfer by deed.

Page 12, Question 5b: How long are such caretaker costs accounted for under base closure funding?

Answer: Caretaker requirements are currently programmed through FY 2001 as we expect to have to maintain facilities until cleanup remedies are in place and longer if reuse of some parcels occurs beyond FY 2001.

<u>Page 12, Question 6:</u> <u>Secretary Widnall</u>, in the 1993 round, one community pointed out that the cost of cleaning up an installation directed to close could be three to ten times as great as the cost of cleaning up an active installation. This difference is due to expected technological advances in environmental restoration. Do you believe the difference between routine and closure related cleanup costs, if factual, should be considered in cost of closure calculations?

<u>Answer:</u> We do not believe there are necessarily substantial differences between the cleanup costs at a closing base as compared to an active base. Our experience shows that the costs to complete cleanups are much better defined at closure bases because more dollars have been invested in completing investigations, hence the real cost of cleanup is more clearly understood. In some cases, costs are not increased, but are expended more rapidly. This acceleration of expenses has budgetary impact. We do not believe the environmental costs should be considered in the cost to close an installation because these are dollars we have to expend regardless of whether the base closes or remains open.

Air Force Space Command Bases

Page 12, Question 1a: General Fogleman, The Secretary of Defense recommended realignment of the Onizuka Air Force Station, including the inactivation of the 750th Space Group and moving its functions to Falcon Air Force Base, Colorado, and relocation of Detachment 2, Space and Missile Systems Center to Falcon Air Force Base. What are the projected future Air Force satellite control requirements and how do they differ from current requirements?

Answer: In the past, dual satellite control nodes were deemed essential. The current Air Force policy concerning the degree of duplication required to protect satellite operations has changed. In the past, an entire alternate satellite control node was required. Presently, requirements only call for duplicate communication infrastructure at a geographically separated site. We plan to meet this requirement by adding communication capabilities to the existing infrastructure.

Page 13, Question 1b: **In the Space-Satellite Subcategory, what percent of excess capacity currently exists at Onizuka Air Station?**

Answer: Currently, there is no excess capacity at Onizuka Air Station. Existing facility shortfalls are met by leasing facility space off station. However, there is excess capacity in the category. It was this excess capacity that had to be addressed and which resulted in the recommendation related to Onizuka AFB.

Page 13, Question 1b.1: **Based on projected future Air Force satellite control requirements, what percent of excess capacity is expected to be found at Onizuka Air Station**

Answer: Although an excess of one satellite control node was identified in the Air Force process, this excess was not associated with a particular base. Either Onizuka AS or Falcon AFB could support Air Force control node requirements.

Page 13, Question 1b.2: **Does realignment of Onizuka Air Station leave sufficient capacity to adequately support projected future requirements?**

Answer: Yes.

Page 13, Question 1c: **If the Air Force has one more Satellite control installation than is needed to support projected future requirements, then why did the Air Force not recommend closing Onizuka Air Station?**

Answer: Onizuka AFS is required to support tenant missions beyond the year 2001 that are not cost effective to relocate to another location. The Air Force's vision is to downsize Onizuka AFS by reliance on contract or civilian operations. It is anticipated that Onizuka AFB will eventually close as tenant missions phase out.

Page 13, Question 1c.1: **What other tenants would be affected by a decision to close the facility?**

Answer: Discussion of this subject requires an appropriate security classification.

Air Reserve Components

<u>Page 13, Question 1</u>: <u>Secretary Widnall</u>, during the 1993 base closing process, the Air Force identified the basing of Air Reserve Component units as an issue that would be addressed during this round. Further, the size of Air Reserve Component units has recently been reduced. How have you addressed the Air Reserve Component during this round of base closure?

<u>Answer:</u> The base closure and realignment process evaluates Air Force installations, both active and reserve, against the eight selection criteria and the force structure requirements. The Air Force subdivided the Air Force Reserve mission into four weapon system groups: Fighter, Strategic Airlift, Aerial Refueling (Tankers), and Tactical Airlift. Each group was analyzed using the eight criteria, and cost effective closures and realignments identified and analyzed. Two Reserve bases were recommended for closure (Bergstrom ARB, TX and Greater Pittsburgh IAP ARS, PA). Additionally, four other Reserve units will be impacted by the current Air Force recommendations.

The Air National Guard (ANG) operates on a cost effective basis on a large number of civilian airfields. We examined ANG bases for cost effective opportunities that made sense for relocation to active Air Force bases as recommended by the Secretary of Defense's kick-off memorandum. Generally, it is impractical for ANG units to cross state lines. The new location's capacity analysis and recruiting factors were also taken into consideration. The Air Force recommended a number of closures of Air Guard Stations, including several that were stand alone installations (North Highland, CA; Ontario AGS, CA), and others that were in leased space at other airfields (Moffett Federal Airfield AGS, CA; Greater Pittsburgh AGS, PA; Roslyn AGS, NY).

Page 13, Question 1b: How have opportunities to consolidate reserve squadrons been affected by reductions in the size of Air Reserve component units?

Answer: The Air Force Reserve looked for opportunities to consolidate force structure and reduce overall operating costs. The reductions in the size of units reduced the costs of consolidating aircraft such as C-130s from closed units to bases where we previously had a like number of aircraft (Peterson AFB, CO) and at a base where the capacity analysis showed that no military construction (MILCON) would be required (Dobbins ARB, GA). This resulted in an opportunity for the Air Force Reserve to achieve savings.

The Air National Guard (ANG) is a community-based defense force. Therefore, it is imperative the ANG maintain a presence in the communities throughout the nation. Further consolidations of ANG units will erode the importance and magnitude needed to maintain that community based support. Also, with the present force structure, it is still economically viable to retain existing ANG units rather than to combine ANG fighter units. Several units would be at or beyond their maximum capacity if required to absorb additional force structure from overseas or from the active Air Force inventory; therefore, further opportunities to consolidate were not presented.

<u>Page 14, Question 2:</u> <u>General Fogleman</u>, the Air Force is recommending the transfer of a few Air National Guard units to larger active and reserve bases, such as McClellan and March Air Force Bases in California. Also, the Air Force has recommended the closure of the Pittsburgh International Airport Air Reserve Station and the realignment of its eight C-130 aircraft to two other Reserve units. The justification for this action states, "The Air Force Reserve has more C-130 aircraft operating locations than necessary to effectively support the Reserve C-130 aircraft in the Department of Defense Force Structure Plan." However, there are many Air Reserve Component units that were not recommended for consolidation. For example, no major Air National Guard unit (as identified in Appendix VI of the Air Force's Analyses and Recommendations) was identified for closure or realignment? Since there appears to be considerable savings to be gained by this type of consolidation of resources, what opportunities exist for further consolidations throughout the Air Reserve Component, especially in the fighter force structure where there have been reductions in the size of the units?

<u>Answer:</u> As the Air Force analysis demonstrates, the Air Force considered a number of closure scenarios involving Reserve or Guard installations. The record also supports the decision involving each potential closure scenario. All reasonably cost-effective and operationally sound closure opportunities were recommended for implementation. Many of the fighter units were located at airports or other locations in very cost-effective situations, such that closures or movements would have been very costly or would have produced lengthy payback periods.

<u>Page 14, Question 2b</u>: What distinguished the Air Reserve Component units from the Air Force recommended for relocation to other bases as candidates for this action?

<u>Answer:</u> After consideration of the eight selection criteria, the final determination of actions related to ARC bases typically rested on cost-effectiveness, recruiting and retention considerations, and opportunities to consolidate at other locations.

<u>Page 14, Question 2c:</u> Why was the Air National Guard unit at Pittsburgh International Airport not identified for relocation in light of the fact the Air Force Reserve unit at the same location was recommended for relocation.

<u>Answer</u>: The Air National Guard unit at Pittsburgh International Airport is not collocated with the Air Reserve unit. It is located across the runway from the Air Reserve unit. The ANG unit operates cost effectively and independently of the Air Force Reserve unit. There are no other locations within the State of Pennsylvania to which this unit could be economically relocated.

<u>Page 14, Question 2d:</u> Since the Air National Guard unit will remain at Pittsburgh International Airport, how will this affect the closure of the Air Force Reserve station at the airport?

<u>Answer:</u> The closure of the C-130 unit at Pittsburgh IAP will have little, if any, effect on the Air National Guard KC-135 unit also located at the airport. Likewise, the continued operations of the Air National Guard unit will have little, if any, effect on the closure of the Air Force Reserve Station.

Congressional Questions for the Record

Rep Boehlert (NY)

<u>Page 15, Question 1:</u> In last weeks testimony before this commission, Defense Secretary Perry described Lowry Air Force Base's reuse plan as a successful consequence of the BRAC process. In the BRAC 95 process, did you consider the communities' reuse plans as a result of previous BRAC closure or realignment decisions? Should already completed , well developed reuse planning efforts be a part of subsequent BRAC decisions?

<u>Answer:</u> There is no formal consideration of a reuse plan in the Air Force process. However, past BRAC actions are reflected in the economic impact criterion and its supporting data. Additionally, we are well aware of the past actions at all our installations, and are sensitive to both the reality and perception in the community when multiple actions are taken. On the other hand, the law makes no provision for exempting locations that have been impacted in previous BRAC rounds and in fact requires them to be considered if the remaining activities meet the BRAC threshold.

<u>Page 15, Question 2:</u> As you know, Griffiss Air Force Base was realigned as part of BRAC 1993. During that process the Air Force stated in a letter to the commission that "the Air Force has no plans to close or relocate Rome Laboratory within the next five years." Since then the community has united behind a reuse plan with the lab as its linchpin. Was the impact to the community's reuse plan taken into consideration in the decision to close Rome Lab?

<u>Answer:</u> There is no formal consideration of a reuse plan in the Air Force process. However, past BRAC actions are reflected in the economic impact criterion and its supporting data. Additionally, we are well aware of the past actions at all our installations, and are sensitive to both the reality and perception in the community when multiple actions are taken. On the other hand, the law makes no provision for exempting locations that have been impacted in previous BRAC rounds and in fact requires them to be considered if the remaining activities meet the BRAC threshold.

At the time of the referenced letter, the Air Force had no plans to close or relocate Rome Laboratory. The recommendation to close Rome Laboratory is a direct result of the 1995 BRAC analysis.

<u>Page 15, Question 3:</u> How does the Air Force define interservicing? How was interservicing applied to Air Force labs in total? How did the Air Force apply interservicing to C3I labs?

<u>Answer:</u> Interservicing can take a variety of forms - from collocation of activities to assignment of individuals to joint activities to transfer of responsibility for the function to a single service. The Air Force agreed with the LJCSG and recommended C3I interservicing in the laboratory category consisting of the relocation of a portion of Rome Laboratory to Fort Monmouth, New Jersey, for eventual integration with the Army Laboratory. During the BRAC 95 analysis process, other Air Force laboratory activities were offered for interservicing but were not accepted.

<u>Page 15, Question 4:</u> What criteria did the LJCSG use to determine if excess capacity existed in its labs? In the Air Force, where and to what extent does excess capacity in labs exist?

<u>Answer:</u> Without addressing the method used by the LJCSG, the capacity review was based on man-years, based on demonstrated available capacity versus future requirements. The briefing on lab capacity was provided in the BCEG minutes for the November 9, 1994, meeting. Those minutes note the difficulty of attempting to define a capacity reduction targets because of the diversity in size and variety of missions among the lab facilities. A total of 2,806 man-years of excess lab capacity were identified.

<u>Page 15, Question 5:</u> Having received the highest ranking of its labs, why did the Air Force decide that Rome Lab was one to be slated for closure?

<u>Answer:</u> Rome Lab did not receive the highest ranking of Air Force Labs. Rather, it was placed in the top tier based on preliminary analysis. Subsequently, the Lab Joint Cross-Service Group requested the Air Force to analyze Rome Lab for closure. We found significant costs that could be avoided by an innovative sharing of the Rome Lab activities between Hanscom AFB and Fort Monmouth. An additional advantage is increased inter-service cooperation. In contrast to the level-playing field analysis in which the tiering was based, we found cost-effective options for a Rome Lab closure after reviewing in depth the Lab Joint Cross-Service Group recommendation.

Representative Combest (Tx)

Ranking of Bases

<u>Page 16, Question 1</u>: The Air Force rated Reese Air Force Base number two among five UPT bases in 1991. What has changed at Reese or at other bases that would make the Air Force rank Reese AFB last, well below its other UPT bases in the 1995 analysis?

<u>Answer:</u> In 1991, the Air Force closed Williams AFB because it was clearly ranked below the retained UPT bases. The information regarding Reese AFB's ranking as #2 cannot be substantiated and did not come from Air Force analysis. There was no tiering done by the Air Force in 1991 to indicate any such ranking. The Pilot Training Subcategory, of which Reese AFB was a member, was excluded from consideration in 1993 based upon capacity analysis. Tiering in 1995 placed bases in one of three tiers to show relative value of the bases to the Air Force. There was no ranking within the tiers.

During the 1995 process the SECDEF created several Joint Cross-Service Groups (JCSGs) to examine and recommend to the services basing alternatives that could reduce excess capacity. The JCSG for Undergraduate Pilot Training used quantitative analyses to determine the functional value of each pilot training base to perform the mission of producing rated aviators. The JCSG-UPT evaluated each UPT base for several pilot training functions (e.g., primary, airlift/tanker, bomber/fighter, etc) against measures of merit that encompassed the requirements for undergraduate flying training.

In many cases, changes in force structure, facilities, measures of merit, and the cross-service evaluation of categories resulted in different outcomes from previous rounds.

Quality of Life

<u>Page 16, Question 1:</u> Reese AFB is the number one choice of student and instructor pilots in AETC for base of assignment. Obviously, they think that the Quality of Life at Reese is better than that at other UPT bases. Why would the Air Force ignore this very clear Quality of Life indicator and recommend Reese AFB for closure?

<u>Answer</u>: Aspects of community support important to military members and their families are measured in the Criterion VII evaluation through a series of objective subelements. There are a number of reasons why people request assignments; it is not a useful measure.

Page 16, Question 2: **With respect to educational opportunities, Reese AFB in Lubbock Texas is rated below Vance AFB in Enid, Oklahoma. Are you aware that Enid, Oklahoma has one private university with a permanent enrollment of over 700 students? Lubbock, Texas has two private universities, a private college, and Texas Technical University with a permanent enrollment of over 17,000 students, nine undergraduate schools, two graduate schools, and a 1 million volume library. Knowing that one of the important features of an assignment for our highly skilled officer pilots and their talented spouses is the availability of graduate education programs, how is it that the Air Force rated Vance AFB higher than Reese AFB in educational opportunities?**

Answer: The Education subelement under Criterion VII consists of measuring and grading Pupil Teacher Ratio, Four Year Programs, Honors Programs, College Attendance, and Off-base Education. Reese AFB scored a Red for Pupil Teacher Ratio (Greater than 30 to 1 Pupil to Teacher Ratio in Grades K-12). Reese received Green grades for the remaining elements within the Education subelement, for an overall grade of Green Minus. Vance AFB received all Greens with the exception of a Yellow grade for College Attendance. Vance received an overall Green grade in Education, while Reese's overall grade was Green Minus. The details of the Criteria VII analysis, including data, subelements, and weighted grades are provided in the base questionnaire and the Air Force Report, Volume V of the DoD Report.

Operations

<u>Page 16, Question 1</u>: Reese AFB was the choice of the Air Force, the Navy, and the DoD for implementation of Joint Undergraduate Primary Airlift/Tanker and Maritime training of the Air Force. How is it that the Air Force, now in 1995, rates its capability in all of these areas as less than that of Columbus, Randolph, and Vance AFB's?

<u>Answer:</u> All UPT bases underwent a qualitative analysis in regard to Airlift/Tanker and Maritime functional aspects of pilot training. In fact, each base was examined for many functional areas. Measures of merit were derived to judge the effectiveness of each base in each functional area, with the measures weighted slightly differently for the different functions. When the analysis was complete, Reese AFB ranked last by the JCSG-UPT in the Primary and Airlift/Tanker functional areas, and ahead of only Laughlin AFB in the Maritime training function. These analyses were based on data requested by the JCSG-UPT and certified at the base, Major Command and Air Staff levels in accordance with the Air Force Internal Control Plan.

Page 17, Question 2: **Reese and Laughlin AFB's have fully implemented T-1 training and have completed all the facility construction necessary to support that training. Did the Air Force consider the fact that Vance AFB has not implemented T-1 training and has not yet built the necessary T-1 facilities?**

Answer: Military construction is currently ongoing at Vance AFB to prepare for the arrival of the T-1 aircraft. COBRA cost analysis considered projects as savings if they were programmed in 1996 or beyond.

<u>Page 17, Question 3</u>: Did you consider the savings that would accrue from stopping construction and implementation of the T-1 program at Vance?

<u>Answer:</u> No. COBRA cost analysis considered projects as a savings if there were programmed funds in 1996 or beyond. A review of the COBRA data for the level-playing field analysis reveals no MILCON cost avoidance.

Page 17, Question 4: In evaluating the airspace available at each Undergraduate Training Base, did you concentrate on measuring only the volume of airspace owned or controlled by the base or did you take into consideration the usability of all the airspace available to the base for training?

Answer: The Air Force did not evaluate airspace related to pilot training. Instead, the Air Force accepted the functional values for UPT bases provided by the Joint Cross-Service Group for UPT as the basis for its Criterion I evaluation. This question will be referred to OSD for response by the JCSG-UPT.

Page 17, Question 5: Isn't usable or useful airspace a more valid measure than total airspace?

Answer: The Air Force did not evaluate airspace related to pilot training. Instead, the Air Force accepted the functional values for UPT bases provided by the Joint Cross-Service Group for UPT as the basis for its Criterion I evaluation. This question will be referred to OSD for response by the JCSG-UPT.

Page 17, Question 6: Isn't it true that in the Joint Cross-Service Group, the Air Force argued with the Navy that heavily weighing total available airspace was an improper measure of capacity?

Answer: Since this question addresses the internal deliberations of the UPT Joint Group, it will be referred to OSD for response by the JCSG-UPT.

Previous Rankings

<u>Page 17, Question 1</u>: In the 1991 Base Closure round, Air Force Undergraduate Pilot Training bases were reviewed and Reese AFB was rated very highly - number two out of five Air Force bases. What accounts for this disparity?

<u>Answer</u>: The Air Force did not rank the UPT bases in 1991 and cannot substantiate the claimed ranking. However, each round of base closures is independent of other rounds. Different methods of analysis, refined data, changes at the installation level, and force structure changes contribute to a variance in grading from one round to the next.

<u>Page 17, Question 2</u>: The Air Force itself and the DoD have placed great confidence in Reese AFB by choosing it as: the first base to implement Specialized Undergraduate Pilot Training; the first base to receive the new T-1 airlift/tanker training aircraft; the first and only base to implement the Air Force's portion of Joint Primary Undergraduate Pilot Training; the first and only base to do Joint Maritime Training for the Navy in the T-1; and Reese is the Air Force's choice as the first base to receive the new JPATS aircraft. Why would the Air Force want to close its premier UPT base?

<u>Answer</u>: During the 1995 process the SECDEF created several Joint Cross-Service Groups (JCSGs) to examine and recommend to the services basing alternatives that could reduce excess capacity. A JCSG for Undergraduate Pilot Training was chartered to consider cross-service evaluations of UPT bases. The JCSG used quantitative analyses to determine the functional value of each pilot training base to perform the mission of producing rated aviators. The JCSG-UPT evaluated each UPT base against a number of pilot training functions (e.g., primary, airlift/tanker, bomber/fighter, etc) using measures of merit that encompassed the requirements for pilot training. The Air Force Base Closure Executive Group accepted the JCSG functional value analysis as the basis for the Air Force's Criterion I score. However, the subsequent tiering accomplished by the BCEG was based on an evaluation of all eight DoD criteria. This tiering was provided to the SECAF, who also reviewed the eight criteria grades and data. In addition to the Air Force analysis, the SECAF reviewed the JCSG-UPT alternatives that included the closure of the UPT function at Reese AFB in each alternative.

<u>Page 18, Question 3</u>: The Air Force analysis rates Reese below three UPT bases (Columbus, Randolph, and Vance) in its ability to perform Primary, Airlift/Tanker and Maritime training. If this is the case, why did the Air Force choose Reese as the first base to perform joint training with the Navy in all three of these categories?

<u>Answer</u>: The analysis referred to was accomplished by the Joint Cross-Service Group for UPT. The initiation of joint UPT activities significantly preceded BRAC '95 and was the beginning of a joint initiative to consolidate all primary pilot training activities. Reese AFB was just the first of all UPT bases that will participate in such joint activity.

Quality of Life

<u>Page 18, Question 1</u>: Reese AFB is the number one choice of preference for base assignment of Student and Instructor Pilots in the Air Force's AETC (confirmed in a statement to the Lubbock Avalanche-Journal, February 2, 1995). This kind of choice is made on the basis of Quality of Life. Why would the Department of Defense, newly committed to stressing "people over programs" (John Deutch, 09/94), want to close the base that its personnel rate as the best for Quality of Life?

<u>Answer</u>: Aspects of community support that are important to military members and their families are measured in Criterion VII evaluation through a series of objective subelements. There are a number of reasons why people request assignments; it is not a useful measure.

Page 18, Response to Commentary: Reese and Vance received overall Green Minus grades for the Transportation subelement under Criterion VII. Within the subelement of Transportation, Reese AFB received a Red grade for Public Transportation, and Green grades for the other subelements. The Red grade resulted from the lack of regularly-scheduled public transportation to the base. Vance AFB was graded Green for all of the Transportation subelement, with the exception of a Red for Municipal Airport Carriers. The overall grade reflected a "roll-up" of these grades. Since both bases had three Greens and one Red, and the weighting of these two subelements was equal, both bases received the same overall grade for Transportation.

Operations - Airspace

<u>Page 18, Question not numbered</u>: Airspace is one area that was weighted very heavily during this round's analysis. We are firmly convinced that Reese AFB has access to adequate airspace to do its mission and it is unthreatened by encroachment. We are concerned that sheer volume of airspace owned and controlled by each base was emphasized and that usability was not adequately considered. Some bases may own/control more airspace than Reese in terms of sheer volume, however, much of their airspace is unusable for basic Undergraduate Pilot Training. Reese has readily available visual routes and alternate training fields.

<u>Answer</u>: The Air Force did not evaluate airspace related to pilot training. Instead, the Air Force accepted the functional values for UPT bases provided by the Joint Cross-Service Group for UPT as the basis for its Criterion I evaluation. This question will be referred to OSD for response by the JCSG-UPT. The Air Force process did analyze airspace encroachment under Criterion II. All Air Force UPT bases received a Green score under Encroachment except Randolph AFB, which received a Green Minus.

Savings

<u>Page 19, Question not numbered</u>: **The objective of any BRAC process is to save our tax dollars. Reese's T-1 program is fully implemented with all facilities in place. Vance AFB is still constructing their T-1 hangar. Stopping construction would save MILCON dollars.**

<u>Answer</u>: COBRA cost analysis would consider any halt to MILCON projects as a savings, if the costs were programmed in 1996 or later. Review of COBRA data for the level-playing field analysis at Vance shows no MILCON savings.

Sen Santorum (PA)

<u>Page 19, Question 1:</u> The DoD justification for closure of the Pittsburgh IAP Air Reserve Station was that, "although Greater Pittsburgh ARS is effective in supporting its mission, its evaluation overall under the eight criteria supports its closure. Its operating costs are the greatest among Air Force Reserve C-130 operations at civilian airfields." Can you tell me what exactly are the components of "operating costs?"

<u>Answer:</u> The following are components of Base Operating Support: Public Affairs; Ground Safety; Administration; Contracting; Comptroller/Budget; CBPO; Civilian Personnel; Supply/Fuels; Transportation; Security/Law Enforcement; Civil Engineering; Fire Protection; MWR; Services/Billeting; Base Operations; Aircrew Life Support; Disaster Preparedness.

Page 19, Question 2: Are the costs associated with successfully manning at 110% considered relative to other bases which are below 100% total manning?

Answer: The costs were compiled for requirements, not assigned personnel. This ensures that all organizations are equally evaluated using the same criteria.

<u>Page 19, Question 3:</u> Are the costs incurred in maintaining a higher state of readiness (exercise, contingency, and humanitarian deployments, etc.) held against the unit in computing "operating costs?"

<u>Answer:</u> No. The operating costs that are considered are fixed irrespective of operations of the unit. The costs are related to the unit's facilities and operating location arrangements.

Rep Hansen (UT)

Page 19, Question 1: Did you, or anyone on your staff, receive any communication or guidance from the White House, or anyone associated with the White House, directing you to remove McClellan AFB in California from consideration, foreclosure, or recommending that you devise a plan for Air Logistics Centers that would keep McClellan open?

Answer: No.

Rep Tejeda (TX)

Page 19, Question 1: In 1993, the Air Force excluded three bases in the Industrial/Technical Support Category-Product Center and Laboratory Subcategory from further consideration for closure/realignment. Those bases were Brooks AFB, Hanscom AFB, and Los Angeles AFB. The Air Force stated that, "...there is not sufficient excess capacity to close any of these bases without replicating a significant portion of these facilities.. at another location. The cost to do this is prohibitive." What has changed in the past two years that the Air Force now recommends closing Brooks AFB and moving Armstrong Lab and the U.S. Air Force School of Aerospace Medicine to Wright-Patterson AFB?

Answer: Since BRAC 93, the Air Force has been required to absorb major personnel reductions in its acquisition and sustainment workforce. In addition, the work of the Laboratory Joint Cross-Service Group provided a much more refined analysis for evaluating the excess capacity of DoD laboratory facilities. Finally, excess capacity at Wright-Patterson AFB provides a cost-effective beddown of the activities from Brooks AFB.

Rep Scarborough (FL)

Page 20, Question 1: The 1995 Defense Authorization Bill directed the Secretary of Defense to submit a Master Plan for the final disposition of all Electronic Combat (EC) facilities before relocating any EC equipment or making any EC realignments. How does the Department of Defense BRAC recommendations to move eight EC threat simulators and two EC pod systems from Eglin Air Force Base, as well as the movement of REDCAP and AFEWES equipment to Edwards Air Force Base, comply with this Congressional directive?

Answer: This question will be referred to OSD for response, since it concerns the OSD recommendation and consideration of Authorization Bill provisions.

Representative Montgomery (MS)

Page 20, Question 1: The Navy testified on March 6, 1995 that there was excess capacity at Air Training Stations. If the pilot training rate is the same for both services in the year 2001 and the Air Force is transferring substantial numbers of Air Force flight officers to the Navy, and the Navy is going from five Air Training Bases to three, how is it that the Air Force can now have after BRAC 95, seven Air Training Bases that include the two additional Air Force Bases conducting flight screening?

Answer: The Defense Base Closure and Realignment (BRAC) recommendations for undergraduate flying training reflect sizing by several independent methods. The UPT JCSG determined the infrastructure needed to support total DoD requirements. The Air Force and the Navy completed independent analyses which confirmed they each retained the appropriate level of resources. The Department of the Navy specifically stated it did not need additional training capability. Several facts bear explanation.

There is no single number which represents a "pilot training rate". For example, the JCSG estimated rotary-wing aircraft use less than 20% of the infrastructure of light fixed-wing aircraft per flying operation. In 2001, the rotary-wing track represents about 44% of the Navy-generated advanced track requirements, and less than 4% of Air Force-generated requirements. Primary training (which includes the Navy's T-34 primary and intermediate tracks) is the most directly comparable. The Air Force and Navy are moving toward consolidation in primary training and are exchanging students on a one-to-one basis. Their rotary-wing students as well as fixed-wing students complete primary training. In primary, the Air Force "pilot training rate" is about 30% higher than the Navy rate. Additionally, about a third of the Navy's students only complete 66 hours of primary flight training rather than the 92 hours their counterparts fly. All Air Force students complete the entire track.

Counting "bases" also requires some caveats. The flight screening locations are unsuitable for undergraduate pilot training. Their prospective closure offers limited savings or payback

potential. For example, the Air Force contract flight screening operation at Hondo, Texas, uses the airfield under a no-fee lease. The JCSG considered flight screening sites as outlying fields, not as "bases". This brings a more accurate post BRAC count to five Air Force bases and three Navy bases. Shepherd AFB represents a unique training activity that provides training to a number of foreign aviation students and a limited number of USAF students. Randolph AFB provides no undergraduate pilot training, but instead provides navigation and pilot instructor training. Air Force primary pilot training is accomplished at only four bases, and the 1995 recommendation would decrease this by 25 percent. Also of note, while the Navy realigned the NAS Corpus Christi UPT mission, they retained the runway and airspace capacity. In fact, they propose to extend one NAS Corpus Christi runway to further increase capacity to service NAS Kingsville UPT requirements.

In summary, the BRAC recommendations reflect a confluence of joint and Service analyses. The Air Force and the Navy have retained the infrastructure they require to accomplish their respective missions.

New Mexico Delegation

<u>Page 21, Question 1:</u> How much money was appropriated for military construction at Kirtland AFB for fiscal years 1994 and 1995? How does this compare with other Air Force bases and facilities, scheduled for closure or realignment in the 1995 BRAC?

<u>Answer</u>: In FY94 Air Force military construction appropriated for Kirtland AFB was $35.1M. For FY95 the amount was $10.5M, for a total for the two years of $45.6M. Military construction at all other Air Force bases recommended for closure or realignment in this Commission for both FY94 and FY95 is $164.4M. I must emphasize that in the vast majority of these cases this military construction funding remains necessary and a high priority because it is taking place at realigned bases.

Page 21, Question 2: **According to the Air Force's proposal for the 1995 BRAC, Kirtland AFB has tenants, both Air Force and non-Air Force, which will require continued support. Would there exist recurring costs if the Air Force had transferred the Space and Missile Systems Center and Aerospace Corporation to Kirtland AFB and closed Los Angeles Air Force Base.**

Answer: The Air Force examined a closure of Los Angeles AFB, but determined that this was not a viable option due to a loss of its interconnectivity with the aerospace community and excessive costs for the savings. Since no focused analysis was accomplished on the closure of Los Angeles AFB with a move to Kirtland AFB, that information is unavailable.

<u>Page 21, Question 3:</u> Is there any plan in existence determining which facilities at Kirtland AFB, to be abandoned as a result of realignment, will be turned over to other government agencies or private enterprise? Will the existing fence perimeter be altered?

<u>Answer:</u> The details of property disposal, transfer, and reuse will be worked out in a cooperative process among the Air Force, the community, and the remaining activities at Kirtland AFB. The goal of that process will be to effectively and efficiently accommodate the needs of all affected parties. The issue of the fence perimeter will be addressed in that process.

Page 21, Question 4: By the date that the Secretary of the Air Force's recommendations were sent to the SECDEF, had the Air Force consulted with DOE as to the effect of realignment on the Department's nuclear deterrence mission and/or the fiscal impact of the realignment of the DOE with respect to nuclear deterrence programs? Did the Air Force receive any response from the DOE? Was the response in writing?

Answer: The sensitivity of the BRAC process raises concerns with communications outside the Department of Defense on potential base actions. We did consult with DOE during the latter stages of the process, and used the information we possessed to gauge the impact of this action on that and other agencies. Under the DoD COBRA guidance, costs of actions to other agencies are not normally included in the calculations. Following the announcement of the recommendations, we sent teams to meet with DOE and the other agencies at Kirtland to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

<u>Page 22, Question 5:</u> By the date that the Secretary of the Air Force's recommendations were sent to the SECDEF, had the Air Force consulted with DOE or Sandia National Laboratories as to the effect of realignment on Sandia National Laboratories? Did the Air Force receive any response from the DOE or Sandia? Was the response in writing?

<u>Answer:</u> The sensitivity of the BRAC process raises concerns with communications outside the Department of Defense on potential base actions. We did consult informally with DOE during the latter stages of the process, and used the information we possessed to gauge the impact of this action on that and other agencies. Following the announcement of the recommendations, we sent teams to meet with DOE, Sandia, and the other agencies at Kirtland to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

Page 22, Question 6: By the date that the Secretary of the Air Force's recommendations were sent to the SECDEF, did the Air Force consult with all of Kirtland's scheduled remaining tenants, both Air Force and non-Air Force, about the effect of the realignment on their respective missions and the fiscal cost to them of the realignment? Did the Air Force receive any responses? Were they in writing?

Answer: The sensitivity of the BRAC process raises concerns with communications outside the Department of Defense on potential base actions. We did consult with some agencies, both Air Force and non-Air Force, during the latter stages of the process, and used the information we possessed to gauge the impact of this action on those agencies. Under the DoD COBRA guidance, costs of actions to other agencies are not normally included in the calculations. Following the announcement of the recommendations, we sent teams to meet with DOE, Sandia, and the other agencies at Kirtland to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

Page 22, Question 7: By the date that the Secretary of the Air Force's recommendations were sent to the SECDEF, did the Air Force consult with the Department of Veteran's Affairs about the effect of no longer supporting the joint Air Force-Department of Veterans Affairs Medical Center in Albuquerque? Did the Air Force receive any response? Was it in writing?

Answer: The Air Force did not consult with the Department of Veteran's Affairs prior to submitting its recommendations to the Department of Defense. The sensitivity of the BRAC process raises concerns with communications outside the Department of Defense on potential base actions. We did consult with some agencies, both Air Force and non-Air Force, during the latter stages of the process, and used the information we possessed to gauge the impact of this action on those agencies. Under the DoD COBRA guidance, costs of actions to other agencies are not normally included in the calculations. Following the announcement of the recommendations, we sent teams to meet with DOE, Sandia, and the other agencies at Kirtland to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

Page 22, Question 8: By the date that the Secretary of the Air Force's recommendations were sent to the SECDEF, did the Air Force consult with the City of Albuquerque on the effect of the withdrawal of the Air Force crash-fire support to the Albuquerque International Airport? Did the Air Force receive any response? Was it in writing?

Answer: The Air Force did not consult with the City of Albuquerque prior to making its recommendations to the Department of Defense. Following the announcement of the recommendations, we sent teams to meet with those affected by the Kirtland recommendation to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

Page 22, Question 9: By the date that the Secretary of the Air Force's recommendations were sent to the Secretary of Defense, did the Air Force consult with the Assistant to the Secretary of Defense for Atomic Energy about the effect of removing the Field Command of the Defense Nuclear Agency from Kirtland? Did the Air Force receive any response from the Assistant to the Secretary? Did he address the adverse impact on DNA's mission of separating the Field Command from DOE's Albuquerque Operations Office and Sandia and Los Alamos Laboratories?

Answer: The Air Force did not consult with the Assistant to the Secretary of Defense for Atomic Energy concerning its recommendations at Kirtland. Following the announcement of the recommendations, we sent teams to meet with DOE, Sandia, and the other agencies at Kirtland to assess needs and impact. We will send another team soon, and will continue this cooperative process throughout the implementation period if this recommendation is approved.

The Air Force Special Assistant for Base Closure and Transition contacted senior leadership in DNA relative to the proposed Air Force action at Kirtland AFB. Air Force was advised by DNA that relocation was not as preferred as remaining at Kirtland but could be accomplished in a workable manner with a small contingent remaining as liaison with DOE. Impacts on DNA's mission were discussed and weighed.

<u>Page 23, Question 10:</u> Was it appropriate to categorize Kirtland AFB as a Laboratory and Product Center when the Air Force's Phillips Laboratory represents only a small fraction of the installation work force?

<u>Answer:</u> Installations were categorized according to their predominant Air Force mission. The Phillips Laboratory operation is the primary mission of the Air Force at Kirtland AFB. No other category more accurately characterizes the operations of the base.

Page 23, Question 11: Wouldn't it have been more appropriate to look at Kirtland AFB as a federal installation with significant Department of Defense and Department of Energy activities, rather than as an Air Force Laboratory and Product Center.

Answer: The BRAC law requires that all military installations with 300 or more DoD civilian authorizations be reviewed for closure or realignment. Characterization of this installation as a non-Air Force facility would have been inconsistent with the law. All installations were categorized according to their predominant Air Force mission. The Phillips Laboratory operation is the primary mission of the Air Force at Kirtland AFB. No other category more accurately characterizes the operations of the base. The value of the other DoD and federal activities was duly recognized, and was in fact the basis for retaining those activities in their present facilities.

Page 23. Question 12: **An Air Force justification indicates that the Sandia and Phillips Laboratories can be cantoned. Does the cantonment plan envision cantoning the 60 square miles of specialized testing and storage areas and facilities used by both laboratories? Was the cost of such an extensive cantonment properly assessed?**

Answer: The implementation plan for the realignment has not been finalized. On-site surveys will further refine the projected costs of the proposal in the BRAC analysis process. We believe that the cantonment requirements can be met with reasonable costs as projected in our analysis. If the recommendation regarding Kirtland becomes law, the Air Force will work cooperatively with the community, the other agencies at Kirtland AFB, and other interested activities to ensure that the ultimate plan accommodates the reasonable needs of those parties.

<u>Page 23, Question 13</u>: With respect to the move of the 58th Special Operations Wing, what are the total costs for relocating this wing? How much of these costs are associated with moving the flight simulators?

<u>Answer</u>: The Air Force estimated a cost of approximately $109 M in military construction, including housing, for the move to Holloman. Of that expense, $5.95M was for construction of simulator facilities. The $109M figure does not include $9.6M in projects currently funded for Kirtland for simulator facilities. These projects will be transferred to Holloman under the Air Force recommendation. An additional expense of $3M will be incurred for shipment of the simulators from Kirtland to Holloman.

Page 23, Question 14: Does your estimate of the cost savings of realigning Kirtland include the new security cost for the 898th Munitions Support Squadron, whose mission is control and security of nuclear weapons? Are these security forces costed as high-quality police with special training equipment and procedures or as the standard security forces associated with a normal Air Force Base?

Answer: There is no new security requirement. Instead, the military personnel of the security police will be converted to the appropriate level of civilian personnel, with necessary training and equipment. Since we have security personnel at many of our installations with special weapon responsibility or other sensitive concerns, we are confident the quality and training of these personnel will be sufficient.

THE SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1000

17 APR 1995

Honorable Alan J. Dixon
Chairman, Defense Base Closure
and Realignment Commission
1700 N. Moore Street, Suite 1425
Arlington, Virginia 22209

Please cite this reference
when responding 950307-20 R1

Dear Mr. Chairman:

I appreciated the opportunity to testify before you on March 1, 1995. We are committed to providing the Commission with all the assistance and support we can. Enclosed are the Department's responses to the questions you requested I answer for the record, as well as the Department's answers to the additional questions you forwarded from Members of Congress.

I trust this information will be helpful to you; please let me know if there is anything else I can provide.

Sincerely,

William J. Perry

Enclosures

COMMISSION QUESTIONS FOR THE RECORD

Question 1: Secretary Perry, your report to us uses the results of Cost of Base Realignment Actions (COBRA) analyses to project the anticipated costs and savings that would result from implementing your recommendations.

Recognizing that the figures used in the COBRA analyses are not budget quality, how accurate do you believe the projections are?

How closely have the figures in the COBRA analyses prepared in 1991 and 1993 compared to the actual costs for closures?

Answer: The cost and savings estimates for the 1988, 1991 and 1993 closure and realignment recommendations were initially based on service estimates provided by the COBRA model. While not budget quality, COBRA produces estimates that are useful for analyzing the relative merits of each closure or realignment scenario.

Once the recommendations are approved a more aggressive site survey and budget "scrub" is conducted to fine-tune the data. As the recommendations are implemented, costs and savings can be expected to rise in some cases and fall in others. The overall cost of military construction projects for the BRAC 88 round, for example, has decreased because of subsequent BRAC recommendations. Environmental costs, on the other hand, have tended to rise as site inspections progress. Overall, our experience is that costs are lower than expected and our savings have been greater than expected. Our costs to implement BRAC 88, 91, and 93 have decreased from $14.7 billion to $13.1 billion, and our annual savings have increased from $3.9 billion to $4.2 billion.

COMMISSION QUESTIONS FOR THE RECORD

Question 2: Secretary Perry, how many installations recommended for closure in this or prior rounds are expected to have substantial portions of land placed into caretaker status due to unique contamination problems?

How long are such caretaker costs accounted for under base closure funding?

Answer: Out of all sites recommended for closure or realignment, only two sites have substantial portions of land that may have to be placed in caretaker status. The two sites are Jefferson Proving Ground (BRAC 88) and Fort Ord (BRAC 91). In both cases, the areas that we expect to put into caretaker status have significant unexploded ordnance that is prohibitively expensive to remove using current technology.

We are working on alternative solutions at these two sites. Under current law, caretaker costs will be accounted for under the BRAC account until FY 2001.

COMMISSION QUESTIONS FOR THE RECORD

Question 3: Secretary Perry, in the 1993 round, one community pointed out that the cost of cleaning up an installation directed to close could be three to ten times as great as the cost of cleaning up an active installation. This difference is due to expected technological advances in environmental restoration.

Mr. Secretary, do you believe the difference between routine and closure related cleanup costs, if factual, should be considered in cost-of- closure calculations?

Answer: The Department is committed to cleaning up all of our installations, whether they are closing or remaining open. The costs associated with this cleanup have not been part of the decision-making process in the past and should not be considered for this base closure round.

COMMISSION QUESTIONS FOR THE RECORD

Question 4: Secretary Perry, could you describe any efforts by DoD or the Environmental Protection Agency to establish variable levels of environmental cleanup, tied to specific plans for reuse?

Answer: The Department continues to work with the Environmental Protection Agency (EPA) to incorporate future land use into the remedy selection process. The current Superfund law (Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) requires the selection of remedies that are permanent and treat the contamination. This may not always be compatible with reuse. For example, if the remedy requires the excavation and incineration of soils underneath an Air Force Base runway that is going to be reused as an airport, the destruction of the runway may be necessary. Last year, the Administration proposed and both Houses of Congress included language in the proposed Superfund Requthorization Bill that would consider future land use in the remedy selection process: however neither proposal was enacted.

To a limited extent, future land use is factored into the existing Superfund cleanup process during the risk assessment. For example, exposure pathways are evaluated including how human health is affected by a specific use of the site.

The Department established Restoration Advisory Boards (RABs) at nearly all major bases. The RABs are a focal point for information exchange between regulators, DoD, and the community. Membership consists of representatives from the community, DoD, and the regulators. The creation of these partnerships fosters a process that will permit cleanups to proceed smoothly and results in the availability of parcels for reuse as soon as possible.

The Department also has a Future Land Use Working Group created under the Congressionally established Defense Environmental Response Task Force. This working group considers ways to incorporate future land use into the remedy selection process. This ongoing effort has been instrumental in bringing together representatives from DoD, EPA, GSA, the National Association of Attorneys General, the National Association of Installation Developers, California EPA, and the International City/County Management Association.

COMMISSION QUESTIONS FOR THE RECORD

Question 5: Secretary Perry, in making closure decisions, what role did environmental compliance play in your analysis?

For example, a base's expansion potential is limited by environmental restrictions. Did this issue play a major role in the analysis?

Were bases in Clean Air Act non-attainment areas viewed differently from those in attainment areas?

Answer: The December 29, 1994, policy guidance issued to the Military Departments and Defense Agencies acknowledged that environmental compliance (not restoration) costs could be a factor in a base closure or realignment decision. Costs associated with keeping a base in compliance with environmental rules and regulations can, potentially, be avoided when the base closes. Environmental compliance costs could be incurred at receiving locations also, and were therefore included in the BRAC 95 cost analysis.

The fact that a facility was located in a non-attainment area was a consideration in the BRAC 95 analysis, particularly in the military value analysis.

COMMISSION QUESTIONS FOR THE RECORD

Question 6: Secretary Perry, in 1993 the Commission made specific recommendations to the Department regarding improvements in health care operations and increased cost effectiveness.

Mr. Secretary, did you direct your Assistant Secretary for Health Affairs to examine the consolidation of resources across military departments?

What was the outcome of that examination?

How is that examination reflected in the Department's new list of recommended closures and realignments?

Answer: The guidance provided in the January 7, 1994, memorandum directed the chairpersons of the Joint Cross-Service Groups, which included the Office of the Assistant Secretary of Defense (Health Affairs), to look at potential infrastructure reductions and operational and organizational changes, with a strong emphasis on cross-service utilization of common support assets.

The Medical Treatment Facilities JCSG identified 16 hospitals and medical centers for the Military Departments to consider in their BRAC processes. Fifteen sites were to downsize from hospitals to clinics: one was to close a medical center.

The Medical Treatment Facilities Joint Cross-Service Group established and generally achieved its overall cross-service and excess capacity reduction goals. This was possible in large measure due to the cross-servicing policies already in affect. Since the location of military medical facilities is largely dependent on the major military installations that provide their patient load, they generally followed the realignment and closure actions of the Military Departments. As with several of the other groups, the medical JCSG is planning future actions for consolidation and downsizing of medical facilities through programmatic actions independent of the BRAC process. Additionally, BRAC 95 provided an opportunity to close one major teaching hospital, while rationalizing other graduate medical training. It also provided an avenue to down-size many large, full service hospitals to smaller hospitals or clinics.

COMMISSION QUESTIONS FOR THE RECORD

Question 7: Secretary Perry, in developing the current list, did you direct the Services to consider closing military hospitals that are not cost effective, given their patient load and the cost availability of medical care in their communities?

Answer: No, I directed the Joint Cross Service Groups and the Services to develop measures of merit and analytical processes that were consistent with Department policy and the BRAC final selection criteria. As you know, one of the criteria under Military Value concerns manpower and cost considerations. The Medical Joint Cross Service Group developed a cost measure that compared the average relative weighted inpatient Medical Treatment Facility cost with the CHAMPUS inpatient standardized cost for each catchment area. This measure was scored and weighted along with other measures of merit.

Whether a specific recommendation increases the overall health care costs to the beneficiary population of the affected area is a function of the source of alternative care ultimately selected by the individual.

COMMISSION QUESTIONS FOR THE RECORD

Question 8: Secretary Perry, did you direct the Services to move medical assets, including moving them across Service lines, in order to increase the capability and usage of military medical facilities?

Answer: No; the Medical Joint Cross-Service Group was, however, tasked to provide a DoD-wide evaluation of the Medical Health Services System.

COMMISSION QUESTIONS FOR THE RECORD

Question 9: Secretary Perry, during the development of the current list, did you direct the Services to review their policy of closing military hospitals when bases served by those hospitals are closed?

What was the result of that review?

Have you ensured that the most cost effective means of delivering care to all beneficiaries are maintained, irrespective of other base closure actions?

Answer: The Department's policy is ordinarily to close every installation recommended for closure completely. Absent specific justification to keep open a medical or other facility on a closing base, the Department's goal is to close the entire base.

During the Office of the Secretary of Defense review of the Military Department's recommendations, the Assistant Secretary of Defense (Health Affairs) reviewed the recommendations to ensure adequate health care services remained in every area.

COMMISSION QUESTIONS FOR THE RECORD

Question 10: Secretary Perry, in October 1994 Business Executives for National Security (BENS) issued a report, "Uncovering the Shell Game," which criticized the Department's record in actually closing military facilities, "60 Minutes" featured the report later in the year. The essence of the report and the "60 Minutes" characterization was that "of the 67 bases the President, Congress and the Pentagon have agreed to shut down thus far, over one-third never closed or have quietly reopened under a new or function." As you know, Mr. Secretary, we plan on offering recommendations to the President concerning reuse and future closure actions. Reports such as the BENS report detract from general support for the closure process.

Mr. Secretary, please give us your comments on the BENS report.

(Note: During the March 1, 1995 hearing, Secretary Deutch agreed to provide a copy of DoD's written response to BENS.)

Answer: As the Deputy Secretary pointed out in his testimony before you, prompt reuse of facilities is a very important priority of this Administration. I agree with Mr. Deutch's and Mr. Gotbaum's assessment that, in this instance, BENS drew faulty conclusions. I have included the Department's response to the BENS board of directors regarding its report.

ASSISTANT SECRETARY OF DEFENSE

3300 DEFENSE PENTAGON
WASHINGTON DC 20301-3300

ECONOMIC
SECURITY

December 2, 1994

Mr. Stanley A. Weiss
Chairman
Business Executives for National Security Inc.
1615 L Street N.W., Suite 330
Washington, DC 20036

Dear Mr. Weiss:

In October, your organization released a report on the base closing process that made a number of charges: that the Department was "quietly reopen[ing]" closed bases, that the taxpayers would bear an extra burden that "could exceed $15 billion in the next five years", and that "the Pentagon is often to blame".

These are, of course, serious charges about a program that is one of the Department's top priorities. As your report notes, base closure and realignment is critical. Only by doing so can we save funds that are necessary to maintain the training and equipment of our armed forces. Coming from BENS, an organization that has supported defense efforts in the past, these charges are especially damaging.

They are also, I hasten to add, profoundly misleading and wrong.

- The cost analysis, to be frank, is unlike any real estate siting analysis I have ever seen. Coming from an organization that is supported by business, this is especially disconcerting. I know of no business in the world that would make real estate decisions using such methods.

- The charges of secrecy on the Department's part are as false as they are irresponsible. The BRAC process is one of the most public processes ever undertaken by government. The actions described in your report in almost every case received intense public scrutiny and review, both in process and in result.

- Perhaps most damaging and misleading is the claim that the Department's actions are costing rather than saving resources. The first round of base closure decisions is already saving the Department and the taxpayers some $750 million annually. When the closures already agreed to have been implemented the savings should grow to over $4 billion annually.

There are also numerous errors of fact and of interpretation.

I believe your report does a grave disservice to the Department's base closing effort and to all who have been involved in it. The fact is that the Department of Defense *is* closing bases -- hundreds of them -- and restructuring its operations. That restructuring is neither easy, quick nor smooth, but it is happening. Furthermore, it will continue. The Department is already working on the next round of closure and realignment recommendations, to be proposed -- publicly, of course -- in 1995.

We at DoD would have been happy to discuss your analysis when it was in process. Unfortunately, BENS chose not to do so and to publish and disseminate it without even contacting the responsible officials in the Department. This, too, marks a departure from BENS' previous practice.

Because your charges were made in so damaging a manner and are so misleading, it is incumbent upon the Department to respond. I am sending a copy of the enclosed to each member of your board of directors and to other interested parties.

Sincerely,

Joshua Gotbaum

Enclosure

cc: BENS Board of Directors

ANALYSIS & RESPONSE TO A REPORT ON BASE CLOSURE BY THE BUSINESS EXECUTIVES FOR NATIONAL SECURITY (BENS)

In October 1994 the Business Executives for National Security (BENS) released a report, "Uncovering the Shell Game: Why Closed Military Facilities Don't Stay Closed". The report criticized implementation of the base closure process by the Department of Defense. The Department officials involved in the base closure process consider the report both inaccurate and misleading.

Base closure and realignment are critical to our nation's security. Only by doing so can we save funds that are necessary to maintain the training and equipment of our armed forces. Because the report maligns this effort, the Department feels obligated to respond.

I. DoD base closure processes *are* public -- exceptionally so.

BENS reports that "over one third of the bases [slated to be closed] were...*quietly reopened*". This claim is profoundly false, for the base closure process is one of the most carefully analyzed and public processes ever undertaken by government. *Every* action recommended is based upon an analysis of the costs and each analysis is provided to the independent base closing commission, to the General Accounting Office and to the public. Even the process for selecting single commercial offices for the Defense Finance & Accounting Service (DFAS) was conducted using sites and procedures that were announced in advance -- contrary to the BENS claim.

From the moment the Department of Defense issues BRAC recommendations, the entire process is *intensely* public. The Base Closure Commission conducts all of its hearings, its deliberations and its votes in public. Congress may also conduct public hearings to review the Commission's report. Throughout the review and analysis process the Commission maintains an active and ongoing dialogue with local communities through regional hearings and visits to closing and realigning candidates.

Under the Base Closure Act, the Department provides all data and information used to the Congress, the Commission and the Comptroller General. The GAO evaluates the Department's selection process, verifies data, visits candidate bases and participates in public hearings before the Commission. The GAO reports directly to the Commission and Congress. Its report is public.

BENS in its report claimed that the Department, after the fact, chose to ignore or circumvent the decisions of the BRAC commission by locating reserves on closing bases. This, too, is nonsense. In those few cases where the Department of Defense suggested a change to a previous Commission recommendation, the changes were reviewed and approved by the BRAC Commission using the same public process. (It is also worth noting that a number of the decisions criticized by BENS were made by the BRAC Commission itself on its own motion, not the Department of Defense. These, too, were made entirely in the public eye.)

BENS also claimed that the restructuring and placement of satellite offices of the Defense Finance and Accounting Service (DFAS) was done without public scrutiny. This, too, reflects a complete disregard of the facts: On June 7, 1993, 11 months before the decision was made, the Secretary of Defense personally described the process that DoD would follow. The criteria *and* the sites under consideration were also announced well in advance.

In short, the BENS claim that DoD acts in a "shell game", without public process is profoundly untrue and a disservice to a public agency doing its job in an open fashion.

By comparison, *the BENS report was made without any public process at all* or any consultation with the responsible DoD officials. As a result, it is replete with mistakes, misinformation, and biased analyses. Some of these are summarized below.

II. DoD is making infrastructure decisions on a businesslike basis.

A. Retaining part of a facility can make sense.

BENS in its report seemed unaware that it might make business sense to *keep* certain operations and real estate while disposing of others. In some ten[1] instances, the Department concluded that restructuring of its facilities would be more effective or less expensive if portions of bases were retained.

BENS claimed that such actions weren't "real closures". This misses the point, which is to *restructure* the Department and save money. It was for this reason that Congress included *realignments* as well as closures in the enabling legislation. (In fact, the formal name of the process is Base *Realignment* & Closure).

In each instance, these realignment alternatives were analyzed on the basis of estimated operating and relocation costs, both real estate and other costs. And, in each instance, the BRAC commission undertook its own review and agreed on the merits. For example:

- DoD recommended Lowry AFB be closed and all technical training be redistributed to the remaining technical training centers. However, the base was the site of an already-operating regional DFAS center, the 1001st Space Systems Squadron and a reserve personnel center. These were recommended for retention. A complete closure would have involved moving over 3,000 people whose work for DoD was continuing, as well as their equipment. DoD thought such a relocation made no sense as a business matter, and the BRAC Commission agreed.

- Pensacola NADEP, located on Naval Air Station Pensacola, was recommended by the DoD for closure. Its buildings were retained by the Navy to support the planned expansion of NAS Pensacola's training mission. This expansion in turn made

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[1] *Lowry AFB, NADEP Pensacola, NADEP Norfolk, NS Long Beach, Rickenbacker AGB, Grissom AFB, Carswell AFB, NAS Moffett Field, Homestead AFB and Bergstrom AFB.*

possible the relocation of the Naval Air Technical Training Center from NAS Memphis and the relocation of parts of the Service School Command from Naval Training Center San Diego. This closure and realignment will save the taxpayers some $50 million annually. Again, the Commission agreed with DoD's proposal.

- Norfolk NADEP, which is located on Naval Air Station Norfolk and employs over 4,000 people, was recommended by the DoD for closure. In this case, too, its property was retained by the Navy since it sits in the middle of an ongoing Naval Air Station. The Commission also agreed with this initiative. The closure will save the Department and the taxpayers an estimated $108 annually.

B. Keeping & using reserves on some closed bases is necessary.

BENS questioned the decision to use the reserves on some bases that the active military have left. This reflects a misunderstanding of the operation of reserve units and of how these valuable organizations are manned and sited.

The role of the reserve forces has changed as the number of active military is drawn down. Tasks that were formerly undertaken by active soldiers, sailors and airmen are increasingly handled by reservists. For example, the Naval Reserve has been given new capabilities and responsibilities through the assignment of five new classes of ships and aircraft.

However, we must develop our reserve capabilities *where the reserves are*. Unlike the active duty force, the Reserves rely on local men and women to fill their ranks. You can't expect a reservist who trains one weekend per month to drive hundreds of miles to do so. Relocating a reserve unit could mean losing many, if not all, of its members. The loss of critical skills can take years to recruit and retrain.

BENS argued that reserve needs could be met entirely on those bases that remain active. Many of these, however, are not well-located for reserve activity.

Where reserve units are located on former active duty bases, they generally occupy only a small "cantonment" area, not the entire base. By retaining only small complexes, the cost of operation is significantly reduced and DoD is able to retain reserve training capabilities which are responsive to geographic reserve requirements.

BENS cites, critically, the placing of reserve forces on the former Carswell Air Force Base in Fort Worth, Texas. In fact, Carswell is a good example of how realignment can *save* money for the Department and the taxpayers, while improving readiness. Consolidation at Carswell permitted the closure of Naval Air Station Dallas and three other NAS sites. The creation of the single reserve site for the Dallas/Fort Worth area both reduces support costs for the reserves ***and*** helps to alleviate air traffic congestion in the area. The $1.2 million increase in operating costs of NAS Fort Worth over NAS Dallas is more than offset by the annual savings of $36 million from the closures/realignments of NAS Memphis, NAF Detroit, NAS Dallas and NAS Glenview.

C. *Placement of DFAS accounting offices*

BENS also criticized the retention or placement on some otherwise closed bases of facilities for the Defense Finance & Accounting Service (DFAS). As the report notes, DFAS is itself being restructured and consolidated, from 46,000 employees on 300 sites to 23,000 employees on 25. This restructuring, once completed, should save the taxpayers some $1 billion annually.

The previous Administration had recognized the need to restructure DFAS and proposed a system of five "regional centers" employing a total of approximately 21,000. However, their method for determining where these centers would be located was, in effect, to auction them off to whichever states would offer the highest combination of real estate and training subsidies. The Clinton Administration took the view that such a process was, in effect, a tax upon the states and localities and developed an alternative procedure.

The five existing major DFAS centers were kept (whether they were on a closed base or not), because the cost of relocating them would have been substantial. The remaining DFAS personnel were then consolidated into a series of 20 satellite offices. The siting criteria included: cost to the government; maintenance of customer support; use of (no-cost) defense assets made redundant by the end of the Cold War; and adequate skilled labor supply. On May 3,1994, the Deputy Secretary announced the selection of 25 DFAS sites. Five of the 25 sites are existing sites; two of which are on installations recommended for closure by previous BRAC Commissions, and 10 of the new sites are to be located on installations identified for closure resulting from previous BRAC rounds.

Table 1 compares the number and square feet of *existing* buildings at each of 10 closing bases with what is retained for DFAS use. To claim, as BENS does, that the result is an open base is to ignore how small a portion of each base the retained facilities represent.

COMPARISON OF BUILDINGS AND SQUARE FOOTAGE
FOR DFAS PROPERTY RETAINED
ON "CLOSING" BASES

	Total Number of Buildings	Total Square Footage (in millions)	Number of Buildings Retained for DFAS	Square Footage Retained for DFAS (in millions)	Percent of Buildings Retained for DFAS	Percent of Square Footage Retained for DFAS
Charleston NSY	208	[illegible]	1	[illegible]	0.48%	[illegible]
Loring AFB	855	[illegible]	1	[illegible]	0.12%	[illegible]
Newark AFB	43	[illegible]	1	[illegible]	2.33%	[illegible]
Orlando NTC	759	[illegible]	1	[illegible]	0.13%	[illegible]

Griffiss AFB	338	5.0	1	0.20	0.30%	4%
Chanute AFB	752	6.4	1	0.40	0.13%	6%
Norton AFB	535	6.2	3	0.19	0.56%	3%
Ft Ord	4,268	18.0	1	0.36	0.02%	2%
Gentile AFS	51	1.9	1	0.14	1.96%	7%
Bluegrass AD	112	2.1	1	0.14	0.89%	6%
TOTAL	7,921	54.1	12	2.08	0.15%	4%

Table 1

Chart 1 shows the percentage of base building square footage retained after closure and Chart 2 shows the percentage of total buildings on closed bases being retained for DFAS use.

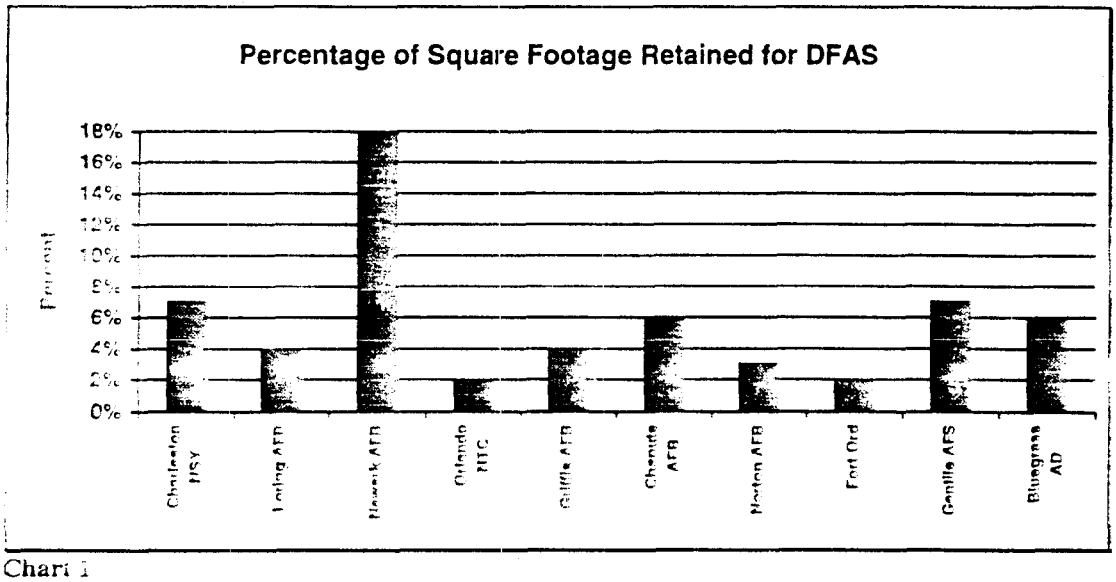

Chart 1

Both the criteria and the sites under consideration were announced personally by then-Secretary of Defense Les Aspin in a press conference on June 7, 1993. Nonetheless, BENS claims that "no specific information on the site selection process was provided to the public".

There are of course those who can and will argue that DoD should have followed a different process. Nonetheless, the fact remains that the Department acted using a public process based primarily upon real estate costs and other business-related criteria.

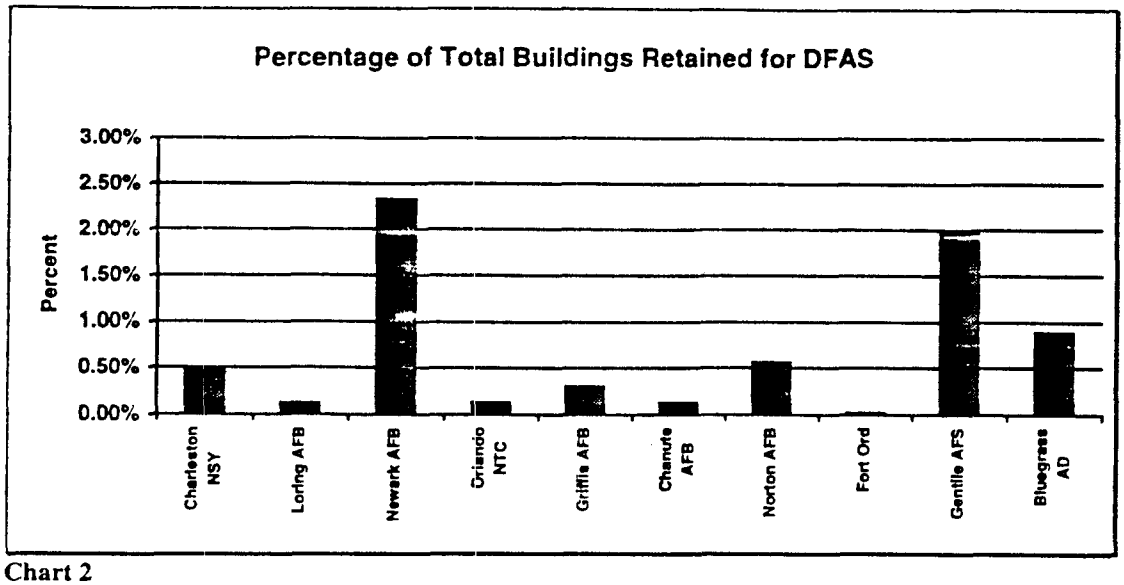

Chart 2

D. Other actions

Of the 26 claims by BENS of improper, "reopening" of closed bases, there are only two that weren't made by a public process involving analysis of real estate and other costs. Both of these were entirely proper uses of Federal resources. These included:

- Richards-Gebaur ARS, in Kansas City, was recommended for closure in 1991. The Marine Corps Reserve, who operate locally in 3 separate leased sites, proposed to save funds by relocating to a few of the buildings made vacant by this closure. The proposal was approved after completion of a real estate siting analysis that projected net cost savings on the order of $1 million annually. The vast majority of this air base will be made available for private development.

- Orlando Naval Hospital (VA Hospital). The Veterans Administration has taken over this facility using its own funds to meet its requirements for medical care in the area. The availability of the Orlando hospital allowed the VA to scale back its facility needs in the Florida area. Operation of the hospital had previously cost DoD approximately $52 million per year ($25 million O&M and $27 million in personnel costs). (It should also be noted that Federal law requires DoD and all Federal agencies to give priority to transfers of surplus property to other Federal agencies.)

III. Base closure is already saving the taxpayers billion$.

The Department is already saving an estimated $760 million annually from implementing the first round of closures and realignments. This savings will grow to over $4 billion per year

after implementation of the 1991 and 1993 round of closures are complete. While closing bases does involve upfront costs, overall DoD estimates a net $5.3 billion *savings* over the period from FY90 through FY99.

IV. Errors in Fact and Method

A. How real estate siting analysis is usually done:

Ironically, much of the BENS analysis is done in a distinctly *un*businesslike manner. Real estate siting analysis ordinarily involves a comparison of the *real estate costs* of two alternatives, but the BENS study made no such distinction:

- *In no instance did it compare costs between two different siting choices.*
- *As a result, it could not take into account the costs that were saved or avoided.*
- In its rush to buttress a misguided and weak claim, BENS threw in all costs at the site by any government agency of any kind:
  - Including costs, such as salaries, that would be borne no matter where the activity occurred.
  - Even including costs of other government agencies -- that have never been and never will be borne by Defense. For example, BENS includes the five-year $3.2 billion operating cost of NASA's Ames Space Research Center as "lost savings" because NASA will continue to operate the former NAS Moffett airfield. How DoD failed to "save" money it never spent is hard to fathom.

As a result of these errors, BENS portrayed moves that will save billions of dollars as if they would *cost* money. We are not aware of any business in the world that would use the BENS methodology in making real estate siting decisions.

Let us again consider, as an example, the consolidation of reserve functions onto the former Carswell AFB in Fort Worth. BENS "analysis" claimed that the move would cost the taxpayers an estimated $1.2 billion over the next five years. The real result is a *savings* of $59 million annually. Even after substantial realignment costs, the proposal should save the Department approximately $12.5[2] million *in present value.*

B. Other Errors

There are many other points in the report that are misleading or simply incorrect. For example:

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[2] *Derived from FY 96 Navy and Air Force Budget Estimate Submissions*

- The report claims St. Inigoes NESEC was not closed, but instead its name was changed to NAS Patuxent River. In fact, they are two separate installations.

- The report claims reserves will be remaining at NAS Glenview. They will not.

- The main body of the report claims the Federal government will spend $1.4 billion by not fully closing the Presidio in San Franciso. Only in an appendix does BENS mention that a longstanding Federal law *required* DoD to turn the property over to the Department of the Interior.

The report claims that Long Beach Naval Station, instead of closing, was being retained as Long Beach Shipyard. They are two separate installations. The DoD recommended closure of the Naval Station, but not the shipyard. The 93 BRAC Commission agreed.

C. DoD BRAC officials were never consulted by BENS

DoD would have been happy to discuss and correct the BENS analysis before it was published, but BENS chose never to discuss the report with the responsible DoD officials. In order to ensure publicity, BENS limited distribution of the report prior to publication to *60 Minutes* and *The New York Times.*

CONGRESSIONAL QUESTIONS FOR THE RECORD

From the New Mexico delegation:

Question: Secretary Perry, nuclear deterrence remains the backbone of the United States Strategic Policy of deterrence. Are any facilities under consideration involved with, or connected to the US nuclear deterrent capability? Was an analysis done on the impact on this capability? Was the Department of Energy consulted with regard to this impact?

Answer: There were facilities under consideration that involved the U.S. nuclear deterrent capability. Military Departments also conducted an analysis on the impact proposed base closures or realignments would have on this capability. Furthermore, the Joint Chiefs of Staff conducted a review of the recommendations and identified no impacts to the Nation's nuclear deterrent capability. The Department of Energy was consulted.

Question: Secretary Perry, one of the principal BRAC objectives is to consolidate DoD activities. Was consideration given to the interrelationship of the bases on the list and the tenants located on the facility? Were these tenants contacted and asked to provide information about the economic effects base realignment would have on them, and the effects on their overall mission? Can you provide tenant responses to these questions, along with a list of tenants for each base on this list including the functions shared between the base and the tenant?

Answer: We believe the principal goal of the BRAC process is to reduce unnecessary infrastructure. Tenants were fully considered in the installation data calls sent out by the Military Departments and Defense Agencies. Tenant needs were an important part of the Military Department analysis. Specific data call responses regarding tenants have been provided to the Commission in the Military Department's detailed back-up data.

However, the sensitivity of the BRAC process raises concerns with communications outside the Department of Defense on potential base actions. With regards to the Department of Energy (DoE) and other non-DoD tenants at Kirtland Air Force Base, the Air Force did consult informally with DoE during the latter stages of the process, and used the information it possessed to gauge the impact of this action on that and other agencies. Following the announcement of the recommendations the Air Force sent teams to meet with DoE, the Sandia National Laboratory, and other agency representatives at Kirtland Air Force Base to assess needs and impact. The Air Force is in the process of conducting site surveys and will continue in this

cooperative process throughout the implementation period if this recommendation is approved.

Question: Secretary Perry, which bases on the proposed list for realignment or closure have an intergovernmental relationship with agencies or entities outside the base? Were these entities notified, or asked to provide information about economic effects, or mission? Will you provide these responses?

Answer: Every military installation has a relationship with other government agencies, most notably the local community. Wecan not as a practical matter notify and solicit all the the local community governments for information regarding potential closure or realignment recommendations; the data would not be consistent or certifiable and the effect on community moreale could be severe. However, we did conduct a comprehensive evaluation of the economic impacts of every recommendation on the local economy. This information has been provided to the Commission and to the reading rooms set up in the House and the Senate.

CONGRESSIONAL QUESTIONS FOR THE RECORD

From Senator Bingaman (New Mexico):

Question: Secretary Perry, in December 1990 Senators Jeff Bingaman and Pete Domenici were told by the Chief of Staff of the Air Force, General Merrill McPeak, that the Air Force planned to close Los Angeles AFB in the mid-1990s and move the Air Force's Space Systems Division and the Aerospace Corporation to Kirtland AFB in Albuquerque. The Air Force in 1990 even did a draft environmental impact statement in preparation for that move.

The Air Force analysis in this round of Air Force Lab and Product Centers puts Los Angeles AFB in Tier II, along with Kirtland AFB. In six of the eight categories, Kirtland ranks ahead of L.A. and in another is tied.

Why is Kirtland closing in your proposal and not L.A.?

Answer: The Department of Defense has recommended realigning (not closing) Kirtland AFB. The Phillips Laboratory activity, that scored high in both the Air Force and the Joint Cross-Service Group for Laboratories analysis is retained at Kirtland along with other activities. The placement of Kirtland AFB and Los Angeles AFB in the middle tier of bases indicates that the Air Force Base Closure Executive Group viewed them as roughly comparable, based on all eight criteria. From this starting point, the Secretary of the Air Force directed the examination of a number of scenarios for the closure or realignment of these and other installations in the Laboratory and Product Center subcategory. The details of that analysis are described in the minutes of the Air Force Base Closure Executive Group. The decision by the Secretary of the Air Force not to recommend the closure of Los Angeles AFB indicates that no scenario for the closure of Los Angeles AFB was viewed by her as cost-effective or consistent with mission needs. The recommendation regarding Kirtland retains laboratory, weapon storage, and DNA activities that can operate with minimal military support, while reducing the overall support infrastructure associated with flying units and other DoD activities producing significant savings.

CONGRESSIONAL QUESTIONS FOR THE RECORD

From Senator Pryor (Arkansas):

Question: Secretary Perry, the Army was asked to consider the cost of moving the Defense Logistics Agency activity at the Red River Army Depot in its analysis of the total closure costs. The community has estimated the cost for such a move to be in excess of $300 million. Is this estimate consistent with the cost calculated by DoD?

Answer: The Defense Logistics Agency recommendation to disestablish the distribution depot at Red River Army Depot and relocate the remaining material to Defense Depot Anniston, Alabama, is estimated to cost $58.9 million over the implementation period. Annual recurring savings after implementation are estimated to be $18.9 million and a 20 year net present value (savings) of $186.1 million.

Question: Secretary Perry, it is my understanding that the Red River Army Depot was recently awarded the President's Prototype Award in support of the Administration's National Performance Review initiatives. Were such awards for quality and efficiency considered by DoD in its base closure process?

Answer: In his testimony before you, Secretary Deutch indicated that many of the installations slated for closure or realignment are made up of high-performing individuals and very supportive communities in relationships that span decades. DoD did not direct the Military Departments to specifically consider awards.

Question: Secretary Perry, could you detail the reasoning behind the Army's recommendation to completely close out one of its primary depots and realign another when the other Services appear to have chosen realignment initiatives through "downsizing in place" at their maintenance facilities?

Answer: Each of the Military Departments conducted an independent analysis of various alternatives based upon the eight approved criteria and the force structure plan. Different results were obtained based upon the maintenance philosophies of each of the Military Departments. The Air Force determined that, in light of the large Air Logistics Center installations on which depot activities are located and the significant costs associated with closure, downsizing of all depot activities was more cost-effective than the closure of a single depot installation. Conversely, the Army determined that the closure of a relatively small Army depot would be a better alternative for producing savings than downsizing.

CONGRESSIONAL QUESTIONS FOR THE RECORD

From Senator Shelby and Representative Browder (Alabama):

Question: Secretary Perry, the 1993 Base Closure and Realignment Commission removed Fort McClellan from the list proposed by the Department of Defense and directed the Secretary of Defense to pursue all the required permits and certification for the construction of facilities at a new location prior to the 1995 base closure round if DoD wanted to put the installation on the list again. It appears that DoD did not follow this direction.

Have all the necessary permits been obtained by Army at Fort Leonard Wood, the receiving installation?

Answer: No. As Secretary Deutch pointed out in his testimony, he instructed the Secretary of the Army, Togo West, not to pursue the requisite permits until the DoD recommendations were publicly announced. The Army has assured me that the permits will be in place prior to your decision making.